SOUTH PLAINS EMERGENCY MEDICAL SERVICES

PRE-HOSPITAL TREATMENT PROTOCOLS
for
Emergency Care Attendant

APPROVED FOR USE

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ECA

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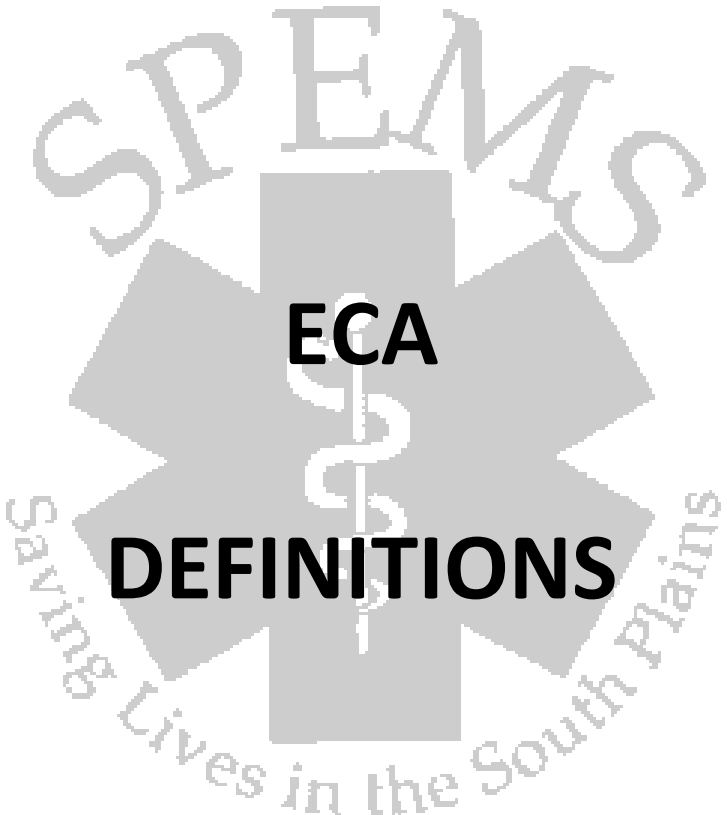


ECA

DEFINITIONS

DEFINITIONS

1. ACUTE CORONARY SYNDROME

The clinical presentation associated with ACS may be placed into 1 of 3 general categories.

- **Classic angina**: which refers to the traditional presentation of chest pain (dull, crushing, substernal. etc.).
- **Atypical presentation**: Chest pain which falls short of the typical features is called atypical chest pain. Examples include pain that is sharp, intermittent, in the teeth, neck, shoulder, arm or abdomen etc. Atypical chest pain mostly encompasses females, diabetics, and the elderly.
- **Anginal equivalents**: consider in higher risk patients: dyspnea, palpations, syncope or near syncope, generalized weakness with no history of a GI bleed or recent fever, and DKA. Anginal equivalents are symptoms not usually associated with classic angina but are common "atypical symptoms". They are called "equivalents" because they often are the only symptoms the patient manifests during an ischemic cardiac event. An example would be a diabetic with only vomiting and no chest discomfort.
- **Risk factors include**: smoking, hypertension, age, family history of CAD, obesity, stress, and sedentary lifestyle.

The key to forming an accurate impression of chest pain remains in the clinical history. In order to make this impression, one must look at the patient's physical presentation, listen to their story, and be able to compile and interpret all collected information. If the patient's story/presentation, risk factors, 12 lead and vitals signs point to ACS, then EMS personnel should consider the patient a candidate for the Chest Pain/Possible MI Protocol until proven otherwise.

2. ADEQUATE PERFUSION
   - Patient alert and oriented
   - Skin warm and dry
   - Palpable radial pulses
   - Capillary refill < 2 seconds

3. ASEPTIC TECHNIQUE

   Aseptic techniques include practices performed just before, during, and/or after any procedure. It is used to reduce the risk of post-procedure infections and to minimize the exposure of the health care providers to potentially infectious microorganisms. The use of aseptic technique is for all procedures, particularly invasive procedures that may break the skin or mucous membrane. This technique includes, but not limited to:
   - Antiseptic hand hygiene and proper use of PPE
   - Use of appropriate antiseptics to cleanse the area of the patient's body that is in jeopardy of infection/contamination
   - Avoid contamination of equipment and medication
   - Skin should not be touched after skin antisepsis. If this happens repeat the aseptic technique for that area
   - After the insertion of any device through the patients skin the insertion site shall be covered with the appropriate dressing to prevent infection

4. CENTRAL NERVOUS SYSTEM SIGNS (observe for the following)
   - Level of consciousness
   - Ability to speak
   - Reaction to painful stimuli
   - Pupil size/reaction to light

- Ability to move extremities
- Seizures/abnormal posturing

5. CONTACT MEDICAL CONTROL
   The receiving physician at destination hospital or central medical control physician. Notify regarding patient's condition using the format on page B-5.

6. CONTINUE TO TREAT, MONITOR AND TRANSPORT
   Continue treatment and assessment of vital signs during transport to hospital, including initial vital signs and the vital signs at time of patient transfer.

7. DUTY STATUS/GEOGRAPHICAL AREA/GOOD SAMARITAN
   These protocols shall be utilized under medical direction of the SPEMS Medical Director in the SPEMS/TSA-B area or during routine transfers from one service area to another.

   These protocols may also be followed in the performance of **GOOD SAMARITAN** duties when **OFF DUTY** and not responding with any emergency service agency (i.e., EMS, Police, or Fire Dept.). However, in the event that you are **OFF DUTY** and assisting an EMS service that is not under SPEMS medical direction, their online medical direction must be contacted for approval prior to performing any advanced procedures.

8. ERRORS/DEVIATIONS
   All medication errors, and other inadvertent deviations from SPEMS's protocols, require a written Incident Report. These must be reviewed by the Peer Reviewer at the service's next case review.

9. HIGH CONCENTRATION OXYGEN
   Oxygen delivered either by simple face mask or non-rebreather mask at 10-15 liters per minute. If using bag-valve-mask, supplemental oxygen should be delivered at ≥15 liters per minute. A demand valve may also be used to deliver high concentration oxygen. A nasal cannula should generally be avoided on patients with significant illness or injury because it does not provide high concentrations of oxygen.

10. INADEQUATE RESPIRATIONS
    SHALLOW respirations <10, or >35 per minute

11. INT or INTERMITTENT NEEDLE THERAPY (Heparin lock, Saline lock, etc.)
    SPEMS protocol allows for an ECA to transport and/or provide patient care to any patient with an INT whose condition does not exceed their scope of practice. However, the INT cannot be accessed by the ECA for any reason.

12. LEVEL I OR II TRAUMA CENTER
    Hospitals with formal designation as a Level I or Level II Trauma Center by the Texas Department of State Health Services and The American College of Surgeons.

13. MEDICATION CONCENTRATIONS/STORAGE
    From time to time, the medications included in these protocols may be supplied in concentrations or amounts other than those indicated. Regardless of the particular manner in which medications are supplied, equivalent total amounts must be present, and it is the EMS technician's responsibility to be certain that correct dosages are administered to patients.

    Unless specified otherwise, generic and trade name products are considered interchangeable.

It is the responsibility of the individual EMS provider to make sure that all the stocked drugs are stored as per manufacturer's specification. Documentation as to how drugs are stored may be requested by DSHS.

14. MEDICATION STORAGE AND ACOUNTABILITY

All EMS services which utilize SPEMS Medical Direction and/or Protocols will maintain and store all pharmaceuticals as per the manufacture's recommendation. Medications should be arranged in an orderly and organized fashion (i.e., drug bag/box or ambulance compartment) to facilitate quick access as well as limit medication errors. Medications should be stored in an area of the ambulance which limits access to unauthorized individuals. Ambulances licensed at the ALS/MICU level that are operating at the BLS level, as allowed by rule, should have all ALS/MICU medications secured by no less than a numbered zip tie locking system to assure accountability. Narcotics, if carried, should be stored within a locked cabinet.

An EMS service that utilizes narcotics/controlled medications must follow all DEA and SPEMS reporting and tracking requirements. All medications stocked/stored by an EMS provider should be accounted for by utilizing the individual EMS provider's inventory control procedures and/or policies.

15. MULTIPLE PARALLEL PROTOCOLS

It is understandable that patients may present with multiple problems that require simultaneous treatment. An example is a trauma patient that is having respiratory distress. In the past there has been a reluctance to implement more than one protocol during a patient encounter. Crews may simultaneously employ multiple protocols when appropriate. However, they must always be cognizant of cumulative and contradicting medications. All considerations cannot be presented here, and the occurrence of this necessity should be infrequent. Questions or clarifications are referred to the service director, peer reviewer, or medical director.

16. NON-ACCIDENTAL TRAUMA

Non-Accidental Trauma (NAT) or Abuse should always be considered in patients in which the patient's condition is inconsistent with the mechanism of injury or history provided. This applies to all age groups; but especially with pediatrics. In the pediatric patient this should be suspected if the patient is exhibiting head trauma symptoms (decreased LOC, seizures, posturing, unequal pupils, vomiting without fever or diarrhea, bradycardia, cardiac arrest, or CPR reportedly done). The EMS provider should maintain a high level of suspicion and situational awareness in these cases. The receiving facility should be notified as soon as possible. Notification should be via radio, if possible, advise you suspect trauma, and at the receiving facility upon patient delivery.

17. NON-EMS LICENSED/CERTIFIED PERSONNEL

On occasion, licensed or certified healthcare providers (nurses, respiratory therapists, physician assistants, etc.) may accompany the EMS crew in the back of an ambulance if it has been determined by the crew or by the transferring/receiving facility that patient care would be enhanced. The healthcare provider must obtain prior medical direction in event that care is to be rendered.

Physicians may provide patient care as described in the protocols under "physician on scene patient's" (A-4, #20) or "physician on scene unknown" (A-5, #21).

Students may engage in patient care while under the direct supervision of an approved preceptor.

18. NO TRANSPORT CODES

Classification of calls in the SPEMS Region resulting in a patient not being transported should be noted on dispatch records as follows and documented in the patient care report:

1. N-1: Unfounded call / False call.
2. N-2: Duplicate call.
3. N-3: Injury noted, but patient refused transport.
4. N-4: Patient accepted treatment but refused transport.
5. N-5: EMS refused transport.
6. N-6: No injuries.
7. N-7: Transported by other means; should **only** be used if the patient left **prior** to EMS arrival or is in the custody of PD and is going to jail.
8. N-8: Dead On Scene

ALL CALLS REQUIRE A WRITTEN REPORT. ALL N-3, N-4, AND N-5 CALLS REQUIRE THAT THE SERVICE DIRECTOR OR (DESIGNEE) REVIEW THE WRITTEN REPORT.

19. "OPTIONAL" OR "RECOMMENDED"

The word "optional" or "recommended" will occasionally be seen throughout the protocols in relation to a piece of equipment, specific treatment, or protocol. When "optional" follows a piece of equipment or specific treatment/protocol it is at the discretion of the individual service as to whether or not that equipment will be stocked, or treatment performed. When "recommended" follows a piece of equipment or specific treatment/protocol it remains optional but is highly recommended by the medical director and will become mandatory with the next protocol year update.

20. PHYSICIAN ON SCENE - PATIENT'S

1. Confirm that the physician present is, in fact, the patient's personal physician. Inform the physician that medical control policy requires him to produce verification of his identity and training.

2. Inquire as to whether the physician is willing to assume responsibility for the patient's treatment and is willing to physically accompany the patient to the hospital.

3. Before initiating any invasive treatment, establish radio contact with MEDICAL CONTROL; and, after advising the medical control physician of the usual information, advise that the patient's physician is present; identify the physician; and have the physician and MEDICAL CONTROL discuss appropriate means of treatment of the patient while you monitor the conversation.

4. In the event of any conflict between orders given by the medical control physician and orders given by the physician on the scene, EMS technicians shall permit the patient's physician to personally perform procedures or treatments which conflict with the orders of MEDICAL CONTROL. EMS technicians shall neither participate in nor administer any treatment to the patient under these circumstances, except as ordered by MEDICAL CONTROL.

5. Thoroughly document all occurrences.

21. PHYSICIAN ON SCENE - UNKNOWN
    1. Inform the physician that medical control policy requires him to produce verification of his identity and training.
    2. Inquire as to whether the physician is willing to assume responsibility for the patient's treatment and is willing to physically accompany the patient to the hospital.
    3. Before initiating any invasive treatment, establish radio contact with MEDICAL CONTROL; and, after advising the medical control physician of the usual information, advise that a physician is present, identify the physician, and have the physician and MEDICAL CONTROL discuss appropriate means of treatment of the patient while you monitor the conversation.
    4. In the event of any conflict between orders given by the medical control physician and orders given by the physician on the scene, the medical control physician shall prevail.
    5. Thoroughly document all occurrences.

22. REFUSAL OF TRANSPORTATION OF ADULTS

    An adult, capable of **Informed consent**, that is competent and medically capable, may refuse treatment and/or transport. In such a case, the patient **MUST** be informed of the potential risk (including death) of such refusal and must sign a patient refusal form. If the patient refuses to sign, you should document the refusal to sign on the paperwork and have a witness sign the refusal. Witnesses in order of preference may include Police Department, Family Member, Bystander, or EMS Crew.

23. REFUSAL OF TRANSPORTATION OF MINORS

    A minor is anyone under the age of 18 (with exceptions). Minors may not refuse treatment or transport. In those instances where the minor is refusing, and there is no parent or guardian present, Medical Control and/or Law Enforcement should be contacted for assistance.

    Exceptions:
    1. Emancipated from parents.
    2. Pregnant
    3. Active duty in the armed forces.

24. REQUESTING ASSISTANCE AND/OR HIGHER LEVEL OF CARE

    If a patient's condition is unstable or deteriorates during transport and the patient would reasonably benefit from the presence of additional personnel, the regional EMS Communications Center or local dispatch should be contacted to coordinate the response of the closest available ALS unit or MICU.

    If an EMS Provider **OR** First Responder Organization operating under SPEMS Medical Direction has been requested for assistance **AND/OR** higher level of care by another EMS Provider that is **NOT** under SPEMS Medical Direction, then that SPEMS Provider or Organization may utilize the SPEMS protocols while transporting in the requesting "Non-SPEMS" EMS Provider's ambulance, with prior approval in place. If prior approval is not in place, then the SPEMS provider should contact the "Non-SPEMS" Medical Direction for approval. Be mindful to take any equipment or pharmaceuticals that may not be stocked on the transporting unit. If conflict arises, (i.e., lack of appropriate equipment, disagreement amongst EMS staff, etc) then the requesting "Non-SPEMS" EMS Provider's Medical Direction must be contacted.

    If an EMS Provider operating under SPEMS Medical Direction requests assistance **AND/OR** higher level

of care from another EMS Provider **OR** First Responder Organization that does **NOT** operate under SPEMS Medical Direction, then the requested "Non-SPEMS" Provider or Organization may utilize their protocols and Medical Direction while transporting in the SPEMS EMS Provider's ambulance. If conflict arises, (i.e., lack of appropriate equipment, disagreement amongst EMS staff, etc) then SPEMS Medical Direction must be contacted.

Air transport should be considered whenever the patient is possibly critically ill or injured and transport by air would expedite the patient's arrival at the hospital. When air transport is requested, the request should be made as soon as the EMS technicians on the scene have performed the primary patient assessment.

25. VENTILATION

Artificial breathing for a patient via mouth-to-mask, bag-valve-mask, or demand valve, with high flow **oxygen**. An Oropharyngeal or Nasopharyngeal Airway should be used.

26. VITAL SIGNS

- Blood Pressure (BP)
- Pulse (rate, regularity, quality)
- Respirations (rate, regularity, quality)
- Skin (color, temperature, moisture)
- Pupil Status (equal/unequal size, round, reactive to light)
- Level of Consciousness (alert, responds to voice or pain, unresponsive
- Pulse Oximeter

ECA

MEDICAL DIRECTION
MEDICAL CONTROL

MEDICAL DIRECTION/MEDICAL CONTROL GENERAL GUIDELINES

The algorithms in this manual consist of treatment protocols, which may be implemented by EMS technicians at the appropriate level of certification; they establish guidelines based on established standards of care to assist physicians in providing on-line medical control.

Only ECAs certified by the Texas Department of State Health Services (TDSHS), who also have current medical control authorization from the South Plains Emergency Medical Services (SPEMS) Medical Director, may manage patients under these treatment protocols.

ECAs who do not have current medical control authorization from the SPEMS Medical Director are prohibited from operating under these treatment protocols.

Execution of treatment protocols without medical control authorization will constitute the unauthorized practice of medicine and may result in action being initiated to revoke the offender's EMS certification.

Medical Direction/Medical Control

Per State laws and DSHS policies, only a **physician** licensed in Texas may provide medical direction/medical control to EMS personnel. This prevents EMS personnel from accepting orders and directions originating from any non-physician practitioners; including Nurse Practitioners (NPs) and Physician Assistants (PAs).

Medical Control and On-Line Medical Direction for scene calls (Non Interfacility Transfers):
If treatment outside of the SPEMS Protocols is indicated, Medical Control/Medical Direction may be obtained from:

- Physician at the receiving facility's emergency department
    - In the event that orders are needed and the physician at the receiving hospital cannot be contacted, the medical control physician (ED physician) at University Medical Center shall be contacted immediately. **NOTE: Obtaining on-line medical direction from the ED physician at UMC does NOT prevent EMS from transporting the patient to the original destination or the destination of the patient's choice.**
    - In the event that orders are received from the receiving facility that the EMS crew feels may injure or harm the patient, the EMS crew should immediately contact the medical control physician (ED physician) at University Medical Center for guidance.
    - In the event that the receiving facility's ED is staffed only with a Nurse Practitioner or Physician's Assistant and orders are needed, the medical control physician (ED physician) at University Medical Center shall be contacted immediately. **NOTE: Obtaining on-line medical direction from the ED physician at UMC does NOT prevent EMS from transporting the patient to the original destination or the destination of the patient's choice.**
- While treatment procedures can be performed without on-line medical control, it is always available when needed. **When in doubt, contact on-line medical control**.

Medical Control and On-Line Medical Direction for Interfacility Transfers:
For interfacility transfers, EMS personnel should utilize the following for medical control/medical direction

- If required treatment follows within the SPEMS Protocols, EMS personnel may follow the SPEMS Protocols
- If required treatment is outside SPEMS Protocols, Medical Control/Medical direction may be obtained from:
    - Transferring physician (written and signed orders recommended)
    - Receiving physician through verbal or written communications
    - ER physician of the receiving facility
- **Orders from a Nurse Practitioner or Physician's Assistant CANNOT be accepted**

- While treatment procedures can be performed without on-line medical control, it is always available when needed. **When in doubt, contact on-line medical control**.

Medical Control For On-Scene Physicians

If a physician is physically on scene, refer to Patient's Physician on Scene or Unknown Physician on Scene section of these protocols (whichever is applicable).

General Guidelines for Medical Control/On-Line Medical Direction

Radio orders may be communicated through a registered nurse if the physician is physically present in the emergency department but is unable to come to the radio. If all efforts to establish voice contact fail, the authorized ECA should execute the appropriate protocols and transport. Attempts to establish voice contact with the receiving facility or University Medical Center should continue at least every 5 minutes throughout transport. **NOTE: Obtaining on-line medical direction from the ED physician at UMC does NOT prevent EMS from transporting the patient to the original destination or the destination of the patient's choice.**

Use of these treatment protocols when attempts to make voice contact with the physician have failed, must be communicated to the physician at the receiving facility on arrival, or when contact is made, and must be fully documented by the on the run report. All such instances will be followed by a complete case review.

Use of these treatment protocols must be fully documented by ECAs on the run report.

These treatment protocols are also intended to serve as guidelines to medical control physicians regarding the current standard for pre-hospital emergency care. These protocols will also provide a basis for auditing the quality of pre-hospital care delivered in the South Plains EMS System. These treatment protocols are not intended to restrict or substitute for the use of informed professional judgment by medical control physicians.

This manual is the result of a review and compilation by the South Plains EMS System Protocol Committee of current, nationally accepted standards for pre-hospital care. The Medical Director of the South Plains EMS System has approved these treatment protocols for use.

This document will be reviewed annually by the Protocol Committee and the Medical Director. Appropriate changes will be distributed following the annual review. If no changes are made, a letter to that effect will be circulated.

These treatment protocols will remain in effect for the duration of the provider license issued by the Texas Department of State Health Services, unless revoked by the SPEMS Medical Director.

MEDICAL CONTROL AUTHORIZATION

Pursuant to the provisions of the Medical Practice Act, the Medical Director of South Plains EMS, Inc. and the SPEMS Medical Direction Committee have determined that the following requirements must be met by ECAs who wish to operate under the treatment protocols in this manual.

Furthermore, these requirements must also be satisfied by any ECA who wishes to practice in the SPEMS system under the supervision of the SPEMS Medical Director. This requirement established pursuant to 22 TAC, Sec. 197.3(b)(1), states that the medical director shall approve the level of pre-hospital care which may be rendered locally by each of the EMS personnel employed by and/or volunteering with the EMS under the Medical Director's supervision before the certificant is permitted to provide pre-hospital care to the public, regardless of the level of state certification.

It is the responsibility of the individual and the individual's EMS Service Provider to keep records of individual EMS certifications, immunization records, protocol exams, case review participation, skills exams and any specialized training required by the medical director. These records are subject to examination at

anytime, by the SPEMS Medical Director or his/her designate.

ECA'S RESPONSIBILITIES

Each ECA must:

1. Provide documentation of current certification as an ECA by the Texas Department of State Health Services.
   (A current National Registry card can NOT be used in the place of a current TDSHS certification)
2. Be currently certified in Health Care Provider BLS.
3. Demonstrate approval of local hospital and/or the local medical director by providing a letter which:
   a) States understanding that the ECA will be using the SPEMS protocols.
   b) Acknowledges that the ECA will be using University Medical Center for on-line medical control under specific circumstances, and
   c) States the circumstances under which this medical control will be used.
4. Have passed the protocol examination within the past year with a grade of 90% or higher. All initial testing will be done via the internet. A copy of the official protocol exam results email must be forwarded to all EMS directors in which the ECA is on the roster. Each ECA shall be allowed to take the test twice. Failure of the Protocol exam twice will require the ECA to contact the SPEMS office for additional testing and remediation. The Medical Director may require additional formal training in the protocols at any time.
   NOTE: The Protocol exam is open book and each ECA is encouraged to utilize the Protocols to complete the exam.
5. Participate in case review at least four times per year. Two of which are recommended by the end of the first half of the year and the remaining two by the end of the second half of the year. The SPEMS Medical Director, or his designee, shall attend all case reviews. A written record will be kept of all case reviews. This record will consist of at least a summary of the cases presented and recommendations made for changes in procedure.

   Two case reviews per year from EMS services located in the South Plains region that does not utilize the SPEMS Peer Review process, may count towards this requirement with prior authorization of the SPEMS staff, provided that each of the following conditions are met:
   - The case review MUST be physician led
   - The EMS Director of the SPEMS service must authorize such case reviews
   - The individual must request approval from SPEMS staff and obtain the appropriate documentation form from SPEMS staff PRIOR to the case review.
   - The EMS Director must maintain proper documentation of these "outside" case reviews using the form that will be furnished by SPEMS staff. The completed forms are subject to inspection upon request
   - This does NOT change or alter the skills sign-off requirements for any personnel under SPEMS medical direction

   A maximum of two such case reviews will be allowed per year. EMS personnel must still obtain the remaining two Case Reviews at a SPEMS service that utilize these Protocols and the SPEMS Peer Review process in order to meet the annual requirements

   Exemption: ECAs enrolled in a State approved EMT class may be exempted from a Case Review while enrolled and/or performing rotations during that quarter. This is subject to the approval of the EMS Director and local EMS services may opt to NOT allow such exemptions. This exemption can only apply to two (2) case reviews in a calendar year. All case review exemptions must be documented on the SPEMS Case Review Exemption form, located on the SPEMS website, and will be submitted annually by

the EMS Director along with the SPEMS Compliance Checklist. This exemption does not apply to the SPEMS required skills proficiencies. Therefore, all skills proficiencies must be verified per the protocols.

Example: An ECA is enrolled in an EMT course that the classroom runs from January through May and all rotations must be completed by August. That student may be exempted from the first 2 case reviews, with the EMS Director's approval and properly documented.

6. Documentation is a critical component of pre-hospital care. All documentation must be complete, accurate and done in a timely manner.

   A patient contact form, list of medications given, and procedures performed will be given to the patient's nurse prior to leaving the receiving facility.

   The full patient care report (PCR) must contain information that is accurate and must completely describe the patient's condition; treatment provided, response to treatment, and any other information that is pertinent to patient care. The full PCR must be completed within one business day of the delivery of the patient and submitted to the receiving facility per rule §157.11.

7. ECA's must demonstrate proficiency of the following skill at least twice per year between the period of January 1st through June 30th and July 1st through December 31st:
   - Intramuscular Epinephrine (If currently carried by your service)
   - AED

   Skills may be checked off by a SPEMS Peer Reviewer, Associate Medical Director, SPEMS Medical Director, or by a person approved by the SPEMS Medical Director. To be approved, a person must submit to the SPEMS Medical Director a list of qualifications and must receive an endorsement from the Peer Reviewer that performs peer review for that service. All skills will be verified according to the standards listed on the SPEMS website.

8. These protocols shall be utilized under medical direction of the SPEMS Medical Director in the SPEMS/TSA-B area or during routine transfers from one service area to another.

   These protocols may also be followed in the performance of **GOOD SAMARITAN** duties when **OFF DUTY** and not responding with any emergency service agency (i.e., EMS, Police, or Fire Dept.). However, in the event that you are **OFF DUTY** and assisting an EMS service that is not under SPEMS medical direction, their online medical direction must be contacted for approval prior to performing any advanced procedures.

9. The intent of these protocols are for the EMS professionals to treat patients as they would want a member of their family treated.

PROCEDURAL GUIDELINES FOR MEDICAL CONTROL AUTHORIZATION

Documentation of continuing education, skills proficiency, and case review attendance will be maintained by the EMS technician's training officer. Failure to maintain appropriate documentation may result in the EMS technician's medical control authorization being suspended.

Suspension means that the technician may not practice until completion of all medical control authorization requirements are documented. Suspension may only be removed by the Medical Director, immediately following documentation of all requirements. The fact that an EMS technician's medical control has been suspended does not relieve the technician of the responsibility for meeting all requirements for the subsequent reporting period.

The individual's EMS service director will determine the administrative consequences of suspension of medical control authorization.

Use of the treatment protocols, or practice as an ECA without current medical control authorization will

constitute the unauthorized practice of medicine and may result in action being initiated to revoke the offender's EMS certification.

Upon suspension of medical control authorization, the concerned individual will be notified by a personal letter from the SPEMS Medical Director.

EMS DIRECTOR'S RESPONSIBILITIES

Each EMS Director has the responsibility to assure that each ECA on their service meets all of the SPEMS Protocol requirements. Specifically, each EMS Director is required to:

- To assure all personnel meet all SPEMS requirements.
- To complete and submit the SPEMS Compliance Check List to the SPEMS office by January 31 for the previous calendar year. This check list is available on the SPEMS website.
- To maintain records of successful completion of all SPEMS Protocol requirements including skills proficiencies, case reviews, training, testing, etc.
- To remove from active duty any ECA that fails to meet the requirements as set forth by the SPEMS Protocols.
- To submit copies of any documentation of SPEMS requirements if requested by the SPEMS office or by the Medical Director.

CONTACTING MEDICAL CONTROL

CONTACT MEDICAL CONTROL

The receiving physician at destination hospital or central medical control physician. Notify regarding patient's condition using the following format:

Medical Patients:

- Identify hospital being called, ambulance unit number, name of service, and Med channel
- Age and sex of patient
- Chief complaint
- Vital signs/GCS (including pulse, blood pressure, respirations, pulse ox and level of consciousness)
- Treatment
- Transport Signal, Code and ETA

Trauma Patients:

- Identify hospital being called, ambulance unit number, name of service, and Med channel
- Age and sex of patient
- Mechanism of injury
- Major injuries
- Trauma modifiers
- Vital signs/GCS/RTS (including pulse, blood pressure, respirations, pulse ox and level of consciousness)
- Treatment
- Transport Signal, Code and ETA

ECA

INFECTION CONTROL

INFECTION CONTROL

GENERAL

1. Each EMS organization participating in SPEMS will designate an individual to act as its Infection Control Officer. The Infection Control Officer will be responsible to the administrative director of the EMS organization and to the Medical Director of SPEMS for ensuring compliance with these procedures.

2. Each EMS organization participating in SPEMS should demonstrate compliance with the OSHA Blood Borne Pathogen Rule, "29 CFR, Part 1910, 0130," as fully as possible. All EMS personnel should receive formal initial training on the Blood Borne Pathogen Rule. All personnel should complete refresher training annually.

3. EMS personnel are strongly encouraged to document immunity to the following diseases by immunization or, when applicable, by history of prior infection:
   - Rubella (German Measles)
   - Red Measles
   - Mumps
   - Hepatitis B
   - Tetanus-Diphtheria
   - Influenza (yearly)

4. EMS personnel are strongly encouraged to be tested annually for tuberculosis unless contraindicated. Positive reactors should be referred to the public health authorities for appropriate follow-up.

5. In the unpredictable and uncontrollable pre-hospital environment, it is safest to follow body substance isolation practices, which consider all body substances to be potentially infectious (i.e., "If it's wet, it's bad!"). The following should be considered as potentially infectious:

   - Amniotic fluid
   - Blood
   - Body fluids with visible blood
   - Cerebrospinal fluid (CSF)
   - Feces
   - Nasal secretions
   - Pericardial fluid
   - Peritoneal fluid
   - Semen
   - Sputum
   - Sweat
   - Synovial Fluid
   - Tears
   - Teeth
   - Tissues
   - Urine
   - Vaginal secretions
   - Vomitus

6. The routine utilization of exposure control procedures and appropriate Personal Protective Equipment (PPE) by the individual EMS employee/volunteer is essential to the safety of all involved personnel. Its use can help ensure protection from infectious materials to the EMS employee/volunteer, that individual's family members, other members of the EMS department, subsequent patients, and the general public.

7. The selection and utilization of appropriate Personal Protective Equipment (PPE) should be based upon its ability to provide an impervious barrier between any potentially contaminating body fluids and the EMS employee/volunteer. Each participating SPEMS department is responsible for the supply, repair, cleaning, replacement, and safe disposal of all exposure control-related Personal Protective Equipment. All required PPE should be supplied to that department's personnel and subsequently maintained by the individual department at no expense to the employee/volunteer.

ROUTINE VEHICLE CLEANING:

1. All exposed surfaces in the patient compartment will be kept clean with a 1:10 solution of household bleach in water, or a NIOSH-approved hospital germicide that also has tuberculocidal properties. Gloves will be worn during cleaning.

2. All reusable hard equipment, spine boards, cervical immobilization devices and cervical collars will be cleaned after each use with hot soapy water, rinsed, disinfected with a germicidal agent, and dried. Spine boards and other wooden equipment with exposed splinters should be discarded or sanded and resealed. Gloves will be worn during cleaning.

3. Stock items and medications will be checked at shift change (or as otherwise specified by local policy & procedure) for expiration dates. Materials with the shortest time to expiration should be used first. Expired materials will not be used and will be removed from the vehicle and disposed of properly.

   Proper disposal of medications should be made when (1) the container is cracked, (2) the contents are obviously contaminated, (3) the medication has not been stored in accordance with the directions on the label or package insert, or (4) the date has expired.

4. Disposable equipment will be used whenever possible. Used disposable equipment that has been contaminated with body fluids will be placed in a sealed and appropriately labeled "Biohazard" container until it can be incinerated.

5. Following each use, non-disposable equipment will be washed with hot soapy water, rinsed, disinfected with a tuberculocidal/germicidal agent, and dried. Gloves will be worn during cleaning. If non-disposable equipment cannot be cleaned immediately, it should be placed in a sealed and appropriately labeled "Biohazard" container until it can be properly cleaned.

6. After patient contact, priority will be given to spills of blood or other body fluids. All contaminated areas should be cleaned with an appropriate germicidal agent. Gloves will be worn during cleaning.

7. After patient contact, stretcher linens will be changed. Used linens will be placed in an impermeable bag or will be double-bagged until they can be removed from the ambulance. Used linens will be removed from the ambulance at the earliest possible time for laundering. Gloves will be worn when handling linens obviously contaminated with body fluids. Bags containing contaminated linens should be labeled "Biohazard."

8. Sharp objects will be immediately placed in a puncture-resistant container. Needles will not be recapped, cut, bent, or removed from the syringe. The entire needle-syringe unit should be discarded. When filled, the container will be discarded in accordance with the local medical facility's "Biohazard Waste" policies.

PATIENT CARE PRECAUTIONS:

1. Gloves should be worn on every ambulance call and should be applied before patient contact is made. However, the driver of the emergency vehicle should put on his gloves either before he departs for the emergency or immediately upon arrival. He should not attempt to put on gloves while driving. Latex gloves do not provide puncture protection. At an accident scene, leather gloves should be worn over latex gloves.

2. Eye protection should be worn when there is a risk of splattering with body fluids. Eyeglasses with plain glass lenses may be used if industrial safety glasses or face shields are unavailable or impractical, but safety glasses/shields with side panels are preferred due to their added protection.

3. Mouth-to-mouth breathing should NOT be performed. The pocket mask with one-way valve or a bag-

valve mask should be used for ventilating patients.

4. Clothing soiled with blood or body fluids should be changed as soon as practical. It is recommended that a change of clothing, a jump suit or a surgical scrub suit be available on the ambulance for each crewmember. If the crewmember's skin has been contaminated, he should be allowed to remove contaminated clothing and, if needed, shower as quickly as possible.

5. Patients should wear a mask if a pathogenic organism could be present in their respiratory secretions. If the patient will not tolerate the mask, or must receive continuous respiratory care precluding a mask, the ambulance crew should wear a mask. Also, the ambulance exhaust fan should be utilized and, weather permitting, the windows opened to increase the exchange of air out of the vehicle. High-risk conditions indicating the wearing of masks are known cases of mumps; measles; chicken pox; active tuberculosis; or meningitis; or fever accompanied by rash, stiff neck, or productive cough.

6. Known AIDS patients should wear a mask to protect them from infection. If the patient will not tolerate the mask, or must receive continuous respiratory care precluding a mask, the ambulance crew should wear a mask. They should notify the patient that this is being done to protect the patient from possible infectious organisms.

7. Pregnant EMS technicians should avoid providing direct care to known AIDS patients, since many of the patients excrete cytomegalovirus. CMV is known to cause birth defects.

8. EMS technicians with known or suspected infectious diseases should avoid providing direct care until a physician determines that there is no risk of transmitting infection to immunocompromised patients.

HAND WASHING/HAND CARE:

1. Vigorous scrubbing of the hands with a germicidal soap under running water for 30 seconds will remove or kill most pathogens. Hands should be washed at the beginning and on completion of duty and immediately following each call as soon as gloves are removed. Wearing gloves does not eliminate the need to wash hands.

2. Lotion should be applied following hand washing to avoid chapping of the skin, but some lotions can affect the integrity of latex gloves.

3. Cuts or other open lesions on the hands or other exposed skin should be covered with a fluid resistant bandage. Bandaging open lesions does not eliminate the need to glove.

EXPOSURE PROCEDURES:

1. With routine utilization of appropriate precautions, the risk of needle stick injuries can be significantly reduced. However, in the event that a needle stick does occur, the site should be encouraged to bleed. The site should be cleaned immediately with an alcohol foam and the hands washed thoroughly as soon as possible.

2. All cases of possible disease exposure, including a needle stick, should be reported immediately to the personnel at the receiving hospital and to the appropriate supervisor with the EMS technician's organization. The incident should be thoroughly documented on the EMS Agency's or receiving hospital's applicable incident report form.

3. The infection control practitioner at each hospital will follow up all cases of exposure of EMS technicians and will advise on appropriate procedures. State law requires this notification.

ECA

TREATMENT PROCEDURES

TREATMENT PROCEDURES

AIRWAY MANAGEMENT

Patients who show signs of inability to maintain an airway without assistance, should have an oral or nasopharyngeal airway placed.

The ECA should call for Paramedic backup with any patient requiring airway management.

ALS BACKUP

Whenever a patient would reasonably benefit from ALS care (IV therapy, intubation, gastric tube placement, pleural decompression etc.), the Regional EMS Communications Center or local dispatch should be contacted to coordinate the response of the closest available ALS unit.

The medical control physician may direct an ALS backup response whenever he believes this would be in the best interest of the patient.

EMS providers will develop written mutual aid agreements with neighboring communities to facilitate coordination of backup responses. Copies of these agreements will be sent to the Regional EMS Communications Center through the SPEMS office.

CHEMICAL SEDATION / RESTRAINT

Chemical Restraint is a last resort for safely calming extremely agitated patients when the potential for harm to self or others exists. Agitation or acute behavioral disorders may manifest differently. **Always suspect an organic cause first.** Life-threatening organic conditions that may present with behavioral agitation are hypoglycemia, subdural hematoma, intercerebral hemorrhage, meningitis, hypertensive crisis, and drugs (especially atropine and cyclic antidepressants).

Basic Life Support

1. Request Law Enforcement assistance on any patient who requires chemical restraint.
2. Assess blood glucose to rule-out hypoglycemia.
3. **Request paramedic backup for possible chemical restraint.**

Excited Delirium Syndrome

Excited delirium is a medical emergency that has a high risk for increased mortality due to its causes or from the injuries or medical emergencies that may develop secondary to it. Excited delirium needs to be addressed in the prehospital setting, and may involve a combination of psychomotor agitation, anxiety, hallucinations, speech disturbances, disorientation, violent/bizarre behavior, insensitivity to pain, hyperthermia, and increased strength.

The use of physical restraints and/or tasers may increase the severity of the potential life-threatening condition. In the prehospital setting, excited delirium is most commonly seen in male subjects with a history of serious mental illness and/or acute or chronic drug abuse; particularly with stimulant drugs such as cocaine, crack cocaine, methamphetamines, amphetamines, or similar agents. Subjects using synthetic marijuana and/or bath salts may also exhibit excited delirium syndrome. Alcohol withdrawals, severe CNS illness, or head trauma may also contribute to the condition.

Management of Excited Delirium Syndrome Just as in normal chemical sedation, treatment should occur when there is a danger to the patient or the EMS crew. Since treatment of excited delirium syndrome requires drug administration, Paramedic backup should be requested as soon as possible.

INTRANASAL MEDICATION ADMINISTRATION (OPTIONAL)

This procedure authorizes the SPEMS ECA to administer intranasal (IN) Narcan (Naloxone) using the MAD (Mucosal Atomizer Device). The rich vasculature of 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 is relatively comparable to IV administration. This procedure allows for the substitution of approved medication administration via the intranasal route in place of other routes listed in specific protocols. The SPEMS ECA should refer back to the original protocol upon completion of this treatment guideline. Generally, the intravenous route is the preferred method of drug administration and IV therapy should follow as soon as appropriate therefore ALS back-up must be contacted.

Required education will be provided at the EMS service level with appropriate documentation of education and skill competency on file.

Indications

- Adult and Pediatric Altered Level of Consciousness with respiratory compromise secondary to a known or suspected opiate overdose (patient is unable to control their own airway).

Popular opiates include, but are not limited to:

Codeine	*Fentanyl (Duragesic)*	*Oxycodone (Percocet, Tylox*
Darvon (Propoxyphene)	*Heroin (Diacytl Morphine)*	*Paragoric (Anhydrus Morphine)*
Demerol (Meperidine)	*Lortab (Hydrocodone/Acetaminophine)*	*Percodan (ASA/Oxycodone)*
Dilaudid (Hydromorphone)	*Morphine (MS Contin, Roxanol)*	*Stadol (Butorphanol)*
Dolophine (Methadone)	*Nubain (Nalbuphine)*	*Talwin (Pentazocine)*

Factors that affect absorption (which are relative contraindications)

- Epistaxis
- Facial Trauma
- Nasal Congestion, Discharge, or any recognized nasal abnormality
- Destruction of the nasal mucosa from past surgeries or cocaine abuse

Procedure

- Prepare equipment (MAD, 1 or 3cc syringe, medication, etc.)
- Draw medication in usual fashion allowing for syringe dead space
- Attach MAD to end of syringe
- Place the patient in supine or recumbent position if possible
- Stabilize the patients head with one hand as needed
- Press the atomizer against the nostril
- Briskly depress the syringe plunger administering ½ of the dose in each nostril
- Administer maximal dose of 1cc per nostril

General Comments

- Prior to using a nasal medication, inspect the nostril for significant amounts of blood or mucous discharge. Presence of these will limit the medication absorption. Suctioning the nasal passage prior to delivery may be necessary or an alternative delivery method should be explored.
- Always deliver ½ of the medication dose into each nostril. This doubles the available mucosal surface area (over single nostril) for drug absorption and increases rate and amount of absorption.
- Always use the most concentrated form of the drug available-diluted forms are less effective.
- Do not use over ½ to 1cc of medication per nostril (0.2-0.3cc is the ideal volume). If a higher volume is required, apply it in two separate doses allowing a few minutes for the former dose to absorb.

- For small volume doses of medication, be aware that most delivery devices have a "dead space" in the applicator tip where some of the medication will remain. Be sure to take that dead space into account when calculating the volume of medication to be administered. Usually, the addition of 0.1cc of medication will account for the dead space.
- Most "failures" of IN **Narcan** are due to being in a hurry to see the patient wake up. IN **Narcan** takes 3-5 minutes to begin working. The patients often just improve breathing so do not always expect full arousal. (The goal is breathing).

Intranasal Dosages

DECREASED LOC WITH RESPIRATORY COMPROMISE (known or suspected opiate overdose)

Strength: **Narcan** (Naloxone), 1mg/cc

- **Narcan** (Naloxone) Adult - 2mg, IN, may repeat once in 5 minutes if no increase in respiratory rate or LOC
- **Narcan** (Naloxone) Pediatric - 0.1mg/kg, IN, to a max of 2mg, may repeat once in 5 minutes if no increase in respiratory rate or LOC.

****ALL uses of IN Narcan by an ECA shall be reviewed by a peer reviewer****

MAST

MAST may be used for splinting of bilateral lower extremity fractures, OR for splinting of unstable pelvic fractures with signs and symptoms of hypovolemia.

NONSPECIFIC COMPLAINT

If a patient's problem or chief complaint is not addressed by a specific algorithm (e.g., malaise or generalized weakness), the ECA should initiate appropriate Basic Life Support, perform a thorough patient assessment, and communicate the results of the assessment to Medical Control.

OXYGEN THERAPY

C.O.P.D. patients may be oxygenated using a nasal cannula or a mask at flow rates needed to maintain an **oxygen** saturation of 90-92%. Do not attempt to obtain higher **oxygen** saturations because of the possibility of suppressing the hypoxic drive. Monitor level of consciousness carefully.

To avoid hyperoxia, adult patients with cardiac and/or stroke related problems should be given **oxygen** only if their O2 sats are below 94% or if signs of hypoxia are present. If **oxygen** is required, **oxygen** should be administered, using a non-rebreather, simple face mask or nasal cannula to maintain O2 sats between 94 and 99%. These patients should not be allowed to have a sat of 100%.

All significant trauma patients should receive **oxygen** via non-rebreather or simple face mask to maintain the highest possible **oxygen** saturation.

Except as listed above, all other patients, with an O2 sat below 94%, should receive **oxygen** via non-rebreather or simple face mask. Patients with an O2 sat of 94% or above; requiring **oxygen** per protocol, may have **oxygen** applied using either a non-rebreather mask, a simple face mask or a nasal cannula.

When a bag-valve-mask is used to ventilate a patient, it should be connected to an **oxygen** reservoir and **oxygen** administered at ≥15 liters per minute.

PARAMEDIC BACKUP

Whenever a patient would reasonably benefit from MICU care (EKG monitoring, drug therapy, defibrillation, or cricothyrotomy), the Regional EMS Communications Center or local dispatch should be contacted to coordinate the response of the closest available MICU.

The medical control physician may direct a paramedic backup response whenever he believes this would be in the best interest of the patient.

EMS providers will develop written mutual aid agreements with neighboring communities to facilitate coordination of backup responses. Copies of these agreements will be sent to the Regional EMS Communications Center through the SPEMS office.

REMOVAL OF A FOOTBALL HELMET

In the event an injured football player must be transported, remove the facemask of the helmet to facilitate and secure a patent airway. If it is imperative that the helmet be removed prior to arrival at the emergency department, the shoulder pads SHOULD be removed simultaneously.

RESQPOD (Optional)

The use of the ResQPOD is for the adult patient in cardiac arrest. An adult patient is defined by AHA as one whom has reached puberty. ECAs who have been properly trained in the use of the ResQPOD may apply the device directly to the ventilation adjunct i.e. (BVM, pocket mask etc.). The ResQPOD is not a ventilation device but provides its therapeutic benefit during chest compressions. Therefore, it is necessary to maintain a good tight seal with the device during the chest compression phase of CPR as well as the ventilation phase of CPR. In the event that the patient resumes a pulse and/or spontaneous respirations the ResQPOD should be removed.

SEMIAUTOMATIC EXTERNAL DEFIBRILLATION

Personnel who have received training for the use of the Semiautomatic External Defibrillator may apply and operate the device in cases of cardiac arrest.

SPINAL PRECAUTIONS

Spinal precautions now consist of Spinal Motion Restriction (SMR) rather than full immobilization with a LSB and CIDs.

The use of backboards have not shown any benefit for spinal injuries and may cause harm. The use of full spinal immobilization is no longer considered the standard of care in most cases.

Therefore, rigid spine boards and similar type devices are generally only used for extrication/transfer devices. Under most instances, the patient should be removed from the LSB or similar rigid device, after transition to the stretcher except when ease of transfer and/or patient safety is a concern; such as morbid obesity. Transporting a patient while remaining on a LSB should be of rare and extraordinary circumstances.

Spinal Motion Restriction consists of the application of an appropriately sized cervical collar and placement on the stretcher and secured to the stretcher with at least three straps. The shoulder straps should be crisscrossed if possible or utilized according to the manufacturer's recommendation. Patients should be transported with head elevated 20 to 30 degrees, unless contraindicated.

Inform the patient to avoid moving his/her head and neck.

If spinal precaution is indicated, per the algorithm or at the attendant's discretion, then Spinal Motion Restriction (SMR) is the preferred technique in MOST cases.

Ambulatory patients who meet criteria for SMR should not be allowed to ambulate further than a few steps and then should be carefully guided to the stretcher and secured. They should not be allowed to step into the ambulance.

Infants and small children: If undamaged and conditions permit, use the car seat with additional padding to reduce spinal motion; when practical.

Multiple Patients: if transporting two or more patients requiring spinal precautions, additional patients can be secured to the bench or captain's seat in the upright position with both the lap and shoulder belt while maintaining spinal motion restrictions. Do not have the patient step up into the ambulance; but utilize the stretcher and then assist the patient to the final position on the bench or captain's seat.

Anytime that a patient that is under Spinal Motion Restriction moves or is moved, manual stabilization of the C-spine should be maintained during movement.

If the patient requires transfer to the transport stretcher via LSB it is highly recommended that the patient be moved from the LSB in a manner that limits spinal manipulation (i.e., log roll, sheet, scoop).

A traditional cervical immobilization device (CID) is not indicated when utilizing Spinal Motion Restriction. However, in the rare instances that a LSB is utilized for full body immobilization and transport a CID is still indicated.

Once a LSB is utilized for the purpose of full body immobilization and/or a cervical collar has been placed, they can only be removed by a physician.

SPINAL PRECAUTION PROCEDURE

The acronym "NSAIDS" should be used to remember the steps for this procedure.

- **N - *Neuro Exam***: Look for any focal deficits such as tingling, reduced strength, or numbness. Verify that there is no language barrier between you and the patient.
- **S - *Significant MOI***: Use judgment; Studies have shown that MOI alone should NOT dictate the need for Spinal Motion Restriction (SMR).
- **A - *Alertness and Age*:** Assess that the patient is conscious, alert, and oriented to person, place, time, and event? Confirm the patient is > 5 years of age.
- **I - *Intoxication*:** Assess for any indicators that the person is intoxicated or under the influence (Illicit or Legal Drugs, Alcohol, etc.)
- **D - *Distracting Injuries***: Look for any other injuries that might distract the patient from spinal pain.
- **S - *Spinal Exam***: Check for point tenderness along the spinous process of the entire spine (log rolling the patient to assess this is appropriate while manual c-spine is held in order to rule out the need for Spinal Motion Restriction (SMR)).

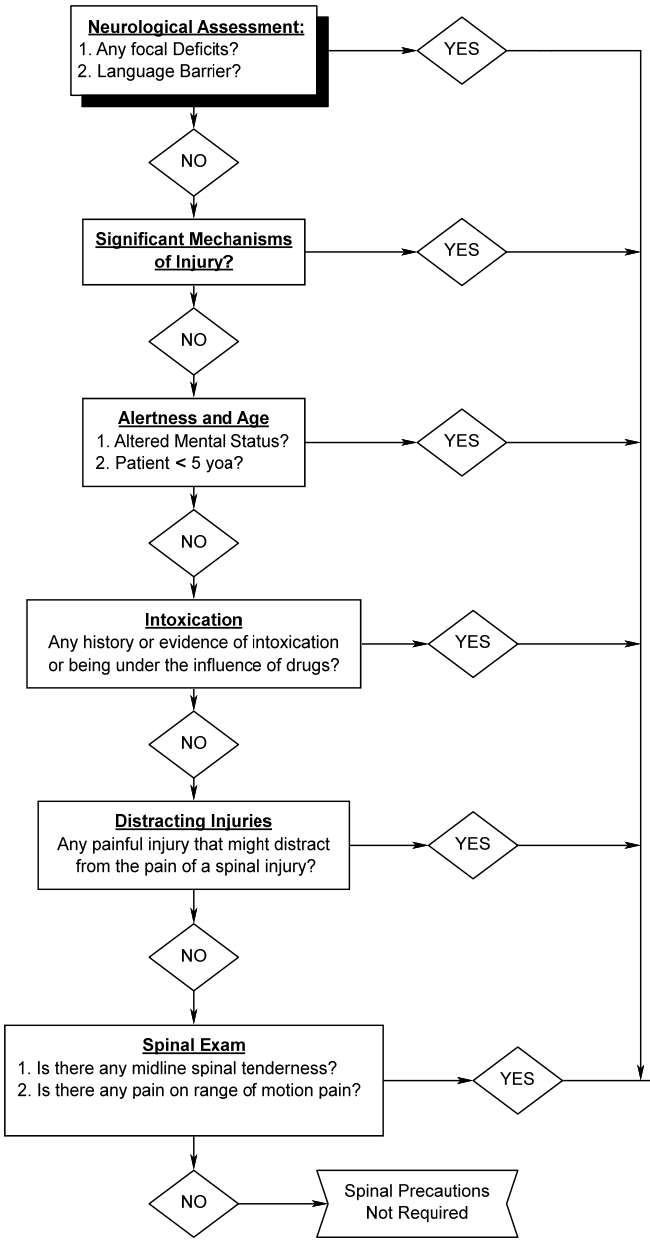
• Assess for painful range of motion only if the patient had no tenderness to spine (patient should be able to touch their chin to their chest, extend their neck by looking upward, and turn their head from side to side without any midline spinal pain). Discontinue at any time if the patient develops pain or tenderness to ANY area of the spine and immediately perform spinal motion restriction (SMR).

• Once a cervical collar has been placed, it **MUST ONLY BE REMOVED BY A PHYSICIAN**.

If in doubt, **ALWAYS** err on the side of spinal precaution.

See flowsheet on following page

SPINAL PRECAUTIONS*



SPINAL MOTION RESTRICTION
- Cervical Collar
- All stretcher straps (crisscross shoulder straps if possible)
- Elevate head 20-30º (if not contraindicated)

*
- For the purpose of this protocol the term "Long Spine Board (LSB) encompasses any device that is hard, rigid, and non-bendable/formable.
- LSB have not been conclusively shown to improve patient outcomes, therefore LSB are not considered the "standard of care" in MOST cases. LSB type devices should primarily be reserved for extrication and patient movement adjuncts. Transporting a patient while remaining on a LSB should be of rare and extraordinary circumstances.
- If spinal precaution is indicated as per the adjacent algorithm or at the treating EMT's discretion then **Spinal Motion Restriction** is the preferred technique in MOST cases.
- Ambulatory patients who meet criteria for **Spinal Motion Restriction** should not be allowed to ambulate further than a few steps and then should be carefully guided to the stretcher and secured. They should not be allowed to step into the ambulance.
- Anytime that a patient that is under **Spinal Motion Restriction** moves or is moved, manual stabilization of the C-spine should be maintained during movement.
- If the patient requires transfer to the transport stretcher via LSB it is highly recommended that the patient be moved from the LSB in a manner that limits spinal manipulation (i.e. log roll, sheet, scoop).
- Exercise caution when transferring a patient requiring Spinal Motion Restriction to the stretcher. Choose a technique that will most benefit the patient and situation while still provide the least amount of spinal manipulation.
- A traditional cervical immobilization device (CID) is not indicated when utilizing **Spinal Motion Restriction** . However, in the rare instances that a LSB is utilized for full body immobilization and transport a CID is still indicated.
- Once a LSB is utilized for the purpose of full body immobilization and/or a cervical collar has been placed, they can only be removed by a physician.

* •The acronym "***NSAIDS***" should be used to remember the steps for spinal immobilization clearance.
- ***N*** **- Neuro Exam:** Look for any focal deficits such as tingling, reduced strength, or numbness. Verify that there is no language barrier between you and the patient.
- ***S*** **- Significant MOI:** Use judgement; Studies have shown that MOI alone should **NOT** dictate the need for SMR.
- ***A*** **- Alertness and Age:** Assess that the patient is conscious, alert, and oriented to person, place, time, and event? Confirm the patient meets the age requirements noted above. Use extra caution when assessing possible spinal injuries in patients ≥ 65 yoa. They are a hgher risk patient and may have only minimal symptoms.
- ***I*** **- Intoxication:** Assess for any indicators that the person is intoxicated or under the influence (Illicit or Legal Drugs, Alcohol, etc.)
- ***D*** **- Distracting Injuries:** Look for any other injuries that might distract the patient from spinal pain.
- ***S*** **- Spinal Exam:** Check for point tenderness along the spinous process of the entire spine (log rolling the patient to assess this is appropriate while manual c-spine is held in order to r/o the need for SMR).

- Assess for painful range of motion only if the patient has no tenderness to spine (patient should be able to touch their chin to their chest, extend their neck by looking upward, and turn their head from side to side without any any midline spinal pain). Discontinue at anytime if the patient develops pain or tenderness to ANY area of the spine.
- If in doubt, **ALWAYS** err on the side of spinal precaution

TASER PROBE REMOVAL

If an individual's EMS department policy grants EMS staff permission to remove taser probes, the EMS individual **MAY** make a single attempt to remove the probes. If the probes appear to be embedded in the bone, in a sensitive area, or it appears that the removal will be difficult, leave in place and treat as an impelled object. To lessen the risk of a needle stick type injury some type of gripping device (hemostats or pliers) should be used to facilitate the removal. The site should then be cleaned and bandaged as appropriate.

TREATMENT FOR SHOCK

- Assure Airway, Breathing, Circulation, and control of Bleeding (ABCs)
- Insert oropharyngeal/nasopharyngeal airway if patient is unconscious
- Administer high flow **oxygen**
- Maintain patient's body temperature
- Elevate lower extremities
- Give nothing by mouth

TREATMENT FOR SNAKEBITES

- Cool, Calm environment
- Supportive Measures
- Extremity at heart level
- Zero-degree elevation
- No ice or constricting bands

UNCONTROLLED HEMORRHAGE

At times, direct pressure may fail to control bleeding and it may be necessary to utilize other means to assist in bleeding control.

QUICKCLOT

- Must be the heat free formulas
- Combat Gauze, is a 3in X 4yrd roll of heat free hemostatic gauze
- ACS+, is a heat free hemostatic sponge

1. Blot excess blood from wound with gauze pad
2. Apply Hemostatic agent as directed on package
3. Apply FIRM direct pressure to wound for 5 minutes. (if bleeding persists, apply direct pressure for an additional 5 minutes
4. Apply pressure dressing
5. Deliver empty Hemostatic agent packaging to accepting physician

Instructions for the use of QuickClot are printed on its package.

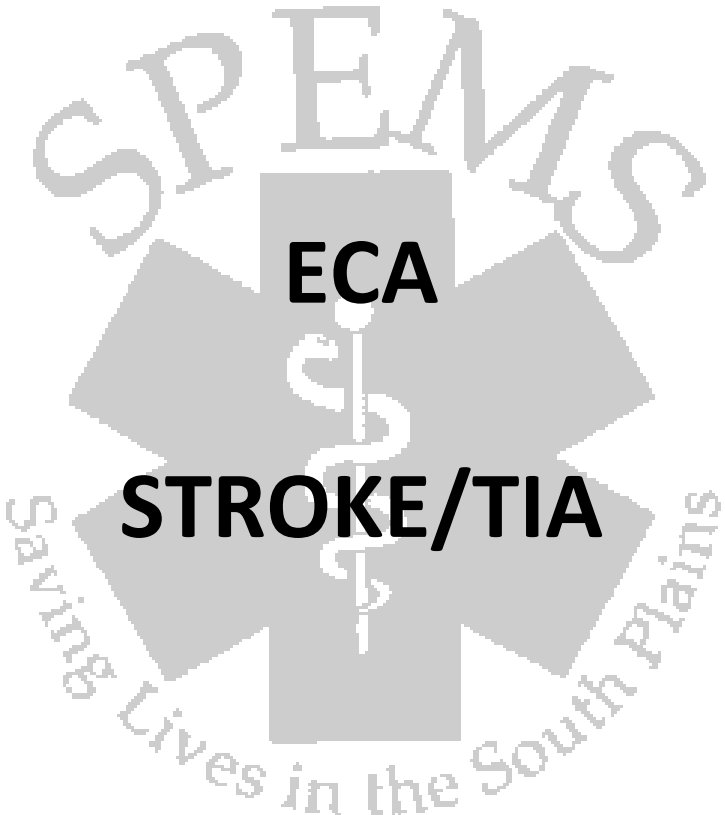
COMMERCIAL TOURNIQUET DEVICE

Tourniquet application may be indicated when life threatening extremity hemorrhage cannot be controlled by any other means.

It is required that a commercial tourniquet is used per manufactures instructions, as improvised tourniquets may not be as effective and/or may cause additional harm. The use of QuickClot in conjunction with a tourniquet application is recommended.

- The tourniquet should never be covered by clothing or bandages

- Record the date and time the tourniquet was applied
- If transport time is extended (> 30 minutes) and absence of amputation or continued hypotension/shock the tourniquet may be LOOSENED to assess for bleeding. DO NOT remove the tourniquet. If bleeding continues re-tighten the tourniquet to loss of distal pulses, if bleeding remains controlled leave the tourniquet in place but assure it is loosened to prevent venous occlusion.



ECA

STROKE/TIA

STROKE/TIA (SUSPECTED)

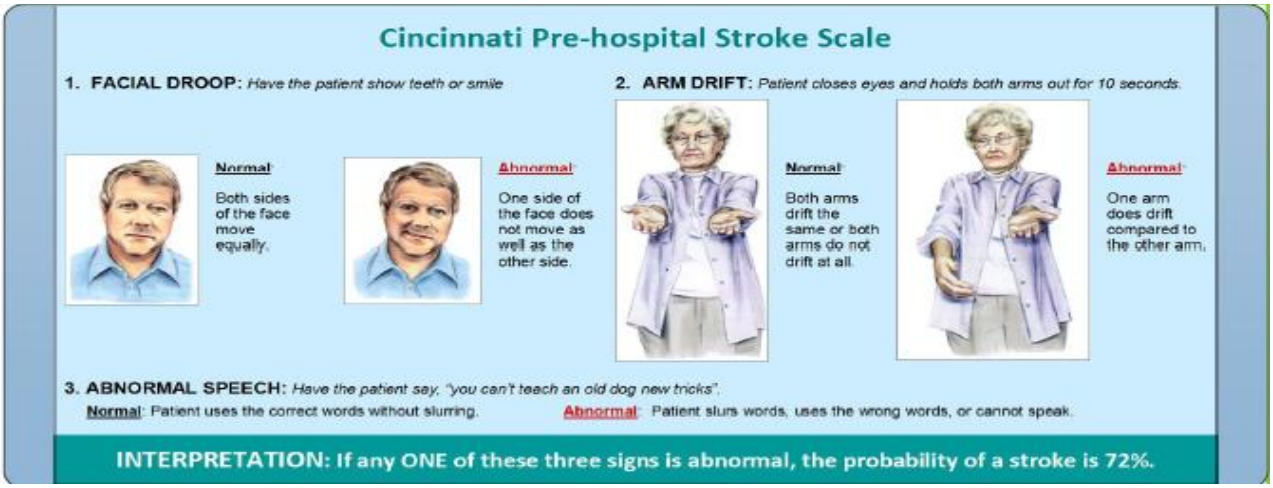
The goal of this protocol is not only to identify strokes/TIAs accurately and quickly in the field, but to identify large vessel occlusions (LVOs) and report findings to receiving facilities immediately. In the event a stroke is suspected, the Cincinnati Stroke Scale (CSS) should be performed. A positive CSS has a 72% probability of being a stroke and of that percentage, approximately 85% are ischemic. All positive CSS findings should be reported to the receiving hospital from the scene. Limit scene time to ≤10 minutes (document reason if not possible) and consider rapid transport to the appropriate facility, (J-2). To further increase the chances for the best possible patient outcome the VAN assessment for large vessel occlusions should be performed if applicable. The VAN assessment is used in conjunction with the CSS to help determine if the stroke is associated with an LVO. Prehospital recognition and hospital alert can start the process of early, appropriate resource acquisition.

The key to forming an accurate impression is in the physical assessment findings and the clinical history. The following history and signs and symptoms should increase the suspicion of a stroke.

- ***History***: CVA/TIA, Cardiac/Vascular surgeries, Deep vein thrombosis (DVT), Diabetes, Hypertension, CAD, Atrial-Fibrillation, Blood thinners
- ***Signs and Symptoms:*** Altered mentation, Weakness/Paralysis, Visual changes, Sensory loss, Aphasia, Dysarthria, Dysphagia, Syncope, Vertigo/Dizziness, Vomiting, Headache, Seizures, Respiratory pattern changes, Hyper/Hypotension, Trouble walking/Unsteady gait

Strokes/TIA can be mimicked by several deferential diagnosis, such as, Seizures/Todd's Paralysis, Hypoglycemia, Tumor, Trauma, Bell's Palsy, Intoxication, Dehydration/Electrolyte imbalances, Infection, Meningitis/Encephalitis.

If possible, inquire about the patients baseline neurological state. Chronic neurological deficits don't necessarily warrant rapid transport to a Stroke Center. Always err on the side of caution if questionable.



Indication:

- The Cincinnati Stroke Scale should be performed on all patients suspected of having a Stroke/TIA including but not limited to, patients with altered level of consciousness and/or neurological deficits.

Contraindications:

- The patient cannot perform the procedure due to a decreased level of consciousness or a

life-threatening condition

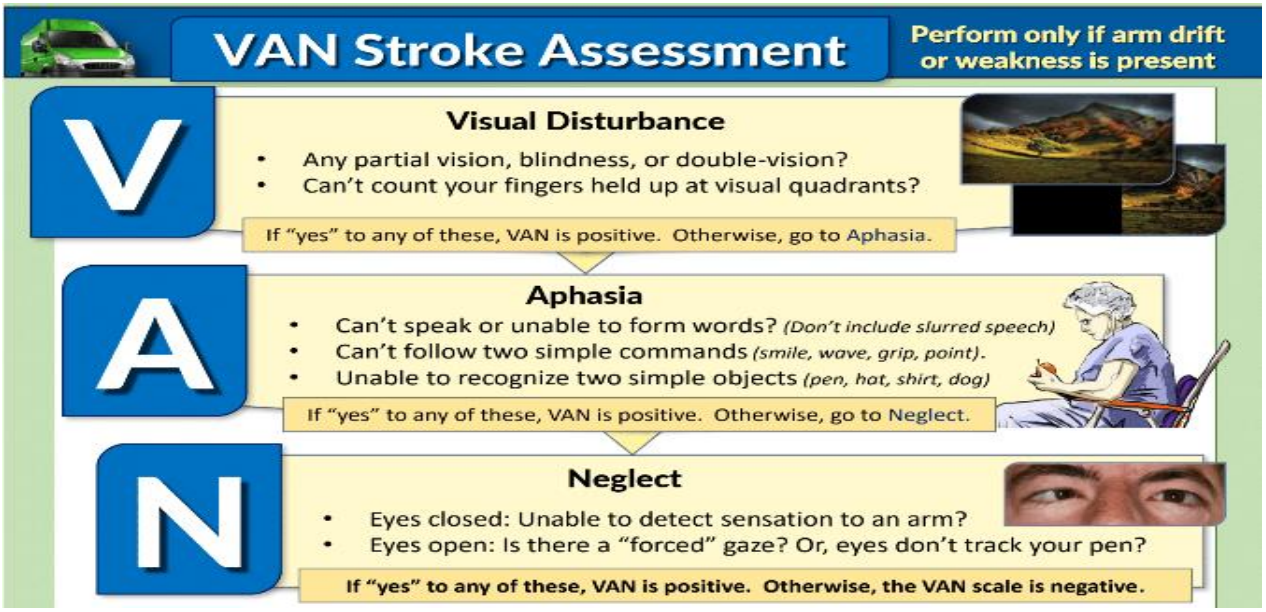
- The patient has a known language barrier or other deficit that would trigger false-abnormal findings.

Procedure:

- The Cincinnati Stroke Scale (CSS) is a system used to diagnose a potential stroke in the pre-hospital setting. It tests three signs for abnormal findings which may indicate that the patient is having a stroke. If any one of the three tests show abnormal findings, the patient may be having a stroke and should be transported without delay.
- ***Step 1 Facial Droop:*** have the patient smile or show their teeth
    - Normal: Both sides move equally
    - Abnormal: One side of face does not move as well as the other (or at all) so it appears to droop.
- ***Step 2 Arm drift****:* Ask the patient to raise both arms to eye level with their eyes closed and palms facing upward for 10 seconds.
    - Normal: The patient can hold both arms up without downward drift.
    - Abnormal: The patient is unable to hold both arms up or there is suggestion of new-onset paralysis/weakness.

The VAN Stroke Assessment should be performed on all patients that test positive for arm drift via the Cincinnati Stroke Scale

- ***Step 3 Speech:*** Have the person say, "You can't teach an old dog new tricks," or some other simple, familiar saying.
    - Normal: The patient uses correct words with no slurring.
    - Abnormal: The patient slurs the words, gets some words wrong, or is unable to speak.



Indication:

- Utilize the VAN Stroke Assessment anytime there is positive arm drift or motor control deficit via the CSS.

Contraindications:

- The patient cannot perform the procedure due to a decreased level of consciousness or a life-threatening condition
- The patient has a known language barrier or other deficit that would trigger false-positive VAN findings.

Procedure:

- The VAN Stroke Assessment should be performed on all patients with positive findings of motor deficit /arm drift via the Cincinnati Stroke Scale.
    1. ***Visual Disturbance Assessment:*** Face the patient and have them look directly at your nose. The provider will be testing the four quadrants of periphery vision by holding up their hand with a selected number of fingers. The patient should call out the number of fingers they see raised in each quadrant. The provider will assess the periphery vison fields in the following order; right upper, right lower, left upper, and left lower. Assess for eye tracking during this procedure. Ask the patient if they are experiencing any double vision or partial/full blindness.
        - If the patient cannot accurately assess the number of raised fingers in any of the quadrants or reports visual abnormalities, they are VAN positive. The provider should notify the receiving hospital, per protocol. If negative, move on to the next assessment step.
    2. ***Aphasia Assessment:*** The provider asks the patient to recognize and name two random objects, such as a pen, watch, or button. For the second portion of the assessment, ask the patient to repeat a short sentence, such as, “the early bird gets the worm”. The final step in the aphasia assessment asks the patient to follow two simple, separate command, such as “close your eyes”, “make a fist”, or “wave”. This assesses the comprehension/understanding area of the brain.
        - If the patient is unable to correctly perform these assessments, they are VAN-positive. The provider should notify the receiving hospital, per protocol. If preformed correctly, move on to the next assessment step.
    3. ***Neglect Assessment:*** Assess the patient’s eyes for a forced gaze to either side. Do the eyes track evenly if following a pen? To perform the next step of the neglect assessment, ask the patient to close their eyes. With their eyes closed the provider then runs their hand over one of the patient’s forearms and asks the patient which arm was touched, followed by the opposite forearm, and then final both forearms simultaneously.
        - If the patient was unable to feel sensation to one of their arms, they are VAN positive. The provider should notify the receiving hospital, per protocol.

          If the patient was able to recognize sensation to each forearm, then they are VAN negative.

Summary:

“VAN Positive” indicates there is motor control deficit **AND** at least one of the VAN criteria have been met. “VAN-positive” indicates there is an increased probability of a large vessel occlusion. The VAN assessment does not take the place of the CSS. A patient can still have a stroke while remaining “VAN-negative”. You must advise the receiving hospital of CSS and VAN findings.

Key Points:

- One of the most important items the pre-hospital provider can obtain is the "time of onset" or "last seen normal time", which forms the basis for all treatment decisions. Be very precise in gathering data to establish the time of onset and report it as an actual time (example: "1347" NOT "about 45 minutes ago"). The patient may not be able to receive thrombolytics or other appropriate therapy at the facility unless this vital information has been obtained by EMS. For patients who "woke up and noticed the stroke", the time the patient was last awake will be the reported time of onset. If possible, obtain contact information of a family member or the reporting party.
- Some types of tissue plasminogen activators (tPA) may be administered within 4.5 hours from time of last seen normal if the risks/benefits are considered acceptable after a neurology consult at the hospital. Clot retrieving advancements have extended this time even further for certain cases. The time frame for prehospital "Stroke Activation" could be up to 24 hours from the "last seen normal" time.
- Try to limit scene time to 10 minutes or less. Do not delay transport for non-life sustaining interventions. Transport to the appropriate stroke facility as documented in the Stroke Triage Scheme (J-2).
- During transport and as time permits both the CSS and VAN assessments should be repeated with additional findings/changes reported to the receiving facility as well as documented on the PCR.
- Be alert for airway problems (swallowing difficulty, vomiting/aspiration) that may coexist with other stroke symptoms.
- Hypoglycemia can present as a LOCALIZED neurologic deficit, especially in the elderly. Obtain a blood glucose measurement as soon as possible and preferably before stroke activation.

Refer to the Stroke/TIA Transport Decision Scheme Page (J-2)

ECA

RESUSCITATION
DO NOT RESUSCITATE

DECISION-MAKING IN CARDIOPULMONARY RESUSCITATION

The current standard of care requires that resuscitation be implemented when two conditions are fulfilled:

1. There is the possibility that the brain is viable.
2. There is no medically or legally legitimate reason to withhold resuscitation.

RESUSCITATION EFFORTS SHOULD BE WITHHELD ONLY IF A PATIENT IS APNEIC AND PULSELESS AND ONE OF THE FOLLOWING SITUATIONS EXISTS:

1. The patient is decapitated.
2. Rigor mortis is present.
3. Dependent lividity is present.
4. Evidence of tissue decomposition is present.
5. Massive trauma to the head, neck, or thorax, clearly incompatible with life, is present.
6. In a multiple casualty situation, there are inadequate numbers of trained personnel to initiate resuscitation while providing life-saving care to other patients.
7. A written Texas Department of State Health Services Out of Hospital DO NOT RESUSCITATE (OOH DNR) is available for immediate inspection by the EMS technicians. (Refer to the Do Not Resuscitate Section)
8. The patient is wearing the state-approved DNR bracelet and/or necklace bearing the official Out-of hospital DNR logo. (Refer to the Do Not Resuscitate Section)
9. Out-of-Hospital DNR Order forms executed in another state or devices authorized by another state as describe in the Do Not Resuscitate Section. (Refer to the Do Not Resuscitate Section)
10. The patient's attending physician is at the scene of the emergency and orders the EMS personnel to withhold resuscitation efforts.
11. If no written TDSH OOH DNR order is available, the decision to withhold resuscitation efforts may be made by the Emergency Department physician if requested by one persons of the following list if available, in the following priority:
    a) The patient's spouse;
    b) A majority of the patient's reasonably available adult children;
    c) The patient's parents; or
    d) The patient's nearest living relative.
12. The Emergency Department Physician at the receiving hospital orders EMS personnel, via radio, not to initiate or to terminate resuscitation efforts.

In cases involving a request by family members to withhold resuscitation efforts, you should also include documentation of the request, and names and relationships of the persons making the request. **ALL** EMS personnel present should sign documentation.

NOTE: The patient's private physician, upon learning of EMS involvement in the resuscitation efforts of one of his/her patient's, should contact the receiving Emergency Department's physician and relay any orders to withhold resuscitation efforts to the Emergency Department physician, since EMS cannot accept these "Do Not Resuscitate" orders directly from the private physician via telephone.

If, at anytime, EMS personnel question the legitimacy of the request to withhold resuscitation

efforts, or if there are any indications of unnatural or suspicious circumstances, resuscitation efforts should be initiated, but limited to BLS, until such time as Medical Control is contacted, and the Emergency Department physician directs otherwise.

IF ANY DOUBT WHATSOEVER EXISTS, RESUSCITATE!

In the pre-hospital setting, EMS Technicians shall not delegate the decision to initiate or withhold resuscitation to other individuals under any circumstances.

Once initiated, BLS shall continue until one of the following occurs:

1. Effective spontaneous circulation and ventilation have been restored.
2. A physician at the receiving medical facility pronounces the patient dead.
3. On-line Medical Control orders termination of resuscitation efforts.
4. Attending physician arrives on scene and orders termination.
5. A legitimate TDSHS Out of Hospital DNR is presented to ambulance personnel. (Refer to the Do Not Resuscitate Section)
6. A legitimate Out-of-Hospital DNR Order forms executed in another state is presented to ambulance personnel. (Refer to the Do Not Resuscitate Section)

EXCEPT AS DESCRIBED ABOVE, UNDER NO OTHER CIRCUMSTANCES WILL THE DECISION TO TERMINATE RESUSCITATION BE MADE BY A NON-PHYSICIAN!

EMS personnel should remember that some patients might appear to be dead and not responsive to resuscitation efforts while actually being potential candidates for successful resuscitation. Therefore, if any doubt exists concerning the patient's potential resuscitation by any of the EMS personnel present, resuscitation efforts should be initiated immediately. The following types of patients should receive special consideration for resuscitation since cases have been documented in which these, and other patients, have been successfully resuscitated following the apparent "death" of the patient:

1. Hypothermia
2. Hypoglycemia
3. Acute drug overdoses
4. Poisonings
5. Pediatric patients
6. Drowning
7. Unwitnessed (by trained medical personnel) cardiac and/or respiratory arrest

DO NOT RESUSCITATE ORDERS

When dealing with Do Not Resuscitate Orders, the following guidelines shall be followed:

ACCEPT ANY ONE OF THE FOLLOWING AS PROOF OF A VALID OOH DNR ORDER:

Texas Out-of-Hospital Do-Not-Resuscitate Order Form (OOH DNR)

Note: There is now a new TDSHS form for DNRs. Either the new or the old form is acceptable.

A copy of both forms is on subsequent pages.

The Texas OOH DNR Order form is a single page form with the Texas DNR logo printed at the top in red or black. The original or a photocopy is acceptable. A copy of these forms is on subsequent pages. The form is considered valid if:

1. One of the six sections have been filled out and signed appropriately. **Note**: Electronic signatures are acceptable. (Only one completed section is required)
    a. Section A: Declaration of the adult person
    b. Section B: Declaration by legal guardian, agent or proxy on behalf of the adult person is incompetent or otherwise incapable of communication
    c. Section C: Declaration by a qualified relative of the adult person who is incompetent or otherwise incapable of communication
    d. Section D: Declaration by physician based on directive to physicians by a person now incompetent or otherwise incapable of communication
    e. Section E: Declaration on behalf of the minor person
    f. Section F: Directive by two physicians on behalf of the adult, who is incompetent or unable to communicate and without guardian, agent, proxy or relative. (**Note**: if this section is utilized, no signature of witnesses or notary are required)
2. All relevant portions have been completed.
3. Signatures of two witnesses or notary are present; except when section F is utilized (No witness or notary signature is required for Section F). **Note**: Electronic signatures are acceptable
4. There appears to be no reason to question its authenticity.

Texas OOH DNR Order Bracelet

Two types of OOH DNR Order bracelets are valid:

1. A plastic, hospital-type bracelet that is white in color and has the DNR logo printed in red, as is on the front of the OOH DNR Order form. No other identifying information is printed on this bracelet.
2. A stainless-steel bracelet similar to the “Medic Alert” bracelets, containing the same DNR logo as on the front of the OOH DNR Order form, or the words “Texas Do Not Resuscitate – OOH”.

When either bracelet is found around the patient's wrist, honor it as if it were a valid OOH DNR Order Form. Do not honor a bracelet that is not attached to the patient. Do not remove the bracelet from the patient, even when the patient is deceased.

Texas OOH DNR Order Necklace

The OOH DNR Order necklace is made of a stainless-steel chain, 16 - 18 inches in length with a one-inch diameter disk attached. The disk has the same DNR logo as is on the front of the DNR Order form. When found around the patient's neck, honor this necklace as if it were a valid

paper OOH DNR Order form. Do not honor a necklace that is not attached to the patient. Do not remove the necklace from the patient, even when the patient is deceased.

Out-of-State DNR Orders

Personnel may accept Out-of-Hospital DNR Order forms executed in another state or devices authorized by another state, if:

1. The order appears to be on an official, state-mandated form.
2. The order appears complete (all relevant portions of the form filled in) and valid.
3. There appears to be no reason to question the authenticity of the DNR Order form or device.

Should there be a question regarding an out-of-state DNR Order, initiate resuscitation and contact an on-line medical control physician.

DOCUMENTS THAT MAY *NOT* BE ACCEPTED:

Do Not Accept:

1. Do Not Resuscitate Orders that do not reasonably appear to be on an official, state-mandated form.
2. Advanced Directives, Directives to Physicians, Living Wills, A Physician's DNR Order in any form not noted above (such as one written by a physician, physician's assistant, or a nurse practitioner).

Texas OOH DNR Orders and Out-of-State DNR Orders Should Not be Honored when:

1. A competent patient, including a competent minor, communicates to EMS personnel a desire to revoke an OOH DNR Order.
2. A person having a Durable Power of Attorney for Health Care for the patient or the attending physician, legal guardian, parent (if a minor), or qualified relative, as defined in the TDSHS OOH DNR form, communicates to EMS personnel a desire to revoke an OOH DNR Order.
3. The patient is pregnant.
4. The patient cannot be conclusively identified as the patient named on the OOH DNR Order form.
5. There is an airway obstruction.
6. Unnatural or suspicious circumstances are present; including suicide attempt.

If doubt exists as to whether an OOH DNR Order should be honored, initiate resuscitation until:

1. A valid OOH DNR Order is found. NOTE: If a valid OOH DNR is presented, after resuscitation has been initiated, resuscitation efforts may be discontinued so long as the validity is not in question, or one of the 5 preceding conditions are not found.

2. A Medical Control physician orders that resuscitation be stopped, or
3. Patient care is transferred to a higher level.

COMPLIANCE WITH OOH DNR ORDER:

NOTE: OOH DNR applies only *AFTER* the cessation of spontaneous respirations or circulation or in the judgment of the pre-hospital provider, the moment of death is at hand.

1. If the patient is found in or develops cardiac and/or respiratory arrest, honor the OOH DNR Order by withholding CPR, placement of advanced airway devices (including ET tube and King Airway), artificial ventilation, placement of the AED, manual defibrillation, and transcutaneous cardiac pacing.
2. If an OOH DNR Order is found or presented after the patient assessment and/or treatment has begun, stop the resuscitative treatment immediately – even if a positive response has occurred
3. If an OOH DNR Order appears to be valid and the patient is not in cardiac or respiratory arrest, provide care directed toward providing comfort, such as opening the patient's airway, providing oxygen, IV fluids or medications, or any other treatment needed except for advanced airway placement, artificial ventilation, defibrillation, and cardiac pacing. NOTE: Assisting ventilations for a breathing patient with a BVM device is NOT a violation of an OOH DNR and should be performed if needed.
4. The original OOH DNR Order form or a photocopy may be honored.
5. If the patient is transported, the OOH DNR Order form must accompany the patient; the bracelet or necklace must be on the patient.
6. The original or a photocopy of the form should be kept and filed with the pre-hospital patient care report.

DOCUMENTATION

When a patient in cardiac or respiratory arrest is encountered and an OOH DNR Order form is presented, the following must be documented on the pre-hospital patient care report:

1. An assessment of the patient's condition.
2. Whether or not the OOH DNR Form was honored. If the form was not honored, a full explanation of the reasons and circumstances must be documented
3. The type of OOH DNR Order (form, bracelet, or necklace) used to confirm the DNR status.
4. Any problems regarding implementing the DNR Order, including on scene revocation.
5. The name of the patient's attending physician from the OOH DNR form.
6. The original or a photocopy of the form should be kept and filed with the pre-hospital patient care report.

SUMMARY

- ONLY the TDSHS OOH DNR or other state (other than Texas) issued DNR may be accepted
- OOH DNR applies to out-of-hospital settings including ERs, Nursing Homes, Physician's offices, clinics, dialysis centers, private residences, etc.
- OOH DNR applies only AFTER the cessation of spontaneous respirations or circulation

  EXCEPT:

  - Airway obstruction
  - Suspicious Circumstances
  - Suicide, homicide, or other unnatural causes of death
  - Pregnant patients
  - Patient or guardian state desire not to follow DNR
- Interventions to be withheld are:
  - CPR
  - Advanced Airways (Intubation and King Airway)
  - Artificial ventilation (does not pertain to assisting ventilations on a breathing patient)
  - Defibrillation (includes AED)
  - Transcutaneous cardiac pacing
- If uncertain, err on side of resuscitation until status can be clarified
- The OOH DNR device (form, bracelet, or necklace) should be left attached to and transported with the patient
- Out-of-state DNR may be honored if no reason to question the authenticity of the order or device exists

Figure: 25 TAC §157.25 (h)(2)

STOP DO NOT RESUSCITATE

TEXAS DEPARTMENT OF STATE HEALTH SERVICES
STANDARD OUT-OF-HOSPITAL DO-NOT-RESUSCITATE ORDER

This document becomes effective immediately on the date of execution. It remains in effect until the patient is pronounced dead by authorized medical or legal authority or the document is revoked. Comfort measures will be given as needed.

All persons who sign the form must sign again under number 3.

1. _____ **Date of Birth:** _____ **Male/Female** (Circle One)

Patient's full legal name — printed or typed

2. COMPLETE **ONE** OF THE FOUR BOXES: **A**, **B**, **C**, or **D**. If using Box **A**, **B**, or **C**, Witnesses and Physician's Statement must be completed.

A. **Patient's Statement:** I, the undersigned, am an adult capable of making an informed decision regarding the withholding or withdrawing of CPR, including the treatments listed below, and I direct that none of the following resuscitation measures be initiated or continued: **Cardiopulmonary Resuscitation (CPR), Transcutaneous Cardiac Pacing, Defibrillation, Advanced Airway Management, Artificial Ventilation.**

Signature _____ Date _____ Printed or Typed Name _____

B. **Only use this box if the order is being completed by a person acting on behalf of an adult patient who is incompetent or otherwise unable to make his or her wishes known.**

I am the patient's: ☐ legal guardian; ☐ agent under Medical Power of Attorney; ☐ or Qualified Relative (see back); **AND**:

☐ I attest to issuance of an Out-of-Hospital DNR by the patient by nonwritten means of communication; **OR**
☐ I am acting under the guidance of a prior Directive to Physicians; **OR**
☐ I am acting upon the known values and desires of the patient; **OR**
☐ I am acting in the patient's best interest based upon the guidance given by the patient's physician.

I direct that none of the following resuscitation measures be initiated or continued on behalf of the patient: Cardiopulmonary Resuscitation (CPR), Transcutaneous Cardiac Pacing, Defibrillation, Advanced Airway Management, Artificial Ventilation.

Signature _____ Date _____ Printed or Typed Name _____

C. **Only use this box if the order is being completed by a person acting on behalf of a minor patient who has been diagnosed with a terminal or irreversible condition.**

I am the minor patient's: ☐ Parent; ☐ legal guardian; or ☐ managing conservator.

I direct that none of the following resuscitation measures be initiated or continued on behalf of the patient: Cardiopulmonary Resuscitation (CPR), Transcutaneous Cardiac Pacing, Defibrillation, Advanced Airway Management, Artificial Ventilation.

Signature _____ **Date** _____ **Printed or Typed Name** _____

WITNESSES: (see qualifications on reverse) We have witnessed all of the above signatures.

Witness 1 Signature _____ Date _____ Witness Printed or Typed Name _____

Witness 2 Signature _____ Date _____ Witness Printed or Typed Name _____

PHYSICIAN'S STATEMENT: I, the undersigned, am the attending physician of the patient named above. I have noted the existence of this order in the patient's medical records, and I direct out-of-hospital health care professionals to comply with this order as presented.

Date _____ Physician's signature _____ Printed name _____ License number _____

D. **Only use this box if the order is being completed by two physicians acting on behalf of an adult who is incompetent or otherwise unable to make his or her wishes known, and who is without a legal guardian, agent, or qualified relative.**

☐ I attest to issuance of an Out-of Hospital DNR by the patient by nonwritten communication; **OR**:
☐ The patient's specific wishes are unknown, but resuscitation measures are, in reasonable medical judgement, considered ineffective in these circumstances or are otherwise not in the best interest of the patient.

I direct that none of the following resuscitation measures be initiated or continued on behalf of the patient: Cardiopulmonary Resuscitation (CPR), Transcutaneous Cardiac Pacing, Defibrillation, Advanced Airway Management, Artificial Ventilation.

Signature _____ Treating Physician Date _____ Printed or Typed Name _____

Signature Second Physician who is not involved in treating the patient _____ Date _____ Printed or Typed Name _____

3. **ALL PERSONS WHO SIGNED MUST SIGN HERE (Pursuant to H&SC 166.083(b)(13). This document has been properly completed.**

Signature of Patient, Agent or Relative (A, B, or C) _____ Signature of Second Physician (D) _____ Signature of Attending Physician _____

Signature of Witness _____ Signature of Witness _____ Date _____

SHOULD TRANSPORT OCCUR, THIS DOCUMENT OR A COPY MUST ACCOMPANY THE PATIENT.

The Older Version of the TDSHS Out-of-Hospital (OOH) DNR Form: Front Side

Figure: 25 TAC §157.25 (h)(2)

OUT-OF-HOSPITAL DNR INSTRUCTIONS

PURPOSE:
This form was designed to comply with the requirements as set forth in Chapter 166 of the Health and Safety Code (H&SC) relating to the issuance of Out-of-Hospital Do-Not-Resuscitate (DNR) orders for the purpose of instructing Emergency Medical Personnel and other health care professionals to forgo resuscitation attempts and to permit the patient to have a natural death with peace and dignity. This order does NOT affect the provision of other emergency care including comfort care.

APPLICABILITY:
This form applies to all health care professionals operating in any out-of-hospital setting to include hospital outpatient or emergency departments and physician's offices.

IMPLEMENTATION:
A competent adult may execute or issue an Out-of-Hospital DNR Order. The patient's attending physician will document the existence of the directive in the patient's permanent medical record.

If an adult patient is capable of providing informed consent for the order, he/she will sign and date the out-of-hospital DNR order on the front of this sheet in Box A. In the event that an adult patient is unable to provide informed consent, his/her Legal Guardian, agent under Medical Power of Attorney, or Qualified Relative may execute the order by signing and dating the form in Box B. If an adult patient is unable to provide informed consent and none of the persons listed in Box B are available, the treating physician may execute the order using Box D with the consent of a second physician who is not treating the patient and/or is a member of the health care facility ethics committee or other medical committee.

The following persons may execute an out-of-hospital DNR order on behalf of a minor: the minor's parents, the minor's legal guardian or the minor's managing conservator. A person executing a DNR order on behalf of a minor may execute the order by signing and dating the form in Box C. **An out-of-hospital DNR order may not be executed unless the minor has been diagnosed by a physician as suffering from a terminal or irreversible condition.**

The form must be signed and dated by two witnesses except when executed by two physicians only (Box D).

The original standard Texas Out-of-Hospital DNR form must be completed and properly executed. Duplicates may be made by the patient, health care provider organization or attending physician as necessary. **Copies of this completed document may be used for any purpose that the original may be used and shall be honored by responding health care professionals.**

The presence of a Texas DNR identification device on a person is sufficient evidence that the individual has a valid Out-of-Hospital DNR Order. Therefore, either the original standard form, a copy of the completed standard form, or the device is sufficient evidence of the existence of the order.

For information on ordering identification devices or additional forms, contact the Texas Department of State Health Services at (512) 834-6700.

REVOCATION:
The Out-of-Hospital Do-Not-Resuscitate Order may be revoked at ANY time by the patient **OR** the patient's Legal Guardian/Agent/Managing Conservator/Qualified Relative, Parent (if a minor), or physician who executed the order. The revocation may involve the communication of wishes to responding health care professionals, destruction of the form, or removal of all or any Do-Not-Resuscitate identification devices the patient may possess.

AUTOMATIC REVOCATION: This Out-of-Hospital DNR order is automatically revoked if the patient is known to be pregnant or in the case of unnatural or suspicious circumstances.

DEFINITIONS:
Attending Physician: The physician who is selected by or assigned to a patient who has primary responsibility for a person's treatment and care and is licensed by the Texas State Board of Medical Examiners or who is properly credentialed and holds a commission in the uniformed services of the United States and who is serving on active duty in this state. **(H&SC 166.002 (3) & (12))**

Qualified Relatives: Those persons authorized to execute or issue an out-of-hospital DNR order on behalf of a person who is comatose, incompetent, or otherwise mentally or physically incapable of communication under Section 166.088 H&SC Section 166.088 refers to 166.039; "One person, if available, from one of the following categories, in the following priority...: (1) The patient's spouse; (2) the patient's reasonably available adult children; (3) the patient's parents; or (4) the patient's nearest living relative."

Health Care Professional: Means physicians, nurses, physician assistants and emergency medical services personnel, and, unless the context requires otherwise, includes hospital emergency department personnel. (H&SC 166.081 (5))

Witnesses: Two competent adult witnesses must sign the form acknowledging the signature of the patient or the person(s) acting on the patient's behalf (except when signed by two physicians in Section C). Witness One must meet the qualifications listed below. Witness Two may be any competent adult. Witness One (the "qualified" witness) may not be: (1) person designated to make a treatment decision for the patient; (2) related to the patient by blood or marriage; (3) entitled to any part of the estate; (4) be a person who has a claim against the estate of the patient; (5) the attending physician or an employee of the attending physician; (6) an employee of a health care facility in which the patient is being cared for, if he or she is involved in providing direct patient care to the patient; or (7) an officer, director, partner, or business office employee of a health care facility in which the patient is being cared for or any parent organization of the health care facility.

Please report any problems with this form to the Texas Department of State Health Services at (512) 834-6700.

Revised July 19, 2005
Texas Department of State Health Services

 Publications No. EF01-11421

The Older Version of the TDSHS Out-of-Hospital (OOH) DNR Form: Back Side

Figure: 25 TAC §157.25 (h)(2)

OUT-OF-HOSPITAL DO-NOT-RESUSCITATE (OOH-DNR) ORDER

TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Print Form

STOP DO NOT RESUSCITATE

This document becomes effective immediately on the date of execution for health care professionals acting in out-of-hospital settings. It remains in effect until the person is pronounced dead by authorized medical or legal authority or the document is revoked. Comfort care will be given as needed.

Person's full legal name _____ Date of birth _____ ☐ Male ☐ Female

A. Declaration of the adult person: I am competent and at least 18 years of age. **I direct that none of the following resuscitation measures be initiated or continued for me: cardiopulmonary resuscitation (CPR), transcutaneous cardiac pacing, defibrillation, advanced airway management, artificial ventilation.**

Person's signature _____ Date _____ Printed name _____

B. Declaration by legal guardian, agent or proxy on behalf of the adult person who is incompetent or otherwise incapable of communication:

I am the: ☐ legal guardian; ☐ agent in a Medical Power of Attorney; OR ☐ proxy in a directive to physicians of the above-noted person who is incompetent or otherwise mentally or physically incapable of communication.

Based upon the known desires of the person, or a determination of the best interest of the person, **I direct that none of the following resuscitation measures be initiated or continued for the person: cardiopulmonary resuscitation (CPR), transcutaneous cardiac pacing, defibrillation, advanced airway management, artificial ventilation.**

Signature _____ Date _____ Printed name _____

C. Declaration by a qualified relative of the adult person who is incompetent or otherwise incapable of communication: I am the above-noted person's:

☐ spouse, ☐ adult child, ☐ parent, OR ☐ nearest living relative, and I am qualified to make this treatment decision under Health and Safety Code §166.088.

To my knowledge the adult person is incompetent or otherwise mentally or physically incapable of communication and is without a legal guardian, agent or proxy. Based upon the known desires of the person or a determination of the best interests of the person, **I direct that none of the following resuscitation measures be initiated or continued for the person: cardiopulmonary resuscitation (CPR), transcutaneous cardiac pacing, defibrillation, advanced airway management, artificial ventilation.**

Signature _____ Date _____ Printed name _____

D. Declaration by physician based on directive to physicians by a person now incompetent or nonwritten communication to the physician by a competent person: I am the above-noted person's attending physician and have:

☐ seen evidence of his/her previously issued directive to physicians by the adult, now incompetent; OR ☐ observed his/her issuance before two witnesses of an OOH-DNR in a nonwritten manner.

I direct that none of the following resuscitation measures be initiated or continued for the person: cardiopulmonary resuscitation (CPR), transcutaneous cardiac pacing, defibrillation, advanced airway management, artificial ventilation.

Attending physician's signature _____ Date _____ Printed name _____ Lic # _____

E. Declaration on behalf of the minor person: I am the minor's: ☐ parent; ☐ legal guardian; OR ☐ managing conservator.

A physician has diagnosed the minor as suffering from a terminal or irreversible condition. **I direct that none of the following resuscitation measures be initiated or continued for the person: cardiopulmonary resuscitation (CPR), transcutaneous cardiac pacing, defibrillation, advanced airway management, artificial ventilation.**

Signature _____ Date _____

Printed name _____

TWO WITNESSES: (See qualifications on backside.) We have witnessed the above-noted competent adult person or authorized declarant making his/her signature above and, if applicable, the above-noted adult person making an OOH-DNR by nonwritten communication to the attending physician.

Witness 1 signature _____ Date _____ Printed name _____

Witness 2 signature _____ Date _____ Printed name _____

Notary in the State of Texas and County of_____. The above noted person personally appeared before me and signed the above noted declaration on this date:_____.

Signature & seal: _____Notary's printed name:_____ *Notary Seal*

[Note: Notary cannot acknowledge the witnessing of the person making an OOH-DNR order in a nonwritten manner]

PHYSICIAN'S STATEMENT: I am the attending physician of the above-noted person and have noted the existence of this order in the person's medical records. **I direct health care professionals acting in out-of-hospital settings, including a hospital emergency department, not to initiate or continue for the person: cardiopulmonary resuscitation (CPR), transcutaneous cardiac pacing, defibrillation, advanced airway management, artificial ventilation.**

Physician's signature _____ Date _____

Printed name _____ License # _____

F. Directive by two physicians on behalf of the adult, who is incompetent or unable to communicate and without guardian, agent, proxy or relative: The person's specific wishes are unknown, but resuscitation measures are, in reasonable medical judgment, considered ineffective or are otherwise not in the best interests of the person. **I direct health care professionals acting in out-of-hospital settings, including a hospital emergency department, not to initiate or continue for the person: cardiopulmonary resuscitation (CPR), transcutaneous cardiac pacing, defibrillation, advanced airway management, artificial ventilation.**

Attending physician's signature _____ Date _____ Printed name _____ Lic# _____

Signature of second physician _____ Date _____ Printed name _____ Lic# _____

Physician's electronic or digital signature must meet criteria listed in Health and Safety Code §166.082(c).

All persons who have signed above must sign below, acknowledging that this document has been properly completed.

Person's signature _____ Guardian/Agent/Proxy/Relative signature _____

Attending physician's signature _____ Second physician's signature _____

Witness 1 signature _____ Witness 2 signature _____ Notary's signature _____

This document or a copy thereof must accompany the person during his/her medical transport.

The Newer Version of the TDSHS Out-of-Hospital (OOH) DNR Form: Front Side

INSTRUCTIONS FOR ISSUING AN OOH-DNR ORDER

PURPOSE: The Out-of-Hospital Do-Not-Resuscitate (OOH-DNR) Order on reverse side complies with Health and Safety Code (HSC), Chapter 166 for use by qualified persons or their authorized representatives to direct health care professionals to forgo resuscitation attempts and to permit the person to have a natural death with peace and dignity. This Order does NOT affect the provision of other emergency care, including comfort care.
APPLICABILITY: This OOH-DNR Order applies to health care professionals in out-of-hospital settings, including physicians' offices, hospital clinics and emergency departments.
IMPLEMENTATION: A competent adult person, at least 18 years of age, or the person's authorized representative or qualified relative may execute or issue an OOH-DNR Order. The person's attending physician will document existence of the Order in the person's permanent medical record. The OOH-DNR Order may be executed as follows:
Section A - If an adult person is competent and at least 18 years of age, he/she will sign and date the Order in Section A.
Section B - If an adult person is incompetent or otherwise mentally or physically incapable of communication and has either a legal guardian, agent in a medical power of attorney, or proxy in a directive to physicians, the guardian, agent, or proxy may execute the OOH-DNR Order by signing and dating it in Section B.
Section C - If the adult person is incompetent or otherwise mentally or physically incapable of communication and does not have a guardian, agent, or proxy, then a qualified relative may execute the OOH-DNR Order by signing and dating it in Section C.
Section D - If the person is incompetent and his/her attending physician has seen evidence of the person's previously issued proper directive to physicians or observed the person competently issue an OOH-DNR Order in a nonwritten manner, the physician may execute the Order on behalf of the person by signing and dating it in Section D.
Section E - If the person is a **minor** (less than 18 years of age), **who has been diagnosed by a physician as suffering from a terminal or irreversible condition**, then the minor's parents, legal guardian, or managing conservator may execute the OOH-DNR Order by signing and dating it in Section E.
Section F - If an adult person is incompetent or otherwise mentally or physically incapable of communication and does not have a guardian, agent, proxy, or available qualified relative to act on his/her behalf, then the attending physician may execute the OOH-DNR Order by signing and dating it in Section F with concurrence of a second physician (signing it in Section F) who is not involved in the treatment of the person or who is not a representative of the ethics or medical committee of the health care facility in which the person is a patient.
In addition, the OOH-DNR Order must be signed and dated by two competent adult witnesses, who have witnessed either the competent adult person making his/her signature in section A, or authorized declarant making his/her signature in either sections B, C, or E, and if applicable, have witnessed a competent adult person making an OOH-DNR Order by nonwritten communication to the attending physician, who must sign in Section D and also the physician's statement section. Optionally, a competent adult person or authorized declarant may sign the OOH-DNR Order in the presence of a notary public. However, a notary cannot acknowledge witnessing the issuance of an OOH-DNR in a nonwritten manner, which must be observed and only can be acknowledged by two qualified witnesses. Witness or notary signatures are not required when two physicians execute the OOH-DNR Order in section F. The original or a copy of a fully and properly completed OOH-DNR Order or the presence of an OOH-DNR device on a person is sufficient evidence of the existence of the original OOH-DNR Order and either one shall be honored by responding health care professionals.
REVOCATION: An OOH-DNR Order may be revoked at ANY time by the person, person's authorized representative, or physician who executed the order. Revocation can be by verbal communication to responding health care professionals, destruction of the OOH-DNR Order, or removal of all OOH-DNR identification devices from the person.
AUTOMATIC REVOCATION: An OOH-DNR Order is automatically revoked for a person known to be pregnant or in the case of unnatural or suspicious circumstances.

DEFINITIONS

Attending Physician: A physician, selected by or assigned to a person, with primary responsibility for the person's treatment and care and is licensed by the Texas Medical Board, or is properly credentialed and holds a commission in the uniformed services of the United States and is serving on active duty in this state. [HSC §166.002(12)].
Health Care Professional: Means physicians, nurses, physician assistants and emergency medical services personnel, and, unless the context requires otherwise, includes hospital emergency department personnel. [HSC §166.081(5)]
Qualified Relative: A person meeting requirements of HSC §166.088. It states that an adult relative may execute an OOH-DNR Order on behalf of an adult person who has not executed or issued an OOH-DNR Order and is incompetent or otherwise mentally or physically incapable of communication and is without a legal guardian, agent in a medical power of attorney, or proxy in a directive to physicians, and the relative is available from one of the categories in the following priority: 1) person's spouse; 2) person's reasonably available adult children; 3) the person's parents; or, 4) the person's nearest living relative. Such qualified relative may execute an OOH-DNR Order on such described person's behalf.
Qualified Witnesses: Both witnesses must be competent adults, who have witnessed the competent adult person making his/her signature in section A, or person's authorized representatives making his/her signature in either Sections B, C, or E on the OOH-DNR Order, or if applicable, have witnessed the competent adult person making an OOH-DNR by nonwritten communication to the attending physician, who signs in Section D. Optionally, a competent adult person, guardian, agent, proxy, or qualified relative may sign the OOH-DNR Order in the presence of a notary instead of two qualified witnesses. Witness or notary signatures are not required when two physicians execute the order by signing Section F. One of the witnesses must meet the qualifications in HSC §166.003(2), which requires that at least one of the witnesses not: (1) be designated by the person to make a treatment decision; (2) be related to the person by blood or marriage; (3) be entitled to any part of the person's estate after the person's death either under a will or by law; (4) have a claim at the time of the issuance of the OOH-DNR against any part of the person's estate after the person's death; or, (5) be the attending physician; (6) be an employee of the attending physician or (7) an employee of a health care facility in which the person is a patient if the employee is providing direct patient care to the patient or is an officer, director, partner, or business office employee of the health care facility or any parent organization of the health care facility.
Report problems with this form to the Texas Department of State Health Services (DSHS) or order OOH-DNR Order/forms or identification devices at (512) 834-6700.

Declarant's, Witness', Notary's, or Physician's electronic or digital signature must meet criteria outlined in HSC §166.011

Publications No. EF01-11421 - Revised July 1, 2009 by the Texas Department of State Health Services

The Newer Version of the TDSHS Out-of-Hospital (OOH) DNR Form: Back Side

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TRANSPORTATION DIVERSION

TRANSPORTATION

TRANSPORTATION

Transportation to the hospital may begin at any time the EMS technician judges it to be appropriate, even though the words "Continue to Treat, Monitor and Transport" do not appear until the end of each algorithm.

With the exception of entrapment situations where extrication is required, time on the scene with unstable trauma patients should not exceed 10 minutes. If time on scene exceeds 10 minutes, the narrative should include justification. Emphasis should be placed on transporting these patients, so they receive definitive hospital care within one hour of the time they were injured.

Since Basic Life Support alone is unlikely to result in the successful resuscitation of cardiac arrest unless followed promptly by Advanced Life Support, patients in cardiac arrest should be transported as soon as possible. The Regional EMS Communications Center or local dispatch should be contacted to coordinate a response by the closest available MICU unit.

All patients transported by stretcher must be transported in a DSHS authorized vehicle.

Air transport should be considered whenever its use would expedite a critical patient's arrival at the hospital. The Medical Control physician may order transport of a patient to begin at any time during a treatment procedure.

The purpose of this section of protocol is to ensure that the best and most efficient patient care is provided.

TRANSPORTATION GUIDELINES

If transporting a patient to a receiving hospital out of your coverage area, you should do the following:

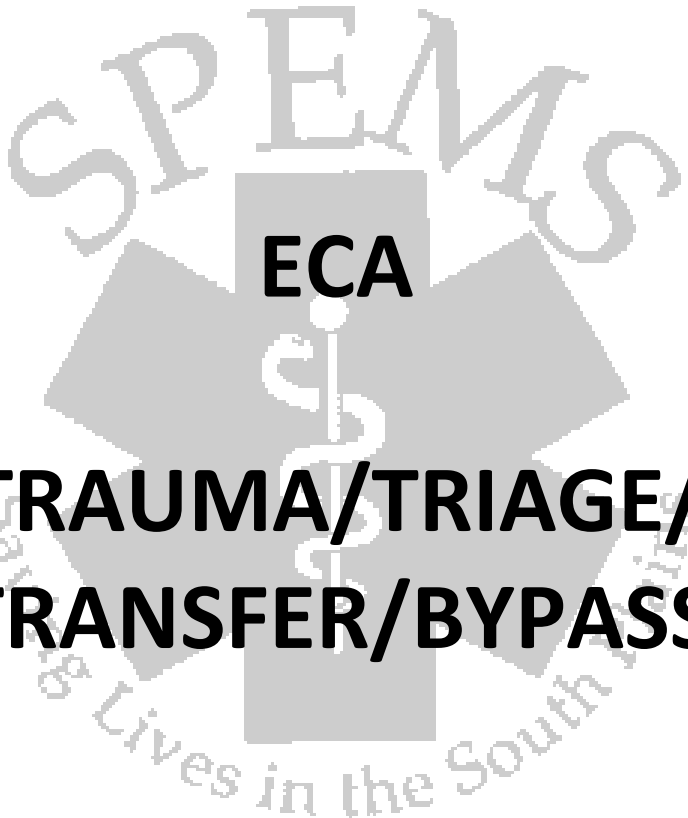
1. Bring a transfer form completed by the sending hospital.
2. Know the name of the receiving physician.
3. Request assistance from the receiving area's Advanced Life Support service if the patient's condition is unstable or his/her condition deteriorates while en route. EMS providers will develop written mutual aid agreements with neighboring communities to facilitate coordination of backup responses. Copies of these agreements will be sent to the Regional EMS Communications Center through the SPEMS office.
4. Contact Receiving Hospital **as soon as possible prior to arrival** and re-establish contact any time patient's condition changes. Monitor patient's overall condition and vital signs every 5 to 10 minutes.
5. Notify UMC EMS dispatch on Med Channel 9 if transporting a patient into the City of Lubbock Code 3. Include sending hospital, city of origin, destination hospital, route traveling, patient severity, transport code, and estimated time of arrival.
6. During interfacility transfers SPEMS personnel should operate under the orders of the transferring physician, except were State statute or regulation dictate otherwise such as

a physician written DNR. An attempt should be made to contact the transferring or receiving physician to dictate treatment if a decrease in the patient's condition occurs or at the onset of new complications which need to be immediately addressed. If contact is not possible, SPEMS personnel are authorized to operate under the existing SPEMS protocols. Personnel may also contact Medical Control at any time. Include in your verbal as well as written report any changes in patient condition, orders received, or treatment provided. Interfacility transfers include but are not limited to: hospital to hospital, hospital to specialized care centers and hospitals to extended care facilities.

7. No Diversion Policy

Note: This policy has been adopted by TSA-B and applies to all facilities in which SPEMS EMS services transport to; even those outside of the TSA-B region.

a. Hospitals will no longer be able to divert 911 responses due to ED overcrowding
b. SPEMS EMS services will honor patient requests to facility of their choice or transport patients to the appropriate facility for their specific needs. If EMS is told to divert, they will only follow this order if it is in the patient's best interest (divert a burn patient to UMC, a pediatric patient to a children's hospital, major trauma to a designated trauma center).
c. Hospitals will only be allowed to divert EMS in the case of an internal disaster (fire, flood, active shooter, etc.), OR
d. Facilities who do not have all services may divert based on lack of ability to meet the patient's needs (STEMI, acute stroke, or major trauma).
e. This policy does not apply to EMS services providing interhospital transfers.



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TRAUMA/TRIAGE/ TRANSFER/BYPASS

TRAUMA TRIAGE CRITERIA FOR EMS FACILITY BYPASS AND TRANSFER

Patients who meet triage criteria for activation of the regional trauma system plan will be transported **DIRECTLY TO AN APPROPRIATE TRAUMA FACILITY**, rather than to the nearest hospital, **EXCEPT** under the following circumstances:

1. If an adequate airway cannot be established and/or maintained, or in cases of traumatic cardiac arrest, the patient should be taken to the **NEAREST ACUTE CARE FACILITY** for stabilization.
2. A Level III (Basic) facility may be appropriate for immediate evaluation and stabilization if the expected transport time to a Level I or Level II facility is excessive (>25 minutes).
3. Medical Control may order bypass in any of the above situations as appropriate, such as when a facility is unable to meet hospital resource criteria, or when the patient is in need of specialty care.
4. If expected transport time is excessive (>25 minutes), or if expected extrication time is lengthy (>15 minutes), activation of air transport resources should be considered.
5. If there is a question on whether or not to bypass a facility, on-line medical control should be consulted for the final decision.

Continued on Next Page

CRITICAL PATIENTS

Should be evaluated at a Level I or Level II Trauma Center. Patients who are physiologically and hemodynamically unstable whose injuries may include:

- Chest:
  - Major chest wall injury
  - Penetrating thoracic wound
- Pelvis:
  - Pelvic ring disruption with shock requiring >5 units transfusion
- Abdomen:
  - Blunt trauma with hypotension
  - Penetrating abdominal wound
- Multiple system trauma:
  - Chest injury with head injury
  - Abdominal or pelvic injury with head injury
- Specialized problems:
  - 2° or 3° burns >10% TBSA or involving airway
  - Barotrauma
  - Uncontrolled hemorrhage
  - $2^{nd}/3^{rd}$ trimester pregnancy

CATEGORY III PATIENTS

May be evaluated at a Level III Trauma Center. Patients who are physiologically and hemodynamically stable whose injuries may include:

- Central nervous system:
  - Transient loss of consciousness
- Chest:
  - Injuries not producing respiratory distress
  - Rib fractures without flail segments
- Abdomen:
  - Blunt trauma without hypotension
- Specialized problems:
  - Closed fractures
  - Soft tissue injuries with controlled hemorrhage
  - $2^{nd}/3^{rd}$ trimester pregnancy

URGENT PATIENTS

Should be evaluated at a Level I or Level II Trauma Center. Patients who are physiologically and hemodynamically unstable whose injuries may include:

- Central nervous system:
  - Prolonged loss of consciousness, posturing, paralysis, or lateralizing sign
  - Spinal injuries with or without deficit
  - Glasgow Coma Score (GCS) <10
  - Open, penetrating, or depressed skull fracture
  - CSF leak
  - GCS deterioration ≥2
- Thoracic:
  - Suspected cardiac/great vessel injury
  - Possible requirement for prolonged mechanical ventilation
  - Respiratory distress with rate >35 or <10
- Abdomen:
  - Blunt trauma without hypotension
- Multiple system trauma:
  - Severe facial injury with head injury
- Specialized problems:
  - Carbon monoxide poisoning
  - Severe maxillofacial or neck injuries
  - Revised Trauma Score (RTS) ≤11
  - Open fractures
- Secondary deterioration (Late Sequelae):
  - Patients requiring mechanical ventilation
  - Sepsis
  - Organ system(s) failure
  - Osteomyelitis

CATEGORY IV PATIENTS

May be evaluated at an appropriate trauma facility. Patients who are continually normotensive and/or hemodynamically stable, but whose injuries may include:

- Specialized problems:
  - Closed fractures without neurological deficit
  - Moderate soft tissue injuries

GLASGOW COMA SCORE & REVISED TRAUMA SCORE

To calculate the Revised Trauma Score:

1. Calculate the Glasgow Coma Score
2. Determine score components based on Glasgow Coma Score, Respiratory Rate, and Systolic Blood Pressure.
3. Add score components to determine REVISED TRAUMA SCORE.

GLASGOW COMA SCORE – Adult & Child

MOTOR RESPONSE	VERBAL RESPONSE	EYE RESPONSE
1-No Response	1-No Response	1-No Response
2-Abnormal Extension	2-Incomprehensible Sounds	2-To Pain
3-Abnormal Flexion	3-Inappropraite Words	3-To Verbal Command
4-Withdrawal	4-Confused/Disoriented	4-Spontaneous
5-Localizes Pain	5-Oriented	
6-Obeys Command		

GLASGOW COMA SCORE – Child & Infant

MOTOR RESPONSE	VERBAL RESPONSE	EYE RESPONSE
1-No Response	1-No Response	1-No Response
2-Abnormal Extension	2-Moans, Grunts	2-To Pain
3-Abnormal Flexion	3-Cries to Pain	3-To Speech
4-Withdraws to Pain	4-Irritable Cries	4-Spontaneous
5-Localizes Pain	5-Coos, Babbles	
6-Spontaneous		

REVISED TRAUMA SCORE – Adult & Child

GLASGOW COMA SCORE	RESPIRATORY RATE	SYSTOLIC BLOOD PRESSURE
0=3	0=0	0=0
1=4-5	1=1-5	1=1-49
2=6-8	2=6-9	2=50-75
3=9-12	3=>29	3=76-89
4=13-15	4=10-29	4=>89

Score: 0-12 (decreasing with increasing injury severity) Patients with Revised Trauma Score of 11 or less require care at a Level I or Level II Trauma Center.

REVISED TRAUMA SCORE – Child & Infant

Score	Weight	Airway	BP*	Level of Consciousness	Open Wound	Fractures
+2	>20kg (44lbs)	Normal	>90mmHg	Awake	None	None
+1	10-20kg (22-44lbs)	Maintainable with O_2	50-90mmHg	Obtunded or any LOC	Minor	Closed Fracture
-1	<10kg (22lbs)	Intubated	<50mmHg	Comatose	Major or Penetrating	Open or Multiple

*In the absence of a Blood Pressure reading, the BP may be estimated by the point at which a pulse is palpable as follows: +2 – Brachial, +1 – Groin, -1 – No Pulse Palpable

Score: 0-12 (decreasing with increasing injury severity) Patients with Revised Trauma Score of 11 or less require care at a Level I or Level II Trauma Center.

GUIDELINES FOR TRAUMA TEAM ACTIVATION

Adult Patients (≥16 years of age)

Level I

1. Unstable vital signs:
   - Confirmed Systolic BP <90mmHg at any time
   - Sustained Pulse <50 or >120
2. Respiratory compromise/obstruction and or intubation (pre-hospital)
   - Respiratory rate <10 or >35 per minute
   - Unsecured airway
   - Clinical symptoms of hypoxia
3. Glasgow Coma Scale ≤ 8, with mechanism related to trauma
4. Gunshot wound to abdomen, neck, or chest
5. RTS ≤10 on arrival
6. Severe multi-system trauma
7. Traumatic amputation of limb (with clinical instability or associated injuries)
8. Transfer patients requiring fluid, pressors, or blood to maintain vital signs
9. Burn injuries
   - 50% TBSA 2° & 3° burns (all ages)
   - High voltage electrical burns with cardiac arrhythmias or significant tissue damage,
   - Inhalation injuries with respiratory distress
10. EC physician discretion

Level II

1. Intubated patients transferred from another facility
2. Flail Chest
3. Trauma resulting in an open long bone fracture
4. Pelvic fracture
5. Penetrating injury to extremities and stab wounds to the trunk
6. MVC:
   - Un-restrained rollover
   - Ejection from the vehicle
7. MCC:
   - No Helmet
   - MCC traveling > 20 mph
8. Pedestrians struck by a vehicle moving >20mph
9. Glasgow Coma Scale >8 but <13, with mechanism related to trauma
10. Falls >20 feet
11. Burns:
    - > 10% TBSA 2°or 3° burn <10 or > 50 years of age
    - > 20% but < 50% TBSA 2° (all ages)
    - > 20% TBSA 3° (all ages)
    - All other electrical burns
    - All chemical burns
12. Symptomatic Carbon monoxide (CO) poisoning
13. EC physician discretion

GUIDELINES FOR TRAUMA TEAM ACTIVATION (continued)

Level III

1. Traumatically injured patients not otherwise defined
2. Clinically stable patients with injuries identified after EC work-up
3. Injured patients requiring subspecialty consult
4. Burns not otherwise defined

Pediatric Patients (<16 years of age)

Level I

1. Unstable vital signs:

Age	Systolic BP	Pulse Rate	Respiratory Rate
Birth – 1 year	Capillary Refill >4 seconds	<80 or >180	>60
1 – 5 years	<70mmHg	<60 or >160	>50
6 – 14 years	<80mmHg	<50 or >140	>50

2. Respiratory compromise/obstruction and or intubation (pre-hospital)
   - Unsecured airway
   - Clinical symptoms of hypoxia
3. Glasgow Coma Scale ≤ 8, with mechanism related to trauma
4. Any gunshot wound
5. Any penetrating trauma to the torso (chest or abdomen)
6. RTS ≤10 on arrival
7. Severe multi-system trauma
8. Traumatic amputation of limb (with clinical instability or associated injuries)
9. Transfer patients requiring fluid, pressors, or blood to maintain vital signs
10. Burn injuries
    - 50% TBSA 2° & 3° burns (all ages)
    - High voltage electrical burns with cardiac arrhythmias or significant tissue damage,
    - Inhalation injuries with respiratory distress
11. EC physician discretion

Level II

1. Intubated patients transferred from another facility
2. Flail Chest
3. Trauma resulting in an open long bone fracture
4. Pelvic fracture
5. Penetrating injury to extremities
6. MVC:
   - Un-restrained rollover
   - Ejection from the vehicle
7. MCC:
   - No Helmet
   - MCC traveling > 20 mph
8. Child struck or run over by a motor vehicle or trailer
9. Near drowning
10. Glasgow Coma Scale >8 but <13, with mechanism related to trauma
11. Falls >20 feet

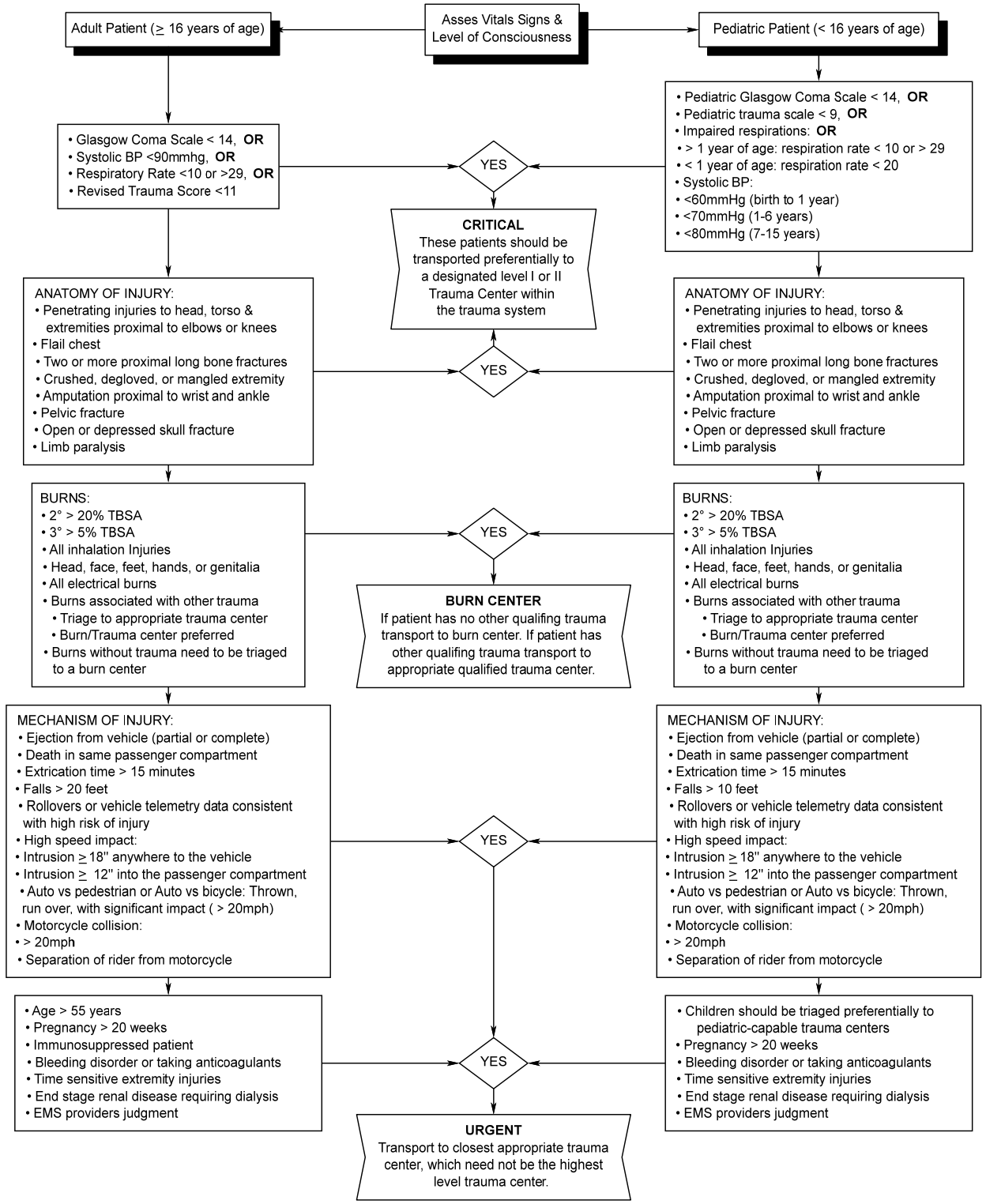
GUIDELINES FOR TRAUMA TEAM ACTIVATION (continued)

12. Burns:
    - > 10% TBSA 2°or 3° burn <10 or > 50 years of age
    - > 20% but < 50% TBSA 2° (all ages)
    - >20% TBSA 3° (all ages)
    - All other electrical burns
    - All chemical burns
13. Symptomatic Carbon monoxide (CO) poisoning
14. EC physician discretion

Level III

1. Traumatically injured patients not otherwise defined
2. Clinically stable patients with injuries identified after EC work-up
3. Injured patients requiring subspecialty consult
4. Burns not otherwise defined

TRAUMA TRIAGE/TRANSFER DECISION SCHEME PRE-HOSPITAL*



*If the patient does not have a secured airway **and/or** is in cardiac arrest, transport to the nearest facility is justified

- When in doubt the patient should be transported to a trauma center
- Consider use of air transport for all critical & urgent patients

CRITERIA FOR THE CONSIDERATION OF AIR MEDICAL TRANSPORT FOR TRAUMA PATIENTS

- Lengthy extrication of the patient at the scene and the severity of the patient's injuries require delivery of a critical care team to the scene.
- One or more of the following mechanisms of injury with a motor vehicle collision present:
  - There had been structural intrusion into the patient's space in the vehicle;
  - The patient was ejected from the vehicle;
  - Another person in the same vehicle died;
  - The patient was a pedestrian struck by a vehicle traveling more than 20mph;
  - The patient was not wearing a safety belt in a car which was overturned;
  - The patient was thrown from a motorcycle traveling more than 20mph.
- The front bumper of the vehicle was displaced to the rear by more than 30 inches, or the front axle was displaced to the rear.
- The patient fell from a height of greater than 20 feet.
- The patient experienced a penetrating injury between the mid-thigh and the head.
- The patient experienced an amputation, or near amputation, and required timely evaluation for possible reimplantation.
- The patient experienced a scalping or degloving injury.
- The patient experienced a severe hemorrhage. Included are those patients with a systolic blood pressure of less than 90mmHg after initial volume resuscitation and those requiring ongoing blood transfusions to maintain a stable blood pressure.
- The patient experienced 2°/3°degree burns of the skin greater than 15 % of the body surface, or major burns of the face, hands, feet, or perineum, or associated with an airway or inhalation injury.
- The patient experienced, or had great potential to experience, injury to the spinal cord, spinal column, or neurological deficit.
- The patient suffered injuries to the face or neck which might result in an unstable or potentially unstable airway and might require invasive procedures (such as endotracheal or nasotracheal intubation, tracheostomy cricothyrotomy) to stabilize the airway.
- The patient had a score from an objective ranking system for trauma (such as the Trauma Score, Revised Trauma Score, CRAMS, Glasgow Coma Scale, etc.) at the scene or at the referring hospital's emergency department which indicated a severe injury.
- The patient is a child less than five years of age with multiple traumatic injuries.
- The patient is greater than 55 years of age and has multiple traumatic injuries, whether with or without preexisting illness, such as diabetes mellitus, coronary artery disease, chronic obstructive lung disease, or chronic renal failure.
- The patient is an adult with respiratory rate of less than 10 or greater than 35 breaths per minute, or a heart rate of less than 60 or greater than 120 beats per minute.

Source: *FLIGHT NURSING: PRACTICE AND PRINCIPLES*, 1991

ECA

PEDIATRIC SPECIFIC

TRIAGE/TRANSPORT DECISION SCHEME

PEDIATRIC TRAUMA TRIAGE/TRANSPORT DECISION SCHEME

Physiologic Criteria:

1. Depressed or deteriorating neurologic status (GCS ≤14) with focus on changes in the motor function
2. Respiratory distress or failure
3. Children requiring endotracheal intubation and/or ventilatory support
4. Shock, uncompensated or compensated
5. Injuries requiring any blood transfusion
6. Children requiring any one of the following:
   a. Invasive monitoring (arterial and/or central venous pressure)
   b. Intracranial pressure monitoring
   c. Vasoactive medications

Anatomic Criteria:

1. Fractures and deep penetrating wounds to an extremity complicated by neurovascular or compartment injury
2. Fracture of two or more major long bones (such as femur, humerus)
3. Fracture of the axial skeleton
4. Spinal cord or column injuries
5. Traumatic amputation of an extremity with potential for replantation
6. Head injury when accompanied by any of the following:
   a. Cerebrospinal fluid leaks
   b. Open head injuries (excluding simple scalp injuries)
   c. Depressed skull fractures
   d. Sustained decreased level of consciousness (GCS ≤14)
   e. Intracranial hemorrhage
7. Significant penetrating wounds to the head, neck, thorax, abdomen, or pelvis including the groin
8. Pelvic fracture
9. Significant blunt injury to the chest, abdomen, or neck (e.g., hanging or clothesline MOI's)

Other Criteria:

1. Suspicion for Child Maltreatment as evidenced by:
   a. Injuries sustained with no reported explanation
   b. Injuries sustained that do not match the developmental capability of the patient
   c. History of apparent life-threatening event
   d. Upper extremity fractures in a non-ambulatory child

TRIAGE/TRANSPORT GUIDE:

- Critically injured pediatric patients meeting the above criteria should be taken to the closest verified Pediatric Trauma Center and if unavailable the closest appropriate Adult Trauma Center with Pediatric capabilities
- If immediate interventions are required, transport to the closest appropriate acute care facility

The full BRAC Regional Pediatric Plan can be viewed at www.b-rac.org

PEDIATRIC BURN TRIAGE/TRANSPORT DECISION SCHEME

American Burn Association Triage/Transfer Criteria:

A burn center may treat adults, children, or both. Burn injuries that should be referred to a burn center include the following:

1. Partial-thickness burns of greater than 10 percent of the total body surface area.
2. Burns that involve the face, hands, feet, genitalia, perineum, or major joints.
3. Third-degree burns in any age group.
4. Electrical burns, including lightning injury.
5. Chemical burns.
6. Inhalation injury.
7. Burn injury in patients with preexisting medical disorders that could complicate management, prolong recovery, or affect mortality.
8. Physician judgment will be necessary in such situations and should be in concert with the regional medical control plan and triage protocols.
9. Burn injury in patients who will require special social, emotional, or rehabilitative intervention.

TRIAGE/TRANSPORT GUIDE:

Burns in Children:

Children with burns should be transferred to a burn center verified to treat children. In the absence of a regional pediatric burn center, an adult burn center may serve as a second option for the management of pediatric burns.

Burns and Trauma in Children:

Burns and concomitant trauma (such as fractures) when the burn injury poses the greatest risk of morbidity or mortality.

If the trauma poses the greater immediate risk, the patient's condition may be stabilized initially in a Pediatric Trauma Center before transfer to a burn center.

Other Criteria for Transport:

1. Children requiring pediatric intensive care other than for close observation.
2. Any child who may benefit from consultation with, or transport to, a Pediatric Trauma Center or a Pediatric Intensive Care Unit.
3. Children with injuries suspicious of child maltreatment e.g., inflicted burn injury

Reference: *Resources for the Optimal Care of the Injured Patient: 2014*

The full BRAC Regional Pediatric Plan can be viewed at www.b-rac.org

PEDIATRIC NON-TRAUMA TRIAGE/TRANSPORT DECISION SCHEME

Physiologic Criteria

1. Depressed or deteriorating neurologic status (GCS≤14).
2. Severe respiratory distress and/or respiratory failure
3. Children requiring endotracheal intubation and/or ventilatory support.
4. Serious cardiac rhythm disturbances,
5. Status post cardiopulmonary arrest.
6. Heart failure.
7. Shock responding inadequately to fluid resuscitation.
8. Children requiring any one of the following:
    a. Arterial pressure monitoring.
    b. Central venous pressure or pulmonary artery monitoring.
    c. Intracranial pressure monitoring.
    d. Vasoactive medications.
    e. Treatment for severe hypothermia or hyperthermia
    f. Treatment for hepatic failure.
    g. Treatment for renal failure, acute or chronic requiring immediate dialysis.

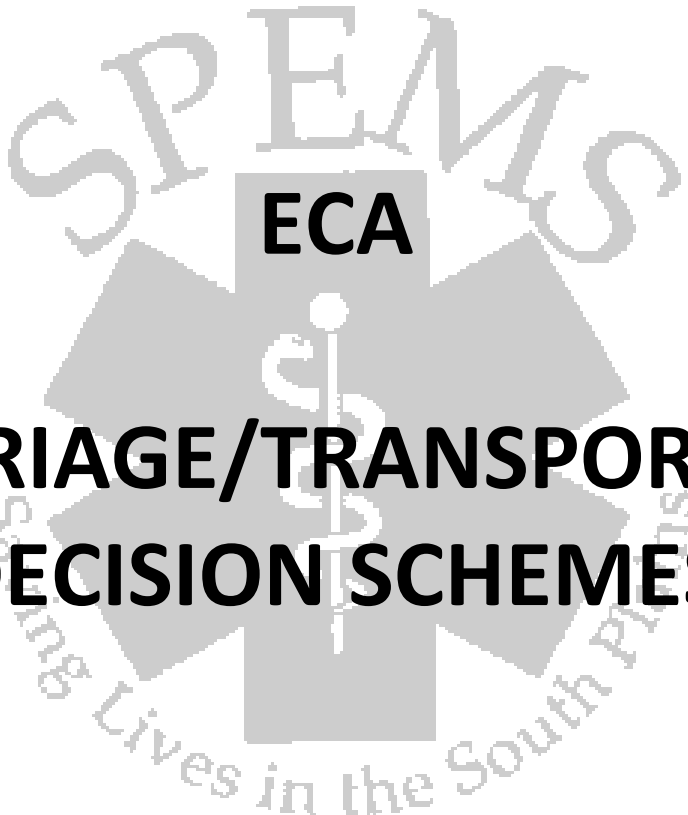
Other Criteria

1. Near drowning with any history of loss of consciousness, unstable vital signs, or respiratory problems.
2. Status epilepticus.
3. Potentially dangerous envenomation. Use of a snakebite protocol is encouraged.
4. Potentially life-threatening ingestion of, or exposure to, a toxic substance.
5. Severe electrolyte imbalances.
6. Severe metabolic disturbances.
7. Severe dehydration.
8. Potentially life-threatening infections, including sepsis.
9. Children requiring intensive care other than for close observation.
10. Any child who may benefit from consultation with, or transfer to, a Pediatric Intensive Care Unit.
11. Suspicion for child maltreatment. e.g., found “down” for no apparent reason.
12. Any condition that exceeds the capability of the facility.

TRIAGE/TRANSPORT GUIDE:

- Critically ill pediatric patients meeting the above criteria should be taken to the closest Children’s Hospital or hospital with Pediatric Critical Care capabilities
- If immediate interventions are required, transport to the closest appropriate acute care facility

The full BRAC Regional Pediatric Plan can be viewed at www.b-rac.org



ECA

TRIAGE/TRANSPORT DECISION SCHEMES

CARDIAC TRIAGE/TRANSPORT DECISION SCHEME

Patients who meet triage criteria for activation of the Regional Cardiac Plan should be transported to the **CLOSEST PCI CAPABLE FACILITY** or the **CLOSEST APPROPRIATE ACUTE CARE FACILITY** according to the plan guidelines with special consideration under the following circumstances:

1. If an adequate airway cannot be established and/or maintained or if the patient goes into cardiac arrest, has malignant cardiac dysrhythmias, or is acutely unstable, the patient should be transported to the **NEAREST ACUTE CARE FACILITY.**

2. Medical Control may order bypass in any situation as appropriate, such as when a facility is unable to meet hospital resource criteria, or when a patient is in need of specialty care.

3. If expected transport time is excessive (>25 minutes) activation of air transport should be considered.

4. If there is a question on whether or not to bypass a facility, on-line medical control should be contacted for the final decision.

Patients who are suspected of ACS or ECG confirmed STEMI patients should be transported to "PCI" Percutaneous Coronary Intervention Capable Facilities (Angioplasty, stent placement, or other intervention performed in the cath. lab) or the Closest Appropriate Acute Care Facility.

An Acute Care Facility may be considered appropriate if all of the following standards of care can be provided.

- A 12-lead ECG can be performed and interpreted within 10 minutes.
- PCI may be performed within 90 minutes or a thrombolytic can be administered within 30 minutes.

PCI is the preferred method of reperfusion if possible.

This plan is based on accepted best practice guidelines but does allow for patient and physician preference.

A copy of the Regional Cardiac Plan as well as a current list of EMS Providers, Facility Capabilities and Designated Centers may be accessed at www.spems.org

STROKE TRIAGE/TRANSPORT DECISION SCHEME

Patients who meet triage criteria for activation of the SPEMS Suspected Stroke/TIA protocol should be transported to the **CLOSEST HIGHEST DESIGNATED STROKE FACILITY** or the **CLOSEST APPROPRIATE ACUTE CARE FACILITY** according to these protocol guidelines with special consideration under the following circumstances:

1. If an adequate airway cannot be established and/or maintained or if the patient goes into cardiac arrest, has malignant cardiac dysrhythmias, or is acutely unstable, the patient should be transported to the **NEAREST ACUTE CARE FACILITY.**
2. Medical Control may order bypass in any situation as appropriate, such as when a facility is unable to meet hospital resource criteria, or when a patient is in need of specialty care.
3. If expected transport time is excessive (>25 minutes) activation of air transport should be considered.
4. If there is a question on whether or not to bypass a facility, on-line medical control should be contacted for the final decision.

TRANSPORTATION OF SUSPECTED STROKE/TIA PATIENTS SHOULD BE BASED ON THE "TIME OF ONSET" and/or "LAST SEEN NORMAL TIME"

Historically, there has been only a single time frame or "window of opportunity" that EMS providers followed which allowed for the administration of TPA/Alteplase to those with thrombotic strokes. However, new advancements in stroke treatment have emerged that allows a surgeon to physically retrieve a thrombus from a blocked artery in the brain, also known as a Thrombectomy. The time frame or "window of opportunity" for a thrombectomy is much greater than that of TPA/Alteplase administration. Prehospital EMS providers should approach this situation differently than before by assessing the Cincinnati Stroke Scale (CSS) followed by the VAN assessment if a motor deficit is detected during the CSS. A positive VAN assessment indicates a Large Vessel Occlusion (LVO) for which a thrombectomy may be needed. **Therefore;** Patients with symptom onset times of < 4.5 hours that test **POSITIVE to CSS** and **NEGATIVE to VAN**, should be taken to the highest designated stroke facility for treatment and evaluation for interventional care.

- *A non-designated facility may be appropriate if all the following standards of care can be provided:*
    - ***Interpreted** computed tomography (CT) imaging scan is available within 45 minutes of patient arrival*
    - *Thrombolytics can be administered within 60 minutes of patient arrival*
    - *Physician is available within 10 minutes of patient arrival*

Patients with symptom onset times of < 24 hours that test **POSITIVE to CSS** and **POSITIVE to VAN** should be taken to the highest designated stroke facility capable of performing a thrombectomy.

- *The EMS provider should be up to date on the current regional designated stroke facilities as well as their capabilities.*

Patients with symptom onset times outside the time frames noted above should be transported to the nearest acute care facility for initial diagnosis and treatment. Similarly, a non-designated facility may be appropriate if the above standards of care can be provided.

This plan is based on accepted best practice guidelines but does allow for patient and physician preference.

TRANSPORT TO FREESTANDING EMERGENCY CENTERS

Under certain circumstances, it may be acceptable for EMS services to transport to a freestanding emergency center. The following guidelines shall be utilized when considering transport to such a facility.

Authorized Freestanding Emergency Center Destinations

The following freestanding emergency centers have agreed to receive ambulance transport of certain patients. No other standalone emergency center may be utilized.

- Star ER
  - 7007 Indiana Avenue
  - Lubbock, TX 79413
  - Phone: 806-701-4141
- Covenant HOPD
  - 7905 Milwaukee Avenue
  - Lubbock, TX 79424
  - Phone: 806-368-5837
- Covenant HOPD
  - 10205 Quaker Avenue
  - Lubbock, TX 79424
  - Phone: 806-368-8606
- ER Now
  - 5800 S. Coulter St.
  - Amarillo, TX 79119
  - Phone: 806-398-7744
- ER Now
  - 2101 Coulter St.
  - Amarillo, TX 79106
  - Phone: 806-350-7744

Indications for acceptable usage of approved freestanding emergency centers:

- An uncomplicated medical condition with a high likelihood of discharge from the emergency center, such as:
  - Abdominal pain with normal vital signs
  - Uncomplicated nausea, vomiting, and/or diarrhea
  - Flu-like symptoms, sore throat, minor respiratory infection, earache, cough, and/or rash
  - Painful urination
- Uncomplicated musculoskeletal injuries up to and including closed fractures or dislocations (as long as the neurovascular system appears to be intact)
- Lacerations and/or abrasions not requiring surgical interventions
- Patients in which spinal precautions are not indicated
- Trauma activation is not expected

Contraindications for usage of approved freestanding emergency centers:

- Age: less than 2 years old or older than 64

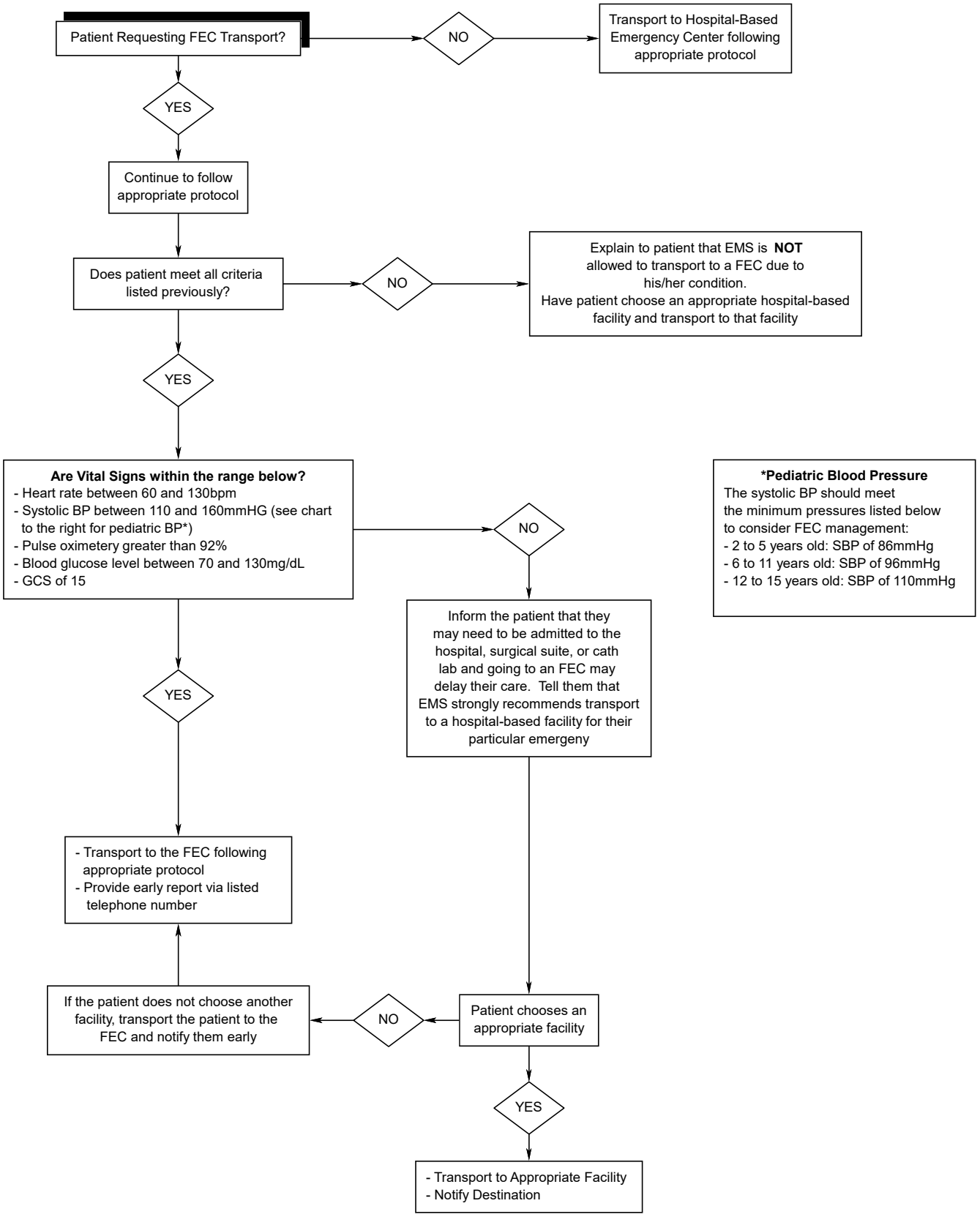
- STEMI or high-risk chest pain. Chest pain or possible Acute Coronary Syndrome (ACS) in patients over 40 years old
- Cardiac or traumatic arrest
- Uncontrolled airway or patients receiving ventilatory support
- Patients with advanced airways including CPAP, King Airway, and Intubation
- Suspected stroke or stroke-like symptoms
- Altered mental status
- Pregnancy over 20 weeks gestation
- Potential for neurological involvement
- Hemorrhage with wound packing or tourniquet usage
- Any of the following:
    - Significant penetrating trauma
    - Ischemic extremities
    - Angulated long bone or open fracture; open joint dislocation
    - Spinal motion restriction is indicated
- EMS judgment; need for surgery; or suspected inpatient admission

KEY POINTS

- Only the above listed FECs can be utilized by this protocol. Transport to any other FEC is NOT allowed.
- If the patient does not meet the indications, with NO contraindications, the patient CANNOT be transported to a FEC. Inform the patient that you cannot meet his/her request and ask that he/she select a hospital-based ED.
- If the patient does meet the above criteria, refer to the algorithm on the next page
- A thorough assessment must be performed prior to considering transport to an approved FEC
- Contact the FEC early on to allow for the possibility of diversion to another facility
- Medicare and Medicaid are NOT accepted by Star ER and ER Now. Covenant HOPD does accept Medicare and Medicaid. When transporting a patient to Star ER or ER Now, the patient should be informed that they do not accept Medicare and Medicaid as to avoid bills in which the patient is solely responsible for.
- All transports to an approved FEC must be thoroughly documented
- All transports to an approved FEC must be reviewed by a peer reviewer

See Flowchart on Next Page

EMS TRANSPORT TO FREESTANDING EMERGENCY CENTERS (FEC)



ECA

EQUIPMENT & MEDICATION LIST

SOUTH PLAINS EMS EQUIPMENT & MEDICATION LIST

BLS UNITS

- 1- SAED with 2 sets of defibrillator pads/paddles to accommodate adult patients and 2 sets of defibrillator pads/paddles to accommodate pediatric patients. However, if the BLS unit already stocks a monitor/defibrillator/SAED another SAED is not required. (If the SAED stocked does not support pediatric defibrillation a variance must be filled out through the SPEMS office and then pediatric defibrillation pads are not mandatory. The Variance must be signed by the Medical Director and a copy placed in each set of their protocols). A charged spare battery must accompany the unit as well as the one powering the unit. However, an alternative power source may take the place of the spare battery. (SAED with sealed 5-year batteries need not to have a spare)
- 1- Portable suction (no foot pump or bulb type) with charged spare battery if the unit is battery powered. However, an alternative power source may take the place of the spare battery.
- 1- Vehicle mounted suction
- 3ea- suction tubing, rigid suction tips, and suction canisters
- 1ea- Bag valve mask (adult and child sizes)
- 1- ResQPOD (Optional)
- 1ea- Nasal airway (20fr through 36fr)
- 1ea- Oral airway (#2 through #6)
- 3ea- Adult nonrebreather masks, pediatric nonrebreather masks, adult handheld nebulizers or nebulizer masks, adult nasal cannulas, and oxygen tubings. **Note**: if nonrebreather masks or nebulizers contain removable oxygen tubing, then the requirement for oxygen tubing is met
- 2- Portable oxygen cylinders
- 1- Portable oxygen regulator
- 1- Piped-in oxygen with regulator (M or H cylinders)
- 1- Pulse Oximeter device with charged spare batteries
- 2ea- C-collars (to accommodate adult, child, and infant)
- 1- Extremity splint for all extremities
- 1ea- Traction splint (adult & child size)
- 2- Full spinal immobilization devices with straps
- 1- Short board or KED-type extrication device (does not have to be a KED brand)
- 1ea- Blood pressure cuffs (adult, child, & infant size)
- 1- Stethoscope
- 1- Glucometer (Must have appropriate documented training)
- 2- Appropriate glucometer test strips
- 2- Lancet/needle
- 3ea-1cc syringes, 3cc syringes, and 10cc syringes
- 1- Nasal-Mucosal Atomization Device (MAD) (OPTIONAL for ECAs but must be carried if IN Narcan is used)
- 3- Hypodermic needles (if IM Epinephrine is stocked) (sizes to be determined by EMS provider's needs)
- 2- Multi trauma dressings
- 1- QuickClot (must be the heat free formula)
- 25- START Triage Tags (START= Simple Triage and Rapid Transport)
- 1- Commercial Tourniquet Device

- 24- Sterile gauze pads
- 5- Soft roller adhering bandages
- 2- Rolls of adhesive tape
- 2- Triangular bandages
- 2- Sterile burn sheets
- 3- Vaseline Gauze
- 10- Alcohol preps
- 1- Bandage shears
- 1- Pen light
- 1- Multilevel stretcher with all patient securing straps as recommended by the stretcher's manufacturer and at least 2 sets of clean sheets and blankets
- 1- Copy of current, signed SPEMS treatment protocols for the ECA
- 1- Mast pants (Optional)
- *1ea- King LT-D or LTS-D airway sizes 0, 1, 2, & 2.5
- *1ea- King LTS-D airway sizes 3, 4, & 5
- 1- Puncture resistant sharps container
- 1- Emergency Response Guidebook, most current edition
- 1set- Emergency warning devices (at least 3 emergency triangles)
- 10- Protective, non-porous gloves
- 2- Medical eye protection
- 5- N-95 or greater protective Masks
- 2- Medical protective gowns or equivalent
- 2- Personal cleansing supplies
- 5- Biohazard bags
- 1- Fire extinguisher
- 1- Working Flashlight
- 1- No smoking signs in the cab and patient compartment
- 1- Thermometer (may be oral, tympanic, or skin monitoring)
- 1-Mechanical CPR Compression Device (Optional). If carried, services are to follow manufacturer's recommendation assuring compliance with current AHA CPR guidelines
- 4- Cold packs or equivalent

BLS NEONATAL EQUIPMENT

- Sealed OB kit with non-porous infant insulator, umbilical cord clamps and bulb aspirator
- 1-Broselow Pediatric Emergency Tape or equivalent
- 1-Infant Bag valve mask (BVM)
- 1-#1 Oral airway

Note: much of the other equipment and supplies listed in other sections of the Equipment List are also designed to be utilized for neonatal care and this section does not exclude the use of any equipment or supplies for neonatal patients as allowed by these treatment Protocols.

BLS MEDICATIONS

- *1-Activated Charcoal, 50g
- 20-Acetaminophen, 500mg tablets
- 10- Aspirin, 325mg tablets
- *5-Duo-Neb: 0.5mg Ipratropium Bromide and 3mg of Albuterol Sulfate in 3ml
- 1- Epinephrine Auto-Injector (Adult) 0.3mg/unit

- 1- Epinephrine Auto-Injector (Pediatric) 0.15mg/unit
- 2- Epinephrine (1:1,000) 1mg/1cc (if stocked at the BLS level, appropriate training required)
- 20-Ibuprofen, 200mg tablets
- *1- Glucagon 1mg/unit (Optional)
- *5- Levalbuterol (Xopenex) 1.25mg/3ml (Optional)
- 1- Liquid Children's Motrin 100mg/5ml (minimum 500 mg per truck)
- 2- Naloxone (Narcan) 2mg/2cc (OPTIONAL for ECAs)
- *1- bottle- Nitroglycerin 0.4mg tablet or spray
- 1- Oral Glucose 15g Tube
- Oxygen

Services under SPEMS medical direction may carry Epinephrine Auto-Injectors to accommodate both adult and pediatric patients **AND/OR** Epinephrine (1:1,000) 1mg/1cc. However, Epinephrine (1:1,000) can only be carried if all active ECA's, EMT's and Advanced EMTs are appropriately trained on IM injections (and the standing Allergic Reaction Protocol). This training must be documented including location, date, and time. Documentation must be readily accessible upon inspection.

EMS Services, staffed with ECAs and operating under SPEMS medical direction may carry Naloxone (Narcan) if they choose to. Narcan can only be carried if all active ECAs are appropriately trained on IN administration. This training must be documented including location, date, and time. Documentation must be readily accessible upon inspection.

All equipment and medications noted with an * are not to be used at the ECA level.

PRE-HOSPITAL MEDICATIONS

INHALED MEDICATIONS
Oxygen

ORAL MEDICATIONS
Oral Glucose 15g tube (Pages 14, 23)
Acetaminophen, 500mg tablets (Page 15)
Aspirin, 325mg tablet (Pages 8, 9)
Ibuprofen 200mg tablets (Page 15, 22)
Liquid Children's Motrin 100mg/5ml (Page 15, 22)

INTRAMUSCULAR MEDICATIONS
Epinephrine Auto-Injector (Adult), 0.3mg/unit (Page 12)
Epinephrine Auto-Injector (Pediatric), 0.15mg/unit (Page 12)
Epinephrine (1:1000) 1mg/1cc (Appropriate training and testing must be documented prior to administration) (Page 12)

INTRANASAL MEDICATIONS
Naloxone (Narcan), 2mg/2cc (D-2, D-3) (Pages 9, 14) (OPTIONAL)

If you have medical direction for any medications or invasive equipment not listed here, you must attach written authorization for the use of such. This document must be signed by the SPEMS Medical Director. However, non-invasive equipment (example: Vacu-Mattress, thermometer, etc.) does not require written authorization by medical direction or additions to the equipment list.

All of the services under my medical direction must carry the minimum amount of equipment and medications listed above and may carry more according to their run demand and patient care needs.

SPEMS Medical Director Date 04/01/2023

Service Director Date 04/01/2023

SOUTH PLAINS
EMERGENCY MEDICAL
SERVICE

TRAUMATIC EMERGENCIES

EMERGENCY CARE ATTENDANT

BURNS (Moderate to Critical)

ECA

1. Stop the Burning Process
2. ABCs

Patient Conscious? → YES → **Oxygen**

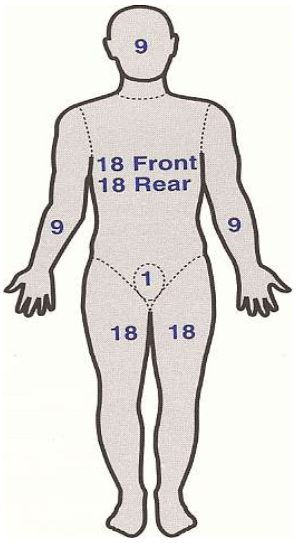
NO

Ventilate with **Oxygen** (Insert OPA/NPA)

1. Estimate Burn Depth & Percent of Total Body Surface
2. Cover Burn with Dry Sterile Sheets
3. Request Paramedic Backup
4. Consider Requesting Air Transport for Critical Burns

Continue to Treat, Monitor & Transport

The Rule of 9's
(count only 2º & 3º burns)



CRITICAL BURNS

1. All inhalation injuries
2. 2^{o} > 20% TBSA
3. 3^{o} > 5% TBSA
4. Head, face, feet, hands, or genitalia
5. All electrical injuries
6. Burns associated with other trauma

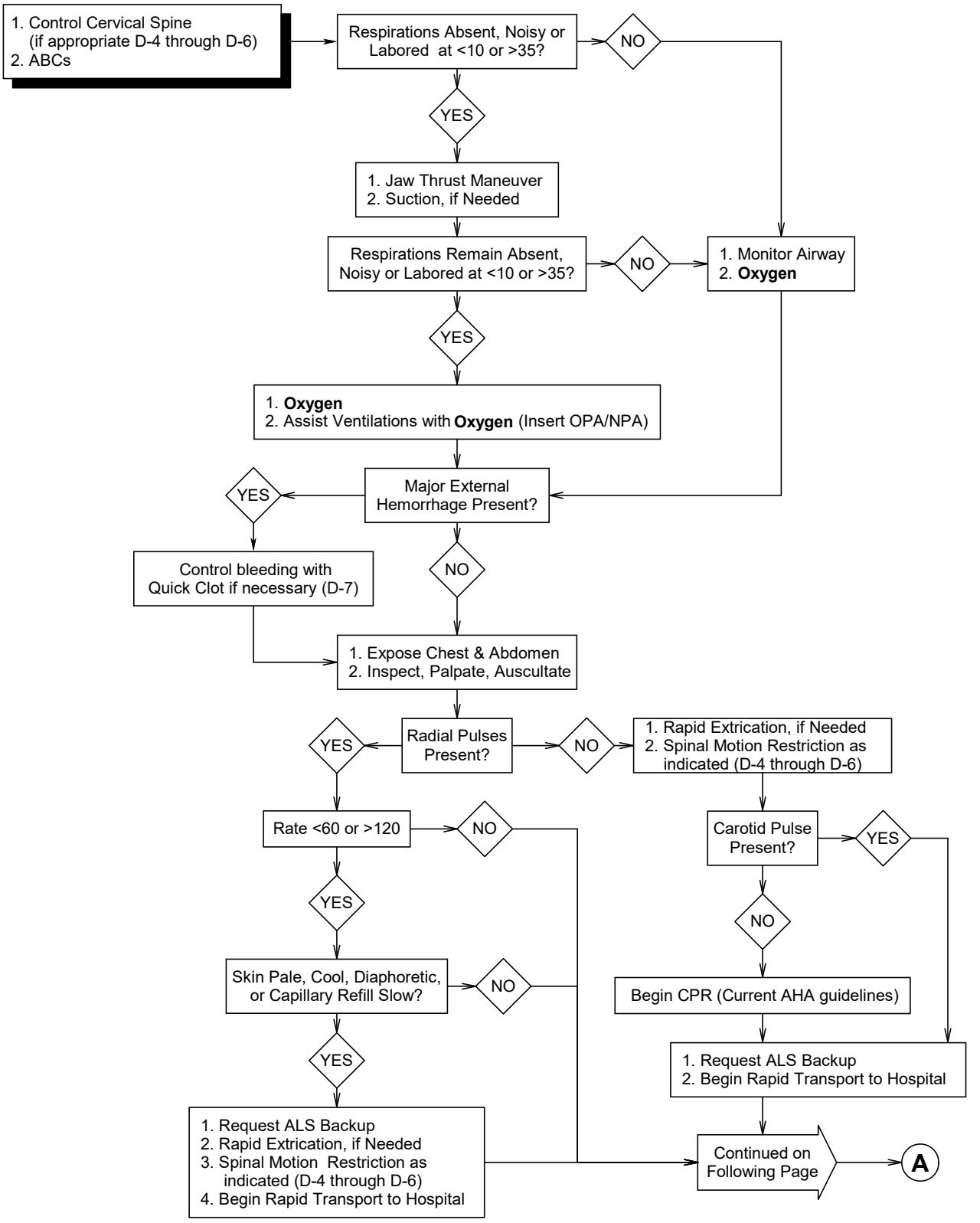
MODERATE BURNS

1. All burns not meeting other critical criteria
2. Minor burns in any patient with significant underlying medical conditions

For pediatric burns
Refer to the Pediatric Burn Triage/Transport Scheme
(I-2)

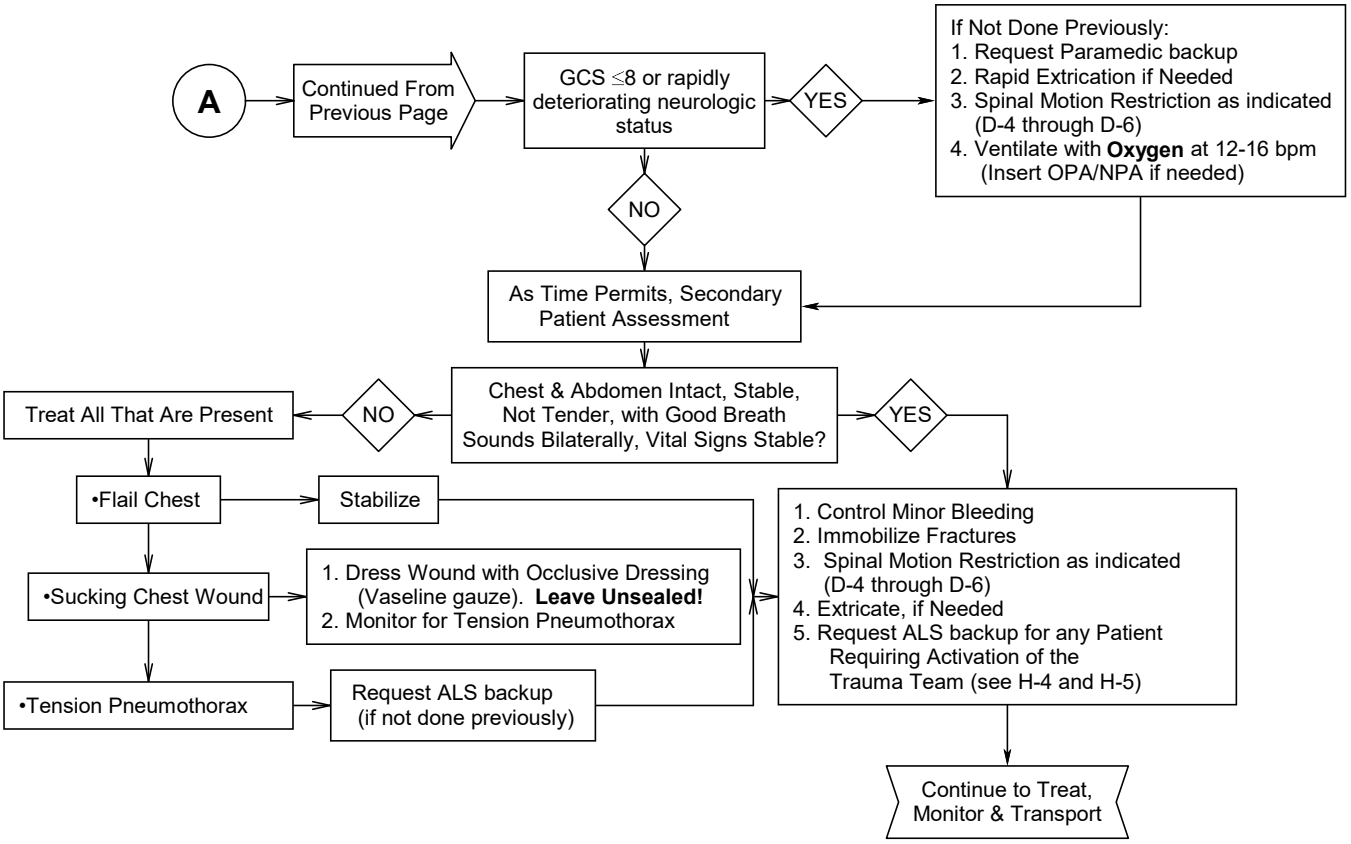
TRAUMA

ECA


1. Control Cervical Spine
(if appropriate D-4 through D-6)
2. ABCs
Respirations Absent, Noisy or Labored at <10 or >35?
NO
YES
1. Jaw Thrust Maneuver
2. Suction, if Needed
Respirations Remain Absent, Noisy or Labored at <10 or >35?
NO
1. Monitor Airway
2. Oxygen
YES
1. Oxygen
2. Assist Ventilations with Oxygen (Insert OPA/NPA)
Major External Hemorrhage Present?
YES
Control bleeding with Quick Clot if necessary (D-7)
NO
1. Expose Chest & Abdomen
2. Inspect, Palpate, Auscultate
Radial Pulses Present?
YES
NO
1. Rapid Extrication, if Needed
2. Spinal Motion Restriction as indicated (D-4 through D-6)
Rate <60 or >120
NO
YES
Skin Pale, Cool, Diaphoretic, or Capillary Refill Slow?
NO
YES
1. Request ALS Backup
2. Rapid Extrication, if Needed
3. Spinal Motion Restriction as indicated (D-4 through D-6)
4. Begin Rapid Transport to Hospital
Carotid Pulse Present?
YES
NO
Begin CPR (Current AHA guidelines)
1. Request ALS Backup
2. Begin Rapid Transport to Hospital
Continued on Following Page
A

TRAUMA (Continued)

ECA



For pediatric trauma
Refer to the Pediatric Trauma Triage/Transport Scheme
(I-1)

- Time on scene with Trauma patients should not exceed 10 minutes unless extrication is required. If time on scene exceeds 10 minutes, reasons for delay should be documented.
- If extrication >15 minutes is required, or if time to definitive care is likely to exceed 25 minutes, consider air transport.

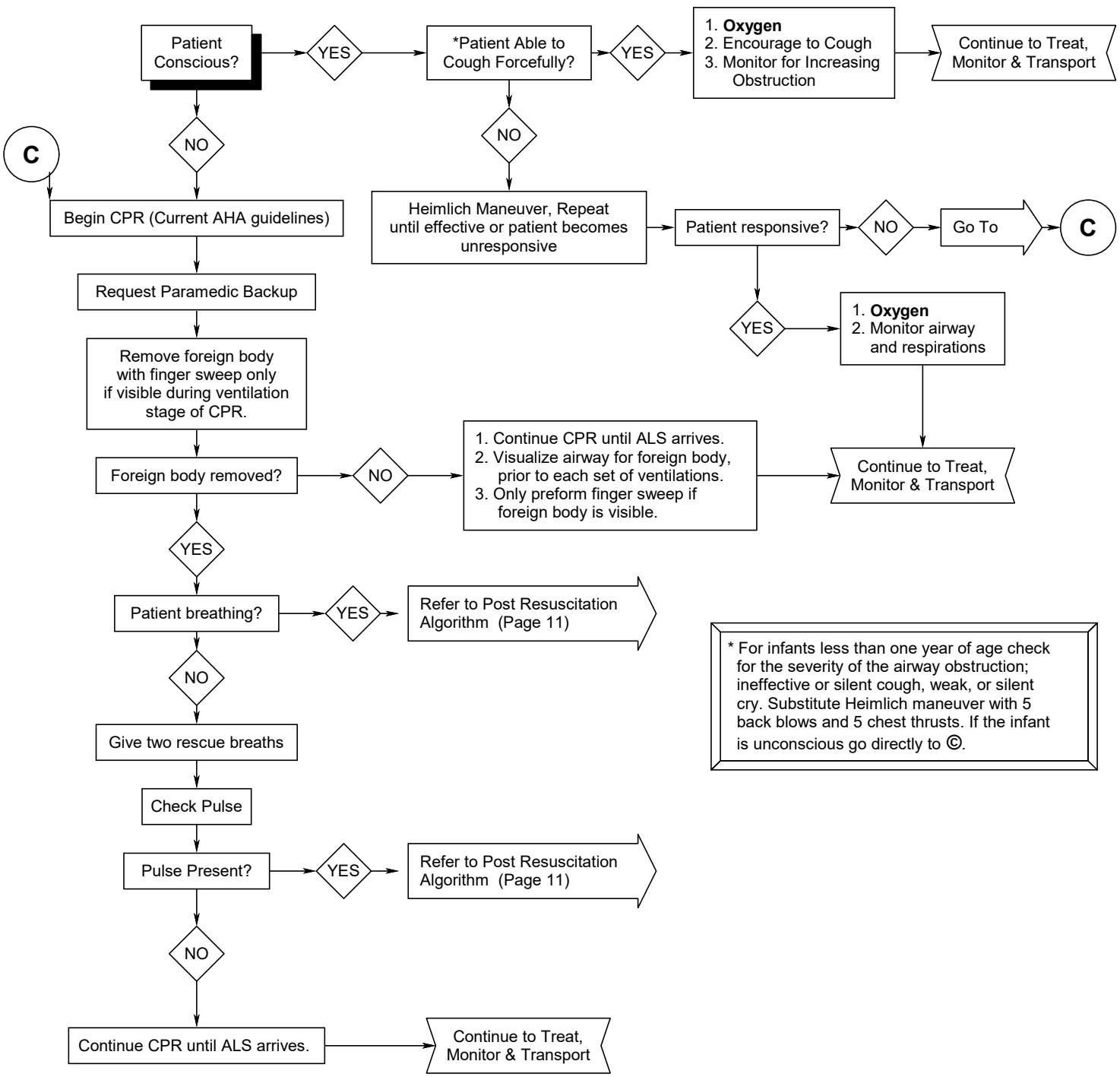
SOUTH PLAINS
EMERGENCY MEDICAL
SERVICE

RESPIRATORY EMERGENCIES

EMERGENCY CARE ATTENDANT

FOREIGN BODY AIRWAY OBSTRUCTION

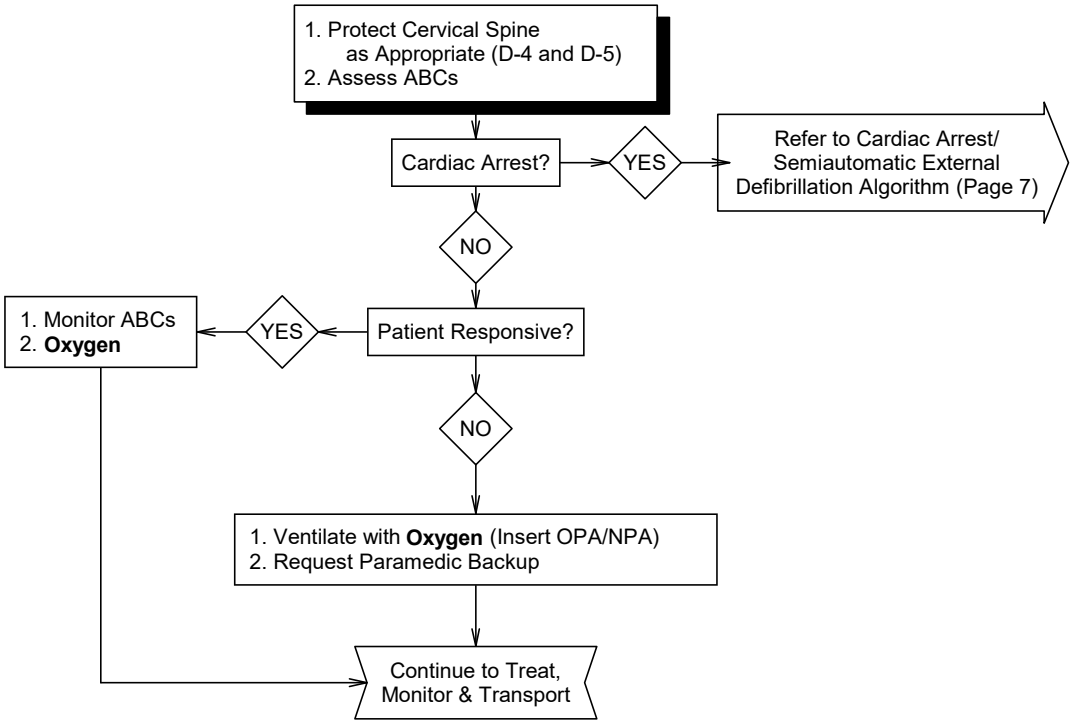
ECA



* For infants less than one year of age check for the severity of the airway obstruction; ineffective or silent cough, weak, or silent cry. Substitute Heimlich maneuver with 5 back blows and 5 chest thrusts. If the infant is unconscious go directly to ©.

NEAR DROWNING

ECA



If wheezing noted or oxygen saturation is < 90% go to Respiratory Distress Protocol (Page 6)

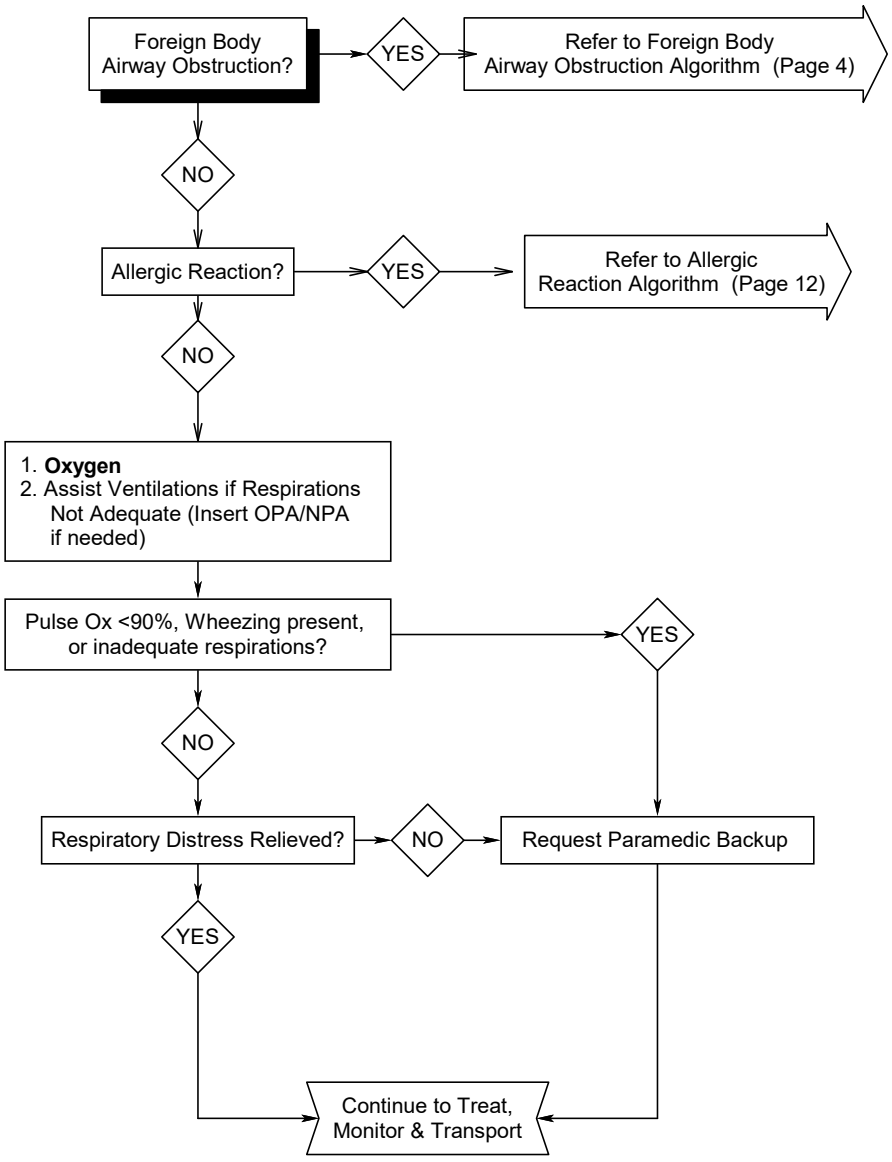
- Consider spinal cord trauma, air embolism, hypothermia, alcohol or drug ingestion, hypoglycemia, seizures and myocardial infarction as accompanying problems or underlying causes.

- All near drowning patients should be transported for observation & evaluation, no matter how mild the episode appears to be.

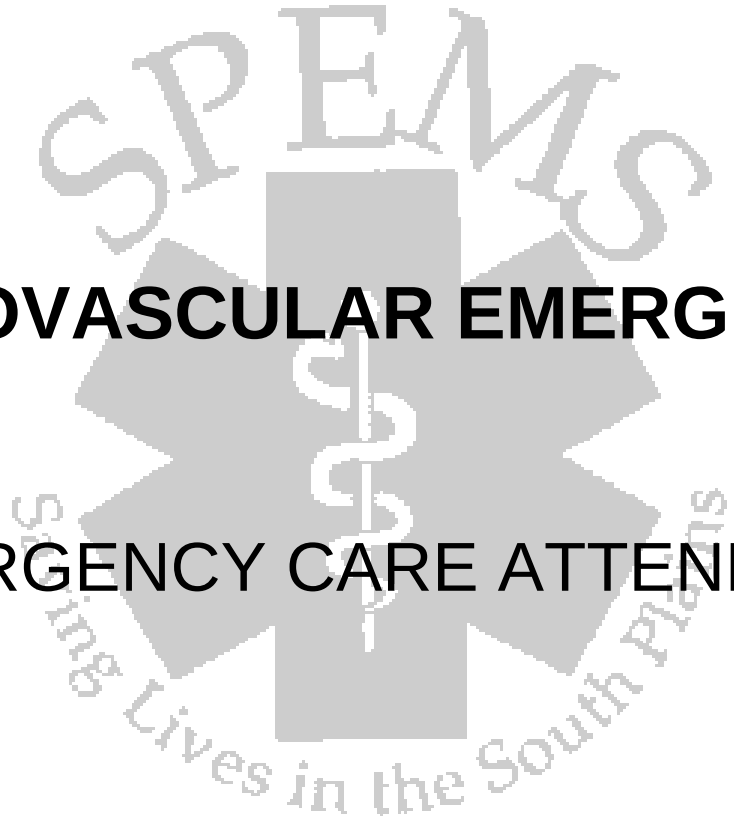
- Air transport should be considered to expedite the patient's arrival at the hospital.

RESPIRATORY DISTRESS

ECA



SOUTH PLAINS EMERGENCY MEDICAL SERVICE



CARDIOVASCULAR EMERGENCIES

EMERGENCY CARE ATTENDANT

CARDIAC ARREST/SEMIAUTOMATIC EXTERNAL DEFIBRILLATION*

ECA

1. CPR (Current AHA guidelines)**
2. Ventilate with **Oxygen** (Insert OPA/NPA)
3. Use ResQPOD if the patient has reached puberty (Optional)
4. Request Paramedic Backup

Do Not defibrillate a hypothermic patient more than once

1. Attach SAED***
2. If arrest unwitnessed perform 5 cycles CPR
3. Clear Area
4. Analyze Rhythm

Shock Advised? — NO → 1. Continue CPR 2. Begin Rapid Transport 3. After 5 Cycles Reanalyze

Shock Advised? — YES → 1. Clear Area 2. Defibrillate X1**** 3. Resume CPR

Shock Advised? — NO → Pulse Present?

Pulse Present? — NO → 1. Continue CPR 2. Begin Rapid Transport 3. After 5 Cycles Reanalyze

Pulse Present? — YES → Refer to Post Resuscitation Management Algorithm (Page 11)

* In all witnessed or known short duration (<4-5 minutes) cardiac arrest where defibrillation is indicated immediate defibrillation should be performed.

In all other arrest situations where defibrillation is indicated the provider should perform 5 cycles (2 minutes) of CPR prior to defibrillation.

*** **PEDIATRIC**
Use pediatric pads on patients < 8 yoa.
If pediatric pads not available use adult pads according to manufacturers recommendation and current AHA guidelines.

**** If AED is Not Updated to the current AHA Guidelines. Follow Manufacturers Recommendations

** Ideally chest compressions should be interrupted only for rhythm checks and actual defibrillations. The current AHA guidelines state that when CPR is indicated the provider should perform 5 cycles (2 Minutes) of chest compressions. Continue CPR while defibrillator is charging. Providers must organize care to ensure that chest compressions, initial and subsequent defibrillations are not delayed .

*CARDIAC CHEST PAIN or SUSPECTED MYOCARDIAL INFARCTION

ECA

1. **Oxygen** if O2 sat is <94% or signs of hypoxia. Maintain O2 sat between 94 and 99%
2. ****Aspirin**, 325mg, PO

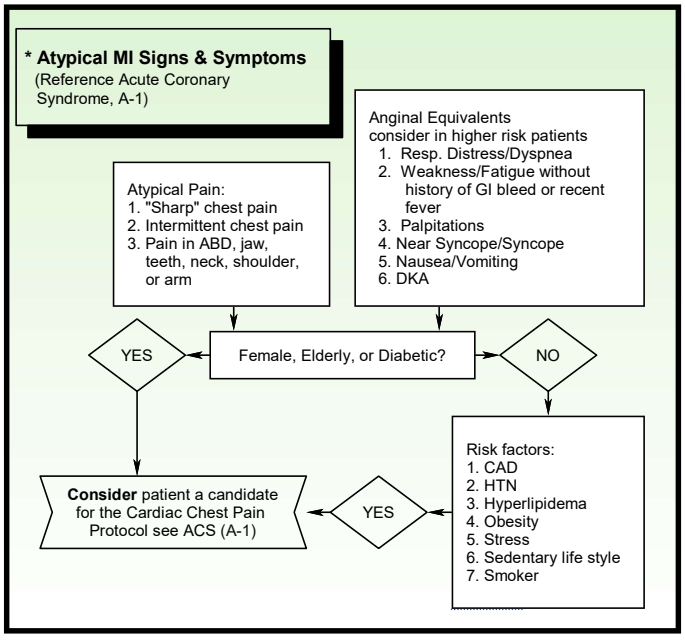
Request Paramedic Backup

1. Reference the Cardiac Triage/Transport Scheme (J-1)
2. Initiate Transport

Continue to Treat, Monitor & Transport

****Contraindications to Aspirin:**
Allergic
History of bleeding ulcers or other bleeding disorders

If in doubt, contact medical control for guidance



IF PATIENT'S CONDITION IS UNSTABLE OR DETERIORATES DURING TRANSPORT, REQUEST ASSISTANCE FROM RECEIVING AREA'S ADVANCED LIFE SUPPORT SERVICE.

LVAD

ECA

History
-Late stage heart failure
-Patient has surgically-implanted pump that assists the action of one or both ventricles
-Patient may or may not be on a heart transplant list

Signs and Symptoms
-The flow through most LVADs is not pulsatile, therefore, THE PATIENT MAY NOT HAVE A PULSE AT BASELINE. For this reason, pulse oximetry readings may also be inaccurate
-Altered mental status may be the only indicator of a problem
-Consider both LVAD-related and non-LVAD problems.

Differential Diagnosis
-Stroke
-Cardiac Arrest
-Dysrhythmia different from patient's baseline
-Infection
-Bleeding (VAD patients will be on anti-coagulants)
-Dehydration
-Cardiac tamponade
-Device problem such as low battery or a disconnected cable

ALWAYS talk to the family/caregiver since they will have specialized training and knowledge about the device. An appropriate knowledgeable/ trained family member should accompany the patient to the hospital. CALL THE VAD COORDINATOR EARLY per patient/family instructions or as listed on the device. The VAD coordinators are available 24/7 and should be an intregal part of the treatment

1. Request Paramedic Backup
2. Auscultate the left upper abdominal quadrant with a stethoscope. If there is a humming sound, the pump is functioning. *
3. **Oxygen**
4. Assist Ventilations if respirations are inadequate (Insert OPA/NPA if needed)

***If the LVAD pump is not functioning, refer to the caregiver and operation book.**

Spare battery should be on-site

Perform Chest Compressions ONLY if LVAD is NOT humming and the patient is unresponsive

****Limit compression depth to no greater than 2 inches to prevent LVAD dislodgement**

Notify the LVAD Coordinator

Is the patient conscious?

YES

1. Begin Rapid Transport
2. Notify ED as soon as possible

Obtain Blood Glucose reading. If < 70mg/dL, refer to Decreased LOC protocol

Treat According to Presentation and Complaint

Chest Pain:
Do NOT administer **Aspirin**.

Other Chief Complaints:
Follow appropriate protocol(s) as indicated. **Any medications that reduce cardiac preload, vasoconstrict, vasodilate, or otherwise will cause a drop in systolic blood pressure must be avoided in the non-cardiac arrest patient.**

See notes (on following pages) and consult Medical Control, as needed

NO

1. Begin Rapid Transport
2. Notify ED as soon as possible

Obtain Blood Glucose reading. If < 70mg/dL, refer to Decreased LOC protocol

Respirations 8 or above?

YES

Follow protocols as indicated.

Any medications that reduce cardiac preload, vasoconstrict, vasodilate, or otherwise will cause a drop in systolic blood pressure must be avoided in the non-cardiac arrest patient.
See notes (on following page) and consult Medical Control, as needed.

NO

1. Assist ventilations (Insert OPA/NPA if needed)
2. **Narcan 2mg** IN (OPTIONAL)
3. Do NOT perform Chest Compressions unless pump is not humming**
4. If pump is humming, follow cardiac arrest protocol, as indicated, **WITHOUT** chest compressions
5. Apply AED and shock as indicated every 2 minutes

Continue to Treat, Monitor & Transport

See Additional Information on Next Page

LVAD stands for Left Ventricular Assist Device. It is an electromechanical device for assisting cardiac circulation that is designed to assist a failing heart. Patients may or may not be on a heart transplant list. These patients will most likely have an internal pacemaker and an internal defibrillation device.

The LVAD is implanted into the left upper abdominal quadrant and produces a humming sound when functioning. It is critical that the pump be auscultated to assure proper functioning. In the event of arrest, the LVAD device should produce sufficient blood flow without the performance of chest compressions. Chest compressions can cause dislodgement of the device and could result in death from blood loss.

Key Notes for caring for LVAD Patients:

- Always talk to family/caregivers since they will have specialized training and knowledge about the device. An appropriate knowledgeable/trained family member should accompany the patient to the hospital.
- CALL THE VAD COORDINATOR EARLY per patient/family instructions or as listed on the device. The VAD coordinators are available 24/7 and should be an integral part of the treatment plan.
- Questions to ask: Does the patient have a DNR? Can the patient be cardioverted or defibrillated if needed?
- Chest compressions should NOT be given unless the pump has stopped working (not humming).
- Common complication in LVAD patients include stroke and TIA (incidence up to 25%), bleeding, dysrhythmias, and infection.
- The cardiac monitor and 12-Lead ECG are not affected by the LVAD and will provide important information.
- LVAD patients are pre-load dependent. Consider that a FLUID BOLUS can often reverse hypoperfusion.
- Transport patients with ALL device equipment including any instructions, hand pumps, backup batteries, primary and secondary controllers, as well as knowledgeable family members or caregivers. Most patients will have a "Go Bag" available. A charged spare battery should be part of the "Go Bag".
- Remember that it is unlikely an auscultated or palpated blood pressure can be measured. Pulse oximetry may be inaccurate.
- If patient is unconscious with no respiratory effort and the ECG shows V-Fib or V-Tach, defibrillation is necessary
- CPAP CANNOT be used on patients with LVAD

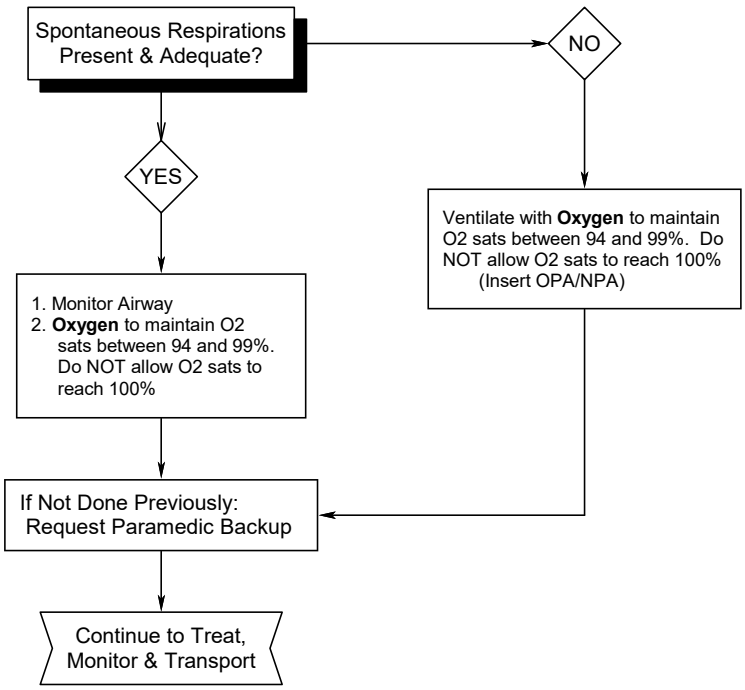
Prehospital Medications to Avoid with LVAD Patients:

Anti-arrhythmics May be used only if patient is in cardiac arrest	
Amiodarone	Amiodarone and Lidocaine may be used in cardiac arrest. Calcium channel blockers should not be administered due to the negative inotropic affect and potential to develop hypotension.
Diltiazem (Cardizem) and other calcium channel blockers	
Lidocaine	
Anti-Coagulants/ Anti-platelet properties	
Aspirin	Patient is already on anti-coagulants and adding aspirin may increase bleeding risks or delay healing
Anti-hypertensives	
Labetalol (Normodyne)	Peripheral vasodilation or significant reduction in blood pressure may decrease preload. The LVAD patient is dependent on preload for optimal pump function.
Benzodiazepines	
Diazepam (Valium)	May result in peripheral vasodilation that can reduce preload to the heart. For continuous seizures, use lowest effective dose.
Lorazepam (Ativan)	
Midazolam (Versed)	
Elementals	
Magnesium Sulfate	Risk for developing hypotension and dysrhythmias
Sympathomimetic Medications May be used only if patient is in cardiac arrest	
Epinephrine 1:10,000	Drugs that stimulate the sympathetic response may increase myocardial oxygen demand Increases myocardial oxygen demands
Dopamine	
Repeated doses of nebulized beta-agonists	
Vasodilatory Medications	
Nitroglycerin	Peripheral vasodilation will decrease preload. The LVAD patient is dependent on preload
Morphine	

*POST RESUSCITATION MANAGEMENT

ECA

*Remove ResQPOD if previously used.



If patient's condition changes, refer to appropriate algorithm.

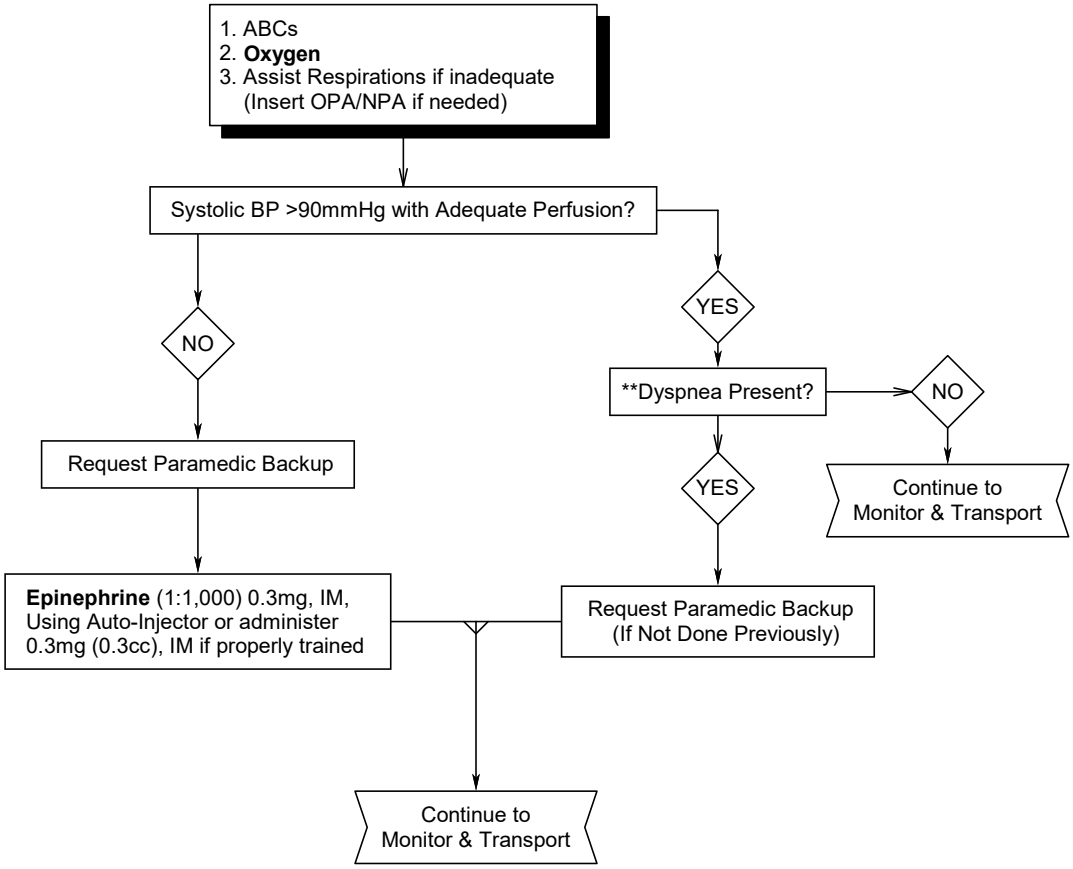
SOUTH PLAINS EMERGENCY MEDICAL SERVICE

OTHER MEDICAL EMERGENCIES

EMERGENCY CARE ATTENDANT

ALLERGIC REACTION*

ECA



*Request Paramedic Backup
For All Pt's With Bee Stings

If severe dyspnea is present that is not relieved by **Oxygen and **Epinephrine** not previously given consider contacting medical control for use of **Epinephrine** (1:1,000) 0.3mg (0.3cc) **IM** if properly trained.

PEDIATRIC DOSE

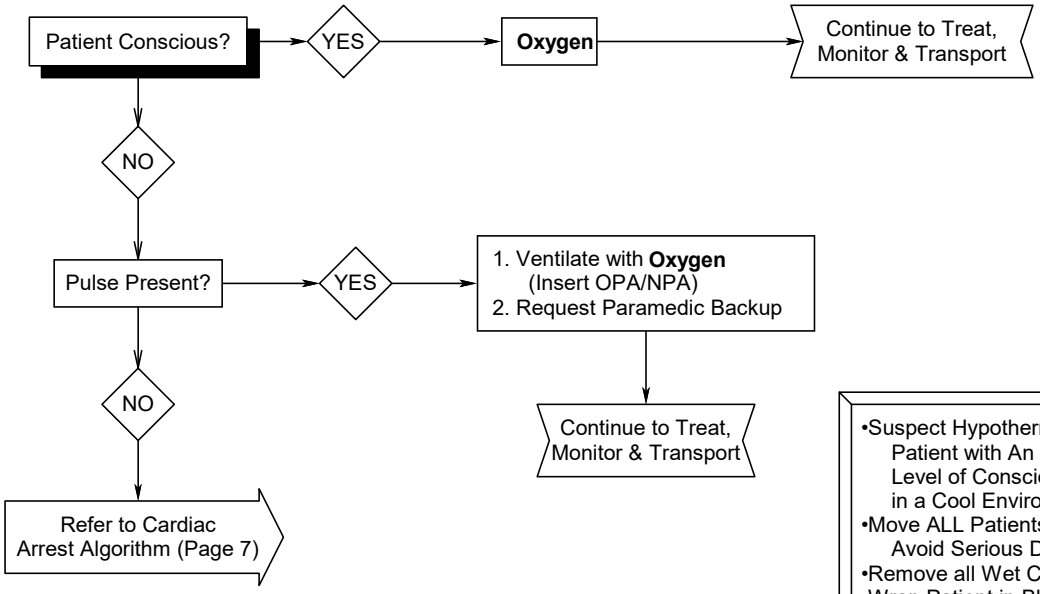
- **Epinephrine**, 0.15mg, IM, Using Auto-Injector or
- **Epinephrine**, (1:1,000), 0.01mg/kg to a max of 0.15mg (0.15cc) IM, if properly trained

IF PATIENT'S CONDITION IS UNSTABLE OR DETERIORATES DURING TRANSPORT, REQUEST ASSISTANCE FROM RECEIVING AREA'S ADVANCED LIFE SUPPORT SERVICE.

COLD EXPOSURE (SYSTEMIC HYPOTHERMIA)

Estimated Core Temp. < 86 F

ECA



- Suspect Hypothermia in any Patient with An Altered Level of Consciousness in a Cool Environment
- Move ALL Patients Gently, to Avoid Serious Dysrhythmias
- Remove all Wet Clothing
- Wrap Patient in Blankets
- Do Not Actively Rewarm Patient in Prehospital Environment
- Resuscitate ALL Cardiac Arrest Patients who are Hypothermic

*DECREASED LEVEL OF CONSCIOUSNESS (NON-TRAUMATIC)

ECA

1. ABCs
2. **Oxygen**
3. Assist Ventilations if Respirations Inadequate (Insert OPA/NPA if needed)
4. Check blood glucose level

* If the patient presents agitated/combative and is deemed a threat to the crew or themselves refer to Chemical Sedation (D-1)

Glucose > 70mg/dL

NO

Patient Able to Hold Head Upright, With Gag Reflex Present?

NO

YES

Oral Glucose 15g

YES

Mental Status Improved?

YES

Does the patient present with any accompanying motor or sensory deficits?

YES

Refer to Stroke/TIA Algorithm (Page 23)

NO

***Maintain Airway

NO

Request Paramedic Backup

Eliminate other possibilities****

Continue to Treat, Monitor & Transport

<u>*Opiate Overdose</u>**

Patients with a known or suspected opiate overdose, severe respiratory compromise, and are unable to control their own airway administer **Naloxone (Narcan) (OPTIONAL)**, 2mg, IN, may repeat once in 5 minutes if necessary. (D-3)

<u>PEDIATRIC DOSE</u>

•**Naloxone (Narcan) (OPTIONAL)**, 0.1mg/kg, IN, up to a max of 2mg, per dose (D-3)

****

Other considerations for decreased LOC:

1.Possible Cold Exposure (Page 13),
2.Heat Exposure (Page 17), or
3.Hypovolemia (Page18)

*** Appropriate training and testing must be documented prior to administration of Intranasal **Narcan.** ALS/MICU backup must be requested if Narcan is administered.

IF PATIENT'S CONDITION IS UNSTABLE OR DETERIORATES DURING TRANSPORT, REQUEST ASSISTANCE FROM RECEIVING AREA'S ADVANCED LIFE SUPPORT SERVICE.

FEVER / SEPSIS

ECA

Pediatric SIRS (Systemic Inflammatory Response Syndrome) Criteria:
-Temperature (refer to chart)
--Increased Heart Rate (refer to chart)
-Increased Respiratory Rate (refer to chart)
-Hypotension (refer to chart)
-$ETCO_2$ reading below 25mmHg

Age	Heart Rate	Resp. Rate	Systolic BP	Temp. (°F)
0d – 1m	> 205	> 60	< 60	< 96.8 or > 100.4
≥ 1m – 3 m	> 205	> 60	< 70	< 96.8 or > 100.4
≥ 3m – 1 y	> 190	> 60	< 70	< 96.8 or > 101.3
≥ 1y – 2y	> 190	> 40	< 72-74	< 96.8 or > 101.3
≥ 2y – 4y	> 140	> 40	< 74-78	< 96.8 or > 101.3
≥ 4y – 6y	> 140	> 34	< 78-82	< 96.8 or > 101.3
≥ 6y – 10y	> 140	> 30	< 82-90	< 96.8 or > 101.3
≥ 10y – 13y	> 100	> 30	< 90	< 96.8 or > 101.3
≥ 13y	> 100	> 16	< 90	< 96.8 or > 101.3

If two or more criteria have been met AND the patient has a suspected infection, notify the ED of "**Code Sepsis**"

1. ABCs
2. **Oxygen** if O2 sat is <94% or signs of hypoxia or shock. Maintain O2 sats between 94 and 99%
3. Assist Ventilations if Respirations Inadequate (Insert OPA/NPA if needed)
4. If airway and/or breathing is compromised, contact Paramedic backup.

Adult SIRS (Systemic Inflammatory Response Syndrome) Criteria:
-Temperature < 93.6° F. or >100.4° F.
-Heart rate > 90 per minute
-Respiratory rate > 20 per minute
-WBC > 12,000 mm^3
-ETCO2 below 25mmHg
If two or more criteria have been met AND the patient has a suspected infection, notify the ED of "**Code Sepsis**"

Fever of 100.4 F. or Greater?
NO → Continue to Treat, Monitor & Transport
YES

Administer **Ibuprofen*** 10mg/kg up to 800mg PO if awake and able to swallow
or
Administer **Acetaminophen**** 10mg/kg up to 1,000mg PO if awake and able to swallow

Sign/Symptoms:
Warm
Flushed
Diaphoretic
Chills
Hypotension
Tachycardia

Are any 2 of the age specific SIRS Criteria present?
NO → Continue to Treat, Monitor & Transport
YES

Contact Paramedic or ALS Backup

Notify ED and Activate "**Code Sepsis**"

Continue to Treat, Monitor & Transport

*__Ibuprofen__ should **NOT** be used if the patient is pregnant or has received Ibuprofen within the last 4 hours.
If there are no contraindications, Ibuprofen can be administered after 90 minutes of a dose of Acetaminophen.
Ibuprofen dosages should be rounded to the nearest 200mg increment

__Acetaminophen__ should **NOT be used for the patient with liver disease or has received Acetaminophen within the last 4 hours.
If there are no contraindications, Acetaminophen can be administered after 90 minutes of a dose of Ibuprofen.
Acetaminophen dosages should be rounded to the nearest 500mg increment

PEDIATRIC DOSE

Utilize **Liquid Children's Motrin** for pediatric fever management.

Liquid Children's Motrin (**Ibuprofen**): 10mg/kg to a max of 800mg if patient has not received Ibuprofen in the last 4 hours if awake and able to swallow

IF PATIENT'S CONDITION IS UNSTABLE OR DETERIORATES DURING TRANSPORT, REQUEST ASSISTANCE FROM RECEIVING AREA'S ADVANCED LIFE SUPPORT SERVICE.

HAZARDOUS/TOXIC MATERIAL EXPOSURE

ECA

1. Observe Hazmat Precautions*
2. **Do Not Enter Incident Area Without Appropriate Protective Clothing/Respiratory Equipment**
3. Evacuate Patients From Exposure Without Risking EMS Personnel Safety
4. In Cooperation With Police/Fire Authorities, Evacuate/Isolate Scene
5. Attempt to Identify Nature of Hazardous Material as Soon as Possible
6. Request Paramedic Backup

Patient Conscious?

NO

1. ABCs
2. Ventilate with **Oxygen** (Insert OPA/NPA)

YES

Oxygen*

1. Remove/Isolate Contaminated Clothing at Site, if Appropriate
2. Flush Eyes/Skin With **NS** if Appropriate (Brush Off Dry Chemicals First)
3. Wrap Patient in Blanket to Reduce Spread of Contaminant, if Appropriate
4. Consider Need to Use Second EMS Unit to Transport
5. Obtain Expert Advice for Personnel/ Equipment Decontamination

Continue to Treat, Monitor & Transport

*Paraquat Poisoning
Do Not Give Supplemental **Oxygen**

***HAZMAT PRECAUTIONS**

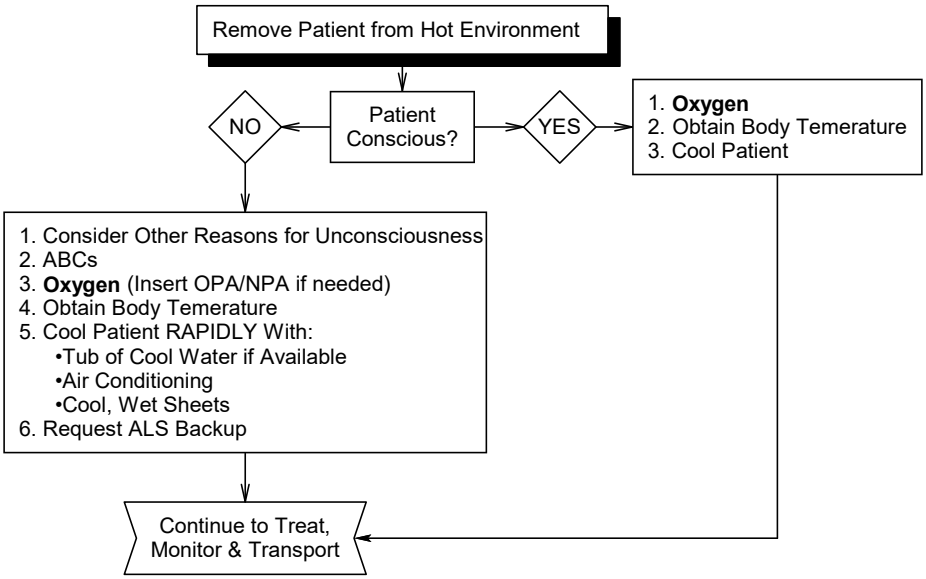
1. Assume ALL Chemicals Hazardous Until Proven Otherwise
2. Approach From Upwind
3. Stay Out of Low-Lying Areas; Stay Uphill if Possible
4. Do Not Walk Into or Touch Spilled Chemicals; Wear Gloves When Touching Contaminated Patients
5. Avoid Smoke, Gasses, Fumes, Vapors
6. Keep Combustibles Away
7. Keep Ignition Sources Away

- All Patients Should Be Transported for Observation, Regardless of how Mild the Episode Seems to be
- Rescue Attempts, Scene Management, & Patient Care Should be Based on Best Information Available about the Material
- Coordinate with Fire Authorities & Regional EMS Communications Center to Obtain Information
- Air transport should be avoided

IF PATIENT'S CONDITION IS UNSTABLE OR DETERIORATES DURING TRANSPORT, REQUEST ASSISTANCE FROM RECEIVING AREA'S ADVANCED LIFE SUPPORT SERVICE.

HEAT EXPOSURE (HEAT STROKE)

ECA



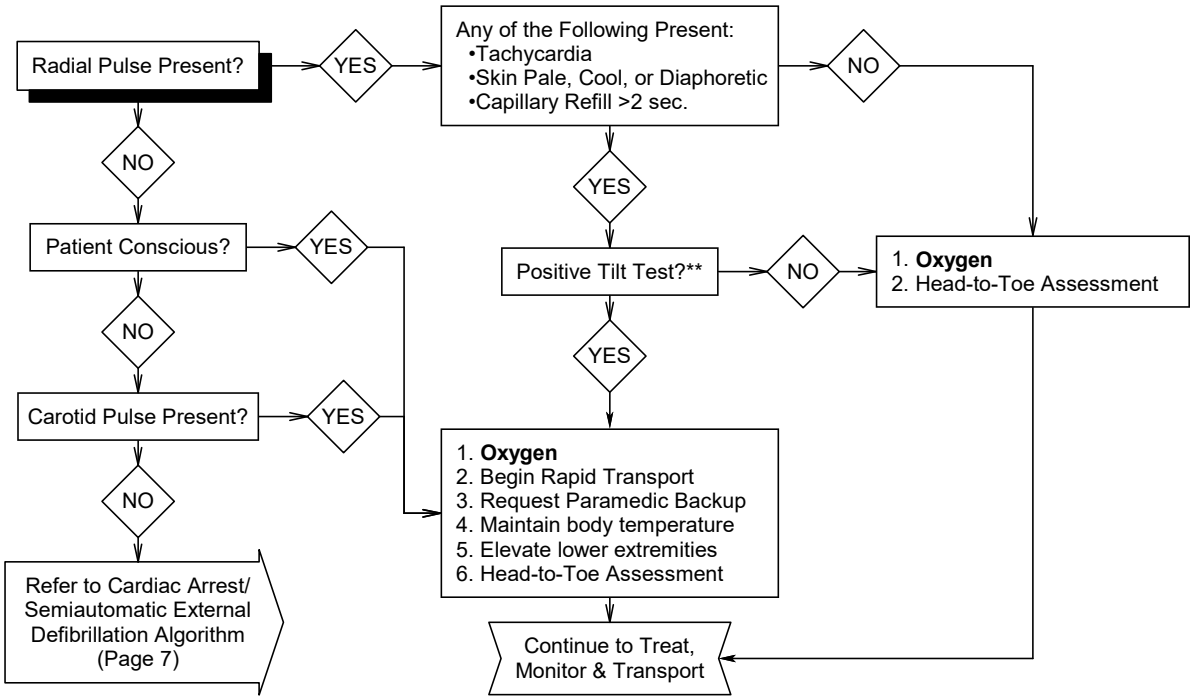
Suspect Heat Stroke in any Patient with an Altered Level of Consciousness in a Hot Environment

IF PATIENT'S CONDITION IS UNSTABLE OR DETERIORATES DURING TRANSPORT, REQUEST ASSISTANCE FROM RECEIVING AREA'S ADVANCED LIFE SUPPORT SERVICE.

HYPOVOLEMIA* (NON-TRAUMATIC)

ECA

*Possible Causes Could Include Vomiting, Diarrhea, Bloody/Dark Stool, Abdominal Pain, or Possible Diabetic Hyperglycemic State

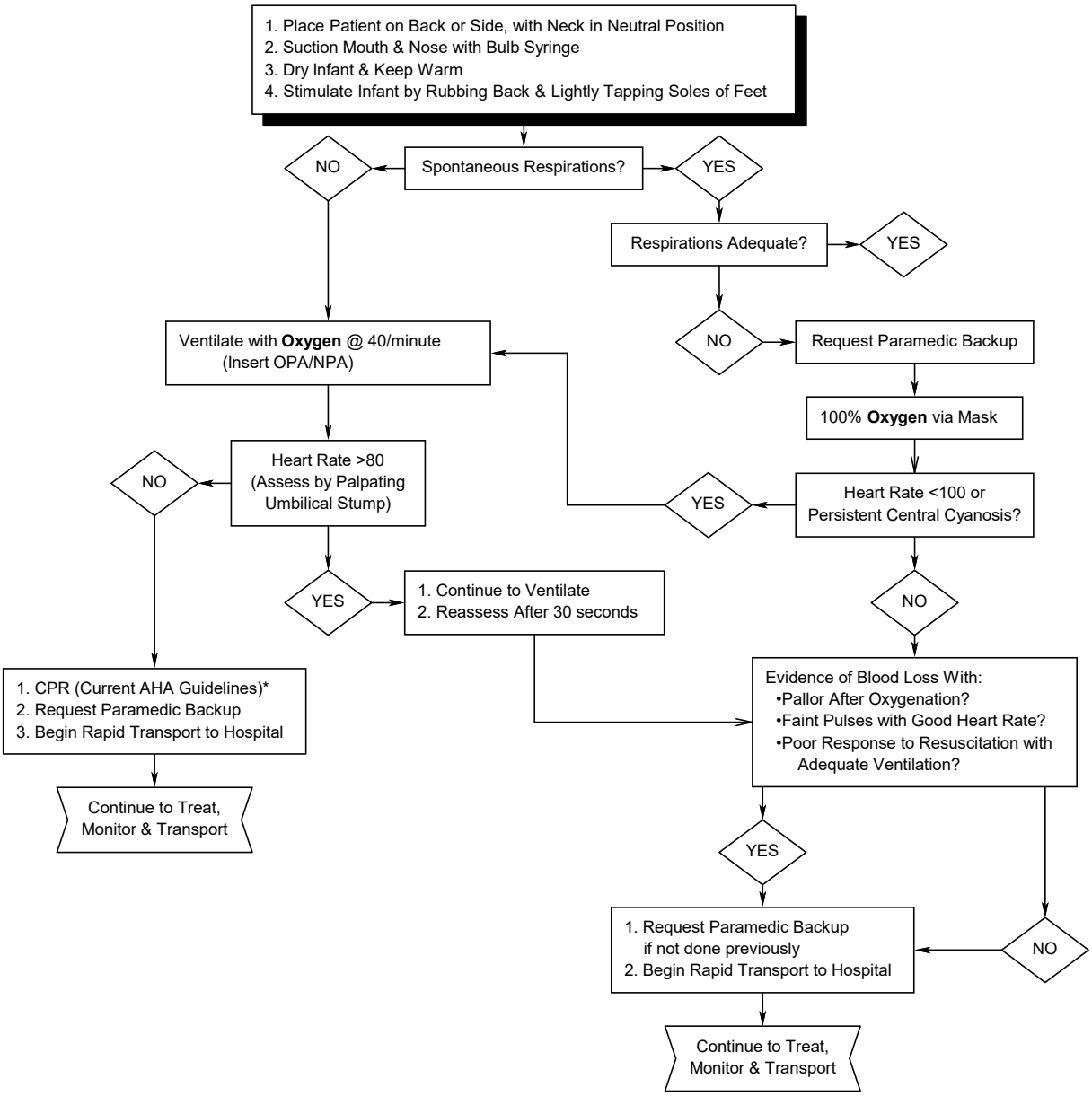


<u>POSITIVE TILT TEST</u>**

Pulse Rate Increases by 20, Systolic BP Decreases by 20mmHg, or Diastolic BP Decreases by 10mmHg when Patient is Raised from Supine to Sitting position **OR** Patient will Not Tolerate Being Raised From Supine to Sitting Position Because of Weakness, Dizziness, Presyncope, or Syncope.

NEONATAL RESUSCITATION

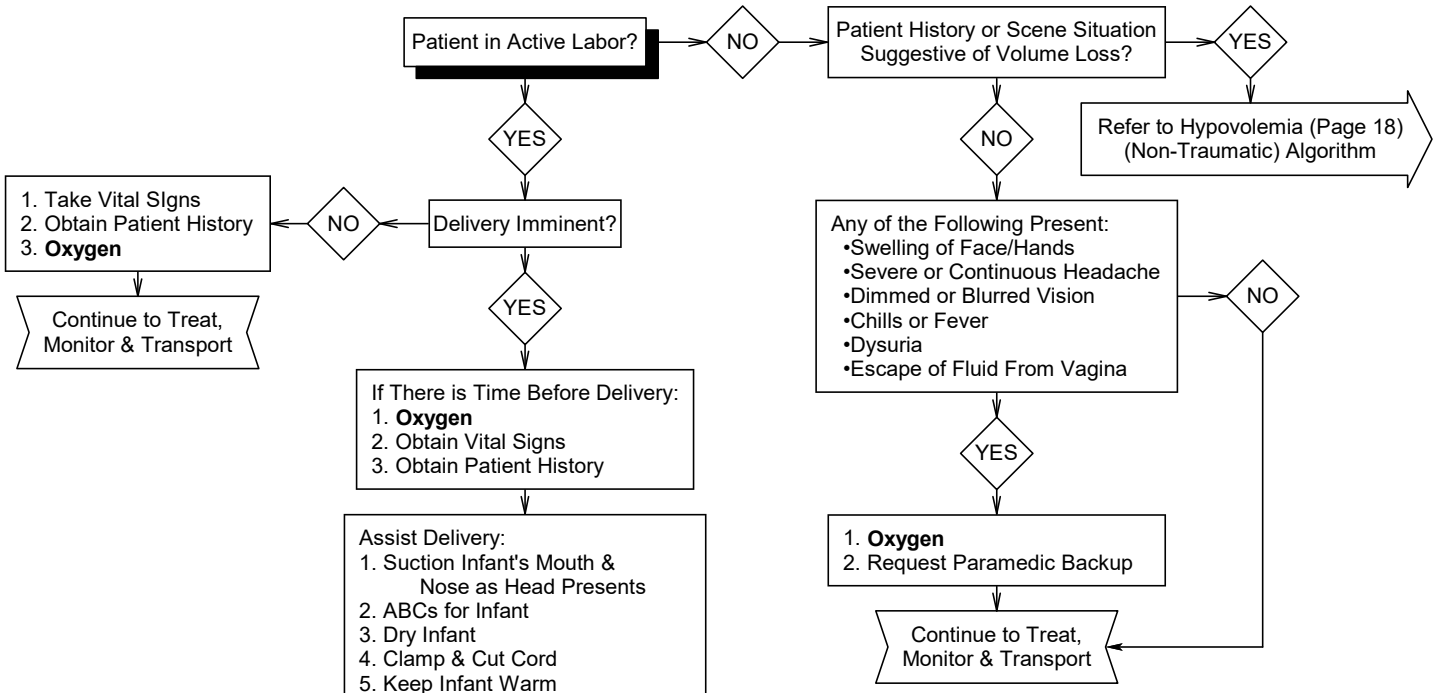
ECA



* Ideally chest compressions should be interrupted only for rhythm checks and actual defibrillations. Current AHA guidelines state that when CPR is indicated the provider should perform 5 cycles (2 Minutes) of chest compressions. Continue CPR while defibrillator is charging. Providers must organize care to ensure that chest compressions, initial and subsequent defibrillations are not delayed.

OBSTETRIC EMERGENCY

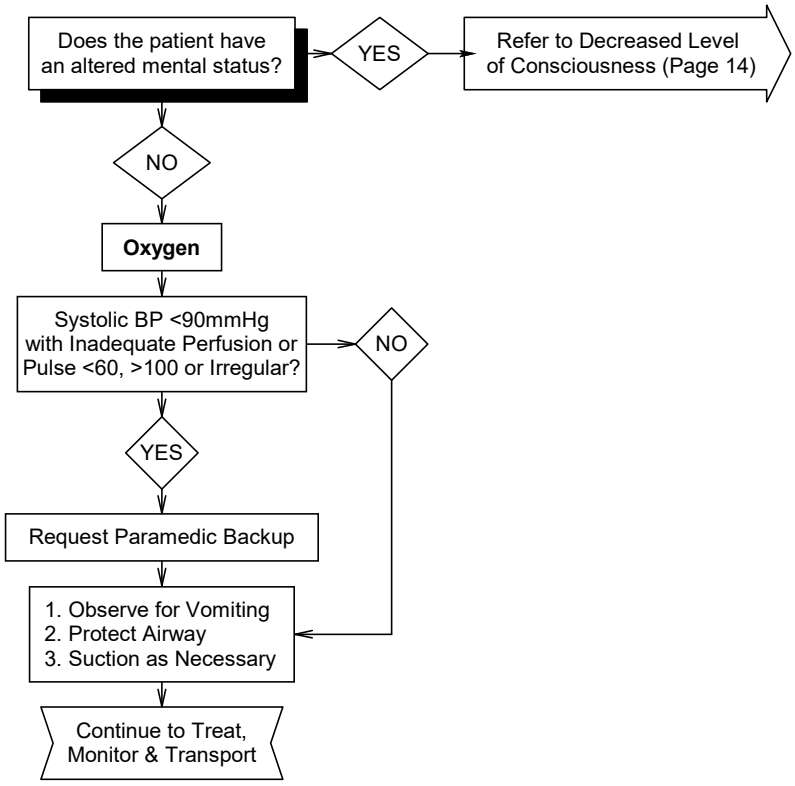
ECA



Sign	0 Points	1 Point	2 Points
Appearance	Blue or Pale	Body Pink Extremities Blue	Completely Pink
Pulse Rate	Absent	<100	>100
Grimmace	No Response	Grimmaces or Whimpers	Active Cries
Activity	Absent (Flaccid)	Some Flexion of Extremities	Active Extremity Motion
Respiratory Effort	Absent	Slow & Irregular	Strongly Crying

POISONING/OVERDOSE

ECA



Bring ALL Potential Agent Containers and/or Samples of Agents, if Possible, to the Emergency Department

Paraquat Poisoning
Do Not Give Supplemental **Oxygen**

IF PATIENT'S CONDITION IS UNSTABLE OR DETERIORATES DURING TRANSPORT, REQUEST ASSISTANCE FROM RECEIVING AREA'S ADVANCED LIFE SUPPORT SERVICE.

SEIZURES*

ECA

1. Remove Patient From Potentially Harmful Environment;
   Do NOT Forcefully Restrain Patient
2. Secure Airway
3. **Oxygen**
4. Assist Ventilations if Respirations Inadequate (Insert OPA/NPA)

Seizure Activity >5 minutes Duration, or
2 or More Seizures Without a Conscious Interval?

NO → Refer to Decreased Level of Consciousness (Page 14)

YES

Request Paramedic Backup

**Continue to Treat, Monitor & Transport

*

- Paramedic backup must be requested for all pregnant patients that are seizing or have had a seizure prior to EMS arrival in order to treat for Eclampsia.
- Eclampsia is defined as a presentation of an unexplained seizure or convulsion in the setting of the signs and symptoms of Pre-Eclampsia. Not all patients will be clinically diagnosed with Pre-Eclampsia. It is considered a complication of severe Pre-Eclampsia. It typically occurs during or after the 20th week of gestation or in the postpartum period.

PEDIATRIC DOSE

****•Liquid Motrin (Ibuprofen),** 10mg/kg, PO, to a max of 800mg, post seizures with temperature > 100.4 and adequate LOC.

IF PATIENT'S CONDITION IS UNSTABLE OR DETERIORATES DURING TRANSPORT, REQUEST ASSISTANCE FROM RECEIVING AREA'S ADVANCED LIFE SUPPORT SERVICE.

STROKE / TIA or NEUROLOGICAL DEFICIT*

ECA

1. ABCs
2. **Oxygen,** if O2 sat is <94% or signs of hypoxia. Maintain O2 sats between 94 and 99%
3. Assist Ventilations if Respirations Inadequate (Insert OPA/NPA if needed)
4. Determine Blood Glucose

Blood Glucose > 70 mg/dL?

NO → Patient able to hold head upright with gag reflex intact?

NO → Maintain Airway

YES → **Oral Glucose 15g**

Mental Status Improved?

YES → Access Cincinnati Stroke Scale, (E-1 and E-2)

NO → Does patient mentation allow for accurate Cincinnati Stroke Scale?

NO → Maintain Airway

YES → Positive finding(s) on Cincinnati Stroke Scale?

NO → Consider other possibilities
- •Drug overdose (Page 21)
- •Seizure (Page 22)

Consider Paramedic Backup

Continue to Treat, Monitor & Transport

YES → If Motor Control Deficit is Present Perform VAN Assessment (E-2 and E-3)

Reference the Stroke Triage Scheme (J-2)

- • Limit scene time to ≤ 10 minutes and consider **rapid transport** to the appropriate receiving facility, (J-2)
- • Elevate the patients head 30° if not contraindicated
- • Report all positive findings to receiving hospital from the scene if possible, if not report ASAP.
- • Repeat stroke assessments enroute & report additional findings to receiving hospital

Request Paramedic Backup

Request Paramedic Backup

Continue to Treat, Monitor & Transport

***NEUROLOGICAL DEFICIT**

1. Any Sudden Motor or Sensory Deficit
2. Sudden confusion, trouble speaking or understanding
3. Sudden difficulty seeing in one or both eyes
4. Sudden trouble walking, coordination, or focal weakness

If possible inquire about the patients baseline neurological state. Chronic neurological deficits do not warrant rapid transport to a Stroke Center. ALWAYS err on the side of caution if questionable.

Obtain the "time of onset" or "last seen normal time" as this forms the basis for all treatment desicions and should be reported and documented as the exact time (i.e. 1347, NOT about 45 minutes ago)

Patients with the following history and S/S should have an increased suspicion of a Stroke/TIA.
- • Hx: CVA/TIA, Cardiac/Vascular surgeries, DVT, Diabetes, HTN, CAD, A-Fib, Blood thinners.
- • S/S: Altered mentation, Weakness/Paralysis, Visual changes, Sensory loss, Aphasia, Dysathria, Dysphagia, Syncope, Vertigo/Dizziness, Vomiting, Headache, SZ, Respiratory pattern changes, Hyper/Hypotension, Trouble walking/unsteady gait

IF PATIENT'S CONDITION IS UNSTABLE OR DETERIORATES DURING TRANSPORT, REQUEST ASSISTANCE FROM RECEIVING AREA'S ADVANCED LIFE SUPPORT SERVICE.

ECA

ADDENDUMS/VARIANCES

PROTOCOL ADDENDUM
Guidance for Treatment and Transport of Patients with Known or Suspected Respiratory Viral Illness

April 1, 2023

The following is an updated addendum for the 2023 SPEMS Protocols for dealing with patients with a known or suspected respiratory viral illness in the pre-hospital setting and pertains to all levels of practice within the SPEMS Protocols. Such illnesses include **COVID-19, RSV, and the flu**.

This addendum will continue until the Medical Director determines otherwise.

****This addendum replaces all related addendums and variances regarding COVID-19****

This addendum is designed to be implemented as conditions require for the benefit of the patient and EMS personnel. Proper assessment and sound clinical judgement should be used when following this addendum.

This Protocol Addendum Includes:

- Insertion of the **Known or Suspected Viral Respiratory Illness Treatment/Transport Algorithm dated 4/1/2023.**
- Insertion of the **Non-Transport Guidance for Minor Cases of Known or Suspected Viral Respiratory Illness Algorithm dated 4/1/2023**
- Insertion of the **Known or Suspected Viral Respiratory Illness Treatment Supplements dated 4/1/2023**
- To the equipment list of all levels of the SPEMS Protocols:
    - **Add "2 – Albuterol Metered Dose Inhalers (MDIs) (90mcg per activation) (As available)"**
        - This medication should be added to each ambulance as soon as possible. This may be difficult to find but each EMS service should make every effort to find and stock this as soon as possible. It is imperative that patients with known or suspected viral respiratory lllness suspected COVID-19 NOT be given medications via a non-filtered nebulizer.
        - It will not be a violation of protocol if an EMS service cannot find this medication. If unable to obtain, EMS services shall maintain documentation of backorder from their vendor.
        - Procedure should be followed as detailed in the Known or Suspected Viral Respiratory Illness Treatment Supplements dated 4/1/2023
    - **Add "2 - HEPA or Bacterial/Viral (B/F) Nebulizer Assemblies" (Optional) (As available)**

Surgical Mask Recommendation: The American College of Emergency Physicians (ACEP) now recommends that EMS personnel wear surgical masks for all patient contact, if available. These masks can be used for an entire shift unless contaminated. All personnel should use an N-95 mask for all exposure to possible Viral Respiratory Illness patients.

A copy of this page, both algorithms dated 4/01/2023 and the Known or Suspected Viral Respiratory Illness Treatment Supplements dated 4/01/2023 must be inserted into each official copy of the SPEMS Protocols.

Dr. Charles Addington II, D.O
SPEMS Medical Director

*Non-Transport Guidance for Minor Cases of Known or Suspected Respiratory Viral Illness#

All LEVELS

#Illnesses Include:
COVID-19
RSV
Flu

* Does patient present with high suspicion of respiratory viral illness?

NO

YES

Universal Precautions with appropriate PPE Utilization:
- N95 mask, gloves, eye protection, gown
- Limit patient contact to one provider if at all possible
- All providers should attempt to maintain a distance of 6 feet or more when feasible and does not interfere with indicated patient care

- Is the pt between the ages of 18 and 60?
- Is the respiratory rate between 8 and 20/min
- Is the pulse Oximeter ≥ 94% on room air?
- Is the pulse rate ≤ 120/min?
- Is the SBP ≥ 100 mmHg?
- Does the patient have a temperature ≥ 100.4º (either confirmed by EMS or home testing)?
- *Does the patient have one or more symptoms noted in the "Known or Suspected Respiratory Viral Illness Critera" section listed above?

NO to ANY

YES to ALL

Does the pt report any of the following:
- Chest pain
- Shortness of breath
- Syncope

YES

Refer to appropriate algorithm/protocol

NO

The patient is safe not to be transported:
- Discuss non-transport risks, self-isolation (CDC guidelines), and when to seek further care (see checklist**)
- Patient must agree not to be transported, be of sound mind and judgement, and have an appropriate support system in place (see checklist**)

Transport or contact Medical Control if the patient does NOT meet or can not comply with the above criteria

*** Suspected Respiratory Viral Illness Criteria:**

History
- Flu-like symptoms
- Contact with a patient with a respiratory viral illness

Signs/Symptoms
- Temperature > 100.4º
- Nasal congestion or runny nose
- Cough
- Chills
- Weakness and/or flu-like symptoms
- Body aches
- Shortness of breath
- Fatigue
- Headache
- Acute loss of taste/smell
- Nausea, vomiting, diarrhea

Familiarize yourself frequently with the CDC's evolution of the signs/symptoms of COVID and other respiratory viral illnesses

**** EMS Checklist: Safe to leave at home?**

- Is the patient stable enough to receive care at home?
- Does the patient meet all the criteria in the algorithm?
- Does the patient have access to appropriate caregivers?
- *Recommended:* Is there separate bedroom or living area where the patient can recover isolated from other family members?
- Does the patient have access to food, phone, and other necessities?
- Does the patient and other family members/ caregivers have access to appropriate PPE (minimum, gloves and facemask) and are capable of adhering to precautions as part of home care or isolation?

Other Considerations:

- For non-transports, the patient must be fully alert and able to make sound decisions as with any other patient refusal.
- Ensure that the patient does not have any obvious indications of experiencing an exacerbation of chronic illnesses such as COPD, CHF, Asthma, etc.
- If the patients temperature remains above 100.4 and NSAIDs or Acetaminophen was utilized with the last 6 hours, transport should be highly encouraged.
- The patient must be able to contact 911 if needed again (functional phone, LifeAlert, or other appropriate means of communication).
- Such respiratory illnesses are droplet precaution viral illnesses. However, droplets may be aerosolized by coughing, sneezing, or aerosol type treatments (i.e. nebulizer) and remain in the air for several hours. Use an N95 mask on yourself and if the patient is transported, apply a surgical mask to the patient. Do NOT use N95 masks on these patients.

Destination Guidelines:

If patient is transported to a facility:
- At Destination: Once the patient has been moved over to facility bed and patient care has been transferred remove PPE and follow your agencies Standard Operating Procedures (SOPs) for disposal or reuse.
- Ambulance Disinfection: At a minimum, and while utilizing appropriate PPE, carefully clean/disinfect any surface contacted by the patient or provider before returning to service. Follow your agencies SOPs for equipment and ambulance disinfection.

*Known or Suspected Respiratory Viral Illness Treatment and Transport Guidelines

*Illnesses Include:
COVID-19
RSV
Flu

ALL LEVELS

Does patient present with high suspicion of Respiratory Viral Illness?

NO → Refer to appropriate algorithm

YES

Universal Precautions with appropriate PPE Utilization:
- N95 mask, gloves, eye protection, gown
- Limit patient contact to one provider if at all possible
- All providers should attempt to maintain a distance of 6 feet or more when feasible and does not interfere with indicated patient care

Is the patient a candidate for self-isolation at home per the *"Non-Transport Guidance for Minor Cases of Known or Suspected Respiratory Viral Illness protocol"*?

YES → Refer to "*Non-Transport Guidance for Minor Cases of Known or Suspected Respiratory Viral Illness" algorithm*

NO

Does the patient have a SpO2 ≥ 94% either on room air or oxygen?

YES → Continue universal precautions with appropriate PPE

NO

Does the patient have a SpO2 < 88% while on Oxygen? Is wheezing or limited air movement present due to bronchospasm?

NO → Continue universal precautions with appropriate PPE

YES

1. **Oxygen** *(All Levels)*
2. IV/IO, if applicable *(Advanced and Paramedic)*
3. Monitor EKG *(Paramedic Only)*
4. ** Administer 8 "puffs" **Albuterol** via a closed system metered dose inhaler mask (MDI) (if available) *(Basic, Advanced, and Paramedic)*

OR

** **Duo-Neb** (0.5mg Ipratropium Bromide with 3mg Albuterol) or **Xopenex** (Levalbuterol 1.25mg)(Optional) via nebulizer **only** if done so through a filtered nebulizer system (if available) *(Basic, Advanced, and Paramedic)*

5. ** Administer 0.3 mg, **Epinephrine (1:1000)**, IM, Reduce dose to 0.15 mg if patient is >50 yoa, pulse > 130/min, or history of Coronary Artery Disease *(Paramedic Only)*
6. **Decadron,** 20mg, SIVP *(Paramedic Only)*

→ *** Refer to appropriate algorithm if needed, otherwise continue to monitor and transport ****

*** Suspected Respiratory Viral Illness Criteria:**

History
- Flu-like symptoms
- Contact with patient with Respiratory Viral Illness

Signs/Symptoms
- Temperature > 100.4º
- Nasal congestion or runny nose
- Cough
- Chills
- Weakness and/or flu-like symptoms
- Body aches
- Shortness of breath
- Fatigue
- Headache
- Acute loss of taste/smell
- Nausea, vomiting, diarrhea

Familiarize yourself frequently with the CDC's evolution of thesigns/symptoms of COVID and other respiratory viral illnesses

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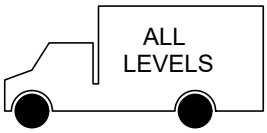
*Known or Suspected Respiratory Viral Illness Treatment and Transport Guidelines (Continued)

*Illnesses Include:
COVID-19
RSV
Flu



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**
- The closed system metered dose inhaler (MDI) mask should be used instead of administering medications via the "traditional" non-filtered nebulized route as defined on the following pages. *(Basic, Advanced, and Paramedic).* However, **Duo Neb** or **Xopenex** may be administered via nebulizer, **ONLY** if done so through a filtered nebulizer system as defined on the following pages. *(Basic, Advanced, and Paramedic).* This is to help prevent the transmission of the virus by aerosolization.

- IM **Epinephrine (1:1,000)** is highly recommended for its bronchodilation effects. Consider the cautions and contraindications for the administration of **Epinephrine (1:1,000)** (see SPEMS Protocol Supplement Page S-16 for more information) *(Paramedic Only)*.

**** **Destination Guidelines:**

- **At Destination:** Once the patient has been moved over to facility bed and patient care has been transferred removed PPE and follow your agencies Standard Operating Procedures (SOPs) for disposal or reuse.
- **Ambulance Disinfection:** At a minimum, and while utilizing appropriate PPE, carefully clean/disinfect any surface contacted by the patient or provider before returning to service. Follow your agencies SOPs for equipment and ambulance disinfection.

*** If respiratory status continues to decline and the airway must be secured, **INTUBATION VIA THE DIRECT LARYNGOSCOPY TECHNIQUE IS NOT RECOMMENDED.** Instead, focus on BLS airway management to reduce the risk of personal contamination from respiratory droplets. Intubation via indirect laryngoscopy (King Vision, Airtraq, etc...) or placement of a King Airway is an option, but only indicated for rare cases where BVM ventilation is inadequate.

PEDIATRIC DOSE:

- **Epinepherine (1:1,000)**, 0.01mg/kg, IM, up to a max of 0.15mg *(Paramedic Only)*
- Administer 4 "puffs" of **Albuterol** via a metered dose inhaler (MDI) *(Basic, Advanced, and Paramedic)*
- **Duo-Neb** or **Xopenex**, dose and frequency same as adult *(Basic, Advanced, and Paramedic)*
- **Decadron**, 0.6mg/kg to a max of 20mg *(Paramedic Only)* Do not administer to patients < 2 yoa

IF PATIENT'S CONDITION IS UNSTABLE OR DETERIORATES DURING TRANSPORT, REQUEST ASSISTANCE FROM RECEIVING AREA'S ADVANCED LIFE SUPPORT SERVICE (IF APPLICABLE).

Known or Suspected Respiratory Viral Illness
Treatment Procedure Supplements

Epinephrine 1:1000 (1 mg per 1 mL concentration)

0.15 mg = 0.15 mL

This is the maximum single dose for:

- Pediatrics over 15 kg (33 lbs), or
- Adults with a history of cardiac disease, or
- Adults over 50 years old, or
- Adults with a heart rate exceeding 130 bpm

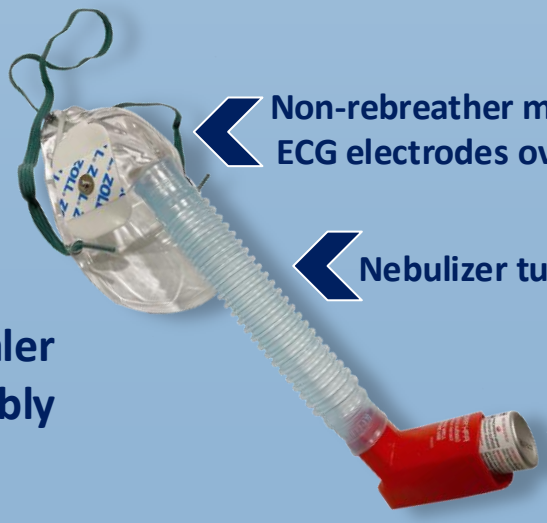
0.3 mg = 0.3 mL

This is the maximum single dose for:

- Adults with no known history of cardiac disease, and
- Adults 50 years old and younger, and
- Heart rate under 130 bpm

Paramedic Only

Metered Dose Inhaler (MDI) Mask Assembly

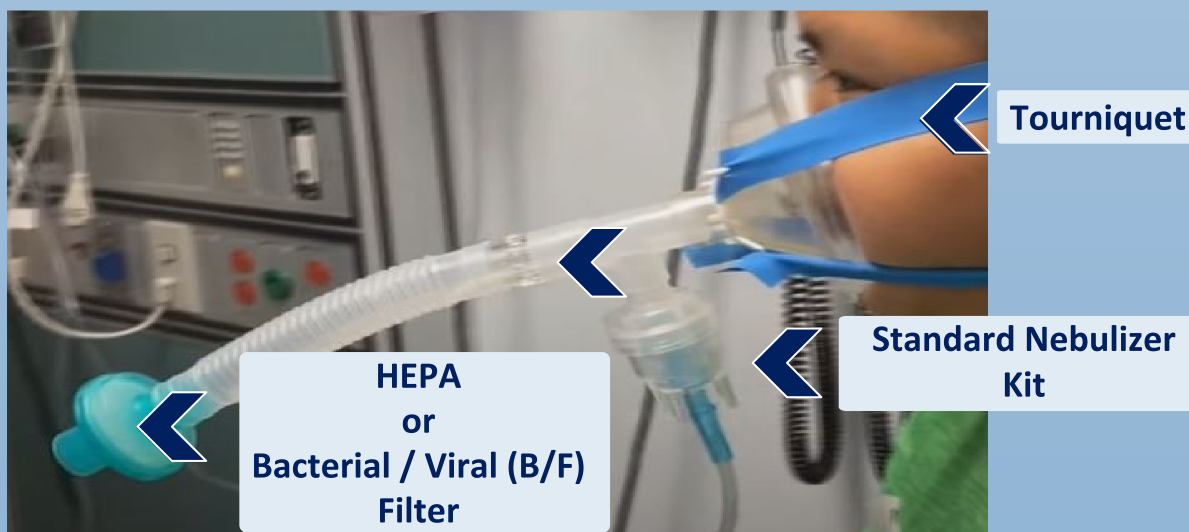


Basic, Advanced, and Paramedic

- If available, the Metered Dose Inhaler (MDI) should be utilized with the above pictured closed system inhaler mask. This mask is used to help prevent the transmission of the virus by utilizing a closed system to limit aerosolization. This inhaler mask is assembled using a NRB or nebulizer mask, nebulizer spacer tube, two (2) ECG electrodes, and the MDI. Connect the corragated spacer tube to the mask and MDI and cover the two (2) exhaust ports on the mask with the ECG electrodes. *(Basic, Advanced, and Paramedic)*
- *Instructional video: https://www.youtube.com/watch?v=8qaIk59u4mc&feature=youtu.be&app=desktop*
- If MDIs are not available, **DO NOT** administer any nebulized bronchodilators unless done so utilizing a filtered nebulizer system (see following page) *(Basic, Advanced, and Paramedic)*. Instead focus on basic airway management and the use of a BVM *(All levels)*.
- Respiratory Viral Illnesses are considered droplet-precaution viral diseases. However, droplets may be aerosolized by coughing, sneezing, or nebulized medication use (home nebulizer) and remain in the air for several hours. Use an N95 mask on yourself when making patient contact. If the patient is transported, apply a surgical mask to the patient to protect others. Do NOT use an N95 mask on these patients.
- If respiratory status continues to decline and the airway must be secured, **INTUBATION VIA THE DIRECT LARYNGOSCOPY TECHNIQUE IS NOT RECOMMENDED**. Instead, focus on BLS airway management to reduce the risk of personal contamination from respiratory droplets. Endotracheal intubation via indirect laryngoscopy (King Vision, Airtraq, etc...) or placement of a King Airway is an option, but only indicated for rare cases where BVM ventilation is inadequate.

Known or Suspected Respiratory Viral Illness Treatment Procedure Supplements

Filtered Nebulizer Mask Assembly



Basic, Advanced, and Paramedic

- Traditional nebulizers are reported to increase droplet dispersion, causing uncertainty in use for patients with Respiratory Viral Illness. A national shortage of Metered Dose Inhalers (MDI's) may result in difficulty obtaining them. However, administering a nebulized bronchodilator while utilizing a **leak free** filtered nebulized system has proven to be both effective and safer for healthcare professionals (*Basic, Advanced, and Paramedic*).
- If a nebulized bronchodilator is administered it **MUST** be done through a filtered nebulizer system that creates a seal around the patient's face throughout the entire treatment (if a mouth pieces is used in the place of a vent free mask the patient must maintain a seal around mouth piece throughout the entire treatment). It is recommended to use a vent free mask either strapped to the patient's face or held firmly in place by the EMS provider *(Basic, Advanced, and Paramedic).*
- There are different ways to create a leak free filtered nebulizer system. The above pictured technique is merely a suggestion. To make a safe and effective filtered nebulizer system it must be free of leaks where the system meets the patient's face or mouth. It must also utilize a HEPA (preferred) or a Bacterial / Viral (B/F) Filter located at the exhaust end of the system. If constructed adequately there should not be signs of the nebulized bronchodilator (fog) exiting anywhere from the filtered nebulizer system.
- *Instructional video: KűűLJăǇĸĸèϩdzűdzΦōŜĸŕţфwȄẏcNĒN{пKŕăűΓ¢[tvaϩŎǿh5Lǿaϩ!KϨŘŏŕǉvϩлƎ*
- If MDIs or an effective filtered nebulizer system are not available, **DO NOT** administer any nebulized bronchodilators. Instead focus on basic airway management and the use of a BVM (*All levels*).
- If respiratory status continues to decline and the airway must be secured, **INTUBATION VIA THE DIRECT LARYNGOSCOPY TECHNIQUE IS NOT RECOMMENDED**. Instead, focus on BLS airway management to reduce the risk of personal contamination from respiratory droplets. Endotracheal intubation via indirect laryngoscopy (King Vision, Airtraq, etc...) or placement of a King Airway is an option, but only indicated for rare cases where BVM ventilation is inadequate.
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