

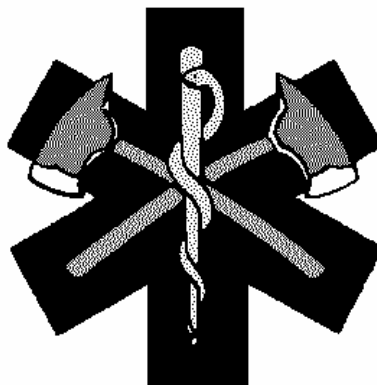
**MCKINLEY COUNTY
EMERGENCY MEDICAL SERVICES**

Adopted by

**GALLUP MEDSTAR AMBULANCE SERVICE
CITY OF GALLUP FIRE DEPARTMENT
MCKINLEY COUNTY FIRE AND EMS**

**TREATMENT GUIDELINES
DRUG GUIDELINES
PROCEDURES
OPERATIONS**

**FIRST RESPONDER
EMT - BASIC
EMT- INTERMEDIATE
EMT-PARAMEDIC**



REV 4

**Accepted September 1st, 2000
Updated November 30, 2004 (rev 2)
Updated November 5, 2006 (rev 3)
Updated November 2008 (rev 4)**

SPECIAL ACKNOWLEDGMENTS

The following professionals dedicated an endless effort in making these treatment guidelines a possibility. Without their effort, it would have been impossible to develop a comprehensive base set of emergency medical services' treatment guidelines that would be applicable to all services in New Mexico, and its local adaptation to the McKinley County EMS System.

Kevin Henson, EMT-P	Santa Fe County Fire Department
Keith Mausner, MD	New Mexico State Medical Director
Mike Buldra, EMT-P	EMS Program Coordinator, ENMU-R
Fred Shumate, EMT-P	EMS Region I
Chris Davis, EMT-P	EMS Region II
Donnie Roberts, EMT-P	EMS Region III
Craig Rhyne, MD	EMS Region III Medical Director
Laura Kay, MD	Medical Direction Committee
Phil Froman, MD	Medical Direction Committee
Ben Diven, MD	Medical Direction Committee
Evan Nelson, MD	Medical Direction Committee
Robert Booky, EMT-B	Cloudcroft EMS
Tom Mealand, EMT-I	Roswell Fire Department
Leslie Hayes, MD	Rio Arriba County E-911

Special thanks to the Department of Health, Public Health Division, Injury Prevention & EMS Bureau, Santa Fe, NM, and the Statewide EMS Advisory Committee for providing funding through a Statewide Projects Grant.

LOCAL SERVICE ACKNOWLEDGEMENTS:

Richard Kruis, MD	McKinley County Fire/EMS
Martin Boyd, MD	Gallup Med Star Ambulance
Ken Hoffman, EMT-P	McKinley County Fire/EMS

These Guidelines have been reviewed and approved for use by
Field EMS Personnel

Dated: _____

BY: _____

Richard Kruis, M.D.

McKinley County EMS Medical Director

Gallup Fire Department EMS Medical Director

Dated: _____

BY: _____

Martin Boyd, M.D.

Med Star Ambulance EMS Medical Director

INTRODUCTION

These pre-hospital treatment guidelines are a reflection of the statewide guidelines that were developed to assist fire departments and EMS services throughout New Mexico in the development of local EMS medical protocols. They are the result of a collaborative effort by the EMS Bureau, Region I, Region II, Region III, and the J.O.E. and Medical Direction Committees. These guidelines were designed to be used as a blueprint, and have been modified to meet specific service requirements within McKinley County and City of Gallup by all services approving these guidelines.

As of November 30 2004, the guidelines now include a division for the First Responder not previously addressed. This division is not in the New Mexico State Guidelines and was done locally following the First Responder Scope of Practice. New in this addition is the sectioning of the guidelines which will make changes easier to index.

Suggested drug dosages are listed after each drug and also contained within the Drug Guidelines section of this document. These Guidelines should be flexible enough to be used as "Standing Orders" or allow for Online Medical Control. In all cases, the receiving physician or emergency department should be contacted as soon as circumstances permit to allow for physician input into the EMT's therapy, and provide the receiving facility with adequate preparation time.

Patient condition, environmental problems, and time involved in implementing emergency care should be taken into consideration. If it becomes necessary to vary from established service protocols, direct contact with medical control and good documentation will be your best defense should litigation occur.

If IV therapy is being initiated, the venipuncture should be made as distally as possible except in cases of severe trauma or shock where a more proximal site (ideally antecubital) will facilitate resuscitation. The hand or forearm, antecubital fossa, upper-arm, leg and foot should be considered in that order of preference. The choice of venipuncture site is extremely important when caring for patients requiring multiple intravenous lines for long term therapy. Avoid starting IVs in paralyzed or injured extremities. Flow rates should be selected for each IV in accordance with service protocols. Recommended "field" flow rates are:

1. KVO or TKO - Keep open rate, very slow IV drip (10-20 cc/hr).
2. Intermediate rate - To be titrated to patient's blood pressure to maintain end organ perfusion.
3. Wide-open rate - as fast as possible, also consider rapid infusion devices.

Vital Signs should be monitored and re-evaluated frequently (typically every five minutes), and IV flow rates re-adjusted as indicated. If placement is unsuccessful after two attempts, or peripheral venipuncture is not possible due to a lack of suitable veins, consider external jugular vein or intraosseous (IO) cannulation.

Intravenous Cannulation in General:

Many EMS patients do not require IV access, IV access although routinely performed is generally not needed in many circumstances and may delay transport. Deaths have occurred from phlebitis from IV access, even locally. This is not an arbitrary procedure and is not to be taken lightly by either the Paramedic or Intermediate. The Patient needs to be either symptomatic/unstable or in actual danger of becoming symptomatic or unstable. ALL INVASIVE PROCEDURES CAUSE PAIN AND ARE DANGEROUS.

With this said, Cannulation via the most appropriate and quickest means when warranted is necessary using the proper procedures to remove as much risk as possible.

Pediatric IV's including scalp veins may be initiated by the EMT-I or EMT-P, however, some words of caution are in order. Pediatric IVs are often extremely difficult to start, and it is recommended that unless the need for an IV is clearly indicated, it should not be attempted. The decision to start a pediatric IV in the field should be based on the clinical importance of IV therapy in the pre-hospital setting. However if the emergency warrants and no peripheral IV sites are immediately identified or successful, the EMT- and EMT-P have the option for IO access which should not be delayed.

EMT Intermediate and Paramedic intraosseous (IO) cannulation of the ADULT (via sternal (F.A.S.T.-One and Easy-IO tibial and Humerous) is also authorized under the NM scope of practice. Again a word of caution, all efforts to peripherally cannulate within a reasonable time should be exhausted, however cannulation should not be delayed if necessary even using these devices.

Defibrillation is now possible for all levels of pre-hospital providers and, Public Access Defibrillation (PAD) for targeted rescuers has been legislated in New Mexico. This may result in situations where, upon arrival on scene, a patient has been defibrillated by a bystander (police officer, prison guard, hotel security, etc.) which will require an organized transfer of patient care. This must involve an exchange of information between the bystander and healthcare provider to determine what course of action should be taken next.

Down time until the initial defibrillation, and safety to healthcare providers are the two most critical factors in pre-hospital defibrillation. The time from collapse until defibrillation directly affects the chances of survival for the patient. In cases of cardiac arrest, defibrillation should occur at the earliest possible time after arrival at the scene and must precede all other treatment. Ideally the initial shock should be delivered within 120 seconds after arrival and after 2 minutes of CPR. Although time is important, safety must always be foremost. A calm approach to "working a code" will provide a safer environment and allow for better decision making. Always evaluate what you are doing before doing it. Once a shock is delivered, it cannot be taken back.

Multi-lumen, single Lumen and laryngeal mask airways should be used on patients who are unconscious, in need of ventilatory assistance and have no gag reflex. Improper use of these devices will result in inadequate oxygen exchange leading to anoxia and possibly death. Proper placement of the device should result in good bilateral breath sounds and symmetric rise in the chest during ventilations. If breath sounds are not present, immediate re-evaluation of tube placement must be performed. If breath sounds are still not present, immediately remove the device and re-insert or use an alternative

airway adjunct. The goal of airway management is to provide an optimal airway to allow for adequate oxygenation to the patient, regardless of the device used.

There has been much controversy over the medical application of Pneumatic Anti-Shock Garments (PASG, MAST). Today, however, there is a general consensus between both researchers and physicians that PASG works as a splint to stabilize pelvis and high femur fractures, and in some cases, may control active bleeding below the level of inflation. Bleeding may be either internal or external. Application should be limited to patients who are bleeding below the level of PASG, unstable pelvis and high femur fractures, and hypotensive patients who are not responding to IV therapy with a lengthy transport time (greater than 30 minutes).

The Inclusion of the King Airway has allowed the Paramedic to use a Bougie Tube to exchange the airway device if necessary without the use of direct Laryngoscopy, however at no time should a Paramedic change a airway that is functioning unless special circumstance exist and well.

LOCAL EXCEPTIONS IN GUIDELINES

This section denotes the exception(s) that any service declines to utilize within these unified guidelines.

COVERAGE OF ALL SERVICES:

CITY OF GALLUP: Only assures coverage at the EMT-BASIC level

MEDSTAR AMBULANCE: Assures McKinley County with Intermediate Coverage, the coverage assured to the city of Gallup is undefined.

McKINLEY COUNTY FIRE: Currently does not assure any licensed level of EMS coverage and has 5 rescue transports that may only have a single first responder on board with rationale it is better to move the patient toward medical care using a EMS licensed person, then leave them on scene for extended periods.

Thoreau Ambulance Operation (PRC Certified) only assures EMT-Basic coverage with 1 24 hour crewed ambulance however now employs personnel of all EMT levels (excluding First Responder) and only “advertises” BLS level as shifts and levels of EMS are varied.

EXCEPTIONS:

McKINLEY COUNTY/CITY of GALLUP

Medical intubation of pediatrics less than 30kg or 8 year of age, in an uncomplicated airway status is NOT allowed. Paramedics will insert LMA as under the First Responder, EMT-Basic or Intermediate protocol in uncomplicated medical airway situations.

Phenergan not approved for McKinley County, City of Gallup and Medstar; Zofran has replaced this medication for emetic events and does not require medical control and is covered under this guideline as standing orders.

CITY OF GALLUP

Currently does not utilize narcotic medications and will not use nor carry, Zofran Prednisone and will not use the F.A.S.T 1 device. GFD staff will be trained in the use of the EZ IO system and can utilize the system if present; however GFD staff will not be stocking the system (but can utilize McKinley County Systems if present on scene).

MED STAR AMBULANCE

Will not use nor carry Sodium Bicarbonate, Phenergan, Fentanyl or Prednisone and will not use the F.A.S.T 1 device. Medstar staff will be trained in the use of the EZ IO system and can utilize the system if present; however Medstar Ambulance will not be stocking the system (but can utilize McKinley County Systems if present on scene). Medstar Ambulances Medical Director desires to deemphasize the use of tourniquets as most transports are short.

Other exceptions maybe placed on the services and will be listed as necessary in attachments.

PRIMARY MANAGEMENT

Every Treatment Guideline includes a primary assessment of life threats and appropriate treatment for these conditions. In an attempt to avoid repetition of the components of the primary Management, please refer to the following Primary Management Guideline. **Establish Primary Management on all patient encounters.**

A. Maintain or establish **AIRWAY PATENCY** for all patients, by:

BASIC and INTERMEDIATE PRE-HOSPITAL MANAGEMENT

1. Positioning maneuvers as indicated by patient condition
2. Suction (oropharynx, nasopharynx, or stoma)
3. Nasopharyngeal airway
4. Oropharyngeal airway
5. Multi-lumen airway or Single Lumen Airway (King)
6. Laryngeal Airway Device

PARAMEDIC PRE-HOSPITAL MANAGEMENT

7. Endotracheal suctioning
8. Laryngoscopic visualization
9. Magill forceps manipulation
10. Nasotracheal intubation (blind or visualized)
11. Oral endotracheal intubation
12. Stomal intubation
13. Surgical cricothyrotomy

B. Maintain or establish **ADEQUATE VENTILATION & OXYGENATION** for all patients by:

FIRST RESPONDER, BASIC and INTERMEDIATE PRE-HOSPITAL MANAGEMENT

1. Assess rate and depth of ventilation.
2. Administer oxygen as indicated by patient condition.

(Continued next page)

3. Pulse oximetry (including room air SAO₂), end-tidal CO₂ detectors (ETCO₂) and capnometry/capnography if available will be used
4. Bag Valve Mask (BVM) with supplemental oxygen, and cricoid pressure if indicated.
5. Positive Pressure Ventilatory Devices (PPVD) and Automatic Transportable Ventilators (ATV).

PARAMEDIC PRE-HOSPITAL MANAGEMENT

6. Needle chest decompression
 7. Consider end-tidal capnography or capnometry or colorimetric (in descending order of preference), if available.
- C. Maintain or establish **ADEQUATE CIRCULATION** by:

FIRST RESPONDER and BASIC PRE-HOSPITAL MANAGEMENT

1. Position patient (supine), current PHTLS and ATLS has shown a gain of less than 5% blood volume yet a impingement on the diaphragm with “shock position” Current research does not support “shock position” anymore, just supine.
2. Control obvious hemorrhage using:
 - a. Direct pressure
 - b. Elevation
 - c. Temporary Tourniquet
 - d. PASG (if active bleeding below the level of garment)
3. CPR, if indicated
4. Cardiac monitoring

INTERMEDIATE PRE-HOSPITAL MANAGEMENT

5. Peripheral IV access and/or external jugular access, and fluid administration
6. Intraosseous access via service accepted

PARAMEDIC PRE-HOSPITAL MANAGEMENT

7. Intraosseous access per service accepted
8. Utilizing pre-existing vascular access as primary site's
9. ACLS as per specific protocols and according to the latest ILCOR - AHA Guidelines,

10. Use of the latest AHA guidelines is acceptable as these may precede guideline updates

SECONDARY MANAGEMENT

After life-threatening conditions have been corrected, an appropriate secondary assessment should be performed on all patients. In an attempt to avoid repetition of the components of the secondary Management, please refer to the following Secondary Management Guideline. **Establish Secondary Management on all patient encounters.**

- A. Conduct **Secondary Management** for all patients, including:
 1. Level of consciousness
 2. History of chief complaint
 3. Pertinent past medical history (SAMPLE, OPQRSTU)
 4. Physical exam
 5. Skin signs
 6. Lung sounds
 7. Cardiac monitor, may include 12 lead EKG data collection
 8. Neurological exam, including pupillary reaction, coordination and general movement
 9. Vital Signs including:
 - a. Respiratory effort, rate and volume
 - b. Pulse rate, strength and regularity
 - c. Blood Pressure
 - d. If available, oxygen saturation and capnometry
 10. Perform glucometry, if indicated.
 11. Mental Status exam
 12. Full documentation on appropriate EMS response form

PAIN MANAGEMENT GUIDELINES

Designation of Condition: Standing orders for controlled substances are found throughout this document. Listed below is the framework of intent for EMT-Intermediates and EMT-Paramedics to administer controlled substances within their Scope of Practice.

Use of Controlled Substances

1. In general, narcotic analgesics & benzodiazepines, with the possible exception of FENTYL are not appropriate for patients involved in multi-systems trauma, prior to physician evaluation. FENTYNL is preferred if analgesia is desired due to it's limited cardiovascular involvement and short half life.
2. Narcotic analgesics & benzodiazepines are generally only given to a patient with isolated injuries and stable/normal vital signs or an assessment consistent with kidney stones or an isolated musculo-skeletal etiology (i.e., fracture, severe sprain). The administration of FENTYNL is preferred due to it's short half life.
3. No narcotic analgesic or benzodiazepine should be given to any pregnant patient without first discussing the possible ramifications with on-line Medical Control.
4. Any administration outside this realm should be done with on-line Medical Control.
5. If the patient becomes nauseated after administration of narcotic analgesics or benzodiazepines, consider administration of ZOFRAN
Adult: 4mg VERY SLOW IVP (no less than 1 min)
PED: 0.1-mg/kg VERY SLOW IVP (no less than 1 min)

OTHER uses of Zofran

Neausated, vomiting medical patients, consider fluid bolus as most neausea from suspected acute viral or bacterial illness may respond positively and the patient may be dehydrated (evaluate mucosa) without the use of medications

Same dosing as above.

NOTE: The use of benzodiazepines as a sole agent for pharmacological assisted intubation has been determined by the Medical Direction Committee to be not in compliance with the New Mexico Scope of Practice.

Standing Orders Summary for Adults

Drug:	Pain Mgmt.	Anti-Convulsant	Sedation
Morphine	2-10 mg		
Meperidine	25-50mg		
Fentanyl	1mcg/kg		
Diazepam		2-20 mg	2-20mg
Lorazepam		2-4 mg	2-4 mg
Midazolam			1-10 mg

