



# Mountain-Valley

Emergency Medical Services Agency

**PLEASE POST**

**REGIONAL ADVISORY COMMITTEE**

**Wednesday, March 15, 2006, 1:00 p.m**

**(No Subcommittee Meetings)**

**Lake Tulloch Resort**

**7260 O'Byrnes Ferry Road**

**Copperopolis, California**

**(Map Enclosed)**

**AGENDA**

**Any member of the audience desiring to address the committee on a matter on the agenda:** Please raise your hand at the time the item is announced by the Committee Chairperson. In order that all interested parties have an opportunity to speak, any person addressing the Committee will be limited to a maximum of 5 minutes unless the Chairperson of the Committee grants a longer period of time.

**Public comment periods:** Matters under the jurisdiction of the Committee, and not on the posted agenda, may be addressed by the general public at the beginning of the regular agenda and any off-agenda matters before the Committee for consideration. However, California law prohibits the Committee from taking action on any matter which is not on the posted agenda unless it is determined to be an emergency by the Committee. Any member of the public wishing to address the Committee during the "Public Comment" period will be limited to a maximum of 5 minutes.

	1.	Call to Order
	2.	Welcome and Introduction of Members and Guests
<b>INFO</b>	3.	Conflict of Interest Statements/Fair Political Practices: <i>RAC members will be reminded that they should recuse themselves during any discussion concerning a topic of which they may have a conflict of interest</i>
<b>INFO</b>	4.	Public Comment
<b>ACTION</b>	5.	Acceptance/Additions/Deletions to Agenda
<b>INFO/ACTION</b>	6.	Correspondence/Information
<b>ACTION</b>	7.	Approval of November 2005 Minutes (Attachment #1)*
<b>ACTION</b>	8.	Personnel of the Year: <i>The committee will be asked to appoint a nominating /selection committee for the 2006 EMS Personnel of the Year</i>
<b>INFO</b>	9.	Status of Policies Deleted By BOD – February 2006 <ul style="list-style-type: none"><li>• 271.05 Unusual Occurrence Report Form</li><li>• 811.00 Regional Triage Packs</li></ul> Policies Slated for Deletion April 1, 2006 <ul style="list-style-type: none"><li>• 411.10 BLS Unit Equipment &amp; Supply Inventory</li><li>• 412.10 ALS First Response Equipment and Supply Inventory</li><li>• 437.00 ALS Unit Equipment and Drug Inventory</li></ul>
<b>INFO</b>	10.	Status of Policies under draft or revision: <ul style="list-style-type: none"><li>• 441.00 EMS Aircraft Policy Definitions</li><li>• 442.00 Region Based EMS Aircraft Provider Policy</li><li>• 443.00 Out-of-Region Based EMS Aircraft Provider Policy</li><li>• 444.00 EMS Aircraft On-Line Medical Control</li><li>• 445.00 EMS Aircraft Request/Cancellation Policy</li><li>• 446.00 EMS Aircraft Provider Dispatch</li></ul>

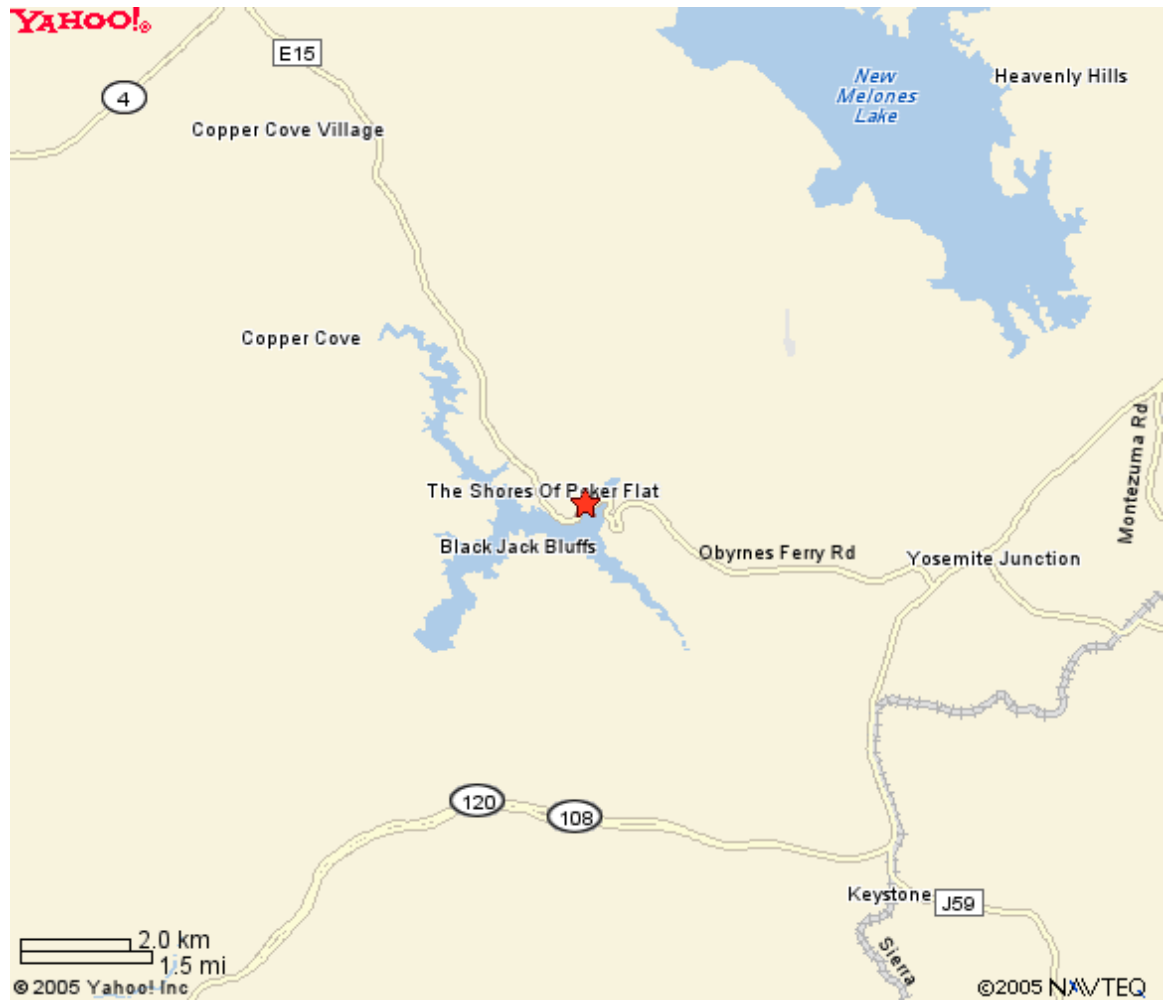
<b>INFO</b>		Status of Policies under draft or revision (CONT): <ul style="list-style-type: none"> <li>• 447.00 EMS Aircraft Landing Site Policy</li> <li>• 448.00 EMS Aircraft Patient Destination Policy</li> <li>• 553.25 Trauma Triage &amp; Patient Destination</li> </ul>
<b>ACTION</b>	11.	Review and Consider Updates to Policies: (Attachments #2 *) <ul style="list-style-type: none"> <li>• 206.00 Initial Certification for EMDs (Delete)</li> <li>• 207.00 Recertification of EMDs (Delete)</li> <li>• 211.00 First Responder Certification</li> <li>• 311.00 EMS Dispatch Center Standards</li> <li>• 560.11 Documentation of Patient Contact</li> <li>• 554.00 ALS Introduction</li> <li>• 821.00 MCI Receiving Facility Status Report Protocol</li> </ul>
<b>ACTION</b>	12.	Review Attendance Records / Consider Action Regarding Membership
<b>ACTION</b>	13.	Next Meeting Focus – <i>How prepared are we for a WMD incident?</i>
<b>INFO</b>	14.	Agency/County Reports
<b>INFO/ACTION</b>	15.	Next Meeting Date /Time: <i>The Committee will be asked to consider a change due to the multiple county Disaster Exercises occurring the week of May 17.</i>
	16.	Adjournment

\*Please visit the Committees link on the Mountain-Valley EMS Agency website at [www.mvemsa.com](http://www.mvemsa.com) for documents and attachments.

**NOTICE for RAC Members:**

- Remote access will be provided to RAC members with prior arrangement by contacting Steve Andriese at 209-529-5085.

YAHOO!



## ATTACHMENT I

### REGIONAL ADVISORY COMMITTEE MEETING

Wednesday, November 16, 2005

Lake Tulloch Resort

### MINUTES

#### **MEMBERS PRESENT**

Al Lennox, Amador County Representative  
Drew Hood MD, Amador County Representative  
Alan McNany, Amador County Alternate  
Cindy Woolston, Stanislaus County Representative  
Mike Skinner, Stanislaus County Representative

#### **MEMBERS ABSENT**

Don Zyski, Calaveras County Representative  
Mildred Zyski, Calaveras County Representative  
Suzanne Turpin, Mariposa County Representative

#### **STAFF**

Steve Andriese, EMS Agency Executive Director  
Doug Buchanan, EMS Agency Deputy Director  
Bob Strain, EMS Agency Certification & Training Coordinator

#### **CALL TO ORDER**

The meeting was called to order at 1:00 p.m. by Chairman Mike Skinner, and introductions were made.

#### **CONFLICT OF INTEREST STATEMENTS/FAIR POLITICAL PRACTICES**

Chairman Skinner reminded Committee members that they need to recuse themselves if they have a financial interest in matters before the Committee.

#### **PUBLIC COMMENT** None

#### **ACCEPTANCE/ADDITIONS/DELETIONS TO AGENDA**

M/S/C (Lennox/Hood) To accept the agenda as presented.

Vote: Unanimous

#### **CORRESPONDENCE/INFORMATION**

Mr. Buchanan shared that the EMS Agency had received a letter of resignation from Randy Pirtle, as well as an acceptance letter from the Stanislaus County Board of Supervisors. Additionally, he shared that Mr. Pirtle is currently applying to the Calaveras County Board of Supervisors for appointment to this committee, since he owns a residence in that county.

## **APPROVAL OF MAY 2005 MINUTES**

M/S/C (Lennox/Hood) To accept the May 2005 minutes as presented.

Vote: Unanimous

## **APPROVAL OF SEPTEMBER 2005 MINUTES**

M/S/C (Lennox/Hood) To accept the September 2005 minutes as presented.

Vote: Unanimous

## **STATUS OF POLICIES UNDER DRAFT OR REVISION**

Mr. Buchanan reported that the following policies are currently being drafted or revised:

- 442.00 Out-of-Region Based EMS Aircraft
- 560.11 Documentation of Patient Contact
- 580.10 Interfacility Transfers
- 580.11 Ambulance Transfer Policy
- 821.00 MCI Receiving Facility Status Reports Protocol

## **STATUS OF POLICIES OUT FOR 60-DAY REVIEW/COMMENT**

Mr. Buchanan reported that the following policies are currently out for 60-day review/comment:

- 311.00 EMS Dispatch Center Standards
- 554.00 ALS Introduction
- 811.00 Ground Ambulance Triage Packs

## **REVIEW AND CONSIDER POLICIES**

Review and Consider Updates to Policies 131.00 Policy Development Process, 132.00 Policy Revision Process, and 133.00 County-Specific Policy Development Process

Mr. Buchanan reported that these policies contained minor revisions and that no comments were received during the 60-day public comment period.

M/S/ (Woolston/Lennox) To accept Policies 131.00 Policy Development Process, 132.00 Policy Revision Process, and 133.00 County-Specific Policy Development Process as presented

VOTE: unanimous

Review and Consider Updates to Policy 407.00 Drug & Equipment Inventory

Mr. Buchanan reviewed the proposed changes from the morning subcommittee meeting.

M/S/ (Hood/Lennox) To accept Policy 407.00 Drug & Equipment Inventory as presented

VOTE: unanimous

Review and Consider Updates to Policy 412.20 ALS Transfer of Care

Mr. Buchanan reviewed the proposed changes from the morning subcommittee meeting,

M/S/ (Lennox/Hood) To accept Policy 407.00 Drug & Equipment Inventory as presented

VOTE: unanimous

Review and Consider Updates to Policy 535.30 Trauma Team Activation

Mr. Buchanan reviewed the proposed changes from the morning subcommittee meeting,

M/S/ (Woolston/Lennox) To accept Policy 535.30 Trauma Team Activation as presented

VOTE: unanimous

**REVIEW ATTENDANCE RECORDS/CONSIDER ACTION**

Mr. Buchanan reported that the members that were absent at the last meeting are present during today's meeting, therefore no action was recommended.

**AGENCY/COUNTY REPORTS**

MVEMSA: Staff reported that the Agency is currently recruiting for several positions, including: EMS Medical Director, Disaster/Communications Coordinator, and an Amador/Calaveras Local HRSA Coordinator

Amador: Amador County representatives reported that new hospital construction has begun. Mr. Lennox shared that he sits on a committee to the hospital.

Calaveras: Mr McNany reported that operations in Calaveras are going smoothly. Mr. Lennox reported that their company is currently approaching various committees in the county to offer participation, such as Public Health, Seniors groups, etc.

**NEXT MEETING:** Mr. Buchanan reported that the regularly scheduled meeting for January would likely be cancelled due to a lack of agenda items, and that the following regularly scheduled meeting would be March 15, 2006.

**ADJOURNMENT:** The meeting was adjourned.

## Summary of Responses to Policy Drafts

February 28, 2006

Reference	Comment	Agency Response
<b>211.00 First Responder Certification</b>		
V. A. Paragraph 2, Subsection (a)	The language should be included. "Other programs meeting the requirements as promulgated by AHA 7ARC" e.g. (ASHI) American Safety and Health Institute. The language in this section is exclusive to the three programs as stated.	<p>The language is already permissive for other programs as long as they are "<i>taught to the standards of AHA, ARC, or the NSC at the Health Care Provider or equivalent level.</i>"</p> <p>This language is consistent with state regulation.</p> <p><b>NO CHANGE RECOMMENDED</b></p> <p><i>(The public Comment period for this policy is open until March 14. If any additional comments are received prior to the meeting, they will be brought to the RAC meeting)</i></p>
<b>311.00 EMS Dispatch Center Standards (Includes deletion of Policy # 206.00 – <u>Initial Certification for EMDs</u> and Policy # 207.00 – <u>Recertification of EMDs</u>)</b>		
		No comments received.
<b>554.00 ALS Introduction</b>		
	<p>Since the <i>ALS Introduction</i> is still under review, maybe it would be appropriate to add the advanced airway documentation standards and clarify additionally what an intubation attempt is.</p> <p>AMR currently is educating the UCD modified study as guidelines. They are:</p> <ul style="list-style-type: none"> <li>Cords visualized</li> <li>Tube fogged</li> <li>EDD Use/air aspiration findings</li> <li>ETCO2 use/color change</li> <li>Equal breath sounds</li> <li>Absent epigastric sounds</li> <li>Chest rise and fall</li> <li>Tube secured &lt;#&gt;cm at lips</li> <li>Secured with commercial device</li> </ul> <p>I'm not advocating a comprehensive list as such; however a standard beyond just documenting EDD and ETCO2 use is probably more appropriate.</p> <p>What do you think?</p>	<p><b>AGREE. THE FOLLOWING CHANGE RECOMMENDED</b></p> <p><u>Endotracheal Intubation:</u></p> <p><i>Paragraph 3</i> add "<i>with the intent to intubate.</i>" To line two.</p> <p><i>Paragraph 7</i> – Begin the paragraph with "<i>Correct tube placement must be confirmed by at least three of the following indicators;</i></p> <ul style="list-style-type: none"> <li><i>Cords visualized</i></li> <li><i>Tube fogged</i></li> <li><i>Equal breath sounds</i></li> <li><i>Absent epigastric sounds</i></li> <li><i>Chest rise and fall</i></li> </ul> <p><i>Paragraph 7, Line 2</i> – Begin with, "<i>The number of centimeters at which the tube is secured, color changes . . .</i>"</p>
<b>560.11 Documentation of Patient Contact</b>		
		No comments received.

TITLE: FIRST RESPONDER INITIAL CERTIFICATION

APPROVED: \_\_\_\_\_  
Executive Director  
  
Medical Director

EFFECTIVE DATE: 8-17-97  
SUPERSEDES: \_\_\_\_\_  
REVISED: 1/2006  
REVIEW DATE: 8/2009  
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FIRST RESPONDER INITIAL CERTIFICATION

I. AUTHORITY

A. ~~In accordance with Section 2.03 of the EMS System Guidelines, an EMS Agency shall have a mechanism to accredit, authorize or certify prehospital personnel.~~

~~In accordance with Title 22, Division 9, Chapter 2, Section 100079(a)(3) of the California Code of Regulations, the local EMS agency may establish minimum standards for certification.~~

Section 2.03 of the EMS System Guidelines; California Health and Safety Code, Division 2.5, Sections 1797.94, 1797.182 and 1797.210; California Code of Regulations, Title 22, Division 9, Chapter 1.5.

II. DEFINITION

A. "Certification" means ~~authorization to practice First Responder skills in the Region. the issuance of a card or certificate which verifies that an individual has successfully met the requirements contained in this policy.~~

B. "Agency" means the Mountain-Valley EMS Agency.

C. "First Responder" means an individual who has successfully completed a 40 Hour First Responder course which meets or exceeds the requirements of Title 22, Division 9, Chapter 1.5 of the California Code of Regulations and has met all certification requirements.

D. "Candidate" means an individual who is applying for certification as a First Responder.

III. PURPOSE

The purpose of this policy is to provide a mechanism whereby individuals may acquire initial certification as a First Responder.

IV. POLICY

The Agency shall issue First Responder certification to those candidates that meet the requirements of this policy.

## V. PROCEDURE

- A. A candidate will be issued certification upon successful completion of the following:
1. Receive course completion from an Agency approved First Responder Training Program which is taught to the standards of the U.S. Department of Transportation's First Responder curriculum which includes first aid practices and CPR.
  2. Submit an application to the Agency within six (6) months of the date of course completion which includes:
    - a. a copy of a current CPR certification which is taught to the curriculum standards of the American Heart Association, American Red Cross or the National Safety Council at the Health Care Provider or equivalent level.
    - b. a copy of a current driver's license or picture identification.
    - c. a signed affidavit that the candidate is at least 18 years of age.
    - d. a signed affidavit that the candidate is not precluded from certification for reasons defined in Health and Safety Code, Section 1798.200.
  3. Successfully complete an Agency approved First Responder Certification Examination as follows:
    - a. Written Testing Requirements
      1. ~~For all classes ending after January 1, 2005, the certifying exam will be the National Registry exam for First Responders. Candidates must successfully pass an Agency approved certification exam prior to being issued a First Responder certification card.~~
      2. The minimum passing score is ~~70%~~ 75%.
      3. Candidates who do not receive a passing score are eligible to retest two (2) times. If after the third attempt, the candidate does not receive a passing score, they must successfully complete a First Responder initial course in order to reapply for certification.
      4. ~~Candidates completing the certification process prior to December 31, 2005, may opt to take the Mountain Valley EMS Agency written certification exam if they have failed the National Registry test two (2) times. The candidates will be allowed one (1) attempt to pass the test and the minimum passing score will be 75%.~~

b. Practical Testing Requirements

1. Practical skills standards and evaluation criteria are listed in the latest edition of the Practical Examination Workbook, published by the Mountain-Valley EMS Agency.
2. Candidates must successfully complete the following practical skills:
  - a. Patient Assessment/Management - Trauma
  - b. Patient Assessment/Management - Medical
  - c. Cardiac Arrest Management/AED
  - d. Bag-Valve-Mask Apneic Patient
  - e. Spinal Immobilization - Seated or Supine
  - f. One of the following randomly chosen skills:
    1. Long Bone Injury
    2. Joint Injury
    3. Traction Splint
    4. Bleeding Control/Shock Management
    5. Upper Airway Adjuncts and Suction
    6. Mouth-to-Mask with Supplemental Oxygen
    7. Supplemental Oxygen Administration
3. A candidate that fails a practical skill, must retest on that practical skill.
4. Retesting of a practical skill may take place at the same test session if the candidate fails three (3) or fewer practical skill(s).
5. Candidates failing four (4) or more practical skills must retest all skills at another test session.
6. Candidates retesting a practical skill(s) at another test session must pass all previously failed practical skill(s) in compliance with items 4 and 5 above.
7. Candidates retesting a practical skill may re-test on a failed skill a total of two (2) times.
8. Candidates retesting at other than their original test session must pay an additional certification testing fee, if applicable.
9. Candidates who do not pass the practical skill(s) upon retesting, must successfully complete an First Responder initial course in order to reapply for certification.

B. Test Session

- ~~1.~~ Candidates for certification ~~may shall~~ complete the certification exam at:
  1. Complete the certification exam at an Agency approved test session.

2. Candidates must pay all appropriate examination and certification fees.

a. Written Examination

1. ~~an Agency sponsored National Registry test session~~
2. ~~Another National Registry test site.~~

b. Skills Examination

1. ~~an Agency approved test session~~
2. ~~another National Registry test site~~
3. ~~pay the appropriate certification fee.~~

C. First Responder certification may be denied, or a First Responders certification may be suspended or revoked if they meet any of the following:

1. has committed any sexually related offense specified under Section 290 of the Penal Code
2. been convicted of murder, attempted murder, or murder for hire
3. been convicted of two or more felonies
4. is on parole or probation for any felony
5. been convicted and released from incarceration during the preceding fifteen years of the crime of manslaughter or involuntary manslaughter
6. been convicted and released from incarceration during the preceding ten years for any offense punishable as a felony
7. been convicted of two misdemeanors within the preceding five years for any offense relating to the use, sale, possession, or transportation of narcotics or addictive or dangerous drugs
8. been convicted of two misdemeanors within the preceding five years for any offense relating to force, violence, threat, or intimidation
9. been convicted within the preceding five years of any theft related misdemeanor
10. has committed any act within the preceding seven years involving fraud or intentional dishonesty for personal gain

D. Upon successful completion of all items listed in V.A. the candidate will be issued certification for a maximum period of two (2) years. The effective date of certification shall be the date the candidate satisfies all certification requirements. The certification expiration date will be the final day of the final month of the two (2) year period.

Scott we need 554.00 put in here from the d205-06 Draft policies. It is in WP format now. We need all of it in PDF

APPROVED: \_\_\_\_\_ Effective: 1/1/2004 ; Supersedes: \_\_\_\_\_ ; Revised: \_\_\_\_\_ ; Review: 1/1/2009  
Director M.D. Page 1 of 4

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## INTRODUCTION

- I. AUTHORITY: Health and Safety Code, Division 2.5, California Code of Regulations, Title 22, Division 9
- II. PURPOSE: To serve as the treatment standard for EMT-Is and EMT-Ps in treating patients.
- III. PROTOCOL

These are the advanced life support (ALS) treatment standards for the Mountain-Valley Emergency Medical Services Region. This document is divided into four major sections: General Procedures, Adult Treatment Protocols, Pediatric Treatment Protocols, and an Appendix, which includes a medication index, procedure index, and adult medication drip charts.

The General Procedures section contains individual treatment procedures which are referenced in the Adult and Pediatric Treatment Protocols. Included in this section are standard procedures for performing cervical spine immobilization, endotracheal intubation, pulse oximetry, vascular access, oxygen administration, and initiation of patient transport.

The Adult and Pediatric Treatment Protocols outline the specific treatment protocols for adult and pediatric patients. The Adult Treatment Protocols are used for patients age 12 and older. The Pediatric Treatment Protocols are used for patients newborn to age 12 years (or 34 kg, the Broselow tape maximum).

Each treatment protocol consists of a table divided into two parts. The top part, entitled "**Standing Orders**," outlines the procedures for treating that particular illness or injury which paramedics are expected to perform, if indicated, prior to making Base Hospital contact. All "**Standing Orders**" are listed in sequential order for each condition, unless otherwise noted. Mobile Intensive Care Nurses or Base Hospital Physicians may order repeat administrations of "**Standing Order**" medications.

The bottom shaded part, entitled "**Base Physician Orders**," outlines those treatment procedures that require a direct order from a Base Hospital Physician. Base Hospital Physicians may order any medication or procedure within the local paramedic scope of practice for any patient condition regardless of the treatment protocols. Physicians may give these orders directly to paramedics via radio or telephone communication. MICNs may relay a verbal "**Base Physician Order**" from a Base Hospital Physician in accordance with any of the approved protocols. In the event that paramedics cannot make Base Hospital Physician contact, a paramedic may perform treatments listed in this section without a Base Hospital Physician order. Paramedics must document, on an ALS Without Base Hospital Contact Report Form, each instance where a procedure or medication requiring a **Base Physician Order** was performed or administered without an order. Verbal orders must be signed on the PCR.

Additionally paramedics may ask to speak directly to the Base Hospital Physician on any call.

### GENERAL PROCEDURES

#### **Spine Immobilization:**

Because of the severe consequences of inadequately immobilized blunt-mechanism spinal injuries, all patients with signs or symptoms of spine injury must be appropriately immobilized.

However, because of the clear dangers of spinal immobilization to all patients, those patients without suspicious signs or symptoms MUST NOT be immobilized. The greatest danger to all patients in spinal immobilization is inability to protect their airway in the event of vomiting. Increasing pain from prolonged immobilization is almost universal for all patients. Elderly patients and patients in shock are prone to pressure necrosis of the skin. Adverse impact on respiration and venous

return to the heart also happens, especially to the elderly. Improperly-sized immobilizers, when applied to obese patients and children, may actually increase risk to the spinal cord or airway.

Full spinal immobilization for suspected cervical or upper thoracic spine injury after blunt trauma must include the following equipment and techniques:

1. Full-length spine board or vacuum immobilization mattress. Device must meet OSHA requirements. It may be of break-away design.
2. Rigid extrication-type cervical collar, of proper size, that provides full occipital and mandibular support.
3. Lateral head support that prevents head rotation by stabilizing the temples. May be of foam or cardboard. "Towel roll" type improvised supports are not acceptable.
4. Forehead and chin attachment may be made with adhesive or duct-type tape, and must prevent head rotation. Do not tape facial hair or eyebrows.
5. Torso straps must securely attach torso and pelvis to spine board, so that no motion occurs during log-rolling maneuvers. One must be able to independently detach torso or pelvic straps for exam or procedures, without loosening all straps. One must be able to detach and reattach straps with the patient supine on the immobilizer. Fasteners for the strap ends must not meet over the torso or pelvis. One-piece threaded "seat belt" type straps are not acceptable. Duct tape or other tape is not acceptable on the torso, even as "reinforcement" for straps.
6. Thigh and leg straps. Must prevent extremity motion from shifting the pelvis.
7. Padding under joints and voids. These increase comfort (and hence decrease voluntary motion) and prevent loss of normal spinal curvature. In particular, padding under flexed knees dramatically decreases low back pain and lumbar movement.

Lumbar and lower thoracic spine injuries **MUST NOT** have immobilization of the cervical spine. Only immobilization of the thorax, pelvis, and lower extremities is required (omit steps 2, 3, and 4, above).

Mechanical injuries of the lower back, such as occur with lifting or bending, virtually never cause instability of spinal supporting structures. Immobilization of any kind is not indicated. Transport these patients in a position of comfort, even if they have lower extremity nerve symptoms (sciatica).

Management of penetrating spine injuries remains controversial. Penetrating injuries of the spinal cord occur at the time of projectile impact only. Supporting spine structures remain intact and prevent further injury from the normal minor movement associated with extrication and resuscitation. Especially in neck and thorax penetrations, the risks of uncontrollable internal bleeding and unmanageable airway compromise outweigh the risk of further spinal cord injury. Hence, patients with penetrating trauma to the neck, back, chest, and abdomen, who do not have clear evidence of spinal cord injury or who are not comatose, should be transported without full spinal immobilization, if those immobilization steps would prolong on-scene time.

Approximately 1/3 to 1/2 of all trauma patients can be determined in the field to have very low risk of spinal injury. These patients must be identified, and spinal immobilization must **NOT** be applied. Always immobilize only those blunt trauma patients or suspected trauma patients who:

1. Have posterior spine pain or tenderness, pain with neck motion, distal numbness, tingling, weakness, or paralysis.
2. Have altered consciousness or poor communication, so that their pain perception or neurologic exam cannot be trusted.

These patients include those with:

- a. Altered level of consciousness.
- b. Intoxication by alcohol, drugs, or medications.
- c. Psychosis.
- d. Pre-verbal or very frightened children.
- e. Significant distracting pain (ex: other major fractures or significant abrasions).
- f. Primary language other than English

A fully awake and oriented patient, without other significant distracting pain and no evidence of significant intoxication, and who does not have spinal pain or tenderness or distal signs of spinal nerve injury, **MUST NOT** be immobilized.

### **Helmet Removal Statement**

Protective equipment for many sports includes helmet and protective padding. The question of whether to remove a helmet in the field has been investigated by the National Collegiate Athletic Association as well as several published journal articles. The overwhelming consensus is to leave the helmet and pads in place in the field. Three to four experienced personnel are required for careful controlled removal of sports helmets and pads without resulting in dangerous and potentially life

threatening spinal cord injury from c-spine movement. Investigators found no difference in cervical spine alignment between subjects with no equipment and subjects with both helmet and shoulder pads in place. The only exception to this caveat is the need for resuscitative efforts. Unless resuscitative efforts require the removal of the helmet and shoulder protective equipment, spine immobilization should be achieved with these devices in place.

### **Respiratory Distress: General**

Airway and ventilation interventions:

1. The level of airway and ventilation interventions is determined by the patient assessment and reassessments.
2. Immediate transportation is indicated for all respiratory patients classified as severe. Early transportation is indicated for all respiratory patients classified as mild to moderate. The exception is the patient in need of airway support and ventilation.
3. Airway support and ventilation are not to be delayed. If a patient needs an advanced airway (OTI, NTI or Combitube®), this airway should be established immediately upon recognition.

### **Oxygen Administration:**

Administer oxygen to all patients at risk for hypoxemia from any cause, including the administration of medications that can cause respiratory depression and procedures during which hypoxia may be worsened.

Almost all patients need only enough supplemental oxygen to keep their oxygen saturation above 95%. This is accomplished easily with nasal cannula oxygen at 1-6 L/min. Patients in extremis need oxygen by non-rebreather mask at 15L/min.

A small subset of patients with COPD suffers from CO<sub>2</sub> retention. They are only 2-3% of the total COPD population. Excessive oxygen administration to these patients can lead to sleepiness, then hypoventilation, and, if unrecognized, to later respiratory arrest. Almost all of these patients can be identified by their use of home oxygen. Use oxygen cautiously in these patients, but be sure to use enough to treat their hypoxic symptoms. Start with only 1L/min more than the same amount of oxygen that they use routinely. Increase oxygen slowly, while watching their symptoms, wakefulness, and respiratory rate. Do not hesitate to use high oxygen flows, if necessary, to treat their symptoms, but be prepared to control their airway and ventilation.

### **Endotracheal Intubation:**

Oral endotracheal intubation, stomal endotracheal intubation, nasotracheal intubation, and placement of a CombiTube in either the trachea or esophagus, are **Standing Orders** in all adult patients (over age 12, or 34 kg, the Broselow Tape maximum) who require advanced airway management.

Oral endotracheal intubation and stomal endotracheal intubation are **Standing Orders** in all pediatric patients (under age 12 or 34 kg, the Broselow Tape maximum) who require advanced airway management. **Note that nasotracheal intubation, needle cricothyrotomy, and the CombiTube are contraindicated in pediatric patients.**

Paramedics must not attempt any form of tracheal intubation more than three (3) times. An attempt to intubate is defined as placement of the laryngoscope blade in a patient's mouth *with the intent to intubate*. If unsuccessful on the third attempt, paramedics will place a CombiTube (in adults) or use BLS airway techniques (in pediatrics).

During intubation, all patients will be monitored with continuous pulse oximetry. An attempt at intubation **MUST NOT** interrupt ventilations for more than 30 seconds, or until oxygen saturation falls below 80%.

Naloxone must be administered before intubating a symptomatic narcotic overdose.

Pediatric patients must be measured with the Broselow Tape to determine the appropriate ET tube size and type. Use uncuffed tubes in children younger than 6 years.

Correct tube placement must be confirmed by at least three of the following indicators; cords visualized, tube fogged, equal breath sounds, absent epigastric sounds, and chest rise and fall. All patients (including CombiTube intubations) must be assessed immediately after intubation with an end-tidal CO<sub>2</sub> detector and esophageal detector device. The number of centimeters at which the tube is secured, color change on the CO<sub>2</sub> detector and air-aspiration findings must be documented on the Prehospital Care Report. All patients must be reassessed using one of the devices after significant movement, emesis or significant change in clinical condition. If, at any time, the devices indicate that the tube is not in communication with the trachea, the airway must be immediately removed and reintubation attempted. Pulseless

patients are best monitored with an esophageal detector device. Patients with a pulse, even if in shock, are best monitored with an end-tidal CO<sub>2</sub> detector.

In patients with head injury and declining neurologic status, premedicate with lidocaine 1.5 mg/kg IV push prior to intubating, when time allows. This intervention may decrease the hypertensive and arrhythmic response to intubation.

1-2 sprays of neosynephrine nasal spray into both nares must precede all nasotracheal intubations. Additionally, lubricate the tip of the nasotracheal tube or the nasal cavity itself with 1% lidocaine jelly. Both techniques will decrease bleeding and noxious responses to the intubation.

In cases when a nasotracheal intubation is anticipated, consider requesting a **Base Hospital Physician Order** for nebulized lidocaine. Nebulize 5 ml of lidocaine over 5 minutes to anesthetize the entire upper and lower airway. For all orotracheal intubation (OTI) and nasotracheal intubation (NTI) attempts cricoid pressure should be applied (Sellick maneuver). All intubated patients shall have immobilization to decrease the risk of accidental extubation.

### **Pulse Oximetry:**

The pulse oximeter measures the differences in absorption of light waves by oxygen-saturated vs non-saturated hemoglobin to determine what percent of hemoglobin is carrying oxygen. It does not measure the actual amount of oxygen carried by the blood. Tissue oxygen delivery is affected by the quantity of blood circulated over time, as well as the oxygen saturation. When there is insufficient hemoglobin [i.e., anemia] or diminished circulation, blood may be 100% saturated, but still not carry enough total oxygen for tissue needs.

Indications Paramedics must perform and document pulse oximetry on any patient at risk for hypoxemia from any cause, including the administration of medications that can cause respiratory depression (such as morphine and midazolam) and procedures (such as endotracheal intubation and airway suctioning) during which hypoxia may be worsened.

### Interpretation

- >95% = Normal
- 90-95% = Mild Hypoxemia
- <90% = Severe Hypoxemia
- (Accuracy below 80% is not reliable)

### Potential Sources of Error

- Movement of the sensor or its cord ("check sensor" alerts or falsely triggered alarm settings)
- Exposure of sensor to outside source of bright light (optical interference)
- Inflated BP cuff on same extremity (inability to sense)
- Low circulatory flow states such as cardiac arrest, hypothermia, shock (inability to sense)
- Black, blue or green nail polish (inability to sense)
- Finger-print dye (inability to sense)
- Carbon monoxide toxicity (falsely elevated readings)
- Severe anemia (inability to sense or overestimation of oxygenation)
- Hemoglobin disorders such as sickle cell disease, methemoglobinemia, or sulfhemoglobinemia

Documentation Pulse oximeter printout strips, if available, must be attached to the PCR and any treatments or conditions that may affect oxygen saturation should be noted on the strip. As with ECG tracings, the PCR number and call date should be documented on the oximeter strip.

### **Vascular Access:**

Intravenous access is a Standing Order for all adult and pediatric patients when an IV is indicated by protocol.

- Peripheral IV placement is the preferred choice in all patients.
- External Jugular IV placement is indicated in patients when no other peripheral IV can be established and the patient requires immediate fluid administration or access for IV medications.
- Intraosseous Access (IO) is the preferred choice in pediatric patients when a peripheral IV cannot be established and the patient requires immediate fluid administration or access for IV medications. Intraosseous access is also indicated in adult cardiac arrest patients when no other IV route can be obtained.
- Pre-existing Peripheral or Central Venous Access may be used if the patient has an indwelling IV catheter with subcutaneous or external port and a peripheral IV cannot be established. A pre-existing intravenous access should only be used when a life threatening condition requires immediate fluid therapy or IV medications. Paramedics

should consult with a Base Hospital MICN or Physician if they are unfamiliar with the type of indwelling catheter the patient has in place. Aseptic technique must be followed when using a pre-existing vascular access. Use a Huber-type non-coring needle, whenever possible.

### **Transport:**

Critically ill or injured patients should be transported as "load and go," with paramedics performing the minimum treatment necessary on scene to stabilize and package the patient. Most advanced procedures such as vascular access should be conducted en route. Most ~~Cardiac arrest~~ cardiac arrest patients should be transported Code 2. ~~due to t~~ The risk of injury to bystanders and responding personnel from vehicle collision during Code 3 transport. is greater than any benefit received by the cardiac arrest patient. Code 3 transport is only appropriate if in the paramedics judgement the instability of the patient's condition warrents Code 3 transport. In making this decision safety and environmental conditions such as traffic and weather must be taken into consideration. ~~special circumstances exist such as: 3<sup>rd</sup> trimester pregnancy, witnessed arrest, penetrating trauma.~~

Definitive in-hospital evaluation and treatment is the priority for both medical and trauma patients. Paramedics must minimize their on-scene times with all patients. As with critical patients, less sick patients should receive the minimum treatment necessary on scene. Advanced procedures such as vascular access should be conducted en route. Paramedics should strive to begin transport within ten (10) minutes of patient contact. Sometimes, scene logistics and necessary interventions may delay transport. Document these factors on the Patient Care Report.

The majority of the treatment protocols do not specifically list "transport" in their treatment orders. "Transport" remains listed as a specific treatment order in Adult Obstetrics and Trauma and most of the Pediatric Protocols. In some cases, scene logistics, such as proximity to a hospital and the availability of air transport, will dictate transport decisions. Document all such decisions on the PCR.

When transporting, paramedics should notify the receiving facility of their estimated time of arrival (ETA) as soon as possible, to allow the hospital time to activate internal teams and other specialized resources.