

New York State
Department of Health
Bureau of Emergency Medical Services

Statewide
Basic Life Support
Adult & Pediatric
Treatment Protocols
EMT-B and AEMT

2008

Updated 11/20/08



Preface and Acknowledgments

The 2008 New York State (NYS) Statewide Basic Life Support Adult & Pediatric Treatment Protocols replaces the former 2002 protocols with a number of revised protocols that have been added to the 2002 protocols over the years. As there have been a significant number of individual revisions during the years we are issuing this new set of protocols dated 2008.

Each of the protocols that were revised has the date of revision on the bottom of the protocol page. These various revisions were sent to EMS agencies and EMS Course Sponsors previously either by mailing or electronic distribution. There are no revised protocols contained in the 2008 NYS BLS protocols that have not been sent to you before. However, we recommend your training officer review these protocols and provide an update to your members/employees as appropriate.

We would like to acknowledge the members of the New York State EMS Council's Medical Standards Committee for the time and effort given to developing this set of protocols. In addition, we would like to recognize the efforts of the Regional Emergency Medical Advisory Committees (REMACS) for their input and review.

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Introduction

The 2008 NYS Statewide Basic Life Support Adult and Pediatric Treatment Protocols designed by the Bureau of Emergency Medical Services of the New York State Department of Health and the New York State Emergency Medical Services Council. These protocols have been reviewed and approved by the New York State Emergency Medical Advisory Committee (SEMACE) and the New York State Emergency Medical Services Council (SEMSCO). The protocols reflect the current minimally acceptable statewide treatment standards for adult and pediatric basic life support (BLS) used by the Emergency Medical Technician-Basic (EMT-B) and Advanced Emergency Medical Technician (AEMT). A protocol manual for Certified First Responders (CFRs) will be published separately.

These protocols are not intended to be absolute and ultimate treatment doctrines, but rather standards which are flexible to accommodate the complexity of the problems in patient management presented to Emergency Medical Technicians (EMTs) and Advanced Emergency Medical Technicians (AEMTs) in the field. These protocols should be considered as a model or standard by which all patients should be treated. Since patients do not always fit into a "cook book" approach, these protocols are not a substitute for GOOD CLINICAL JUDGMENT, especially when a situation occurs which does not fit these standards.

This manual includes a protocol for the general approach to the prehospital management of a patient, which is applicable to EMTs and AEMTs, and BLS protocols for the management of specific conditions. These protocols apply to both adults and children. In several cases, protocols designed specifically for adults or children are included. These are identified as such in their titles.

Several assumptions have been made in developing the specific protocols. First, the EMT or AEMT has followed the protocol outlining the general approach to the prehospital management of the patient, that both the subjective and objective patient information has been analyzed to arrive at an appropriate treatment plan. Secondly, specific treatment protocols are referred to once the patient's problem has been identified. Obviously, significant indirect (off-line) medical control has been assumed in the development of these protocols. It was also assumed that appropriate local direct (on-line) medical control at both the basic life support (BLS) and advanced life support (ALS) level will be provided.

Regional EMS councils, regional emergency medical advisory committees (REMACs), course sponsor agencies, regional and local medical directors and squad training officers play an important part in the implementation of these protocols.

The goal of prehospital emergency medical care is to provide DEFINITIVE CARE for the patient as rapidly and safely as the situation indicates with no deterioration of his/her condition and, when possible, in an improved condition. BLS units shall deliver their patients who will benefit from ALS care to this higher level of care as soon as possible. This may be accomplished either by intercepting with an ALS unit or by transport to an appropriate hospital, whichever can be effected more quickly.

A system of ALS intercept (when available within a given area) shall be pre-arranged. Formal written agreements for the request of ALS shall be developed in advance by those agencies not able to provide ALS. ALS requests should be initiated as soon as possible at the dispatch level whenever indicated.

A request for ALS intercept shall occur as noted in specific treatment protocols. Initiation of patient transport shall not be delayed to await the arrival of an ALS unit, unless an on-line medical control physician otherwise directs.

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General Approach

General Approach to Prehospital Patient Management

I. Scene Size-Up

- A. Assess the scene for safety.
- B. Use standard precautions and transmission based precautions for all patients.
- C. Note the number of patients, the mechanism(s) of injury, environmental hazards, etc.
- D. Request additional personnel (i.e. EMTs, AEMTs, police, firefighters, etc. as appropriate), ALS intercept, and/or additional equipment or resources if needed.
- E. Consider C-Spine stabilization.

Note:
Check each patient for responsiveness, breathing, and pulse quickly while protecting the cervical spine.

II. Initial Assessment

A. General Impression

- 1. Determine mechanism of injury and/or nature of illness.
- 2. Age and sex.
- 3. Find immediate life threatening conditions.

B. Mental Status – What is the patient’s level of consciousness?

- 1. *Assess the patient’s level of consciousness as follows:*

Alert – Patient is awake and alert.

Verbal – Patient responds to verbal stimuli.

Painful – Patient responds to pain.

Unresponsive – Patient does not respond to verbal or painful stimuli.

- 2. *Establish patient’s orientation*

Patient is oriented to:

- 1. his/her name,
- 2. where he/she is, and
- 3. day of the week.

C. Airway, Breathing and Circulation

Airway – Identify and correct any existing or potential airway obstruction problems while protecting the cervical spine when indicated.

General Approach, continued

Breathing – Assess breathing, administer oxygen if necessary and consider positive pressure ventilations.

Circulation – Assess circulation and control life threatening hemorrhaging.

III. **Identify Priority Patients:** Consider the following criteria for **High** priority patients

1. Poor general impression
2. Unresponsive patients
3. Responsive, not following commands
4. Difficulty breathing
5. Shock
6. Complicated childbirth
7. Chest pain
8. Uncontrolled bleeding
9. Severe pain
10. If utilizing CUPS scale – patients who are a C, U, or P

Immediate Transport Decision

If the patient's condition is high priority immediately transport; the vital signs, rapid assessment, detailed physical exam, on-going assessment, and treatment, should be completed enroute to the nearest regionally approved appropriate hospital (as defined in Section IX, Transport).

Intercept with an ALS unit (if available) enroute to the nearest appropriate hospital as noted in specific treatment protocols. ALS requests should ideally be initiated at the dispatch level.

IV. **Vital Signs:** Obtain and record the following on every patient initially, and repeat as often as the situation indicates.

1. **Respirations:** Rate and quality.
2. **Pulse:** Rate, quality, and regularity.
3. **Blood Pressure:** Systolic and diastolic. Obtain systolic BP by palpation if necessary.
4. **Skin:** Color, temperature, moisture, and capillary refill for pediatric patients.

Note:

Do not delay transport of a high priority patient to obtain the above information.

General Approach, continued

Note:

Do not agitate or delay transport of a pediatric patient to obtain a blood pressure measurement!

V. SAMPLE:

Signs and Symptoms:

1. Sign – any medical or trauma condition displayed by the patient and identifiable by the EMT-Basic.
2. Symptom – any condition described by the patient, e.g., shortness of breath.

Allergies:

1. Medications.
2. Food.
3. Environmental.
4. Consider medical identification tags.

Medications:

1. Prescription (current, recent, birth control pills, etc.).
2. Non-prescription (current, recent, herbal remedies, etc.).

Pertinent Past History:

1. Medical.
2. Surgical.
3. Trauma.
4. Prior hospital visits.

Last oral intake: *Solid or Liquid*

1. Time.
2. Quantity.

Events leading up to the injury or illness: *Examples*

1. Chest pain on exertion. (i.e. pain while shoveling snow or walking up stairs, etc.)
2. Chest pain while at rest (i.e. pain while laying in bed or watching television, etc.)

VI. Focused History & Physical Exam: Complete as indicated by the patient's condition.

- A. Reassess mechanism of injury/nature of illness.
- B. Reassure and inform the patient about the examination and treatment procedures.
- C. Obtain and record any pertinent medical information from the patient, family, and bystanders. Check for medical identification.
- D. Perform rapid trauma assessment or focused medical exam according to patient's priority.

General Approach, continued

- VII. **Field Treatment:** Administer appropriate treatment in order of priority. See specific treatment protocols.
- VIII. **Suspected Child/Spouse/Elder/ Abuse:** Visually assess the immediate scene for evidence of possible abuse, recording all appropriate information on the Prehospital Care Report. Make a verbal report summarizing the above to the responsible medical personnel upon arrival to the emergency department. Report suspected child abuse or neglect according to NYS Bureau of EMS Policy Statement #02-01.
- IX. **Transport**
- A. Transport the patient as soon as possible to the nearest appropriate hospital.
1. If mechanism of illness/injury and/or historical/physical findings do not indicate major trauma:
 - a. Transport the patient to the nearest regionally approved¹ hospital emergency department (ED); *or*
 - b. Transport the patient to a regionally approved¹ alternative destination if:
 - (1) The patient remains stable throughout transport, **and** the patient requests treatment, or receives regular medical/surgical care, at the alternative destination, **and** the additional transport time to the alternative destination is less than 20 minutes; *or*
 - (2) The patient requires specialty care available at the alternative destination that is unavailable at the nearest hospital; *or*
 - (3) An on-line medical control physician so directs.

Note:

Patients who are a high priority must be transported to the nearest appropriate regionally approved hospital emergency department!

2. If mechanism of injury and/or physical findings ***do*** indicate major trauma:
 - a. Transport the patient to the nearest designated Regional or Area Trauma Center if the total time elapsed between the estimated time of injury and the estimated time of arrival at the Trauma Center is less than one hour (see Appendices for a list of the New York State Designated Trauma Centers); *or*
 - b. Transport the patient to the nearest hospital emergency department if:
 - (1) The patient is in cardiac arrest; *or*
 - (2) The patient has an unmanageable airway; *or*
 - (3) An on-line medical control physician so directs.
 - (4) If total time elapsed between estimated time of injury and estimated time of arrival to the trauma center is more than one hour ***or*** if transport time from the scene to the trauma center is more than 30 minutes, contact medical control.

General Approach, continued

- B. Intercept with an ALS unit (if available) enroute to the nearest appropriate hospital as noted in specific treatment protocols. If possible, ALS intercepts are best initiated at the time of dispatch.

Note:

Do not delay patient transport to await the arrival of an ALS unit!

- C. Perform detailed physical exam during transport if the patient is a high priority.
- D. Ongoing patient assessment during transport.

X. **Communications:**

- A. Transmit the following information to the emergency department during transport as per regional protocol:
 - 1. Ambulance service identification.
 - 2. Estimated time of arrival to the emergency department (ETA).
 - 3. Patient information:
 - a. Age and sex.
 - b. Chief complaint.
 - c. Subjective and objective patient assessment findings.
 - d. Pertinent history as needed to clarify the problem (mechanism of injury, previous illnesses, allergies, medications, etc.)
 - e. Level of consciousness and vital signs.
 - f. Treatment rendered and patient's response.
 - g. Other pertinent information.
 - 4. Notification of any delay in transport or of any unusual circumstances.
- B. Advise the emergency department of any changes in the patient's condition during transport.

XI. **Documentation**

- A. An essential part of all prehospital medical response is the documentation of the care provided, the medical condition and history of the patient. The completion of Prehospital Care Report (PCR), or a Department approved equivalent for each patient treated, is a requirement of Part 800.15. The primary purpose of the PCR is to document all pertinent patient information and treatment during the EMS encounter, as well as serving as a data collection tool.

General Approach, continued

A PCR should be completed each time the agency is dispatched for any type response. This includes (but is not limited to):

- Patients transported to any location,
- Patients who refuse care and/or transport,
- Patients treated by one agency and transported by another,
- Calls where no patient contact is made, such as
 - Calls cancelled before reaching the scene
 - Calls where no patient is located
 - When dispatched for a stand by
 - Events.

The documentation included on the PCR provides vital medical information and must be true and accurate. The PCR must include, but not be limited to:

- Date of call,
- Agency name, code number and responding vehicle information
- Call Location and “Geo” Code,
- Dispatch information, call location and call times
- Type of call: Emergency/Non-Emergency/Stand-by,
- Hospital or other disposition and the disposition code,
- Patient Name and address
- Patient Date of Birth and Gender
- Presenting problem,
- Chief Complaint as described by the patient or family/bystanders
- At least two complete sets of vital signs
- Subjective Assessment as described by the patient or family/bystanders
- A written narrative detailing:
 - the objective physical assessment
 - past and current medical history
 - All treatment provided by the EMS agency’s personnel
- Crew names, level of certification and NYS certification number.

The information provided by the EMS crew is necessary for continued care at the hospital. As part of transferring the patient to the Emergency Department Staff the agency should not leave the hospital until a completed patient record is provided to the appropriate hospital staff.

B. Confidentiality & Disclosure of PCRs/Personal Healthcare Information:

Maintaining confidentiality is an essential part of all medical care, including prehospital care. The confidentiality of personal health information (PHI) is covered by numerous state and federal statutes, Policies, Rules and Regulations, including the Health Insurance Portability & Accountability Act of 1996 (HIPAA) and 10 NYCRR.

General Approach, continued

10 NYCRR (Health) Part 800.15:

Every person certified at any level pursuant to these regulations shall:

- (a) At all times maintain the confidentiality of information about the names, treatment, and conditions of patients treated except:
 - (1) A prehospital care report shall be completed for each patient treated when acting as part of an organized prehospital emergency medical service, and a copy shall be provided to the hospital receiving the patient and to the authorized agent of the department for use in the State's quality assurance program;

1 “Regionally Approved” means approved by the appropriate Regional Emergency Medical Advisory Committee (REMAC) to receive emergency patients by ambulance.

2 “Designated” means designated by the New York State Department of Health as appropriate for trauma care.

General Approach, continued

Medical Protocols

Abdominal Pain (Non-Traumatic)

- I. Assess perfusion. If hypoperfusion is present, refer immediately to the Hypoperfusion Protocol!
- II. Place the patient in a position of comfort, usually in a face-up position with the hips elevated and knees flexed.
- III. Do not administer any solids or fluids by mouth.
- IV. Transport, keeping the patient warm.
- V. Detailed physical exam.
- VI. Obtain and record the patient's current and past medical history **after transport has been initiated**.
- VII. Ongoing assessment. Obtain and record the patient's vital signs; repeat enroute as often as indicated.
- VIII. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Abdominal Pain, continued

Altered Mental Status

(NON-TRAUMATIC AND WITHOUT RESPIRATORY OR CARDIOVASCULAR COMPLICATIONS)

Note:

**Request Advanced Life Support if available.
Do Not delay transport to the appropriate hospital.**

Note:

This protocol is for patients who are not alert (A), but who are responsive to verbal stimuli (V), responding to painful stimuli (P), or unresponsive (U).

- I. Assess the situation for potential or actual danger. If the scene/situation is not safe, retreat to a safe location, create a safe zone and obtain additional assistance from a police agency.

Note:

Emotionally disturbed patients must be presumed to have an underlying medical or traumatic condition causing the altered mental status.

Note:

**All suicidal or violent threats or gestures must be taken seriously. These patients should be in police custody if they pose a danger to themselves or others.
If the patient poses a danger to themselves and/or others, summon police for assistance.**

- II. Perform initial assessment. Assure that the patient's airway is open and that breathing and circulation are adequate. Suction as necessary
- III. Administer high concentration oxygen. In children, humidified oxygen is preferred.
- IV. Obtain and record patient's vital signs, including determining the patient's level of consciousness. Assess and monitor the Glasgow Coma Scale.
 - A. **If the patient is unresponsive (U) or responds only to painful stimuli (P), transport immediately, keeping the patient warm.**

Altered Mental Status, continued

- B. **If the patient has a known history of diabetes controlled by medication, is conscious and is able drink without assistance**, provide an oral glucose solution, fruit juice or non-diet soda by mouth, then transport, keeping the patient warm.

Note:

Do not give solutions by mouth to patients who are unconscious or to patients with head injuries.

- V. If underlying medical or traumatic condition causing an altered mental status is not apparent; the patient is fully conscious, alert (A) and able to communicate; and an emotional disturbance is suspected, proceed to the Behavioral Emergencies protocol.
- VI. Transport immediately, keeping the patient warm.
- VII. Ongoing assessment. Repeat and record the patient's vital signs, including the level of consciousness and Glasgow Coma Scale enroute as often as the situation indicates.
- VIII. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Anaphylactic Reactions With Respiratory Distress or Hypoperfusion

Note:
Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.

- I. Assure that the patient's airway is open and that breathing and circulation are adequate. Suction as necessary.
- II. Administer high concentration oxygen.

Note:
In pediatric patients, maintain a calm approach to both parent and child. Allow the child to assume and maintain a position of comfort or to be held by the parent/guardian, preferably in an upright position.

- III. Determine that the patient has a diagnosed history of anaphylaxis, severe allergic reactions, **and/or** a recent exposure to an allergen or inciting agent.
- IV. If cardiac and respiratory status is normal, transport the patient while performing frequent ongoing assessments.
- V. If **either** cardiac or respiratory status are abnormal, proceed as follows:
 - A. If the patient is having severe respiratory distress **or** hypoperfusion **and** has been prescribed an epinephrine auto injector, **assist** the patient in administering the epinephrine. If the patient's auto injector is not available or is expired, and the EMS agency carries an epinephrine auto injector, **administer** the epinephrine as authorized by the agency's medical director.
 - B. If the patient has not been prescribed an epinephrine auto injector, begin transport and contact Medical Control for authorization to administer epinephrine if available.
- VI. Contact Medical Control for authorization for a second administration of the epinephrine auto injector, if needed.
- VII. Refer immediately to any other appropriate protocol.
- VIII. If cardiac arrest occurs, perform CPR according to AHA/ARC/NSC standards and refer to the Cardiac Arrest Protocol.

Anaphylactic Reactions, continued

- IX. Transport immediately.
- X. Ongoing assessment. Obtain and record the patient's initial vital signs, repeat enroute as often as the situation indicates. **Be alert for changes in the patient's level of consciousness.**
- XI. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).
- XII. If epinephrine has already been administered, continue to reassess respiratory effort and vital signs, transport immediately.

Behavioral Emergencies

- I. Determine whether the scene/situation is safe. If not, retreat to a safe location, create a safe zone, and obtain additional assistance from a police agency.

Note:
If regionally approved and available, contact a specialized mental health unit response team for assistance.

- II. Perform initial assessment.
- III. Assure that the patient's airway is open and that breathing and circulation are adequate.
- IV. Consider other causes of abnormal behavior (hypoxia, hypoperfusion, hypoglycemia, etc.)
- V. Place the patient in a position of comfort if possible.
- VI. Attempt to establish a rapport with the patient.
- VII. Restrain, *only if necessary*, using soft restraints to protect the patient and others from harm. ***Restraints should only be used if the patient presents a danger to themselves or others!***

Note:
Restraints must be utilized in accordance with New York State Mental Health Law. Police or Peace Officer should be present at the scene prior to the application of restraints.

- VIII. After application of restraints, keep the patient in the most appropriate position, while assuring the restraints do not restrict the patient's breathing or circulation.
- IX. Transport, keeping patient warm.
- X. Ongoing assessment. Obtain and record the patient's initial vital signs, repeat enroute as often as the situation indicates.
- XI. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).
- XII. Document the reason for applying restraints to the patient as well as identifying the individual authorizing restraint of the patient.

Behavioral Emergencies, continued

Adult Cardiac Related Problem

Note:
Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.

Note:
Be prepared to deal with respiratory and/or cardiac arrest!

- I. Assure that the patient's airway is open and that breathing and circulation are adequate.
- II. Administer high concentration oxygen.
- III. Place the patient in a position of comfort, while reassuring the patient and loosening tight or restrictive clothing.
- IV. Transport, keeping the patient warm.
- V. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
- VI. If patient has not taken aspirin and has no history of aspirin allergy and no evidence of recent gastrointestinal bleeding, administer nonenteric chewable aspirin (160 to 325 mg).
- VII. **If chest pain is present and if the patient possesses nitroglycerin prescribed by his/her physician and has a systolic blood pressure of 120mm Hg or greater**, the EMT-B may assist the patient in self-administration of the patient's prescribed sublingual nitroglycerin as indicated on the medicine container.
 - A. In the absence of standing orders for nitroglycerin, contact medical control for authorization to administer the nitroglycerin.
 - B. Confirm the systolic blood pressure is 120mm Hg or greater.
 - C. Question patient on last dose administration of nitroglycerin, effects, and assure understanding of route and administration.
 - D. Administer one (1) metered dose of nitroglycerin spray *or* one (1) nitroglycerin tablet under the patient's tongue without swallowing and record the time of the administration.

E. Recheck blood pressure within two (2) minutes of administration and record any changes in the patient's condition.

VII. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Cold Emergencies

I. LOCAL COLD INJURY

- A. Remove the patient from the cold environment.
- B. Protect the injured areas from pressure, trauma, and friction.

Caution:
Do not rub the injured areas! Do not break blisters!
Do not allow the injured areas to thaw if they may refreeze before evacuation is completed!

- C. Perform initial assessment.
- D. Administer high concentration oxygen.
- E. Remove the clothing from the injured areas.
 - 1. If patient has an early *or superficial* local cold injury:
 - a. Remove jewelry.
 - b. Splint and cover the extremity.
 - c. Do not rub, massage, or expose to the cold.
 - 2. If patient has a *late or deep* local cold injury:
 - a. Remove jewelry.
 - b. Cover the exposed area with dry dressings.
 - c. Do not break blisters, rub or massage area, apply heat, rewarm, or allow the patient to walk on the affected extremity.
- F. Transport, keeping the patient warm.
- G. When an extremely long or delayed transport is inevitable (transport time in excess of 30 minutes) then active rapid rewarming should be done.
 - 1. Immerse the affected part in warm water bath (not to exceed 105° F)

Cold Emergencies, continued

2. Continuously stir the water and ensure that the water does not cool from the affected part.
 3. Continue until the part is soft and color and sensation return.
 4. Dress the area with dry sterile dressings. If hand or foot, place dry sterile dressings between the fingers or toes.
 5. Protect against refreezing the warmed part.
- H. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
- I. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

II. GENERALIZED HYPOTHERMIA

A. General Treatment Guidelines:

1. Handle the hypothermic patient carefully to prevent cardiac arrest from ventricular fibrillation.
2. Remove the patient from the cold environment and protect the patient from further heat loss.
3. Do not allow the patient to walk or exert themselves.
4. Perform initial assessment.
5. Assure that the patient's airway is open and that breathing and circulation are adequate.
6. Administer high concentration oxygen. Oxygen should be warmed and humidified, if possible.
7. Assess pulses for 30 – 45 seconds. If no pulse begin CPR and refer to appropriate Cardiac Arrest protocol.
8. Place the patient in a warm, draft free environment.
9. Gently remove wet clothing.
10. Wrap the patient in dry blankets.

Cold Emergencies, continued

B. Assess level of consciousness and refer to the appropriate sub-section below:

1. If the patient is alert and responding appropriately:

a. Actively rewarm the patient slowly:

- i. Place heat packs (if available) in the patient's groin area, lateral chest and neck.
- ii. Increase heat in the patient compartment.

b. Continue rewarming the patient.

c. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

d. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

2. If the patient is unconscious or not responding appropriately:

a. Passively rewarm the patient slowly.

Note:

Vital signs should be taken for a longer period of time than usual so as not to miss a very slow pulse or respiratory rate.

b. If respirations and pulse are absent, start CPR. It is possible that the patient may still be revived.

c. If defibrillation is required, defibrillate a maximum of three shocks.

d. Do not allow the patient to eat or drink.

e. Transport immediately.

f. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

g. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Cold Emergencies, continued

Pediatric Respiratory Distress/Failure

Note:

**Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.**

Note:

If the child presents with respiratory distress with inspiratory stridor and has a history of upper respiratory infection, suspect:

CROUP, if one or more of the following are present:

**Low grade fever, barking cough, and/or
sternal retractions.**

EPIGLOTITIS, if one or more of the following are present:

High grade fever, muffled voice, and/or drooling.

Caution:

Do not attempt to visualize the child's oropharynx or insert anything into the mouth or perform stressful procedures, which could cause sudden and complete airway obstruction in these children!

I. **If the child is in respiratory distress (signs and symptoms of respiratory distress and any of the following):**

- a. Respiratory rate outside the normal range for the patient's age.
- b. Cyanosis.
- c. Decreased muscle tone.
- d. Severe use of accessory muscles.
- e. Poor peripheral perfusion and color.
- f. Altered mental status.
- g. Grunting.
- h. Retractions.

A. Maintain a calm approach to the child and parent. **Allow the child to assume and maintain a position of comfort or to be held by the parent, preferably in an upright position.**

B. Administer high concentration oxygen (preferably humidified) by a face mask **if tolerated without agitating the child!** Administration of oxygen may best be accomplished by allowing the parent to hold the face mask about 6 – 8 inches from the child's face.

Pediatric Respiratory Distress, continued

- C. Transport the child **calmly** in an upright and secure position (on the parent's lap only if necessary, with the parent secured to the stretcher, to avoid further agitation of the child), keeping the child warm. **Do not force the child to lie down!**
- D. Ongoing assessment. Obtain and record the patient's initial vital signs, including capillary refill, **if tolerated**, and repeat enroute as often as the situation indicates, **without agitating the child**.
- E. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

II. **If the child is in respiratory arrest/failure (signs and symptoms of respiratory distress with any of the following):**

- a. Increased respiratory effort at sternal notch.
 - b. Breathing at less than 10 breaths/minute.
 - c. Retractions.
 - d. Head bobbing.
 - e. Grunting.
 - f. Severe use of accessory muscles.
 - g. Absent or shallow chest wall motion.
 - h. Limp muscle tone.
 - i. Changes in mental status.
 - j. Slow or absent heart rate.
 - k. Poor perfusion and/or skin color.
 - l. Altered mental status.
- A. Open the child's airway with the head-tilt/chin-lift maneuver if no trauma is suspected. Use the modified jaw thrust maneuver if head, neck, or spinal trauma is suspected.
 - B. Ventilate the child at a rate appropriate for the child's age using a pocket mask or bag-valve-mask. **Assure that the chest rises with each ventilation.**
 - C. Supplement ventilations with high concentration oxygen.

Caution:
Adequate ventilation may require disabling the pop-off valve if the bag-valve-mask unit is so equipped!

- D. Transport, keeping the child warm.

Pediatric Respiratory Distress, continued

- E. Ongoing assessment. Obtain and record the patient's initial vital signs, including capillary refill, and repeat enroute as often as the situation indicates.

Caution:

If progressive bradycardia, delayed capillary refill (greater than 2 seconds) and cyanosis – signs of impending cardiac arrest are present, be prepared to initiate the Non-Traumatic Cardiac Arrest Protocol.

- F. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Pediatric Respiratory Distress, continued

Heat Emergencies

I. Patients presenting with moist, pale, normal to cool skin temperature:

- A. Perform initial assessment.
- B. Assure that the patient's airway is open and that breathing and circulation are adequate.
- C. Remove the patient from the heat source and place in a cool environment.
- D. Administer high concentration oxygen.
- E. Loosen or remove outer clothing.
- F. Place patient in the supine position with legs elevated.
- G. Transport the patient immediately.
- H. Cool the patient by removing excess clothing and fanning the patient.
Do not delay transport to cool the patient!
 - 1. **If the patient is conscious, is not nauseated, and is able to drink without assistance**, have the patient drink water (if available).
 - 2. **If the patient is unconscious or is vomiting**, transport to the hospital with the patient positioned on their left side.
- I. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
- J. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

II. Patients presenting with hot, dry or moist skin:

- A. Perform initial assessment.
- B. Remove the patient from the heat source and place in a cool environment.
- C. Remove outer clothing.
- D. Apply cool packs to neck, groin, and armpits.
- E. Keep patient's skin wet by applying wet sponges or towels.

Heat Emergencies, continued

- F. Fan the patient aggressively.
- G. Transport immediately.
- H. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
- I. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Adult Obstructed Airway

Note:

**Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.**

- I. **If the patient is conscious and can breathe, cough or speak, do not interfere!** Encourage the patient to cough. **If the foreign body cannot be dislodged by the patient coughing:**
 - A. Administer high concentration oxygen.
 - B. Transport in a sitting position, keeping the patient warm.
 - C. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
 - D. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).
- II. **If the patient is conscious with signs of severe airway obstruction (i.e. signs of poor air exchange and increased breathing difficulty, such as a silent cough, cyanosis, or inability to speak or breathe),** perform obstructed airway maneuvers according to AHA/ARC/NSC guidelines.
- III. **If the airway obstruction persists after two sequences of obstructed airway maneuvers and/or the patient becomes unconscious:**

Caution:

If obstructed airway is traumatic, manually immobilize the head and cervical spine in a neutral position while opening the patient's airway using the jaw-thrust maneuver, and transport the patient without delay!

Continue to attempt removal of the airway obstruction while enroute to the hospital.

- A. Begin CPR .
- B. Transport, keeping the patient warm..
- C. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

Adult Obstructed Airway, continued

- D. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

IV. If the airway obstruction is cleared and the patient resumes breathing:

- A. Administer high concentration oxygen.
- B. Transport, keeping the patient warm.
- C. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
- D. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Pediatric Obstructed Airway

Note:

**Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.**

- I. **Partial Airway Obstruction – If the child is alert and can breathe, cough, cry or speak:**
 - A. **Do not interfere, and do not perform BLS airway maneuvers! Allow the child to assume and maintain a position of comfort or to be held by the parent, preferably in an upright position. Do not lay the child down.**
 - B. Administer high concentration oxygen (preferably humidified) by a face mask, **if tolerated without agitating the child!** Administration of oxygen may best be accomplished by allowing the parent to hold the face mask about 6 – 8 inches from the patient’s face.
 - C. Transport immediately, keeping the child warm.
 - D. Ongoing assessment. Obtain and record the patient’s initial vital signs, including capillary refill, **if tolerated**, repeat enroute as often as the situation indicates, **without agitating the child**. Limit your exam and do not assess blood pressure.
 - E. Record all patient care information, including the patient’s medical history and all treatment provided, on a Prehospital Care Report (PCR).
- II. **If the child is conscious but cannot breath, cough, speak, or cry, perform obstructed airway maneuvers according to AHA/ARC/NSC guidelines.**

Caution:

**Agitating a child with a partial airway obstruction could cause complete obstruction! As long as the child can breathe, cough, cry, or speak, do not upset the child with unnecessary procedures (e.g., blood pressure determination)!
Use a calm, reassuring approach, transporting the parent and child securely as a unit.**

Pediatric Obstructed Airway, continued

III. If the child is unconscious, becomes unconscious and is not breathing:

- A. Attempt to establish airway control using BLS techniques. Open the child's mouth, and remove any **visible** foreign body.
- B. Begin CPR according to AHA/ARC/NSC guidelines and transport immediately.

IV. **Immediately upon removal of the foreign body and/or establishment of chest rise in a child of any age (including infants), assess the child's ventilatory status!**

Caution:

If signs of impending cardiac arrest are present (i.e., progressive bradycardia, delayed capillary refill [greater than 2 seconds] and cyanosis), be prepared to initiate the non-traumatic cardiac arrest protocol!

1. **If the ventilatory status is inadequate (the child is cyanotic, the respiratory rate is low for the child's age or capillary refill is greater than 2 seconds):**
 - a. Ventilate at the rate appropriate for the child's age using a pocket mask or bag-valve-mask. **Assure there is adequate chest rise with each ventilation given over one second.**

Caution:

Adequate ventilation may require disabling the pop-off valve if the bag-valve-mask unit is so equipped!

- b. Supplemental ventilations with high concentration oxygen.
 - c. Transport, keeping the child warm.
 - d. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
 - e. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report.
2. **If the ventilatory status is adequate (i.e., the child is breathing spontaneously, the respiratory rate is appropriate for the child's age, cyanosis is absent, and capillary refill is less or equal to 2 seconds):**

Pediatric Obstructed Airway, continued

- a. Administer high concentration oxygen (preferably humidified) by a face mask, **if tolerated, without agitating the child!** Administration of oxygen may best be accomplished by allowing the parent to hold the face mask about 6 – 8 inches from the patient's face.
- b. Transport, keeping the child warm.
- c. Ongoing assessment. Obtain and record the patient's vital signs, including capillary refill, **if tolerated**, repeat enroute as often as the situation indicates, **without agitating the child.**
- d. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Pediatric Obstructed Airway, continued

Poisoning

Caution:
Take precautions not to contaminate self or others!

I. General Approach

- A. If possible, identify the product or substance that the patient has ingested, inhaled or come in contact with.
- B. Estimate the amount of product or substance ingested, if applicable.
- C. Estimate the duration of exposure to the product or substance.
- D. Attempt to obtain information about the product from the container's label. If possible, bring the product or substance and its container with the patient to the hospital.

II. Patient who is conscious and alert, perform an initial assessment and:

Caution:
Poisoned patients may deteriorate rapidly.
Be especially alert for respiratory insufficiency or arrest!
Consider calling Advanced Life Support if available.

A. Swallowed Poisons:

- 1. Administer oxygen.
- 2. Contact Medical Control for instructions on treatment, which may include the administration of Activated Charcoal, milk, water, and/or Syrup of Ipecac for the induction of vomiting, etc.
- 3. Transport, keeping the patient warm.
- 4. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as indicated.
- 5. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Poisoning, continued

B. Inhaled Poisons:

1. Assure that the scene is safe for entry. If danger of poisonous gases, vapor, or sprays or an oxygen-deficient environment is present, it may be necessary to obtain assistance from trained rescue personnel.
2. Remove the patient to fresh air.
3. Perform initial assessment.
4. Assure that the patient's airway is open and breathing and circulation are adequate.
5. Place the patient in a position of comfort.
6. Administer high concentration oxygen.
7. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
8. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

C. Skin or Eye(s) Contamination:

1. Refer to the **Burns/Contaminations (Chemical) Protocol**.

III. Patient who is unconscious or has altered mental status:

- A. Perform initial assessment.
- B. Assure that the patient's airway is open and that breathing and circulation are adequate; suction as necessary.
- C. Administer high concentration oxygen.
- D. Ongoing assessment. Obtain and record the vital signs, repeat enroute as often as the situation indicates.
- E. Transport, keeping the patient warm.
- F. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Adult Respiratory Arrest/Failure (Non-Traumatic)

Note:

Determine if the patient has a Do Not Resuscitate (DNR) order. Treatment must not be delayed while making this determination.

Note:

Request Advanced Life Support if available. Do not delay transport to the appropriate hospital.

- I. Perform initial assessment.
- II. **If ventilatory status is inadequate, (patient is cyanotic, visible retractions, severe use of accessory muscles, altered mental status, respiratory rate less than 10 breaths per minute, signs of poor perfusion) proceed with positive pressure ventilations as follows.**
- III. Insert an oropharyngeal airway. Provide BLS care according to AHA/ARC/NSC standards. **If ventilations are unsuccessful, refer immediately to the Obstructed Airway Protocol!** If the patient is in cardiac arrest and an automated external defibrillator (AED) is available, **refer immediately to the Automated External Defibrillator (AED) Protocol!**
- IV. Ventilate with high concentration oxygen.
- V. Transport **immediately**, keeping the patient warm.
- VI. Ongoing assessment including the effectiveness of the ventilations/compressions.
- VII. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Caution:

Adequate ventilation *may* require disabling the pop-off valve if the bag-valve-mask unit is so equipped. BVM must have a volume of at least 450 – 500 ml for newborns and infants

Rates of Ventilations

Adults: 10 – 12 times a minute. Each breath given over 1 second, with or without an advanced airway in place, causing visible chest rise.

Adult Respiratory Arrest/Failure, continued

Pediatric Respiratory Arrest/Failure (Non-Traumatic)

Note:

**Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.**

I. Establish airway control and ventilations using BLS techniques according to AHA/ARC/NSC guidelines.

A. Open the airway using the head-tilt/chin-lift or jaw-thrust maneuver.

Caution:

If signs of impending cardiac arrest (i.e., progressive bradycardia, delayed capillary refill [greater than 2 seconds], cyanosis and limp muscle tone), be prepared to initiate the appropriate Cardiac Arrest Protocol!

B. Remove any **visible** airway obstruction by hand and clear the airway of any accumulated secretions or fluids by suctioning.

II. **Immediately** determine if the child is breathing adequately.

A. **If the ventilatory status is inadequate (the child is cyanotic, visible retractions, grunting, head bobbing, severe use of accessory muscles, altered mental status, the respiratory rate is low for the child's age, capillary refill is greater than 2 seconds, muscle tone is limp, a slow or fast heart rate, or other signs of inadequate perfusion):**

1. Insert a properly sized oropharyngeal airway if the gag reflex is absent. If a gag reflex is present insert a nasopharyngeal airway.
2. Determine if the patient needs positive pressure ventilations. If no, use supplemental oxygen and maintain airway. If yes, maintain airway, give positive pressure ventilations and supplemental oxygen.
3. Ventilate (with high concentration oxygen) at a rate appropriate for the child's age using a pocket mask or bag-valve-mask. **Assure there is adequate chest rise with each ventilation.**

Caution:

Adequate ventilation *may* require disabling the pop-off valve if the bag-valve-mask unit is so equipped. BVM must have a volume of at least 450 – 500 ml for newborns and infants

Rates of Ventilations

Infants and children: 12 - 20 times a minute, each breath given over 1 second, with or without an advanced airway in place, causing visible chest rise.

- III. Identify and correct any other life-threatening conditions found during the initial assessment.
- IV. Transport, keeping the child warm.
- V. Ongoing assessment including effectiveness of ventilations.
- VI. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Cardiac Arrest Adult and Pediatric (Non – Traumatic)

Note:

**Determine if the patient has a Do Not Resuscitate (DNR) order.
Treatment must not be delayed while making this determination.**

Request Advanced Life Support if available. Do not delay transport to the hospital.

- I. Perform initial assessment.
- II. If patient is confirmed to be absent of respirations and pulse, begin Cardiopulmonary Resuscitation as per current AHA/ARC/NSC guidelines.
 - A. Artificial ventilation and/or CPR must not be delayed to attach supplemental oxygen. Initial ventilations without supplemental oxygen should be used until supplemental oxygen can be attached.
 - i. Deliver each breath over 1 second.
 - ii. Give sufficient tidal volume to produce visible chest rise.
 - iii. Avoid rapid or forceful ventilations.
 - iv. When a secure/advance airway is in-place (endotracheal tube, Combitube, or LMA) with 2 – person adult CPR, ventilations are to be given at a rate of 8 – 10 breaths per minute without attempting synchronization between compressions. Do not pause compressions for delivery of ventilations.
 - B. If cardiac arrest was unwitnessed by EMS or EMS arrival to the patient is more than 4 to 5 minutes since the patient went in to cardiac arrest, begin CPR for 2 minutes (5 cycles for adult CPR) prior to defibrillation.
 - i. During this initial administration of CPR, the AED should be attached to the patient.
 - ii. Initial AED analysis of the patient’s rhythm should occur 2 minutes after CPR has been initiated.

Cardiac Arrest, continued

- C. If cardiac arrest was witnessed by EMS or EMS arrival to the patient is less than 4 minutes since the patient went in to cardiac arrest, attach the AED to the patient and check rhythm prior to beginning CPR.
- III. During application of the AED pads:
 - A. Assure proper application and adhesion of the pads to the patient's chest.
 - B. If present, remove Nitroglycerin medication patch from the patient's chest.
 - i. When in doubt of the type of medication patch the patient has on their chest, remove the patch.
 - ii. Assure that patient's medication patch does not come in contact with your skin (wear appropriate PPE).
 - iii. Assure proper disposal of the medication patch at the Emergency Department through use of properly identified biohazard bags.
- IV. Once the AED has analyzed the patient's rhythm, follow the voice prompts to either "check patient" or administer a "shock".
 - A. Pediatric patients under the age of 8 or who are preadolescent (prepubescent) should be defibrillated using an AED equipped for and FDA approved for use on children.
 - i. In an emergency situation where an AED equipped for use on children is unavailable, an adult AED unit can be used.
- V. After the first and all subsequent defibrillations immediately begin CPR for 5 cycles (approximately 2 minutes), without checking for a pulse, before the next rhythm check and/or defibrillation. Do not check for a pulse or rhythm after defibrillation until 5 cycles of CPR has been completed *or* the patient appears to no longer be in cardiac arrest.
- VI. All actions and procedures occurring during a cardiac arrest should be accomplished in a way that minimizes interruptions of chest compressions.
- VII. Transport to the Emergency Department:
 - A. A maximum of 3 defibrillations may be delivered at the scene prior to initiating transport. If transportation is unavailable, continue your AED/CPR sequence until transportation is available.
 - B. If the AED advises that no shock is indicated, initiate transport with rhythm checks by the AED occurring approximately every 2 minutes.
 - C. During transport, the AED should perform rhythm checks approximately every 2 minutes with as few interruptions of chest compressions as possible.

Cardiac Arrest, continued

- VIII. If patient is no longer in cardiac arrest, complete an initial assessment, support airway and breathing, place patient in the recovery position, obtain vital signs, and treat according to appropriate protocol while continuing transport.

- IX. Record all patient care information, including the patient's medical history and all treatment provided (including the total number of defibrillations administered), on a Prehospital Care Report (PCR).

Respiratory Distress (Shortness of Breath, Difficulty Breathing)

Note:
Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.

Caution:
Be prepared to deal with respiratory and cardiac arrest!
Monitor the patient's respiratory status continuously.

- I. Perform initial assessment.
- II. Assure that the patient's airway is open. **If the airway is obstructed**, perform obstructed airway maneuvers according to AHA/ARC/NSC guidelines.
- III. Administer high concentration oxygen and assist the patient's ventilations as necessary.

Note:
**Allow the patient to assume and maintain a position of comfort, or
if a child to be held by the parent, preferably in an
upright position**

- IV. If the patient's respiratory distress is caused by an exacerbation of their previously diagnosed **asthma**, do one of the following:
 - A. If you have received the appropriate training along with REMAC approval to administer nebulized Albuterol, refer to the **Nebulized Albuterol Treatment Protocol**.
 - B. If you are not authorized to administer nebulized Albuterol, the patient has a prescribed metered dose bronchodilator medication inhaler, and you have REMAC approval, you may **assist** the patient in administering the medication.
 - C. Contraindications to the assisted administration of a multidose inhaler (MDI) are if the patient is not alert and/or the MDI is not prescribed to the patient and/or the MDI is a steroid based medication.
 - D. To administer the patient's MDI remove the oxygen and administer the MDI. After administration replace the oxygen.

Respiratory Distress, continued

- V. Place the patient in position of comfort.
- VI. Transport, keeping the patient warm.
- VII. Ongoing assessment. If medication was administered, evaluate its effect.
- VIII. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Seizures

Note:

**Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.**

I. Management of the patient who is seizing:

- A. Protect the patient from harm, **and** remove hazards from the patient's immediate area, **and** avoid unnecessary physical restraint.
- B. Perform initial assessment.
- C. Assure that the patient's airway is open, and that breathing and circulation are adequate.
- D. Suction the airway as needed. Avoid stimulation of the posterior pharynx during suctioning because this may cause vomiting.

Caution:

If the patient's ventilatory status is inadequate (cyanosis, low respiratory rate for the patient's age, decreased tidal volume, retractions, nasal flaring, agonal or irregular respirations), initiate the respiratory arrest/failure protocol.

- E. Position the patient on their side if no possibility of cervical spine trauma.

Note:

Do not force the patient's mouth open or force an oral airway or any other device into the patient's mouth if it is clenched tightly during the seizure!

A nasopharyngeal airway may be used.

- F. Administer high concentration oxygen.
- G. Transport immediately, keeping the patient warm.
- H. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
- I. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Seizures, continued

II. Management of the post-seizure patient:

- A. Perform initial assessment.
- B. Assure that the patient's airway is open and that breathing and circulation are adequate.
- C. Suction the airway as needed. Avoid stimulation of the posterior pharynx during suctioning because this may cause vomiting.
- D. Position patient on their side if no possibility of cervical spine trauma.
- E. Administer high concentration oxygen.
- F. Treat injuries sustained during the seizure.
- G. Be prepared for additional seizures.
- H. Transport keeping the patient warm.
- I. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
- J. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Suspected Stroke (Stroke)

Note:

This protocol is for patients who have an acute episode of neurological deficit without any evidence of trauma.

Note:

**Request Advanced Life Support if available.
Do not delay transport to the nearest appropriate hospital.**

- I. Perform initial assessment.
- II. Assure that the patient's airway is open and that breathing and circulation are adequate.

Caution:

Consider other causes of altered mental status, i.e. hypoxia, hypoperfusion, hypoglycemia, trauma or overdose.

- III. Administer high concentration oxygen, suction as necessary, and be prepared to assist ventilations.
- IV. Position patient with head and chest elevated or position of comfort, unless doing so compromises the airway.
- V. Perform Cincinnati Pre-Hospital Stroke Scale:
 - A. Assess for facial droop: have the patient show teeth or smile,
 - B. Assess for arm drift: have the patient close eyes and hold both arms straight out for 10 seconds,
 - C. Assess for abnormal speech: have the patient say, "you can't teach an old dog new tricks".

- VI. If the findings of the Cincinnati prehospital stroke scale are positive, establish onset of signs and symptoms by asking the following:
 - A. To patient – “When was the last time you remember before you became weak, paralyzed, or unable to speak clearly?”
 - B. To family or bystander – “When was the last time you remember before the patient became weak, paralyzed, or unable to speak clearly?”
- VII. Transport of patient’s with signs and symptoms of stroke to the appropriate hospital:
 - A. Transport the patient to the closest New York State Department of Health designated Stroke Center if the total prehospital time (time from when the patient’s symptoms and/or signs first began to when the patient is expected to arrive at the Stroke Center) is less than two (2) hours.
 - B. Transport the patient to the closest appropriate hospital emergency department (ED) if:
 - 1. The patient is in cardiac arrest, *or*
 - 2. The patient has an unmanageable airway, *or*
 - 3. The patient has (an) other medical condition(s) that warrant(s) transport to the closest appropriate hospital emergency department (ED) as per protocol, *or*
 - 4. The total prehospital time (time from when the patient’s symptoms and/or signs first began to when the patient is expected to arrive at the Stroke Center) is greater than two (2) hours, *or*
 - 5. An on-line medical control physician so directs.
- VIII. Maintain normal body temperature; do not overly warm the patient.
- IX. Protect any paralyzed or partially paralyzed extremities.
- X. Ongoing assessment. Obtain and record the patient’s initial vital signs, repeat enroute as often as the situation indicates.
- XI. Notify the receiving hospital as soon as possible of your impending arrival with an acute stroke patient, Cincinnati Stroke Scale findings, and time signs and symptoms began.
- XII. Record all patient care information, including the patient’s medical history and all treatment provided, on a Prehospital Care Report (PCR).

Trauma Protocols

Amputation

- I. Perform initial assessment.
- II. Assure that the patient's airway is open and that breathing and circulation are adequate.

Caution:
Manually stabilize the head and cervical spine if trauma of the head and/or neck is suspected!

- III. Place the patient in a position of comfort **only if doing so does not compromise stabilization of the head and cervical spine!**
- IV. Control the bleeding by applying direct pressure.
- V. Elevate the stump above the level of the patient's heart.
- VI. **If bleeding cannot be controlled**, apply pressure on the appropriate arterial pressure point. **Use a tourniquet only if uncontrollable bleeding persists.**
- VII. Assess for hypoperfusion. **If hypoperfusion is present, refer immediately to the hypoperfusion protocol!**
- VIII. Wrap the stump with moist sterile dressings.
- IX. Cover the dressed stump with a dry bandage.
- X. Preserve the amputated part as follows:
 - A. Moisten an appropriately sized sterile dressing with sterile saline solution.
 - B. Wrap the severed part in the moistened sterile dressing, preserving all amputated material.
 - C. Place the severed part in a water-tight container (i.e. sealed plastic bag).
 - D. Place the container on ice or cold packs (if available). **Do not freeze or use dry ice! Do not immerse the amputated part directly in water! Do not allow the amputated part to come in direct contact with ice!**
- XI. Immobilize the limb to prevent further injury.
- XII. Transport the amputated part with the patient.

Amputation, continued

Note:

Transportation of the patient should not be delayed to search for amputated parts! Leave word as to the patient's destination, and indicate how to preserve the amputated parts to the person in charge at the scene.

- XIII. Transport keeping the patient warm.
- XIV. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
- XV. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Bleeding (External)

- I. Assure that the patient's airway is open and that breathing and circulation are adequate.
- II. Control bleeding by:
 - A. Immediately applying pressure directly on the wound with a sterile dressing, ***and***
 - B. Elevating the injured part above the level of the patient's heart (when possible), ***and***
 - C. Applying a pressure dressing to the wound. If bleeding soaks through the dressing, apply additional dressings and ***reapply pressure***. **Do not remove dressings from the injured site!**
 - D. Cover the dressed site with a bandage.
- III. If severe bleeding persists, apply pressure on the appropriate arterial pressure points. Splints and pressure splints may also be used to control bleeding. Use a tourniquet only if uncontrollable bleeding persists.
- IV. Assess for hypoperfusion. **If hypoperfusion is present, refer immediately to the hypoperfusion protocol!**
- V. Transport keeping the patient warm.
- VI. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
- VII. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Bleeding (External), continued

Burns (Chemical)

- I. Assure that the scene is safe for entry. If danger of contamination is present, it may be necessary to obtain assistance from trained rescue personnel.
- II. Perform initial assessment.
- III. Assure that the patient's airway is open and that breathing and circulation are adequate.
- IV. Treat according to the following:
 - A. **IF THE CHEMICAL IS A LIQUID:**

The patient you receive in your **safe zone** should already be decontaminated. Always check to assure that decontamination has been completed. There should be no contaminated clothing or jewelry on the victim. If contaminated items are present, notify the decontamination personnel. Flush the decontaminated areas with copious amounts of water at the scene and enroute to the hospital. If possible, flush site of the burn with water for a minimum of 20 minutes.
 - B. **IF THE CHEMICAL IS A DRY POWDER:**

The patient you receive in your **safe zone** should already be decontaminated. Always check to assure that decontamination has been completed. Brush any remaining chemical off of the patient. **Be careful not to spread it over unaffected areas.** There should be no contaminated clothing or jewelry on the victim. If contaminated items are present notify the decontamination personnel. Flush the decontaminated areas with copious amounts of water at the scene and enroute to the hospital. If possible, flush site of the burn with water for a minimum of 20 minutes.
 - C. **IF THE EYE(s) IS CONTAMINATED:**

The patient you receive in your **safe zone** should already be decontaminated. Always check to assure that decontamination has been completed. Irrigate the eye(s) with saline solution or water continuously for at least 20 minutes, or until arrival to the hospital, while the patient blinks frequently during irrigation. If only one eye is affected, do not contaminate the unaffected eye. After irrigation is complete, cover **both** eyes with moistened dressings or eye pads.
- V. Obtain the name of the product or substance involved and bring it and its container (if possible and without causing further contamination with the substance) with the patient to the hospital

Burns (Chemical), continued

- VI. Transport keeping the patient warm.

Note:
**Follow regional protocol for transportation of burn patient
to a Burn Center.**

- VII. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
- VIII. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Burns

(Thermal/Electrical)

- I. Assure that the scene is safe for entry. If danger of contamination is present, it may be necessary to obtain assistance from trained rescue and/or fire personnel.
- II. Extinguish burning clothing, and stop the burning process.
- III. Perform initial assessment.
- IV. Assure that the patient's airway is open and that breathing and circulation are adequate.
- V. Place the patient in a position of comfort **only if doing so does not compromise stabilization of the head and cervical spine!**
- VI. Administer high concentration oxygen if indicated during the initial assessment *or* if respiratory burns are suspected and in all burns involving flames, exposure to superheated gases or when patient is found in a confined area.
- VII. Remove smoldering clothing not adhering to the patient's skin. Remove rings, bracelets and all other constricting items if possible. **Do not delay transport to remove these items!**
- VIII. Assess for hypoperfusion. **If hypoperfusion is present, refer immediately to the hypoperfusion protocol!**
- IX. **For all burns** determine the thickness and percent of body surface area. Treat as follows:
 - A. **Partial thickness burns covering 10% or less of total body surface area:**
Apply moistened sterile dressings or moistened burn sheets to the burned area(s).

Note:

Do not puncture unbroken blisters!
Do not apply any type of ointment!

- B. **Full thickness burns and burns covering more than 10% of body surface area:** Apply dry sterile dressings or burn sheets to the burned area(s).

Burns (Thermal/Electrical), continued

- X. Transport immediately, keeping the patient warm. **This is important since these patients tend to lose heat and become hypothermic!**

Note:
**Follow regional protocol for transportation of a burn patient
to a Burn Center.**

- XI. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
- XII. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Musculoskeletal Trauma

- I. Perform initial assessment.
- II. Assure that the patient's airway is open and that breathing and circulation are adequate.

Caution:
**Manually stabilize the head and cervical spine
if trauma of the head and/or neck is suspected!**

- III. Manually stabilize the joints above and below the suspected injury site.
- IV. Evaluate and record the pulse(s), motor and sensory functions distal to the suspected injury site before splinting.

Note:
**Consider any open wound near a suspected bone injury site
to be the result of bone protrusion.**

- V. Expose the injured area to locate and identify suspected musculoskeletal injuries.
- VI. Assess for hypoperfusion. **If hypoperfusion is present, refer immediately to the hypoperfusion protocol!**
- VII. Splint the bone injury, keeping the following guidelines in mind:

Long Bone Injuries:

- A. If the long bone is severely deformed **or** the distal extremity is cyanotic **or** lacks pulses, align the long bone by applying gentle manual traction prior to splinting. If resistance is encountered, the extremity should be splinted in the deformed position.
- B. Apply the appropriate immobilizing device to assure the joint above and the joint below the injury site are immobilized.
- C. Reassess pulse, motor and sensory function distal to the injury site.

Joint Injuries:

- A. An injured joint should be immobilized in the position in which it was found **unless** the portion of the extremity distal to the site of the injury is cyanotic and/or lacks pulses and no resistance is met when straightening the extremity.

Musculoskeletal Trauma, continued

- B. Apply the appropriate immobilizing device to assure the bones above and below the injury site are immobilized.
- C. Reassess pulse, motor and sensory function distal to the injured joint.

Traction Splinting Devices:

- A. Indications for the use of a traction splint are a painful, swollen, deformed mid-thigh injury with no joint or lower leg injuries.
 - B. Contraindications for the use of a traction splint:
 - 1. Injury is close to the knee
 - 2. Injury to the knee
 - 3. Injury to the hip
 - 4. Injury to the pelvis
 - 5. Partial amputation or avulsion with bone separation
 - 6. Injury to the lower leg or ankle
- VIII. If the patient is hypotensive, an unstable pelvis should be splinted with the MAST (if available and regionally approved¹) according to the **hypoperfusion protocol**.
- IX. Transport the patient in a position of comfort, keeping the patient warm.
- X. Ongoing assessment. Obtain and record the patient's vital signs, including the status of the pulses, motor and sensory function distal to the injury site, and repeat enroute as often as the situation indicates.
- XI. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

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Adult Major Trauma

(Including Traumatic Cardiac Arrest)

Note:

**Request Advanced Life Support if available.
Consider Air Medical Transport per regional protocol.
Do not delay transport to the appropriate hospital.**

For the purpose of this protocol, major trauma is present if the patient's physical findings or the mechanism of injury meets any one of the following criteria:

PHYSICAL FINDINGS

- 1. Glasgow Coma Scale is less than or equal to 13**
- 2. Respiratory rate is less than 10 or more than 29 breaths per minute**
- 3. Pulse rate is less than 50 or more than 120 beats per minute**
- 4. Systolic blood pressure is less than 90 mmHg**
- 5. Penetrating injuries to head, neck, torso or proximal extremities**
- 6. Two or more suspected proximal long bone fractures**
- 7. Suspected flail chest**
- 8. Suspected spinal cord injury or limb paralysis**
- 9. Amputation (except digits)**
- 10. Suspected pelvic fracture**
- 11. Open or depressed skull fracture**

MECHANISM OF INJURY

- 1. Ejection or partial ejection from an automobile**
- 2. Death in the same passenger compartment**
- 3. Extrication time in excess of 20 minutes**
- 4. Vehicle collision resulting in 12 inches of intrusion in to the passenger compartment**
- 5. Motorcycle crash >20 MPH or with separation of rider from motorcycle**
- 6. Falls from greater than 20 feet**
- 7. Vehicle rollover (90 degree vehicle rotation or more) with unrestrained passenger**
- 8. Vehicle vs pedestrian or bicycle collision above 5 MPH**

HIGH RISK PATIENTS

If a patient does not meet the above criteria for Major Trauma, but has sustained an injury and has one or more of the following criteria, they are considered a "High Risk Patient". Consider transportation to a Trauma Center.

Consider contacting medical control.

- 1. Bleeding disorders or patients who are on anticoagulant medications**
- 2. Cardiac disease and/or respiratory disease**
- 3. Insulin dependent diabetes, cirrhosis, or morbid obesity**
- 4. Immunosuppressed patients (HIV disease, transplant patients and patients on chemotherapy treatment)**
- 5. Age >55**

Adult Major Trauma, continued

Note:

The following management may be instituted before or during extrication or enroute as appropriate. In no case should patient transport be delayed because of this management!

- I. Establish and maintain airway control while manually stabilizing the cervical spine.
- II. Perform initial assessment.
- III. Assess level of consciousness.
- IV. Assess the patient's ventilatory status:
 - A. **If the ventilatory status is inadequate:**
 1. Insert an oropharyngeal airway if no gag reflex is present or a nasopharyngeal airway if a gag reflex is present.
 2. Ventilate the patient with an adjunctive device and high concentration oxygen at a rate of 12 breaths per minute. Each ventilation given over one second **assuring that there is sufficient chest rise.**

Caution:

If head injury is suspected, the Glasgow Coma Scale (GCS) score is less than 8, and active seizures or one or more of the following signs of brain herniation are present, hyperventilate the patient with high concentration oxygen at a rate of 20 breaths/min.

- **Fixed or asymmetric pupils.**
- **Abnormal flexion or abnormal extension (neurological posturing).**
- **Hypertension and bradycardia (Cushing's reflex).**
- **Intermittent apnea (periodic breathing).**
- **Further decrease in GCS score of 2 or more points (neurological deterioration).**

Do not hyperventilate unless the above criteria are met!

Adult Major Trauma, continued

3. **Expose the patient's chest to locate and identify injuries and to listen for breath sounds.**
 4. **Seal any open chest wounds with an occlusive dressing; stabilize impaled objects in the chest.**
- B. **If the ventilatory status is adequate**, administer high concentration oxygen as soon as possible.
- V. Assess the patient's circulatory status.
- A. **If the pulse is absent (Traumatic Cardiac Arrest):**
1. Extricate the patient using the Rapid Extrication technique.
 2. Initiate transportation **immediately**. (Refer to item VI below).
 3. Perform CPR according to AHA/ARC/NSC standards.
 4. Take appropriate steps to control hemorrhage.
 5. Apply and inflate MAST, if available and regionally approved¹, or elevate the foot of the backboard 8 – 12 inches if MAST are not available or not regionally approved¹.
 6. Ongoing assessment. Obtain and record the patient's vital signs, level of consciousness, repeat enroute to the hospital as often as the situation indicates.
 7. Record all patient care information, including all treatment provided, on a Prehospital Care Report (PCR).
- B. **If the pulse is present:**
1. Take appropriate steps to control hemorrhage.
 2. Extricate the patient using the Rapid Extrication technique.
 3. Initiate transportation **immediately**. (Refer to item VI below)
 4. Perform rapid trauma assessment.
 5. Apply and inflate MAST, if available and regionally approved¹, in adults with severe hypotension, or hypotension with unstable pelvic fracture, according to the **Hypoperfusion Protocol**, or elevate the foot of the backboard 8 – 12 inches if MAST are not available or not regionally approved¹.

Adult Major Trauma, continued

6. Keep the patient warm during transport.
7. Ongoing assessment. Obtain and record the patient's vital signs, and level of consciousness, repeat enroute to the hospital as often as the situation indicates.
8. Record all patient care information, including all treatment provided, on a Prehospital Care Report (PCR).

C. If life-threatening hemorrhage is present:

1. Take appropriate steps to control the hemorrhage.
2. Extricate the patient using the Rapid Extrication technique.
3. Initiate transportation **immediately**. (Refer to item VI below)
4. Perform rapid trauma assessment.
5. Keep the patient warm during transport.
6. Assess for **hypoperfusion** enroute.
7. Ongoing assessment. Obtain and record the patient's vital signs, and level of consciousness, repeat enroute to the hospital as often as the situation indicates.
8. Record all patient care information, including all treatment provided, on a Prehospital Care Report (PCR).

D. If one or more signs of hypoperfusion are present, refer immediately to the Hypoperfusion Protocol!

1. Take appropriate steps to control life threatening hemorrhage.
2. Extricate the patient using the Rapid Extrication technique.
3. Initiate transportation **immediately**. (Refer to item VI below)
4. Apply and inflate MAST, if available and regionally approved¹, in adults with severe hypotension, or hypotension with unstable pelvic fracture, according to the **Hypoperfusion Protocol**, or elevate the foot of the backboard 8 - 12 inches if MAST are not available or not regionally approved¹.
5. Keep the patient warm enroute.

Adult Major Trauma, continued

6. Perform rapid trauma assessment.
7. Ongoing assessment. Obtain and record the patient's vital signs, and level of consciousness, repeat enroute to the hospital as often as the situation indicates.
8. Record all patient care information, including all treatment provided, on a Prehospital Care Report (PCR).

VI. Transport to the appropriate hospital.

Note:
Consider Air Medical Transport per regional protocol.
Do not delay transport to the appropriate hospital.

- A. Transport the patient to the **nearest designated Regional or Area Trauma Center**; *or*
- B. Transport the patient to the **nearest hospital emergency department (ED)** if:
 1. The patient is in cardiac arrest; *or*
 2. The patient has an unmanageable airway; *or*
 3. An on-line medical control physician so directs.
- C. Ongoing assessment. Obtain and record the patient's vital signs, and level of consciousness, repeat enroute to the hospital as often as the situation indicates.
- D. Notify the receiving hospital as soon as possible.
- E. Record all patient care information, including all treatment provided, on a Prehospital Care Report (PCR).

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Adult Major Trauma, continued

Pediatric Major Trauma

(Including Traumatic Cardiac Arrest)

Note:

**Request Advanced Life Support if available.
Consider Air Medical Transport per regional protocol.
Do not delay transport to the appropriate hospital.**

Note:

For the purpose of this protocol, major trauma is present if the mechanism of injury or patient's findings meets any one of the following criteria:

MECHANISM OF INJURY

- 1. Death in the same passenger compartment.**
- 2. Fall more than 10 feet.**
- 3. Vehicle-pedestrian collision.**
- 4. Patient ejected from the vehicle.**
- 5. Vehicle collision >20 MPH resulting in 12 inches of deformity to the vehicle.**
- 6. Vehicle rollover.**
- 7. Motorcycle crash.**
- 8. Vehicle vs. bicycle collision >5 MPH.**

PHYSICAL FINDINGS

- 1. Pulse greater than normal range for patient's age (see pediatric appendix).**
- 2. Systolic blood pressure below normal range (see pediatric appendix).**
- 3. Respiratory status inadequate (central cyanosis, respiratory rate low for the child's age, capillary refill time greater than two seconds).**
- 4. Glasgow coma scale less than 14.**
- 5. Penetrating injuries of the trunk, head, neck, chest, abdomen or groin.**
- 6. Two or more proximal long bone fractures.**
- 7. Flail chest.**
- 8. Burns that involve 15% or more of the body surface (10% if associated with other injuries or the child is less than five years old) or facial/airway burns.**
- 9. Combined system trauma that involves two or more body systems, injuries or major blunt trauma to the chest or abdomen.**
- 10. Spinal cord injury or limb paralysis.**
- 11. Amputation (except digits).**

Pediatric Major Trauma, continued

- I. Establish and maintain airway control while manually stabilizing the cervical spine.
- II. Perform initial assessment.
- III. Level of consciousness.
- IV. Assess the child's ventilatory status, including exposing the chest to locate and identify injuries and assess breath sounds.
 - A. **If ventilatory status is inadequate (the child is cyanotic, the respiratory rate is low for the child's age or capillary refill is greater than 2 seconds):**
 1. Ventilate the child with a pocket mask or bag-valve-mask and high concentration oxygen at a rate of up to 20 breaths per minute. Each ventilation given over one second **assuring that there is adequate chest rise with each ventilation.**

Caution:

If head injury is suspected, the Glasgow Coma Scale (GCS) score is less than 8, and active seizures or one or more of the following signs of brain herniation are present, hyperventilate the patient with high concentration oxygen at a rate of 25 breaths/min.

- Fixed or asymmetric pupils.
- Abnormal flexion or abnormal extension (neurological posturing).
- Hypertension and bradycardia (Cushing's reflex).
- Intermittent apnea (periodic breathing).
- Further decrease in GCS score of 2 or more points (neurological deterioration).

Do not hyperventilate unless the above criteria are met!

2. Seal any open chest wounds with an occlusive dressing. Stabilize impaled objects in the chest.
- B. **If ventilatory status is adequate (the child is breathing spontaneously at a respiratory rate appropriate for the child's age, cyanosis is absent and capillary refill is less than 2 seconds), administer high concentration oxygen (preferably humidified) by a face mask as soon as possible.**

Caution:
**Adequate ventilation *may* require disabling the pop-off valve
if the bag-valve-mask is so equipped!**

V. Assess the child's circulatory status by palpating the brachial pulse in infants and the carotid pulse in children older than one year of age.

A. If the pulse is absent (Traumatic Cardiac Arrest):

1. Initiate transport **immediately** while performing CPR according to AHA/ARC/NSC guidelines.
2. Take appropriate steps to control hemorrhage.

Note:
**Automated External Defibrillator (AED) should not be used in a
Pediatric Cardiac Arrest unless the AED is equipped for and FDA
approved for use on children!**

3. Elevate the foot of the backboard 8 - 12 inches.
4. Notify the receiving hospital as soon as possible.
5. Record all patient care information, including all treatment provided, on a Prehospital Care Report (PCR).

B. If the pulse is present:

1. Identify any life-threatening hemorrhage, if present proceed to step "C".
2. Initiate transport **immediately** while assessing the circulatory status.
3. Perform rapid trauma assessment.
4. Elevate the foot of the backboard 8 - 12 inches.
Keep the child warm during transport.
6. Ongoing assessment. Obtain and record the patient's vital signs, including capillary refill, repeat enroute to the hospital as often as the situation indicates.

Pediatric Major Trauma, continued

7. Notify the receiving hospital as soon as possible.
8. Record all patient care information, including all treatment provided, on a Prehospital Care Report (PCR).

C. If life-threatening hemorrhage is present:

1. Initiate transport **immediately** while taking appropriate steps to control hemorrhage.
2. Assess for hypoperfusion enroute, **if clinical picture of hypoperfusion is present (tachycardia, capillary refill greater than 2 seconds, cold clammy skin, thirst, restlessness and/or hypotension).**
3. Elevate the foot of the backboard 8 - 12 inches.

Note:
Do not use MAST
in Pediatric Major Trauma!

4. Keep the child warm during transport
5. Perform rapid trauma assessment.
6. Ongoing assessment. Obtain and record the patient's vital signs, including capillary refill, repeat enroute to the hospital as often as the situation indicates.
7. Notify the receiving hospital as soon as possible.
8. Record all patient care information, including all treatment provided, on a Prehospital Care Report (PCR).

VI. Transport to the appropriate hospital.

- A. Transport the patient to the nearest designated **Regional or Area Trauma Center designated to receive pediatric patients** if the total time elapsed between the estimated time of injury and the estimated time of arrival at the Trauma Center is less one hour (see Appendices for a list of New York State Designated Trauma Centers designated to receive pediatric trauma patients); or
- B. Transport the patient to the **nearest hospital emergency department (ED)** if:
 1. The patient is in cardiac arrest; *or*

Pediatric Major Trauma, continued

2. The patient has an unmanageable airway; *or*
 3. An on-line medical control physician so directs.
- C. Notify receiving hospital as soon as possible..
- D. Record all patient care information, including all treatment provided, on a Prehospital Care Report (PCR)

Pediatric Major Trauma, continued

Suspected Spinal Injuries

(Not Meeting Major Trauma Criteria)

**This protocol is for awake and stable adult and pediatric patients
NOT meeting the Major Trauma Criteria (Protocol T – 6).**

**Spine injury should be suspected if blunt mechanism of injury is present
and should be treated if one or more of the following criteria is present:**

IMMOBILIZATION CRITERIA

- 1. Altered Mental Status for any reason, including possible intoxication from alcohol or drugs (GCS <15 or AVPU other than A).**
- 2. Complaint of neck and/or spine pain or tenderness.**
- 3. Weakness, tingling, or numbness of the trunk or extremities at any time since the injury.**
- 4. Deformity of the spine not present prior to this incident.**
- 5. Distracting injury or circumstances (i.e. anything producing an unreliable physical exam or history).**

High risk mechanisms of injury associated with unstable spinal injuries include, but are not limited to:

- Axial load (i.e. diving injury, spearing tackle)**
- High speed motorized vehicle crashes or rollover**
- Falls greater than standing height**

**IF THERE IS ANY DOUBT, SUSPECT THAT A
SPINE INJURY IS PRESENT!**

Note:

Once spinal immobilization has been initiated (i.e. extrication collar placed on patient), spinal immobilization must be completed and may not be removed in the prehospital setting.

Note:

Standing Takedown with Spinal Immobilization should only be performed if a patient is found in a standing position.

Use a short board immobilization device for patients who are found in the sitting position.

Suspected Head or Spinal Injuries, Continued

- I. Establish and maintain airway control while manually stabilizing the cervical spine.
- II. Place the head and neck in a neutral in-line position unless the patient complains of pain or the head is not easily moved into a neutral in-line position.
- III. Perform initial assessment.
- IV. Assess level of consciousness.
- V. Assess the patient's ventilatory status and assist the patient's ventilations as necessary; administer high concentration oxygen and suction as necessary.
 - A. If the ventilatory status is inadequate, ventilate the patient with an adjunctive device and high concentration oxygen at a rate of 12 breaths/minute (adult) or a rate of up to 20 breaths/minute (child). **Assure that the chest rises sufficiently with each ventilation.**
 - B. If the ventilatory status is adequate, administer high concentration oxygen as soon as possible.
- VI. Assess the patient's circulatory status.
- VII. Assess motor, sensory, and circulatory function in all extremities.
- VIII. Immobilize patient with appropriate immobilization device(s).
- IX. Reassess motor, sensory, and circulatory function in all extremities.
- X. Initiate transport based on assessment and patient condition.
- XI. Ongoing assessment. Repeat and record the patient's vital signs, including Glasgow Coma Scale and level of consciousness, enroute as often as the situation indicates.
- XII. Keep the patient warm during transport.
- XIII. Record all patient care information, including all treatment provided, on a Prehospital Care Report (PCR).

Updated 05/2008

Eye Injuries

- I. Perform initial assessment.
- II. Assure that the patient's airway is open, and that breathing and circulation are adequate.
- III. Stabilize impaled objects. **Do not remove impaled objects!**
- IV. If the eye is contaminated, irrigate the eye(s) with saline solution or water for at least 20 minutes, but do not delay transport. Irrigation should be continued while enroute to the hospital. Have the patient blink frequently during the irrigation. Take care not to contaminate the uninjured eye.
- V. Cover both eyes after flushing for a minimum of 20 minutes *or* if there is an impaled object. Both eyes should be covered to reduce sympathetic eye movement.
- VI. Transport in supine or Semi-Fowler position.
- VII. Ongoing assessment. Obtain and record the patient's vital signs enroute as often as the situation indicates.
- VIII. Record all patient care information, including the patient's medical history and all treatment provided on a Prehospital Care Report (PCR).

Eye Injuries, continued

Special Considerations

Oxygen Administration

I. Perform initial assessment.

A. If the patient requires oxygen therapy:

1. Assure that the patient's airway is open and that breathing and circulation are adequate. **If the airway is obstructed**, perform obstructed airway maneuvers according to AHA/NSC/ARC standards.

Note:

1. **Oxygen should never be withheld from patients requiring it, even though they may have COPD!**
2. **When administering oxygen, monitor the patient carefully for any slowing of respirations, be prepared to ventilate the patient as necessary!**
3. **In patients who are being chronically maintained on oxygen and who are being transported for a condition other than one requiring high concentration oxygen by these protocols, continue the administration of oxygen at the previously prescribed rate of flow.**

2. Administer **high-concentration oxygen**.

- a. First choice—Non-rebreather mask at 12 LPM or greater so reservoir bag does not collapse during inhalation. If reservoir bag collapses and does not refill adequately, increase to 15 LPM.
- b. Second choice—Nasal cannula at 6 LPM (used only if a mask is not tolerated).

Note:

There is no contraindication to high concentration oxygen in pediatric patients in the prehospital setting. Administration of oxygen is best accomplished by allowing the parent to hold the face mask, if tolerated, 6 to 8 inches from the child's face.

Humidified oxygen is preferred.

Oxygen Administration, continued

B. If the patient demonstrates inadequate ventilations:

1. Assist the patient's ventilations with high concentration oxygen using a positive pressure adjunctive device.
 - a. First choice—Bag-valve-mask (BVM) with reservoir and supplemental oxygen.

Caution:

Adequate ventilation *may* require disabling the pop-off valve if the bag-valve-mask unit is so equipped!

- b. Second choice—Pocket mask with supplemental oxygen set at greater than 10 LPM.
- c. Third choice—Flow restricted oxygen powered ventilation device.

C. If one or more signs of respiratory distress or respiratory arrest are present, refer immediately to the Respiratory Distress Protocol (M-15) or the appropriate Respiratory Arrest Protocol (M-7 or M-12)!

- II. Complete all other steps required in the treatment protocols that indicate the need for oxygen administration.
- III. Record all patient care information, including oxygen administration and all treatment provided, on a Prehospital Care Report (PCR).

Hypoperfusion

Note:

**Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.**

Note:

For the purpose of this protocol, Adult Hypoperfusion is defined as:

- 1. Systolic blood pressure of 90 mm Hg or less.**
- 2. Systolic blood pressure above 90 mm Hg and signs of inadequate perfusion, such as:**
 - A. Altered mental state (restlessness, inattention, confusion, agitation)**
 - B. Tachycardia (pulse greater than 100)**
 - C. Pallor**
 - D. Cold, clammy skin**
- 3. If a cardiac cause for hypoperfusion is suspected, refer immediately to the cardiac related protocol!**

Note:

For the purpose of this protocol, Pediatric Hypoperfusion is defined as signs of inadequate perfusion, such as:

- 1. Altered mental status**
- 2. Tachycardia (see appendix-A [pediatric])**
- 3. Weak or absent distal pulses**
- 4. Delayed capillary refill (greater than 2 seconds)**
- 5. Pallor**
- 6. Cold, clammy, or mottled skin**

This protocol should be used even if the systolic blood pressure is normal, or is difficult to obtain.

A low systolic blood pressure means that the shock is severe.

Hypoperfusion, continued

Caution:
Manually stabilize the head and cervical spine if trauma of the head and neck is suspected!

- I. Perform initial assessment.
- II. Assure that the patient's airway is open and that breathing and circulation are adequate.
- III. Administer high concentration oxygen, and **be prepared to ventilate the patient!**
- IV. Place the patient in a face-up position **and** elevate the patient's legs or the foot of the backboard 8 - 12 inches.
- V. Apply MAST, if available and regionally approved¹:
 - A. In adults with major blunt trauma, **if the systolic blood pressure is below 50 mm Hg and signs of inadequate perfusion are present**, inflate all three compartments to the recommended pressure *or* until the pop-off valves of all three compartments pop open.
 - B. In adults with major blunt trauma, **if the systolic blood pressure is below 90 mm Hg and signs of inadequate perfusion and an unstable pelvic fracture is present**, inflate all three compartments to the recommended pressure *or* until the pop-off valves of all three compartments pop open.

Note:
Do not delay transport to apply and inflate the MAST!

Note:
**Do not use MAST
in Pediatric Major Trauma!**

Hypoperfusion, continued

Caution:

- **If the patient has pulmonary edema, do not apply MAST!**
- **If the patient has a penetrating chest injury, do not apply MAST!**
- **If the patient has unilaterally decreased breath sounds, do not apply MAST!**
- **If the patient has an evisceration or an impaled object in the abdomen or legs, inflate only the MAST compartments not overlying the evisceration or impaled object!**
- **If the patient is known to be pregnant, inflate only the MAST's leg compartments!**
- **If the patient has a cardiac related problem, do not apply MAST!**
- **If the patient is a child, do not apply MAST!**

- VI. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
- VII. Transport, keeping the patient warm.
- VIII. Record all patient care information, including all treatment provided, on a Prehospital Care Report (PCR).

Note:

Once inflated, MAST must not be deflated in the field without physician direction!

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Hypoperfusion, continued

Emergency Childbirth, Resuscitation and Stabilization of the Newborn

Note:

**Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.**

- I. Perform initial assessment.
 - A. Assure that the mother's airway is open and that breathing and circulation are adequate.
 - B. Assess the mother for hypoperfusion. **If one or more signs of hypoperfusion are present, refer immediately to the Hypoperfusion Protocol!**
 - C. Obtain the mother's history to determine if the mother is in labor. The history includes:
 1. How long have you been pregnant?
 2. Number of previous pregnancies
 3. Number of previous births
 4. Frequency and duration of uterine contractions
 5. Recent vaginal discharge or bleeding
 6. Presence of urgency to move bowels or pressure in vaginal area
 - D. Be prepared to handle additional patient(s) in addition to the mother.

Caution:

Do not permit the mother to go to the bathroom!

- E. Determine if the mother is having contractions.
 1. **If the mother is having contractions** perform a visual inspection of the external genitalia and perineum for bulging and/or crowning. Have your partner present during this exam. **If there is crowning prepare for immediate delivery by:**
 - a. Informing the mother of the need for immediate delivery
 - b. Insuring a private, clean and sanitary environment
 - c. Positioning and draping the mother
 - d. Placing the OB kit within easy reach
 - e. Warming several towels (if possible)

Emergency Childbirth, continued

Caution:

Never delay or restrain delivery under normal circumstances!

II. Delivery procedures:

- A. During delivery support the infant's head with one hand while gently guiding it out of the birth canal to prevent an explosive delivery. Using your other hand with a sterile dressing, support the perineum (area between the vagina and the anus) to help prevent tearing during delivery of the head.
- B. If the amniotic sac has not broken, use your finger or a clamp to puncture the sac and pull it away from the infant's head and mouth as they appear.
- C. Attempt to prevent the infant's head from coming in contact with fecal material or other contaminants.
- D. **As soon as the head delivers** continue to support the infant's head with one hand. **Tell the mother to stop pushing.** Inspect the infant for the umbilical cord wrapped around the neck.
 1. **If the umbilical cord is wrapped around the infant's neck:** Gently loosen the cord and slip it over the infant's head.
 2. **If the umbilical cord is wrapped too tightly around the infant's neck or wrapped around the neck more than once, preventing the delivery of the infant, immediately** clamp the umbilical cord with two clamps and cut the cord between them.
- E. Suction the infant's oropharynx.
 1. Insert a compressed bulb syringe 1 –1 ½ inches into the infant's mouth.
 2. Suction the infant's oropharynx while controlling the release of the bulb syringe with your fingers.
 3. Repeat suction as necessary.
- F. Suction each of the infant's nostrils.
 1. Insert a compressed bulb syringe no more than ½ inch into the infant's nostrils.
 2. Suction the infant's nostrils while controlling the release of the bulb with your fingers.

Emergency Childbirth, continued

3. Repeat suctioning as necessary.
- G. Instruct the mother to begin pushing during contractions.
- H. **As soon as the infant has delivered**, quickly dry the infant and place the infant on a warm towel (if available) in a face-up position with the head lower than the feet.
Keep the infant at the level of the mother's vagina until the cord is cut!

Caution:

Spontaneous respirations should begin within 30 seconds.

- I. Repeat the suctioning process as needed.
- J. Perform an initial assessment of the infant. Quickly assess the infant's respiratory status, pulse and general condition.
 1. **If the infant is breathing spontaneously and crying vigorously and has a pulse greater than 100/min:**
 - a. Clamp the umbilical cord with two clamps three inches apart and cut the cord between them. The first clamp will be 8 – 10 inches from the baby. Place the second clamp 3 inches from the first clamp towards the mother.
 - b. Cover the infant's scalp with an appropriate warm covering.
 - c. Wrap the infant in a dry, warm blanket or towels **and** a layer of foil over the layer of blankets or towels, **or** use a commercial-type infant swaddler if one is provided with the OB kit. **Do not use foil alone!**
 - d. Provide an oxygen-rich environment for the infant by creating an oxygen hood out of foil or by cupping the end of the oxygen tubing with your hand. **Do not blow the stream of oxygen directly into the infant's face!**
 - e. Ongoing assessment. Obtain and record vital signs, as often as the situation indicates.
 - f. **Keep the infant warm and free from drafts.**
 2. **Monitor the infant's respirations continuously. If the infant is not breathing spontaneously and crying vigorously:**

Emergency Childbirth, continued

- a. **If the infant's respirations are absent or depressed (less than 30/minute in a newborn):**
 - i. Rub the infant's lower back **gently**.
 - ii. Snap the bottom of the infant's feet with your index finger **gently**.
 - b. **If the respirations remain absent or become depressed (less than 30/minute in a newborn) despite stimulation, or if cyanosis is present:**
 - i. Clear the infant's airway by suctioning the mouth and nose **gently** with a bulb syringe.
 - ii. Administer high concentration oxygen as soon as possible.
 - c. **If respirations remain absent or depressed (less than 30/minute in a newborn) despite stimulation and oxygen:**
 - i. Insert the proper size oral airway **gently**.
 - ii. Ventilate the infant with high concentration oxygen at a rate of 40 – 60 /minute with an appropriately sized pocket mask or bag-valve-mask as soon as possible. . Each ventilation given over one second **assuring that the chest rises with each ventilation**.
3. **Monitor the infant's pulse rate continuously.**
 - i. **If the pulse rate drops below 100 beats per minute at any time, assist ventilations at a rate of 40 – 60/minute with supplemental oxygen.**
 - ii. **If the pulse rate drops below 60 beats per minute at any time, or does not increase above 60 beats per minute after 30 seconds of assisted ventilations, add chest compressions to assisted ventilations following AHA/ARC/NSC guidelines.**
 4. Ongoing assessment of the newborn. Obtain and record the vital signs of all patients, and repeat enroute as often as the situation indicates.
- III. **Transport immediately**, keeping the infant warm. **Do not wait for the placenta to be delivered before transporting!**
 - IV. Prepare for deliver of the placenta during transport. Delivery of the placenta *usually* occurs within 20 minutes of the delivery of the infant. After delivery of the placenta, place the placenta in a plastic bag or other container and deliver to the receiving hospital. Massage the mother's abdomen where the fundus can be palpated.

Emergency Childbirth, continued

- V. Ongoing assessment of the mother.
 - A. Reassess the mother for hypoperfusion. **If one or more signs of hypoperfusion are present, refer immediately to the Hypoperfusion Protocol!**
 - B. Obtain and record the vital signs of all patients, repeat enroute as often as the situation indicates.
 - C. Record all patient care information, including the mother's medical history and all treatment provided for each patient, on a separate Prehospital Care Report (PCR) for each patient.

VI. Complicated Childbirth.

A. Breech Birth

1. If the buttocks presents first:

- a. Administer high concentration oxygen to the mother.
- b. Attempt to establish an open path in the birth canal to the infant's mouth with sterile-gloved fingers.
- c. **Transport the mother immediately** in a face-up position with her hips elevated, while maintaining an open path in the birth canal to the infant's mouth.

2. If a limb presents first:

- a. Administer high concentration oxygen to the mother.
- b. Place the mother in a face-up position with her hips elevated and **transport immediately!**

B. Prolapsed Umbilical Cord

- a. Administer high concentration oxygen to the mother.
- b. Place the mother in a face-up position with her hips elevated, and using a sterile gloved hand, palpate the cord for pulses.
- c. Insert a sterile gloved hand into the vagina and gently push up on the presenting part of the fetus to keep pressure off of the cord. Continue to hold the presenting part away from the cord until you are relieved by the ED staff. **Do not insert the cord back into the uterus!**

Emergency Childbirth, continued

- d. Wrap the exposed cord with sterile towel or dressings. The cord must be kept warm.
- e. **Transport immediately** while protecting the umbilical cord from pressure during transportation.

C. Multiple Births

- a. Obtain additional help as needed.
- b. Deliver each multiple birth according to the above protocol for **Uncomplicated Childbirth**, making sure to clamp and cut each umbilical cord between births.
- c. **If the anticipated second birth does not occur after 10 minutes, transport immediately!**
- d. A Prehospital Care Report (PCR) must be completed for each patient.

Nebulized Albuterol

Note:

This protocol is for patients between one and sixty-five years of age, who are experiencing an exacerbation of their previously diagnosed asthma.

Note:

**Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.**

- I. Perform initial assessment.
- II. Assure that the patient's airway is open and that the breathing and circulation are adequate.

Note:

If patient exhibits signs of imminent respiratory failure, refer to the Adult or Pediatric Respiratory Arrest Protocol.

- III. Administer high concentration oxygen.
- IV. Place the patient in the Fowler's or Semi Fowler's position.
- V. Do not allow physical activity or exertion.
- VI. Assess vital signs, ability to speak in complete sentences, accessory muscle use, wheezing, patient's assessment of breathing difficulties and through the use of a peak flow meter, Borg Scale, or other method.
- VII. Begin transportation.

Note:

For patients with a history of Angina, Myocardial Infarction, Arrhythmia or Congestive Heart Failure, medical control MUST be contacted prior to administration of Albuterol!

Nebulized Albuterol, continued

- VIII. Administer Albuterol Sulfate 0.83%, one (1) unit dose in a nebulizer at a flow rate of 4 – 6 LPM. **DO NOT delay transport to complete medication!**
- IX. Re-assess vital signs, ability to speak in complete sentences, accessory muscle use, wheezing, patient's assessment of breathing difficulties and through the use of a peak flow meter, Borg Scale, or other method.
- X. If patient's symptoms persist, a second administration of nebulized Albuterol may be administered. A maximum of two (2) total doses may be given.
- XI. Ongoing assessment. Obtain and record the patient's vital signs enroute as often as the situation indicates.
- XII. Record all patient care information, including the patient's medical history and all treatment provided on a Prehospital Care Report (PCR).

Refusing Medical Aid (RMA)

Note:

**Request Advanced Life Support if the patient's condition warrants the need.
Do not delay transport to the appropriate hospital.**

Note:

All competent adults have the right to refuse medical treatment and/or transport. It is the responsibility of the prehospital care provider to be sure that the patient is fully informed about their situation and the possible implications of refusing treatment or transport.

- I. Follow the protocol for “**General Approach to Prehospital Patient Management**” and any other treatment protocol, which is required according to the patient’s condition and your assessment of the patient.
- II. When the patient or legal guardian refuses treatment or requests that you discontinue further treatment of the patient, do not initiate any new treatment modalities.
- III. Discuss with the patient the need for treatment and/or transport. If the patient still refuses treatment or transport and you feel that the patient’s condition requires treatment or transport, allow the patient’s family members, friends, or anyone else who is familiar with the patient to try and convince the patient of the need for treatment or transport. Contact Medical Control per regional protocol.
- IV. If patient still refuses treatment or transport and the patient is 18 years of age or older, or is an emancipated minor, or is the parent of a child, or has married:
 - A. Assess level of consciousness using AVPU and GCS.
 - B. Attempt to obtain vital signs and repeat AVPU and GCS every 5 – 10 minutes.
 - C. Evaluate the patient for any apparent medical or physical conditions, which may limit the patient’s ability to think rationally. For example:
 1. Psychiatric or behavioral disorders.
 2. Patient presents a danger to themselves or others.
 3. Current alcohol or drug use.
 4. History of disease effecting mental capacity (i.e. Alzheimer’s).
 5. Evidence of abuse to the patient.
 6. Inability to ambulate.

Refusing Medical Aid (RMA), continued

- D. If patient is **Alert** with a GCS of 15 and no evidence of any apparent medical or physical conditions, which may limit the patient's ability to think rationally:
 - 1. If patient still refuses treatment or transport offer to call Medical Control or the patient's own physician and have the patient speak with the physician.
 - 2. If patient still refuses treatment or transport continue to step VI.
- E. If patient is not **Alert**, has a GCS of less than 15, or there is evidence of an apparent medical or physical condition, which may limit the patient's ability to think rationally:
 - A. Obtain assistance from Law Enforcement and contact Medical Control for direction.**
- V. If the patient still refuses treatment or transport and is under the age of 18, or is not an emancipated minor, or is not the parent of a child, or is not married:
 - A. These individuals cannot give effective legal/informed consent to treatment and therefore, conversely, cannot legally refuse treatment.
 - B. In an emergency situation when a parent or guardian is not available to give consent, emergency treatment and transport should be rendered based on implied consent.
 - C. In an emergency or non-emergency situation when a parent or guardian is present, the EMS provider must obtain consent from the parent or guardian prior to rendering treatment or transport.
 - D. If a parent or guardian is refusing to give consent for treatment or transport, and the EMS provider feels that treatment or transport is necessary, the EMS provider should obtain assistance from a Law Enforcement agency. Medical Control should be contacted and the parent or guardian should be allowed to speak with the physician.
 - E. If the parent or guardian is still refusing treatment or transport and Law Enforcement is not directing the removal of the patient to a hospital, proceed to VI.
- VI. For any patient who refuses treatment or transport, the EMS provider must advise the patient, or if applicable the parent or guardian, of the possible consequences of their refusal.
- VII. Complete a Prehospital Care Report (PCR) for the patient. At a minimum the following patient information must be documented or the EMS provider must document the reasons why this patient information cannot be documented.

Refusing Medical Aid (RMA), continued

- A. Documentation Information:
1. Age and sex.
 2. Patient's name, address, and date of birth.
 3. Chief complaint.
 4. Subjective and objective patient assessment findings.
 5. Pertinent history as needed to clarify the problem (mechanism of injury, previous illnesses, allergies, medications, etc.)
 6. Level of consciousness.
 7. One complete set of vital signs
 8. Treatment given and the patient's response.
 9. Parent or guardian's name if applicable.
 10. Identification information of any Law Enforcement personnel and Medical Control directly involved with the refusal of treatment or transport.
 11. ***Document that risks and consequences were explained and understood.***
- B. Complete the refusal documentation on the back of the PCR and/or any other regional or agency approved refusal of treatment or transport form. Have the patient, or where applicable the parent or guardian sign the refusal form. If the patient or applicable responsible party refuses to sign the refusal form then have a family member, Law Enforcement official, or bystander sign as a witness and document the refusal to sign on the PCR.

Refusing Medical Aid (RMA), continued

**SEMAC
Advisories
and
Bureau of
EMS Policies**

SEMAC Advisories

Bureau of Emergency Medical Services Policies

This section of the protocol book contains medical advisories approved by the State Emergency Medical Advisory Council (SEMAC) and those policy statements published by the NYS DOH Bureau of Emergency Medical Services (BEMS), which will assist you in the use of certain protocols and patient care.

SEMAC Advisories are guidelines, which are issued under the authority of Article 30 of the Public Health Law, Section 3002-a(2) and with the Commissioner of Health's approval. While these guidelines do not have the weight of law, the issuance of guidelines are statutorily authorized and approved by the Department of Health as appropriate guidance for prehospital patient care. They should be followed in the same manner as the statewide or regional patient care protocols.

Bureau of EMS policy statements are issued by the Department of Health and are to be used to assist the EMS provider in direct and in-direct patient care. Policy statements carry the weight of regulation, but are designed to be flexible to meet Public Health needs without following a lengthy regulatory reform process. These policies are designed to assist you in providing appropriate pre-hospital healthcare and provide a standard by which all NYS certified EMS providers can function. The policies which have been included in this book are only policies which have been currently enacted and relevant to patient care and protocols.

All SEMAC Advisories and BEMS policy statements can be found on the Bureau of EMS web site at <http://www.health.state.ny.us/nysdoh/ems/main.htm>. We encourage all providers and agencies to check the web site frequently for updated information.

Advisory No.	97-01
Title	Emergency Care of Persons with Hemophilia
Date Approved	February 4, 1997
Page	1 of 1

Emergency Care of Persons with Hemophilia

There may be no visible signs of bleeding in a person with hemophilia but bleeding episodes may be life threatening. Above all, prompt treatment (infusion of clotting factor concentrate) is essential. For a conscious patient, follow the guidelines below:

- Listen to the patient and family members. They are very knowledgeable about bleeding disorders.
- Ask if the patient has his own clotting factor concentrate.
- Allow the patient, a family member or caregiver to infuse the factor and/or bring the factor to the hospital. **(If it appears transport may be delayed Medical Control should be contacted as soon as possible.)**
- Assess the patient.
- Stabilize the patient:
 - R – Rest
 - I – Ice
 - C – Compression
 - E – Elevate
- Make early contact with Medical Control for guidance on treatment and most appropriate destination.
- Transport to the appropriate hospital.

Since factor concentrates are not stored by all hospitals in New York State, if the patient does not have factor concentrate, consult with Medical Control for hospital destination. (NOTE: The patient or family members may be able to identify the hospital with the most appropriate resources needed to best deal with a specific emergency for hemophilia patient.)

Issued by:

Mark Henry, MD
 Chair
 State Emergency Medical Advisory Committee

Barbara A. DeBuono, MD
 Commissioner
 Department of Health

Advisory No.	97-02
Title	Biphasic Automated External Defibrillator
Date Approved	February 4, 1997
Page	1 of 1

Biphasic Automated External Defibrillator

The Food and Drug Administration (FDA) has recently approved an Automated External Defibrillator (AED) which uses a low energy "biphasic waveform" similar to the technology currently used in implantable cardioverter-defibrillator (ICD). This allows the unit to determine the patient's chest impedance (resistance to electrical flow) and delivers a measured shock in response to that impedance. We can anticipate the FDA approval of more units/models using the biphasic waveform technology in the near future.

Some EMS providers have expressed concern that the units are not set to deliver shocks at the traditionally higher energy settings (200 J to 360 J). This advisory is to clarify that the biphasic automated external defibrillator, as approved by the FDA, is an acceptable device which can be used as outlined in the current New York State, Statewide Basic Life Support Adult Treatment Protocols for the Automated External Defibrillator (AED).

Traditional AED ("monophasic waveform") units, currently approved by the FDA, also remain an acceptable device used as outlined in the current New York State, Statewide Basic Life Support Adult Treatment Protocols for the Automated External Defibrillator (AED).

As always, the decision on the purchase of specific medical devices should be done with the approval of your Service Medical Director and under the guidelines of the Regional Emergency Medical Advisory Committee (REMAC).

Issued by:

Mark Henry, MD
Chair
State Emergency Medical Advisory Committee

Barbara A. DeBuono, MD
Commissioner
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Advisory No.	97-03
Title	Hyperventilation in Severe Traumatic Brain Injury
Date Approved	August 7, 1997
Page	1 of 3

Note: This advisory guideline announces important changes in the *Statewide Basic Life Support Adult and Pediatric Treatment Protocols*. [Revised copies of each of the protocols affected by these changes are attached.](#) Revised copies of each of the protocols affected by these changes are also being sent to all emergency medical services agencies statewide. Regional Emergency Medical Advisory Committees, and regional, system, and service medical directors are directed to facilitate use of the revised protocols at the local level, and are further advised to modify local protocols, policies, and procedures accordingly.

Hyperventilation in Severe Traumatic Brain Injury

Current *Statewide Basic Life Support Adult and Pediatric Treatment Protocols* stipulate that hyperventilation, at a rate of 20 breaths per minute in an adult and 25 breaths per minute in a child, should be employed in major trauma whenever a head injury is suspected, the patient is not alert, the arms and legs are abnormally flexed and/or extended, the patient is seizing, or has a Glasgow Coma Scale of less than 8. The State Emergency Medical Advisory Committee has reviewed these protocols, and concludes, on the basis of recent scientific evidence, that in the patient with severe traumatic brain injury (Glasgow Coma Scale score \leq 8) following open or closed head injury, aggressive hyperventilation should be avoided in the prehospital setting, unless there are active seizures or signs of transtentorial herniation.

Although hyperventilation was used throughout the 1970s and 1980s in the acute management of severe traumatic brain injury, its use has undergone critical reappraisal in recent years. This has occurred following the publication of several reports linking excessive hyperventilation ($P_aCO_2 < 25$ mm Hg) to cerebral ischemia, as well as a large prospective randomized study which failed to demonstrate any benefit, but instead demonstrated a slight detriment, to head injured adult patients ventilated to achieve a P_aCO_2 of 25 mm Hg versus head injured adult patients ventilated to achieve a P_aCO_2 of 35 mm Hg. In 1995, the Brain Trauma Foundation, in collaboration with the American Association of Neurological Surgeons and the Joint Section on Neurotrauma and Critical Care, published evidence-based Guidelines for the Management of Severe Head Injury, which call for moderation in the use of hyperventilation in the acute management of severe traumatic brain injury. The State Emergency Medical Advisory Committee has reviewed these guidelines, and the scientific evidence on which they are based, and endorses the guidelines pertaining to initial resuscitation as an appropriate standard of prehospital care for patients with severe traumatic brain injury. With respect to integration of brain-specific treatments into the initial resuscitation of the severe head injury patient, the Guidelines state:

"The first priority for the head-injured patient is compete and rapid physiologic resuscitation. No specific treatment should be directed at intracranial hypertension in the absence of signs of transtentorial herniation or progressive neurological

deterioration not attributable to extracranial explanations. When either signs of transtentorial herniation or progressive neurological deterioration not attributable to extracranial explanations are present, however, the physician should assume that intracranial hypertension is present and treat it aggressively. Hyperventilation should be rapidly established. The administration of mannitol is desirable, but only under conditions of adequate volume resuscitation."

With respect to resuscitation of blood pressure and oxygenation, the Guidelines state:

"Hypotension (systolic blood pressure < 90 mm Hg) or hypoxia (apnea or cyanosis in the field or a P_{aO_2} < 60 mm Hg) must be scrupulously avoided, if possible, or corrected immediately."

With respect to use of hyperventilation in the acute management of severe traumatic brain injury, the Guidelines state:

"The use of prophylactic hyperventilation (P_aCO_2 < 35 mm Hg) therapy during the first 24 hours after severe TBI should be avoided because it can compromise cerebral perfusion during a time when cerebral blood flow (CBF) is reduced."

With respect to acute neurologic deterioration or refractory intracranial hypertension, the Guidelines state:

"Hyperventilation therapy may be necessary for brief periods when there is acute neurological deterioration, or for longer periods if there is intracranial hypertension refractory to sedation, paralysis, cerebrospinal fluid (CSF) drainage, and osmotic diuretics."

Thus, normal ventilation is now recognized as the appropriate standard of care for initial management of severe traumatic brain injury. Yet, it is difficult for prehospital personnel to know whether they are achieving normal ventilation, particularly when using a bag and mask. To avoid this problem, prehospital personnel are advised to utilize strategies that maximize oxygen delivery and minimize inadequate ventilation. The State Emergency Medical Advisory Committee believes that these goals can best be accomplished by utilizing ventilatory rates that are likely to avoid both hyperventilation and hypoventilation, hence to assure adequate ventilation, an approach which is consistent with the 1997 Edition of the Advanced Trauma Life Support Course of the American College of Surgeons.

It is assumed that the recommended rates for assisted ventilation contained in the 1992 Edition of the Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiac Care of the American Heart Association, 12 breaths per minute (1 breath every 5 seconds) for an adult and 20 breaths per minute (1 breath every 3 seconds) for a child 8 years of age or less, are sufficient to support adequate ventilation. Thus for adults with severe traumatic brain injury (Glasgow Coma Scale score < or = to 8), the assisted ventilatory rate should be 12 breaths per minute (1 breath every 5 seconds), while for children 8 years of age or less with severe traumatic brain injury (Glasgow Coma Scale score < or = to 8), the assisted ventilatory rate should be up to 20 breaths per minute (1 breath every 3 seconds). Only if active seizures, or signs of transtentorial herniation such as fixed or asymmetric pupils, neurologic posturing (decerebrate or decorticate),

Cushing's reflex (hypertension and bradycardia), periodic breathing (Cheyne-Stokes, central neurogenic, ataxic breathing), or neurologic deterioration (further decrease in Glasgow Coma Scale score of 2 or more points), are present may hyperventilation be considered, and ventilatory rates increased to 20 breaths per minute in adults and to 25 breaths per minute in children. The *Statewide Basic Life Support Adult and Pediatric Treatment Protocols* have been modified to reflect this change, and Regional Emergency Medical Advisory Committees, and regional, system, and service medical directors are advised to modify local protocols, policies, and procedures accordingly.

Selected References

1. Brain Trauma Foundation, American Association of Neurological Surgeons, Joint Section on Neurotrauma and Critical Care: Guidelines for Management of Severe Head Injury. New York: Brain Trauma Foundation, 1995.
2. Obrist WD, Langfitt TW, Jaggi JL, et al: Cerebral blood flow and metabolism in comatose patients with severe head injury. J Neurosurg 1984;61:241-253.
3. Muizelaar JP, Marmarou A, Ward JD, et al: Adverse effects of prolonged hyperventilation in patients with severe head injury: a randomized clinical trial. J Neurosurg 1991;75:731-739.
4. Bouma GJ, Muizelaar JP, Stringer WA, et al: Ultra early evaluation of regional cerebral blood flow in severely head injured patients using xenon enhanced computed tomography. J Neurosurg 1992;77:360-368.

Issued by:

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Advisory No.	97-04
Title	Medical Anti-Shock Trousers
Date Approved	August 7, 1997
Page	1 of 3

Note: This advisory guideline announces important changes in the *Statewide Basic Life Support Adult and Pediatric Treatment Protocols*. [Revised copies of each of the protocols affected by these changes are attached.](#) Revised copies of each of the protocols affected by these changes are also being sent to all emergency medical services agencies statewide. Regional Emergency Medical Advisory Committees, and regional, system, and service medical directors are directed to facilitate use of the revised protocols at the local level, and are further advised to modify local protocols, policies, and procedures accordingly.

Medical Anti-Shock Trousers

Current Statewide Basic Life Support Adult and Pediatric Treatment Protocols stipulate that Medical Anti-Shock Trousers (MAST), also known as the Pneumatic Anti-Shock Garment (PASG), should be inflated if the systolic blood pressure is below 90 mm Hg in adults or below 70 mm Hg in children and signs of inadequate perfusion are present, if MAST (PASG) are available. The State Emergency Medical Advisory Committee has reviewed these protocols, and concludes, on the basis of recent scientific evidence, that prehospital MAST (PASG) use in New York State should be considered only in adult major blunt trauma with severe hypotension (systolic blood pressure < 50 mm Hg) and hypotension (systolic blood pressure < 90 mm Hg) associated with unstable pelvic fracture.

In 1989, Mattox et al, in a prospective randomized study of 911 adult trauma patients, mostly with penetrating injuries, found that MAST (PASG) use was associated with longer scene times, and worsened the survival of adult patients with systolic hypotension (BP < 90 mm Hg) as well as those with primary thoracic injuries who presented in traumatic cardiac arrest. In 1992, Cooper et al, in a retrospective study of the efficacy of MAST (PASG) use in 436 pediatric trauma patients, mostly with blunt injuries, from the National Pediatric Trauma Registry who presented in hypotensive shock, found similar results. In 1993, Cayten et al reported the results of a retrospective study of MAST (PASG) use in 629 hypotensive adult trauma patients which concurred with Mattox's findings, although they were able to demonstrate a small but statistically significant survival advantage in severe hypotension (BP < 50 mm Hg). While there have been no prospective studies and no published trauma registry data in support of MAST (PASG) use for hypotension associated with unstable pelvic fractures, retrospective reviews and cases reports consistently support MAST (PASG) use in such circumstances.

In 1997, O'Connor et al performed a collective review of the scientific literature as an evaluation of MAST (PASG) in various clinical settings. On the basis of this review, Domeier et al developed a position paper on use of MAST (PASG) for the National Association of EMS Physicians, the Summary Recommendations from which, as they pertain to trauma, are summarized below.

MAST (PASG) are "usually indicated, useful, and effective" (Class I evidence) for:

- None.

MAST (PASG) are "acceptable, of uncertain efficacy, [although the] weight of evidence favors usefulness and efficacy" (Class IIa evidence) for:

- "Hypotension due to suspected pelvic fracture;
- Severe traumatic hypotension (palpable pulse, blood pressure not obtainable). **

MAST (PASG) are "acceptable, of uncertain efficacy, may be helpful, probably not harmful" (Class IIb evidence) for:

- "Penetrating abdominal injury;
- Lower extremity hemorrhage (otherwise uncontrolled); *
- Pelvic fracture without hypotension; *
- Spinal shock. **

MAST (PASG) are "inappropriate, not indicated, may be harmful" (Class III evidence) for:

- "Adjunct to CPR;
- Diaphragmatic rupture;
- Penetrating thoracic injury;
- Pulmonary edema;
- To splint fractures of the lower extremities;
- Extremity trauma;
- Abdominal evisceration;
- Acute myocardial infarction;
- Cardiac tamponade;
- Cardiogenic shock;
- Gravid uterus."

* Data from controlled trials not available. Recommendation based on other evidence. The literature cited supports the conclusion that the role of MAST (PASG) in the prehospital emergency medical care of adult and pediatric patients is extremely limited. The State Emergency Medical Advisory committee agrees with the National Association of EMS Physicians that the weight of the evidence favors the usefulness and efficacy of MAST (PASG) only for adult major blunt trauma with severe hypotension (systolic blood pressure < 50 mm Hg) and hypotension (systolic blood pressure < 90 mm Hg) associated with unstable pelvic fracture, a position which is consistent with the 1997 Edition of the Advanced Trauma Life Support Course of the American College of Surgeons.

The State Emergency Medical Advisory Committee (SEMAC) therefore recommends their use under these circumstances, although Regional Emergency Medical Advisory Committees (REMAC) may prescribe their use under other circumstances to address specific local conditions. The *Statewide Basic Life Support Adult and Pediatric Treatment Protocols* are being modified to reflect this change, and Regional Emergency Medical Advisory Committees, and regional, system, and service medical directors are advised to modify local protocols, policies, and procedures accordingly.

Selected References

1. Mattox KL, Bickell W, Pepe PE, et al: Prospective MAST study in 911 patients. J Trauma 1989;29:1104-1112.
2. Cooper A, Barlow B, DiScala C, et al: Efficacy of MAST use in children who present in hypotensive shock. J Trauma 1992;33:151.
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4. Flint L, Babikian G, Anders M, et al: Definitive control of hemorrhage from severe pelvic fracture. Ann Surg 1990;221:703-707.
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6. Domeier RM, O'Connor RE, Delbridge TR, et al: Position paper: National Association of EMS Physicians: Use of the pneumatic anti-shock garment (PASG). Prehosp Emerg Care 1997;1:32-35.

Issued by:

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ADVISORY

Title:

Secondary Confirmation of ETT

Effective Date:

07/01/2002



Number:

02-01

Replaces/Supersedes:

Purpose

To promote the use of adjuncts for secondary confirmation and monitoring of endotracheal tube placement in adult and pediatric patients.

Background

Endotracheal intubation in adult and pediatric patients with severe respiratory failure or arrest can be a vital intervention for the prehospital advanced life support provider. However, since **failure to detect improper placement of an endotracheal tube can be fatal**, utmost care must be taken to ensure proper placement. Advanced life support providers should use both *primary* and *secondary* confirmation of endotracheal tube placement to reduce the chance of unrecognized misplacement or dislodgement. Use of a secondary confirmation device is particularly important in the prehospital setting and ambulance environment where movement of the patient at the scene and during transport increase the potential for unrecognized dislodgement.

Primary confirmation techniques for verifying correct intratracheal placement of the endotracheal tube include direct visualization of the endotracheal tube passing through the vocal cords, visual inspection of the chest for **presence** of symmetric chest rise, auscultation at the epigastrium for **absence** of gurgling sounds and auscultation at the anterior and lateral chest walls for **presence** of equal bilateral breath sounds.

Secondary confirmation techniques for verifying correct intratracheal placement of the endotracheal tube are used both following initial intubation and subsequently throughout transport. Secondary confirmation devices include *exhaled carbon dioxide (CO₂) detector devices* and *esophageal detector devices*. Both qualitative and quantitative exhaled carbon dioxide (CO₂) detector devices can be used for secondary confirmation and continuous monitoring. Qualitative devices indicate the presence of exhaled carbon dioxide (CO₂) by change in color. Quantitative devices use digital numeric read outs or waveforms to document presence of exhaled carbon dioxide (CO₂). Secondary confirmation devices are **not a substitute** for primary confirmation techniques that rely upon direct visualization and auscultation, but serve as an **additional method** of documenting proper endotracheal tube placement.

Implementation

General Considerations

For *secondary* confirmation of proper endotracheal tube placement, the prehospital care provider should use an exhaled carbon dioxide (CO₂) detector device. Options for secondary confirmation include:

- qualitative capnometry (colorimetric),
- quantitative capnometry (digital readout), or
- quantitative capnography (continuous waveforms)

When using exhaled carbon dioxide (CO₂) detector devices, assessment should be made after six ventilations to clear any retained carbon dioxide that may be present after bag mask ventilation.

Because levels of carbon dioxide may be too low to register on exhaled carbon dioxide (CO₂) detector devices in patients who are in cardiac arrest (or have severe airway obstruction or pulmonary edema), use of an esophageal detector device may be helpful. Esophageal detector devices (EDDs), both syringe and bulb types, suggest proper tube placement by noting easy aspiration of the syringe or rapid re-expansion of the bulb.

Pediatric Considerations

When using a colorimetric device in children, a pediatric sized device is recommended for pediatric patients under 15 kg. If an adult sized device must be used in a pediatric patient due to the non-availability of a pediatric device, it should be removed from the breathing circuit immediately after proper endotracheal tube placement has been confirmed. This is due to the larger amount of dead space within the adult sized device, which will interfere with proper ventilation of patients under 15 kg (approximately 2 ½ years of age).

When using a capnographic device, the adapters should be consistent with manufacturer's recommendations for age or size of patients.

At present, esophageal detector devices are marketed for use in children 5 years of age and above by one manufacturer. The American Heart Association *Emergency Cardiovascular Care Guidelines 2000* notes that while the EDD has been used successfully in children, it appears unreliable for children below 1 year of age, and there are insufficient data in emergency intubations in infants and children to recommend their routine use.

Limitations

Adjuncts for secondary confirmation of proper endotracheal tube placement may not be reliable under certain circumstances. As with many devices, there are limitations and special considerations that can affect results and interpretation. However, when interpreted along with primary confirmation, secondary confirmation provides further verification of successful intubation and helps to eliminate unrecognized esophageal intubation and dislodgement.

Exhaled Carbon Dioxide (CO₂) Detector Devices

- **Exhaled carbon dioxide (CO₂) detector devices** may **detect residual CO₂ in the stomach** from previous bag-valve-mask ventilations, mouth-to-mouth ventilations, or carbonated beverages. This might lead an advanced life support provider to think the tube is in the trachea when in actuality the device is detecting CO₂ from the stomach. Therefore, it is always recommended to administer six ventilations to clear any residual CO₂ from the trachea before performing the exhaled CO₂ measurement.
- **Exhaled colormetric carbon dioxide (CO₂) detector devices** that become **contaminated with gastric acid or acidic drugs**, such as **epinephrine or lidocaine**, may not be reliable. A color change that will be consistent with exhaled CO₂ may result but it will not change with ventilation. The EMS provider may think the tube is properly placed but it could be either in the esophagus or the trachea.
- **Exhaled carbon dioxide (CO₂) detector devices** may not register CO₂ in circumstances where not enough CO₂ is delivered to the lungs or exhaled because of conditions such as cardiac arrest, status asthmaticus, and pulmonary edema. In such circumstances, there is insufficient CO₂ production to produce a color change (colorimetric device) or register a digital reading (capnometry), although carbon dioxide waveform (capnographic) devices register even very low concentrations of carbon dioxide. Therefore, in cardiac arrest, it is recommended that when the exhaled carbon dioxide (CO₂) detector device does not register CO₂, an EDD device also be used, especially if signs of primary confirmation are present.

- **Pediatric exhaled carbon dioxide (CO₂) detector devices** should be employed as per manufacturer recommendations to assure use of the appropriate size for infants and children. Note that in children less than 2 kg (approximately 4½ lb), CO₂ monitors may not register CO₂ even if the tube is in the trachea. With very small infants, the smaller volumes of CO₂ exhaled are insufficient to produce a color change (colorimetric device), a digital readout, or the characteristic waveform (capnographic devices).

Esophageal Detector Devices

- **Esophageal detector devices** may give **misleading results** when there is **excessive gas in the stomach due to CPR** and there is easy pull back of the syringe or rapid expansion of the bulb. In this situation, the EMS provider may believe the endotracheal tube is properly placed in the trachea but it could be in the esophagus.
- **Esophageal detector devices** may **meet resistance to air pull** when the tube is actually in the trachea in situations such as: **clogging of the tube** with thick secretions, **morbid obesity**, or **COPD**. In these situations, the advanced life support provider might think that the tube is in the esophagus when it could be in the trachea.

Application

To confirm proper placement of an endotracheal tube, advanced life support providers should use both primary and secondary confirmation:

Primary confirmation includes:

- ✓ Direct visualization of the endotracheal tube passing through the vocal cords,
- ✓ Observation of chest rise with positive pressure ventilation,
- ✓ Auscultation of the epigastric region for absence of gurgling, and
- ✓ Auscultation of the anterior and lateral chest walls for presence of breath sounds.

Secondary confirmation includes:

- ✓ Exhaled carbon dioxide (CO₂) detection, using colorimetric device, capnometry or capnography.
- ✓ If the CO₂ detector does not register CO₂ and a pulse is present, rely on the CO₂ device.

- ✓ If the CO₂ detector does not register CO₂ and the patient is in cardiac arrest, test with the esophageal detector device.
- ✓ When in doubt about proper tube placement, visualize correct placement of the tube between the cords or remove the tube.

Prehospital providers must continue to confirm proper tube placement with clinical signs of adequate ventilation and end tidal CO₂ detector devices throughout treatment and transport. This is particularly important because the potential for dislodgement of the tube during patient movement and patient transport is high.

As with any adjunct, it is important to have proper training in its use, to follow the manufacturer's recommendations, know the device's indications and limitations, and to follow medical protocols.

QA/QI

The SEMAC will develop a process to monitor the success rate of endotracheal intubation by prehospital providers, to be implemented by the REMACs. This will include at least the following:

1. Develop and implement a process to track use of secondary confirmation devices by type in adult and pediatric patients being intubated.
2. Develop and implement a process to record physician verification of proper tube placement on arrival at the emergency department.
3. Develop and implement a process to provide continuing education and appropriate remediation based on the results of 1 and 2 above.

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ADVISORY

Title:

AED for Pediatric Patients

Effective Date:

07/01/2002



Number:

02-02

Replaces/Supercedes:

Purpose

To promote safe and effective use of FDA-approved, pediatric-modified Automatic External Defibrillators (AED) in the pediatric patient under age 8.

Background

Early defibrillation has been shown to reduce morbidity and mortality in patients suffering ventricular fibrillation (VF). The use of AEDs by certified or licensed professionals and the trained lay person has been promoted, in the hope that it will result in more rapid application of this lifesaving therapy in appropriate patients. Thus far the use of AEDs has been limited to patients 8 years of age or older. Concerns about the amount of energy delivered by the previously available equipment, and about the ability of the available equipment to accurately diagnose ventricular fibrillation in pediatric patients has prevented recommendation of AED use in patients less than 8 years. (1).

The Food and Drug Administration (FDA) has recently approved an adaptation to an AED that allows the device to deliver a lower dose of electricity. The dose delivered by this device is 50 joules. This would deliver a dose of 5 joules/kg in the average 10 kg, 1 year old child, and a dose of 2 joules/ kg in the average 25 kg, 8 year old child. Although the maximum safe energy dose for infants and children has not been established, current guidelines for therapeutic defibrillation recommend 2-4 joules/kg. Older animal studies and one recent case report in a child suggest that much higher doses may be well tolerated. (2-4)

The AED, for which the pediatric pad and cable adapter has been designed, has been shown in one published study of 191 children, aged 1 day-12 years, to accurately detect “shockable” rhythms. (5) This study included 74 patients under 1 year of age and documented a specificity for “shockable” rhythms of 100%, in that the AED correctly identified “non-shockable” rhythms 100% of the time, thereby precluding an inappropriate shock. Previous concerns that rapid sinus tachycardia or SVT in an infant or small child might be mistaken for VF or VT by the machine, therefore, were not confirmed by this study. Furthermore, recent data show that up to 19% of pediatric patients with cardiopulmonary arrest, present with ventricular fibrillation, and that pediatric survivors of VF arrest have better neurologic outcomes than those with asystolic arrest. (6-9)

These data, coupled with the apparent safety of this new device, and the decision of the FDA to approve the device with the contingency that the first 50 patients would be carefully monitored by the manufacturer, led the State Emergency Medical Advisory Committee to reconsider the application of AED programs to children under age 8.

In October 2001, the State Emergency Medical Advisory Committee (SEMAC) approved the use of FDA approved pediatric-modified AEDs in children under age 8, by both trained EMS professionals and trained laypersons.

The SEMAC recommendation includes the need for careful monitoring of the use of pediatric-modified AEDs in New York State in accordance with FDA guidelines, as well as the need for additional training in use of the pediatric AED pad and cable system for all potential users of pediatric-modified AEDs both in proper use of AEDs, and in pediatric basic life support (PBLs), including cardiopulmonary resuscitation (CPR).

The SEMAC previously approved, and continues to recommend, use of the standard AED pad and cable system for children 8 years of age and older.

Implementation

The SEMAC recommends that EMS programs and Public Access Defibrillation (PAD) programs that choose to use automated external defibrillators (AEDs) in pediatric patients under 8 years of age, should adhere to the following:

- Use only equipment that has been FDA-approved for pediatric use.
- Use approved AEDs according to the manufacturer's instructions, with due attention to operating procedures, maintenance and expiration dates.
- Have a training program that includes (1) specific orientation to the pediatric capable AED, with particular attention to indications (no signs of circulation, especially with sudden collapse, and for the large majority of pediatric patients, the continued importance of initial respiratory/airway management, and (2) training in infant and pediatric basic CPR

- Have a quality assurance/improvement program that requires the collection of data on all pediatric AED use and a mechanism of sharing that data on a regular basis with the local REMAC and the SEMAC. At a minimum the data should include: age of patient, device used, condition of patient when applied, outcome of patient and any adverse events noted (equipment failure, burns under pads, etc.)

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New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supersedes/Updates:

No. 88-01

Date: 02/09/88

**Re: Patient Carrying
Devices**

Page 1 of 2

SUBJECT: Patient Carrying Devices

There are many patient carrying devices in the EMS inventory, including orthopedic stretchers, stair chairs, canvas slings, spine boards, soft or rigid stretchers (such as the Reeves and the SKED) and single or multiple level ambulance cots.

Each of these carrying devices has been designed by the manufacturer for a specific use. The orthopedic stretcher to lift or move patients with orthopedic injuries; the long spine board to immobilize patients with potential spinal column injuries; the stair chair to move on stairs and around narrow hallways; the "Reeves" to facilitate moving individuals in a semi-rigid but flat position. There are overlaps in the capabilities of many of these devices. However, it is important to recognize that each of these devices has specific limitations which restricts its use in certain circumstances. In other words, no device can be used all of the time on all patients.

The State Emergency Medical Services Program recently investigated several circumstances where patient carrying devices were inappropriately used. It appears that the reason for the use is that the ambulance crew uses a particular device for every patient. Examples of inappropriate uses of devices include transporting a non-traumatized chest pain patient on an orthopedic or Reeves stretcher, thus preventing the patient from sitting up, and attempting to immobilize the spine of an injured patient on a Reeves or other soft stretcher. While there are sometimes extenuating circumstances in the field, routine use of these devices for the purposes given is clearly inappropriate.

EMTs have an obligation to weigh carefully the decision to use a specific piece of EMS equipment, including carrying devices, in order to assure that the equipment is appropriate for the patient, the problem, and the situation.

All providers should assure that patients transported by ambulance are strapped to the stretcher or crew bench. No patient should ever be transported strapped to a Reeves or long backboard but not to the stretcher. Strapping to the stretcher is the only way to prevent movement of the initial carrying device in the event the ambulance comes to a sudden stop. Patients should never be transported within the ambulance in a chair since these can not be secured. Children, however, may be transported in their car seats if strapped to the stretcher or crew bench, assuming that their injuries do not require them to lay flat.

Your attention to these issues is expected in the interest of improving patient care.

Issued and Authorized by: Michael Gilbertson, Director



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supersedes/Updates:

No. 92-02

Date: 05/06/92

Re: Tuberculosis

Page 1 of 4

The incidence of tuberculosis (TB) has increased substantially in the last few years. EMS providers should be aware of this infectious disease and the procedures for protecting themselves.

As with all infectious diseases, no precaution is 100% effective; rather, these precautions are designed to reduce the probability that the disease can be transmitted from person to person.

TB is spread when small droplets from the respiratory tract of an infected person enter the air and are inhaled by another person. Precautions can be taken in three areas to reduce the danger.

First, the patient's mouth should be covered with a mask. A disposable micron surgical mask (#M "Aseptix" sub-micron molded surgical mask, Catalog #1812; or equivalent) is best, but a standard surgical mask or even an oxygen mask is helpful. The nature of the medical treatment required by the patient should determine which mask is used.

Second, a disposable micron mask or disposable particulate respirator (PR), should be worn by the provider. It should fit snugly on the face. A beard or mustache will markedly reduce the effectiveness of such protection.

Third, the number of infectious droplets in the air can be reduced by ensuring good ventilation in the patient compartment of the ambulance. Thus, the ventilation system should be maximized and/or side windows opened to provide a steady source of clean air.

Which patients should receive respiratory precautions?

Patients with respiratory symptoms of more than 2 weeks duration or any patient with a respiratory symptom of any duration who is a member of a higher risk group. The CDC defines high risk groups as follows:*

- Alcoholics
- IV drug users
- Contacts of patients known to have active TB
- Low income populations
- Prisoners
- HIV infected persons
- Nursing home residents

- Refugees

Persons with other pre-existing medical conditions which compromise the ability to fight infection are also at increased risk. Such conditions include:

- Chemotherapy
- Diabetes
- Steroid Therapy
- Renal failure
- Some cancers

(source: CDC)

Clearly, TB patients receiving nebulized aerosols of Beta-agonists are likely to spread infectious droplets. In such patients, as well as those presenting with respiratory symptoms such as a persistent cough, special attention should be given to these precautions by EMS providers.

Since air-borne droplet spread is the only means of TB transmission, there is no need to decontaminate or disinfect the ambulance or equipment.

The following sections from the CDC Mortality and Morbidity Weekly Report (December 7, 1990) summarize the CDC recommendations for control of TB in pre-hospital settings:

1. Other source-control methods

A simple but important source-control technique is for infectious patients to cover all coughs and sneezes with a tissue, thus containing most liquid drops and droplets before evaporation can occur. A patient's use of a properly fitted surgical mask or disposable, valveless particulate respirator (PR) (see below) also may reduce the spread of infectious particles. However since the device would need to be worn constantly for the protection of others, it would be practical in only very limited circumstances (e.g., when a patient is being transported within a medical facility or between facilities).

2. For persons exposed to tuberculosis patients.

Appropriate masks, when worn by health-care providers or other persons who must share air space with a patient who has infectious tuberculosis, may provide additional protection against tuberculosis transmission. Standard surgical masks may not be effective in preventing inhalation of droplet nuclei, because some are not designed to provide a tight face seal and to filter out particulates in the droplet nucleus size range (1-5 microns). A better alternative is the disposable PR. PRs were originally developed for industrial use to protect workers. Although the appearance and comfort of PRs may be similar to that of cup-shaped surgical masks, they provide a better facial fit and better filtration capability. However, the efficacy of PRs in protecting susceptible persons from infection with tuberculosis has not been demonstrated.

PRs may be most beneficial in the following situations:

a) when appropriate ventilation is not available and the patient's signs and symptoms suggest a high potential for infectiousness, b) when the patient is potentially infectious and is undergoing a procedure that is likely to produce bursts of aerosolized infectious particles or to result in copious coughing or sputum production, regardless of whether appropriate ventilation is in place, and c) when the patient is potentially infectious, has a productive cough, and is unable or unwilling to cover cough.

Comfort influences the acceptability of PRs. Generally, the more efficient the PRs, the greater is the work of breathing through them and the greater the perceived discomfort. A proper fit is vital to protect against inhaling droplet nuclei. When gaps are present, air will preferentially flow through the gaps, allowing the PR to function more like a funnel than a filter, thus providing virtually no protection.

3. For tuberculosis patients.

Masks or PRs worn by patients with suspected or confirmed tuberculosis may be useful in selected circumstances (see below). PRs used by patients should be valveless. Some PRs have valves to release expired air, and these would not be appropriate for patients to use.

4. Emergency medical services

When emergency-medical-response personnel or others must transport patients with confirmed or suspected active tuberculosis, a mask or valveless PR should be fitted on the patient. If this is not possible, the worker should wear a PR (see above). If feasible, the rear windows of the vehicle should be kept open and the heating and air conditioning system be set on a nonrecirculating cycle.

Emergency-response personnel should be routinely screened for tuberculosis at regular intervals. They should also be included in the follow-up of contacts of a patient with infectious tuberculosis.

(End of CDC recommendations).

Treatment of Exposed Providers

PPD testing should be conducted for pre-hospital providers who are exposed to TB patients for whom adequate infection control measures (outlined above) were not taken.

Unless a negative skin test has been documented within the preceding three months, each exposed worker (except those who are already known to be positive reactors) should receive a PPD (Mantoux) skin test as soon as possible.

If the skin test is negative, the test should be repeated within twelve weeks after the exposure ended.

Persons with skin test reaction of 5mm induration (swelling) or greater, or with symptoms suggestive of active TB, should receive chest x-ray examinations.

Persons with previously known positive skin test reactions who have been exposed to an infectious patient should be evaluated for active TB, but do not require a repeat skin test

or a chest x-ray examination, unless they have symptoms suggestive of active TB.

Optimally, arrangements for treatment should be made by each agency in advance of an exposure. Possible sources of care include: personal physician, receiving hospitals or County Health Departments.

*Core Curriculum on Tuberculosis; Centers for Disease Control, April 1991: p. 11

Issued by: J. Lawrence Mottley, M.D.
Senior Medical Advisor



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supercedes/Updates:

No. 95-04

Date: 09/01/95

Re: EMS Mutual Aid

Page 1 of 3

The purpose of this policy is to provide EMS services with guidance as mutual aid plans and policies are developed. This policy statement discusses the concept, history and legal basis for EMS mutual aid in New York State.

EMS services have the responsibility to routinely provide the type and level of service authorized and/or expected by the community, in a timely and reliable manner.

From time to time, to meet peak demand or extraordinary resource utilization, it may be necessary to request assistance to answer a call or provide additional resources. This is the concept of and intent of EMS mutual aid.

EMS mutual aid requests must be made with the intent of having the closest¹ available EMS unit respond to a patient's medical need, at a time when the resources of the requesting agency are temporarily unavailable or have been expended.

The response to multiple casualty incidents (MCI's) and other large scale events are usually conducted in accordance with a county or other pre-determined resource allocation and management plan. These may require mutual aid responses but are developed independently due to the special planning needs required.

EMS services are required by the State EMS Code (800.21.p) to have a written mutual aid plan. Regional EMS Councils are encouraged to coordinate the development of agency and/or county mutual aid plans and the Councils have the authority to approve an EMS service operating beyond its primary operating territory for purposes of fulfilling the provisions of a mutual aid agreement (PHL3010.1.b).

Issued by: John J. Clair

Associate Director - Operations

Authorized by: Edward G. Wronski

Deputy Director

Background:

The provision of mutual aid by fire departments is provided for in several sections of the General Municipal Law (GML) however, without definition, terms or conditions. The GML does specify that the requesting fire department is responsible for responding equipment and the responding fire service retains responsibility for personnel. The GML

does not address mutual aid with non fire agencies - eg. volunteer or commercial.

For EMS mutual aid, the provisions of Article 30 with regard to primary operating territory must prevail, all other circumstances being the same - eg. response time, location, staffing, etc.

There is no statutory or regulatory definition requiring, presuming or defining who may, or must or who can not request mutual aid. In other words, there is no definition or prohibition regarding what type of agency a requesting agency must call. Therefore any service type may request the assistance of any other EMS service:

•FD < = = > VAC

•VAC < = = > Commercial

•FD < = = > Commercial

Insurance policies are available to cover the assets and liabilities of any agency requesting or responding to a request for EMS assistance. There is no restriction with regard to who may obtain or provide such coverage.

Conclusion:

It may be concluded that mutual aid in New York State may be easily achieved within the current regulatory and statutory definitions if:

•Services providing an EMS response to a request for EMS assistance maintain responsibility for their own liability -specifically; vehicles, equipment and personnel.

•EMS mutual aid is requested from the closest, available, appropriate agency capable of responding at the time of the request.

Mutual Aid Plans:

EMS agencies need to develop and maintain written mutual aid plans (800.21.p). These plans, while agency specific, should be developed in conjunction and cooperation with counties and Regional EMS Councils.

For assistance in developing mutual aid plans, refer to NYS-EMS policy 89.2 Mutual Aid Planning Guidelines.

Mutual aid plans must insure that any request is made with the intent of having the closest [usually means the unit with the shortest response time to the patient] available EMS unit respond to a patient's medical need, at the time the resources of the requesting service are temporarily unavailable or have been expended.

Mutual aid plans and agreements for normal day to day requests are the responsibility of the individual EMS service. Typically such agreements identify the closest EMS unit that is to be requested. Frequently, an EMS service's area of operation is divided, within a plan, to facilitate a timely response based on the location of the neighboring service. Service type (eg. volunteer, fire, hospital, commercial) must not be a consideration in any plan or to any request. Staffing, unit availability, response time and primary operating territory are the

primary concerns to be addressed. The specific agency to be requested for a mutual aid response may vary with day or time based on availability.

Mutual aid plans for multiple patients are usually developed and coordinated at a county level to insure an adequate response as well as to provide coverage of all affected areas.

The statutory definition of mutual aid excludes inter-facility transfers and ALS intercepts.

Counties providing coordinated dispatch, (911, fire control, etc.) will need to monitor crew status and service availability, to assist in implementing agency mutual aid plans - particularly when they act as the service's dispatch.

1 - usually means the unit with the shortest response time to the patient



POLICY STATEMENT

Supercedes/Updates:

No. 98-05

Date: 5/23/98

Re: Responsibilities of
EMS Providers &
Coordination of
EMS Resources

Page 1 of 6

DEFINITION OF THE RESPONSIBILITIES OF PREHOSPITAL PATIENT CARE PROVIDERS AND THE COORDINATION OF EMS RESOURCES AT A SCENE

INTRODUCTION:

The purpose of this policy statement is to provide for the best possible patient care by:

- Identifying the statutory and medical-legal authority and responsibilities of NYS certified emergency medical services personnel who respond to situations where a sick or injured patient may be encountered. These situations include requests for medical assistance as well as motor vehicle accidents, fires, hazardous materials incidents and other circumstances where patient care is or may be required.
- Identifying the statutory authority and responsibilities of EMS services certified or otherwise authorized pursuant to Public Health Law (PHL).
- Defining the responsibilities of individuals certified as care providers (CFR, EMT, AEMT) pursuant to the provisions of the PHL.

• Establishing guidelines for local Regional Emergency Medical Advisory Committee's (REMAC) to use in the development of Triage, Treatment, Transportation and other protocols, consistent with State Emergency Medical Advisory Committee (SEMAC) standards, which:

- a) define the responsibility of individuals providing or directing patient care
 - b) define the responsibility of responding EMS services, and
 - c) provide for the coordination of prehospital EMS resources in a region.
- Providing guidelines and setting expectations for the management of patient care and the coordination of EMS resources in situations which are not purely a medical response, and/or where more than one public safety agency with jurisdiction has responsibility.
 - Defining the role and use of the Incident Command System, including the use of "Unified Command" concepts and operations.
 - Providing a framework for the effective and non-confrontational management of any type of emergency situation.

STATUTORY AUTHORITY and BACKGROUND

Several NYS statutes provide public safety agencies and their personnel with the authority to conduct operations consistent with their responsibility to protect their citizens. These include providing services at and managing emergency conditions which may effect the health, safety or welfare of individuals and communities.

New York State statutes which define the responsibilities of public safety responders (police, fire and EMS) include the Public Health Law, General Municipal Law, County Law, Town Law, Village Law, Education Law, Penal Law and Criminal Procedures Law^R.

These statutes have been extensively reviewed to determine the actual authorities, powers, duties and responsibilities of the agencies and individuals who may respond to prehospital EMS situations. *This research, concludes that the only individual in charge of patient care in the prehospital setting is the NYS certified patient care provider. Specific authority is also identified for the provision of medical control and the responsibility of ambulance and ALS First Response Services to a patient.* Additionally, while Education Law defines the scope of and authorizes the practice of medicine in general, it does not provide for or define patient care in the prehospital setting.

These statutes, which describe arrest powers for peace/police officers and the responsibilities of a fire chief during the response to a fire or explosion were adopted prior to EMS gaining formal recognition as an emergency response provider. The statutes are vague in detail and do not specifically address the responsibilities for providing patient care. *In the absence of other controlling statutes, Public Health Law, therefore, takes precedence in regard to the provision of prehospital emergency medical care.*

NYS statutes do not obligate an individual citizen, regardless of training, to respond to a situation or provide care unless there is a formal duty by job description or role expectation. Such a duty to act arises from participation with an agency having jurisdiction.

PROVIDING PATIENT CARE

The provision of patient care is a responsibility given to certified and/or licensed individuals who have completed a medical training and evaluation program specified by the NYS Public Health or Education Laws and related regulations or policy. Prehospital certified providers (CFR, EMT, AEMT) are required to practice to the standards of the certifying agency (DOH) and the medical protocols authorized by the SEMAC and local REMACs. Additionally, responsibility is placed on authorized EMS agencies (Registered or Certified Ambulance, ALSFR) to insure their personnel provide care according to established standards and protocols.

Patient care takes place in many settings, some of which are hazardous or dangerous. Circumstances and the use of specialized equipment for extrication, disentanglement, decontamination, etc. can directly effect patient care and patient outcomes. The equipment and techniques used are the responsibility of locally designated, specially trained and qualified personnel. Emergency incident scenes may be under the control of designated incident commanders who are not emergency care providers. These individuals are generally responsible for scene administration, safe entry to a scene or decontamination of patients or responders. When access to a patient is restricted because of safety concerns or other limitations, *medical direction of patient care by certified EMS personnel is essential*. This can be provided by trained responders using appropriate personal protective equipment *or* by communicating instructions to those responders moving or extricating the patient.

STATEMENT OF POLICY

Pursuant to the provisions of Public Health Law, the individual having the highest level of prehospital certification and who is responding with authority¹, “has a duty to act” and therefore is responsible² for providing and/or directing emergency medical care and the transportation of a patient. Such care and direction shall be in accordance with all NYS standards of training, applicable State and Regional protocols and may be provided under direct medical control.

GUIDELINE FOR THE CONSTRUCTION OF REGIONAL PROTOCOLS

Rationale:

The REMAC is the local authority for prehospital patient care. Pursuant to PHL Section 3004-a, the REMAC “shall develop policies, procedures, and triage, treatment, and transportation protocols which address specific local conditions.” Protocols constructed in accordance with this policy will be restricted to medical care provided by, or directed by, Certified or Licensed medical personnel providing patient care in the prehospital setting. It is recognized that patient care may be provided in a variety of hazardous conditions and that overall scene command is the responsibility of locally designated officials (Police, Fire, Health, Municipal, etc.). The determination of overall responsibility is usually made by existing plans and/or the nature of the incident. It is also understood that all responders to an emergency situation bear a formal duty to the patient. The EMS System or EMS agency of jurisdiction is solely responsible for emergency medical care and the transportation of any patient, while overall scene command

¹ Certified persons have NO authority or responsibility to respond independently. In NY there is no duty to act as an individual citizen, regardless of certification or licensure. Individuals may respond only as a part of an authorized agency’s response system and within an EMS system.

² Having an obligation, Webster’s II New Riverside Dictionary, 1984

and administration is the responsibility of the locally designated agency and/or official.

Any protocol developed by a REMAC in accordance with this policy, needs to receive input from, and should have consensus agreement by, the public safety agencies in that Region. Development in this manner will permit the protocol to be recognized as the authoritative source for identifying the responsible patient care provider and will permit the development of appropriate inter-agency agreements, understandings and training.

Regional protocol content:

Regional protocols addressing the provision of patient care and the coordination of prehospital resources should:

- Be consistent with SEMAC standards and this policy
- Identify agencies authorized as EMS providers
- Open with a statement of authority; e.g. Pursuant to Article 3004-A, the REMAC shall develop policies, procedures, and triage, treatment and transportation protocols ... etc.
- Recognize that a locally designated official may be in charge of overall scene command and administration and is responsible for the safety of all personnel
- Address patient care responsibilities *only* and define:
 - Who is in charge when two or more EMS providers with the same level of certification, from one or more agencies, are operating at the same scene
 - Who is in charge when two or more EMS agencies with jurisdiction are operating at the same scene
 - The transfer of patient care between two certified providers:
 - BLS FR ==>> ALSFR or ambulance
 - BLS ==>> ALS
 - ALS ==>> BLS
 - ALS ==>> higher ALS
 - ALSFR ==>> ambulance
- Role and responsibility of physicians, nurses and other licensed medical personnel on a scene
- Identify all other applicable patient care protocols, the NYS Statewide BLS and any State or Regional ALS protocols.
- Include authority to request additional specialized EMS resources (e.g. air medical) with appropriate coordination.
- Include authority to determine transportation requirements and hospital or alternate destinations in accordance with applicable protocols
- Require visual identification for EMS providers
- Require proper documentation of patient care
- Specify any medical control
- Include any and all applicable policies or procedures unique to the Region
- Specify any quality improvement or incident review procedures

THE ROLE and USE OF INCIDENT COMMAND

The Governor's Executive Order No. 26, of March 5, 1996^R, establishes the National Interagency Incident Management System (NIIMS)^R as the standard command and control system for emergency operations in New York State. The Incident Command System (ICS) does not define who is in charge, rather it defines an operational framework to manage many types of emergency situations. One essential component of ICS is Unified Command. Unified Command is used to manage situations involving multiple jurisdictions, multiple agencies or multiple technical needs. The principles of Unified Command apply equally to single vehicle MVA's or large scale incidents. The specific issues of the direction and provision of patient care and the associated communications among responders must be integrated into each single or unified command structure and be assigned to the appropriately trained personnel to carry out.

This policy supports ICS and provides for the best patient care within the practices of a well functioning ICS system. ICS and unified command should be used in circumstances of multiple agencies and/or jurisdictions to insure the best provision of patient care and the most effective coordination of resources.

REFERENCES

Governor of N.Y., Executive Order 26, of March 5, 1996

National Interagency Incident Management System,
Incident Command Training Curriculum

NYS Association of Fire Chief's, Fire Chief's Handbook 1997 Ed.

N.Y.S. Attorney Generals Informal Opinion 83-6

Statutory References

Public Health Law, Article 30

10NYCRR800, State EMS Code

General Municipal Law 176a, 204b, 209

Education Law 6902

Criminal Procedures Law 1.2, 2.1, 2.2, 140, 150

NY Attorney General Opinion 81-106, 83-6

NY Town Law 158

NY Village Law 8-802, 10-1018

Public Officers Law 46

Executive Law 223

This policy statement of the Bureau of EMS has been developed in cooperation with the State Emergency Medical Services Council, State Emergency Medical Advisory Committee and has been reviewed and approved by the N.Y.S. Office of Fire Prevention and Control.



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supercedes/Updates:

No. 98-09

Date: 09/01/98

Re: ALS Intercepts

Page 1 of 3

INTRODUCTION

Advanced Life Support (ALS) is an essential level of out-of-hospital medical care. Various predictors indicate that under ordinary situations 5 to 25 percent of all calls in a system will be for patients in need of ALS care. It is important that every prehospital patient needing ALS care receive it without delay and that all are transported to definitive care at a hospital in a timely fashion.

The policy serves to:

- ◆ Define ALS intercepts.
- ◆ Define parameters for the utilization of ALS as well as to provide objectives every intercept should meet
 - * Minimize delay in transporting patients to definitive care at a hospital.
 - * Enhance the provision of patient care by maximizing the availability of ALS for those patients identified as being in need of ALS care.
 - * Provide guidelines to assist in identifying and accessing the most appropriate ALS service at the time of request.
- ◆ Encourage REMACs to develop regional specific guidelines and protocols that enhance the availability of ALS and the appropriate use of ALS intercepts in the region.

New York State Statewide BLS Protocol

In 1996, the NYS BLS protocols were changed to introduce the concept of ALS intercepts and their use as the principal method of providing ALS care to patients needing this level of care when the initial EMS system contact is a BLS ambulance.

The provision of ALS by intercept permits the appropriate utilization of ALS resources by identifying a hospital or ALS service as the nearest ALS provider at the time of need. Call location, staffed ALS unit availability and/or direction of travel will effect the decision.

Excerpt from NYS BLS Protocol:

The goal of prehospital emergency medical care is DEFINITIVE CARE for the patient as rapidly and safely as the situation indicates with no deterioration of his/her condition and, when possible, in an improved condition. BLS units shall deliver their patients who will benefit from ALS care to this higher level of care as soon as possible. This may be accomplished either by intercepting with an ALS unit or by transport to an appropriate hospital, whichever can be effected more quickly.

A system of ALS intercept (when available within a given area) shall be pre-arranged. Formal written agreements for the request of ALS shall be developed in advance by those agencies not able to provide ALS.

A request for ALS intercept shall occur as noted in specific treatment protocols.

Initiation of patient transport shall not be delayed to await the arrival of an ALS unit, unless an on-line medical control physician otherwise directs.

Immediate Transport Decision:

Determine patient status (CUPS):

Critical or Unstable --- Immediate transport

Potentially Unstable -- Secondary survey and transport

If the patient's condition dictates immediate transport, the vital signs, secondary assessment, and treatment should be completed en route to the nearest appropriate hospital (as defined below in Section VII, Transport).

Intercept with an ALS unit (if available) en route to the nearest appropriate hospital as noted in specific treatment protocols.

Note: Do Not delay patient transport to await the arrival of an ALS unit.

ALS Intercepts

- ◆ An intercept is an authorized and staffed ALS unit, dispatched by request or protocol, meeting a BLS unit while it is en route to the nearest appropriate hospital.
- ◆ A BLS unit assesses the patient, determines the need for and requests ALS, packages and begins patient transport. The BLS unit shall not wait on the scene for the ALS unit's arrival. The request for ALS should be made as soon as the patient's condition is recognized as needing ALS.
- ◆ A hospital emergency department (ED) is the highest level of ALS medical care. Patients should be transported without delay to the nearest appropriate ED by the BLS unit. Definitive medical care can only be provided at a hospital ED.
- ◆ *ALS mutual aid is a misnomer and does not exist.* The statutory definition of mutual aid³ as well as the need for priority transport makes the use of the term "mutual aid" inappropriate in these circumstances.

³ Reference NYS-EMS Policy 95-04, "EMS Mutual Aid"

- ◆ BLS services should identify ALS services in advance which are staffed and readily available to provide ALS intercept. More than one service may need to be identified if the BLS service regularly transports to more than one hospital. All formal response agreement needs to be established in advance. Dispatch entities should monitor actual staffing and operational status of ALS resources to insure their availability at the time of the call and minimize any potential delay. The use of the “closest unit” concept is appropriate to dispatch ALS units.
- ◆ All ALS patients should be transported to the hospital without delay by a BLS ambulance, particularly when the arrival of the ALS unit to the scene is estimated to be longer than the transport time to the hospital.
- ◆ In developing ALS intercept relationships, REMACs must consider the patient’s and ALS unit’s proximity to the hospital. Patient transport to an emergency department should not be delayed. BLS/ALS care should ideally be administered en route.
- ◆ Simultaneous dispatch of BLS and ALS resources should only be provided under the direction of dispatchers trained in the principals of emergency medical dispatch for those calls identified by a recognized dispatch algorithm.
- ◆ REMACs should develop protocols that permit a certified provider who arrives on the scene after the time of dispatch, to cancel initially dispatched ALS resources when, after assessment, it is determined that ALS care is not needed.

Issued:
John J. Clair
Associate Director - Operations Director

Authorized:
Edward G. Wronski, Director



GUIDELINES FOR EXPOSURE TO BLOOD AND/OR BODY SECRETIONS

BACKGROUND

The New York State Department of Health receives many requests for guidance in the area of infection control from emergency medical service (EMS) personnel who may be exposed to contaminated or potentially contaminated blood or body secretions.

For many years the medical community has been aware of problems caused by human immunodeficiency virus (HIV) and has more recently identified the hepatitis C (HVC) virus as a potential problem.

This policy statement, developed with the assistance of the Department's Wadsworth Center for Laboratories and Research, updates the information published in previous versions of this policy.

UNIVERSAL PRECAUTIONS

These guidelines are intended to prevent or minimize exposure to the transmission of bloodborne infectious diseases, particularly HIV and viral hepatitis, to employees whose duties put them at risk. All emergency medical services organizations should ensure full implementation of universal precautions and body substance isolation⁴ (BSI) techniques, and require immunization of all employees⁵ who are identified as being at risk.

According to the U.S. Department of Labor, Occupational Safety and Health Administration, "universal precautions" refers to the method of infection control in which all human blood and certain human blood fluids are treated as if known to be infectious for bloodborne pathogens. Universal precautions are to be observed in all situations where there is a potential for contact with blood or other potentially infectious material. In emergency situations, differentiating between body fluid types is difficult or impossible, and all body fluids are to be considered potentially infectious. Universal precautions and BSI techniques must be applied correctly and consistently, to provide a very low incidence of worker exposure to HIV and various hepatitis viruses.

BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

EMS services are encouraged to review, with their medical director, the service exposure control plan and the federal Bloodborne Pathogen Regulations, 29CFR Part 1910.1030, to ensure that all appropriate and required actions are taken with regard to EMS personnel education and training, personal protective equipment, the use of new safer equipment, particularly for sharps, pre-exposure vaccination and post-exposure follow-up.

⁴ Body substance isolation – an infection control concept and practice that assumes that all body fluids are potentially infectious. Emergency Care and Transportation of the Sick and Injured, AAOS 7th Edition 1998

⁵ For these purposes, employee means volunteer and paid individuals who act on behalf of the EMS service.

Issued:
John J. Clair
Assoc. Director – Operations

Authorized:
Edward G. Wronski
Director

SAMPLE OPERATING PROCEDURE

The Department recommends these sample operating procedures be included in EMS service exposure control plans.

What to Report

EMS personnel should *immediately* report to their supervisor all percutaneous, nonintact skin or mucous membrane contact with blood or body secretions; and supervisors should refer exposed employees for immediate medical attention.

Initial Response

- *Thoroughly cleanse area of exposure. (See below for cleansing instructions.)*
- Seek immediate attention and exposure evaluation.
- Review the exposed employee's immunization history.
- Refer the exposed employee for appropriate medical evaluation, care and any necessary post exposure follow up treatment.
- Have the exposed employee's supervisor complete necessary documentation and required reports. (See below for administrative responsibilities).

Testing

- Have service designated officer (DO) seek any existing information on the source..
- Inform the patient of applicable laws and regulations concerning disclosing the identity and infectious status of the source individual.
- Have the *source individual's* blood tested for HIV and the various forms of hepatitis as soon as consent has been obtained.
- Test the *exposed employee* for HIV and the various forms of hepatitis.

Notification and Counseling

Share test results with the exposed employee, who should also be counseled about his or her health status and, if necessary, treatment options.

Wound Cleansing

- For a puncture cleanse with betadine immediately and follow up by soaking the site for five minutes in a solution of betadine and sterile water.
- For skin contact, first wash the area with soap and water. Then, clean it with betadine.
- For mucous membranes: if in mouth, rinse out mouth with large quantity of tap water; if eyes, flush with water from eyewash. If eyewash is not available, use tap water.

Administrative Responsibilities

Once the area of contact has been cleansed, and the exposed employee referred for further medical treatment, the supervisor should do all paperwork needed to document the incident. He or she should:

- Direct the member/employee to the appropriate location for evaluation and immediate medical treatment.
- Prepare an incident report and note the incident on the prehospital care report for the call in which the exposure took place.
- Advise the employee to initiate a Workers' Compensation claim.
- Verify that appropriate employee health records have been updated.
- Follow-up on the employee's medical care, and confirm that appropriate medical care has been given.

Testing Guidelines

Supervisors should arrange to have the *source individual's* blood tested for HIV and various forms of hepatitis as soon as possible after consent has been obtained. If the source individual is unable or unwilling to give consent, the EMS organization should consider seeking the legal authority to act without his or her consent. If it is impossible to draw blood from the source individual, but some other sample of his or her blood is available, this should be used. (If the source individual is already known to be infected with one or more bloodborne pathogens, the test for that pathogen may be omitted.)

Supervisors should ask the *exposed employee* for his or her permission to begin baseline blood tests for HIV and various forms of hepatitis. This should be done as soon as possible after exposure. Follow-up testing for HIV should take place at six weeks, 12 weeks, 26 weeks and 52 weeks after exposure.

Treatment Possibilities

HIV prophylaxis may include the administration of antiretroviral treatment. Highly active retroviral therapy (HAART) should be initiated as soon as possible, preferably within one hour following exposure, particularly if the EMS provider is HIV negative and the source is HIV positive or at risk.

The risk of transmission of hepatitis B (HBV) or hepatitis C (HCV) is significantly greater than the risk of transmission of HIV. Chronic HBV infection can be prevented in the nonimmune employee by administration of prophylactic hepatitis B immune globulin (HBIG) and the hepatitis B vaccine series. There is no known effective prophylaxis for HCV. The exposed employee should be referred for medical management to a specialist knowledgeable in this area. Obtained baseline HCV serology should be repeated in four to six months.

In cases of possible HBV infection, use the attached treatment protocol, developed and recommended by the Wadsworth Center.

Because the treatment of pregnant woman can present special medical problems, medical personnel treating women who may be pregnant should implement appropriate additional safeguards.



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supercedes/Updates:

No. 99 – 09
Date: 11/24/99
Re: Patient Care
and Consent
for Minors

Page 1 of 4

It is the purpose of this policy to clarify the legal issues surrounding consent to medical care and/or the refusal of care by minors in the pre-hospital EMS setting. Emergency Medical Services (EMS) providers are often presented with patients who are considered by law to be minors. The issue of providing care and/or the patient's right to refuse care becomes a complex circumstance EMS providers must address. In the prehospital situation the issue at hand is not usually providing care but rather the failure to treat.

Legal Background

A minor, in New York State, is defined as a person who is under eighteen (18) years of age. This is defined by the General Obligations Law 1-202, Domestic Relations Law 2 and Public Health Law 2504. Under this section of Public Health Law, a person who is eighteen or older may give effective consent for health care.

Public Health Law 2504

Enabling certain persons to consent for certain medical, dental, health and hospital services.

1. Any person who is eighteen years of age or older, or is the parent of a child or has married, may give effective consent for medical, dental, health and hospital services for himself or herself, and the consent of no other person shall be necessary.

2. Any person who has been married or who has borne a child may give effective consent for medical, dental, health and hospital services for his or her child.

3. Any person who is pregnant may give effective consent for medical, dental, health and hospital services relating to prenatal care.

4. Medical, dental, health and hospital services may be rendered to persons of any age without the consent of a parent or legal guardian when, in the physician's judgment an emergency exists and the person is in immediate need of medical attention and an attempt to secure consent would result in delay of treatment which would increase the risk to the person's life or health.

5. Anyone who acts in good faith based on the representation by a person that he is eligible to consent pursuant to the terms of this section shall be deemed to have received effective consent.

In addition to these provisions for health care consent by 'emancipated' individuals, there are other statutory provisions for minors who are in military service or are seeking treatment for AIDS (PHL 2781) and other sexually transmitted diseases (PHL 2305). So long as the individual is a minor, the presumption is that he or she is not emancipated and the burden of proof rests on the individual asserting it.

The Mental Hygiene Law also addresses consent but for situations not usually within the scope of EMS. Additionally in §9.41 it permits peace and police officers to 'direct the removal of any person to a hospital who is conducting himself in such a manner which is likely to result in serious harm to himself or others'.

Other governmental agencies, such as law enforcement, mental health or corrections, may have legal definitions for individuals under eighteen that describe specific rights or responsibilities. Unfortunately, these do not impact health care decisions including the ability to consent or refuse care in the prehospital setting.

Refusal of Medical Assistance (RMA)

An individual who is legally a minor cannot give effective legal/informed consent to treatment and therefore, conversely, cannot legally refuse treatment.

Documentation

Complete an assessment of the patient. Fully document all circumstances including subjective and objective findings, attempts to contact parents, note any objections or refusals by the patient and all other pertinent situational facts. Include witness statements. Always consider contacting medical control for assistance.

Collaboration with other Agencies

EMS agencies are advised to work with hospital administrators, local law enforcement agencies, school administrators and community youth group leaders to develop policies and procedures to best serve the medical needs of minors in time of an emergency.

There are alternatives to EMS and hospitals for custody and supervision of minors. An uninjured child **may** be supervised by law enforcement personnel or a school or activity (soccer, etc.) supervisor until a parent is contacted. In some situations, a responsible adult (grandparent, aunt, brother, etc.) with the child can assist in the decisions making.

EMS agencies should work with local youth activities to ensure they have made plans to contact parents, have provided consent to treatment forms or have other permissions in place for the children in their supervision.

EMS agencies also need to work and plan with all police agencies for those situations involving minors, particularly those who are not injured and do not require hospitalization. Local and state police have

broad powers which can be used to protect minors and facilitate custody. However, all else failing, the EMS provider may remain responsible for providing care and/or transportation of a minor to a hospital.

EMS Agency Protocols

Agency policies and regional BLS and ALS protocol sets can contain guidance for treating minors in the prehospital setting. Contacting medical control is always an acceptable option for EMS providers faced with uncertain situations. Medical control may be able to influence the situation, even if it can't change the consent options.

Recommendations

EMS providers may find themselves responsible for minors, in situations they have been called to when there is no parent or guardian present or reachable.

Although it is easy to determine a legal definition of a minor, the responsibility to treat or release is a much more complex legal, ethical, social and public relations problem. The

nature of children and their special needs coupled with their inability to legally give informed consent, present special and unique matters for EMS personnel to consider and evaluate. Careful assessment, decision making and documentation are key as is discussion and planning with other agencies.

Act in the best interest of the patient – EMS providers must strike a balance between abandoning the patient and forcing care. There may be instances in which a minor appears mature enough to make an independent judgment, however legally, the minor is unable to make a decision. Always contact medical control for assistance if there is any question !

Common sense, prior agreements, sufficient documentation, and acting in the best interest of the patient must prevail.

Issued:
John J. Clair
Associate Director – Operations

Authorized:
Edward G. Wronski
Director



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supercedes/Updates:

No. 00 - 01

Date: 4/10/00

Re:

Use of
Epinephrine
Auto Injectors By EMS
Agencies

Page 1 of 2

BACKGROUND

The purpose of this policy is to explain the provisions of Chapter 578 of the Laws of 1999 authorizing the use of an epinephrine auto injector device by certain individuals in ambulance and advanced life support services and childrens' overnight, summer day or traveling camps. This change in the law is designed to encourage greater acquisition and use of epinephrine auto injectors in communities across the state in an effort to reduce the number of deaths associated with anaphylaxis from increased sensitivity to insects and certain food substances.

AUTHORIZATION

To be authorized to possess and use an epinephrine auto injector under this statute an individual or organization as defined above needs to make specific notification of intent to the local Regional Emergency Medical Services Council (REMSCO) and the Department of Health (DOH). *There are no approvals or certifications required.*

To be authorized to possess and use an epinephrine auto injector:

- Identify a physician or hospital knowledgeable and experienced in emergency cardiac care to serve as "emergency health care provider (EHCP)" and participate in a collaborative agreement. (This may be the EMS service's medical director)
- Complete a training course approved by the Commissioner of Health (Attachment 1).
- Develop with the EHCP, a written collaborative agreement which shall include at least the following:
 - written practice protocols for the use of the epinephrine auto injector;
 - written policies and procedures for the training of authorized users;
 - notice to the EHCP of the use of the epinephrine auto injector;
 - documentation of the use of the epinephrine auto injector;
 - written policy and procedure for acquisition, storage, accounting, and proper disposal of used auto-injectors.
- Provide written notice to 911 and/or the community equivalent ambulance dispatch entity of the availability of epinephrine auto injectors at the organization's location.
- File with the REMSCO serving the area a copy of the "Notice of Intent to Possess and use an Epinephrine Auto Injector (DOH-4188) along with a signed copy of the Collaborative Agreement.
- File a new Collaborative Agreement with the REMSCO if the EHCP changes or with a change in content of the agreement.

REMSCO Actions

REMSCOs must develop a procedure for the following:

- insuring that a copy of the organization's "Notice of Intent ... (DOH-4188)" is forwarded to the Bureau of EMS.
- maintaining a copy of the "Notice of Intent... (DOH-4188) and the Collaborative Agreement.

There are no approvals or certifications required by the REMSCO.

Authorized:

Edward G. Wronski
Director



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supercedes/Updates: New Policy

No. 00-03

Date: 05/19/00

Re:

Transition of Care

Page 1 of 2

Transition of Care

With the passage of Chapter 552 of the Laws of 1998 (**Public Access Defibrillation**) and more recently, Chapter 578 of the Laws of 1999 (**Epinephrine Auto-Injector**), EMS Providers will increasingly encounter situations where a patient has been defibrillated or administered epinephrine, prior to the arrival of EMS, by a non-license/non-certified "first responder." It is important that there be a smooth and orderly "transition of care" between civilians and EMS providers as well as between EMS providers of different levels. This includes the transfer of information and continuation of appropriate care.

Public Access Defibrillation

When arriving at a call where a patient is being treated by a "first responder" with an AED, the EMS Provider should immediately confirm the patient's status (responsive, unresponsive, apneic, pulseless, etc.), and determine if a "shock" is indicated. Treat the patient appropriately, request ALS if available and prepare for immediate transport. The "first responder's" AED should remain on the patient until a full cycle of the AED has been completed. The AED and/or pads are usually changed when the patient is ready for transport or upon treatment by an ALS provider.

For patients where "no shock" is indicated, the EMS Provider should continue CPR (verify that CPR is being performed correctly) and prepare for immediate transport.

For patients where a "shock" is indicated, the EMS Provider should administer a complete set of 3 "shocks" and prepare for immediate transport.

If the EMS unit does not have a defibrillator/AED, the "first responder" should accompany the patient to the hospital, follow regional protocols and provide CPR as indicated (the ambulance should pull over and stop when analyzing and shocking the patient).

The EMS Provider should attempt to gather the following information:

1. how long the patient has been down,
2. when was CPR initiated,
3. when was the patient first "shocked,"
4. how many "shocks" the patient has received, and
5. any pertinent patient history that is available.

**Transition of Care
Policy 00-03
05/19/00**

Epinephrine Auto-Injector for Anaphylactic Reactions with Respiratory Distress or Shock

When arriving on the scene of a patient experiencing an anaphylactic reaction, if the patient is being treated by a "first responder" who has administered epinephrine by an auto-injector, the EMS Provider should immediately confirm the patient's status. The EMS Provider should pay close attention to the patient's airway, respiratory distress and any signs or symptoms of hypoperfusion (shock). Treat the patient appropriately, request ALS if available and prepare for immediate transport.

The EMS Provider should attempt to gather the following information:

1. determine the substance the patient was exposed to,
2. how long ago the exposure occurred,
3. the initial symptoms the patient reported,
4. the time and dosage of the epinephrine administered,
5. the name of the individual who administered it, and
6. the patient's response to the treatment.

Medical Control must be contacted prior to administering a second epinephrine injection.

Authorized: Edward G. Wronski, Director



POLICY STATEMENT

Supersedes/Updates: New

No. 00 – 14

Date: 11/20/00

**Re: Storage and Integrity
of Prehospital
Medications and
Intravenous fluids**

Page 1 of 1

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 and ALS 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 Fahrenheit⁶. 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.

Authorized by: Edward G. Wronski, Director



Purpose

The medications approved for use by EMT-Bs are considered to be a lifesaving measure. As such, care should be taken to allow for immediate access, while safe guarding the medications when not caring for a patient. This policy is developed to address concerns regarding the storage and safe guarding of medications that may be administered in accordance with state and local BLS protocols by EMT-Bs.

Policy

It is recommended that all EMS services carrying medications for use by EMT-Bs develop a policy before placing them into use that includes, but may not be limited to the following items; inventory control, storage and replacement of these items.

In an effort to assist agencies in maintaining control of the medications that may be administered by EMT-Bs, the following should be the minimum requirements implemented by each service providing this level of care.

- ❑ The medications must be stored in an environment that protects them from extreme temperature changes and light. According to the medication manufacturer's guidelines, the medications must be stored at temperatures that range from 59 degrees to 77 degrees⁷.
- ❑ All medications must be secured in a container or location capable of being secured with a lock or numbered tear-away-type inventory control tag when not being used for patient care.
- ❑ The medication must be placed in either a closed ambulance compartment or inside a bag or box that is taken to the patient.

- It is strongly recommended that these medications not be placed in the same locked cabinet with medications, syringes or needles used by Advanced Life Support Providers.

Authorized by: Edward G. Wronski, Director



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supersedes/Updates: New

No. 01 - 05

Date: 06/1/01

**Re: Abandoned Infant
Protection Act**

Page 1 of 2

Background Information

The **Abandoned Infant Protection Act** was created in Chapter 156 of the Laws of 2000. Under this provision a parent, guardian or other legally responsible person may leave their infant (who must be five days old or less) at a safe place. The law requires that an adult must intend that the child be safe from physical injury, cared for in an appropriate manner, with an appropriate person, in a suitable location and promptly notify an appropriate person of the child's location. People leaving an infant in compliance with this law are not required to provide their names. Such individuals will not be prosecuted as a class E felony of Abandonment of a Child and class A misdemeanor of Endangering the Welfare of a Child.

The governing legislation did not specify or define what is an acceptable safe location. Instead, local district attorneys are to determine whether the parent left the child in an appropriate location. Individuals who give up their infants do not automatically surrender their parental rights; and may later seek to reclaim the child. It is important to note that this legislation does not amend provisions of the Social Services law which make abandonment of an infant reportable to the New York State Central Register for Child Abuse and Maltreatment.

The New York State Office of Children and Family Services has released several Public Service Announcements and brochures about this program. In these materials; the public is provided with the intent of the new law; including a listing of suggested safe places where infants may be brought. The sites include hospitals, police stations, fire stations and other safe places. Some county district attorneys have already defined what constitutes a safe place within their county. Other counties have not yet done so.

Role of Emergency Medical Services Agencies

In the event a parent or legal guardian chooses to relinquish care of their newborn infant to an emergency medical service agency; the following guidelines should be considered:

1. In keeping with the intent of the governing legislation; parents are not required to provide their names to the safe location or staff. In a non-judgmental manner, EMS staff may ask the presenting adult if there is any medical information that is important to know in the care of the infant.
2. EMS services and systems may want to contact their county Office of the District Attorney to determine what if any locations have been identified as “safe places” by the District Attorney for the purposes of this legislation.
3. Infants received by an EMS service agency should be transported to the nearest hospital for medical assessment/care. EMS agencies should not be expected to interact with local child protection service agencies unless directed to do so.
4. If a parent seeks follow up information about the child they relinquished to the care of the EMS service agency; a referral should be made to the hospital where the infant was transported or the local office of social services.

Further Information

Information about this program may be obtained by contacting:

New York State Office of Children and Family Services
Capital View Office Park
52 Washington Street
Rensselaer, New York 12144

1-800-345-SAFE
<http://www.dfa.state.ny.us>

Issued by
Edward Wronski, Director
Bureau of Emergency Medical Services



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supercedes/Updates:

No. 02 - 01

Date: 01/02/02

Re: Requirement to report instances of suspected child abuse or maltreatment.

Page 1 of 7

On November 13th, 2001 § 413 of the Social Services Law was amended, in relation to persons and officials who are required to report cases of suspected child abuse or maltreatment. Effective February 1st, 2002 the law will require Emergency Medical Technicians to report suspected child abuse they come across while performing their jobs. ***The Bureau of EMS will not require EMTs to attend a specialized course for child abuse.*** The current EMS course curricula include sections on child abuse. However, the Bureau does reserve the right to amend the curricula in the future. Therefore, this Policy Statement and attached fact sheet are intended to be used by New York State EMTs to help them better understand their obligations as well as the signs and symptoms of possible child abuse or maltreatment.

Reporting Procedures:

§ 415 of the Social Services Law states that, “*Reports of suspected child abuse or maltreatment made pursuant to this title shall be made immediately by telephone or by telephone facsimile machine on a form supplied by the commissioner. Oral reports shall be followed by a report in writing within forty-eight hours after such oral report. Oral reports shall be made to the statewide central register of child abuse and maltreatment unless the appropriate local plan for the provision of child protective services provides that oral reports should be made to the local child protective service.*”¹

Oral Reports of suspected child abuse or maltreatment shall be made by calling the NYS Child Abuse and Maltreatment Register at:

1-800-635-1522

NOTE: This phone number is for mandated reporters ONLY and should NOT be provided to the general public.

- All oral reports must be followed up with a written report within 48 hours using Form DSS-2221-A, “Report of Suspected Child Abuse or Maltreatment” (Attached).
- A copy of the completed and submitted Form DSS-2221-A should be attached to the agency copy of the Prehospital Care Report retained by the agency.

Agency Policies

10 NYCRR Part 800.21(p)(11)(ii) requires all ambulance services to have and enforce a written policy regarding the reporting of child abuse. Based on the addition to §413 of Social Services Law all services should ensure that the policy developed regarding this requirement includes the mandatory reporting requirement and the process required by Social Services Law § 415. The agency policy needs to address areas such as Prehospital Care Report documentation, notifying the Emergency Room staff, calling the above 800 telephone number, and the completion of form DSS-2221-A.

Immunity From Liability

Immunity from liability for reporting cases of suspected child abuse or maltreatment is provided to those individuals required to report such cases under § 419 of the Social Services Law so long as the individual was acting in, “good faith”.

Failure To Report

§ 420 Of the Social Services Law states:

- 1. Any person, official or institution required by this title to report a case of suspected child abuse or maltreatment who willfully fails to do so shall be guilty of a class A misdemeanor.**
- 2. Any person, official or institution required by this title to report a case of suspected child abuse or maltreatment who knowingly and willfully fails to do so shall be civilly liable for the damages proximately caused by such failure.**

Attachments:

**Child Abuse/Maltreatment Fact Sheet
Form DSS-2221-A**

**Issued and Authorized by:
Edward G. Wronski, Director
Bureau of Emergency Medical Services**

ⁱ Pertains to Onondoga and Monroe Counties Only

Child Abuse and Maltreatment

Fact Sheet

This fact sheet is intended to be used by New York State EMTs as a learning tool and guide to help them better understand the signs and symptoms of possible child abuse or maltreatment. **The signs and indicators listed in this document are not conclusive proof of child abuse or maltreatment. There can be other, reasonable explanations for what you observe.**

Definition of Child Abuse:

An “abused child” is a child less than eighteen (18) years of age whose parent or other person legally responsible for his/her care:

1. Inflicts or allows to be inflicted upon the child serious physical injury, or
2. Creates or allows to be created a substantial risk of physical injury, or
3. Commits or allows to be committed against the child a sexual offense as defined in the penal law.

Definition of Child Maltreatment:

A “maltreated child” is a child under eighteen (18) years of age who has had serious physical injury inflicted upon him/her by other than accidental means.

A “maltreated child” is also a child under eighteen (18) years of age whose physical, mental or emotional condition has been impaired or is in danger of becoming impaired as a result of the failure of his/her parent or other person legally responsible for his/her care to exercise a minimum degree of care:

1. In supplying the child with adequate food, clothing, shelter, education, medical or surgical care, though financially able to do so or offered financial or other reasonable means to do so; or
2. In providing the child with proper supervision or guardianship; or
3. By unreasonable inflicting, or allowing to be inflicted, harm or substantial risk thereof, including the infliction of excessive corporal punishment; or
4. By using a drug or drugs; or
5. By using alcoholic beverages to the extent that he/she loses self-control of his/her actions; or
6. By any other acts of a similarly serious nature requiring the aid of the Family Court.

Some of the physical indicators of possible child abuse:

- ◆ Bruises in different stages of healing, welts, or bite marks on face, lips, mouth, neck, wrist, thighs, ankles, or torso, or on several area of the body such as:
 - ✓ Injuries to both eyes or both cheeks (usually only one side of the face is injured in an accident)
 - ✓ Marks that are clustered, that form regular patterns, that reflect the shape of such articles as an electrical cord, belt buckle, fork tines, or human teeth.
 - ✓ Grab marks on the arms or shoulders; and/or
 - ✓ Bizarre marks, such as permanent tattoos

- ◆ Lacerations or abrasions to mouth, lips, gums, eyes, external genitalia, arms, legs, or torso.
- ◆ Burns:
 - ✓ From cigars or cigarettes, especially on soles, palms, back, or buttocks.
 - ✓ From immersion in scalding water (socklike or glovelike on feet or on hands, doughnut-shaped on buttocks or genitalia)
 - ✓ That are patterned like an object, such as an iron or electric burner; burns from ropes on arms, legs, neck, or torso.
- ◆ Any fractures:
 - ✓ Multiple or spiral, of the long bones, to skull, nose, or facial structure.
 - ✓ Other injuries, such as dislocation.
- ◆ Head Injuries:
 - ✓ Absence of hair or hemorrhage beneath the scalp from hairpulling.
 - ✓ Subdural hematomas
 - ✓ Retinal hemorrhage or detachment, from shaking
 - ✓ Eye injuries
 - ✓ Jaw and nasal fractures
 - ✓ Tooth or frenulum injury
- ◆ Symptoms that suggest fabricated or induced illness, sometimes known as Munchausen Syndrome by Proxy (MSP); for example, a parent might be repeatedly feeding a child quantities of laxatives sufficient to cause diarrhea, dehydration, or hospitalization, without revealing the child has been medicated.

Some of the emotional and behavioral signs of possible child abuse:

- ✓ Apprehension when other children cry
- ✓ Aggressiveness
- ✓ Withdrawal
- ✓ Fear of going home
- ✓ Fear of parents and other adults
- ✓ Extreme mood swings
- ✓ Inappropriate mood
- ✓ Habit disorder, such as nail-biting
- ✓ Low self-esteem
- ✓ Neuroses, such as hypochondria, obsessions
- ✓ Refusal to remove outer garments
- ✓ Attempted suicide

Some of the physical signs of possible child neglect:

- ✓ Newborn with positive toxicology for drugs
- ✓ Lags in physical development
- ✓ Constant hunger
- ✓ Speech disorder
- ✓ Poor hygiene
- ✓ Inappropriate dress for the season
- ✓ Lack of medical care
- ✓ Inadequate supervision

Some of the emotional and behavioral indicators of possible child neglect:

- ✓ Chronic fatigue
- ✓ Habit disorder, such as thumb-sucking by a ten-year-old, rocking, biting
- ✓ Reports no caregiver at home
- ✓ Frequent absences from school or lateness
- ✓ Hypochondria
- ✓ Shifts from complaint to aggressive behavior
- ✓ Age-inappropriate behavior
- ✓ Begging for food
- ✓ Lags in emotional or mental development
- ✓ Use of alcohol or drugs

Some of the signs of possible child sexual abuse:

- ✓ Difficulty in walking and sitting
- ✓ Pain or itching in the genital area
- ✓ Torn, stained, or bloody underclothing
- ✓ Bruises or bleeding of external genitalia or vaginal or anal areas
- ✓ Bruises to the hard or soft palate
- ✓ Sexually transmitted diseases, especially in preteens
- ✓ Painful discharge of urine or repeated urinary infections
- ✓ Foreign bodies in the vagina or the rectum
- ✓ Pregnancy, especially in early adolescence

Some emotional and behavioral signs of possible child sexual abuse:

Many of the following indicators may also reflect problems unrelated to sexual abuse. Moreover, no one child will show all of these signs.

Particularly in children who are less than eight years of age look for:

- | | |
|--|---|
| ✓ Eating disorders | ✓ Crying spells |
| ✓ Fear of sleeping alone | ✓ Hyperactivity |
| ✓ Enuresis (bed wetting at night or daytime accidents) | ✓ Change in school behavior (fear of school, drop in grades, trouble concentrating) |
| ✓ Separation anxiety | ✓ Regular tantrums |
| ✓ Thumb or object sucking | ✓ Excessive fear (including of men or women) |
| ✓ Encopresis (soiling) | ✓ Nightmares or night terrors |
| ✓ Language regression | ✓ Sadness or depression |
| ✓ Sexual talk | ✓ Suicidal thoughts |
| ✓ Excessive masturbation | ✓ Extreme nervousness |
| ✓ Sexual acting out, posturing | ✓ Hypochondria |

In children over eight through adolescence:

- ✓ Fear of being alone
- ✓ Peer problems
- ✓ Frequent fights with family members
- ✓ Poor self-esteem
- ✓ Excessive nervousness
- ✓ Emotional numbness (out-of body experiences, or feelings of unreality)
- ✓ Substance Abuse
- ✓ Excessive guilt or shame
- ✓ Mood swings
- ✓ Sexual concerns or preoccupations
- ✓ Withdrawn, isolated behavior
- ✓ Overly compliant behavior
- ✓ Suicidal thoughts or gestures
- ✓ Self-mutilation
- ✓ Hyperalertness
- ✓ Sexual acting out
- ✓ Avoidant, phobic behavior, including sexual topics
- ✓ Unwillingness to change into gym clothes
- ✓ Violent fantasies
- ✓ Memory problems
- ✓ Fear of future abuse
- ✓ Intrusive, recurrent thoughts, or flashbacks



STATE OF NEW YORK DEPARTMENT OF HEALTH

Corning Tower

The Governor Nelson A. Rockefeller Empire State Plaza
Albany, New York 12237

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

March 6, 2002

Dear EMS Agency:

In an earlier letter we shared that effective February 1, 2002, emergency medical technicians (EMTs) are required to report suspected cases of child abuse or maltreatment to the New York State central child abuse registry. We had also provided a copy of the Department of Health's Policy Statement # 02-01, which describes how EMTs and ambulance services are to comply with this new reporting requirement.

At this time we would like to clarify a few issues that have come to our attention concerning the reporting of suspected child abuse cases by EMTs. Listed below is a summary of these issues:

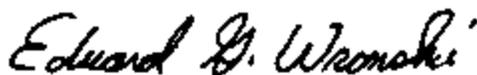
1. EMTs are not required to take a course on how to comply with the reporting requirements. However, Regional EMS Councils, EMS services, EMS Course Sponsors and other interested parties may offer an overview of the legislation and guidelines on how best to achieve the desired results within their community or EMS agency. Such a course may be designed to meet the continuing medical education requirements of the Pilot Project.
2. For the time being, EMTs are required to be the reporter of record for suspected cases even if the child is transported and admitted to a hospital. EMTs can not and should not transfer the responsibility for reporting a suspected case to hospital personnel or any other health provider.
3. If there are multiple EMTs responding to a call from the same EMS agency, it is only necessary for the EMT of record (in-charge of patient care) from that agency to submit the required form. This may be confusing when there are multiple agencies responding, treating, and transporting the same patient. The EMT of record from each agency must file a separate report.
4. Reporting Procedures: An oral report must be made immediately to the NYS Child Abuse and Maltreatment Register at 1-800-635-1522. This must be followed by a written report, using Form DSS-2221-A, within 48 hours to the **local child protective services for where the child resides**. The only time Form DSS-2221-A is to be sent directly to the NYS Central Register is when the child resides in a Residential Institution.

5. EMS agencies are reminded that they must update their policies and procedures with regards to their personnel reporting child abuse and/or neglect. These policies and procedures need to reflect the guidelines in BEMS policy statement #02-01 as well as the required local reporting procedures for their area.
6. It is understood that EMTs will need to complete the DSS-2221-A form after an emergency situation. EMTs are not expected to have the form filled out in its entirety. EMTs should fill out as much information as possible, with the limited information they have and submit the form to their local child protective service who will obtain the rest of the information on the form.
7. The Bureau of EMS encourages EMS agencies to continue to have open dialogue with their local Child Protective Service to better understand issues at the local level

For assistance on how best EMTs and/or ambulance services can meet the new reporting requirements, please contact the Bureau of EMS at 518-402-0996 Ext. 1, 4 (Education Unit). . EMTs should refrain from contacting the NYS Central Register. The Requirement to Report Instances of Suspected Child Abuse or Maltreatment Policy Statement is accessible at www.health.state.ny.us (click on providers for EMS webpage). If you have questions about the mandatory reporter program, please visit the New York State Office of Children and Family Services at <http://www.ocfs.state.ny.us> or contact them at 518-474-4670.

Thank you for your cooperation with this important reporting initiative.

Sincerely,



Edward G. Wronski, Director
Bureau of Emergency Medical Services

cc: Regional EMS Councils
Regional Emergency Medical Advisory Committees
EMS Course Sponsors



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supercedes/Updates: 85-01, 96-01

No. 02 - 05

Date: 10/29/02

Re: Prehospital Care
Reports (PCRs)

Page 1 of 5

An essential part of any prehospital medical care is the documentation of the care provided and the medical condition and history of the patient. The Prehospital Care Report (PCR), used as a requirement of Part 800, is the instrument developed and distributed for this documentation. The primary purpose of the PCR is to document all care and pertinent patient information as well as serving as a data collection tool.

The documentation included on the PCR provides vital information, which may be necessary for continued care at the hospital. As part of transferring the patient to the Emergency Department Staff **the agency should not leave the hospital until a completed PCR is provided to the appropriate hospital staff.**

PCR Use:

A PCR should be completed each time the agency is dispatched for any type response. This includes (but is not limited to):

- Patients transported to any location,
- Patients who refuse care and/or transport,
- Patients treated by one agency and transported by another,
- Calls where no patient contact is made, such as
 - Calls cancelled before reaching the scene
 - Calls where no patient is located
 - When dispatched for a stand by
 - Events.

If an agency is dispatched to a stand-by and while there they treat a patient, two PCRs should be completed.

Information Entry:

All information on the PCR should be legible and printed in black ink.

Any member of the crew may enter information on the PCR. The individual indicated as “**In Charge**” should be the person who provided or directed the care to the patient. There is no requirement that the person in charge be certified as the highest level of care present. However the individual indicated as in charge is responsible for the care

provided and documented. The provider listed as “**In Charge**” must be at least an EMT. If any advanced life support care was provided to the patient, the provider listed as “**In Charge**” must be an advanced EMT at the level appropriate for the care provided.

On each PCR the following information **must** be entered:

- Date of call,
- Agency Code,
- Vehicle ID,
- Dispatch information,
- Agency Name,
- Call Location,
- “Geo” Code,
- Dispatch information,
- Type of call: Emergency/Non-Emergency/Stand-by,
- Time call received,
- Time service responded,
- Disposition and disposition code,
- Patient Name; If no Patient state “No Patient”,
- Patient Date of Birth,
- Patient Gender,
- Presenting problem, **if more than one, circle the primary problem,**
- Vital signs if a patient was indicated on the form,
- Chief Complaint,
- Subjective Assessment,
- Objective Physical Assessment,
- Past Medical History,
- All treatment provided by your agency, do not include treatment provided by other another agency,
- Crew names, level of certification and NYS certification number.

Distribution:

Pink (Hospital Patient Record) Copy:

- **Ambulance Service: Must** leave pink copy at the hospital prior to the agency leaving the hospital.
- **Advanced Life Support First Response (ALS FR) Agency:**
 - Must be provided to the transport agency prior to the transport agency leaving the scene if no representative of the agency will be accompanying the patient to the hospital.
 - If a representative is accompanying the patient than they must provide the completed copy to the hospital prior to leaving (as above).
- **Basic Life Support First Response (BLS FR) Agency:** Same as for ALS FR Agency.

Yellow (Research) Copy:

- **Ambulance Service:** Yellow copy shall be submitted by the service to the Regional EMS Program Agency as designated by the Department. PCRs shall be submitted at least monthly, or more often if so indicated by the program agency.
- **Advanced Life Support First Response (ALS FR) Agency:** Same as for an ambulance service.
- **Basic Life Support First Response (BLS FR) Agency:** BLS FR agencies are not required to use three part PCRs. They may use a two part PCR, available from their Regional EMS Program Agency. BLS FR agencies are not required to submit the research (yellow) copy. If a three part form is used, the research copy may be destroyed by the agency.

NOTE: There are agencies participating in projects submitting data directly to the Department of Health electronically. These are the **only** agencies exempted from this provision.

White (Agency) Copy:

- **All Agencies:** The original white copy should be retained in a secure location at the services permanent office as designated to the Department for the following time periods:
 - Federal Law (HIPAA) requires that medical records be retained for **Six Years**. If the call involves the treatment of persons under age 18, the PCR must be retained for three years after the child reaches age 18.

Confidentiality & Disclosure Of PCRs/Personal Healthcare Information:

Maintaining confidentiality is an essential part of all medical care, including prehospital care. The confidentiality of personal health information (PHI) is covered by numerous state and federal statutes, Policies, Rules and Regulations, including the Health Insurance Portability & Accountability Act of 1996 (HIPAA) and 10 NYCRR.

10 NYCRR (Health) Part 800.21:

Every person certified at any level pursuant to these regulations shall:

- (a) At all times maintain the confidentiality of information about the names, treatment, and conditions of patients treated except:*
 - (1) A prehospital care report shall be completed for each patient treated when acting as part of an organized prehospital emergency medical service, and a copy shall*

be provided to the hospital receiving the patient and to the authorized agent of the department for use in the State's quality assurance program;

Health Insurance Portability & Accountability Act of 1996 (HIPAA):

Federal Law (HIPAA) requires all healthcare providers to have a written policy on protecting Personal Health Information (PHI), including PCR's.

Such a policy should include (but not be limited to):

- Indicate that requests from patients for PCR copies be in writing;
- That the agency will maintain a copy of the written request with the original PCR;
- Maintaining the confidentiality of the information contained on a PCR as well as the actual PCR's;
- Conducting security training for all employees/members in proper security procedures to protect personal health information; and
- Documenting security training of employees/members.

Providing PCR copies to the receiving hospital, other providers giving care in a tiered system and to the EMS program agency for QI does not constitute a violation of the HIPAA regulations. For additional agency specific questions regarding HIPAA agencies should contact their legal counsel and/or the U.S. Department of Health and Human Services.

Other PCR Disclosures:

The PCR may also serve as a document called upon in legal proceedings relating to a person or an incident. No EMS agency is obligated to provide a copy of the PCR simply at the request of a law enforcement or other agency. If a copy of the PCR is being requested as part of an official investigation the requestor must produce either a subpoena, from a court having competent jurisdiction, or a signed release from the patient. Except that copies of PCR's must be made available for inspection to properly identified employees of the NYS Department of Health.

A person may request a copy of a PCR completed for themselves as the patient or the parent or legal guardian of a patient may obtain a copy of a PCR completed for that patient. In cases where the patient is now deceased the person who is the court appointed legal representative of the patient's estate may request a copy of the PCR.

An agency may provide a copy of a PCR to those entities that represent that agency either for the purpose of collection of fees from the patient or their insurance carrier or as part of any legal proceedings relating to the agency. In such situations those representative are also responsible for protecting the personal health information contained within the document.

Disposition Codes:

All hospitals in New York State have a three digit code indicating the hospital. In addition the name of the hospital must be indicated.

Non Hospital Disposition Codes	Meaning	Example (See Note)
001	Nursing Home	Any nursing home, rehabilitation center, respite home or extended care facility not listed with a hospital disposition code.
002	Other Medical Facility	Includes outpatient and specialty clinics, doctor's offices, diagnostic and testing facilities.
003	Residence	When a patient is transported to a private residence.
004	Treated By This Unit & Transported By Another Unit	In a multi tiered response system this disposition would be used by any BLS FR or ALS FR agency. This code would also be used if one ambulance service provides ALS interface for another ambulance. It would not be used by multiple vehicles from the same agency i.e. two ambulances are dispatched to the same call.
005	Refused Medical Aid and Or Transport	Any time contact is made and a person is evaluated, to include such procedures as vital signs being taken, or any treatment is provided. The documentation included on the PCR must indicate that the patient was advised of the need for care and the patient was competent to make an informed refusal of such care.
006	Call Cancelled	Any time a call is canceled prior to the arrival of the EMS agency this disposition code should be used. When possible the crew should document what other agency canceled the response or the reason for the cancellation.
007	Stand By Only (No Patient)	Used if a service is dispatched for a call such as to stand by during a fire or other incident. If any person is treated at the scene an additional PCR should be completed for them.
008	No Patient Found	If a service arrives at a scene and there is no one there with any complaint or injury, this code should be used. This would include being dispatched to a motor vehicle crash at which there are no persons who require any evaluation or care to. Document completely under Comments
010	Other	Any instance not indicated or explained above. This might include a lift assistance call for a person who has fallen. Document completely under Comments

NOTE: It is impossible to include every possible scenario an effort is made to provide guidance on many common occurrences.



DOH
New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supersedes/Updates: New

No. 02 - 09

Date: 8/29/02

Re: Needlestick and Sharps Injuries

Page 1 of 2

This policy provides advanced life support (ALS) EMS agencies with a brief explanation of the recent revisions to the United States Department of Labor, Occupational Health and Safety Administration (OSHA) regulations and the Needlestick Safety and Prevention Act. This policy does not supersede or take precedence over any guidance that OSHA or New York State Public Employee Safety and Health (PESH) may provide.

In 1992 the OSHA issued the Bloodborne Pathogen regulations (29 CFR 1910). In November of 2000, the Needlestick Safety and Prevention Act was signed into law and took effect on April 18th, 2001. This new act required that OSHA revise the Bloodborne Pathogen standard to add the following components:

- ◆ Provide new examples in the definition of engineering controls.
- ◆ Require that exposure control plans reflect how employers implement a needleless/safety and needle stick prevention program.
- ◆ Requires the employer to solicit input from direct patient care employees in the identification, evaluation and selection of safer needle devices and work practices.
- ◆ Require employers to establish and maintain a log of sharps related injuries.

This new section of the OSHA regulations requires that EMS services use sharps, such as syringes and intravenous catheters that are engineered with built in safety features or mechanisms that will reduce the risk of a blood or body fluid exposure by a needlestick injury.

In July of 2002 OSHA further clarified their position on the removal of needles from blood tube holders in order to reuse the blood tube holder. OSHA stated that **“Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed, unless the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical or dental procedure.”** More specifically, OSHA’s new compliance directive, CPL 2-2.69 at XIII.D.5 states, **“removing the needle from a used blood-drawing/phlebotomy device is rarely, if ever, required by a medical procedure. Because such devices involve the use of a double-ended needle, such removal clearly exposes employees to additional risk, as does the increased manipulation of a contaminated device.”** In order to prevent potential worker exposure to the contaminated hollow bore needle at both the front and back ends, blood tube holders, with needles attached, must be immediately discarded into an accessible sharps container after the safety feature has been activated.

Engineering Controls

The revised definition of engineering controls means “controls (e.g. sharps, disposal containers, self sheathing needles, safer medical devices such as sharps with engineered injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the work place”. Sharps with engineered injury protections are defined as non-needle or a needle with a built in safety feature or mechanism that will effectively reduce the risk of a blood or body fluid exposure.

Revision to the Exposure Control Plan (ECP)

EMS agencies must update their existing ECP to include changes in technology that will reduce or eliminate exposure to blood or body fluids. The ECP must include the consideration and implementation of safer medical devices and the solicitation of input from non-managerial employees.

Sharps Injury Log

The revision of the OSHA regulations now requires that EMS services maintain a sharps injury log. The log must include information regarding the type and brand of device involved, the department or area the incident occurred and a description of the incident for each needlestick injury.

Selection of Safer Medical Devices

In deciding what type of safety device to choose, the EMS agency should select an appropriate device based on the agency’s exposure determination and one, which will not compromise patient care. The service must identify any worker exposure to blood and body fluids, review all processes and procedures that have a risk of exposure and re-evaluate any new processes or procedures that are implemented. The OSHA regulation requires the agency to involve employees in the testing and choosing of the devices that will be used in the field.

The process of choosing an appropriate safety device should be made in consultation with the agency medical director. The Regional Emergency Medical Advisory Committee (REMAC) may also be able to provide further guidance in determining an appropriate safe needle device.

Training and Education on the Use of Safer Devices

Recent studies have shown that health care providers that use safer needle devices, without the proper in service training, may be at a greater risk of a needlestick injury than when using unprotected needle devices. ***Additionally, poor or no training on new safer needle devices may be attributed to a decrease in IV cannulation success rates.*** Therefore, it is imperative that agencies provide a comprehensive training program with the safe needle devices, which have been chosen, for use by the EMS agency. Each provider must have the opportunity to practice using training manikins with the safe device. If possible, the provider should also be able to use the safe devices under supervision in field practice.

Further Information

For further information please refer to the following web sites:

- NYS Department of Labor, Public Employees Health and Safety
www.labor.ny.us (Business in New York)
- US Department of Labor, Occupational Health and Safety
www.osha.gov (Bloodborne Pathogens)



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supersedes/Updates: New

No. 03-02

Date: 02/05/03

**Re: EMS Response
Planning to a Suspected
Biological/Infectious
Disease Incident**

Pages: 7

Purpose:

To provide recommendations for Emergency Medical Services (EMS) providers, agencies and systems responding to a suspected biological/infectious disease incident naturally occurring or potentially related to a bio-terrorist event. These recommendations should be considered by municipal emergency managers in the development of municipal response plans. These recommendations are not meant to supersede any municipal Weapons of Mass Destruction (WMD) response plan for biological agents that has been developed and approved by local, state or federal authorities legally charged to do so. It is not directed toward HazMat or other specially equipped and trained emergency response teams whose primary purpose is to enter a known “hot zone” and rescue victims. These recommendations do not constitute a response protocol but serve as guidance for the protection of responders and general considerations.

Key Points

- ❑ Personal Protective Equipment (PPE) currently carried by most EMS agencies to provide Standard Precaution Protection against patients with infectious diseases may be utilized to provide protection from a patient exposed to a biological terrorism disease.
- ❑ EMS personnel must use a fit-tested N95 or higher respirator.
- ❑ EMS personnel should be operating in the “cold zone”
- ❑ Accurate accounting of all patients treated or seen at a bio-terrorist incident must be made available to County Public Health Department /officers.
- ❑ EMS should advise the hospital of any transport of a patient with a fever and rash illness prior to arrival.
- ❑ EMS providers should know their community’s emergency response plan.

General Considerations:

- EMS personnel are routinely called to treat and transport patients with infectious disease. This may include a patient with pulmonary tuberculosis or the flu. You may also be called to a patient who is carrying a disease delivered by a bioterrorist. In a biological WMD release, EMS personnel may respond to the initial 9-1-1 call (s) for a patient with a fever and rash illness long before the cause of the illness is known.

EMS personnel who may come into contact with a patient with fever and rash illness should utilize a fit-tested N95 respirator or higher level of respiratory protection and practice standard/universal, contact, and airborne precautions. If the patient has an active cough place a surgical mask on the patient or an oxygen mask with O₂, if not contraindicated by their respiratory condition. EMS personnel following these simple guidelines should be adequately protected from patients with naturally occurring or bioterrorist caused disease.

While the release of most biological agents will not likely create a defined “hot zone” or mass casualty incident scene, the anthrax events in the fall of 2001 demonstrated this possibility. In response to a known biological incident EMS personnel should operate in the “cold zone” and HazMat or other specially equipped teams should bring patients to EMS providers. EMS personnel should follow the directions of the incident commander and appropriate protocols for the identified agent. Please refer to Policy # 01-02 EMS Use of the Incident Command System and #01-08 Unknown Dry Substance/Suspected Anthrax Response Advisory.

In the event of an announced release of anthrax or smallpox into a building ventilation system, exposed people may take anywhere from a couple of days (anthrax) to 7-17 days (smallpox) to become ill. These people may not need transport to a medical facility, but will need to be identified for public health information purposes so they can receive antibiotics or vaccine at a later time. EMS may be the primary health care provider at these scenes initially and must assure that an accurate accounting of **all** patient contacts is made and then provide such to public health officials.

Remember: Use of a fit-tested N95 respirator, with standard/universal, contact, airborne and droplet precautions, will protect providers from infectious disease that is naturally occurring or man-made.

State Emergency Medical Advisory Committee Recommendations:

The following recommendations are made by the State Emergency Medical Advisory Committee’s (SEMAC) Bioterrorism Sub-Committee and are endorsed by the Department of Health as guidance in a suspected **biological/infectious disease** incident.

- Care and transport of a patient with a potential infectious disease does not require the use of any personal protective equipment that should not already be routinely available on the ambulance. EMS personnel should have a disposable gown or tyvek suit to

provide protection against contact. It is not recommended that EMS personnel carry or utilize “Level A, B, etc” or other confining personal protective equipment that will limit their ability to function and provide patient care.

- All EMS personnel must use a fit-tested N95 respirator, or higher as protection against airborne transmission. The equipment and fit testing is the responsibility of the EMS agency to provide to members/employees involved in a response.
- A surgical mask should be placed on any patient with a fever who has an active cough (unless the patient is receiving oxygen via mask).
- EMS personnel should follow existing infectious disease protocols: standard/universal precautions for all patients and additional contact, airborne and droplet transmission precautions, if indicated.
- It is not the role of EMS personnel to enter a “hot zone” in an identified WMD incident. EMS crews should operate in the “cold zone” and HazMat or other specially equipped teams should bring patients out of the hot zone to be treated and transported.
- EMS personnel must notify hospitals prior to arrival to advise that a patient(s) with fever and rash illness is being transported to their facility. Hospitals may direct EMS personnel to bring such patient into the hospital through a separate and secure entrance. Hospitals may not divert this type of patient unless a municipal response plan to do so has been activated. If a specific municipal response protocol exists for hospital notification EMS agencies must follow that protocol.
- Regional Emergency Medical Advisory Committee’s (REMAC’s) should be involved in the development of municipal EMS response plans and take appropriate medical lead in the education of local providers.
- All EMS agencies should know their role in local and county municipal response plans.

Review of Infection Control Precautions and PPE for the EMS Provider at Suspected Infectious Disease Incident:

Standard infection control practices are taught to all EMS providers and should be reviewed regularly by agency internal training that includes:

- **Standard Precautions** apply to blood, all body fluids, secretions, non-intact skin, mucous membranes and excretions (except sweat) for all patients. Gloves and gowns (if soiling of clothing is likely) should be used to prevent exposure to blood and other potentially infectious fluids. Mask and eye protection or face shields should be used during procedures or activities that may likely generate splashes of blood or body fluids. Appropriate hand hygiene is always necessary.

- **Contact Precautions** include the use of gloves and a gown if clothing is likely to have contact with patient, environmental surfaces or patient care equipment.
- **Airborne Precautions** include a properly ventilated ambulance and appropriate respiratory protection such as the N95 respirator and placing a mask on the patient.
- **Droplet Precautions** include the use of a disposable gown, gloves and mask when working on or within 6.5 feet of a patient. For patients who are coughing; if possible and not contraindicated by respiratory difficulties, place a surgical mask on the patient to prevent droplet spread inside the ambulance. When transferring or moving a patient inside the hospital, place a mask on the patient to prevent contamination of other patients.

Reminder: Even though EMS providers wear gloves during a call, vigorous handwashing with soap and water or waterless handcleaners must be done after each patient contact. This will help reduce the potential for contamination.

Decontamination Considerations:

Decontamination of victims at a scene is the responsibility of responding HazMat and/or fire department personnel. EMS agencies should however understand basic decontamination procedures in the event decontamination teams are not present and available. This includes decontamination procedures for both people and equipment.

- A. People:** In general decontamination of infectious disease patients is not necessary. People exposed to a biological agent need only to remove their clothing, if heavily contaminated, and use shampoo, soap and water on themselves (shower). **Diluted bleach solutions should NEVER be used on people.** See Policy 01-08 Unknown Dry Substance/Suspected Anthrax Response Advisory for additional guidance.
- B. Equipment:** Patient care equipment must be appropriately cleaned, sterilized or disinfected between patients. Environmental surfaces can be decontaminated with diluted chlorine bleach (1:10 dilution of household bleach) or an EPA-approved hospital disinfectant. For additional information see (APIC website at www.APIC.org) or Jane's Chem-Bio Handbook previously provided to each EMS service.

EMS Role in Disease Surveillance:

EMS personnel should be alert to illness patterns and diagnostic clues that might signal an act of bioterrorism (BT). The following clinical and epidemiological clues are suggestive of a BT event.

- A rapidly increasing incidence of disease in the community.

- Unusual increases in the number of people seeking medical care, calling for an ambulance, especially with fever, respiratory or gastrointestinal symptoms.
- An unusual number of people with flu-like symptoms, particularly during the non-traditional flu season.
- Any suspected or confirmed communicable disease that is NOT COMMON in New York State, (e.g. plague, anthrax, smallpox, or viral hemorrhagic fever). Note: As smallpox has been eradicated in its natural state one case of smallpox must be viewed as caused intentionally.
- Any unusual age distribution or clusters of disease (e.g. chickenpox or measles in adults).
- Simultaneous outbreaks in human and animal populations.
- Any unusual clustering of illness (e.g. persons who attended the same public event).

Careful observations and understanding of historic disease patterns in the community can help identify a biological incident or epidemic early. It is the early detection of any epidemic that can prevent or contain the spread of disease in a community. This rule applies to intentionally spread disease or naturally occurring disease. EMS personnel should advise hospital triage staff of any concerns or patterns in patient presentation as hospital staff may have received similar patients from other ambulance services. EMS agencies should follow local municipal public health guidelines on how to provide information to the local public health office.

Integration with Municipal Public Health:

The municipal public health office will play a significant leadership role in response to any biological incident or epidemic (e.g. West Nile Virus). It is important that EMS agencies understand this role and integrate their efforts with public health to work in a cooperative manner. Municipal public health response plans may include specific policies/protocols for disease reporting, patient destination or quarantine. It is important for EMS agencies to understand the policies and protocols that may affect how they respond.

Hospital Notification:

EMS personnel must notify the hospital before arrival if they are transporting a febrile patient with rash illness to their facility. Agency officers should speak with hospital personnel in advance to discuss what procedures are in place for accepting such patients. Hospitals may request EMS personnel deliver such patient (s) through a separate secure entrance. A hospital

may not divert such patients unless a municipal response plan designed to do so has been activated.

Patient Reception at Hospital:

Follow hospital instructions upon arrival. If the facility does not appear prepared for your arrival, identify the condition of the patient to hospital personnel immediately. Patient's clothing, linens, etc. should be double red bagged and taken with the patient.

When transferring or moving a patient inside the hospital, place a mask on the patient to prevent cross contamination.

Municipal Response Plans:

It is important that all EMS agencies know and understand their role in the city or county municipal response plan. All county governments are required to develop and implement a county disaster plan response to a biological incident. Many counties and all MMRS cities have complete plans in place. Some municipal plans are currently under development. County governments and MMRS cities are required to exercise disaster and WMD response plans and may request EMS participation in city or county exercises. EMS agencies are encouraged to cooperate in such exercises.

Protective Equipment:

1. EMS agencies should carry sufficient PPE equipment to protect responding crews. This should include, at a minimum, N95 respirators fit-tested for each crew member, gloves, eye protection, face shields, disposable gowns or tyvek suits.
2. Care and transport of patients should not require the use of high levels of protective equipment. We do not recommend the use of Level A, B type, PPE for ambulance crews. The use of Level A personal protective equipment is meant for special response teams trained to use such equipment and enter a known or suspected "hot zone". It is not designed for personnel whose primary duty is to provide medical care to victims at a scene. .

Summary:

1. Potential Exposure to infectious disease during an emergency call is not new. Patients with measles, influenza (flu), or chickenpox are no less infectious than patients with infectious disease caused by a WMD biological agent. All EMS providers have been trained in standard/universal, contact and airborne precautions. Utilizing this knowledge and practice of these skills will protect EMS providers from exposure and benefit patient(s).

2. EMS personnel must be knowledgeable and follow municipal plans for response to a biological incident. It is critical that all EMS personnel review and understand the Incident Command System (ICS).
A biological event may be of long duration and involve large numbers of patients over time. The ICS system will likely be implemented to manage any such incident/outbreak.
3. EMS personnel must notify the hospital before arrival that they are transporting a patient with fever and rash illness to their facility.
4. EMS personnel can play an important part in the early identification of an epidemic. Understanding a community's historic disease patterns or general health profile, observation of a change in that pattern and notifying hospital staff and/or public health officials of such observations can be helpful in early identification of a disease outbreak.

EMS agency training officers, captains and crew chiefs should review this policy with all personnel. Additional questions may be answered by the service medical director, REMAC or DOH regional EMS representative.

Additional resources regarding this and other WMD topics can be located on the Bureau of Emergency Medical Service's' WMD and Disaster preparedness web page at:

<http://www.health.state.ny.us/nysdoh/ems/emswmd.htm>



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supersedes/Updates: New

No. 03 - 03

Date: 02/07/03

**Re: Instructions for
completing a Version-
5, NYS PCR**

**Pages: 2 And
attachment**

Introduction:

In 2003 the Bureau of Emergency Medical Services will introduce the fifth version (Version-5) of the New York State Prehospital Care Report (PCR)(DOH 3283) (sample attached). The primary purpose of the PCR remains a form used to document all prehospital care and pertinent patient information. The secondary purpose of the PCR is that of a data collection tool.

The Department of Health maintains a data system that tracks all inpatient care in hospitals by linking some of the data, Version-5 of the PCR will allow for the collection of additional data. That will allow linking prehospital patient care and the care provided by the emergency department and if admitted the hospital through to discharge. The linkage is obtained by certain identifying factors such as digits of the social security number and several of the characters in the patient's last name. This will permit the EMS system to better determine the effectiveness of the care given in a prehospital setting for quality assurance purposes.

Version-5 also includes characteristics necessary to utilize this form as a scannable instrument. Optical Character Recognition (OCR) will permit the form to be scanned and have the data extracted from it into useable tables. ***The only way this will be accomplished is if the person completing the form prints legibly.*** This will allow agencies, counties or regions to consider scannable systems locally.

Completing a Version-5 PCR:

While the form looks different, all of the previous items contained in a PCR are continued on the Version-5. Several items have been added and the format that information is entered has also been changed. Added to the Version-5 are:

- Boxes for providing the patient's social security number (SS#)
- An indication if the patient was defibrillated by a Public Access Defibrillation (PAD) Provider.

- The patient's Date of Birth is now an 8-character entry requiring the century to be included. This field is located on the bottom line of the patient information box between the box for the patient's age and the circles for the patient's gender.

The other differences between Version-5 and the previous versions include:

- Boxes are now provided for each character of agency and patient identifying information.
 - Please place one character in each box.
 - Do not draw lines through boxes that are not relevant to the patient.
 - **Print carefully and legibly.**
- The **Presenting Problem, Treatment Given** and several other "Boxes" are now **circles**.
 - Please completely darken each circle that is applicable.
 - The *Presenting Problems* and *Treatment Given* sections are now printed with red ink. This red ink will not be recognized when the form is scanned. This feature is essential when the scanning process is implemented.
 - **Do not use X or √ to indicate a selection.**

There are no special tools required to complete the PCR, however it must be completed using black ink to be read by a scanner.

If you have any questions about completing a PCR please refer to DOH Policy Statement 02-05 (or any subsequent replacement of that document).

Issued and Authorized by:
Edward G. Wronski, Director
Bureau of Emergency Medical Services



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supersedes/Updates: New

No. 03 - 04

Date: 02/10/03

**Re: Chemical Terrorism
Preparedness and
Response Card**

Pages: 10

Introduction:

The New York State Department of Health distributed the *Chemical Terrorism Preparedness and Response Card* to all organizations involved in emergency response. The card is designed to serve as a quick reference to providers when faced with a potential act of chemical terrorism.

Emergency Medical Services agencies are encouraged to have all responders review this document and understand what capabilities exist within their agency in complying with the recommendations. All agencies are advised that the directions and recommendations regarding antidote use should only be performed in accordance with established medical protocols for your agency. The use of personal protective equipment including the use of Self Contained Breathing Apparatus (SCBA), should only occur after providers have received proper training on the use and fitting of such equipment.

The Bureau of EMS and the State Emergency Medical Advisory Committee (SEMAC) believe that EMS personnel should not be providing patient care in an environment that requires the use of SCBA. It is not the role of EMS personnel to enter a "hot zone" in an identified WMD incident. EMS crews should operate in the "cold zone" and HazMat or other specially equipped teams should bring patients out of the hot zone to be treated and transported.

These guidelines are provided to assist you in providing care at the scene of a possible Chemical Terrorism incident and not becoming a victim of one.

The attached pages of this policy statement contain the Chemical Terrorism Preparedness and Response Card in its entirety. Should you desire additional copies, it is available in several electronic formats on the Bureau of EMS' WMD and Disaster Preparedness Website, which can be located at:

<http://www.health.state.ny.us/nysdoh/ems/main.htm>

RECOGNIZING CHEMICAL TERRORISM-RELATED ILLNESSES

Adequate planning and regular training are the key to preparedness for terrorism-related events. Healthcare providers should be alert to illness patterns and reports of chemical exposure that might signal an act of terrorism. The following clinical, epidemiological and circumstantial clues may suggest a possible chemical terrorist event:

- An unusual increase in the number of people seeking care, especially with respiratory, neurological or gastrointestinal symptoms
- Any clustering of symptoms or unusual age distribution (e.g., chemical exposure in children)
- Location of release not consistent with a chemical's use
- Simultaneous impact to human, animal and plant populations
- Any unusual clustering of patients in time or location (e.g., persons who attended the same public event)

Any unusual symptoms, illnesses or clusters of these should be reported immediately. EMS personnel should call their medical control facility and dispatching agency. The county health department and local Poison Control Center should also be notified.

PHONE NUMBERS

New York State Department of Health (NYSDOH)

Bureau of Toxic Substance Assessment	518-402-7800
Wadsworth Center Laboratories	518-474-7161
After hours: NYSDOH Duty Officer	1-866-881-2809
After hours: SEMO State Warning Point (SEMO - State Emergency Management Office)	518-457-2200

New York City Department of Health

Poison Control Center	212-764-7667
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Your County Health Department

Consult phone book blue pages under "County Offices"

Poison Control Centers

1-800-222-1222

MEDICAL PREPAREDNESS REFERENCES AND RESOURCES

This response card is only a summary of important information. For more detail for preparedness planning, review the following resources and those at the end of Table 2:

*Textbook of Military Medicine – Medical Aspects of Chemical and Biological Warfare.

http://ccc.apgea.army.mil/products/textbook/HTML_Restricted/index.htm

<http://chemdef.apgea.army.mil/textbook/contents.asp>

*Centers for Disease Control and Prevention Public Health Emergency Preparedness and Response

<http://www.bt.cdc.gov/Agent/AgentlistChem.asp>

**TABLE 1
RECOGNIZING AND DIAGNOSING HEALTH EFFECTS OF CHEMICAL TERRORISM**

Agent Type	Agent Names	Any Unique Characteristics	Initial Effects
Nerve	- Cyclohexyl sarin (GF) - Sarin (GB) - Soman (GD) - Tabun (GA) - VX	- Miosis (pinpoint pupils) - Copious secretions - Muscle twitching/fasciculations	- Miosis (pinpoint pupils) - Blurred/dim vision - Headache - Nausea, vomiting, diarrhea - Copious secretions/sweating - Muscle twitching/fasciculations - Breathing difficulty - Seizures
Asphyxiant/ Blood	- Arsine - Cyanogen chloride - Hydrogen cyanide	- Possible cherry red skin - Possible cyanosis - Possible frostbite*	- Confusion - Nausea - Patients may gasp for air, similar to

			asphyxiation but more abrupt onset - Seizures prior to death
Choking/ Pulmonary-damaging	- Chlorine - Hydrogen chloride - Nitrogen oxides - Phosgene	- Chlorine is a greenish-yellow gas with pungent odor - Phosgene gas smells like newly-mown hay or grass - Possible frostbite*	- Eye and skin irritation - Airway irritation - Dyspnea, cough - Sore throat - Chest tightness
Blistering/ Vesicant	- Mustard/Sulfur mustard (HD, H) - Mustard gas (H) - Nitrogen mustard (HN-1, HN-2, HN-3) - Lewisite (L) - Phosgene oxime (CX)	- Mustard (HD) has an odor like burning garlic or horseradish - Lewisite (L) has an odor like penetrating geranium - Phosgene oxime (CX) has a pepperish or pungent odor	- Severe irritation - Redness and blisters of the skin - Tearing, conjunctivitis, corneal damage - Mild respiratory distress to marked airway damage - May cause death
Incapacitating/ Behavior-altering	- Agent 15/BZ	- May appear as mass drug intoxication with erratic behaviors, shared realistic and distinct hallucinations, disrobing and confusion - Hyperthermia - Mydriasis (dilated pupils)	- Dry mouth and skin - Initial tachycardia - Altered consciousness, delusions, denial of illness, belligerence - Hyperthermia - Ataxia (lack of coordination) - Hallucinations - Mydriasis (dilated pupils)

*Frostbite may occur from skin contact with liquid arsine, cyanogen chloride or phosgene.

**TABLE 2
DECONTAMINATION AND TREATMENT**

Agent Type	Decontamination	First Aid Assess ABCs	Other Patient Considerations
Nerve	- Remove clothing immediately - Gently wash skin with soap and water - Do not abrade skin - For eyes, flush with plenty of water or normal saline	- Atropine before other measures - Pralidoxime (2-PAM) chloride	- Onset of symptoms from dermal contact with liquid forms may be delayed - Repeated antidote administration may be necessary
Asphyxiant/ Blood	- Remove clothing immediately if no frostbite* - Gently wash skin with soap and water - Do not abrade skin - For eyes, flush with plenty of water or normal saline	- Rapid treatment with oxygen - For cyanide, use antidotes (sodium nitrite and then sodium thiosulfate)	- Arsine and cyanogen chloride may cause delayed pulmonary edema
Choking/ Pulmonary-damaging	- Remove clothing immediately if no frostbite* - Gently wash skin with soap and water - Do not abrade skin - For eyes, flush with plenty of water or normal saline	- Fresh air, forced rest - Semi-upright position - If signs of respiratory distress are present, oxygen with or without positive airway pressure may be needed - Other supportive therapy, as needed	- May cause delayed pulmonary edema, even following a symptom-free period that varies in duration with the amount inhaled
Blistering/ Vesicant	- Immediate decontamination is essential to minimize damage - Remove clothing immediately - Gently wash skin with soap and water - Do not abrade skin - For eyes, flush with plenty of water or normal saline	- Immediately decontaminate skin - Flush eyes with water or normal saline for 10-15 minutes - If breathing difficulty, give oxygen - Supportive care	- Possible pulmonary edema - Mustard has an asymptomatic latent period - There is no antidote or treatment for mustard - Lewisite has immediate burning pain, blisters later - Specific antidote British Anti-Lewisite (BAL) may decrease systemic effects of Lewisite - Phosgene oxime causes immediate pain
Incapacitating/ Behavior-altering	- Remove clothing immediately - Gently wash skin with water or soap and water - Do not abrade skin	- Remove heavy clothing - Evaluate mental status - Use restraints as needed - Monitor core temperature carefully - Supportive care	- Hyperthermia and self-injury are largest risks - Hard to detect because it is an odorless and non-irritating substance - Possible serious arrhythmias - Specific antidote (physostigmine) may be available

*For frostbite areas, do NOT remove any adhering clothing. Wash area with plenty of warm water to release clothing.

References for Preparedness and Response Card:

1. Agency for Toxic Substances and Disease Registry (ATSDR). 2001. Managing Hazardous Materials Incidents Vol. I, II, III. Division of Toxicology, U. S. Department of Health and Human Services. Public Health Service: Atlanta, GA.
<http://www.atsdr.cdc.gov/mhmi.html>
2. Chemical Casualty Care Division USAMRICD. 2000. Medical Management of Chemical Casualties Handbook, Third edition. U.S. Army Medical Research Institute of Chemical Defense (USAMRICD). Aberdeen Proving Ground: Aberdeen, MD.
<http://ccc.apgea.army.mil/products/handbooks/RedHandbook/001TitlePage.htm>
3. U.S. Army Edgewood Research, Development and Engineering Center. 1999. Technician EMS Course. Domestic Preparedness Training Program, Version 8.0. U.S. Army SBCCOM. Aberdeen Proving Ground: Aberdeen, MD.

**TABLE 3
ANTIDOTE RECOMMENDATIONS FOLLOWING EXPOSURE TO CYANIDE**

Note – Victims whose clothing or skin is contaminated with hydrogen cyanide liquid or solution can secondarily contaminate response personnel by direct contact or through off-gassing vapors. Avoid dermal contact with cyanide-contaminated victims or with gastric contents of victims who may have ingested cyanide-containing materials. Victims exposed only to hydrogen cyanide gas do not pose contamination risks to rescuers. **If the patient is a victim of recent smoke inhalation (may have high carboxyhemoglobin levels), administer only sodium thiosulfate.**

Patient	Mild (conscious)	Severe (unconscious)	Other Treatment
Child	If patient is conscious and has no other signs or symptoms, antidotes may not be necessary.	Sodium nitrite ¹ : 0.12 - 0.33 ml/kg, not to exceed 10 ml of 3% solution ² slow IV over no less than 5 minutes, or slower if hypotension develops and Sodium thiosulfate: 1.65 ml/kg of 25% solution IV over 10 - 20 minutes	For sodium nitrite-induced orthostatic hypotension, normal saline infusion and supine position are recommended. If still apneic after antidote administration, consider sodium bicarbonate for severe acidosis.
Adult	If patient is conscious and has no other signs or symptoms, antidotes may not be necessary.	Sodium nitrite ¹ : 10 - 20 ml of 3% solution ² slow IV over no less than 5 minutes, or slower if hypotension develops and Sodium thiosulfate: 50 ml of 25% solution IV over 10 - 20 minutes	

1. If sodium nitrite is unavailable, administer amyl nitrite by inhalation from crushable ampules.
2. Available in Pasadena Cyanide Antidote Kit, formerly Lilly Cyanide Kit.

**TABLE 4
ANTIDOTE RECOMMENDATIONS FOLLOWING EXPOSURE TO NERVE AGENTS**

Patient Age	Antidotes		Other Treatment
	Mild/Moderate Effects ¹	Severe Effects ²	
Infants (0-2 yrs)	Atropine: 0.05 mg/kg IM, or 0.02 mg/kg IV; and 2-PAM Chloride: 15 mg/kg IM or IV slowly	Atropine: 0.1 mg/kg IM, or 0.02 mg/kg IV; and 2-PAM Chloride: 25 mg/kg IM, or 15 mg/kg IV slowly	Assisted ventilation after antidotes for severe exposure. Repeat atropine (2 mg IM, or 1 mg IM for infants) at 5 - 10 minute intervals until secretions have diminished and breathing is comfortable or airway resistance has returned to near normal.
Child (2-10 yrs)	Atropine: 1 mg IM, or 0.02 mg/kg IV; and 2-PAM Chloride ³ : 15 mg/kg IM or IV slowly	Atropine: 2 mg IM, or 0.02 mg/kg IV; and 2-PAM Chloride ³ : 25 mg/kg IM, or 15 mg/kg IV slowly	at 5 - 10 minute intervals until secretions have diminished and breathing is comfortable or airway resistance has returned to near normal.
Adolescent (>10 yrs)	Atropine: 2 mg IM, or 0.02 mg/kg IV; and 2-PAM Chloride ³ : 15 mg/kg IM or IV slowly	Atropine: 4 mg IM, or 0.02 mg/kg IV; and 2-PAM Chloride ³ : 25 mg/kg IM, or 15 mg/kg IV slowly	Phentolamine for 2-PAM-induced hypertension: (5 mg IV for adults; 1 mg IV for children).
Adult	Atropine: 2 to 4 mg IM or IV; and 2-PAM Chloride: 600 mg IM, or 15 mg/kg IV slowly	Atropine: 6 mg IM; and 2-PAM Chloride: 1,800 mg IM, or 15 mg/kg IV slowly	Diazepam for convulsions: (0.2 to 0.5 mg IV for infants less than 5 years; 1 mg IV for children 5 years and older; 5 mg IV for adults).
Elderly, frail	Atropine: 1 mg IM; and 2-PAM Chloride: 10 mg/kg IM, or 5 to 10 mg/kg IV slowly	Atropine: 2 to 4 mg IM; and 2-PAM Chloride: 25 mg/kg IM, or 5 to 10 mg/kg IV slowly	

1. **Mild/Moderate effects** include localized sweating, muscle fasciculations, nausea, vomiting, weakness, dyspnea.
2. **Severe effects** include unconsciousness, convulsions, apnea, flaccid paralysis.
3. If calculated dose exceeds the adult IM dose, adjust accordingly.

NOTE: 2-PAM Chloride is Pralidoxime Chloride or Protopam Chloride.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

DO NOT BECOME A CASUALTY!

First responders face the greatest exposure potential, often to unidentified agents. To protect yourself:

- Be alert
- Keep an appropriate distance
- Stay upwind

- Wait for assessment by a HAZMAT team before entering

Ideally, responders in an unknown situation should wear Level A PPE. Exposure can occur from inhalation of vapors, dermal contact or eye contact. The following is a general discussion to help responders/healthcare providers determine appropriate PPE.

PPE to Prevent Inhalation Exposure:

Protection from both vapors and particulates may be required when the chemical agent is being released. After release, protection from vapors is most important. Surgical and N-95 masks will not protect against inhalation of vapors. Half-face and full-face respirators, with the appropriate canister, will provide good protection from vapors. These operate by negative pressure and must be fit tested for optimal protection. Powered, air-purifying respirators (PAPR) and self-contained breathing apparatus (SCBA) provide even greater protection and operate under positive pressure so that fit characteristics are less important.

PPE to Prevent Dermal Exposure:

Latex examination gloves provide very little protection from most chemical agents and can cause allergies. Gloves made of Viton, nitrile, butyl or neoprene provide more protection and, in some styles, allow adequate dexterity. However, the resistance of these materials to different chemicals varies and it is best to have a variety of gloves available. Double gloving may provide additional protection. Chemical-resistant aprons or suits can also prevent dermal exposure.

PPE to Prevent Eye Exposure:

Full-face respirators, PAPR and SCBA will provide protection from both splashes and vapors. Protective eyewear, such as goggles or a face shield, will not provide protection from chemical vapors. Protective eyewear is required during decontamination to prevent splashing into eyes.

DECONTAMINATION GUIDELINES

Proper decontamination is often the most important first step in treating a patient exposed to chemical agents. Immediate removal of patient clothing can remove up to 90 percent of the contaminant. Removed clothing should be bagged, sealed and retained as possible evidence.

After the clothing is removed, the patient's skin and eyes may need to be decontaminated. In most cases, decontamination of skin can be accomplished by gentle and thorough washing with soap and water followed by a thorough water rinse. For eyes, flush with plenty of water or normal saline. Decontamination water may need to be contained.

Bleach solutions, concentrated or dilute, should not be used on people. Diluted bleach (1 part household bleach to 9 parts water) can be used on equipment and other hard surfaces. Because bleach solutions irritate the eyes, skin and respiratory tract, they must be handled with caution and used with adequate ventilation.

It is important not to abrade the skin during washing or rinsing. This is especially true after exposure to blistering/vesicant agents which bind to skin. These agents may leave the skin compromised and susceptible to further damage. For choking/pulmonary-damaging agents or incapacitating/behavior-altering agents, a rinse in water alone may be adequate.

ODORS

Some chemical agents are accompanied by a characteristic odor that may provide a warning. However, after a while, people may become used to the chemical and no longer detect the smell. The chemical may still be present even if there is no detectable odor.

DISCLAIMER

The information on this card is meant to be a quick guide and is not intended to be comprehensive. This information or the web sites and references listed in this card are not a substitute for professional medical advice, diagnosis, or treatment of the individual. Please consult other references, Poison Control Center, and check antidote dosages, particularly for children and pregnant women.



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supercedes/Updates: 02-08

No. 03-05

Date: 02/13/03

Re: Mark I Kits

Pages: 10

Use of “Mark I Kits” (AtroPen® Auto-Injector & Pralidoxime Chloride Injector)

Purpose:

To provide EMS agencies with guidelines on the appropriate use of “Mark I Kits”. The “Mark I Kit” contains antidotes to be used in instances of exposure to a nerve or organophosphate agent. The Mark I kit consists of two autoinjectors containing Atropine Sulfate and Pralidoxime Chloride.

Key Provision:

Only those EMS services that are part of the Metropolitan Medical Response Systems (MMRS) and/or a Municipal response Plans are authorized to purchase and utilize the specialized equipment and medications needed in WMD incidents. This includes “Mark I Kits”.

Guidelines:

The initial guidelines for the use of the “Mark I Kits” were developed by the Bio-Terrorism sub-committee of the State Emergency Medical Advisory Committee (SEMACE). They were then adopted by the SEMACE as well as the State Emergency Medical Services Council (SEMSCO), to provide guidance to EMS agencies who are a part of the Metropolitan Medical Response System (MMRS) and/or a Municipal Response Plan. This updated edition is to provide additional guidance on the use of the Mark I kits.

There are five provisions in the guidelines:

1. An EMS agency must be participating in an MMRS or Municipal Response Plan for WMD incidents.
2. The decision to utilize the “Mark I” antidote must be done under the authority of medical control.
3. At a minimum, an EMS provider must be trained to the WMD awareness level. The

awareness program should be a national training program or modeled after one of the training programs developed by the Department of Defense (DOD), Department of Justice (DOJ) or Federal Emergency Management Agency (FEMA).

An online WMD awareness course is offered through the Domestic Preparedness Campus of Texas A&M University's web site at:

<http://www.teexwmdcampus.com>

4. The “Mark I Kit” is not to be used for self-administration or prophylaxis.

5. Use of the “Mark I Kit” is to be based on signs and symptoms of the patient. The Suspicion or identified presence of a nerve agent is not sufficient reason to administer these medications.

Antidote Mechanism of Action:

1. The nervous system controls body functions by secreting chemical transmitters which act as “instructions” to nerves, muscles and glands at the nerve endings.
2. These neurological instructions come in two forms:
 - 1) **stimulate** (move or work)
 - 2) **relax** (stop or rest).
3. When a nerve agent is present, it interferes with the normal instructions of chemical transmitters that direct the muscle or gland to return to an unstimulated, relaxed state.
4. By interfering with the normal chemical checks and balances, the action of toxic nerve agents is to over-stimulate the nerve endings and central nervous system.
5. Over-stimulation of the nervous system causes muscles and certain glands to over-react and cause the symptoms of: SLUDGEM + Respirations and Agitation.
6. The initial treatment for a nerve agent exposure consists of a two part antidote:
 - 1) Atropine, and
 - 2) 2-PAM Chloride.

NOTE: *ATROPINE IS THE PRIMARY DRUG FOR TREATMENT OF NERVE AGENT EXPOSURE!*

7. Atropine stops the effect of the nerve agent by blocking the effects of over-stimulation. It effectively counters the actions of the nerve agent at nerve receptors.
8. Atropine relieves the smooth muscle constriction in the lungs (wheezing, respiratory distress) and gastrointestinal (diarrhea, cramps) tract, and also dries up respiratory tract secretions.
9. The companion drug to Atropine is 2-PAM CL; this drug complements the action of Atropine. 2-Pam Chloride acts to restore normal functions at the nerve ending by removing the nerve agent and affecting toxin irreversibility. This antidote is effective at re-establishing normal skeletal muscle contraction (relieves twitching and paralysis of respiratory muscles).

RECOMMENDED ANTIDOTE DOSING SCHEDULE FOR EXPOSURE TO NERVE AGENT

1. If severe signs and symptoms are present, three (3) Atropine auto-injectors and three (3) 2-PAM CL injectors should be administered in rapid succession.
2. If the patient exhibits SLUDGEM but no central nervous system (CNS) findings are present, then two (2) Atropine auto-injectors and one (1) 2-PAM CL injector should be given.
3. In either case, remove secretions, maintain patient's airway and, if necessary and the situation permits, use artificial ventilation.
4. Repeat dosages will be given as specified in the Extended Re-evaluation and Treatment Schedule (Table 2).
5. If symptoms resolve, then only monitoring is necessary.
6. Pre-measured doses of auto-injectors should be safe in most adults. It should be noted, however that auto-injectors were designed for a military profile: approximate age 18-35, weight 70 kg. Or 154 lbs., healthy and with no preexisting medical conditions.
7. Pralidoxime (2-PAM CL) is most effective if administered immediately after poisoning and following but **not** before Atropine, especially for severe exposures.
8. When the nerve agent has been ingested exposure may continue for some time due to slow absorption from the lower bowel. Fatal relapses have been reported after initial improvement. Continued medical monitoring and transport is mandatory.

9. If dermal exposure has occurred, decontamination is critical and should be done with standard decontamination procedures. Patient monitoring should be directed to the same signs and symptoms as with all nerve agent exposures.
10. Diazepam (Valium) may be given cautiously if convulsions are not controlled.

Antidote Dosing Schedules:

Initial Treatment (Table 1)

Signs & Symptoms	Atropine Dose Monitor Interval	2-Pam Dose
Severe Respiratory Distress, Agitation SLUDGEM	3 Auto-injectors (6 mg) Monitor every 5 minutes	3 Auto-injectors (1.8 gms)
Respiratory Distress, SLUDGEM	2 Auto-injectors (4 mg) Monitor every 10 minutes	1 Auto-injector (600 mg)
Asymptomatic None	Monitor for signs & symptoms every 15 minutes	None

In the initial phase, triage will be initiated in the Hot Zone, continued in the warm zone, and performed only by trained personnel who are wearing appropriate Personal Protective Equipment (as determined by the Incident Commander). Patient decontamination will be simultaneous with and/or prior to treatment. Children should be decontaminated and have expedited transport off scene especially if they are demonstrating any signs and symptoms of exposure.

Extended Re-Evaluation & Treatment Phase:

This phase is reached once patients have been initially managed and patient volume allows for more protracted patient assessments.

Extended Re-evaluation and Treatment Schedule (Table 2)

Signs & Symptoms	Atropine Dose Monitor Interval	2 Pam Dose	Atropine Repeat Dosing Frequency
Severe Respiratory Distress, Agitation, SLUDGEM	2 mg Monitor every 5 minutes	Up to a maximum of 1.8 gms. (3 auto-injectors)	Atropine 3-5 minutes as needed
Respiratory Distress SLUDGEM	2 mg Monitor every 5 to 15 minutes	Up to a maximum of 600 mg. (1 auto-injector)	Atropine 5-10 minutes as needed
Asymptomatic	None Monitor every 15 minutes	None	Atropine 5-15 minutes as needed

Note: Personnel operating in this phase should be aware of the potential for “off-gassing”. Off-gassing is the process by which vapors are given off by chemically contaminated clothing.

Cautions For Use Of Auto-Injectors:

1. Every potential exposure in the immediate vicinity of the incident must be medically evaluated and monitored. Delayed symptoms may present anytime post incident.

Any patient ill enough to receive even one dose of atropine must be evaluated at an appropriate facility (e.g. casualty collection point, hospital, etc.).

2. Signs or symptoms of nerve agent poisoning may reappear. Serial observations are a critical part of the management process.
3. Auto injectors have been developed for use in the adult population. Safety and effectiveness of 2-PAM CL in children has not been established. **The atropine and 2-PAM CL antidote auto injectors should not be used in children 9 years of age or younger.**

For additional information on the treatment of pediatric patients contact medical control or refer to local REMAC developed protocols.

Adverse Reactions:

Note: Adverse reactions may occur but there are no contraindications to treating systematic patients.

1. Atropine may cause chest pain. It may also exacerbate angina or induce a myocardial infarction.
2. Up to one hour after intramuscular injection of 2-PAM CL some pain may be experienced at the site of injection.
3. 2-PAM CL may cause blurred vision, double vision (diplopia), dizziness, headache, drowsiness, nausea, rapid heart rate (tachycardia), increased blood pressure, and hyperventilation.
4. Both (Atropine and 2-Pam CL) should be used with caution (but not withheld) in patients with preexisting cardiac disease, high blood pressure, or strokes, particularly in the Extended Re-evaluation and Treatment Phase.

Auto-Injectors – General:

Note: Use of antidotes will not protect responders from anticipated exposures.

1. Auto-injectors are self-contained, simple, compact injection systems that come equipped with a pre-measured dose (normal adult dose) of antidote.
2. An antidote relieves, counteracts, or reverses the effects of poisons or drugs such as nerve agents.
3. The Mark I kit must be kept at room temperature (about 25°C 77°F) and must be protected from freezing.
4. **Mark 1 antidote kits are to be used only:**
 - 1) when specific signs and symptoms of exposure are present
AND
 - 2) the scene has been declared the site of a nerve agent release by a local competent authority
AND
 - 3) Following consultation with Medical Control and in compliance with any local REMAC Nerve Agent Protocol.
 - a. The Mark 1 injectors are not to be used as a prophylaxis for personal protection.
 - b. There is to be no self-administration of antidote.
5. Auto-injectors permit rapid administration of antidote, prevent needle cross-contamination between patients, and enable rapid and accurate administration to a large number of patients (even if the emergency provider and the patient are in chemical protective clothing).
6. Auto-injectors facilitate treatment by providing simple, accurate, drug administration of a pre-measured, controlled dose.
7. Auto-injectors administer a predictable drug dose that is not operator dependent.
8. Auto-injectors contain pre-measured doses of the nerve agent antidotes:
 - 1) Atropine
 - 2) 2-PAM Chloride (2-PAM CL; pralidoxime chloride)
9. Each auto-injector contains pre-measured amounts of Atropine (2 mg total dose per injection) and 2-PAM CL (600 mg total dose per injection).
10. Mark 1 antidote kits are available and are only to be used under the direction of medical control in accordance with a local REMAC approved

Nerve Agent Exposure protocol. EMS agencies must be identified as a participant in a municipal response plan involving nerve agents.

Directions For Use Of Auto-Injector

1. When auto-injector use is indicated, the recommended procedure is to inject the contents of the auto-injector into the muscles of an anterolateral (front and side) thigh (through the pocket).
2. Procedure:
 - 1) Remove safety cap (yellow on Atropine; gray on 2-PAM CL). Do not touch the colored end of the injector after removing the safety cap.
 - 2) **Caution: The injector can and will inject into the fingers or hand if any pressure is applied to either end of the injector.**
 - 3) Hold injector as you would a pen. Place colored end (green on Atropine, Gray on 2-PAM CL) on thickest part of thigh and press hard until injector is activated.
 - 4) Pressure automatically activates the spring, which plunges the needle into the muscle and simultaneously forces fluid (Atropine or 2-Pam CL) through it into the muscle tissues.
 - 5) **Hold firmly in place for ten seconds then remove.** Massage the area of injection.
 - 6) **After each auto-injector has been activated, the empty container should be disposed of properly. It cannot be refilled nor can the protruding needle be retracted.**

IMPORTANT: Physicians and/or other medical personnel and emergency responders assisting evacuated victims of nerve agent exposure should avoid exposing themselves to cross-contamination by ensuring that they do not come into direct contact with the patient's clothing.

Documentation:

- When a patient has received treatment with the use of a Mark I kit(s) there must be a method to record such information so persons providing subsequent care are aware of that treatment and the amount of medication given.
- If the resources are present it is recommended that a triage tag be placed on each patient and that any treatment given be recorded on that tag.

- If the patient is provided with care prior to decontamination than replace that triage tag following decontamination with a new (dry) tag and copy over any information regarding treatments already provided.
- In the event triage tags are not available, documentation might be provided by affixing a piece of medical tape on the patient indicating what care has been provided. Be sure that if such a system is used that any tape applied prior to decontamination is removed as part of decontamination and the information is exactly copied on any new documents pertaining to the patient.

Sample Protocol:

Attached to this policy and guideline is a model “Mark I PROTOCOL” based upon existing metropolitan response system protocols and various federal agency recommendations for administration. This protocol is not mandated and was not specifically approved by the SEMAC. This protocol is provided to assist a Regional Medical Advisory Committee (REMAC) or municipal system Medical Director in developing a local protocol. **This model is not intended for independent use by an EMS agency.** It may be used only with medical authorization and participation of the agency in a municipal or MMRS plan.

There are currently five metropolitan areas that are part of the MMRS program in New York State:

New York City
Yonkers
Buffalo
Rochester
Syracuse

If your agency is included in an MMRS or municipal response plan you may have received training and formal protocols for WMD response, including the use of the “Mark I Kits”. This guideline, if different from the plan in which you participate, is not meant to supercede your local protocol, medical control or policy.

This policy has been distributed to your REMAC, Regional EMS Councils and County Emergency Management authorities.

Issued and Authorized by:
Edward G. Wronski, Director
Bureau of EMS

MODEL PROTOCOL FOR THE USE OF MARK I KITS

Purpose: These are antidotes to be used in instances of exposure to a nerve or organophosphate agent.

Use: The Mark I is to be used only if you are part of the MMRS and or a Municipal Response Plan.

Contents: (1) Atropine Auto-Injector (2 mg total dose per injection)
(2) 2-PAM (2-PAM CL; pralidoxime chloride) 600 mgs. total dose per injection.

- **NOTE: These injectors are not to be used as a prophylactic modality. There is to be no self-administration of the antidote.**

I: Mark I Kit

- (a) To be used only in a disaster situation and only if you are a part of the MMRS and or a Municipal Response system.
- (b) The Mark I Kit is only to be utilized under direct authority of Medical Control.

II: Auto Injector Use

- (a) Pre measured doses in auto-injectors should be safe for most adults.
- (b) Atropine auto-injector and Pralidoxime (2 PAM CL) may be administered by qualified emergency personnel and designated emergency responders who have had adequate training in on-site recognition and treatment of nerve and or organophosphate agent intoxication in the event of a chemical release. This is specific to the disaster setting.
- (c) Medical treatment is directed to relieving respiratory distress and alleviating seizures.

III: Indications for use of the Auto Injectors

- (a) It is a concern that the use of auto-injectors could lead to administration of inappropriate and harmful doses during a non-chemical agent or minimal exposure situations. The auto-injectors are to be used only if the patient presents with SLUDGEM + RESPIRATIONS and AGITATION.
- (b) The Atropine and 2-PAM CL auto injectors should be used by qualified emergency medical personnel and designated emergency responders only after the following events have occurred:
 - 1) The recognition of the existence of a potential chemical or organophosphate agent release in an area.
 - 2) Some or all of the symptoms of the nerve agent poisoning cited below are present:

SLUDGEM + RESPIRATION and AGITATION

S – salivation (excessive drooling)
L – lacrimation (tearing)
U – urination
D – defecation / diarrhea
G – GI upset (cramps)
E – emesis (vomiting)
M – muscle (twitching, spasm, “bag of worms”)

+

RESPIRATION – difficulty breathing / distress (sob, wheezing)

+

AGITATION + CNS SIGNS – confusion, agitation, seizures, coma.

- 3) Atropine must be given first, ***do not give anything else until the effects of atropine become apparent.*** Only when the effects of the atropine have been seen can you then give 2 – PAM CL.
- 4) If symptoms resolve, then only monitoring is necessary.
- 5) **If severe signs and symptoms are present; three (3) Atropine auto-injectors and three (3) 2-PAM CL injectors should be administered in rapid succession (stacked).**
 1. Remove secretions
 2. Maintain an open airway
 3. Use artificial ventilation in necessary and possible
 4. Repeat Atropine immediately as directed
- 6) Pralidoxime (2-PAM CL) is most effective if administered immediately after the poisoning but not before Atropine, especially for severe exposures.
- 7) If available Diazepam (Valium) may be cautiously given, under direct medical control, if convulsions are not controlled.
- 8) When the nerve agent has been ingested, exposure may continue for some time due to slow absorption from the lower bowel, and fatal relapses have been reported after initial improvement. Continued medical monitoring and transport is mandatory.
- 9) If dermal exposure has occurred, decontamination is critical and should be done with standard decontamination procedures. Patient monitoring should be directed to the same signs and symptoms as with all nerve or organophosphate exposures.

7/2/2002



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supersedes/Updates: 84-22 Bee Sting Policy,
99-01 EMT-B Assisted Medications

No. 04-07

Date: 7/28/04

**Re: EMT-Basic
Assisted Medication
Administration**

Page 1 of 2

EMT-Basic Assisted Medication Administration

This policy is intended to delineate the role of the EMT-B in assisting a patient in taking his or her **own pre-prescribed medication(s)**. The only medications included in the training curriculum and protocols are **Nitroglycerin (tablet or spray), Bronchodilator (metered dose inhaler) and epinephrine in an auto-injector.**

Definitions:

1. Pre-prescribed medications are those medications that are prescribed by a physician for a specific patient prior to an emergency and are present at the scene of the emergency.
2. "Assisting" means delivering a patient's pre-prescribed medication, regardless of who delivers the medication.
3. "Contraindication" or "contraindicated" means that the condition of the patient does not require, or may be dangerous to the patient if administered or the patient does not meet the criteria set forth by the published protocols.

Procedure:

1. A certified EMT-B should deliver pre-prescribed nitroglycerin or a bronchodilator to a patient if the patient indicates (verbally, by gesture, etc.) their desire to take their medication and the delivery of such medication is not contraindicated by protocol or the EMT-B's training. If there is any question, contact Medical Control.

NOTE: There is no circumstance when it would be proper to deliver either nitroglycerin or a bronchodilator to a patient who can not indicate their desire to take their pre-prescribed medication.

NOTE: As stated, this procedure prevents an EMT-B from delivering either of these medications to an unconscious or unwilling patient. The contraindication statement is added for cases where the patient indicates their desire to take their medication but it is contraindicated by the patient's presentation or condition.

2. A certified EMT-B should deliver pre-prescribed epinephrine by auto-injector to a patient who exhibits signs/symptoms consistent with the indications for the medication and protocol or the EMT-B's training does not contraindicate the medication. If there is any question, contact Medical Control.

NOTE: There are many scenarios in which the patient may not be able to indicate their desire to take their pre-prescribed epinephrine and the EMT-B must make the decision to do so. The EMT-B is trained to recognize the signs and symptoms of anaphylaxis and the contraindications for epinephrine. In cases of an allergic reaction, where the patient is conscious and alert, the patient should be able to participate in the decision and the delivery of the epinephrine auto-injector.

Special Circumstances:

Experience has shown that "assisted medications" may not be labeled with the patient's name on the container, inhaler or auto-injector carried by the patient. In this circumstance, if the patient indicates a desire to take the medication, the following should be considered:

- The medication has been identified as being the patient's pre-prescribed medication by a claim (the patient or family member states that it belongs to the patient) or an appearance (is in the patient's pocket or purse, etc).
- The patient exhibits signs/symptoms consistent with the indications for the medication.
- Protocol or the EMT-B's training does not contraindicate the medication.

Only then should the EMT-B assist in delivering the medication. In addition, the container, inhaler or auto-injector may not be labeled with the name of the medication.

- **In no case should an EMT-B assist in the delivery of a medication from a container, inhaler, or auto-injector that is not labeled with the name of the medication.**
- In cases where the label indicates that the medication is outdated, the EMT-B **must contact Medical Control for direction.** If there is any question, contact Medical Control.

NOTE: Signs/symptoms and indications for the assisted medication are included in the New York State EMT-B curricula.



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT
Supersedes/Updates: 98-15

No. 06-01

Date: January 11, 2006

**Re: Emergency Patient
Destinations and
Hospital Diversion**

Page 1 of 2

As prehospital care becomes more sophisticated and hospital care more specialized, it is important to clarify the responsibilities of ambulance services to transport their patients to the appropriate medical facility destination. EMS services are required by either state or regional EMS medical advisory committees to transport patients to hospitals with special designations.

BACKGROUND

While Article 30 of the New York State Public Health Law defines ambulance service, it does not require ambulances to transport patients to specific hospital destinations. However, the New York State Emergency Medical Services Council has made the following statements concerning the transport of emergency patients:

- All ambulance patients can expect to be informed of the need to be taken to a medical facility capable of providing appropriate emergency medical care¹.
- The triage and transport of out of hospital patients must be based upon established principles of emergency medical practice, including pre-established state and regional medical protocols and guidelines. For any given patient, the appropriateness of the receiving facility to provide emergency care is a medical decision. Therefore, the direction or redirection of a transporting vehicle cannot be made without medical approval based upon established Regional Emergency Medical Services System protocols².

Also, the NYS Basic Life Support Protocols, which Part 800 regulations require all Emergency Medical Technicians to comply with specify:

- Major Trauma Protocols – If the patient meets any one of the criteria delineated in the protocols, they must be transported to a regional trauma center³.
- Suspected Stroke – A. Transport the patient to the closest New York State Department of Health designated Stroke Center if the total prehospital time is less than two hours⁴.

Additionally, a Regional Medical Advisory Committee (REMAC) may have developed treatment and transport protocols that address local conditions and require that patients be transported to specific facilities in certain situations.

POLICY

Based on the mechanism of injury, assessment findings, treatment, state and local protocol, a patient, in need of emergency medical care must be taken to the nearest appropriate health care facility capable of treating the illness, disability or injury of the patient. Ambulance services are under no obligation to transport patients to medical facilities not licensed under Article 28 of the Public Health Law. It is expected that the EMS provider will consult with a medical control physician, should there be questions of protocol, policies, procedures and transport destinations.

In non-emergency situations, ambulance services *may* make transports to facilities such as physician's offices, diagnostic and treatment centers (DT&C), free standing emergency clinics or other destinations. However, the ambulance crew must be aware of the emergency care capabilities of such facilities at the time of the patient request.

A patient's choice of hospital or other facility should be complied with unless contraindicated by state, regional or system/service protocol or the assessment by a certified EMS provider shows that complying with the patient's request would be injurious or cause further harm to the patient. Patient transfer can be arranged following emergency care and stabilization. In such cases, the EMT should fully document the patient's request and the reasons for the alternate destination decision, including any medical control consultation.

HOSPITAL DIVERSION REQUESTS

A hospital may notify the EMS system of a temporary inability to provide care in the emergency department (ED) and request ambulances divert patients to an alternate hospital facility. A request to divert to another facility may be honored by EMS providers. A diversion request does not mean the hospital ED is closed, but usually means the current emergency patient load exceeds the Emergency Department's ability to treat additional patients promptly. If the patient's condition is unstable and the hospital requesting diversion is the closest appropriate hospital, ambulance service personnel should notify the hospital of the patient's condition and to expect the patient's arrival. This procedure should also be followed when a patient demands transport to a facility on diversion. The hospital may not refuse care for a patient presented. Should an issue arise, the EMS provider should consult with a medical control physician.

Endnote:

1. Ambulance Patient's Bill of Rights, NYSEMS Council, 1998 Emergency Medical Services Plan
2. Access to Emergency Care in a Managed Care Environment, NYSEMS Council, 1998 Emergency Medical Services Plan
3. Adult and Pediatric Major Trauma Protocols, T-6, T-7, May, 2004
4. Suspected Stroke Protocol, M-17, January, 2005

Appendices

Appendix – Pediatric

Appropriate Ventilatory Rates for Assisted Ventilation

<u>Age Group</u>	<u>If Respiratory Rate is:</u>	<u>Ventilate At:</u>
Infant (<1 yr)	< 30/min	20/min
Toddler (1 – 2 yr)	< 24/min	20/min
Preschooler (3 – 5 yr)	< 20/min	20/min
School Age (6 – 12 yr)	< 15/min	20/min
Adolescent (13 – 18)*	< 10/min	12/min

Appropriate Ventilatory Rates for Hyperventilation

<u>Age Group</u> <u>At:</u>	<u>If Glasgow Coma Scale Score Is:</u>	<u>Hyperventilate</u>
Infant (<1 yr)	< 8	25/min
Toddler (1 – 2 yr)	< 8	25/min
Preschooler (3 – 5 yr)	< 8	25/min
School Age (6 – 12 yr)	< 8	25/min
Adolescent (13 – 18)*	< 8	20/min

Criteria for Tachypnea (Rapid Respiratory Rate)

<u>Age Group</u>	<u>Respiratory Rate:</u>
Infant (<1 yr)	< 60/min
Toddler (1 – 3 yr)	< 40/min
Preschooler (3 – 5 yr)	< 35/min
School Age (6 – 12 yr)	< 30/min
Adolescent (13 – 18)*	< 30/min

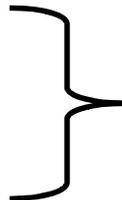


Use this formula to estimate the upper limit of respiratory rates in pediatric patients 1 – 10 yr

$40 - (2x \text{ age})$

Criteria for Tachycardia (Rapid Heart Rate)

<u>Age Group</u>	<u>Heart Rate:</u>
Infant (<1 yr)	< 160/min
Toddler (1 – 3 yr)	< 150/min
Preschooler (3 – 5 yr)	< 140/min
School Age (6 – 12 yr)	< 120/min
Adolescent (13 – 18)*	< 100/min

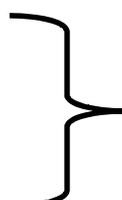


Use this formula to estimate the upper limit of heart rates in pediatric patients 1 – 10 yr

$150 - (5x \text{ age})$

Criteria for Hypotension (Low Blood Pressure)

<u>Age Group</u>	<u>Blood Pressure:</u>
Infant (<1 yr)	< 60 mm Hg
Toddler (1 – 3 yr)	< 70 mm Hg
Preschooler (3 – 5 yr)	< 75 mm Hg
School Age (6 – 12 yr)	< 80 mm Hg
Adolescent (13 – 18)*	< 90 mm Hg



Use this formula to estimate the lower limit of systolic blood pressure in pediatric patients 1 – 10 yr

$70 + (2x \text{ age})$

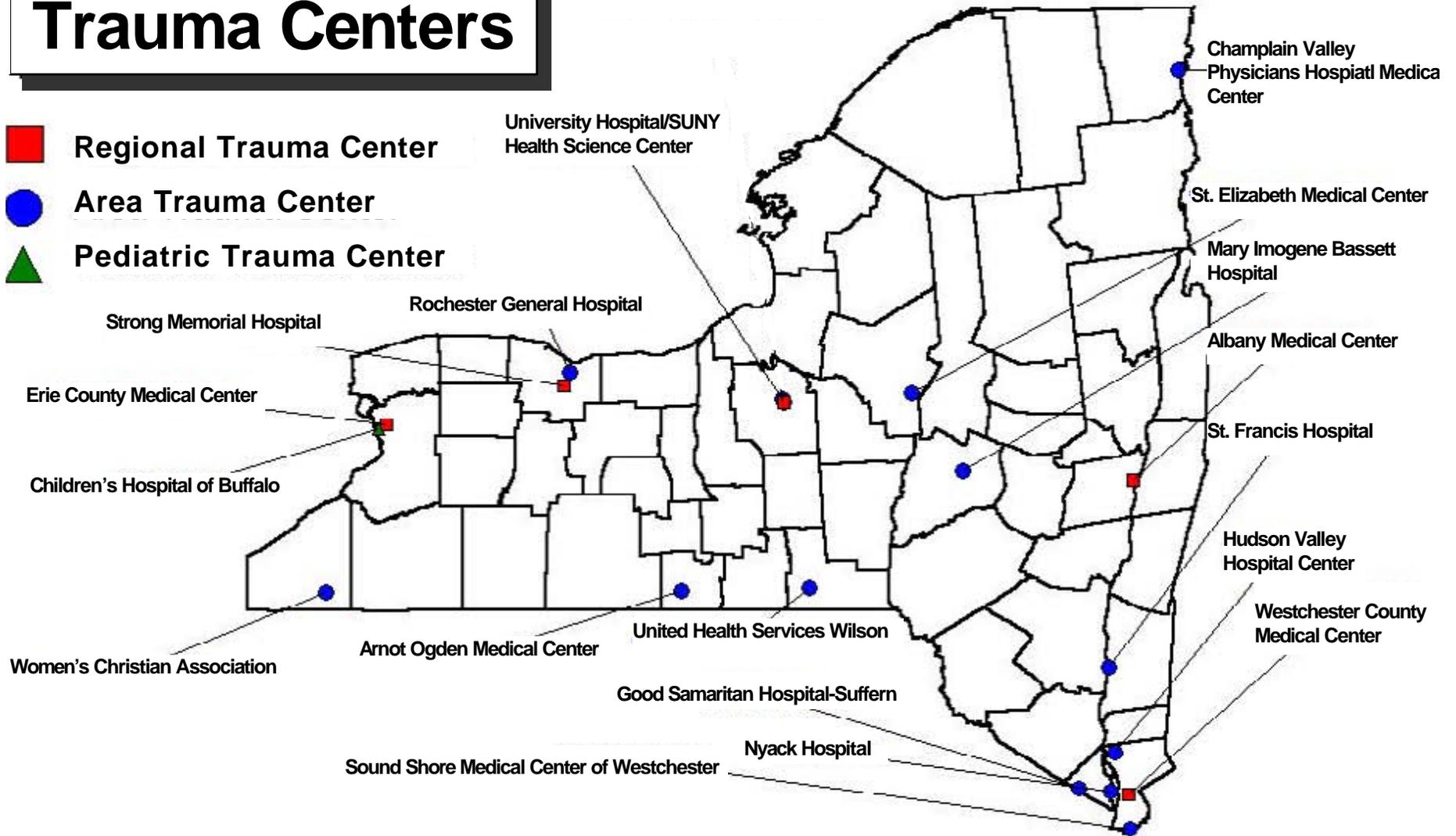
* Adult value used

Appendices A – Pediatrics, continued

Appendix - B
New York State Designate Trauma Centers

New York State Trauma Centers

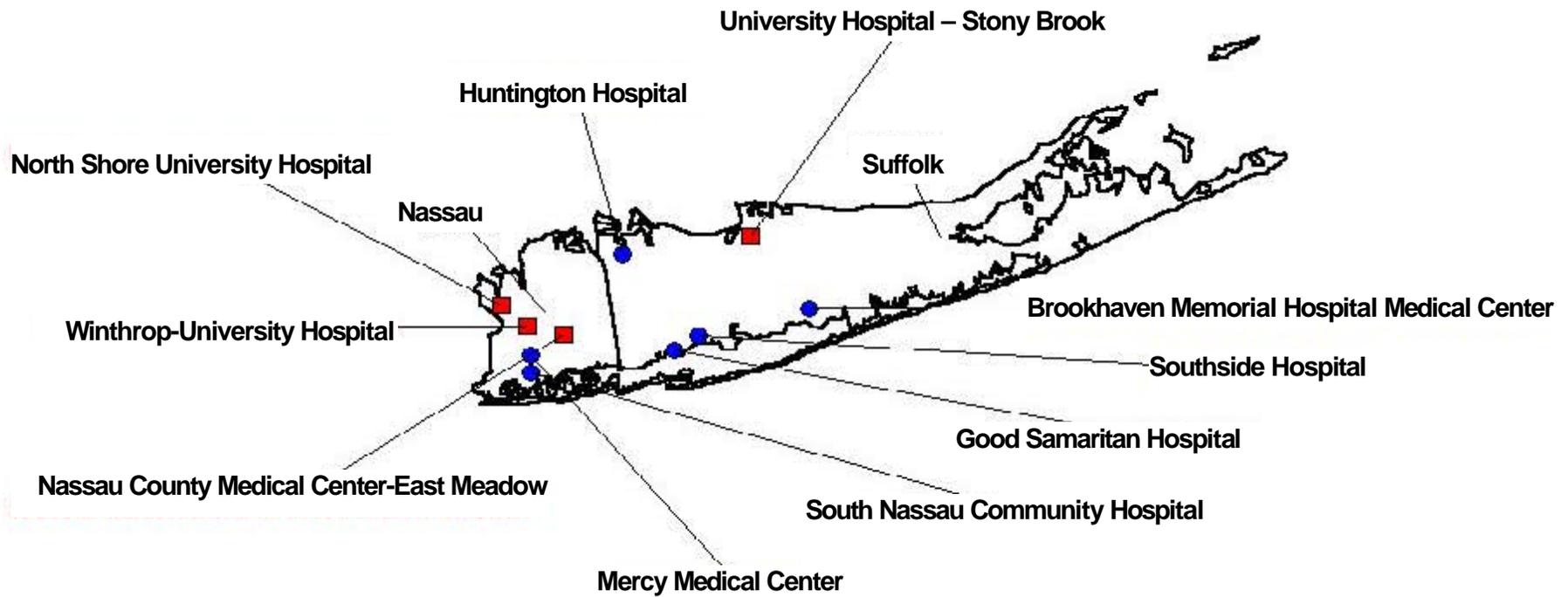
-  Regional Trauma Center
-  Area Trauma Center
-  Pediatric Trauma Center



Appendix - B
New York State Designate Trauma Centers

Trauma Centers of Long Island

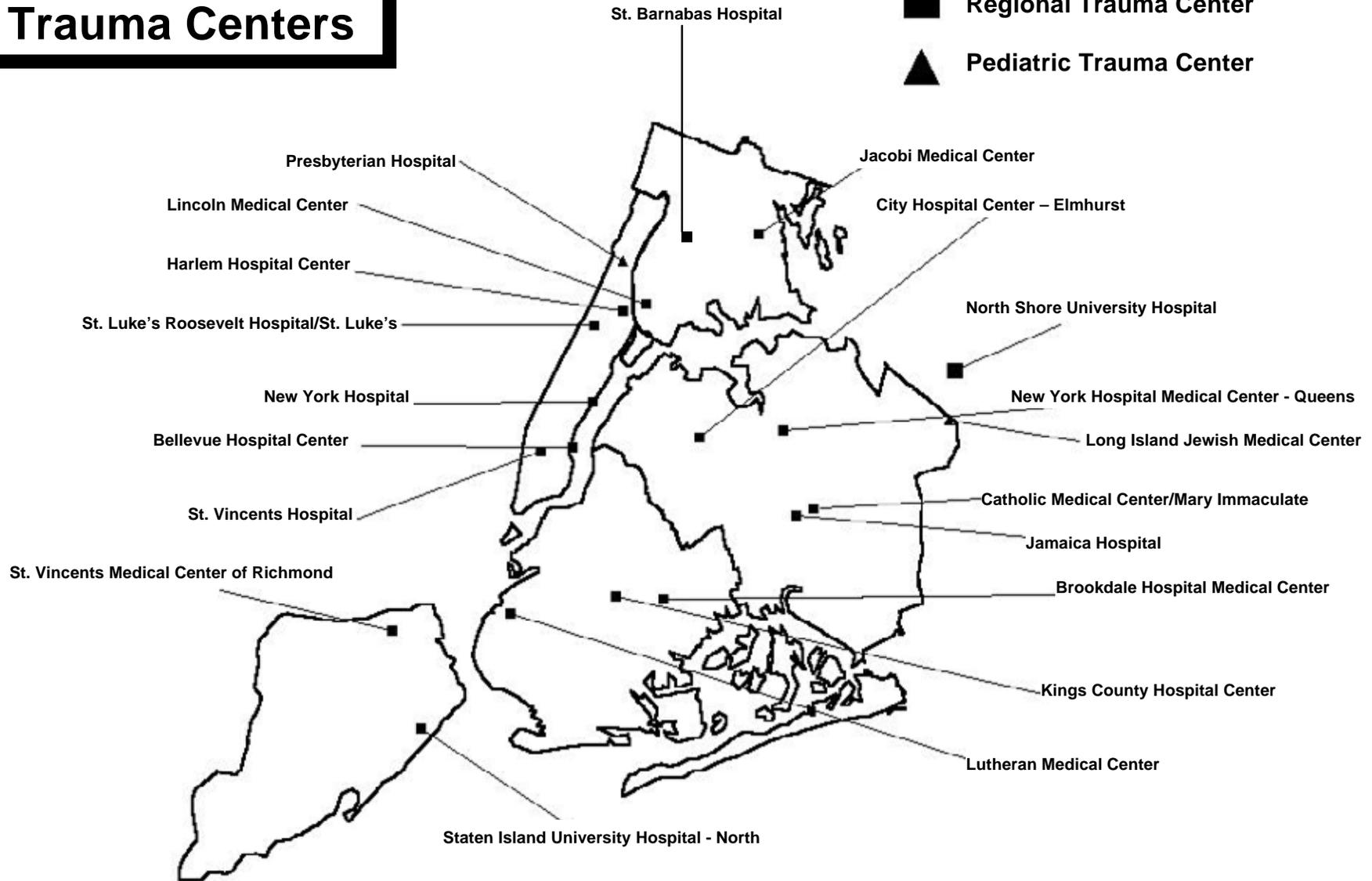
- Regional Trauma Center
- Area Trauma Centers



New York State Designate Trauma Centers

New York City Trauma Centers

- Regional Trauma Center
- ▲ Pediatric Trauma Center



Appendix - B
New York State Designate Trauma Centers

WESTERN NEW YORK REGION

Regional Trauma Center

Erie County Medical Center
462 Grider Street
Buffalo, New York 14215

Regional Pediatric Trauma Center

The Children's Hospital of Buffalo
219 Bryant Street
Buffalo, New York 14222

Area Trauma Center

Woman's Christian Association
207 Foot Avenue
Jamestown, New York 14701

FINGER LAKES REGION

Regional Trauma Center

Strong Memorial Hospital
601 Elmwood Avenue
Box SURG
Rochester, New York 14642

Area Trauma Center

Arnot Ogden Medical Center
Trauma Services
600 Roe Avenue
Elmira, New York 14905

Rochester General Hospital
1425 Portland Avenue
Rochester, New York 14621

NOTE: All Regional and Area Trauma Center have the capability to treat pediatric trauma patients. However, EMS providers should refer to local protocols and REMAC directions on any differences in local trauma center capabilities to receive and treat pediatric trauma.

CENTRAL NEW YORK REGION

Regional Trauma Center

University Hospital
State University of New York Health Science Center
750 East Adams Street
Syracuse, New York 13210

Area Trauma Centers

St. Elizabeth's Hospital
2209 Genesee Street
Utica, New York 13501

Wilson Memorial Regional Medical Center
33-57 Harrison Street
Johnson City, New York 13790

NORTHEASTERN NEW YORK REGION

Regional Trauma Center

Lifestar Regional Trauma System
A-126, Albany Medical Center Hospital
47 New Scotland Avenue
Albany, New York 12208

Area Trauma Centers

Mary Imogene Bassett Hospital
One Atwell Road
Cooperstown, New York 13326-1394

Champlain Valley Physicians=Hospital Medical Center
100 Beekman Street
Plattsburgh, New York 12901

NOTE: All Regional and Area Trauma Center have the capability to treat pediatric trauma patients. However, EMS providers should refer to local protocols and REMAC directions on any differences in local trauma center capabilities to receive and treat pediatric trauma.

HUDSON VALLEY REGION

Regional Trauma Center

Westchester County Medical Center
Office of Emergency Medical Services and Trauma
Macy Pavillion, Room 1419
Valhalla, New York 10562-8251

Area Trauma Centers

Nyack Hospital
160 North Midland Avenue
Nyack, New York 10960

St. Francis Hospital
North Road
Poughkeepsie, New York 12601

Hudson Valley Hospital Center
1980 Crompond Road
Peekskill, New York 10566

Sound Shore Medical Center of Westchester
16 Guion Place
New Rochelle, New York 10802

Good Samaritan Hospital
255 LaFayette Avenue
Suffern, New York 10901-4869

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NASSAU REGION

Regional Trauma Centers

North Shore University Hospital
300 Community Drive
Manhasset, New York 11030-3876

Nassau County Medical Center
2201 Hempstead Turnpike
East Meadow, New York 11554-1854

Winthrop University Hospital
259 First Street
Mineola, New York 11501-3932

Area Trauma Centers

Mercy Medical Center of Long Island
1000 North Village Avenue
Rockville Centre, New York 11570-1098

South Nassau Communities Hospital
2445 Oceanside Road
Oceanside, New York 11572-1506

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SUFFOLK REGION

Regional Trauma Center

University Hospital
State University of New York Health Sciences Center
Division of Trauma, Department of Surgery
Stony Brook, New York 11794-8191

Area Trauma Centers

Huntington Hospital
270 Park Avenue
Huntington, New York 11743-2799

Good Samaritan Hospital
1000 Montauk Highway
West Islip, New York 11795

Southside Hospital
Montauk Highway
Bay Shore, New York 11706

Brookhaven Memorial Hospital Medical Center
101 Hospital Road
Patchogue, New York 11772

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NEW YORK CITY REGION

Regional Trauma Centers

Bronx County

Lincoln Medical and Mental Health Center
234 East 149th Street
Bronx, New York 10451

Jacobi Medical Center
1400 Pelham Parkway South
Bronx, New York 10461

St. Barnabas Hospital
Third Avenue and 183rd Street
Bronx, New York 10457-2594

Kings County

The Brookdale Hospital Medical Center
One Brookdale Plaza, Room 186
Brooklyn, New York 11212

Kings County Hospital Center
451 Clarkson Avenue
Brooklyn, New York 11203

Lutheran Medical Center
150 55th Street
Brooklyn, New York 11220

New York County

New York Presbyterian Hospital
New York Weill Cornell Medical Center
525 East 68th Street
New York, New York 10021

St. Vincent's Hospital and Medical Center of New York
153 West 11th Street
New York, New York 10011

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St. Luke's/Roosevelt Hospital Center
Amsterdam Avenue and 114th Street
New York, New York 10019

New York County

Bellevue Hospital Center
East 27th Street and First Avenue
New York, New York 10016

Harlem Hospital Center
506 Lenox Avenue
New York, New York 10037

Queens County

Catholic Medical Center of Brooklyn and Queens
Mary Immaculate Division
Parson's Manor
86-25 153 Street
Jamaica, New York 11432

New York Hospital Center of Queens
56-45 Main Street
Flushing, New York 11315

City Hospital Center at Elmhurst
79-01 Broadway
Elmhurst, New York 11373

Jamaica Hospital
89th Avenue and Van Wyck Expressway
Jamaica, New York 11418

Richmond County

St. Vincent's Medical Center Richmond
355 Bard Avenue
Staten Island, New York 10310

Staten Island University Hospital
475 Seaview Avenue
Staten Island, New York 10305

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Regional Pediatric Trauma Center

Long Island Jewish Medical Center, Schneider Children's Hospital
Regional Pediatric Trauma Center
270-05 76th Avenue
New Hyde Park, New York 11040

Children's Hospital of New York
Columbia Presbyterian Medical Center
3959 Broadway, 2 North
New York, New York 10032-3784

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