

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007**

# **EMT-ADVANCED PROTOCOLS**

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
TABLE OF CONTENTS**

Statement of purpose	3
Medical Control	4
Refusal of Evaluation/Care/Transport	5
Do Not Resuscitate Orders	6
Standard Care Protocol	7
Abandoned Infants	8
Altered Mental Status	9
Dyspnea	10
Suspected Acute Coronary Syndrome	11
Suspected Acute Ischemic Stroke	12
Cardiac Arrest	13
Medical Device-Dependent Patients	14
Allergic Reaction	15
Poisoning	16
Heat Related Illness	17
Burns	18
Trauma	19
Backboard protocol	20
Obtaining a Blood Sample	21
Medication List	22
<b>CERTIFICATION AND INSERVICE REQUIREMENTS</b>	<b>23</b>
Signature page	24

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
STATEMENT OF PURPOSE**

The purpose of the protocols in this document is to provide the affiliated EMT-Advanced with off-line medical direction when rendering pre-hospital emergency care. Some procedures are performed upon assessment of the patient by the EMT-Advanced and others may be performed only after contact with the Base Physician. The Base Physician is the on-duty emergency physician at the receiving hospital.

EMT-Advanced personnel affiliated with **Saint Joseph Regional Medical Center, Plymouth Campus, and Culver-Union Township EMS** will be expected to follow these protocols as written and medical control orders as given. It is understood, however, that situations may arise where protocols will not conform to the patient's needs. In these cases the EMT-Advanced should consult with the Base Physician. If this is not possible, the EMT-Advanced should utilize other ALS/BLS personnel on the scene and decide on the appropriate course of action. National Standard EMS Curriculums should be the Standard of Care for all conditions not directly addressed in these protocols or by the Physician. It should also be understood the on-duty Physician has the authority and privilege to give orders based upon their own judgment, which may or may not be in conjunction with a written protocol.

These protocols recognize your ability to perform as a trained professional. They do not "step you through" all of your skills. Where the word "CONSIDER" is used in conjunction with an intervention, it is meant that it is your option based upon the situation.

These protocols have been provided to all providers in CD ROM format; updates will be distributed periodically as needed, with the revision date at the top of each page. It is the individual's responsibility to keep a current protocol binder.

Concerns or suggestions for revision or addition to these protocols should be submitted to the Medical Director or Culver-Union Township Ambulance Service training officer.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
MEDICAL CONTROL**

**ASSESSMENT**

Patient requires treatment/transport, and medical direction is sought by the EMT-Advanced or is offered by a physician at the scene.

**MANAGEMENT**

The EMT-Advanced may accept medical direction as follows:

1. Patient's private physician, when present at the scene and in physical contact with the patient, after **CONTACT BASE PHYSICIAN** for confirmation, if possible.
2. System Medical Director, when present at the scene and in physical contact with the patient.
3. Base Physician at the receiving hospital, by radio, landline, or cellular telephone.
4. Base Physician at Saint Joseph Regional Medical Center, Plymouth Campus or the transferring facility when transport is to another facility and communication is not possible with a physician at the receiving facility.
5. Physician intervener, other than #1 or #2 above, present at the scene and in physical contact with the patient. Direction may be accepted from this physician **ONLY AFTER THE FOLLOWING CRITERIA HAVE BEEN MET:**
  - a. intervener provides appropriate identification;
  - b. confirmation has been received from the Base Physician;
  - c. communication between intervener and Base Physician has taken place by radio, land line, or cellular telephone.
  - d. intervener agrees to accompany patient **IN THE AMBULANCE** to the hospital.
6. Base Physician may resume control at any time.
7. The EMT-Advanced **MUST NOT** serve as a mediator between intervener and Base Physician.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
REFUSAL OF EVALUATION / CARE / TRANSPORT**

**ASSESSMENT**

A patient, who initially requests emergency medical services, or demonstrates potential for injury based on the mechanism of the event, has the right to terminate his/her own treatment if he/she is competent and is not suicidal, self destructive, or a threat to others. Patient must be 18 years of age or older. A parent or proven legal guardian may refuse on behalf of a minor.

**MANAGEMENT**

1. Determine the patient's airway, respiratory, and circulatory status.
2. Assess the scene for any mechanism of injury.
3. Determine if the patient can converse in a clear and appropriate manner, is aware of their surroundings and situation, is oriented to person, place, and date, and that there is no evidence of consumption or suspicion of influence by alcohol or other substance.
4. Advise the patient you will transport if they so desire. If the patient refuses, have patient sign release, witnessed by bystanders, if possible.
5. If the patient refuses to sign or has consumed alcohol, **CONTACT BASE PHYSICIAN** for order to transport. Request law enforcement assistance. Note why patient is incompetent or unable to make decision based on illness or mental status.
6. Complete a run report on this (and all releases) patient, including all discussion between the caregiver and the patient. A copy of this run report is to be turned in to the EMS Coordinator within 24 hours of the call.
7. If you deem a scene to be a **mass casualty incident**, all victims will be offered assessment; if any or all victims deny injury and there is no obvious mechanism for injury, document the call on a run report and you may list the names of all individuals who denied injury and refused assessment.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
D.N.R. PRESENTATION**

**ASSESSMENT**

This protocol applies only to situations in which the paramedic is presented with or finds an EMS-DNR form or equivalent. The EMS-DNR form serves as an advance directive to limit the scope of EMS care for individuals with a terminal illness and those suffering from a severe chronic illness and/or disease who do not wish for life-sustaining treatment in the event of a cardiopulmonary arrest. This protocol will become effective when responding EMS personnel are presented with the documentation indicating the patient does not wish to be resuscitated.

**MANAGEMENT**

**AIRWAY**

1. Determine the patient has an airway without obstruction.

**BREATHING**

2. Determine the patient is apneic.

**CIRCULATION**

3. Determine the patient is pulseless by checking both carotid and radial pulses.

**INTERVENTIONS**

1. Assess the scene for any mechanism of injury.
2. Obtain a history from family/bystanders regarding the nature of the call.
3. Carefully review the EMS-DNR form. It must meet ALL of these criteria:
  - a. Must be directly identifiable with the patient.
  - b. Must include signature of the patient or authorized decision-maker.
  - c. Must have the physician's name, signature, and license number.
  - d. Must have two witnesses signatures
4. If the DNR meets all the criteria above, do not initiate care. If there are any doubts to any criteria:
  - a. **Contact Base Physician.** Advise them of the DNR and the criteria in question. Follow base physician's recommendation, and explain decision to family.
  - b. If the EMS emergency IS NOT related to the terminal/chronic illness identified by the DNR form, routine medical care and management must be provided as dictated by on or offline medical control.
5. Complete a run report on this patient, including all discussion between caregiver, bystanders, Base Physician, etc. A copy of this run report is to be turned in to the Base Hospital within 24 hours of the call.
6. If the nature of the EMS call is not clearly applicable to the terminal illness and/or chronic disease, resuscitation/treatment must be performed. If there is family conflict at the scene over whether the patient should or should not be resuscitated, EMS will err in favor of treating the patient. Once resuscitation has begun, it cannot be suspended without specific instruction from the Base Physician.
7. Under the law, the patient has the right to revoke the DNR at any time, either by verbal intent to revoke or by destruction of the document. In such a case, care must then be administered.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
STANDARD CARE PROTOCOL**

**ASSESSMENT**

Patient presents as candidate for advanced EMT level of care. This protocol serves as a basis for all patients requiring Advanced EMT level of care. The following should be considered

**CRITICAL PATIENTS:**

1. Situations which have a reasonable chance of compromising airway, breathing, or circulation
2. Unresponsive patients
3. Premature or multiple childbirth.

Paramedic intercept should be initiated for these patients as in "Interventions" #3 below.

**MANAGEMENT**

**AIRWAY**

1. Establish and support the airway as necessary. If the patient is unable to maintain and protect their airway, insert oropharyngeal or nasopharyngeal airway. Oral airways should not be used on infants less than 12 months of age. Insert non-visualized airway when appropriate.

**BREATHING**

1. Apply appropriate oxygen therapy in relationship to the assessment of the patient. If the patient is apneic, initiate bag-valve-mask resuscitation at the rate of 8 to 12 ventilations per minute. (One ventilation every 5 to 6 seconds.)
2. If breathing is present, monitor and record rate every 5 minutes in an unstable patient, or every 15 minutes in a stable patient.

**CIRCULATION**

1. Palpate and record a pulse rate every 5 minutes in an unstable patient or every 15 minutes in a stable patient.
2. Monitor and record patient's blood pressure every 5 minutes in an unstable patient or every 15 minutes in a stable patient. If unable to continuously monitor blood pressure, obtain a base reading by auscultation and document. Follow with palpated reading as possible. Blood pressure is not a priority at an accident scene in multi-system trauma patients.
3. Connect patient to ECG monitor when indicated and record a 12-second ECG tracing. Record additional tracings as indicated.
4. If patient is pulseless, initiate external cardiac compressions at a rate of 100 per minute.

**INTERVENTIONS**

1. Initiate intravenous access as follows.
  - a. Med lock for routine ALS if no fluids are indicated.
  - b. 0.9% sodium chloride drip for cardiac arrest, dehydration, trauma, burns, hypovolemia, or any other indications for fluid administration.
2. **CONTACT BASE PHYSICIAN** if questions or situations arise not addressed in these protocols.
3. **CALL FOR PARAMEDIC INTERCEPT** as soon as it is recognized that advanced skills may benefit the patient. This may be based on dispatch information alone. Intercept will be initiated if paramedic unit can reach you before you reach the hospital. Paramedic intercept may include, but is not limited to any situation which may compromise A, B, C's, unresponsiveness, premature childbirth or multiple births.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
ABANDONED INFANTS**

**Description**

To provide appropriate care and chain of custody for infants left with or found by EMS providers.

**Procedure**

1. An emergency medical services provider shall, without a court order, take custody of a child who is, or appears to be, not more than 45 days of age if:
  - a. the child is voluntarily left with the provider by the child's parent; and
  - b. the parent does not express an intent to return for the child.
2. An emergency medical services provider who takes custody of a child under this section shall perform any act necessary to protect the child's physical health or safety.
3. Any person who in good faith voluntarily leaves a child with an emergency medical services provider is not obligated to disclose the parent's name or their name.
4. Immediately after an emergency medical services provider takes custody of a child under section 1, the provider shall notify the local child protection service that the provider has taken custody of the child.
5. The local child protection service shall:
  - a. Assume the care, control, and custody of the child immediately after receiving notice under section 4; and
  - b. Not later than 48 hours after the local child protection service has taken custody of the child, contact the Indiana clearinghouse for information on missing children to determine if the child has been reported missing.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
ALTERED MENTAL STATUS**

**ASSESSMENT**

Patient presents with an altered mental status of unknown etiology. This includes, but is not limited to, totally unresponsive, responsive to pain only, awake but non-communicative.

**MANAGEMENT**

1. FOLLOW STANDARD CARE PROTOCOL.
2. Assess and record Glasgow Coma Scale score.
3. Whenever possible, obtain at least 5 ml venous blood in a “red-topped” blood tube by venous cannulation or venipuncture.
4. Check blood glucose level. If blood glucose level is **less than 60**, and the patient has the ability to swallow, administer 1 tube of oral glucose between the cheek and gum.
5. If the blood sugar level is greater than 400, **CONTACT BASE PHYSICIAN** for orders. If **BASE PHYSICIAN** is not available, administer normal saline drip 1,000 ml/hr, monitoring for signs of pulmonary edema. For pediatrics, administer normal saline drip 20 ml/kg/hr. If the patient has a history of CHF, the fluid bolus is contraindicated.
6. Monitor the airway and reassess the patient.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
DYSPNEA**

**ASSESSMENT**

Patient presents with signs and symptoms of respiratory distress.

**MANAGEMENT**

1. FOLLOW STANDARD OF CARE PROTOCOL.
2. If the patient has a prescribed inhaler, and has not taken the maximum prescribed dosage, assist or administer up to the maximum prescribed dosage.
3. Transport as soon as possible in the most comfortable position.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007**

**SUSPECTED ACUTE CORONARY SYNDROME**

**ASSESSMENT**

Patient presents complaining of substernal pain or discomfort, possibly radiating to or originating in left shoulder, neck, or jaw. Determine whether there are findings typical of angina or myocardial infarction including history of CAD or risk factors, chest pain with typical characteristics (dull ache or pressure rather than sharp and stabbing), associated dyspnea, nausea, or diaphoresis. Patient may have a previous history of angina or myocardial infarction.

**MANAGEMENT**

1. FOLLOW STANDARD CARE PROTOCOL.
2. If the patient has findings typical of angina or myocardial infarction, and is not allergic to aspirin, administer four 81 mg (324 mg) chewable aspirin orally. Instruct patient to chew them.
3. If systolic blood pressure is 100mmHg or greater and patient is awake and alert, administer patient's prescribed nitroglycerin tablet sublingually every 5 minutes until pain is relieved or a maximum of three tablets have been given. If blood pressure falls below 100 at any point, do not administer further prescribed nitroglycerin.
4. **Contraindication: DO NOT administer nitroglycerin** if patient has taken Viagra (sildenafil) or Levitra (vardenafil) within the last 24 hours, or Cialis (tadalafil) within the last 48 hours.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
SUSPECTED ACUTE ISCHEMIC STROKE**

**ASSESSMENT**

Patient presents with signs and symptoms of an acute CVA. Assessment reveals the patient has one-sided facial drooping, unequal grip strengths, is unable to hold arms out equally with eyes closed, is unable to verbalize “you can’t teach an old dog new tricks” without slurring, or is unable to speak at all. Some patients with recent onset of symptoms will be candidates for fibrinolytic therapy. Every effort should be made to transport rapidly to allow early evaluation and therapy.

**MANAGEMENT**

1. FOLLOW STANDARD CARE PROTOCOL.
2. Assess and record Glasgow Coma Scale score.
3. Determine blood glucose level if the patient has an altered mental status. If blood glucose level is **less than 60, CONTACT BASE PHYSICIAN** before administering oral glucose.
4. Determine exact onset of symptoms if possible.
  - a. If onset of symptoms is less than 2 hours, provide safe and rapid transport to the nearest facility. Do not delay scene time for IV access or any other treatments or assessments that can be performed enroute. Contact receiving facility early to alert the base physician of acute symptoms.
  - b. If onset of symptoms is greater than 2 hours, or you are unable to determine onset of symptoms, provide supportive care and transport.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
CARDIAC ARREST**

**ASSESSMENT**

Patient presents unresponsive, apneic, or without pulses. Patient does not display signs of obvious death, such as rigor mortis, dependent lividity, decapitation, transection at midline or catastrophic head injury. Patients displaying the above signs should be considered non-viable.

**MANAGEMENT**

1. FOLLOW STANDARD CARE PROTOCOL.
2. Attach defibrillator. You may allow machine to analyze rhythm.
3. If ECG shows VF/pulseless VT, defibrillate at 360 joules or equivalent biphasic setting as indicated.
4. Perform CPR for two minutes. Insert non-visualized airway if not done during this two minutes.
5. Reassess ECG two minutes after last defibrillation.
6. If ECG shows VF/pulseless VT, defibrillate at 360 joules or equivalent biphasic setting as indicated. Perform CPR for 2 minutes. Repeat steps 5 and 6 as necessary.
7. **CONTACT BASE PHYSICIAN.**
8. If at any point the defibrillator advises “no shock”, or patient is in asystole or PEA, resume CPR.
9. Transport as soon as possible.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
MEDICAL DEVICE-DEPENDENT PATIENTS**

**DESCRIPTION**

To outline what type of care is required for medical device-dependent patients.

1. EMT-Advanced personnel are allowed to transport any of the following under this protocol, following the standard care protocol, providing that the EMT-Advanced has been trained to do so.
  - a. PCA pump with any medication or fluid infusing through a peripheral IV.
  - b. Medication infusing through a peripheral IV or continuous subcutaneous catheter via a closed, locked system.
  - c. A central catheter that is clamped off (subclavian, Hickman, PICC, Passport.) (EMT-Basic)
  - d. A patient with a feeding tube that is clamped off. (EMT-Basic)
  - e. A patient with a Holter monitor.
  - f. A patient with a peripheral IV infusing vitamins.
  - g. IV fluids through a peripheral IV via gravity or an infusing system that allows the technician to change the rate of infusion are limited to D5%W, lactated ringers, sodium chloride (0.9% or less), potassium chloride 40 mEq or less.
2. Long-term care providers should stop central venous and enteral ongoing infusions prior to transport by EMT-Advanced or EMT-Basic personnel. EMT-Advanced or EMT-Basic personnel shall not manipulate these devices unless directed to do so by medical control.
3. The following require a paramedic level transport.
  - a. Medication infusing through a peripheral or central IV, or fluid infusing through a central IV via gravity or an infusing system that allows the operator or assistant to change the rate of infusion.
  - b. A patient with a chest tube.
  - c. A patient with a continuous feeding tube.
  - d. A ventilator-dependent patient.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
ALLERGIC REACTION**

**ASSESSMENT**

Patient presents with signs/symptoms consistent with an allergic reaction. Patient may or may not have a history of anaphylaxis. Remember that persons may suddenly be sensitive to allergens previously unknown, such as bee venom.

**MANAGEMENT**

1. FOLLOW STANDARD CARE PROTOCOL.
2. CATEGORIZE PATIENT UNDER “A” OR “B” BELOW
  - A. **Asymptomatic / Urticaria or “rash” only.**
    1. **CONTACT BASE PHYSICIAN** if an unusual situation exists (delayed transport time, severe past reaction to the same allergen.)
  - B. **Signs and symptoms of severe allergic reaction (Anaphylaxis.) Including respiratory distress and/or shock (hypoperfusion), wheezing, stridor, hypotension, and/or altered mental status.**
    1. If the patient presents as a “B”, administer Epinephrine Auto-Injector (Epi-Pen) in lateral thigh, midway between waist and knee.
    2. If the patient is a 10 year-old child or less, presents as a “B”, and weighs less than 45 kg, administer Epinephrine Auto-injector (Epi-Pen Jr.) in lateral thigh, midway between the waist and knee.
3. Transport as soon as possible.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
POISONING**

**ASSESSMENT**

Patient has recent history of poisoning by ingestion, inhalation, or absorption. History may not be available, but mechanism at the scene as well as signs and symptoms may create a high index of suspicion. Signs/symptoms include: signs of shock, drooling, nausea and vomiting, burns about the nose or mouth, odor of poison on the breath, altered mental status, convulsions, reddening or burns on the skin, empty medication or poison containers.

**MANAGEMENT**

1. FOLLOW STANDARD CARE PROTOCOL
2. Attempt to determine type of agent involved and report to Base Physician. Bring container along if appropriate. Bring material safety data sheet (MSDS) if readily available.
3. If poisoning appears to be by absorption, use caution in touching the patient or any garments which may be contaminated. Use personal protective clothing and equipment as needed to avoid contact. Begin flushing affected area by steady water stream for at least fifteen minutes. Do not allow run-off to further contaminate the victim or clothing. If clothing is contaminated, remove and isolate.
4. If poisoning appears to be by inhalation, remove victim from the source and begin high-flow oxygen. **USE CAUTION FOR PERSONAL SAFETY WHEN ENTERING A POTENTIALLY HAZARDOUS ENVIRONMENT.**
5. If Poison Control has been contacted, document all information received and convey to the Base Physician as soon as possible. **DO NOT PERFORM ANY MANAGEMENT UNTIL AUTHORIZED BY THE BASE PHYSICIAN.**

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
HEAT-RELATED ILLNESS**

**ASSESSMENT**

Patient presents in hot environment or having recently been in hot environment. Patient may exhibit altered mental status, dry and/or hot skin, excessive diaphoresis, or extremely dry skin. Remember that certain medications may produce heat illness. A recent history of excessive activity in a warm environment may also be related.

**MANAGEMENT**

1. FOLLOW STANDARD CARE PROTOCOL.
2. Remove patient from the heat source or environment. Remove all clothing. If patient's skin is hot and dry, cover with wet sheets or towels. Encourage evaporation with use of air-conditioning, fans, etc.
3. Initiate peripheral IV using large bore catheter. Begin 0.9% sodium chloride drip 1,000 ml/hr. For pediatrics, administer 0.9% sodium chloride drip 20 ml/kg/hr. Re-assess patient and report to Base Physician. Monitor for signs of overhydration, especially in geriatrics.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
BURNS**

**ASSESSMENT**

Patient presents with burns resulting from chemical or thermal injury. Determination should be made of approximate surface area involved. SEVERITY OF BURNS MAY NOT BE APPARENT INITIALLY AS THE INJURY MAY PROGRESS DURING TRANSPORT. TREAT FOR WORST CASE WHEN IN DOUBT.

**MANAGEMENT**

1. If the patient has active burning, extinguish with water or saline. (For chemicals, remove as appropriate. This usually entails a 20-minute water flushing.)
2. FOLLOW STANDARD CARE PROTOCOL. **Note:** If evidence of airway burns, be alert to the need for aggressive airway control.
3. Attempt IV, preferably in non-burned area, using large-bore catheter. Administer 0.9% sodium chloride drip at 1,000 ml/hr. For pediatrics, administer 0.9% sodium chloride drip at 20 ml/kg/hr. Monitor for signs of over hydration, particularly geriatric patients.
4. Remove all clothing and jewelry, if possible. If clothing adheres to skin, remove surrounding cloth. Do not attempt to soak adhered clothing off of skin.
5. Using aseptic technique, drape the victim in a clean, dry sheet. Avoid wetting the patient due to the danger of advancing body heat loss.
6. Consider early helicopter evacuation to the nearest burn center. **CONTACT BASE PHYSICIAN** regarding appropriate transfer. Requesting the helicopter to FLY early will be beneficial in response time.
  - a. Fort Wayne, IN – Saint Joseph Medical Center
  - b. Kalamazoo, MI – Bronson Methodist Hospital

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
TRAUMA**

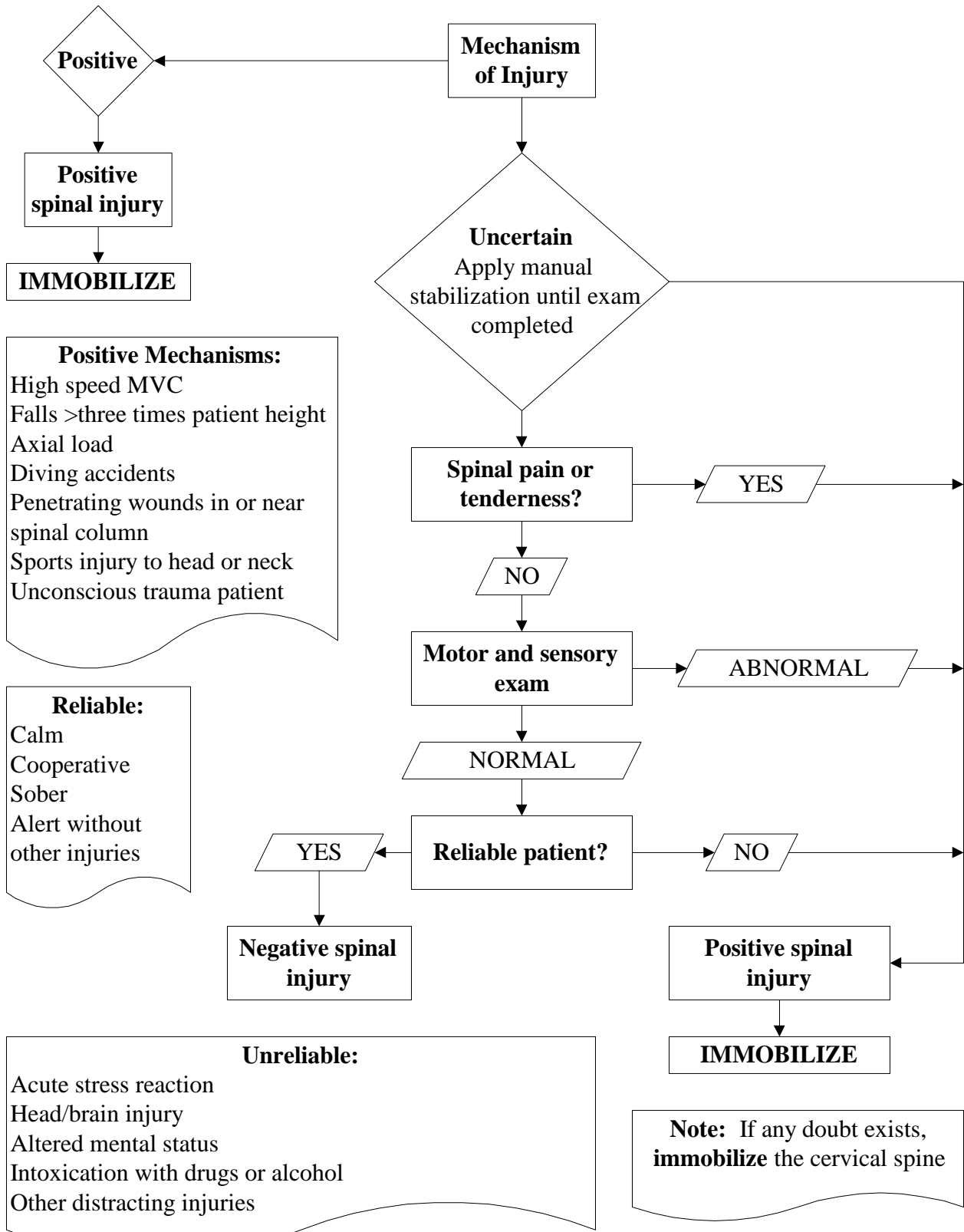
**ASSESSMENT**

Patent presents as victim of multi-system trauma. Patient may be awake and alert or unresponsive. Mechanisms of injury at scene may suggest a high index of suspicion of internal injuries. Patient may have external signs consistent with multi-system trauma. Signs of shock may or may not be present.

**MANAGEMENT**

1. FOLLOW STANDARD CARE PROTOCOL.
2. Consider pneumatic anti-shock garment for stabilization of suspected pelvic or lower-extremity fractures. Use adequate pressure to stabilize the injury.
3. Completely immobilize patient if any mechanism of injury leads to suspicion of spinal compromise.
4. Enroute initiate an IV of 0.9% sodium chloride using a large bore catheter, run at TKO. If time permits, initiate a second similar IV.
5. Limit scene time to ten minutes or less unless entrapment delays transport. Document reasons for any scene time over ten minutes on run sheet and notify Base Physician of delay.
6. Do not delay transport of multi-system trauma patients for any treatment except spine immobilization, securing an airway, ensuring breathing and circulation.
7. Consider early helicopter evacuation of severe multi-system trauma, if scene time is prolonged, and especially if there are multiple victims. Requesting the helicopter to **FLY** early will be beneficial in response time.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
BACKBOARD PROTOCOL**



**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
SPECIAL PROCEDURES  
OBTAINING A BLOOD SAMPLE**

**DESCRIPTION**

Blood samples obtained in the pre-hospital phase can be helpful in establishing pre-medication baselines. The use of blood samples is governed by federal regulation, generally accepted practice, and local policy/protocol. For a blood sample to be useable it must be correctly labeled and there must be a minimum amount of hemolysis. The following procedure will assist in addressing both issues.

**PROCEDURE**

1. The blood sample may be obtained while initiating an intravenous line. The blood sample should be obtained prior to IV fluid administration and administration of IV medication.
2. When a syringe has been used through an intravenous catheter, a minimum of 20 ml of blood should be obtained.
3. When filling blood tubes from a syringe, use a large-bore needle. Do not push the plunger of the syringe to expel the blood as this will cause increased hemolysis and possibly cause the stopper and/or glass of the tube to “blow out” in a dangerous fashion. Allow the vacuum of the tube to “pull” the blood from the syringe. Fill blood tubes in the following order.
  - a. Lavender
  - b. Blue
  - c. Red
4. When using the adaptive Vacutainer holder connected to your IV catheter, fill the blood tubes in the following order.
  - a. Red
  - b. Blue
  - c. Lavender
5. All blood samples must be labeled as follows:
  - a. Patient’s name (last, first)
  - b. Date drawn
  - c. Time drawn
  - d. Paramedic’s initials or certification number.A computer-generated label, obtained from the ED secretary, may be applied.
6. Do not shake or drop the filled tubes. This will increase the likelihood of hemolysis and render the sample useless.

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007  
MEDICATION LIST**

Specified quantities represent the minimum to be carried on-board affiliated EMT-Advanced units.

**MEDICATIONS**

aspirin (chewable tablets)	1 bottle 81 mg tablets
Epi-Pen	1 auto injector (0.3 mg)
Epi-Pen Jr.	1 auto injector (0.15 mg)
glucose (oral)	2 tubes
oxygen	2,000 psi
sterile water	2,000 ml

**MARSHALL COUNTY  
EMERGENCY MEDICAL SERVICES  
EMT-ADVANCED PRE-HOSPITAL MANAGEMENT  
EFFECTIVE JANUARY 1, 2007**

**CERTIFICATION AND IN-SERVICE REQUIREMENTS**

Paramedic certifications are valid for a period of 2 years. During this period, all affiliated paramedics are required to complete and/or maintain the following:

1. Basic Cardiac Life Support (CPR-Healthcare)
2. Minimum of thirty-four (34) hours of didactic, critiques, skill proficiency examination, continuing education courses directly related to the level of EMT-Basic or EMT-Advanced as described in your CEU book.
3. Minimum ten (10) hours of Advanced EMT related lectures.
4. Minimum twelve (12) hours of Audit & Review.
5. All skills listed in the CEU book (which must be assessed in a “skill test” format.)

**Items 1-4** above must be signed by the person responsible for or conducting the program. Individuals can only sign for the skills that do not exceed their certification level. Since everyone operates under the same protocols in Marshall County, signed by the same medical directors, the following persons are approved to sign for EMS skills:

**MEDICAL DIRECTOR:**

Dr. George Restrepo, DO

**CULVER-UNION TOWNSHIP AMBULANCE SERVICE DIRECTOR**

**CULVER-UNION TOWNSHIP AMBULANCE SERVICE TRAINING OFFICER**

