Northwest Texas Healthcare Systems

PANHANDLE EMERGENCY MEDICAL SERVICES SYSTEM (PEMSS)

"A System To Save Lives"
Medical Protocols (Regional)

June 2005

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PEMSS PROTOCOLS
MEDICAL CONTROL GUIDELINES

This document contains the protocols, standing orders, and patient care guidelines for all EMS personnel involved in patient care within the Panhandle Emergency Medical Service System (PEMSS). We are continuing the flow chart format for these protocols, and all providers are expected to work within the scope of their certification/licensure. I expect you to know and review your protocols. I also expect you to continue to advance your medical knowledge and to maintain a high level of proficiency in your skills. This will assure that patients within this system receive a consistently high level of care.

The protocols will continue to become more aggressive, but too, my expectations will require each level of provider to continue their education and training (egenesis is just a start).

This manual is not intended to be an all-inclusive textbook. It is impossible to write a protocol for every possible patient encounter. Many patients will not fit into one specific protocol, but rather involve multiple protocols. I expect you to use your clinical judgment in these cases, along with online medical control if needed, to insure that the patient receives the appropriate care.

The major changes in these protocols reflect my theory of standing orders vs. online medical control requests. I believe that if a medical intervention is obviously needed, and will be “rubber stamped yes” by medical control every time it is requested, then it should probably be a standing order. This level of trust requires a higher level of accountability on behalf of the EMS providers. In the past, some providers have had the mindset of asking for the most invasive or aggressive treatment available. If the online medical control physician approved the request, then they were somehow justified in asking for it. This is not an appropriate understanding of these protocols or online medical control requests. It is expected that no medical intervention will be initiated or requested unless the patient truly needs it and the benefits outweigh the risks. An appropriate mindset is to treat every patient like you would want your parent, spouse, or child treated.

The individual EMS providers are encouraged to contact medical control in any situation where consultation with a physician would be beneficial. In some instances the Medical Control physician may elect to direct treatment or intervention that varies from the protocols. In that case, the EMS PERSONNEL are to follow the direction of the Medical Control physician WITHIN THEIR SKILL LEVEL CERTIFICATION. If communication problems prevent you from contacting medical control, then the medical control request items are to be treated as standing orders. These situations call for very sound judgment. Every time that a medical control request item is carried out without contacting online medical control, a protocol deviation report is to be filled out and submitted to the Medical Director within 24 hours of the event.

Authorization to Practice under These Protocols

Only EMS PERSONNEL certified by the Texas Department of State Health Services and having a current medical control authorization number from the Panhandle Emergency Medical Service System Medical Director may manage patients under these treatment protocols. This includes those practicing in the state of Oklahoma under PEMSS Protocols.

To operate under these protocols, the EMS personnel must be responding with a PEMSS member service, and are authorized to practice at the level in which that service is licensed.
The pre-hospital provider must adhere to the standards defined in these protocols or face revocation of medical control privileges if these standards are violated.

These protocols are intended only for the PEMSS member services with online medical direction through Northwest Texas Emergency Department. Northwest Texas Healthcare System, Universal Health Service, and/or Amarillo Emergency Physicians, LLP are not responsible for their illegal or unauthorized use.

EMS agencies that have and utilize a local Medical Director while maintaining membership in PEMSS may modify or alter the Medical Treatment Protocols in accordance with local needs only with the approval of their local Medical Director. These agencies are required to furnish copies of modifications to PEMSS and the Texas Department of State Health Services. These modifications will be on file for reference in both the Program Coordinator's office and the Northwest Texas Hospital Emergency Department.

The Foundations of Practice and The Scope of Practice may not be altered or changed in any way.

PEMSS is a unique organization and I thank all of you for your participation and dedication. This system could not function without committed individuals at the local level giving selflessly of themselves and their time. Your community will probably never realize how much effort is involved in assuring that someone is available to care for them in an emergency. I thank you for your efforts, and I am proud to be your Medical Director.

Carl Paetzold, MD
PEMSS Medical Director
There are over 850 providers that currently function within PEMSS. All of these individuals practice under the physician license of the Medical Director. The providers are the “hands, eyes, and ears” of the Medical Director who is ultimately responsible for all treatment rendered by PEMSS personnel.

Department of State Health Services Certification/Licensure is necessary to be eligible for a PEMSS medical control number. In order to operate in this system, and under these protocols you must have a current PEMSS medical control number. With a valid PEMSS medical control number you are authorized to operate under these protocols. Those practicing in under PEMSS Protocols in the state of Oklahoma must follow Oklahoma certification/licensure procedures. EMS Services that operate/utilize a non-certified driver shall provide PEMSS a current roster that identifies such driver and copies of the driver(s) valid Texas driver license, and a history of traffic violations. It shall be the responsibility of each individual EMS service, to have in place, reporting of misdemeanor or felony convictions of all certified and non-certified EMS personnel.

Pursuant to the provisions of the Medical Practice Act, the Medical Director of PEMSS, has determined that all certified/licensed personnel must meet the following requirements, and EMS services that wish to operate under the treatment protocols.

Department of State Health Services EMS rule 157.51: states an “emergency suspension...shall be effective immediately without a hearing” if there is “reasonable cause to believe that the conduct of any certificate holder creates an imminent danger to the public health or safety.” Working outside one’s scope of practice could be construed as creating an imminent danger. This rule goes on to state that “the department may suspend or decertify an EMS personnel certificate for, but not limited to, the following reasons, failure to administer medications and/or treatments in a responsible manner in accordance with the medical director’s orders or protocols, or providing advanced level treatment without medical direction or supervision.

COMMUNICATION PROBLEMS

In the event an ambulance cannot contact medical control (i.e. mass casualty or radio/telephone problem), all protocols become standing orders. Likewise, in the event that a medical control physician cannot respond to the radio/telephone within two minutes of the call, all protocols are considered standing orders. An emergency department nurse at the medical control hospital may relay orders from the emergency physician in cases where it is impractical for him or her to come to the radio/telephone. It is not necessary to speak with a medical control physician concerning treatment modalities that are considered to be standing orders except if a question arises concerning the planned treatment.
In the event medical control cannot be contacted, and treatment protocols were carried out as standing orders, the record may be pulled for review by the medical director

MANDATORY MEDICAL DIRECTOR NOTIFICATION.

The PEMSS Medical Director (or his designee) is to be notified when any of the following occur.
- Cardiac arrest after administration of Versed, Morphine, Demerol, or Etomidate.
- Any attempt (successful or unsuccessful) at needle or surgical airways.
- Incorrect medication administration or dose. (i.e., wrong dose, route, etc).
- Any unusual circumstance or intervention that potentially causes or caused harm to a patient.
- Potentially significant protocol deviations. (including performing skills beyond your scope of practice).
- Any circumstances that involves a breach of confidentiality.
- Motor Vehicle Accidents involving a PEMSS service ambulance/emergency vehicle.
- Any misdemeanor or felony convictions.

Failure to notify the Medical Director in a timely manner (usually 24 hours) of the above occurrences will be considered equal to falsification of records and could be grounds for removal of PEMSS medical control number.

Complaint Resolution
At any time a member service or individual has a complaint or dispute, it is always easier to try to resolve the complaint on a “one-on-one” level. If a resolution cannot be reached, then an alternate plan is to follow the chain of command. This will be the chain of command in the PEMSS System:

1. Service Directors
2. PEMSS CQI/Education Committee
3. PEMSS Advisory Board
4. PEMSS Director
5. PEMSS Medical Director

In all cases of complaints regarding patient care issues, standards of care, etc., the complaint will be forwarded to the Medical Director (or his designee).

The Medical Director has the option to decertify (revoke the medical control number of) PEMSS personnel internally (within the system), and/or to report an incident to the Department Of State Health Services. If your PEMSS medical control is revoked, you cannot operate under these protocols.
Introduction

EMS providers treat nearly 20 million patients a year in the United States. Many of these patients have complicated medical or traumatic conditions that require considerable knowledge, skill, and judgment. Some are critically ill or injured and the proper care can literally make the difference between life and death. For most patients, the medical/trauma crisis that each experience is not a matter of life or death, yet is no less significant to an individual and his/her family. Emergency Medical Services in the United States are diverse, highly sophisticated, and complex systems. As of 2003, there were 840,669 certified pre-hospital providers in the United States and 827 providers in the PEMSS System.

One of the greatest risks to patient safety occurs when EMS providers are placed into situations and roles where they are not experientially or educationally prepared. There are numerous political, economic, social, and cultural reasons why providers are pressured into functioning beyond their intended role. In many cases, the individual provider has no malicious intent, but is simply unaware of the consequences of such actions.

It is the shared responsibility of medical direction, clinical, and administrative supervision, regulation, and quality assurance to ensure that providers are not placed in situations where they will be tempted to exceed their scope of practice.

Scope of Practice

Scope of Practice is a legal description of the distinction between a licensed healthcare provider and the lay public and the different licensed healthcare providers. The PEMSS protocols will be the Scope of Practice for the pre-hospital providers in this system. Safe and effective patient care is the shared responsibility of everybody within this EMS System, and must be our collective first priority. Safe and effective care cannot be accomplished through any single activity, but is best accomplished with an integrated system of checks and balances.

Just because an activity or procedure can legally be performed, does not mean that it must, or should, be performed.

Patient Definition:

Patient; an individual requesting or potentially needing medical evaluation or treatment.

The relationship between provider and patient is established either by telephone, radio, or personal contact. In the case of a mass casualty incident, everyone is a potential patient until proven otherwise. This principle holds true for every incident, regardless of size or magnitude. It is every provider’s responsibility to make certain that all effected individuals are offered the opportunity for evaluation, treatment, and/or transport.
Patient Confidentiality:

Confidential means:
• Not to be divulged
• Spoken or written as secret
• Showing confidence or trust
• Being discreet
• An example of individual behavior that protects the privacy of information and data

Protecting our patients confidentiality extends to public areas outside the hospital environment. Do not discuss any patient information with anyone outside the hospital environment unless you are authorized to do so.

All information obtained during the course of treating and transporting a patient is confidential. Providers have an ethical responsibility to handle all information and documentation regarding a patient with a high degree of confidentiality. Patient information is only to be shared with those individuals who are part of the continuity of patient care. Patient records are not routinely provided to law enforcement agencies or other non-medical public safety entities that are not part of the patient care continuum.

Once a patient record has been completed, it is considered a medical record and, therefore, is confidential. Every effort shall be made to ensure that the record will not be left unattended, open for public view, or stored haphazardly in a way, which will compromise the confidentiality of the patient and the record contents.

Similarly, it is our responsibility to not discuss patient care issues with anyone other than those medical professionals involved in that patients care. Confidentiality will apply to all patient care issues in the PEMSS System and ALL member services and personnel will adhere to these standards. Any breach of confidentiality will be considered a willful deviation from these protocols and could be grounds for removal of PEMSS Medical Control number.

Common behaviors that breech confidentiality
- Leaving medical records, reports open in work areas with access to unauthorized viewing
- Telling a patient’s family and/or friends any details about results or care without having approval of the patient
- Releasing any information that would reveal the patient’s diagnosis or course of treatment
- Discussing patient information in a public area
- Disposing of any confidential papers in an open trash container not specifically designated for disposal /destruction of confidential data
- Discussing any part of an EMS response, i.e.- radio traffic, telephone conversations, response locations, and outcome of responses
Consent to medical treatment:

Consent for medical treatment is based upon the concept that every individual has the right to determine what is to be done with or to his/her own body. For consent to be legally valid, it must be informed. Except in emergency situations in which an individual has what appears to be a potentially life-threatening injury or illness, a person must be made aware of, and understand the risks of any procedures performed, medications administered, or the consequences of refusal of treatment and/or transportation. In addition, the patient must be informed in alternatives to evaluation, treatment and transport by EMS. In the case of a minor, consent should be obtained from a legally authorized representative who is usually a parent, but in some circumstances, may be another relative, or a legal guardian.

Anyone at least eighteen (18) years of age or older who is mentally competent may grant consent for treatment, refuse transportation, or sign a legal document (i.e. refusal form)

When consent is not required (implied consent):
In life threatening emergency situations, consent to treatment is not required (unconscious patient). The law presumes that if the individual with a life threatening injury or illness were conscious and able to communicate, he/she would consent to emergency treatment.

Consent for emergency care is not required if the individual:
(1) Is unable to communicate because of an injury, accident, illness, or unconsciousness.
(2) Is suffering what reasonably appears to be a life-threatening injury or illness.
(3) A minor (under age 18) who is suffering from what appears to be a life threatening injury or illness and whose parents, managing or possessory conservator, * or guardian is not present.

When a minor may consent to treatment:
A minor may consent to his/her own medical, dental, psychological, and surgical treatment by a licensed physician or dentist in the following circumstances:
(1) minor is on active duty with the Armed Services of the United States of America;
(2) Is;
   (a) 16 years of age or older and resides separate and apart from his/her parents, managing conservator, * or guardian, with or without consent of the parents, managing conservator, * or guardian, and regardless of duration of residence and;
   (b) manages his/her own financial affairs, regardless of the source of income.
(3) Consents to the diagnosis and treatment of an infectious, contagious, or communicable disease that is required by law or a rule to be reported by the physician or dentist to a local health officer or Department of State Health Services.
(4) Unmarried and pregnant and consents to hospital, medical, or surgical treatment other than abortion, related to pregnancy.
(5) Consents to examination and treatment for drug or chemical addiction. Drug or Chemical dependency, or any other condition directly related to drug or chemical Use; or;
(6) Unmarried, and has custody of the minor’s biological child and consents to
Consent to treatment – Medical, dental, psychological, or surgical treatment of the child.

(7) Is legally married.

(8) Minor has been legally emancipated by a court of law (minor should have court order as evidence)

* A managing conservator is an individual appointed by the court, usually during divorce proceedings, to have custody of a minor, to make decisions for the minor and to make a home for the minor. A managing conservator is responsible for caring for the minor.

Who Other Than A Parent May Give Legal Consent For Treatment Of A Minor:

The following persons may consent to medical treatment of a minor when the person having the right to consent as otherwise provided by law (typically a parent) cannot be contacted and that person has not given actual notice to the contrary.

- A grandparent of the child.
- An adult (over age 18) brother or sister of the child.
- An adult (over age 18) aunt or uncle of the child.
- An educational institution in which the child is enrolled that has received written authorization to consent from a person having a right to consent.
- An adult who has actual care, control, and possession of a child under the jurisdiction of a juvenile court or committed by a juvenile court to the care of an agency of the state or county, or:
  - A peace officer who has lawfully taken custody of a minor, if the peace officer has reasonable grounds to believe the minor is in need of immediate medical treatment.

Incompetent Adult Patient:

A patient who has been declared legally incompetent by a court of law cannot consent to his or her treatment. The patient’s court appointed guardian has the right to consent to, or refuse treatment.

Additional Guidelines:

Any adult patient who is in possession of their faculties (i.e. conscious and alert to person, place, time, and date) has the right to refuse any aspect of treatment (such as drug therapy, spinal immobilization, etc.), even if that refusal could result in serious harm, but may still request and have the right to transportation to a medical facility by ambulance. The patient should be made aware of the possible medical consequences of their refusal. In addition to refusing treatment for themselves, competent adults (age 18 and older), as determined by assessment and condition, have the right to refuse treatment and transportation of their children or anyone else for whom they are the legal guardians. Thorough documentation of the patient’s refusal and the providers’ efforts to persuade the patient to seek help are necessary and must be signed and witnessed.

At a minimum, all providers should do the following when dealing with a patient who is conscious and able to communicate:

- Obtain the patients verbal consent prior to patient contact, evaluation or treatment.
- Assess the patient’s ability to understand the medical condition and information communicated.
- Be courteous to ant patient who refuses an offer of evaluation, treatment, or transportation.
- Evaluate the patient to determine the urgency of the situation and condition.
• Determine if the patient is capable of seeking assistance or taking actions for his or her own well being.
• If the patient refuses treatment and/or transportation, fully describe the potential consequences of their decision, and encourage them to immediately re-contact 911 if their condition worsens or further medical assistance is needed.
• If the paramedic on scene feels it would be beneficial to contact on-line medical control for a consult, he or she could do this and have the physician talk with the patient.

**Physician On Scene:**

For situations in which a Texas Licensed Physician is at the scene of an EMS call, the following procedures should be followed. In all cases the prehospital provider is responsible for management of the patient and acts as an agent of the medical director unless the patient’s physician is present (as in the physicians’ office) and assumes the patient care responsibilities.

**Private Physician On-Scene:**
1. Conduct yourself in a professional manner and respectful attitude at all time. **The physician has certain professional and legal prerogatives as the senior medical officer on the scene.**
2. Advise the physician that you are operating under the **PEMSS patient care protocols** promulgated by the Panhandle Emergency Medical Services System Medical Director, and request that you be allowed to follow these orders as needed.
3. Follow any *reasonable request* of the physician. **Prehospital providers shall not comply with orders, which exceed their scope of practice or training.**
4. If the prehospital provider believes that the care rendered or requested by the private physician is inconsistent with quality patient care, the provider should contact on-line medical control for guidance.

**Intervener Physician On-Scene Wanting to Assume Patient Care:**
1. A prehospital provider at an emergency scene should relinquish responsibility for patient management when the intervener physician has:
   a. been properly identified (i.e. medical ID card)
   b. agreed to assume responsibility **and**
   c. agreed to fully document the intervention in a manner acceptable to the PEMSS system.
2. The intervener physician should agree in advance to accompany the patient to the hospital and assume all responsibility and direct patient care.
3. The physician assuming responsibility must **personally initiate** any procedure or administer any medication not within the scope and / or training of the prehospital provider.
4. If the treatment at the emergency scene differs from existing EMS protocols and is contradictory to quality patient care, the prehospital provider retains the right to revert to existing PEMSS protocols for the continued management of the patient. **On-Line Medical Control shall be Immediately Established for Guidance.**
5. In cases of disagreement between an Intervener Physician and On-Line Medical Control, the prehospital provider will follow the orders of On-Line Medical Control.
Definitions:

- **Private Physician:** a physician who provides evidence of medical licensure in the state of Texas, has established a prior physician/patient relationship, wishes to take charge of a medical emergency, and is willing to accompany the patient to the hospital when so requested.

- **Intervener Physician:** a physician who provides evidence of medical licensure in the state of Texas, has not established a prior physician/patient relationship, wishes to take charge of a medical emergency, and is willing to accompany the patient to the hospital when requested.

EMS Personnel Identification:

Each EMS service shall ensure that all personnel, when on in-service vehicle or when on-scene, are prominently identified by name, certification level, and provider service name, and medical control authorization number. Each PEMSS service provider shall wear an I.D. badge with the above information, including non-certified drivers.

A picture I.D. badge is not mandatory, but in-light of current world events, a picture I.D. is an added measure of security.
Patient Refusals:

All PEMSS Pre-hospital providers have a **Duty To Act** in the best interest of all Patients. Failure to follow these protocols will constitute a willful deviation from established procedure. This could result in the Medical Director revoking your medical control, and reporting the incident to the Department of State Health Services.

1. No patient shall be encouraged to refuse evaluation, treatment and transport.
2. EMS personnel will advise patients to use EMS transport when this advice is requested from a patient or family member.
3. No person will be denied evaluation or transport on the basis of age, sex, race, creed, color, origin, economic status, language, sexual preference, disease or injury.
4. All patient refusals will be documented on an incident report with documentation of:
   a. The patient refusal information sheet was provided to the patient.
   b. Documentation that the patient comprehended the material.
   c. The EMS treatment that was offered.
   d. A patient care report will be completed when care is provided and then any further care is refused. (BLS or ALS aid call).
   e. See decision tree for patient refusals.
6. 5% of all patient refusals (excluding MVA’s) shall be included in the PEMSS CQI process.

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**Assess Legal Capacity**

- **18 or over**
  - Yes
  - Judged incompetent by a court or under legal conservatorship
    - Yes
    - Seek consent from guardian
    - No
    - Assess mental capacity
  - No

- **Under 18 or has a**
  - Yes
  - Parent or guardian available?
    - Yes
    - Refusing necessary emergency treatment?
      - Yes
      - Can treatment be safely delayed?
      - No
    - No
  - No
Panhandle Emergency Medical Services System

Patient Refusal Information Sheet

Instructions: Please Read and Keep This Form!

This form has been given to you because you have refused treatment and/or transport by the Emergency Medical Service. Your health and safety are our primary concern. Even though you have decided to not accept our advice, please remember the following:

Initials ___ 1. The evaluation and/or treatment provided to you by EMT’s or Paramedics is not a substitute for medical evaluation and treatment by a physician. We advise you to seek a medical evaluation and treatment.

Initials ___ 2. Your condition may not seem as bad to you as it actually is. Without treatment, your condition or problem could become worse. If you are planning to seek medical treatment, a decision to refuse treatment or transport by EMS may result in a delay which could make your condition or problem worse.

Initials ___ 3. Medical evaluation and/or treatment may be obtained by Contacting your physician, if you have one, or by going to any hospital emergency department that is staffed 24 hours a day with emergency physicians. You may be seen at these Emergency Departments without an appointment.

Initials ___ 4. If you change your mind or if your condition becomes worse and you decide to accept treatment and transport by EMS, please do not hesitate to call us back, by dialing 911. We will do our best to help you.

Initials ___ 5. Don’t wait! When medical treatment is needed, it’s usually better to get it right away.

☐ 6. If the box at the left is checked, this indicates that your condition or problem has been discussed with a physician at the hospital by radio or telephone and the advice given to you by EMS is the recommendation of the Emergency Physician.

☐ 7. If the box at the left has been checked, this indicates that you are the patients’ legal guardian in this situation and are acting on behalf of the patient. By signing below you indicate that you have and understand the above information regarding refusal of treatment/transport.

Guardian’s name: __________________ Relationship to patient _______________

Guardian’s Signature: ___________________________ Date ___/___/___

I have received a copy of this Refusal Information Sheet

Patient’s Signature: ___________________________________________ Date ___/___/___

Patient’s Name : __________________________________ Witness: ______________________________

Provider’s Signature: _________________________________________ Date ___/___/___
EMS & Emergency Driving:

One of the highest areas of liability for EMS responders is operating an emergency vehicle in the emergency mode (code 3). You place yourself, your partner, the patient, and any others on the road at risk. Driving in this manner requires a great deal of responsibility and judgment and does not excuse nor protect an individual from liability. The practice of responding to emergencies or to the ambulance station in a private vehicle is common in rural EMS. From this point on, to respond code 3 in a private vehicle is forbidden, this places the responder, and the public at a higher level of risk.

A private vehicle is not a certified emergency vehicle. Responders in the PEMSS system will not be authorized to respond in a private vehicle in the emergency mode code 3 (lights and siren) to the EMS station or to scenes. Emergency lighting shall only be used while a vehicle is on scene to warn of a potential hazard.

Returning to ones own response area code 3 will not be authorized in this system.

The following TDSHS rules will apply to all PEMSS services regarding EMS vehicles:

157.16(15) operating, directing, or allowing staff to operate vehicle-warning devices unnecessarily or inappropriately;

157.16(16) operating, directing, or allowing staff to operate any vehicle on EMS business while under the influence of any substance that inhibits the mental or physical capacities of that person;

157.16(17) having been found to have operated, directed, or allowed staff to operate any vehicle while on EMS business in a reckless or unsafe manner and/or in a manner that is dangerous to health or safety of any person;

157.16(18) operating, directing, or allowing staff to operate any vehicle that is not mechanically safe, clean, and in good operating condition.
Professionalism:

The Panhandle Emergency Medical Services System prides itself on knowing that its providers helped to mold the system into a nationally recognized professional system of quality pre-hospital care.

The following paragraphs were taken from Bledsoe’s “Paramedic Emergency Care Second Edition”, and establishes the foundation all providers (volunteer or career) should strive for and maintain.

“Professionalism: describes the conduct or qualities that characterize a practitioner in a particular field or occupation. Healthcare professionals promote quality patient care and take pride in their profession. They earn the respect and confidence of team members by performing their duties to the best of their abilities and by exhibiting a high level of respect for their profession. Attaining professionalism is not easy. It requires an understanding of what distinguishes the professional from the non-professional. To develop this skill, keep the following points in mind.

“Professionals place the patient first; non-professionals place their ego first. Professionals practice their skill to the point of mastery, and then keep practicing them to improve and remain sharp. Non-professionals do not believe their skills will fade and see no reason to constantly strive for improvement. Professionals understand the importance of response times; non-professionals get to the accident when it’s convenient. Professionals take refresher courses seriously, because they know they have forgotten a lot and because they are eager for new information. Non-professionals believe they do not need training sessions and dislike being required to attend them. Professionals critically review their performance, always seeking a way to improve. Non-professionals look to protect themselves, to hide inadequacies, and to place blame on others. Professionals check out their equipment prior to the emergency response. Non-professionals hope that everything will work, supplies will be in place, batteries will be charged and oxygen levels will be adequate”.

“Maintaining professionalism requires effort. But, the result of that effort- the admiration and respect of one’s peers- is the highest compliment a person can receive”.

Being a professional has nothing to do with pay or rank or level of certification you hold. It is the goal that every member of our Practice, from basic provider to the Medical Director, constantly strives for to remain a comprehensive, clinically sophisticated, and compassionate EMS System.
Infection Control:

General: Each EMS organization participating in PEMSS 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 PEMSS for ensuring compliance with these procedures.

Each EMS organization participating in PEMSS 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, and updated refresher training every 2 years.

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

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 (annually)

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. The following should all be considered as potentially infectious:

- Amniotic fluid
- Blood
- Body fluids with visible blood
- Cerebrospinal fluid
- Feces
- Nasal secretions
- Pericardial fluid
- Peritoneal fluid
- Semen
- Sputum
- Sweat
- Synovial fluid
- Tears
- Teeth
- Tissues
- Urine
- Vaginal secretions
- Vomitus
The routine utilization of exposure control procedures and appropriate Personal Protective Equipment (PPE) by the individual EMS employee/provider is essential to the safety of all involved personnel. Its use can help ensure protection from infectious materials to the EMS employee/provider, that individual’s family members, other members of the EMS organization, subsequent patients, and the general public.

The selection and utilization of appropriate Personal Protective Equipment (PPE) should be based on its ability to provide an impervious barrier between any potentially contaminated body fluids and the EMS employee/provider. Each PEMSS participating service 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/provider.

**Routine Vehicle Cleaning**

All exposed surfaces in the patient compartment will be kept clean with a NIOSH approved hospital germicide that also has tuberculocidal properties. Gloves will be worn during cleaning.

All reusable hard equipment, spine boards, cervical immobilization devices, will be cleaned with hot soapy water, rinsed, and disinfected with a germicidal agent and dried.

Stock items and medications will be checked at shift change (or as otherwise specified by local policy and 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 properly.

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

Following each use, non-disposable equipment will be washed with hot soapy water, rinsed, and disinfected with a germicidal/tuberculocidal agent and dried. Gloves will be worn as a minimum 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.

After each 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 time for laundering. Gloves will be worn when handling linens obviously contaminated with body fluids.

Sharp objects will be immediately placed in a puncture-resistant container that is an approved sharps container designed specifically for that purpose. Sharps containers will be secured to keep from being over turned (usually held by a receiver or fastened to a wall). Needles will not be recapped, cut, bent or removed from the syringe. The entire needle-syringe unit shall be discarded. When filled, the container will be discarded in accordance with the local medical facility’s “Biohazard Waste” policies.
Patient Care Precautions

Gloves should be worn on every ambulance call and should be applied prior to patient contact. Eye protection should be worn when there is a risk of splattering of body fluids. Eyeglasses with plain glass lenses may be used if industrial safety glasses or face shields are unavailable, but safety glasses/shields with side panels are preferred due to their added protection.

Mouth to mouth contact should not be performed. The only acceptable method of ventilating a patient shall be with a commercial barrier device or BVM.

Uniforms and clothing that becomes soiled with body fluids should be changed as soon as practical. It is recommended that a change of clothing is available at the individuals nearest station.

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.

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. The crew should notify the patient that this is being done to protect the patient from possible infectious organisms.

Pregnant EMS responders should avoid direct patient care/contact to known AIDS patients, since many of these patients excrete cytomegalovirus. CMV is known to cause birth defects.

EMS responders with known or suspected infectious diseases should avoid providing direct patient care until a physician determines that there is no risk of transmitting infection to immuno-compromised patients.
Hand Washing/Hand Care

Vigorous scrubbing of the hands with a germicidal soap under running water for thirty seconds will remove or kill most pathogens. Hands should be washed at the beginning of each shift and at the completion of each call, immediately after gloves have been removed. Wearing gloves does not eliminate the need to wash the hands.

Gloves that have been removed after patient contact shall be immediately disposed of in the trash receptacle. Gloves shall not be used as a “notepad”.

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

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

Exposure Procedures

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 alcohol foam and the hands washed thoroughly as soon as possible.

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

The infection control practitioner at each hospital will follow up all cases of exposure of EMS responders, and will advise on appropriate course of action. State law requires this notification. Also refer to the Texas Department of State Health Services reporting requirement for blood borne pathogens. This law was passed in the Texas legislature in 1999 (HB2085).
ROUTINE CARE

The following assessment is to be performed and information is to be obtained on all patients:

1. Always assure scene safety for yourself, your fellow rescuers, and your patient.
2. Primary survey:
   - **A** = Airway with cervical spine control
   - **B** = Breathing
   - **C** = Circulation with control of bleeding

   (these three are referred to as the "ABCs").

   - **D** = Disability Determination
     - **A** = alert and conscious
     - **V** = responsive to verbal stimuli
     - **P** = responsive to painful stimuli
     - **U** = unresponsive

   (these four are referred to by the acronym "AVPU").

   - **E** = Exposure

3. Secondary survey:
   - A. Obtain vital signs and perform objective head-to-toe assessment
   - B. Obtain history
     - Sex, age, and approximate weight
     - Chief complaint
     - Precipitating factors
     - Significant past medical history
     - Allergies
     - Current medications

4. Place monitoring equipment, if indicated.
   - ECG monitor
   - Pulse oximetry
   - Capnography (when indicated)

5. Apply appropriate protocol and standing order based on assessment.
6. Contact medical control as designated in protocol or for any problems or questions.
7. Position patient comfortably as indicated by condition or situation.
8. Reassure and calm patient. Loosen any restrictive clothing or remove as indicated.
9. Transport as soon as feasible.
SPECIAL CONSIDERATIONS

IV Therapy

IV therapy should only be initiated if a clear need is identified for the procedure – i.e. significant trauma or volume loss, or a medical emergency where the need for IV access is to administer fluids or medications. IV access is an invasive, painful procedure and needs to be limited to those patients who warrant the procedure. Saline locks are acceptable in patients who need IV access, but not fluid.

1. Adult multi-system trauma patients that meet criteria should receive at least one, and preferably two, IV's of Normal Saline via large bore (14 or 16 gauge) catheters. Adult trauma patients with a systolic blood pressure <90 mmHg should be receive wide-open fluids until the systolic blood pressure is >90 mmHg. Adult trauma patients with a systolic blood pressure >90 mmHg should receive fluids at a “to keep open (TKO)” rate or as directed in the applicable protocol.

2. All pediatric peripheral IVs should be started with a minidrip administration set, unless aggressive fluid therapy is indicated. Pediatric fluid resuscitation should be done with 20cc/kg boluses and frequent re-evaluations.

3. All IV attempts are to be peripheral. The external jugular vein is considered a peripheral vein.

4. Placement of an intraosseous needle is permitted in adults and children who have a life-threatening emergency where immediate fluid or medication administration is necessary.

5. Access of indwelling central lines (i.e Hickman Catheters) is permitted only in patients where peripheral IV attempts have been unsuccessful and the needs of intended therapy outweigh the risks. Note, many of these catheters require special access needles. Do not attempt access if special needles are required unless the patient has access needles available.

6. Each IV bag containing added medications should be labeled with the following data:
   - Time and date of IV start
   - IV cannula size
   - Initials of paramedic who started the IV.
   - Medication labels

Endotracheal Intubation

1. Proper endotracheal tube placement must be documented by at least three different methods. These include:
   - presence of bilateral breath sounds
   - absence of breath sounds over the epigastrium
   - presence of condensation on the inside of the endotracheal tube
   - end-tidal carbon dioxide monitoring (see parameter chart below)
   - use of an endotracheal esophageal detector
   - visualizing the tube passing through the cords

   *At least three verification methods must be documented in the medical record!!*

2. Following endotracheal intubation, tube placement should be re-verified every 5-10 minutes by noting bilateral breath sounds and continuing end-tidal carbon dioxide readings.

   P – Pneumothorax   E – Equipment failure

- 23 -PEMSS Protocols– Medical (Regional)
Endotracheal Drug Administration

1. Only the following four drugs can be administered via an endotracheal tube:
   - L - Lidocaine
   - E - Epinephrine
   - A - Atropine Sulfate
   - N - Naloxone

2. When administering drugs via the endotracheal tube, administer 2.0 - 2.5 times the IV dose. Also, dilute the drug in enough Normal Saline to result in a total volume of at least 10 mL. This will facilitate endotracheal instillation and aid in increased drug delivery to the respiratory tissues.

3. Nasal Drug route may be utilized by protocol and if administration of the drug is with the atomizer device. Drugs that may be administered intranasal in the PEMSS system:
   - Narcan (naloxone)
   - Versed (midazolam)
   - Glucagon

Nasotracheal Intubation

**Guideline**
Nasotracheal intubation involves the passage of an endotracheal tube through the nose into the trachea.

**Indications**
- Respiratory failure in adults
- Inability to control / maintain airway with BVM

**Contraindications**
- Apnea
- Unstable midface injury
- Children less than 15 years old

**Relative Contraindications**
- Anatomical disruption of the oropharynx

**Equipment**
- ET Tube size 6mm to 8mm depending on the size of the patient.
- Securing device
- 10cc syringe
- Lubricant (Viscous Lidocaine or KY Jelly)
- Topical Vasoconstrictor (Phenylephrine hcl) Neosynephrine
- Nasopharyngeal airways
- EtCo2 Detector
Instill 2 sprays of Neosynephrine into selected nostril. Insert NPA lubricated with lidocaine.
Preoxygenate patient for 2 minutes with 100% oxygen. Secure connection between ETT and hub.
Place patient in "sniffing" position, sitting upright.
Insert the largest comfortable lubricated Endotracheal tube with the bevel towards the septum along
the floor of the nasal passage listening for breath sounds transmitted through the tube. Usually the left
nostril and nasal passage is larger.
Using breath sounds as a guide, advance the tube through the glottis during inhalation. Note the
depth of insertion of the ETT Insert the tube close to it’s full length in adults to ensure proper
placement of level below vocal cords. Insert enough air into the cuff to prevent air leak. Confirm tube
position, if any uncertainty about the location of the tube, remove the endotracheal tube and repeat
the procedure. Secure the tube and ventilate with 100% oxygen by BVM. Reevaluate tube position
after each movement of the patient. If the procedure fails, consider that other airway control methods
may be indicated.

(Complications)
Treat any complication as they arise, and consult medical control.

Capnography Parameters - Intubated

<table>
<thead>
<tr>
<th>Adult EtCO₂ Parameters</th>
<th>Pediatric EtCO₂ Parameters</th>
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</thead>
<tbody>
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<td>Intubated Non-Head injury 35-45mmHg</td>
</tr>
<tr>
<td>Intubated Head Injury 28-32mmHg</td>
<td>Intubated Head Injury 30-35mmHg</td>
</tr>
</tbody>
</table>

Waveform Capnography - Clinical applications:

Waveform Capnography or end-tidal CO₂ (EtCO₂) has been shown to be an important aid in
monitoring the patient’s status in a variety of clinical settings. The availability of clinical data facilitates
early detection of major changes in the cardiovascular and pulmonary systems. It also assist in
identifying problems with the airway.

- Confirm and verify tracheal tube placement
- Asses cardiopulmonary status in CPR
- Monitor the intubated patient for sudden changes that could indicate extubation

EtCO₂ is also useful in the non-intubated patient, but will not change our established treatment
protocols.
Allergic reactions and anaphylaxis represent a spectrum of the same problem. At its extreme end, anaphylactic reactions are life threatening with a high mortality rate requiring swift action. Care is focused on reducing or stopping the allergic reaction.

The cardinal signs of anaphylaxis are stridor, brochospasm, and hypotension. The symptoms associated with anaphylaxis may begin within seconds of exposure to an allergen or may be delayed up to 1 hour. However, typical response begins within minutes of exposure and primarily involves the cardiovascular and respiratory system but may also present with sudden onset of vomiting and/or diarrhea.

Localized reactions are characterized by a rash, urticaria (welps) covering an area or the entire skin surface of the body. The patient is usually very anxious and complaining of itching all over.

Shock is defined as hypotension and requires IV epinephrine, IV Fluids, and benadryl. Patients who receive IV epinephrine should be monitored very closely and have continuous EKG observation.

If the patient is being transported from a remote site or distances outside the Amarillo area, Air evacuation should be considered the method of transport, but do not delay transport awaiting air evacuation.

Epinephrine is safer to give subcutaneously. In shock, the drug may not be well absorbed when given subcutaneously, so IV epinephrine 1:10,000 given slowly is the next available option.

Epinephrine may precipitate angina or MI in susceptible individuals.
**ALLERGIC REACTIONS**

Assess Level of Consciousness

- **Basic**
  - Assess ABCs (follow AHA BLS standards as appropriate)
  - Pulse Oximetry (if available)
  - Contact Medical Control

  **If wheezing, short of breath or SBP <90 mmHg:**
  1. Epi-pen or equivalent
  2. Albuterol & Atrovent via HHN

  Rapid transport; consider mutual aid/air evacuation

- **Intermediate**
  - Basic +
  - IV NS @ KVO
  - Contact Medical Control

  **If wheezing, short of breath or SBP <90 mmHg,** additional Albuterol & Atrovent treatment, Add 4mg Decadron to nebulizer

- **Paramedic**
  - Basic + Intermediate+
  - ECG Monitor (follow NREMT standards)

  **If localized reaction only:**
  - Benadryl 50 mg IV push

  **If localized reaction and shock:**
  - Epinephrine 1:10000 0.3 mg slow IV push
  - Benadryl 50 mg IV push

  **Contact Medical Control**

  **If SBP < 90 mmHg:**
  1. Dopamine 5 mcg/kg/min IVPB titrate to SBP 90 mmHg +
A. Altered mentation is a symptom, not a diagnosis, with many possible causes, both medical and traumatic. Common etiologies include diabetic problems (hypoglycemic or hyperglycemic), alcohol or drug intoxication, metabolic abnormalities, seizures or post-ictal states, toxic exposures, hypoxia, sepsis, stroke, and head trauma. Altered mentation of a known etiology (such as hypoglycemia or narcotic overdose), should be treated using the appropriate standard of care. Multiple patients with an altered mentation suggest toxic exposure/drug ingestion (always remember CO).

B. Alcohol emergencies can be fatal. Do not assume that an altered mental status and alcohol on the breath is due to alcohol alone.

C. Head trauma and diabetes are always possible. Always assume the worst.

D. Narcan should be used only if indicated:
   1. Decreased level of consciousness.
   2. Diminished respirations.
   3. Narcotic overdose.
   4. Narcotic related hypotension, respiratory depression, and sedation.
   5. Coma of unknown etiology.
**ALTERED LOC (MENTAL STATUS)**

Assess Level of Consciousness

**Basic**
- Assess ABCs (follow NREMT BLS standards as appropriate)
- Oxygen; pulse oximetry (if available)
- Check blood sugar. If blood sugar low: Give 15 grams Instant Glucose PO (if tolerated)
- Rapid transport; consider mutual aid/air evacuation
- Contact Medical Control

**Intermediate**
- Basic +
- If BLS Ineffective; (follow NREMT-I standards)
- IV NS @ KVO
- If Instant Glucose ineffective or not tolerated; 25 gm D50 IV push
- Narcan 2 mg IV push or intranasal (If Indicated)
- Contact Medical Control

**Paramedic**
- Basic + Intermediate+
- Monitor ECG (follow NREMT Standards)
- Contact Medical Control
Reactive airway disease is a spectrum of illnesses, which includes asthma, emphysema and chronic bronchitis.

Asthma is characterized by episodic brochospasm and hypersecretion of mucous with intervals of relative or complete good health. Most all patients will have a prolonged expiratory phase of respiration with wheezing – often audible without a stethoscope.

COPD (emphysema) is defined as destruction of lung tissue with fusion of tissue in the alveoli.

Chronic bronchitis is an inflammatory process with mucous production and brochospasm.
COPD - EMPHYSEMA, BRONCHITIS and ASTHMA

Assess Level of Consciousness

Basic
- Assess ABCs (follow NREMT BLS standards as appropriate)
- Oxygen; pulse oximetry (if available)
- Rapid transport; consider mutual aid/air evacuation
- Contact Medical Control

Intermediate
- Basic +
- IV NS @ KVO
- Contact Medical Control
- If wheezing or short of breath persists:
  1. Request additional Albuterol/Atrovent HHN (Max. 3 total as needed)
  2. add Decadron 4mg to each nebulizer treatment

Paramedic
- Basic + Intermediate+
- Terbutaline 0.25mg SQ for tidal volume inadequate for inhalation therapy
- Consider Mag Sulfate 2 grams in 100cc NS administer over 5-10 minutes (Severe Resp Distress)
- Contact Medical Control

If wheezing or short of breath and HR < 150 BPM:
1. Albuterol 5% solution 0.5 ml in 2.5 m NS or premixed 0.083% unit dose and Atrovent 0.02% via HHN @ 6LPM
2. Epinephrine 0.3 ml SQ or Epi Pen.

If severe attack or status asthmaticus:
1. Terbutaline 0.25mg SQ
Airway Management & Intubation – MICU Provider Guidelines

Designation of Condition: Paramedics should intubate patients who are apneic or severely hypoxic and unresponsive to oxygen and basic airway maneuvers, or who may have impending respiratory failure and impending respiratory arrest, due to facial burns, severe asthma, pulmonary edema, etc.

MICU Providers

Pre-medication Authority:

- Consider this protocol as a standing order if the paramedic determines that sedation is crucial to airway management.

**Etomidate will be the drug of choice to achieve adequate sedation for intubation.**

Dose: 0.6mg/kg slow IV. Should the patient need further sedation administer a second dose of Versed to maintain adequate sedation.

Etomidate (amidate) 0.6mg/kg IVP after adequate sedation has occurred with versed. (usually 2-3 minutes)

<table>
<thead>
<tr>
<th>WT (KG)</th>
<th>VERSED</th>
<th>ETOMIDATE</th>
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<tbody>
<tr>
<td>10 kg</td>
<td>1 mg</td>
<td>6 mg</td>
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<tr>
<td>20 kg</td>
<td>2 mg</td>
<td>12 mg</td>
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<td>30 kg</td>
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<td>18 mg</td>
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<td>54 mg</td>
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<tr>
<td>100 kg</td>
<td>5 mg</td>
<td>60 mg</td>
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**Drug Assisted Intubation**

1. Oxygenate with BVM
2. Monitor ECG, pulse ox, vitals
3. Administer versed 0.1mg/kg IV in 2-3 minutes, administer Etomidate 0.6mg/kg IV
4. Intubate and secure, confirm placement – EtCo2, etc.
5. Frequent vital signs
6. If patient is agitated or recovers fully from sedation – administer a second dose of versed.

**Intubated Patients**

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<td>Hyperventilation Rate 20 (only for signs of herniation)</td>
<td>Hyperventilation Rate 30 (only for signs of herniation)</td>
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<td>(only for signs of hemiation)</td>
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- An alternate airway device will be used as a “back-up” airway and where intubation attempts fail and the airway has become non-patient.

  * refer to the Combitube protocol or the Cobra PLA protocol

*after moving an intubated patient to a receiving hospital bed or stretcher, the paramedic must re-confirm tube placement and patency and documented on the PEMSS Report.

Procedure Overview:

1. The crew is responsible for maintaining the patients’ airway.
2. Ventilate or assist ventilations with 100% Oxygen using a BVM, do not hyperventilate.
3. Utilize pulse oximetry on all patients, and Wave form End tidal Co2 if available.
4. Proper endotracheal tube placement must be verified and documented as such. These include:
   a. Presence of bilateral breath sounds.
   b. Absence of breath sounds over the epigastrium.
   c. Presence of condensation on the inside of the endotracheal tube.
   d. End tidal Co2 monitoring. (Waveform capnography) *
   e. Use of esophageal endotracheal tube detector device.
   f. Visualizing passing the tube passing through the vocal cords.

5. Perform vital signs every 5 – 10 minutes and document on medical record.
6. Complete Intubation Data form and send a copy of the PEMSS report to the PEMSS Medical Director.

Indications:

1. A critical need for airway control exist, such as:
   o Persons who cannot tolerate awake intubations.
   o Combative patients with compromised airways.
   o Patients with depressed LOC.
   o Patients with hypoxia refractory to oxygen.
   o Multiple trauma patients who need an airway.

2. At any time the risk for potential/actual airway compromise is suspected.

- Waveform Capnography will be required of all ALS/MICU Providers in the PEMSS System by January 2007
The Combitube airway is an adjunct that can be used in an unconscious adult to obtain a patent airway, or as a “back-up” device in the patient who’s airway has become non-patent, and intubation attempts have failed.

The Combitube airway is non-invasive and may be used by EMT-B under this protocol after appropriate training and documentation of such.

Helpful in difficult intubations with respect to illumination and space. No preparation necessary. Blind insertion possible, can use laryngoscope when feasible [EMT-I, EMT-P Only]. Works in tracheal or esophageal position. Minimizes risk of aspiration. Optimal method of emergency intubation and in cases of bleeding when visualization of vocal cords is impossible.

**Contraindications**

Patients with intact gag reflexes  
Patient's height below five feet  
Patients with known esophageal pathology  
After ingestion of caustic substances  
Central airway obstruction

Double lumen tube with esophageal obturator lumen(1) and tracheal lumen (2)  
Esophageal obturator blocked at distal end and perforations at pharyngeal level.

Tracheal lumen with open upper and lower end.  
Large oropharyngeal balloon serves to seal mouth and nose, distal cuff seals either esophagus or trachea.
Insertion of the device

Insert gently in a curved downward movement by grasping the back of the tongue and jaw between thumb and forefinger and lifting the jaw.

Insert until printed ringmarks lie between teeth or alveolar ridges. DO NOT USE FORCE! (LIPP Maneuver-holding the distal end of the tube bent for a few seconds alleviates insertion)

1) Inflate oropharyngeal balloon first with 85cc (large syringe) of air, in the 37Fr and 100cc in the 41Fr.

(2) Then inflate the distal cuff with 5-12cc of air (37Fr) or 5-15cc in the 41Fr Combitube.

With blind insertion, there is a high probability of esophageal placement of the tube.

Test ventilation is started via the longer blue tube No. 1

Air cannot escape at the distal end of the blocked “esophageal” lumen and enters the pharynx via the perforations. Mouth, nose, and esophagus is sealed by the balloon and the cuff air is forced into the trachea. If auscultation over the lungs is positive, and epigastric insufflation negative, ventilation may be continued. The “tracheal” lumen serves to decompress the esophagus and the stomach.
On a few occasions, the tube has been placed blindly into the trachea. In this case, ventilation is changed to the shorter, clear tube No.2, leading to the tracheal lumen. Air is blown directly into the trachea.

Whenever possible use a laryngoscope.
EMT-Intermediate and Paramedic Only.

In a few cases if ventilation doesn't work either the esophageal or tracheal lumen airway or oropharyngeal balloon is inserted too deeply, occluding the laryngeal aperture. Pull the Combitube back 2-3cm, and ventilation started again via the longer tube.

Troubleshooting:
If ventilation of both tubes of the device fails to produce breath sounds, you should check the inflation of both cuffs, and immediately remove the device and place another alternate airway such as the Cobra PLA or use BVM.
Cobra PLA (Perilaryngeal) Airway is designed to be positioned in the hypopharynx where it abuts the structure of the laryngeal inlet. The cuff, when inflated, gently seals off the upper airway, allowing for improved positive pressure ventilation. The Cobra PLA is an excellent alternative when endotracheal intubation cannot be achieved in the difficult airway patient.

This device has many advantages:

- Eight sizes provide a complete adult and pediatric range
- Sterile single use, cost effective
- Latex free
- Less trauma
- Endotracheal intubation can be achieved thru the device

Size chart: Smaller is better

<table>
<thead>
<tr>
<th>Size</th>
<th>Pt. Weight</th>
<th>Cuff volumes</th>
<th>Tube I.D.</th>
</tr>
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<tbody>
<tr>
<td>½ (neonate)</td>
<td>&gt; 2.5kg</td>
<td>&lt; 8ml</td>
<td>5.0 mm</td>
</tr>
<tr>
<td>1 (infant)</td>
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<td>&lt; 10ml</td>
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<td>4 (adult)</td>
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<tr>
<td>5 (large adult)</td>
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<tr>
<td>6 (large adult)</td>
<td>&gt; 130kg</td>
<td>&lt; 85ml</td>
<td>12.5 mm</td>
</tr>
</tbody>
</table>
Inserting the device

- Proper sizing is critical
  Smaller is better. Studies indicate that use of the # 3 CobraPLA for women, and the # 3 or # 4 CobraPLA for men is generally appropriate.

- Completely deflate cuff
  *Fold back the cuff from the CobraPLA head to facilitate insertion.*

- Generously lubricate entire end
  Lubricate the entire cuff and the front and the back of the CobraPLA head for easier insertion.

- Extend head and neck then insert completely
  Extend the head and advance the CobraPLA into the hypopharynx through the resistance of the soft tissue until moderate resistance is felt, then pull back slightly. The CobraPLA cuff should not be visible in the mouth following proper insertion.

- Do not over inflate the cuff
Carbon Monoxide is produced by the incomplete combustion of organic fuels. Gas powered engines produce significant amounts of CO. Other sources include furnaces, gas heaters, water heaters, pool heaters, wood stoves, kerosene heaters, indoor charcoal fires, and sterno fuel. The manifestations of CO poisoning are often vague. Initial symptoms commonly include: headache, dizziness, weakness, shortness of breath, chest pain, palpitations, visual disturbances and nausea. CO readily displaces oxygen from hemoglobin to produce carboxyhemoglobin (COHb), resulting in tissue hypoxia. The primary goal in caring for the patient with CO poisoning is removal from the source and continuous high flow oxygen therapy.

- Draw a specimen of blood in a Green top tube and keep cool.
- All victims of suspected CO poisoning should be transported to the hospital for evaluation and treatment. Often times a victim will arrive at the Emergency Room with no or only mild symptoms and have greatly elevated carboxyhemoglobin levels in their blood.

Procedure:
A. Universal Precautions will be utilized
B. Use betadine as the prep solution and properly document it's usage on the PEMSS form.
C. Draw the specimen of blood in a green top tube, allow the tube to fill until it stops filling, or until the blood reaches the fill line on the tube. Invert the tube several times (do not shake). If blood is drawn through an IV utilize the BD Blood Collection Assembly (ref#303380). If an IV is not established, a vacutainer with needle shall be used in this situation.
D. Labeling/Patient Identification
   Once the tube is filled, it is placed in the provided specimen pouch with the identifying label placed on the pouch, and the identifying numbers placed in the pouch with the tube. It is of vital importance to place on the arm-band the patient's name (as available), Date, Time, and initials of the person drawing the blood. The pouch should then be sealed. The identifying arm band will then secured to one of the patient's extremities (arm preferred).
E. Disposition of blood at the ED Upon arrival at NWTHS ED, the blood will be turned over immediately to the phlebotomist in the patient’s room or to the RN taking the patient report.
CARBON MONOXIDE POISONING

Assess Level of Consciousness;

Basic
- Assess ABCs (follow NREMT standards as appropriate)
- HiCon Oxygen 100%
- Rapid transport; request mutual aid/air evacuation
- Contact Medical Control

Intermediate
- Airway Control, Intubate if indicated; follow NREMT-I standards
- IV NS KVO
- DRAW BLOOD in Green Top and keep cool
- Contact Medical Control

Paramedic
- Basic + Intermediate+
- Continue HiCon 100% Oxygen (even if Asymptomatic)
- Monitor; (follow NREMT-P standards)
- Pulse-oximetry can be misleading and treatment should not be based on readings obtained, a high O2 sat does not rule out CO poisoning
- Contact Medical Control
Sorting out the possibilities of disorders in glucose metabolism has been made much easier since the advent of the glucometer. The old adage of “when in doubt give sugar” is no longer valid when a glucometer is available. Diabetics may have abnormally high or low blood glucose leading to symptoms. The goal in managing diabetic emergencies in the prehospital setting is glucose measurement, treatment of identified abnormalities, and search for precipitating causes.

The blood glucose level at which hypoglycemia occurs in an individual is variable, but is generally accepted as < 60mg/dl. Therefore, for simplification, hypoglycemia will be defined as a blood glucose level < 60mg/dl, with any degree of altered mentation.

Signs and symptoms of hypoperfusion include hypotension, delayed capillary refill, and tachycardia.

Fluid therapy in hyperglycemia should be used with extreme caution in patients who cannot tolerate sudden, extreme fluid increases (renal failure, dialysis, CHF, elderly etc).
DIABETIC

Assess Level of Consciousness

**Basic**
- Assess ABCs; follow NREMT BLS standards as appropriate
- Check blood sugar
- Oxygen; pulse oximetry (if available)
- Rapid transport (Left lateral recumbant; if appropriate); consider mutual aid/air evacuation
- Contact Medical Control

**Intermediate**
- Basic +
- IV NS KVO
- Check blood sugar
- If Blood sugar LOW (below 70-120 D-stick or below 60 automated); Give 15 grams Instant Glucose PO (if tolerated)
- If Blood sugar HIGH (over 130 D stick or over 300 automated); Run IV NS at 500 ml/hr
- If BP below 90; Run IV wide open
- Infuse 1 Liter NS
- Recheck BP and Breath Sounds
- Contact Medical Control

**Paramedic**
- Basic + Intermediate+
- Monitor ECG (If suspected DKA obtain 12 Lead ECG if available)
- If Blood sugar LOW (below 70-120 D-stick or below 60 automated); Give 25 gm D50 IV
- If IV unsuccessful; give 1 mg Glucagon IM or Intranasal
- If no improvement; repeat blood sugar check
- If LOW; Give 25 gm D50 IV or repeat 1 mg Glucagon IM
- Contact Medical Control

**Diabetic - Adult**

Check blood sugar
- If Blood sugar LOW (below 70-120 D-stick or below 60 automated); Give 15 grams Instant Glucose PO (if tolerated)
- If Blood sugar HIGH (over 130 D stick or over 300 automated); Run IV NS at 500 ml/hr
- IF BP below 90; Run IV wide open
- Infuse 1 Liter NS
- Recheck BP and Breath Sounds
- Contact Medical Control

rvsd 1/01/05
Drowning is the fourth leading cause of trauma related death in the United States. It can occur anywhere from a residential bathroom to area lakes. Of these incidents 75% are associated with alcoholic beverage consumption. Near drowning is defined as a submersion accident with recovery of vital signs and survival greater than 24 hours post incident. The primary mechanism of death in drowning is hypoxia and suffocation due to lack of oxygen or atelectasis of lung tissue. Concomitant factors of trauma from surface impacts, spinal cord injuries, orthopedic, and tissue injuries are common. Patient survival is based largely on early access, aggressive airway management and resuscitation intervention.

1. Remove from water if so trained, and it is safe to do so.
2. Spinal immobilization, protecting c-spine if mechanism suggest trauma.
3. If patient is in cardiopulmonary arrest, refer to cardiac arrest protocol.
4. Provide and maintain patient warmth. Remove wet clothing.
5. Obtain rectal temperature. Assume that the patient is hypothermic until proven otherwise.
6. Peripheral IV access with a large bore IV catheter or IO.
7. Refer to ACLS protocols for specific arrhythmias (if patient is in arrest).
8. Considerations:
   a. Type of incident (surface impact, submerged object strike, propeller trauma). If submerged, how long under, and how deep?
   b. Weather conditions, water temperature, temperature at depth recovered. Remember that successful resuscitation is possible with prolonged submersion in cold water.
   c. Hypothermic patients have slowed uptake and circulatory functions; remember that no one is dead until they are warm and dead.
   d. Rescue Mode – (full resuscitation efforts indicated): active phase of response, which include rescuers searching for patients with the intent of full resuscitative efforts upon locating patient with a reliable “point last seen” or witnessed submersion of 1 hour or less in surface temperature water of 70 degrees or less, or 30 minutes in surface in water of greater than 70 degrees.
   e. Recovery Mode – (no resuscitative efforts indicated): phase of operations that begins after the expiration of the “rescue mode” time. Operations in this phase focuses on recovery of a body, by a recovery team, with no plans for resuscitation. EMS is there to support the recovery effort and as a safety measure.
DROWNING and NEAR DROWNING

Assess Level of Consciousness

Basic

Assess ABCs
(follow NREMT BLS standards as appropriate)

Oxygen; pulse oximetry
(if available)

AED as indicated;
(follow AHA standards)

Rapid transport; consider mutual aid/air evacuation

Contact Medical Control

Intermediate

Basic +

follow NREMT-I standards

IV NS @ KVO

Contact Medical Control

Paramedic

Basic + Intermediate+

Monitor
(follow NREMT-P standards)

Contact Medical Control
Hypothermia, by definition, is a patient with a core temperature of less than 95 degrees. According to ACLS guidelines, body temperatures from 93 to 95 degrees constitute mild hypothermia. When the core temperature is between 86 and 93 degrees, moderate hypothermia exist, below 86 degrees severe hypothermia is present and according to ACLS guidelines, modifications in the treatment of the cardiac arrest patient should be made. Death in hypothermia must be defined as failure to revive with rewarming; unless there is strong evidence that the patient is not viable (severe trauma). In general, the arrested hypothermic patient, aggressive attempts at resuscitation should be continued until the core temperature is at least 95 degrees F. Most hypothermic patients are also volume depleted to some degree and should receive warmed IV fluids to improve coronary artery blood flow and correct hypovolemia.

- When specifically and urgently indicated, intubation should not be withheld, but use extreme caution (excessive manipulation may induce VF/VT).
- Improvement of blood circulation to the heart decreases the risk of rewarming shock and VF. Rapidly expanding the blood volume with warmed IV fluids increases B/P, flow through coronary arteries, and oxygen delivery to the myocardium.
- Urban hypothermia in inner city areas is common where there is a high association with poverty and drug and alcohol abuse.

IV fluids should be warmed prior to infusion to a temperature of 109 degrees F. if at all possible. This may be accomplished with hot packs, heat pads, IV fluids shall not be warmed in a microwave oven.
**Hypothermia Algorithm**

### Actions for all patients
- Remove wet garments
- Protect against heat loss and wind chill (use blankets and insulating equipment)
- Maintain horizontal position
- Avoid rough movement and excess activity
- Monitor core temperature
- Monitor cardiac rhythm

### Assess responsiveness, breathing, and pulse

<table>
<thead>
<tr>
<th>Pulse/breathing present</th>
<th>Pulse/breathing absent</th>
</tr>
</thead>
</table>

#### What is core temperature?

- **34°C-36°C (mild hypothermia)**
  - Passive rewarming
  - Active external rewarming

- **30°C-34°C (moderate hypothermia)**
  - Passive rewarming
  - Active external rewarming of truncal areas only

- **<30°C (severe hypothermia)**
  - Active internal rewarming sequence (see below)

#### Active internal rewarming
- Warm IV fluids (43°C)
- Warm, humid oxygen (42°C-46°C)
- Warm Gastric lavage

Continue internal rewarming until
- Core temperature >35°C
- Return of spontaneous circulation
- Resuscitative efforts cease

#### What is core temperature?

- **<30°C**
  - Passive rewarming
  - Active external rewarming of truncal areas only

- **>30°C**
  - Start CPR
  - Defibrilate VF/VT up to a total of 3 shocks (200 J, 300 J, 360 J)
  - Intubate
  - Ventilate with warm, humid oxygen (42°C-46°C)
  - Establish IV
  - Infuse warm normal saline (43°C)

- **<30°C**
  - Passive rewarming
  - Active external rewarming of truncal areas only

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  - Start CPR
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- **>30°C**
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  - Defibrilate VF/VT up to a total of 3 shocks (200 J, 300 J, 360 J)
  - Intubate
  - Ventilate with warm, humid oxygen (42°C-46°C)
  - Establish IV
  - Infuse warm normal saline (43°C)
Heat exhaustion is a syndrome of dizziness, nausea, vomiting, weakness, and occasionally, syncope which may be associated with a normal body temperature or a moderate temperature elevation. There is no sustained change in mentation, and the skin is usually wet from profuse diaphoresis.

Heat stroke is the most severe form of heat illness. Patients with heat stroke, present with disorientation, seizures, or coma. Historically, heat stroke was defined as the triad of hyperpyrexia (temperature > 105 degrees F), CNS dysfunction, and a lack of sweating. However, lack of sweating is not an absolute diagnostic criterion since many heat stroke patients may present with profuse sweating.

Obtain an accurate body temperature (rectal preferred). Move to a cooler environment and remove excessive clothing, protect from heat gains.

**Heat exhaustion:** if temperature is > 103 degrees F., cool patient with ice packs, cool wet towels, placed at carotids, femorals, and brachials.

Remove cooling agents when temperature reaches 100 degrees F. to avoid to rapid of a temperature drop which may initiate the shivering process (which will increase temperature)

**Heat Stroke:** Aggressive evaporative cooling is indicated by applying ice packs to groin, axillae, and using fine mist spray water with forced air fans.

Remove cooling agents when core temperature reaches 104 degrees F. to avoid to rapid of a temperature drop which may initiate the shivering process (which will increase temperature)

*The major difference between heat exhaustion and heat stroke is generally CNS impairment.*

The treatment of heat exhaustion is rest with fluid volume and electrolyte replacement. Severe heat cramps will respond to intravenous rehydration with NS.

Dehydration and volume depletion may not occur in classic heat stroke. Vigorous fluid administration may produce pulmonary edema, especially in the elderly.
HYPERTHERMIA / HEAT RELATED ILLNESS

Assess Level of Consciousness

Basic
- Assess ABCs (follow NREMT BLS standards as appropriate)
  - Oxygen; pulse oximetry (if available)
  - Obtain rectal temperature
  - Cool patient; Expose; apply cool packs
  - Rapid transport; consider mutual aid/air evacuation
  - Contact Medical Control

Intermediate
- Basic +
  - follow NREMT ALS standards
  - IV NS @ 250 ml/hr unless contraindicated
  - Contact Medical Control

Paramedic
- Basic + Intermediate+
  - ECG Monitor (follow NREMT-P standards)
  - Contact Medical Control
A. SUPPLEMENTAL NOTES:

1. CONSIDER CAUSES FOR SEIZURES OTHER THAN HYPOGLYCEMIA AND SEIZURE DISORDER: overdose, hypoxia, head injury, eclampsia, and alcohol withdrawal.

2. Use caution if administering benzodiazepines to:
   a. Pregnant women
   b. Head injured patients.
   c. Alcohol Intoxicated patients.

3. Versed is not to be administered by the endotracheal route, but can be given intranasally with the atomizer device, or rectally.

4. Remember that, “everything that falls down and shakes is not a seizure.”

5. Remember pregnant women may also have a history of seizures and a seizure disorder, not all cases of seizures in pregnant women are eclampsia related.
SEIZURES - ADULT

Assess Level of Consciousness,

Basic

Assess ABCs (follow NREMT BLS standards as appropriate)

Oxygen; pulse oximetry (if available)

Check blood sugar

If below 70 D-stick or 60 automated:
Give 1cc/kg Instant Glucose PO (if tolerated)

If active seizing:
Rapid transport; consider mutual aid/air evacuation

Intermediate

Basic +

follow NREMT-I standards

IV NS @ KVO

Contact Medical Control

If Blood sugar LOW
give 25 gm D50 IV push

If active seizing > 60 sec:
Versed 5 mg IV or IM, rectal, or Intra-nasal route*

If seizure continues: repeat Versed every 2 min. (10 mg max)
repeat IM dose X 1 after 5 min

Paramedic

Basic + Intermediate+

Monitor ECG (follow NREMT standards)

* REQUIRES Syringe with Nasal atomizer device

Place left lateral recumbant (if appropriate)

Contact Medical Control

Contact Medical Control
It is impossible to include all the potential toxic exposures or poisonings in this protocol. Management of the poisoned or exposed patient focuses on several principles: decontamination limits further absorption and minimizes the extent of the toxicity; supportive care limits the effects of the serious complications of poisoning on the primary systems at risk; and definitive care limits the severity or duration of toxicity through the use of pharmacological antagonists (antidotes) or enhances elimination of the toxin itself.

The poisoning/exposure may be accidental or intentional. It is important to remember that a toxic exposure poses a significant risk to both rescuer and patient. Appropriate scene management and decontamination are critical.

Remember that safety of the scene requires a great deal of caution, careful observation, and tact when dealing with patients and family members of an intentional overdose. The communication center can only advise on scene safety by the information obtained by the caller, which that information is not always available. The communications center only advises to enter the scene when law enforcement request EMS to do so, this does not guarantee the scene is “safe”.

At no time shall an overdose patient be left with law enforcement officers to transport to the hospital.

Common antidotes:

1. Dystonic reactions to phenothiazines – Benadryl (diphenhydramine) 1.0mg/kg slow IV or IM (max dose 25mg)

2. Symptomatic Organophosphate poisoning – (muscle fasciculation, diarrhea, wheezing, abdominal cramping, salivation, seizures, altered mental status, and pinpoint pupils):
   Atropine 0.05mg/kg doubled every 5 to 10 minutes until signs of atropinization occurs (dilated pupils, tachycardia, flushing, drying of secretions).

3. Symptomatic cyclic antidepressant overdose – (sustained tachycardia > 120 bpm, widened QRS complex and/or hypotension not responsive to IV fluids):
   Sodium Bicarbonate 1mEq/kg IV Bolus over 2 minutes X 1 dose.

4. Symptomatic Calcium Channel blocker overdose – (bradycardia, conduction delays, hypotension, lethargy, slurred speech, nausea, vomiting):
   Calcium Chloride 20mg/kg slow over 5-10 minutes
   Atropine 0.5mg – 1.0mg IV

5. Cocaine toxicity – (hypertension, tachycardia, chest pain, anxiety, shortness of breath, diaphoresis, mood elevation, hallucinations, hyperthermia) cocaine blocks the uptake of neurotransmitters such as epinephrine, norepinephrine, dopamine, and serotonin. This results in the myriad of symptoms, and also greatly increases the myocardial oxygen consumption, and coronary vasoconstriction. The accumulation of neurotransmitters results in hypertension and tachycardia. A chemical cascade of events stimulate platelet aggregation, cardiac ventricular dysfunction, and acute MI. EKG monitoring is important, tachyarrythmias are common.
   Versed is the drug of choice for multiple symptoms as listed above 0.1mg/kg IV, but should be used only in cases where patients present hyper-agitated, violent, or uncontrollable. Keep in mind that benzodiazepines are not routinely given to overdose patients, except in unusual circumstances, in order not to cloud or mask other findings.
TOXICOLOGIC EMERGENCIES/POISONING

Assess Level of Consciousness,

Basic

Assess ABCs (follow AHA BLS standards as appropriate)

Oxygen; pulse oximetry (if available)

Rapid transport; consider mutual aid/air evacuation

Contact Medical Control

Intermediate

Basic +

follow NREMT-I standards

IV NS @ KVO

If blood sugar low: 25 gm D50 IV push

Narcan 2 mg IV IN, IM, SQ or ET only if indicated

Contact Medical Control

Paramedic

Basic + Intermediate+

ECG Monitor, Frequent Assessment of GCS, Gag Reflex, Contact Poison Control 800-222-1222

Dystonic Reactions to Phenothiazines
Benadryl 25 mg IV or IM may repeat dose 1 time Maximum 50 mg Total

Symptomatic Cyclic Antidepressant Overdose
Sodium Bicarb 1 mEq/Kg IV Bolus Over 2 Minutes X one dose

Calcium Channel Blocker Overdose
Atropine 1 mg IV push or Calcium Chloride 10% 20 mg/kg Slow IV over 5 mins.

A. Narcan should be used only if indicated:
Decreased level of consciousness.
Diminished respirations.
Narcotic overdose.
Narcotic related hypotension, respiratory depression, and sedation.
Coma of unknown etiology.
Positional Restraint Asphyxia – Patients may be subject to sudden cardiac arrest resulting from a combination of “cocaine psychosis” or “excited delirium” when the patient is restrained, during or immediately following a physical altercation. Positional or restraint asphyxia results when the position of the body interferes with respiration, resulting in asphyxia. Such deaths usually take place after the patient has demonstrated bizarre and/or violent behavior and has been restrained physically or by an electronic device such as a Taser.

The following should be conveyed to law enforcement, if they are assisting in patient restraint:

- Immediately sit the patient upright once they have controlled him/her.
- Relieve the patient of any heavy weight meant to keep them controlled.
- Remove the patient from the prone position as soon as possible.
- Remove any taser darts from the skin if possible.
- Continuously monitor the patient’s vital signs to include verbal responses to questions.

**CAUTION:** the single greatest predictor of imminent aggressive/violent behavior is a history of prior aggression. Safety of all responders remains to be a top priority.

With all of these considerations, it is imperative that the Patient Care Report correctly documents what reasonable steps were taken to control the person and to protect the patient from injuring him or herself.

Such would include:

- Document the measures used to restrain the person, including the immediate removal of the officers’ taser dart if employed.
- Document the manner of monitoring the patient during the post-struggle period and during transport (to include the patients’ verbal responses to questions about his condition).

If you suspect an overdose, follow protocol.
In the pre-hospital setting, anti-emetics may provide great comfort to the patients who, during the course of their illness, experience nausea and vomiting, only to have their symptoms intensified by being transported in a moving ambulance.

Phenergan (promethazine) has been used safely for many years, but certainly has limitations when an anti-emetic is needed in a young child or any patient over 60 years of age. Concerns of over-sedation exist, and the risk verses benefits considered.

For all patients with symptoms of nausea and vomiting, the following protocol may be considered.

Zofran will be the preferred drug of choice especially if sedation is a concern.

**Zofran** (ondansetron)

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<th>Dose</th>
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<tr>
<td>20 kg</td>
<td>2 mg</td>
</tr>
<tr>
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<tr>
<td>40 kg</td>
<td>4 mg</td>
</tr>
<tr>
<td>50 kg</td>
<td>4 mg</td>
</tr>
</tbody>
</table>

Pediatric use:

- 2-12 years of age
  - Pediatric patients weighing less than 40kg
  - Single dose of 0.1mg/kg slow IV over 2-5 minutes, or IM

Pediatric patients weighing more than 40kg:

- Single dose of 4mg slow IV over 2-5 minutes, or IM

Adults and Geriatric use:

- Single dose of 4mg IV over 2-5 minutes, or IM

**Phenergan** (promethazine)

0.25mg/kg IV or IM (12.5mg – 25mg) maximum dose

Patient age group 12 – 60 years of age.
Nausea and Vomiting

Assess Level of Consciousness

Basic
- Assess ABCs (follow NREMT BLS standards as appropriate)
- Oxygen; pulse oximetry (if available)
- Check blood sugar. If blood sugar low: Give 1cc/kg Instant Glucose PO (If tolerated)
- Contact Medical Control

Intermediate
- Basic +
- IV of NS @ appropriate rate. assess for volume depletion
- Contact Medical Control

Basic + Intermediate+
- Monitor ECG (follow NREMT-P Standards)
- If Hyperglycemic or Diabetes, perform 12 Lead ECG. (If available)
- Zofran 4mg slow IV or IM over 2-3 minutes or Phenergan 12.5mg IV or IM
- Contact Medical Control
Vascular Access is vital for drug and fluid administration but may be difficult to achieve in certain patients and instances. Peripheral venous access is the preferred route for fluid and drug administration, but only if it can be achieved in a short period of time (2 minutes or less). In such cases the Intraosseous Access can be the alternate method to establishing a route for fluids, and medications in the adult and pediatric patient. This will be the preferred Bone needle in the PEMSS system.

Indications:

1. Trauma
   - Fluid replacement in shock
   - Rapid vascular access

2. Non-trauma
   - Cardiac arrest
   - Acute respiratory Distress
   - Any time rapid vascular access is required (all forms of shock)

3. Technique
   a. Adults – the tibia is the only approved site. 2cm medially and 1cm proximally to the tibial tuberosity. 15 gauge
   b. Pediatric – tibia is the primary site. **Age 0-6**: 1cm medially and 1cm distally to the tibial tuberosity. **Age 6-12**: 1-2 cm medially and 1-2 cm distally to the tibial tuberosity. 18 gauge
c. Position the Bone Injection Gun with one hand to the site and Pull out the safety latch with the other hand.

d. Trigger the Bone Injection Gun at 90 degrees to the surface

e. Remove the Bone Injection Gun, pull out the stylet trocar

f. Fix the cannula with the safety latch, and attach IV tubing

4. Insertion Depths *(Adult Bone Injection Gun insertion depths are preset)

<table>
<thead>
<tr>
<th></th>
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<td>0-3 yrs</td>
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<td>Proximal Tibia</td>
<td>*</td>
<td>0.5 -</td>
<td>1.0</td>
<td>1.5</td>
</tr>
</tbody>
</table>
A. Nasal Drug Delivery:

1. Intranasal Drug delivery is an excellent alternative to oral and injectable delivery of many medications.

2. The benefits of nasal drug delivery for the patient and the provider.
   1) Eliminates the risk of a contaminated needle stick to the EMS provider.
   2) Simple and convenient for the EMS provider.
   3) Discomfort is minimized for the patient.
   4) Serum levels of many Intra Nasal administered medications are comparable to injected and much improved over rectal and oral routes.

3. Intra Nasal medications include:
   1) Midazolam (Versed) for seizures or sedation.
   2) Naloxone (Narcan) for opiate overdoses.
   3) Glucagon for hypoglycemia.
   4) Topical anesthetics and vasoconstrictors for nasal intubation or treatment of epistaxis.

4. For the Intra Nasal route to be effective, medications should be highly concentrated, low volume dosages that are no larger than 1.0 ml per adult nostril.

5. Studies have shown that the most effective method to deliver a medication through the IN route is to atomize it across the nasal mucosa. Atomized particles (10 to 50 microns) adhere to the nasal mucosa over a large surface area, preventing waste and improving absorption of the medication. You can also administer half the dose of the medication in each nostril to increase the surface area, and further improve absorption.
The Device

- MAD100

- MAD300
In certain circumstances in EMS, Paramedics may be requested to perform a blood draw in the field on the deceased. In such cases, the following protocol will be followed.

A. Only the following may take a blood specimen at the request or order of a peace officer under this protocol:
   1. Certified Emergency Medical Technician- Intermediate
   2. Certified/Licensed Paramedic

B. The specimen must be collected in the usual manner, using sterile technique and betadine.
C. The specimen is collected in the equipment/supplies provided by the peace officer.

D. The blood draw will be documented on a patient care report.
This protocol is designed to have a phone referral system between LifeGift and PEMSS Providers for potential Tissue Donations from decedents who die outside the hospital.

- Death on scene is identified by PEMSS Protocol
  - Obvious trauma incompatible with life.
  - Extended down time with evidence of rigor mortis or dependant lividity.
  - Field termination protocol implemented.

- Family advised of death or termination of effort (when applicable)

- Vital information obtained from the scene by Paramedic
  - Specific location of deceased
  - Next of Kin/ Contact Person
  - Next of Kin Phone Contact Number
  - Name, Age, Sex, Race of Deceased
  - Mechanism of Injury (when applicable)
  - Brief Medical History (if available)

LifeGift Notification

- Call initiated by the EMT/Paramedic
- **Do Not Contact the PEMSS Communications Center to notify LifeGift.**

- Information needed by LifeGift
  - Name of EMS Provider
  - Agency Name, Unit #, Medical Control Number
  - Station Phone #
  - Location of death and deceased
  - Vital information gathered at the scene (above info)

Contact LifeGift By Calling: **800/633-6562**
Most pregnancies progress in an orderly, normal fashion. Abnormalities during pregnancy affect both the mother and child. Thus, care of the pregnant patient focuses on the evaluation and treatment of both the mother and in-utero child. Common emergencies encountered in the prehospital environment are bleeding, abnormal presentation of the child, complicated deliveries, and abdominal pain. Rapid assessment and recognition of acute problems; including the possibility of having to support two or more lives with complications is the primary focus in the prehospital environment.

Contact Medical Control early for possible ED C-section in cases of cardiac arrest in a possible viable fetus. (usually beyond 28 weeks)

Normal births/deliveries do not constitute an emergency, returning to the hospital code 3 with lights and siren is not justified, and will not be tolerated in the PEMSS System.

A. **Important historical information includes the following:**

1. Mother's age.
2. Total number of pregnancies (gravida or G).
3. Total number of births (para or P).
4. Due date.
5. Time contractions began.
6. Frequency and duration of contractions.
7. Any vaginal bleeding.
8. Any "gush of waters."
9. Other pain or symptoms.

B. If the patient is expecting to deliver, but delivery is not imminent, she should be transported on her left side with her knees flexed.

C. In all cases, the mother's safety and well-being takes precedence over that of the unborn fetus.

D. If the patient has sustained injuries or is suffering from serious medical illness, refer to the appropriate protocol.

E. In the absence of trauma or serious medical illness, the patient in shock may have a ruptured ectopic pregnancy, placenta abruptio, uterine rupture or placenta previa.

F. **KEEP SCENE TIMES TO A MINIMUM!**

In cases of eclampsia, emergency Cesarean section may be life saving. Rapid transport is a key.
Field delivery of a breech baby is best left to hospital staff that have the training and experience to handle such complications.

Do not attempt breech delivery unless no other options exist or baby and/or mother is in distress. If delivery is imminent, position the mother with the buttocks at the edge of a firm bed, ask her to hold her legs in a flexed position.

As the infant delivers, do not pull on the legs, simply support them. Allow the entire body to be delivered with contractions only while you support the infant.

As the head passes the pubis, apply gentle upward traction until the mouth appears over the perineum. If the head does not deliver and the baby begins to spontaneously breathe with its face pressed against the vaginal wall, place a gloved hand in the vagina with the palm towards the infants’ face. Form a “V” with the index and middle finger on either side of the infants’ nose, and push the vaginal wall away from the infants face.

Maintain this position and transport immediately with early notification to the receiving hospital.
**BREECH DELIVERY**

**Assess Level of Consciousness**

**Basic**
- Assess ABCs (follow NREMT BLS standards as appropriate)
- Oxygen; pulse oximetry (if available)
- Prepare for Delivery
- Clean sterile technique; support infant extremities and buttocks; assist delivery; provide airway with fingers if head does not deliver
- Protect infant; assess APGAR; clamp and cut cord
- Rapid Transport
- Contact Medical Control

**Intermediate**
- Basic +
- If BLS ineffective; follow NREMT ALS standards
- IV NS @ KVO (if time permits)
- Contact Medical Control

**Paramedic**
- Basic + Intermediate+
- Monitor (follow NREMT-P standards)
- 1. Pitocin 20 units in 1 liter run @ 250 ml/hr after placenta delivery
- Contact Medical Control

**Prepare for Delivery**
- Oxygen; pulse oximetry (if available)
- Prepare for placenta delivery; massage uterus
- Contact Medical Control
Labor

Assess Level of Consciousness

Basic

Assess ABCs (follow NREMT BLS standards as appropriate)

Oxygen; pulse oximetry (if available)

If Imminent Delivery

Clean sterile technique; monitor speed of delivery; suction mouth then nose when head delivers

Protect infant; assess APGAR; clamp and cut cord

Prepare for placenta delivery; massage uterus

Rapid transport: consider mutual aid\' air evacuation

Intermediate

Basic +

If BLS ineffective; follow NREMT ALS standards

IV NS @ KVO (if time permits)

Contact Medical Control

Paramedic

Basic + Intermediate+

Monitor (follow NREMT-P standards)

1. Pitocin 20 units in 1 liter run @ 250 ml/hr after placenta delivery (if delivery occurs)

Contact Medical Control
Eclampsia: when suspected and patient is experiencing active, tonic-clonic seizure activity, administer mag sulfate 50% solution, 2-4 grams slow IV, at a rate no greater than 1 gram per minute, until seizure stops, or a total of 4 grams have been given.

Eclampsia is a true life threatening medical emergency that requires aggressive intervention and rapid transport.

If transport times will be excessive, consider air evacuation.
ECLAMPSIA and PRE-ECLAMPSIA

Assess Level of Consciousness

**Basic**
- Assess ABCs (follow NREMT standards as appropriate)
- Oxygen; pulse oximetry (if available)
- Cover patients eyes and dim compartment lights
- Rapid transport; consider mutual aid/air evacuation
- Contact Medical Control

**Intermediate**
- Basic +
- If BLS ineffective; follow NREMT ALS standards
- IV NS @ KVO enroute
- Contact Medical Control

**Paramedic**
- Basic + Intermediate+
- Monitor ECG (follow NREMT-P standards)
- 1. Magnesium Sulfate 2 gm IV push over 5 min.
2. Magnesium Sulfate (6 gm in 500 ml D5W) IV drip @ 85 ml/hr
3. If seizing continues increase infusion to 170 ml/hr
- Contact Medical Control
PROLAPSED CORD

Assess Level of Consciousness

Basic

Assess ABCs (follow NREMT BLS standards as appropriate)

- Oxygen; pulse oximetry (if available)
- Elevate hips; place sterile gloved hand into vagina to push head off of the cord; DO NOT remove hand; wrap cord with moist sterile towel
- Rapid transport; consider mutual aid/air evacuation
- Contact Medical Control

Intermediate

Basic +

- If BLS ineffective; follow NREMT ALS standards
- IV NS @ KVO enroute
- Contact Medical Control

Paramedic

Basic + Intermediate+

- Monitor (follow NREMT-P standards)
- Contact Medical Control

PROLAPSED UMBILICAL CORD

EMERGENCY CARE
Elevate hips; administer oxygen; and IV fluid.
Carefully pass baby head over cord first.
Do not attempt to push cord back.
Wrap cord in sterile moist towel.
Transport mother to hospital, continuing assurance baby/birth.

VAGINAL HEMORRHAGE

Assess Level of Consciousness

Basic

Assess ABCs (follow NREMT BLS standards as appropriate)

- Oxygen; pulse oximetry (if available)
- Transport left lateral recumbent; consider mutual aid/air evacuation
- Contact Medical Control

Intermediate

Basic +

- If BLS ineffective; follow NREMT ALS standards
- IV NS @ appropriate rate
- Contact Medical Control

Paramedic

Basic + Intermediate+

- Monitor (follow NREMT-P standards)
- if patient is post-partum Add 20 units pitocin to 1 liter of fluid.
- Contact Medical Control

if patient is post-partum Add 20 units pitocin to 1 liter of fluid.
Pre-Term Labor
(22 - 34 Weeks Gestational age)

Assess Level of Consciousness

Basic
Assess ABCs
(follow NREMT BLS standards as appropriate)

Intermediate
Basic +
If BLS ineffective; follow NREMT ALS standards

Paramedic
Basic + Intermediate+
Monitor
(follow NREMT-P standards)

If Imminent Delivery
Oxygen; pulse oximetry
(if available)

IV NS @ KVO
(if time permits)

Contact Medical Control

Clean sterile technique; monitor speed of delivery; suction mouth then nose when head delivers

Protect infant; assess APGAR; clamp and cut cord

Prepare for placenta delivery; massage uterus

Rapid transport: consider mutual aid, air evacuation

Contact Medical Control

Contact Medical Control

Terbutaline
0.25 mg Sub-Q
500cc IV Fluid Bolus

1.Pitocin 20 units in 1 liter run @ 250 ml/hr after placenta delivery (if delivery occurs)

Contact Medical Control
A. Pediatric arrhythmias are more frequently THE CONSEQUENCE OF hypoxemia, acidosis, and hypotension THAN THE CAUSE OF these conditions.

B. The most common arrhythmias are asystole and idioventricular bradycardia.

C. Early shock is diagnosed by evaluation of heart rate, presence and strength of peripheral pulses, and adequacy of end organ perfusion (capillary refill time).

D. Bradycardia may herald imminent death in the infant or child. Heart rates of less than 80 in the infant and less than 60 in the child are bradycardic.

E. Resuscitation tapes based on the child's length are excellent references for endotracheal tube size and emergency drug dosages (STRONGLY recommended).

F. The following lipid-soluble drugs may be given by the endotracheal route (IV and IO preferred): epinephrine, atropine, lidocaine and naloxone.

G. The endotracheal dose of epinephrine is 10 times the standard IV or IO dose (0.1 to 0.2 mg/kg ET).

H. Drugs administered endotracheally should be instilled through a catheter or feeding tube inserted beyond the distal tip of the endotracheal tube.

I. Drugs administered endotracheally should be diluted in 3 to 5 ml of normal saline.

J. PREPARATION OF INFUSIONS

<table>
<thead>
<tr>
<th>Drug</th>
<th>Preparation</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epinephrine</td>
<td>0.6 X body weight (kg) equals Milligrams added to diluent to make 100 ml</td>
<td>Then 1 ml/hr delivers 0.1 µg/kg per minute; titrate to effect.</td>
</tr>
<tr>
<td>Dopamine</td>
<td>6 X body weight (kg) equals milligrams added to diluent to make 100 ml</td>
<td>Then 1 ml/hr delivers 1.0 µg/kg per minute; titrate to effect.</td>
</tr>
<tr>
<td>Lidocaine</td>
<td>120 mg of 40 mg/ml solution added to 97 ml of D5W, yielding 1200 µg/ml solution.</td>
<td>Then 1 ml/kg per hour delivers 20 µg/kg per minute.</td>
</tr>
<tr>
<td>Amiodarone</td>
<td>5mg/kg slow IV over 10-20 minutes</td>
<td>Total not to exceed 15mg/kg</td>
</tr>
</tbody>
</table>
Asystole/Pulseless Arrest
Pediatrics (PALS)

Asystole and Pulseless Arrest Decision Tree

- Determine pulselessness and begin CPR
- Confirm cardiac rhythm in more than one lead

Ventricular fibrillation/pulseless ventricular tachycardia
- Continue CPR
- Secure Airway
- Hyperventilate with 100% oxygen
- Obtain IV or Intraosseous (IO) access but do not delay defibrillation
- Defibrillate up to 3 times if needed
  2 J/kg, 4 J/kg

Epinephrine, first dose
- IV/IO: 0.01 mg/kg (1:10,000, 0.1 mL/kg)
- ET: 0.1 mg/kg (1:1000, 0.1 mL/kg)
  or Vasopressin 0.5-1.0 U/kg IV or IO
- Defibrillate 4 J/kg 30-60 s after each medication
- Amiodarone 5 mg/kg IV or IO
- Defibrillate 4 J/kg 30-60 s after each medication
- Epinephrine, second and subsequent doses (repeated every 3-5 min)*
  - IV/IO/ET: 0.1 mg/kg (1:1000, 0.1 mL/kg)
  - (IV/IO doses up to 0.2 mg/kg of 1:1000 may be effective)
  - Amiodarone 5 mg/kg (total of 15 mg/kg given)

Asystole

Electromechanical dissociation
Pulseless electrical activity
- Identify and treat causes
  - Severe hypoxemia
  - Severe acidosis
  - Severe hypovolemia
  - Tension pneumothorax
  - Cardiac tamponade
  - Profound hypothermia
- Continue CPR
- Secure airway
- Hyperventilate with 100% oxygen
- Obtain IV or IO access
- Defibrillate up to 3 times if needed
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  - ET: 0.1 mg/kg (1:1000, 0.1 mL/kg)
- Epinephrine, second and subsequent doses
  - IV/IO/ET: 0.01 mg/kg (1:10,000, 0.1 mL/kg)
  - Repeat every 3-5 min
  - Epinephrine infusion 0.1-0.2 ug/kg/min
- Atropine, if rate is slow (less than 60)
  - IV/IO/ET: 0.2 mg/kg
  - (Repeat once)
  - Transcutaneous pacing
PEDIATRIC VF/VT (PULSELESS)

- Confirm UC/UR; pulseless/apenic

- Confirm VF/VT ("Quick Look")

- Defibrillate (follow AHA PALS standards)

- Rapid transport; consider mutual aid/air evacuation

- Intubate / IV/IO

- Rx / Defibrillation (follow AHA PALS Standards)

- Sodium Bicarbonate 1mEq/kg IV/IO

- Contact Medical Control

1. If rhythm changes: reassess Pt. follow appropriate AHA PALS algorithm

**Catecholamines**
- Epi 1:10000 .01mg/kg IV or IO Q 3-5 minutes
- Vasopressin 0.5-1.0 U/kg IV or IO one dose only

**Antiarrhythmics**
- Amiodarone 5mg/kg IV or IO bolus
- Mag Sulfate 25-50 mg/kg IV or IO Bolus for torsades or refractory V-fib/V-tach
Bradycardia Decision Tree

- Assess ABCs
- Secure airway
- Administer 100% oxygen
- Assess vital signs

Severe cardiorespiratory compromise?
- Poor perfusion (Weak pulses)
- Hypotension
- Respiratory difficulty

No

- Observe
- Support ABCs
- Consider transport to ALS facility

Yes

Perform chest compressions if despite oxygenation and ventilation:
- Heart rate < 60/min in infant or child associated with poor systemic perfusion
- Start IV or intraosseous (IO) access

Epinephrine
- IV/IO: 0.01 mg/kg (1:10,000, 0.1 mL/kg)
- Endotracheal (ET): 0.1 mg/kg (1:1000, 0.1 mL/kg)
- Repeat every 3-5 min at the same dose

Atropine 0.02 mg/kg
- Minimum dose: 0.1 mg
- Maximum single dose:
  - 0.5 mg for child
  - 1 mg for adolescent
- May be repeated once

Consider external cardiac pacing

If asystole develops, see asystole protocol

a. Special conditions may apply in the presence of severe hypothermia.
b. Epi infusion will be the treatment of choice in refractory bradycardia.
PEDIATRIC BRADYCARDIA

Assess Level of Consciousness

Assess ABCs;
(follow NREMT standards as appropriate)

Oxygen;
pulse oximetry
(if available)

IV/IO NS with buretrol
@ KVO rate

Rapid transport
consider mutual aid/
air evacuation

Monitor
(follow AHA PALS standards)

Contact
Medical Control

1. Epi (1:10000) 0.01 mg/kg
IV/IO push Q 3-5 min
2. Transcutaneous Pacing
3. Atropine 0.02 mg/kg IV/IO push
Min. single dose 0.1mg
Max. single dose 0.5 for child;
1.0 for adolescent
4. Epi infusion for refractory bradycardia
0.1 - 0.2 ug/kg/min titrate to effect
A. Therapy:

1. Synchronized Cardioversion

   a. Synchronized cardioversion is the treatment of choice for patients with tachyarrhythmias (SVT, VT, atrial fibrillation, atrial flutter) who show evidence of cardiovascular compromise.
   b. The initial energy dose is 0.5 J/kg, and if the tachyarrhythmia persists, the dose is doubled.

2. Adenosine

   a. Adenosine is the drug of choice for the treatment of SVT in symptomatic infants and children.
   b. Dose: 0.1 mg/kg as a rapid IV bolus with constant ECG monitoring. Because of the short half-life, the bolus of adenosine must be immediately followed by 2 to 3 ml of normal saline and the injection port used must be the one nearest the hub of the catheter. If there is no effect, the dose may be doubled once. The maximum single dose should not exceed 12mg.

3. Vagal maneuvers

   a. Vagal maneuvers may be utilized in children by placing a zip-lock bag of ice/water covering the forehead and eyes, or if the child is older and is able, have the child blow into an occluded straw.
TACHYCARDIA WITH POOR PERFUSION

Assess Level of Consciousness

Assess ABCs
(follow AHA PALS standards as appropriate)

Oxygen
IV Therapy or IO
NS at appropriate rate

Narrow Complex
Adenosine 0.1mg/kg IV, IO
2-3cc NS flush
No change 0.2mg/kg
Maximum 0.3mg/kg or 12mg

Wide Complex
Amiodarone 5mg/kg
IV or IO
over 10 - 20 mins

Unstable

Synchronized Cardioversion
0.5j/kg in unstable patient
Midazolam 0.1mg/kg if patient condition allows

Contact Medical Control
**Ventricular Fibrillation/Ventricular Tachycardia Pulseless Arrest Decision Tree**

- Determine pulselessness and begin CPR
- Confirm cardiac rhythm in more than one lead

**Ventricular fibrillation/pulseless ventricular tachycardia**

- Continue CPR
- Secure Airway
- Hyperventilate with 100% oxygen
- Obtain IV or Intraosseous (IO) access but do not delay defibrillation

- Defibrillate up to 3 times if needed
  - 2 J/kg, 4 J/kg

- **Epinephrine**, first dose
  - IV/IO: 0.01 mg/kg (1:10,000, 0.1 mL/kg)
  - ET: 0.1 mg/kg (1:1000, 0.1 mL/kg)
  - or Vasopressin 0.5-1.0 U/kg IV or IO

- Defibrillate 4 J/kg 30-60 s after each medication

- **Amiodarone** 5 mg/kg IV or IO

- Defibrillate 4 J/kg 30-60 s after each medication

- **Epinephrine**, second and subsequent doses (repeated every 3-5 min)*
  - IV/IO/ET: 0.1 mg/kg (1:1000, 0.1 mL/kg)
  - (IV/IO doses up to 0.2 mg/kg of 1:1000 may be effective)
  - **Amiodarone** 5 mg/kg (total of 15mg/kg given)

*Defibrillate 4 J/kg 30-60 after each medication

**Asystole**

- Identify and treat causes
  - Severe hypoxemia
  - Severe acidosis
  - Severe hypovolemia
  - Tension pneumothorax
  - Cardiac tamponade
  - Profound hypothermia

**Electromechanical dissociation**

- Pulseless electrical activity

- Continue CPR
- Secure airway
- Hyperventilate with 100% oxygen
- Obtain IV or IO access

- **Epinephrine**, first dose
  - IV/IO: 0.01 mg/kg (1:10,000, 0.1 mL/kg)
  - ET: 0.1 mg/kg (1:1000, 0.1 mL/kg)
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- Epinephrine, second and subsequent doses
  - IV/IO/ET: 0.01 mg/kg (1:10,000, 0.1 mL/kg)
  - ET: 0.1 mg/kg (1:1000, 0.1 mL/kg)
  - Repeat every 3-5 min
  - Epinephrine infusion 0.1-0.2ug/kg/min

- Atropine, if rate is slow (less than 60)
  - IV/IO/ET: 0.2 mg/kg
  - (repeat once)
  - Transcutaneous pacing
A. SUPPLEMENTAL NOTES:

1. Remember to wear gloves and other appropriate protective barriers.
2. Warm the back of the ambulance to 85°C while en route, if possible.
3. Assemble your equipment early.
4. Position the neonate supine or on its side with the neck in neutral position.
5. If possible, suction the mouth and nose with a bulb syringe after delivery of the shoulders but before the thorax has been delivered.
6. After delivery, suction the mouth and nose again and as needed with an 8F or 10F suction catheter for no longer than 5 seconds at a time.
7. Dry the infant thoroughly, and Place stocking cap or towel wrap around infant's head to preserve body heat.
8. Wrap infant in Silver Swaddler or Saran Wrap, then wrap in blanket.
9. Assess the APGAR score at 1 and 5 minutes of age if the neonate is stable.
10. Administer 100% oxygen if cyanosis, bradycardia or other signs of neonatal distress are present in the breathing infant.
11. Ventilate with BVM at 40 to 60 breaths per minute IF the neonate is apneic, with gasping respirations, heart rate less than 100, or with persistent central cyanosis despite 100% oxygen.
12. Reassess after 15 to 30 seconds.
13. If heart rate greater than 100 and neonate with spontaneous respirations, discontinue BVM but continue oxygen.
14. If heart rate less than 60, or between 60 and 80 and not increasing, continue BVM and begin chest compressions.
15. If heart rate is 60 to 80 and increasing, continue BVM but do not initiate chest compressions.
16. Consider mutual aid/air evacuation for the unstable neonate.
17. Place infant next to mother's chest and breast if stable.

**APGAR SCORING**

<table>
<thead>
<tr>
<th>Sign</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HEART RATE</strong></td>
<td></td>
</tr>
<tr>
<td>Absent</td>
<td>0</td>
</tr>
<tr>
<td>Slow (&lt;100)</td>
<td>1</td>
</tr>
<tr>
<td>100 beats/min</td>
<td>2</td>
</tr>
<tr>
<td><strong>RESPIRATIONS</strong></td>
<td></td>
</tr>
<tr>
<td>Absent</td>
<td>0</td>
</tr>
<tr>
<td>Slow, irregular</td>
<td>1</td>
</tr>
<tr>
<td>Good, crying</td>
<td>2</td>
</tr>
<tr>
<td><strong>MUSCLE TONE</strong></td>
<td></td>
</tr>
<tr>
<td>Limp</td>
<td>0</td>
</tr>
<tr>
<td>Some flexion</td>
<td>1</td>
</tr>
<tr>
<td>Active motion</td>
<td>2</td>
</tr>
<tr>
<td><strong>REFLEX IRRITABILITY</strong></td>
<td></td>
</tr>
<tr>
<td>(catheter in nares tactile stimulation)</td>
<td></td>
</tr>
<tr>
<td>No response</td>
<td>0</td>
</tr>
<tr>
<td>Grimace</td>
<td>1</td>
</tr>
<tr>
<td>Cough, sneeze, Cry</td>
<td>2</td>
</tr>
<tr>
<td><strong>COLOR</strong></td>
<td></td>
</tr>
<tr>
<td>Blue or pale</td>
<td>0</td>
</tr>
<tr>
<td>Pink body with blue extremities</td>
<td>1</td>
</tr>
<tr>
<td>Completely pink</td>
<td>2</td>
</tr>
</tbody>
</table>

B. SUPPLEMENTAL NOTES:

1. Neonatal Vital Signs:
   a. Heart Rate 120 - 160/minute
   b. Respiratory Rate 24 - 50/minute
   c. BP 50 - 70/systolic
      30 - 40/diastolic
   d. Temperature 36 - 37 degrees C rectally-Term infant
      35 - 37 degrees C rectally-Preemies

2. Remember, 20% of the infant's body surface area is the head. Infants lose heat through conduction, convection, radiation, and evaporation. When managing thermo-regulation in the infant, you must prevent heat loss from all these mechanisms.

3. If infant is stable, nothing more than drying and wrapping is needed. Breast feeding is appropriate if mother and infant are stable.
Inverted Pyramid for Resuscitation of the Distressed Neonate

- Drying, warming positioning, suction, tactile stimulation
- Oxygen
- Bag-mask Ventilations
- Chest Compressions
- Intubation
- Meds
Allergic reactions and anaphylaxis represent a spectrum of the same problem. At its extreme end, anaphylactic reactions are life threatening with a high mortality rate requiring swift action. Care is focused on reducing or stopping the allergic reaction.

The cardinal signs of anaphylaxis are stridor, brochospasm, and hypotension. The symptoms associated with anaphylaxis may begin within seconds of exposure to an allergen or may be delayed up to 1 hour. However, typical response begins within minutes of exposure and primarily involves the cardiovascular and respiratory system but may also present with sudden onset of vomiting and/or diarrhea.

Localized reactions are characterized by a rash, urticaria (welps) covering an area or the entire skin surface of the body. The patient is usually very anxious and complaining of itching all over.

Shock is defined as hypotension and requires IV epinephrine, IV Fluids, and benadryl. Patients who receive IV epinephrine should be monitored very closely and have continuous EKG observation.

If the patient is being transported from a remote site or distances outside the Amarillo area, Air evacuation should be considered the method of transport, but do not delay transport awaiting air evacuation.

Epinephrine is safer to give subcutaneously. In shock, the drug may not be well absorbed when given subcutaneously, so IV epinephrine 1:10,000 given slowly is the next available option.
PEDIATRIC ALLERGIC REACTION

Assess Level of Consciousness

Basic

Assess ABCs (follow NREMT BLS standards as appropriate)

Oxygen; pulse oximetry (if available)

Albuterol 0.03ml/kg Atrovent 0.5ml in 2.5 ml NS HHN

Rapid transport; consider mutual aid/air evacuation

Contact Medical Control

Intermediate

Basic +

If BLS ineffective; (follow NREMT ALS standards)

IV NS(buretrol) @ KVO rate

Paramedic

Basic + Intermediate+

If localized reaction only:
Benadryl - 2 mg/kg (max - 25 mg) IV push.
If localized reaction and shock:
Epinephrine 1:10000 0.01mg/kg (max - 0.3 mg) slow IV push,
Benadryl 2 mg/kg (max - 25 mg) IV push, and 20 cc/kg bolus.

Contact Medical Control

1. If shock persist:
Dopamine 2-20 mcg/kg/min.

1. EpiPen Jr. or Epi(1:1000) 0.01 mg/kg SQ to 0.3 mg maximum
Reactive airway disease is a spectrum of illnesses, which includes asthma, emphysema and chronic bronchitis.

Asthma is characterized by episodic bronchospasm and hypersecretion of mucous with intervals of relative or complete good health. Most all patients will have a prolonged expiratory phase of respiration with wheezing – often audible without a stethoscope.

COPD (emphysema) is defined as destruction of lung tissue with fusion of tissue in the alveoli.

Chronic bronchitis is an inflammatory process with mucous production and bronchospasm
PEDIATRIC ASTHMA

Assess Level of Consciousness

Basic

Assess ABCs (follow NREMT standards as appropriate)

Oxygen; pulse oximetry (if available)

Rapid transport; consider mutual aid/air evacuation

Contact Medical Control

Intermediate

Basic +

If BLS ineffective; (follow NREMT-I standards)

IV NS (buretrol) @ KVO rate

If BLS ineffective; (follow NREMT-I standards)

Contact Medical Control

Paramedic

Basic + Intermediate+

Monitor EKG (follow NREMT-P standards)

Contact Medical Control

Additional
Albuterol/Atrovent
By nebulizer
add Decadron 2mg to nebulizer

Contact Medical Control

1. Albuterol: 0.03 ml/kg in 2.5 ml NS (maximum .5cc) or 1/2 of adult single dose premix vial via HHN @ 6 LPM
2. EpiPen Jr. or Epi(1:1000) 0.01 mg/kg SQ (max. 0.3 mg)

PEMSS Protocols
June 2005
A. SUPPLEMENTAL NOTES:

1. **If racemic epinephrine is not available**, epinephrine in a 1:1000 solution may be used. The recommended dose is **4 cc of epinephrine 1:1000 solution (4 mg)** administered by hand held nebulizer.

2. In Epiglottitis do not start IV unless absolutely needed, as upsetting the child could result in upper airway obstruction. Keep patient comfortable, including letting patient sit on parent's lap. Do not force any treatment, including oxygen. Allow parent or attendant to let oxygen blow by the mouth and nose.

3. Advanced airway maneuvers will only be used in patients who become apneic.

4. It is important to keep in mind that with current immunizations the incidents of Epiglottitis has almost all but disappeared in recent years. The hallmark sign of Croup is the seal-bark cough.

The classic presentation is a young child who develops a fever and may complain of sore throat. The child may refuse to eat. Over a matter of hours, the child is unable to tolerate even his own secretions and begins to drool. The child develops signs of upper airway obstruction with stridor and a varying degree of respiratory compromise. The older child will sit with his neck extended in the sniffing position.

- Older children may present with a more prolonged prodrome and with more subtle findings.

- The clinical triad of drooling, dysphagia, and distress is the classic presentation. Fever with associated respiratory distress or air hunger occurs in most patients. Drooling occurs in up to 80% of cases.

- The child also has a muffled voice.

- Age of patient, prodrome, type of cough, and degree of toxicity can all contribute to differentiation of epiglottitis from severe croup. Usually, croup occurs in younger children and has a viral prodrome. Most importantly, the child with croup has a barking cough and rarely appears toxic.

- The child is febrile and appears toxic or anxious.

- The older child assumes a characteristic tripod posture with the neck extended.

- Stridor frequently is present.

- As the child cannot tolerate secretions, drooling frequently is present.

- Cough is rare.
PEDIATRIC CROUP and EPIGLOTTITIS

Assess Level of Consciousness

Basic

Assess ABCs
(follow NREMT standards as appropriate)

Oxygen; pulse oximetry (if available)

Rapid transport; consider mutual aid/air evacuation

Contact Medical Control

Intermediate

Basic +

If BLS ineffective; (follow NREMT-I standards)

IV NS (buretrol) @ KVO rate

Paramedic

Basic + Intermediate+

Monitor EKG (follow NREMT-P standards)

If Indicated proceed to needle cricothyrotomy

Contact Medical Control

Racemic epinephrine; 0.25 ml in 2 ml NS via HHN @ 6 LPM X1 or Epinephrine 1:1000 4 cc via HHN @ 6LPM X1 Decadron 2mg nebulized

Contact Medical Control
Sorting out the possibilities of disorders in glucose metabolism has been made much easier with the advent of the glucometer. The old adage of “when in doubt give sugar” is no longer valid in this system. All services that utilize these protocols will be expected to use a glucometer. Diabetics may have an abnormally high or low glucose leading to symptoms. An episode of hyperglycemia in infants and children may be the initial presentation of diabetes (no prior history). There are many signs and symptoms of hypoglycemia: newborn and infants may be asymptomatic or may manifest nonspecific symptoms such as irritability, pallor, cyanosis, tachycardia, tremors, lethargy, apnea, or seizures. The goal of managing diabetic conditions in the prehospital setting is glucose measurement, treatment of identified abnormalities, and search for precipitating causes.

1. A heel stick best obtains measurement of blood glucose in infants and neonates.
2. Oral glucose 7.5 grams to 15 grams (1/2 to 1 tube) by mouth (if conscious and can protect airway) for hypoglycemia.
3. Hypoglycemic infants greater than one month: Dextrose 25% (D25W) 2 ml/kg slow IV or IO.
4. Hypoglycemic neonates less than one month: Dextrose 10% (D10W) 2 ml/kg slow IV or IO.
5. Fluid therapy for hyperglycemia (BS > 300 mg/dl): with evidence of dehydration:
   - 20cc/kg rapid IV bolus for hypoperfusion and tachycardia. Repeat X 1
   - 10-20cc/kg over 1 hour for stable patients with mild symptoms (sunken fontanels, poor turgor, minimal tachycardia)
   - Maximum of 1 liter of fluid in each case without on-line medical control.
6. In children older than eight years of age Dextrose 50% may be used.
7. To prepare a solution containing 25% Dextrose: Add 12.5 grams of 50% dextrose to 50cc of NS. Yielding a concentration of 250mg/ml (a 25% solution)
8. To prepare a solution containing 10% Dextrose: Add 5 grams of 50% dextrose to 50cc of NS. Yielding a concentration of 100mg/ml (a 10% solution)
PED Diabetic Assess Level of Consciousness

Basic
- Assess ABCs; follow NREMT BLS standards as appropriate
- Oxygen; pulse oximetry (if available)
- Check blood sugar level: If low, give 1cc/kg Instant Glucose PO (if tolerated)
- Brief Hx; Exam
- Rapid transport; left lateral recumbent; (if appropriate) consider mutual aid/air evacuation
- Contact Medical Control

Intermediate
- Basic +
- If BLS ineffective; (follow NREMT ALS standards)
- IV NS(buretrol) @ appropriate rate
  - KVO - low BS level
  - 20 ml/kg per hr - high BS level
- If blood sugar level low; Give D25W 2 ml/kg IV push
- If IV unobtainable or oral glucose delayed: Glucagon 0.03 mg/kg IM or IN (maximum 1mg)
- Contact Medical Control
- 1. Additional D25W 2 ml/kg IV push

Paramedic
- Basic + Intermediate+
- Monitor (follow NREMT-P standards)
- Contact Medical Control
A. SUPPLEMENTAL NOTES:

1. Call Poison control (800-222-1212) on all poisonings to determine patient disposition prior to leaving the scene.

2. On line medical control may order Charcoal. This is most useful if the transport time is longer than 45 minutes and depends on substance ingested and time of ingestion.

3. Suicidal patients should be encouraged to come to the hospital. It may be appropriate to have the local law enforcement agency send an officer to the scene.

4. The history given by an overdose/poisoning patient is often inaccurate, and larger amounts or different substances may have been ingested.

It is impossible to include all the potential toxic exposures or poisonings in this protocol. Management of the poisoned or exposed patient focuses on several principles: decontamination limits further absorption and minimizes the extent of the toxicity; supportive care limits the effects of the serious complications of poisoning on the primary systems at risk; and definitive care limits the severity or duration of toxicity through the use of pharmacological antagonists (antidotes) or enhances elimination of the toxin itself.

The poisoning/exposure may be accidental or intentional. It is important to remember that a toxic exposure poses a significant risk to both rescuer and patient. Appropriate scene management and decontamination are critical.

Remember that safety of the scene requires a great deal of caution, careful observation, and tact when dealing with patients and family members of an intentional overdose. The communication center can only advise on scene safety by the information obtained by the caller, which that information is not always available. The communications center only advises to enter the scene when law enforcement request EMS to do so, this does not guarantee the scene is “safe”.

At no time shall an overdose patient be left with law enforcement officers to transport to the hospital.
Common antidotes (treatments);

1. **Dystonic reactions to phenothiazines** – Benadryl (diphenhydramine) 1.0mg/kg slow IV or IM (max dose 25mg)

2. **Symptomatic Organophosphate poisoning** – (muscle fasciculation, diarrhea, wheezing, abdominal cramping, salivation, seizures, altered mental status, and pinpoint pupils):
   Atropine 0.05mg/kg doubled every 5 to 10 minutes until signs of atropinization occurs (dilated pupils, tachycardia, flushing, drying of secretions).

3. **Symptomatic cyclic antidepressant overdose** – (sustained tachycardia > 120 bpm, widened QRS complex and/or hypotension not responsive to IV fluids):
   Sodium Bicarbonate 1mEq/kg IV Bolus over 2 minutes X 1 dose.

4. **Symptomatic Calcium Channel blocker overdose** – (bradycardia, conduction delays, hypotension, lethargy, slurred speech, nausea, vomiting):
   Calcium Chloride 20mg/kg slow over 5-10 minutes
   Atropine 0.5mg – 1.0mg IV

5. **Cocaine toxicity** – (hypertension, tachycardia, chest pain, anxiety, shortness of breath, diaphoresis, mood elevation, hallucinations, hyperthermia) cocaine blocks the uptake of neurotransmitters such as epinephrine, norepinephrine, dopamine, and serotonin. This results in the myriad of symptoms, and also greatly increases the myocardial oxygen consumption, and coronary vasoconstriction. The accumulation of neurotransmitters results in hypertension and tachycardia. A chemical cascade of events, stimulate platelet aggregation, cardiac ventricular dysfunction, and acute MI. EKG monitoring is important, tachyarrythmias are common.
   Versed is the drug of choice for multiple symptoms as listed above 0.1mg/kg IV

6. Medical Control may order *Charcoal* in certain cases.
   Contact poison control 1-800-222-1222

Charcoal Doses:

- Children up to a year of age: 1g/kg
- Children 1 to 12 years of age: 25 to 50 g
- Adolescents and adults: 25 to 100 g
TOXICOLOGIC EMERGENCIES/POISONING

Assess Level of Consciousness,

Basic
- Assess ABCs (follow AHA BLS standards as appropriate)
- Oxygen; pulse oximetry (if available)
- Rapid transport; consider mutual aid/air evacuation
- Contact Medical Control

Intermediate
- Basic +
- If BLS ineffective; follow NREMT-I ALS standards
  - IV NS @ KVO
  - If blood sugar low: 25 gm D50 IV push
  - Narcan 2 mg IV IM, SQ, IN or ET (only if indicated)
- Contact Medical Control

Paramedic
- Basic + Intermediate+
- ECG Monitor, Frequent Assessment of GCS, Gag Reflex, Contact Poison Control
  - transport with pill bottles and/or containers.
  - follow treatment guide as outlined
- Contact Medical Control
- Administer Charcoal per Medical Control
A. SUPPLEMENTAL NOTES:

1. Use caution if administering Benzodiazepines to:
   a. Head injured patients.
   b. Alcohol intoxicated patients.

Status epilepticus is a true medical emergency defined as either continuous seizures lasting more than 5 minutes or two or more discrete seizures between which there is no recovery of consciousness.

All first time seizures and seizures associated with a fever shall be evaluated and transported to the ER to be evaluated.
PEDIATRIC SEIZURES

Assess Level of Consciousness

Basic
- Assess ABCs; follow NREMT BLS standards as appropriate
- Oxygen; pulse oximetry (if available)
- Check Rectal temperature - Cool if indicated
- Rapid transport; consider mutual aid/air evacuation
- Contact Medical Control

Intermediate
- Basic +
- If BLS ineffective; (follow NREMT ALS standards)
- IV NS (buretrol) @ KVO rate
- Check blood sugar level: If low, give D25W 2cc/kg IV push or IO
- Monitor (follow NREMT-P standards)
  - If active seizing > 60 sec: Versed 0.1 mg/kg IV, IO, IN or IM (max dose 2 mg)
  - May repeat X 1 if active seizing continues 5 min after first dose.
  - Or Versed 0.3mg/kg Rectal X 1 dose
- Contact Medical Control

Paramedic
- Basic + Intermediate+
- Monitor (follow NREMT-P standards)
- If active seizing > 60 sec: Versed 0.1 mg/kg IV, IO, IN or IM (max dose 2 mg)
  - May repeat X 1 if active seizing continues 5 min after first dose.
- Or Versed 0.3mg/kg Rectal X 1 dose
- Contact Medical Control
A. In order to comply with local, state, and federal regulations, paramedics are required to complete the following information.

B. The Medical Control Physician, Paramedic and any witness MUST sign the form. Forms will be attached to run report and sent to the medical director monthly for review.

C. The witness can be another paramedic or EMT riding with the paramedic administering the drug.

Controlled Substances Accountability

Name of Patient: ____________________________ Call #: __________________________
Date: __________________________ Drug Administered: __________________________
Amount Administered: ______________ Amount Wasted/Destroyed: ______________
Paramedic Signature: __________________________________________________________
Paramedic's Printed Name: _____________________________________________________
Paramedic's medical control #: __________ Service: ______________________________
Witness Signature: ____________________________________________________________
Witness Printed Name: _________________________________________________________
On-line Medical Control Signature: _____________________________________________
On-line Medical Control Printed Name: ___________________________________________
A. When purchasing controlled substances and drugs from Northwest Texas Hospital the Paramedic will:

1. Show proof of identity to the Physician and Pharmacist.
2. Complete the PEMSS Narcotics Log in the Emergency Department. (See example: PEMSS Narcotics Log)
3. The Physician will sign the Narcotics Log and write the script for the narcotic needed, the appropriate amount, and sign the script.
4. The Paramedic will then take the script to the pharmacy and the Pharmacist will fill the prescription.

B. When the Paramedic administers controlled substances at the request of a Regional Physician the Paramedic will:

1. Get the regional Physician to write a script for the narcotic needed, amount, date and sign the script.

NOTE: The script from the regional Physician will only be filled if the date is 30 days or less from the date the Physician wrote the script.

1. Bring the script; show proof of identity to the Physician and Pharmacist.
2. Complete the PEMSS Narcotics Log in the Emergency Department. (See example: PEMSS Narcotics Log)
4. The Physician will sign the Narcotics Log and write and sign the script for the same narcotic and amounts listed on the script from the regional Physician.
5. The Physician will void and attach the regional prescription to his prescription.
6. The Paramedic will then take both prescriptions back to the Pharmacy and the Pharmacist will fill the prescription.

C. Paramedic will attach copy of controlled substances accountability form to the PEMSS Patient Care Report for CQI review.
A. Competent and informed patients have a moral and legal right to consent to or refuse recommended medical procedures, including CPR. The only accepted method for withholding CPR at the patient’s or family’s request, without direct on-scene physician intervention, in the prehospital environment, is through the State of Texas Out of Hospital Do Not Resuscitate (OOHDNR) order, or; Medical Power of Attorney (presented by authorized agent who must be identified), physician written order, or a physician directive from an individual.

Signed forms (original or copy) bracelets, necklaces, are used to identify the existence of DNR orders. Even though CPR may be withheld, it is still appropriate, depending upon the advanced directive, not to withhold IV fluids, oxygen, pain medications, or other supportive care interventions. Remember, a DNR does not mean as “Do Not Treat”.

State Of Texas Out Of Hospital Do-Not-Resuscitate Orders:

The person who executes the OOH DNR order may request to have any of the following procedures withheld, with documentation of each procedure present at the top of the OOH DNR order:

- Cardiopulmonary resuscitation
- Advanced airway management
- Artificial ventilation
- Transcutaneous cardiac pacing
- Other life sustaining treatment specified by the Texas Board of Health.

DNR order: A DNR order issued by an attending physician for a patient who has been diagnosed as having a terminal condition. The attending physician has the responsibility for ensuring that the form is filled out in its entirety. In the PEMSS System, we will honor:

- Written Physician order, or;
- DSHS OOHDNR

B. This DNR protocol shall apply to all out-of hospital settings including cardiac arrests, which occur during interfacility transport.

C. The prehospital provider shall withhold or withdraw all procedures indicated on the DNR order, when presented with the original or a copy of Texas Department of Health standardized DNR form and a witness identifies the patient. If the patient is wearing a TDH approved identification device such as a necklace or bracelet, which matches the DNR form identification number, a witness is not necessary. Always utilize a witness if possible.

D. The Full name, address, telephone number and relationship to patient of any witness used to identify the patient must be documented.

E. In the event of a dispute or suspicious circumstances on scene, resuscitation should be initiated, and on-line medical control should be contacted for resolution of the dispute.
F. Each incident in which an Out-of Hospital DNR order form or DNR identification device is encountered must be documented. The data documented should include:
   1. Assessment of the patient's condition
   2. Type of identification method (form/witness, form/DNR device)
   3. Any problems relating to implementation of the DNR order
   4. Name of attending physician
   5. Witness information (see D. above)

Attach a copy of the DNR form to the PEMSS patient report.

G. The original or copy of the DNR order form must be in the possession of the patient, a legal guardian or the healthcare facility responsible for the patient's care. The prehospital provider must have the original or a copy of the DNR form during transport. The original or copy of the DNR form will be given to the receiving facility.
STOP 
DO NOT 
RESCUITE

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 an 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. Patient’s full legal name — printed or typed
   Date of Birth: Male/Female (Circle One)

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:
      
      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 2 Signature Date

   Witness Printed or Typed Name
   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 judgment, 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 of Second Physician 
      Date 
      Printed or Typed Name

      Signature of Patient, Agent or Relative (A, B, or C)

3. All persons who signed must sign here (Pursuant to HSC 166.083(b)(13)). This document has been properly completed.

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

   Signature of Witness 
   Date

   SHOULD TRANSPORT OCCUR, THIS DOCUMENT OR A COPY MUST ACCOMPANY THE PATIENT.
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&S C) relating to the issuance of Out-of-Hospital Do-Not-Resuscitate (DNR) orders for the purpose of ensuring that 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) 334-6700.

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 & S C 166.002 (3) & (12))

Qualified Relative: 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 making decisions. The Section 166.088 H & S C 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 service personnel, and, unless the context requires otherwise, includes hospital emergency department personnel. (H & S C 166.081 (3))

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) any person who has a prior claim against the estate of the patient; (5) the attending physician or any 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) 334-6700.

Revised July 19, 2005
Texas Department of State Health Services
A. A PEMSS BLS record of treatment form will be completed for every patient cared for in the PEMSS system.

B. If advanced care is given at any level of certification, an ALS PEMSS record of treatment form will be completed in addition to the BLS form.

C. The minimum information required by Texas Department of State Health Services is a completed PEMSS PCR. It is the responsibility of each PEMSS Service to send all data outlined in the EMS License to the State database as required (TRACIT).

D. The three-part forms should be distributed as follows:
   1. White (original) - EMS Service file copy
   2. Yellow - PEMSS file copy (send monthly with CQI survey)
   3. Pink - Patient record copy (leave with patient at receiving facility)

E. Each quarter the directors of services utilizing PEMSS medical control are required to submit a documentation survey to the PEMSS office. A sample survey is in Appendix B. Each director should ensure that item A above is complied to 100%. The PEMSS file copy for each patient should be sent with the CQI survey, Quarterly.

F. The directors or their designee should review each treatment form for completeness as per the sample in Appendix A. The total number of incomplete forms should be noted on the survey.

G. The following information should also be noted on the survey:
   1. Ambulance runs (total calls),
   2. Patients treated and/or transported (total),
   3. Record of treatment forms (total - should match total patients),
   4. Code 99s from traumatic injuries (Trauma Codes) (total),
   5. Trauma scene times over 10 minutes (total), and
   6. Medical scene times over 20 minutes (total).

H. Services which receive local medical control (outside of PEMSS MC) are requested to submit total number of runs and total number of patients only and Code 3 forms for QI purposes.

I. Delivery of Patient Care Reports to a receiving facility – the EMS provider shall assure that an accurate, complete, and clearly written or computer generated PCR be provided to the receiving facility when operationally feasible, at the time of delivery of the patient to the facility. If the EMS staff is in a response–pending status, the report shall be delivered at the next earliest opportunity.
Purpose:

1. To provide tools with which member EMS services may review and improve patient care;
2. To provide a means for Medical Director oversight of patient care throughout the region;
3. To provide a method for trending regional performance issues to identify areas where education, protocol revisions and/or trauma system revisions may be developed and utilized to improve system-wide and service-specific patient care.

Service Director Responsibility:

1. Each EMS service director shall be responsible for performance review at the service level, utilizing the tools provided by the PEMSS Education/CQI Committee.
2. Each EMS service director shall be responsible for monthly reporting of summary data to the PEMSS Education/CQI Committee. Materials shall be due in the PEMSS each quarter. Report shall include summary data, and 100% of the following run sheets:
   a. significant variance from standard (i.e., extended scene time without documentation of reason)
   b. use of etomidate
   c. cardiac arrest after administration of diazepam, midazolam, morphine, demerol, etomidate, or propofol.
   d. any attempt (successful or unsuccessful) at needle or surgical airways
   e. incorrect medication administration or dose (i.e., wrong dose, route, etc.)
   f. any unusual circumstance or intervention that potentially causes or caused harm to a patient
   g. potentially significant protocol deviations (including performing skills beyond scope of practice)
   h. DNR form presented (honored or not honored)
3. Patient care issues or concerns which cannot be resolved at the service level shall be referred by the EMS service director to the PEMSS Education/CQI Committee and/or the PEMSS Medical Director for additional review and recommendations.
4. Run review with First Responder (if applicable) and reporting to PEMSS Education/CQI Committee. (See monthly summary report form)
5. Recommendations/requests for development of education programs/materials to meet needs identified through service performance review shall be referred to the PEMSS Education/CQI Committee for consideration.
6. EMS service director will report outcomes of recommended interventions on patient care issues back to the PEMSS Education/CQI Committee in writing. (i.e., if committee recommends additional airway management skills training for the service or an individual in the service, report will be submitted back to the committee when this has been accomplished)

First Responder Responsibility:

1. Run review with associated EMS service director and quarterly reporting to PEMSS Education/CQI Committee (to be done on FR quarterly summary report form)
PEMSS Responsibility:

1. PEMSS office will prepare a regional summary of data submitted by EMS service directors for review by the PEMSS Education/CQI Committee.
2. PEMSS Education/CQI Committee will review summary data submitted by each service, as well as regional summary data to identify trends indicating areas for improvement.
3. PEMSS Education/CQI Committee will work with PEMSS Prehospital Education Specialist and PEMSS Medical Director to develop educational offerings as indicated by performance review data, and as recommended by PEMSS Medical Director and Prehospital Education Specialist, and make it available to the region.
4. PEMSS Education/CQI Committee will randomly request 100% of run sheets from a service for review on a periodic basis, or when indicated by review of summary data.
5. PEMSS Education/CQI Committee, with PEMSS Medical Director, will review specific issues/concerns referred from EMS service directors and make recommendations back to EMS service directors as indicated.
6. PEMSS office will make quarterly regional summary data available to EMS service directors for comparison with individual service data
7. PEMSS office will report quarterly regional summary data to the RAC Executive Board monthly.
8. PEMSS Education/CQI Committee will report identified needs and response to the PEMSS Advisory Board quarterly and to the RAC Executive Board quarterly.

Medical Director Responsibility:

1. Medical Director shall oversee all activities of the PEMSS Education/CQI Committee.
2. Medical Director shall directly review and respond to any issues/concerns not deemed by the EMS service director to be appropriate for submission to the entire Education/CQI Committee.
3. Medical Director shall review all run sheets involving use of Etomidate, propofol, cardiac arrest as noted above, airway attempts, medication errors, protocol deviations and any other run sheets as requested by Education/CQI Committee.
4. Medical Director may request additional data be submitted from individual services, or from all services under his direction, at his discretion.

Approved by PEMSS Education/CQI Committee 10/2/01
Approved by PEMSS Medical Director 10/2/01
Approved by PEMSS Advisory Board 10/2/01
Plan for First Responder Participation in RAC Quality Improvement

Assumptions

1. First Responders are affiliated with an agency in good standing with the RAC
2. First Responders and affiliated agencies have regular and open communications
3. First Responders are subject to compliance with RAC protocols
4. First Responders are Licensed with Texas Department of State Health Services, and have a written agreement with the affiliated EMS service (DSHS Requirement).

Method

1. First Responders will report all care provided and observations to EMS personnel upon EMS arrival
2. First Responders will report all pertinent findings such as mechanism of injury, hazardous materials exposure, etc, to EMS personnel upon EMS arrival
3. Transporting EMS agency with document all findings, interventions and patient responses to interventions in the PEMSS report.
4. Findings, interventions and patient responses that occurred during first responder period of responsibility will be noted in PEMSS report as “First Responders _____________________(name of agency and/or first responder personnel) report the following occurred prior to EMS arrival:_________”
5. EMS agency will be responsible for participating in the PEMSS/RAC QI process and reporting any follow-up information regarding care provided to first responder agencies affiliated with their agency.
6. Documentation of communication with first responder agency will be placed on PEMSS CQI form
7. Significant deviations from standard of care by the first responder agency personnel will be reported to Medical Director promptly and addressed as indicated.
First Responder Q.I. Form

Date: ___________  Time of arrival on scene: _________________

EMS run #: ___________  Number of patients: _____________________

Location of call: (check all that apply) (circle one) Personnel:
- business  _______________________ ECA EMT EMT-I EMT-P
- residence  _______________________  ECA EMT EMT-I EMT-P
- highway / roadway  _______________________  ECA EMT EMT-I EMT-P
- other (specify) _____________  _______________________ ECA EMT EMT-I EMT-P

Treatment: (check all that apply)
- none
- oxygen
- V / S
- bleeding / fracture / dislocation control
- spinal management
- fire suppression
- extrication
- CPR
- AED
- other (specify) _____________  Name of EMS service(s) on scene: ____________________________________

Type of incident:  Time of EMS arrival: __________
- medical
- trauma
- other (specify) _____________

[Brief Narrative]N/A  __ □

________________________________________________________

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- 104 - PEMSS Protocols– Medical (Regional)
Confidential Call Review
QUARTERLY SUMMARY First Responder

SERVICE NAME: □ AFD □ PCFD □ RCFD □ DFD □ Other_____________      YEAR _____
QUARTER: □ Jan/Mar □ Apr-Jun □ Jul-Sep □ Oct-Dec
TOTAL RUNS FOR QUARTER______  TOTAL PATIENTS_____  NUMBER OF RUNS REVIEWED_____

INDIVIDUAL SUBMITTING DATA:

<table>
<thead>
<tr>
<th>Data</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # of Patients Treated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locations of Calls Total #</td>
<td></td>
<td></td>
</tr>
<tr>
<td>calls in each locations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Responder Protocols Followed?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cardiac Arrest

<table>
<thead>
<tr>
<th>Cardiac Arrest</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CPR Started</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AED Used</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic Airway</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total # of EMS related responses

Report To EMS On Scene

<table>
<thead>
<tr>
<th>Report To EMS On Scene</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td># Calls no report</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Variance = not meeting criteria

REPORT SUMMARY DATA ONLY. PLEASE SUBMIT QUARTERLY.

COMMENTS:
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

Revised 3/02/05
PEMSS/RAC A
## PEMSS CQI
### Confidential Call Review

**SERVICE NAME:** PEMSS  
**DATE OF CALL:** ______

**RUN #/PT NAME:** ______  
**DATE OF REVIEW:** ______

### Analysis

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>If &quot;NO&quot;, Explain (Check all that apply. Use Comments Section if necessary)</th>
</tr>
</thead>
</table>
| **Was the Response Time <15?**  
*Call rec – On scene*                                                     |     |    | ☐ Distance ☐ Road Conditions ☐ Lack of Personnel ☐ Other              |
| **Was the Scene Time < 20?**  
*On scene – Depart Scene*                                                 |     |    | ☐ Extrication ☐ Multiple Pts ☐ Hosp Transfer ☐ Pt Refusal ☐ Other      |
| **Was the Time to 1st VS < 5?**  
*With pt – time VS record*                                                |     |    | ☐ Pt Refusal ☐ Delayed access ☐ stabilization ☐ Other                  |
| **Were Serial VS Recorded?**  
*Minimum: Stable 15min/Unstable 5min*                                     |     |    | ☐ Stabilization ☐ Code 99 ☐ Pt Refusal ☐ Inability to access ☐ Other   |
| **Was the GCS Recorded? (3-15)**                                         |     |    |                                                                                   |
| **Was the RTS Recorded (trauma)?**                                       |     |    | ☐ Medical (NA)                                                               |
| **Was the Form Complete?**  
(required fields)                                                           |     |    |                                                                                   |
| **Was the Form Legible and Neat?**                                        |     |    |                                                                                   |
| **Did Pt Care Comply with Protocol?**                                     |     |    | ☐ BLS ☐ ALS ☐ MICU ☐ PT Refusal ☐ Physician order ☐ Other                |
| **Was the Transport Code Justified?**                                     |     |    | ☐ Code 1 ☐ Code 3 ☐ Not documented ☐ Extenuating circumstances          |
| **Triage per RAC Protocols**                                              |     |    |                                                                                   |
| **Did You Transport Trauma to the Closest Designated Hospital?**         |     |    | ☐ Bypass Protocol ☐ Air Evac ☐ Mutual Aid ☐ Pt Request ☐ Physician Request ☐ Transfer of stable patient ☐ Other |

**DNR Form presented?** ☐ YES ☐ NO  
- Valid? ☐ YES ☐ NO

**Service Reviewer (Signature):** ________________________________

**Comments:** ____________________________________________________________________________________________

**Crew**  
(Signatures) ____________________________________________________________________________________________

**Comments:** ____________________________________________________________________________________________

**PEMSS Reviewer (Signature):** ________________________________

**Comments:** ____________________________________________________________________________________________

- 106 -PEMSS Protocols– Medical (Regional)
Confidential Call Review
QUARTERLY SUMMARY

SERVICE NAME: 
YEAR ______
QUARTER: ☐ Jan/Mar ☐ Apr-Jun ☐ Jul-Sep ☐ Oct-Dec
TOTAL RUNS FOR QUARTER______
TOTAL PATIENTS______
NUMBER OF TRAUMA CODE 99s ______
NO CODE 3 RUNS ______

# DNR FORMS SUBMITTED ______
# VALID ______
INDIVIDUAL SUBMITTING DATA:

<table>
<thead>
<tr>
<th>If “NO”, Explain (Enter number that Apply in each category. Use back for comments if necessary) “Other” requires comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number Meeting Requirements</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Was the Response Time &lt;15? Call rec – On scene</th>
<th>Distance</th>
<th>Road Conditions</th>
<th>Lack of Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was the Scene Time &lt; 20? On scene – Depart Scene</td>
<td>Extrication</td>
<td>Multiple Pts</td>
<td>Hosp Transfer</td>
</tr>
<tr>
<td>Was the Time to 1st VS &lt; 5? With pt – time VS record</td>
<td>Pt Refusal</td>
<td>Delayed access</td>
<td>Stabilization</td>
</tr>
<tr>
<td>Were Serial VS Recorded? Minimum: Stable 15min/Unstable 5min</td>
<td>Stabilization</td>
<td>Code 99</td>
<td>Pt Refusal</td>
</tr>
<tr>
<td>Was the GCS Recorded? (3-15)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was the RTS Recorded for trauma? (0-12)</td>
<td>Medical (NA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did Pt Care Comply with Protocol?</td>
<td>BLS</td>
<td>ALS</td>
<td>MICU</td>
</tr>
<tr>
<td>Was the Transport Code Justified?</td>
<td>Code 1</td>
<td>Code 3</td>
<td>Not documented</td>
</tr>
<tr>
<td>Was Triage according to RAC protocols? (Trauma only)</td>
<td>Patient Request</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Did You Transport Trauma to the Closest Designated Hospital?</td>
<td>Bypass Protocol</td>
<td>Air Evac</td>
<td>Mutual Aid</td>
</tr>
<tr>
<td></td>
<td>Pt Request</td>
<td>Physician Request</td>
<td>Transfer of stable patient</td>
</tr>
</tbody>
</table>

* Variance = not meeting criteria
** NOTE: 100% of use of paralytics, significant noncompliance with protocol, DNR forms (honored or not) require submission of a copy of run sheet and service review sheet to PEMSS for Medical Director review.
REPORT SUMMARY DATA ONLY. PLEASE SUBMIT QUARTERLY.

COMMENTS: ____________________________

- 107 -PEMSS Protocols– Medical (Regional)
### PEMSS CQI

**Airway Reporting Form**

**SERVICE NAME:** PEMSS  
**DATE OF CALL:** _____  
**RUN #/PT NAME:** _____  
**DATE OF REVIEW:** _____

<table>
<thead>
<tr>
<th><strong>Indications for Airway Management</strong></th>
<th>EMT-I</th>
<th>EMT-P</th>
<th><strong>Explain</strong> (Check all that apply. Use Comments Section if necessary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apnea/Agonal</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Reflexes compromised</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>ventilations compromised</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Injury/illness</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>anticipated compromise</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Trauma</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

| **Procedures performed**  
*Check all that apply* | EMT-I | EMT-P |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BVM</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Combitube</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Cobra PLA</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Nasal ETT</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Oral ETT</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>OPA/NPA</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Digital ETI</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Needle Cric</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Surgical Cric</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>State of airway prior to intervention</strong></th>
<th>EMT-I</th>
<th>EMT-P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Emesis</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Blood</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Sputum/Secretions</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Teeth/foreign body</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Trismus or biting</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Gag reflex</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Burns</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Combative</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

| **Intubation Interventions**  
*(placing the blade past the teeth or gums)* | EMT-I | EMT-P |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 attempt</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>X2 attempt</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>X3 attempts</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Inability to access</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Pulse Ox preattempt</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Pulse Ox &lt;90% during attempt</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Was the GCS Recorded? (3-15)</strong></th>
<th>EMT-I</th>
<th>EMT-P</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>GCS____</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Sedation Post-intubation</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Was the RTS Recorded (trauma)? (0-12)</strong></th>
<th>EMT-I</th>
<th>EMT-P</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
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<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Medical (NA)</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

| **Medication Facilitated Intubation**  
*(required fields)* | EMT-I | EMT-P |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Versed____mg</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Etomidate____mg</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Propofol____mg</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Placement confirmation</strong></th>
<th>EMT-I</th>
<th>EMT-P</th>
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</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>visualization</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Lung sounds</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>EtCO2 colormetric</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Waveform EtCO2</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Chest rise/fall</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Gastric sounds-ABSENT</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other______________________</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Did Pt Care Comply with Protocol?</strong></th>
<th>EMT-I</th>
<th>EMT-P</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
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<tr>
<td>BLS</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>ALS</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>MICU</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>PT Refusal</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Physician order</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other____</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

| **Was the Transport Code Justified?**  
*Mark Transport Code ☐ 1 or ☐ 3* | EMT-I | EMT-P |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Code 1</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Code 3</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Not documented</td>
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<td>☐</td>
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<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Extenuating circumstances____</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Triage per RAC Protocols</strong></th>
<th>EMT-I</th>
<th>EMT-P</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
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<tr>
<td>Pt Request</td>
<td>☐</td>
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<tr>
<td>Other_____</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Did You Transport Trauma to the Closest Designated Hospital?</strong></th>
<th>EMT-I</th>
<th>EMT-P</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
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<tr>
<td>Bypass Protocol</td>
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<tr>
<td>Air Evac</td>
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<td>Mutual Aid</td>
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<tr>
<td>Pt Request</td>
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<tr>
<td>Physician Request</td>
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<tr>
<td>Transfer of stable patient</td>
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<td>☐</td>
</tr>
<tr>
<td>Other____</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Patient survive?** ☐ **YES** ☐ **NO**  
**Code 99** ☐ **YES** ☐ **NO**

*Have you had formal training in the management of the difficult airway?* ☐ **YES** ☐ **NO**

**Comments_____**

**Crew (MC#)_________________________**

**Comments:________________________________________________________**

**PEMSS Medical Director review ______________________________________**

**Comments:________________________________________________________**

**_______________________________________________________________**

- 108 –PEMSS Protocols– Medical (Regional)
CONFIDENTIAL. *This form is not part of the patient record.*

INSTRUCTIONS: This form is to be completed by the technician treating a patient who deviates from the established protocol. This form is to be completed any time you deviate from protocol and forwarded to the Medical Director at the PEMSS office. A copy of the patient care record shall accompany this form.

<table>
<thead>
<tr>
<th>Date of call:</th>
<th>Call Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driver:</td>
<td>Technician:</td>
</tr>
<tr>
<td>Call Type:</td>
<td>Chief Complaint:</td>
</tr>
</tbody>
</table>

Protocol(s):

Describe Variation:

Justify Deviation:

Signature: ____________________ MC# _____ Date ________________
A. PEMSS Medical Control numbers are granted by the PEMSS Medical Director and are assigned through the PEMSS Office.

B. Medical Control numbers are used for identification of the care provider during radio transmissions and on run documentation.

C. ALL Basic level personnel are to complete the new DOT EMT-Basic curriculum or a transition course prior to requesting a Medical Control number. Without a Medical Control number, EMT-Basics shall not perform the NEW skills in the field.

D. ALL Advanced level EMT’s are to obtain a Medical Control number before performing advanced skills in the field.

E. To obtain a Medical Control number, the following procedure shall be utilized:

1. The Service Director should submit a letter to the PEMSS Medical Director stating their desire and approval of a Medical Control number for a provider.
2. Send photocopies of the provider’s certification and last DSHS evaluation scores, and a copy of the drivers’ license.
3. Protocol Test score shall be available from eGenesis, no other form of protocol test will be accepted. (you must have a eGenesis account, contact Teresa James 866-538-9911 to activate your account)
4. The PEMSS Medical Director will review all information upon receipt by the PEMSS Office.
5. A letter of issuance of a Medical Control number will be sent to the Service Director following verification of certification status and verification from eGenesis. Upon receipt, the care provider may utilize the PEMSS Protocols to their skill/provisional level.

F. Expectations of EMT with Medical Control

1. As stated in Medical Control guidelines, page 1 of this text, “provide the best, highest quality care possible to your patients”.
2. Medical Control through PEMSS may be revoked if any of the following events or circumstances occur:
   a) Falsification of Records
   b) Inflicting harm intentionally to patient
   c) If actions are under investigation whether criminal or within the system, Medical Control will be suspended without malice pending further investigation/outcome. Resolution will be through Medical Director review of local peer review outcome.
   d) Performing patient care while under the influence of illegal drugs or alcohol
   e) Unjustifiable deviation from PEMSS protocols
A. The PEMSS Protocols are tools to be used by regional healthcare providers to provide high quality prehospital patient care. In order to maintain proficiency, each provider should review the Protocols on a regular basis.

B. The PEMSS Medical Director requires an evaluation of Protocol knowledge. The evaluation consists of questions taken directly from the current Protocols. Each provider should review the Protocols to assure ease of finding the different protocols for specific injury and illness. Protocol Evaluations will be on a biannual basis. All these evaluations will be accessible through egenesis on-line education, as well as other required training as identified by the PEMSS Medical Director. The PEMSS Medical Director will accept no other form of protocol test.

C. The evaluations will be made to cover an individual's certification level. The Basic level EMT WILL NOT be responsible for advanced protocols. The Advanced level EMT WILL be responsible for Basic level protocols.

D. A score of 84 is required to pass the evaluation. If a score of less than 84 is made, the provider will be required to retest the protocol exam.

D. Results of each evaluation will be immediately available to the Service Director, and the Medical Director.

E. Changes to this procedure will be at the discretion of the Medical Director.
A. The goal of the Medical Director is to have competent, skilled prehospital providers under the umbrella of PEMSS. Provisional Medical Control is granted to all new PEMSS Providers. This is to allow the provider to become more familiar with the Protocols and to allow the Medical Director and his designees to monitor the care provided by the new provider. A "P" is used with the Medical Control number and should be used to identify the provider in all radio traffic and documentation.

B. To remove the provisional status from a Medical Control number, the following procedure will be utilized: A Pre-Hospital provider practicing under these protocols will be eligible to have the provisional status removed after a six (6) month period from entering the PEMSS system.

**PANHANDLE EMS SYSTEM**
**MEDICAL CONTROL**
**PROVISIONAL STATUS REMOVAL PROCEDURE**

I. The removal packet containing all the necessary information for removal of provisional status is included in these four pages of the PEMSS Protocols (pg 109-113).

II. Candidate with Preceptor (Non-Provisional partner of equal or greater certification)

The candidate shall submit the following information to the PEMSS Medical Director.
A. Completed Protocol exam with passing grade of 84 or greater.
B. Copies of evaluation forms completed by the preceptor (suggest 5).
C. A final recommendation letter of provisional status removal from the preceptor.
D. A removal request letter from the candidate's EMS Director.
E. Completed Skills verification form and sent to Medical Director.

III. Candidate without Preceptor
A. Completed Protocol exam with passing grade of 84 or greater.
B. Copies of evaluations forms (5 calls made in 6 month period).
C. A removal request letter from the candidate's EMS Director.
D. Completed Skills verification form.

IV. All information submitted will be reviewed by the Medical Director or his/her designee. One of the following recommendations will be made:
A. Removal of Provisional Status
B. In-house preceptorship at approved service, then with recommendation letter from in-house preceptor, removal of provisional status.
C. Additional provisional status time to acquire a more thorough knowledge of PEMSS protocols and general orientation to the practice of pre-hospital care.

V. Notification of the recommendation will be sent to the candidate and the EMS Service Director. Updates to the Comm Booth medical control number list will be made to reflect the status change.
SKILL CRITERIA

All skills to be completed under direct supervision.

EMT-Basic:

Patient Assessment: Medical Patient and Trauma Patient
Bandaging and Splinting, long bone splinting
Traction Splinting
Spinal Immobilization
CPR and FBAO
Oxygen Delivery Adjuncts
Automated External Defibrillator
Childbirth
Insertion of Combitube Airway
Rx Administration: Epinephrine/Epi Pen or equivalent
Bronchodilators
Nitroglycerine
Oral Glucose

EMT-Intermediate:

All of the Basic, plus:
Endotracheal/Nasotracheal Intubation
Venipuncture
Intravenous Infusion
Cobra PLA Airway

EMT-Paramedic:

All of the Basic and Intermediate, plus:
IV Push Rx
IV Piggyback Rx
Subcutaneous Rx
IM Rx
NG tube
EKG Recognition and Treatment
Defibrillation and Cardioversion
12 Lead EKG (if Available)
Surgical Cricothyrotomy Education and Technique
UVC Skills and Technique
Pleural Decompression

Intraosseous infusions
Intranasal Medications
**Skills Evaluation Verification**

<table>
<thead>
<tr>
<th>EMT-Basic</th>
<th>EMT-Intermediate</th>
<th>EMT-Paramedic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Assessment (medical &amp; trauma patient)</td>
<td>All of the Basic skills plus:</td>
<td>All of the Basic and Intermediate Skills plus:</td>
</tr>
<tr>
<td>Bandaging and splinting</td>
<td>Endotracheal intubation</td>
<td>IV push medications</td>
</tr>
<tr>
<td>Traction splinting</td>
<td>Nasotracheal intubation</td>
<td>IV piggyback medications</td>
</tr>
<tr>
<td>Spinal immobilization</td>
<td>Venipuncture</td>
<td>Subcutaneous medications</td>
</tr>
<tr>
<td>CPR and FBAO</td>
<td>Intravenous infusions</td>
<td>Intramuscular medications</td>
</tr>
<tr>
<td>Oxygen delivery adjuncts</td>
<td>Pharmacology math</td>
<td>Nasogastric tube insertion</td>
</tr>
<tr>
<td>Automated external defibrillator</td>
<td></td>
<td>EKG recognition and treatment</td>
</tr>
<tr>
<td>Rx Administration:</td>
<td>Defibrillation and cardioversion</td>
<td></td>
</tr>
<tr>
<td>Epinephrine</td>
<td>12 Lead EKG (if applicable)</td>
<td></td>
</tr>
<tr>
<td>Bronchodilators</td>
<td>Surgical cricothyrotomy</td>
<td></td>
</tr>
<tr>
<td>Nitroglycerine</td>
<td>Umbilical vein catheterization</td>
<td></td>
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<tr>
<td>Oral glucose</td>
<td>Intraosseous infusions</td>
<td></td>
</tr>
<tr>
<td>Eye Drops</td>
<td>Pleural chest decompressions</td>
<td></td>
</tr>
<tr>
<td>Combitube airway</td>
<td>Cobra PLA airway</td>
<td></td>
</tr>
<tr>
<td>Childbirth</td>
<td>Bone Injection Gun (optional)</td>
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</tr>
<tr>
<td>EMT-Basic Protocols</td>
<td>EMT-Intermediate Protocols</td>
<td>EMT-Paramedic Protocols</td>
</tr>
</tbody>
</table>

*(Signature of Service Director or Preceptor or Training Officer is required to verify skills)*

Signature_______________________ Date____________PEMSS Service____________________
Those skills not performed during the provisional time period, dependent on the type of calls made by the candidate, simulated performance of skill proficiency may be used with medical director approval.

C. Disciplinary Actions: The PEMSS Medical Director has the option of applying stipulations to those individuals practicing under the PEMSS protocols, who have deviated from protocol, or who have violated any requirement of the Delegated Practice Statement.

1. Re-instating the provisional status under Disciplinary Action. The provider under PEMSS would have a “PDA” placed back on his medical control and all treatment would fall under the criteria for provisional status removal procedure. The EMS Director of the service that the provider works for shall assist in documentation of remedial training, (to be decided by the Medical Director), and a plan of improvement set for the provider, and assist the provider in the removal of the provisional status.

2. The PEMSS Medical Director has the authority to immediately suspend any provider that is in violation of these rules and protocols pending the outcome of an investigation by the PEMSS Medical Director or Texas Department of State Health Services.

3. Revocation of Medical Control Number. The PEMSS Medical Director has the option to revoke the medical control number of PEMSS personnel and/or report any incident to the Texas Department of State Health Services, EMS compliance. If your medical control number is revoked, you cannot work/practice in the PEMSS system, and face an investigation by The Department of State Health Services EMS Compliance Division.

4. Emergency Suspension. TDSHS EMS rule 157.51 states that an Emergency suspension shall be effective immediately without hearing if there is a reasonable cause that the conduct of a certificate holder creates an imminent danger to the public health and safety. Working outside one’s scope of training could be construed as creating an imminent danger.

5. Mandatory Medical Director Notification. The Medical Director will be notified within 24 hours of any occurrence that is outlined as to such in these protocols. For any deviation in protocol, a protocol deviation report will be filled out and sent to the Medical Director at the PEMSS office along with a copy of the PEMSS patient care record. Fax number (806)358-2648. The Medical Director will review all protocol deviations, and appropriate action taken as deemed necessary.
The goal of prehospital emergency medicine is to deliver the patient to the appropriate definitive care facility as safely and rapidly as conditions allow. Certain injuries and illnesses are of such an emergent nature as to require the use of air transport. The use of rotor wing or fixed wing enhances the patient's probability of survival.

The following guidelines are to be used in requesting air evacuation assistance:

1. Request air evac assistance early (enroute to scene of possible critical patient). Do not delay request as this only lengthens response time.

2. Upon arrival at scene, assess the need of air evacuation. If needed, notify responding air evac team of condition of patient and landing zone location. If not needed, notify responding air evac team to disregard. (There is not charge for launching and disregarding.)

3. Certain circumstances may warrant the ground unit to start transport in the direction of the responding rotor-wing evac team to reduce total time to definitive care. Be sure to maintain radio contact with the air evac team to coordinate landing zone location.

4. Utilization of the most expedient type transport for the critical patient is key to the success of our trauma/medical emergency system. The medical director or his designee may choose to simultaneously respond the ground unit and air evacuation team to certain emergencies. Communication between the ground unit and the air evac team is vital to the patient's outcome. Choose the method of transport that is best for the patient.

5. Remember to follow the instructions of the helicopter crew before approaching the helicopter. Also, help to keep bystanders from approaching the helicopter. Safety to you, the helicopter crew, your patient and the bystanders is of utmost importance.

6. Cardiac arrest patients should not be transported via helicopter.
A. Prehospital personnel may request mutual aid.

B. If in doubt, CONTACT MEDICAL CONTROL.

C. In the following circumstances, mutual aid should be considered:

1. Severe respiratory compromise in both medical and trauma patients (for intubation).
2. Traumatic shock.
4. Severe chest pain thought to be cardiac in origin.
5. Near drowning.

D. Factors to be considered also include proximity to a hospital and location of available ALS or MICU units. In general, if the requesting unit is within 15 minutes of a hospital or mutual aid cannot rendezvous before the requesting unit is within 15 minutes of a hospital, then the request will be cancelled.

E. Notes:

1. If on-line medical control is requesting a unit receive mutual aid, communicate effectively to ensure the best possible patient care.

ALS and MICU providers shall transfer a patient from the BLS unit to the ALS/MICU unit, and continue transport to the receiving facility.
The purposes of Emergency Medical Dispatch are numerous and impact many aspects of emergency medical care. The properly trained Emergency Medical Dispatcher utilizing a fully implemented Medical Priority Dispatch System® has a significant and positive influence in:

- The quality of patient care
- The performance of pre-hospital EMS providers
- The cost effective allocation of EMS equipment
- The professionalism of individual Emergency Medical Dispatchers
- The community's perception of EMS, and the over-all experience

The Medical Priority Dispatch System® is designed to draw the Emergency Medical Dispatcher through a predictable, repeatable, verifiable process. Every caller can rely on a consistent assessment and EMS response, and patients will receive the same level of assistance on a consistent basis.

It will be the standard of care for PEMSS System Status Controllers to deliver sound and appropriate instructions over the phone to citizens requesting emergency medical services. It is imperative for the System Status Controller receiving the call to request the caller to remain on the line while appropriate dispatch is activated.

All PEMSS System Status Controllers will utilize the Medical Priority Dispatch System® on all requests for emergency medical services. The call can be terminated when it is determined by the Medical Priority Dispatch System index, that instructions are no longer needed or when emergency responders are on the scene.

All PEMSS System Status Controllers will function as an EMD while on duty in the Communications Center, regardless of their State Certification or Licensure.

All PEMSS System Status Controllers will follow the NAEMD Protocols per se, avoiding freelance questioning or information, unless it enhances, not replaces the written protocol questions and scripts.
Useful Acronyms for Radio Traffic

A-Alpha  
B-Bravo  
C-Charlie  
D-Delta  
E-Echo  
F-Fox  
G-Golf  
H-Hotel  
I-India  
J-Juliet  
K-Kilo  
L-Lima  
M-Mike  
N-November  
O-Oscar  
P-Papa  
Q- Quebec  
R-Romeo  
S-Sierra  
T-Tango  
U-Uniform  
V-Victor  
W-Whiskey  
X-Xray  
Y-Yankee  
Z-Zulu

### Amarillo Area Medical Radio Frequencies

<table>
<thead>
<tr>
<th>MED CH.</th>
<th>TRANSMIT FREQ.</th>
<th>COVERAGE AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Med 1</td>
<td>463.000</td>
<td>Gray, Wheeler, Hemphill, Roberts Counties</td>
</tr>
<tr>
<td>Med 2</td>
<td>463.025</td>
<td>Collingsworth, Deafsmith</td>
</tr>
<tr>
<td>Med 3</td>
<td>463.050</td>
<td>Stratford (N)</td>
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<tr>
<td>Med 4</td>
<td>463.075</td>
<td>Vega (W), Borger (N Central)</td>
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<td>Med 5</td>
<td>463.100</td>
<td>Dumas, Dalhart (NW)</td>
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<td>Med 6</td>
<td>463.125</td>
<td>Clarendon, Memphis (SE)</td>
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<td>463.150</td>
<td>Palo Duro Canyon, Canyon (S Central)</td>
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<td>Med 8</td>
<td>463.175</td>
<td>Lipscomb (Far NE) Tulia (Far S)</td>
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<td>Med 9</td>
<td>462.950</td>
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<td>Med 10</td>
<td>462.975</td>
<td>All local units</td>
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<tr>
<td>Lifestar</td>
<td>453.175</td>
<td>Lifestar Helicopters</td>
</tr>
</tbody>
</table>
USE OF RESTRAINTS

A. When clinically justified to protect the patient or others from injury, personal or mechanical restraints to restrict a patient's movement may be applied.

The procedure should be accomplished in such a manner that insures the patient's safety, comfort, and personal dignity.

B. The safety of the healthcare provider should be considered above and beyond any other issues.

C. Restraint in the context of this protocol is any method of physically restricting a person's freedom of movement, physical activity, or normal access to his or her body.

D. Personal restraint is the application of physical force alone restricting the free movement of the whole or a portion of an individual's body in order to control physical activity.

E. Mechanical restraint is the application of a mechanical device restricting the free movement of the whole or a portion of an individual's body in order to control physical activity. Common restraints include leather, canvas, plastic, cotton, and metal devices.

F. The patient's documentation should include time of restraint, type of restraint, and circulation, breathing and skin integrity assessment after placing the restraints.

G. Utilization of law enforcement personnel to assist in the restraint of combative or potentially dangerous patients is encouraged.
A. THE FOLLOWING PROCEDURES WILL BE USED FOR ACQUISITION OF SUPPLIES AND DRUGS BY P.E.M.S.S. PROVIDERS:

1. Only paramedics with current medical control will be authorized to sign for and receive MICU AND ALS controlled substances, drugs and supplies.

2. Only EMT-Intermediates with current medical control will be authorized to sign for and receive ALS drugs and supplies.

3. Only EMT-Basics with current medical control will be authorized to sign for and receive BLS drugs and supplies.

4. All drugs will be issued through the pharmacy at Northwest Texas Healthcare System, Inc. and may be restocked at any time on a 24-hour basis.

5. Selected supplies are available through Amarillo Medical Services as needed on a 24-hour basis.

6. NWTHS, Inc. will bill the respective services for all supplies and drugs purchased through NWTHS, Inc.

7. Paramedics must have the accountability form signed by the Physician on Duty for all used and wasted controlled substances.

8. All authorized EMT’s, Intermediates, and Paramedics must have photo ID proof of identity in order to receive drugs and supplies.

9. Mail order or a local pharmacy for non-controlled substances is an option, contact the PEMSS office for appropriate forms and signatures.
Storage and Integrity of Prehospital Medications and Intravenous Fluids
PEMSS Protocols

Purpose

Due to the unique nature of the prehospital environment, medications and intravenous fluids that are stored and used in the prehospital setting are subjected to extreme environmental changes. This may have a negative impact on the stability, strength, quality and purity of these medications. Ultimately this may negatively impact the patients who receive these medications. As such, programs should be implemented with regards to how medications and intravenous solutions are stored in the prehospital setting. This policy applies to all BLS, ALS, and MICU agencies that carry medications and/or intravenous fluids.

Policy

In an effort to assist agencies in maintaining the integrity of prehospital medications and intravenous fluids, the following should be the minimum requirements implemented by each service authorized to carry prehospital medications and intravenous fluids.

* All EMS services authorized to carry medications and intravenous fluids must develop a policy to define the appropriate storage and maintenance of all medications and intravenous fluids. The policy should also be incorporated in to the agency's policies and procedures as well as the QI program for the agency.

* All medications and intravenous fluids must be stored in an environment that protects them from extreme temperature changes and light according to each medication's manufacturer's guidelines. This includes all vehicles, cabinets or any other storage facilities where medications and intravenous fluids are stored. According to manufacturer's guidelines, most medications must be stored at temperatures that range from 59 degrees to 77 degrees Fahrenheit. However, the temperature ranges may differ for many medications.

* Agencies must routinely monitor and record the temperatures for all locations where medications and intravenous solutions are stored.
At least the following equipment and supplies shall be present on each in-service vehicle and on, or immediately available for, each response-ready vehicle at all times:

**BLS**

A. Nonmetallic oropharyngeal airways in adult, pediatric, and infant sizes
B. Portable and vehicle-mounted suction (bulb syringes, syringes or foot pumps not acceptable)
C. Three (3) bag-valve-mask units which can be used with an external oxygen supply in adult, pediatric and infant sizes (If a manufacturer states that the pediatric unit is also to be used as an infant unit, it will be accepted as such)
D. Two (2) portable oxygen cylinders with a minimum capacity of 12 cubic feet in each cylinder, with one regulator and piped-in medical grade oxygen in a cylinder with at least 107 cubic foot capacity in working order with current inspection stamps or equivalent.
E. Oxygen tubing and semi-open valveless, low, moderate, and high concentration transparent oxygen delivery devices such as masks and cannulas in adult and pediatric sizes (pediatric nasal cannulas), adult and pediatric aerosol mask.
F. Dressing and bandaging materials as follows:
   - 2 multi-trauma dressings approximately 10 inches X 30 inches in size
   - 5 dozen sterile gauze pads
   - 12 soft roller bandages
   - 4 sterile petroleum jelly impregnated gauze or suitable occlusive dressing
   - 4 rolls of adhesive tape
   - 6 triangular bandages
   - 4 burn sheets
G. Rigid cervical immobilization devices of types that limit forward, backward, lateral movement or rotation of the head and cervical spine during movement of the patient in small, medium and large size to meet the size and physical needs of the patient.
H. Spinal immobilization devices as follows:
   - 2 long (6 foot) spine boards or commercial devices
   - 1 short spine board or commercial device for extrication (KED)
I. Extremity splints as follows:
   - Extremity splints in sufficient sizes for all extremities that limit movement during patient movement
   - Adult and pediatric traction splint(s) with all attachments to meet the size and physical needs of the patient
J. Bandage or Trauma Shears
K. Combitube Airway Device
L. Equipment to meet special patient needs, as follows:
   • Sealed obstetrics kit. A sterile commercial kit is acceptable. A non-commercial kit shall be autoclaved or otherwise suitably sterile with the expiration date attached, shall be labeled and shall include the following:
     ▪ sterile gloves
     ▪ 1 disposable sheet
     ▪ cleansing cloths
     ▪ umbilical clamps
     ▪ nylon cord tie-offs
     ▪ disposable scalpels
     ▪ bulb aspirator
     ▪ 4 inch by 4 inch sterile gauze pads
     ▪ obstetrical pad
     ▪ receiving blanket
     ▪ disposable towels and
     ▪ plastic bag
     ▪ Nonporous infant insulating device

M. Equipment for determining and monitoring patient vital signs, condition or response to treatment, as follows:
   • Sphygmomanometers with adult, pediatric and infant cuff sizes to meet the size and physical needs of the patient
   • Stethoscope
   • Penlight or portable flashlight

N. Medications as required by protocols (see drug and supplies)

O. Automatic External Defibrillator (AED) or equivalent.

P. Multi-level patient transport device capable of being secured to the vehicle, with clean sheets and blankets

Q. Patient gowns

ALS OR BLS WITH ALS CAPABILITY

A. All required BLS equipment
B. Advanced airway equipment as required by protocols
C. IV equipment and supplies as required by protocols

MICU, BLS WITH MICU CAPABILITY, ALS WITH MICU CAPABILITY

A. All required BLS and ALS equipment
B. Cardiac monitor/defibrillator capable of transcutaneous pacing, and synchronized cardioversion.
C. 12 lead ECG is preferred, but not mandatory at this time.
D. End tidal CO2 detectors. (Waveform Capnography will be mandatory on all PEMSS ALS and MICU level vehicles by January 2007)
E. Cobra PLA airways #1, #2, #3, #4 (1 each) per vehicle

Other equipment and supplies as required by protocols
LIST OF DRUGS
FOR
BASIC LIFE SUPPORT UNITS

This list constitutes the minimum requirements for BLS units operating under these protocols and Texas Department of State Health Services Rules and Regulations. These items are in addition to all other items specified by law and/or rule.

Drugs:
2 - Instant glucose (or equivalent)
4 - Albuterol single dose (premix) or 1 (one) multi-dose vial
4 – Atrovent single dose (premix) or 1 (one) multi-dose vial
4 - Nitrotabs or spray equivalent
2 - EpiPen adult or Epi 1:1000 1 mg ampule
2 - EpiPen Jr. (if EpiPen adult stocked)
4 - Aspirin 325 mg

Supplies:
2 - Hand Held Nebulizer
4 - 1 cc syringe
1 - Automated External Defibrillator or equivalent
1 – Combitube
LIST OF DRUGS
FOR
ADVANCED LIFE SUPPORT UNITS

This list constitutes the minimum requirements for ALS units operating under these protocols and Texas Department of State Health Services Rules and Regulations. These items are in addition to all other items specified by law and/or rule, including the items for BLS units.

Drugs:
4 - Normal Saline (0.9% NaCl) 1 liter
1 - Ak-Taine Ophthalmic Drops 2 cc topic (or equivalent)
2 - Dextrose 50% in water, 50 ml
4 - Epi 1:1000 1 mg ampule
2 - Glucagon 1 mg each
2 - Narcan 2 mg each
1 - Nitropaste 2% ointment with measuring paper
1 - Racemic epinephrine vial
2 – Lidocaine (viscous or jelly) 30cc for nasal intubation.
6 – Decadron 4mg
1 – Neosynephrine nose spray (or equivalent)
1 – Activated Charcoal

Supplies:
4 - Mini-drip IV set
4 - Blood IV set
2 - Buretrol IV set
2 - 14 gauge IV catheters
2 - 16 gauge IV catheters
4 - 18 gauge IV catheters
2 - 20 gauge IV catheters
2 - 22 gauge IV catheters
2 - 24 gauge IV catheters

1 - Magill forceps or Kelly clamp
1 - Laryngoscope handle with extra battery
2 - Endotracheal tubes, each (3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0)
1- Adult blade
1 - Child blade
1 - Infant blade
2 – End tidal CO2 detector devices (colormetric) or capability to monitor End Tidal Co2 by Waveform Capnography (EtCo2)
LIST OF DRUGS
FOR
MOBILE INTENSIVE CARE UNITS

This list constitutes the minimum requirements for MICU units operating under these protocols and Texas Department of State Health Services Rules and Regulations. These items are in addition to all other items specified by law and/or rule, including the items for ALS units.

Drugs:
2 - D5W 250 ml
3 - Adenosine 6 mg or 12 mg vials
4 - Atropine 1 mg
2 - Benadryl 50 mg
1 - Calcium Chloride 10 %
4 – Cardizem 25 mg
4 – Cordarone 150 mg
1 - Dopamine 400 mg premix or equivalent
8 - Epinephrine 1:10000 1 mg
2 – Etomidate 40 mg
4 - Lasix 40 mg or Bumex 1mg vial
4 - Lidocaine 100 mg
1 – Lidocaine 1 gm premix
2 - Magnesium Sulfate 50 %, 10 ml (5gm)
2 – NS 100ml
1 - Pronestyl 1 gm
2 - Pitocin 10 units
3 - Sodium Bicarbonate 50 mEq
1 - Terbutaline 0.25 mg
2 - Morphine 10 mg
2 - Phenergan 25 mg
4 –Vasopressin 20 units in 1cc
4 - Versed 5 mg
2 – Zofran 4mg/2cc vials
2 – Demerol 50mg/ml

Supplies:
2 - Intraosseous Bone Needles (Bone Injection Gun 1 adult and 1 pediatric)
1 - Monitor/Defibrillator (ability for TCP, Cardioversion) 12 Lead preferred.
30 – EKG Electrodes
1 – Defib Gel (if hands-free defibrillation pads not being used)
1 – Cobra PLA #1, #2, # 3, # 4 airway (at a minimum)
In Closing:

The purpose of this manual is to provide you, as a member of Panhandle Emergency Medical Services System, with a set of protocols and policies for the practice of field emergency medicine in the Texas Panhandle.

This manual is not a textbook; it presumes that you have a solid EMS educational background, and presumes you will continue your participation in ongoing education programs.

What exactly is a protocol? A simple definition is that protocols are rules to guide decision-making. In this case, the rules concern your care of patients under my license as the program medical director, the physician who is ultimately responsible for your decisions. These protocols apply to all of your EMS related actions, regardless of whether you are on duty, volunteering, assisting off duty, or responding to request for mutual aid.

Medicine is not a universally precise science, and it is the prerogative, as well as responsibility, of the medical director to design protocols that are both up to date and in sync with current medical practices and concepts. Due to the dynamic nature of our medical practice, no set of protocols can remain static, and with the publication of this edition, we embark on a course of ongoing protocol review. As changes and revisions are made, we will distribute them to all users. You are responsible for maintaining, training, and acting under the most current version of this protocol.

Paramedics, by virtue of your training, are expected to have a greater capacity for independent action and decision-making. We have redesigned the protocols to allow for a larger degree of autonomy within well-defined boundaries, thus eliminating the need for on-line physician approval except in certain circumstances.

In closing, the real strength of our system is you, its members. Your service to your communities is vital and appreciated. I hope you will find the information in this manual helpful in caring for the sick and injured, and that you will bear in mind that you are bound by the honor of your work to perform these protocols with respect, humility, and caring. The best advice I can offer in any situation is to use common sense, and treat your patients as if they were your own family.

Carl Paetzold, MD
PEMSS Medical Director