Albuquerque Bernalillo County Emergency Medical Services System Protocols and Guidelines

EMS System Procedures and Guidelines
EMT - Basic - Intermediate - Paramedic
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Albuquerque Bernalillo County EMS

System Protocols and Guidelines

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Airway Section

A-1 Airway Management & Intubation Guidelines

Designation of Condition: Paramedics should manage patients who are apneic or severely hypoxic and/or bradypneic, with basic airway maneuvers and BVM. Those patients who are unresponsive to oxygen and basic airway maneuvers (jaw thrust, foreign body removal, BVM), should be intubated, either with Combitube or endotracheal tube.

Field Treatment for endotracheal intubation:

Oral Intubation - Before intubation the patient should be preoxygenated with a BVM @ 100% 02. Cricothyroid pressure (Sellick's maneuver) should be applied to minimize gastric distention during BVM. Release pressure if patient is actively vomiting.

- Usual tube Size: 7.0 - 8.0 mm for oral intubation of adults. 6.0 - 7.0 mm for nasal intubation of adults.
- Pediatrics- Refer to Braslow Tape

Confirming tube placement

- Always auscultate both sides of chest and stomach.
- Frequent reassessment of ETT during transport and after any move/transfer to confirm placement is mandatory.
- Adjuncts for confirming tube placement
  - Place an end tidal CO2 detector between the ETT and BVM on all patients with a pulse.
  - Consider using a toomey/suction tip syringe, aspirate the ETT, if 30cc of air can be drawn freely into the syringe, the tube is almost certainly in the trachea.
- Prior to releasing intubated patient to receiving hospital, physician, or respiratory therapist, you <u>must</u> reconfirm tube placement & patency.

Nasal Intubation: Nasal intubation has limited applications, and several drawbacks. It should be employed only when absolutely necessary, in patients with spontaneous respirations. It is contraindicated in combative patients, in the context of severe facial trauma, and in the presence of a known coagulopathy. It is strongly discouraged in cases of increased intracranial pressure, unless airway control is otherwise unobtainable.

- Nasal intubation should be preceded by nasal phenylephrine and xylocaine® jelly 2% if time permits.
- Do not force tube. Epistaxis (posterior and anterior) are common complications to this procedure.
- Guidable (Endotrol) tube is preferred. In most patients 6.0-7.0 tube size should be chosen.
- Preoxygenate with 100% O2.
- Choose most patent nostril. If no difference, use right nares.
- If patient becomes combative, cease attempt; as epistaxis and/or turbinate damage may ensue.
- Gently insert tube into nostril. The tube should be turned so that the bevel is away from the septum. Once the tip of the tube is past the inferior turbinate it should be directed caudad to follow the gentle downsloping floor of nose. Proceed very slowly and carefully. Once the nasopharynx is entered, restore tube to normal (sagittal) position.
- Advance tube until breath sounds maximal. Advance tube gently but firmly through cords during inspiration.
- Confirm tube placement. (See above)

Post-Intubation Sedation to maintain ETT patency and maximize ventilation compliance

- Should this need arise, use the following Diazepam dosing guidelines:

- Adult: Titrate to a total of 0.2 mg/kg not to exceed 5 mg/minute. Closely monitor blood pressure, SaO2 and ETCO2 .
- Pediatric: Titrate to a total of 0.2 mg/kg SIVP not to exceed 1 mg/min. Closely monitor blood pressure, SaO2 and ETCO2.

Combitube Placement:

- In certain situations, a Combitube may be the preferred method of airway control over endotracheal intubation, or used as a salvage device if intubation attempts are unsuccessful .If employed follow procedures as outlined in Combitube protocol (P-36)

Documentation: The run report should include patient mental and respiratory status, all procedures done, preoxygention, ease of intubation, all medication given, cricothyroid pressure use, how tube placement was confirmed and maintained.

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A-2 Adult Obstructed Airway

Designation of Condition: Patient may present unable to speak, breathe or cough and may clutch his/her neck between the thumb and fingers. Movement of air will be absent in complete airway obstruction- a life threatening emergency.

Field Treatment

- Establish level of responsiveness
- Determine history of witnessed or suspected aspiration

Conscious Patient

Ask patient to speak; Ask if he is choking.

- Partial Obstruction
- If good air exchange, encourage the patient to cough as long as cough is persistent & effective and respiratory distress is minimal. Monitor closely, and transport ASAP.
- If Patient unable to speak or cough, or if poor air exchange, (e.g., ineffective cough, significant stridor, cyanosis) Treat like complete airway obstruction.
    - Perform sub-diaphragmatic abdominal thrusts until obstruction is relieved or victim becomes unconscious. (Use chest thrusts in patients with marked obesity and during late stages of pregnancy)

Unconscious Patient

- If event unwitnessed, Tap or gently shake shoulder, shout, "Are you o.k?"
- Turn patient unto back as a unit, supporting head and neck. Patient should be face up with arms at side.
- Perform head-tilt/chin lift maneuver, if no trauma suspected. If trauma suspected, perform trauma jaw thrust. Maintain open airway. Look, listen, and feel for any signs of respiratory effort.
- Attempt to ventilate patient. If unable, reposition head and attempt to ventilate again.
- If unable to ventilate perform 5 sub diaphragmatic abdominal thrusts.
- Perform tongue-jaw lift and finger sweep.
- Attempt to ventilate
- If still unable to ventilate, perform direct laryngoscopy and attempt to visualize and remove obstruction. Use Magill forceps, if indicated, to retrieve foreign body.
- Intubate if necessary.
- Ventilate with high flow oxygen.
- If unable to visualize and remove obstruction, and still unable to ventilate or intubate, and patient condition is deteriorating, perform cricothyrotomy.

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A-3 Pediatric Airway Obstruction

Designation of Condition: The infant/child may present with respiratory distress associated with coughing, wheezing, gagging or stridor. Movement of air will be absent in complete airway obstruction. This is a true life-threatening emergency.

Field Treatment:

Foreign Body

- Establish level of responsiveness.
- Determine history of witnessed or suspected aspiration: sudden onset of coughing, gagging, wheezing or stridor with respiratory difficulty.
- Consider epiglottitis or croup, and other infections as an etiology, and refer to that specific protocol.
- If partial obstruction, encourage the child to persist with coughing as long as cough is effective and respiratory distress is minimal. Give oxygen via blow-by as tolerated.

If conscious INFANT with obstruction, increasing respiratory difficulty, and ineffective cough:

- Deliver 5 back blows.
- Deliver 5 chest thrusts.
- Repeat sequence until foreign body is expelled or infant becomes unconscious.
- If conscious CHILD with obstruction, increasing respiratory difficulty, and unable to speak or cough:
- Perform abdominal thrust maneuver.

If UNCONSCIOUS INFANT or CHILD

- Check for foreign body. If visible, remove with finger sweep (No blind sweep if not visible).
- Head tilt/chin lift.
- Attempt to ventilate.
- INFANT: Repeat back blows, chest thrusts, etc., repeat above steps until successful OR move to direct Laryngoscopy.
- CHILD: Repeat abdominal thrust maneuvers and above steps until successful or move to direct laryngoscopy.
- Direct Laryngoscopy should be done if unable to adequately ventilate. Use Magill forceps to retrieve foreign body, if it is visible.
- Ventilate with high flow oxygen, enriched Oxygen and BVM, mouth to mouth, or mouth to mask.
- Ventilate for gentle chest rise.
- Intubate if necessary.
- Place an end tidal CO2 detector between the ETT and BVM on all patients with a pulse.

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A-4 Pediatric Croup, Epiglottitis

Designation of Condition: When severe, patient will be stridorous and in respiratory distress. Remember to consider foreign body aspiration in your differential diagnosis. Watch for drooling (common in epiglottitis), and listen for a barking cough (common in croup).

Field Treatment:

- Keep patient comfortable and quiet with parent. No invasive procedures.
- Allow patient to assume position of comfort
- Administer cool humidified oxygen or nebulized saline.
- Transport ASAP
- Call ahead to receiving facility ASAP.
- If patient is in significant respiratory distress, and has audible stridor AT REST (i.e. when not crying), Administer one dose only of nebulized Epinephrine (1:1000): 0.05 mg/kg (maximum dose 3mg) in NS, to a total volume of 3cc. Contact MCEP if repeat dosing required.
- Monitor HR and respirations continuously.
- In the event of respiratory arrest or extremis:
  - Provide positive pressure ventilation with BVM using 100% oxygen.
  - If unable to adequately ventilate with BVM--Intubate. An ETT one-half size smaller than usual should be used. Have suction available and use cricoid pressure.

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Adult Cardiac Section [AC]

AC-1 Adult Cardiac Section

Introduction: The cardiac patient must be assessed and reassessed frequently, and prior to each therapeutic intervention. Consider the possibility that an underlying problem such as hypoglycemia or narcotic overdose may be contributing to the problem. In all instances the patient should be treated, not merely the rhythm.

All cardiac patients will be given oxygen at a flow rate sufficient to treat any component of shortness of breath. If the patient *is not* short of breath, a flow rate of 2-4 liters per minute is recommended. Cardiac patients should be allowed to seek a position of comfort, usually fowlers, unless they are in shock, in which case the supine position is preferred. An IV line of NS TKO should be started as soon as possible.

Patients in cardiac arrest will be managed in the field; all other cardiac patients require expeditious transport and minimal scene times.

- If the patient has a Return of circulation (ROC) (sustained palpable pulses and measurable Blood Pressure), they should be transported to a core facility (VAMC, LMC, ARMC, Pres DTN, UNMH, and New Mexico Heart Hospital). All other patients in cardiac arrest should be transported to the nearest appropriate medical facility. The transporting crew may opt to transport to nearest facility depending on circumstances.

All patients in cardiac arrest require immediate airway management, oxygen, CPR, endotracheal intubation, an intravenous line and cardiac monitoring although defibrillation may take precedence. (See appropriate Algorithms).

- For patients with return of circulation (ROC), if the patient was in VF/VT, and Lidocaine or Magnesium Sulfate was associated with conversion of the rhythm, maintain a therapeutic level of that drug by bolus and/or drip as appropriate. If no antiarrhythmic was given, administer Lidocaine 1.0 – 1.5 mg/kg followed by a maintenance infusion.

Resuscitation efforts may be terminated in the field with MCEP approval if the following conditions apply:

1. ALS interventions have been implemented for at least 20 minutes, and
2. No return of circulation (ROC) occurred, and
3. The terminal rhythm is asystole or an agonal bradyasystolic rhythm (PEA) < 40 bpm, and
4. The arrest is not the result of acute hypothermia. Patients suspected of having acute hypothermia shall be transported to a hospital for active rewarming.

Cardiac resuscitation attempts will not be terminated without MCEP approval.

Contact an MCEP as soon as possible

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AC-2 Analgesia-Sedation for Noninvasive Pacing

Designation of Condition: The patient who meets the criteria for Noninvasive pacing may experience discomfort during this type of procedure. Analgesia/sedation may be required.

Field Treatment:

- In order to facilitate transcutaneous pacing in the conscious patient with a hemodynamically unstable bradycardia Diazepam may be titrated to effect in 2 mg increments SIVP q 3-5 minutes to ease discomfort up to a maximum of 0.2 mg/kg.
- <u>If higher doses are required, interact with the MCEP at the destination hospital.</u>
- Continuous evaluation of the patient's respiratory status (rate and depth) is essential to prevent hypoxia.
- Ventilatory assistance may be required prn.
- Contact MCEP:
- Morphine Sulfate or additional Diazepam administration requires an MCEP order.

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AC-3 Asystole

Designation of Condition: The patient will be unconscious, unresponsive, pulseless, apneic, and show asystole on the monitor (confirmed with six-second strips in at least two leads). If you believe that the rhythm may be ventricular fibrillation, proceed to ventricular fibrillation algorithm.

In cases of electrocution, drowning, overdose, or environmental hypothermia, continue CPR pending MCEP contact.

Field Treatment:

- Confirmation of condition:
- Epinephrine, IVP or ET
  - IVP Dosage of Epinephrine, (1:10,000) 1.0 mg q 3 to 5 minutes until ROC or mechanical capture occurs if the patient is being paced.
  - ET Dosage of Epinephrine, (1:1,000) 2-3 mg diluted in NS to total volume of 10 cc's.
- Atropine, 1 mg. IVP or ET q 5 minutes until ROC or mechanical capture occurs if the patient is being paced , or a total of 0.04 mg/kg. has been given.
- Do not use the external pacer in asystole, *unless an organized monitored rhythm is noted to precede Asystole. Start Pacing @ 70 bpm and 140 mA.* CPR and ACLS measures should not be interrupted any longer than necessary to assess for mechanical capture during pacing attempts.
- Contact MCEP

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AC-4 Atrial Fibrillation & Atrial Flutter

Designation of Condition: The patient will have a rapid heart rate (often greater than 150 bpm) with Atrial Flutter or Atrial Fibrillation on the 12 Lead EKG (if available).

Field Treatment:

- If the patient is hemodynamically unstable with decreased mental status:
    - Sedate with Diazepam, 2-5 mg increments, SIVP as appropriate up to a total dose of 0.2 mg/kg).
    - Atrial Fibrillation-Synchronized cardioversion at:
        - Standard 100 joules; proceed to 200, 300, 360 joules.
        - Zoll Biphasic 30 joules; proceed to 50, 75, 100, 120, 150, 200 joules.
    - Atrial Flutter- Synchronized cardioversion at:
        - Standard 50 joules; proceed to 100, 200, 300, 360 joules.
        - Zoll Biphasic 10 joules; proceed to20, 30, 50, 75, 100, 120, 150, 200 joules.
- If the patient is hemodynamically stable but has severe Chest pain and/or SOB refer to Chest Pain/CHF protocols and consider MCEP contact.

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AC-5 Symptomatic Bradycardia

Designation of Condition: The patient will present with a hemodynamically unstable bradycardia (B/P < 90 mmHg systolic and a heart rate of <60 bpm with associated signs and symptoms, chest pain, shortness of breath, or decreased LOC, etc.).

Field Treatment:

- ABC's, Oxygen, IV of NS, Monitor. Obtain a complete set of vital signs.
- Pace at a rate of 70 bpm. Begin and slowly increase current (5 mA increments) to obtain electrical and mechanical capture.
- Peripheral IV access is required, as the patient may require sedation/analgesia as per the analgesia/sedation protocol. However, Noninvasive pacing should not be delayed in order to initiate a peripheral IV. Ideally, both procedures should be performed simultaneously.
- Atropine, 0.5 mg. IVP or ET q 3-5 minutes or a total of 0.04 mg/kg The goal is a heart rate of at least 60 bpm and a blood pressure of 90mm/Hg systolic. (^ LOC, ^hemodynamics). In the setting of acute MI with third degree heart block or Mobitz type II second-degree heart block, Atropine should be used with caution, and only after attempts at transcutaneous pacing have failed.

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AC-6 Cardiogenic Shock

Designation of Condition: The patient may present with shortness of breath, (wet noisy respirations/crackles), possibly pink frothy sputum (pulmonary edema), and indicators of hypotension (BP < 90 mmHg and decreasing LOC). These signs and symptoms are usually observed in the setting of AMI, and require expeditious transport.

Field Treatment:

- Oxygen at a flow rate sufficient to treat shortness of breath. Allow the patient to seek a position of comfort, if possible (fowlers). Airway management as necessary.
- Establish an IV of NS @ TKO rate.
- Monitor cardiac rhythm.
- Obtain a baseline set of vital signs.
- If lung sounds are clear:
  - Administer a 5-10 cc/kg NS bolus.
  - Dopamine drip @ 4-12 mcg/kg/min.
  - Contact MCEP

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AC-7 Pulseless Electrical Activity

(Electromechanical Dissociation)

Designation of Condition: The patient will be unconscious, unresponsive, pulseless, apneic, and show organized electrical activity on the monitor.

Field Treatment:

- ABC's, CPR, Intubate
- Establish at least one large bore IV line with an isotonic solution and begin fluid bolus of 20 ml/kg
- Consider and treat underlying causes such as hypovolemia, tension pneumothorax, cardiac tamponade, pulmonary embolus, acidosis, or hypoxemia.
- Epinephrine, IVP or ETT
  - IVP Dosage of Epinephrine, (1:10,000) 1.0 mg q 3 to 5 minutes until ROC or mechanical capture occurs if the patient is being paced.
  - ET Dosage of Epinephrine, (1:1,000) 2 mg diluted in NS to total volume of 10 cc's.
- Atropine: Consider Atropine or pacing only if bradycardic rhythm is in non-traumatic patients. Dosage IVP or ET 1.0 mg, repeat q 3-5 minutes or a total of 0.04 mg/kg
- Contact MCEP

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AC-8 Myocardial Infarction

Designation of Condition: A chief complaint, which has signs and symptoms suggestive of AMI. Patient may present with one or more of the following: chest pain/discomfort (radiating or non-radiating), discomfort or altered sensations to neck, jaw, and either shoulder/arm or into the back. There may be complaints of SOB, weakness, diaphoresis, syncope, nausea, &/or vomiting.

Field Treatment:

- Oxygen Therapy:
  - If appropriate, obtain RA O_2 sat.
  - O_2 administration of sufficient liter flow to treat associated complaint of shortness of breath.
- Allow patient to assume position of comfort.
- Baseline vital signs
- Administer two 81 mg chewable ASA
- Heart Monitor/ECG* - Monitor cardiac rhythm and acquire a 12 lead ECG if available. If there is evidence of inferior wall AMI, or if you have other reasons to suspect right ventricular AMI, obtain a right sided 12 lead ECG (either V4R or V1R-V6R).
- Initiate 1 IV of 0.9 NS. Titrate fluids to patient vital signs.**
- If systolic BP > 100 mmHg and heart rate > 60, and no signs/symptoms or ECG findings consistent with acute right ventricular infarct or injury, administer 0.4 mg Nitroglycerin SL q 3-5 minutes to a maximum of 1.2 mg, provided vital signs remain stable
- If 12 lead ECG is unavailable and patient presents with chest pain and hypertension (SBP > 150 mmHg and/or DBP > 100 mmHg) or signs of acute pulmonary edema with normal or elevated blood pressure then 0.4 mg Nitroglycerin may be administered prior to acquisition of 12 lead ECG.
- Administration of **NTG is contraindicated for patients who have taken Sexual Performance Enhancing Drugs within 48 hours or in the setting of suspected acute right ventricular MI**.
- Titrate Morphine Sulfate, up to 0.15mg/kg, SIVP PRN for pain.
- Administer Morphine Sulfate cautiously (in 1-2 mg increments) in the setting of acute right ventricular MI.
- If additional Morphine Sulfate is required, contact receiving hospital/MCEP.
- If short intermittent runs of ventricular tachycardia occur, refer to AC-14 Unstable Ventricular Tachycardia protocol

***** Acquisition of a 12 lead ECG should be integrated into the initial flow of patient assessment and management whenever possible, and should not significantly delay transport. Place limb lead monitoring electrodes in such a manner as to facilitate 12 lead acquisition (electrodes placed on each deltoid and on the medial aspect of each calf). Results of the 12 lead ECG should be communicated to the ED en route to the hospital. Serial 12 lead ECG's should be acquired en route when the patient's clinical condition warrants. A 12 lead indication of "Acute Myocardial Infarction suspected" will require transportation to a hospital facility with cath lab capabilities.

****** Due to the possibility of these patients receiving thrombolytics, anti-platelet aggregation agents and anticoagulants, consider the risk vs. benefit of multiple IV attempts.

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AC-9 Pulmonary Edema, Congestive Heart Failure

Designation of Condition: The patient will present with shortness of breath (wet noisy respirations/crackles), and possibly pink frothy sputum (pulmonary edema).

Field Treatment:

- Oxygen at a flow rate sufficient to treat any component of associated shortness of breath. Allow the patient to seek a position of comfort, if possible (fowlers). Airway management as necessary.
- Obtain a baseline set of vital signs.
- Establish an IV of NS TKO.
- Monitor cardiac rhythm.
- If the patient's heart rate is > 60 bpm and the systolic blood pressure is > 110mmHg, administer:
- Nitroglycerine, 0.4 mg S/L q 5 minutes until the shortness of breath is relieved, 3 tabs (1.2 mg) has been given, or the systolic blood pressure drops < 100 mmHg
- In patients with clinically significant pulmonary edema, with a history of CHF, are on diuretics, and the systolic BP is > 110mmHg. Administer:
  - Lasix, 0.25 – 0.50 mg/kg up to 40 mg total, SIVP.
  - Morphine Sulfate, titrate to effect, up to a maximum 0.15 mg/kg.
- Contact MCEP

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AC-10 Sinus Tachycardia

Designation of Condition: The patient has a pulse and heart rate over
100 (100-160). The monitor shows a rhythm that is readily identifiable as sinus in origin.
Field Treatment:

- Treat the underlying cause (i.e., hypoxia, hypovolemia, hypoglycemia, and anxiety) when possible.

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AC-11 Supraventricular Tachycardia

Designation of Condition: The patient will have a heart rate greater than 150 beats per minute with a supraventricular focus and no p waves present. Transport ASAP.
Field Treatment:

- Oxygen
- Proximal IV of NS
- Monitor (activate paper recorder prior to and during any procedure)

If the patient is Hemodynamically STABLE, without significant associated symptomology, consider Valsalva maneuver, with patient in slight Trendelenberg. Transport to the hospital ASAP. Consider MCEP contact for possible Adenosine order only for the following:

1. If transport time is expected to be prolonged
2. If patient has a history of SVT responsive to Adenosine, or
3. An emergent need for chemical cardioversion is deemed necessary (e.g., patient has history of significant CAD).

If the patient is HEMODYNAMICALLY STABLE and suffering severe chest pain suggestive of AMI or severe SOB, but is <u>Awake</u> and <u>Alert</u> administer Adenosine..

- Adenosine 6 mg rapid IV push (1-3 seconds) followed by a rapid 20 cc NS flush.
- If no response in 1-2 minutes, 12 mg rapid IV push (1-3 seconds) followed by a 20 cc NS flush.
- If no response in 1-2 minutes, may repeat 12 mg rapid IV push (1-3 seconds) followed by a 20 cc NS flush (total dose of 30mg).
- If no response, sedate patient with Diazepam and cardiovert or contact MCEP.

* Adenosine is contraindicated in patients with known Wolff Parkinson White disorder or who present with an irregular wide complex dysrhythmia. Adenosine is not indicated for A-Flutter, wide complex dysrhythmias, or irregular rhythms (including A-Fib).
***Adenosine should be used with caution in patients with a history of reactive airway disease, especially in patients who are actively wheezing. In this situation, contact MCEP, prior to use.**
*** Consider the following drug interactions that are common with Adenosine administration:**
Tegretol (Carbamazepine) and Dipyradomole (Persantine): Enhances effects of Adenosine. May increase duration of AV blocks and periods of asystole. The effects of adenosine are also prolonged in heart transplant patients.
Theophylline (Theodur) and Caffeine: Adenosine antagonists.
Present copies of pre-conversion, conversion and post-conversion rhythm strips (and 12 lead EKGs) to receiving ED. Originals will be reviewed by routine QA process.
If the patient is HEMODYNAMICALLY UNSTABLE and has Decreased Mental Status:

- Cardiovert
  - Consider sedation with Diazepam in 2-5 mg increments SIVP as appropriate up to a total dose of 0.2 mg/kg.)
  - Initial setting of:
    - Standard 100 joules
    - Zoll Biphasic 75 joules
  - Subsequent energy levels will be:
    - Standard 200, 300, 360 joules
    - Zoll Biphasic 120, 150, 200 joules

AC-12 Ventricular Fibrillation/Pulseless Ventricular Tachycardia

Designation of Condition: The patient is unconscious, unresponsive, apneic, pulseless, and the monitor displays ventricular fibrillation, or ventricular tachycardia (broad QRS).

Field Treatment:

- If the arrest was witnessed and monitored, administer a precordial thump.
- Defibrillate stacked shocks @ :
  - Standard 200, 300, 360 joules.
  - Zoll Biphasic 120, 150, 200 joules
- CPR, Intubate, IV access.
- Epinephrine, IVP or ETT
  - IVP Dosage of Epinephrine, (1:10,000) 1.0 mg q 3 to 5 minutes.
  - ET Dosage of Epinephrine, (1:1,000) 2-3 mg in NS to total volume of 10 cc's.
- Defibrillate @ 360 joules standard (200 joules Zoll Biphasic). Repeat defibrillation at maximum joule setting after each pharmacologic intervention.
- Lidocaine 1.0-1.5 mg/kg IV q 3-5 minutes to a total of 3 mg/kg or 2 mg/kg ET in NS to a total volume of 10 cc
- Consider Magnesium Sulfate 2gms IVP
- Contact MCEP

Remember to check pulses after delivering stacked defibrillation, wait for rhythm change before proceeding to next step. Frequently reassess breath sounds following intubation.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 08/03	Revision # 7	Implemented 10/03

AC-13 Stable Ventricular Tachycardia

Designation of Condition: Sustained ventricular tachycardia (broad QRS tachycardia) will be present on the monitor. The patient will be conscious, alert, with a blood pressure greater than 90 mm Hg, free of chest pain, without shortness of breath, and is not diaphoretic.

Field Treatment:

- ABC's, oxygen, IV of NS, monitor. Apply defibrillation/cardioversion pads
- Rapid Transport
- Assess perfusion status at regular intervals. If patient condition deteriorates and becomes unstable: See AC-14.
- If Torsades de Pointes (For description, see AC-14) is present and the patient is hemodynamically stable, Administer Magnesium Sulfate 2 gms IV over 6 minutes (1 gm q 3 minutes) and initiate 30 mg/min infusion.
    - Monitor BP carefully and cease administration if hypotension ensues
    - If no change in rhythm after magnesium administration, contact MCEP
- Provide continuous ECG monitoring.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 12/16/04	Revision # 5	Implemented 04/05

AC-14 Unstable Ventricular Tachycardia

Designation of Condition: Sustained ventricular tachycardia (broad QRS tachycardia) will be present on the monitor. The patient will have a pulse. The patient will be hypotensive with decreased mental status, severe chest pain or significant SOB.

Field Treatment:

- ABC's, O2, IV of NS, monitor.
- Sedate with Diazepam in 2-5 mg increments SIVP as appropriate up to a total dose of 0.2 mg/kg)
- Monomorphic V-Tach
  - Synchronized Cardioversion *** @:
    - Standard 100 joules.
    - Zoll Biphasic 75 joules
- If necessary proceed to:
  - Standard 200, 300, 360 joules as needed.
  - Zoll Biphasic 100, 120, 150, 200 joules as needed.
- Polymorphic V-Tach
  - Synchronized Cardioversion *** @:
    - Standard 200 joules
    - Zoll Biphasic 100 joules
- If necessary proceed to :
  - Standard 200, 300, 360 joules as needed.
  - Zoll Biphasic 100, 120, 150, 200 joules as needed.
- Consider Lidocaine: 1.0-1.5 mg/kg bolus. Repeat <u>0.5 - 0.75 mg/kg</u> every 5 minutes until arrhythmia resolved or 3 mg/kg have been given. If arrhythmia is successfully terminated, initiate appropriate maintenence infusion of 1-4 mg/min. NOTE***The benefit of lidocaine is probably limited to V-Tach CAUSED BY cardiac ischemia. NOTE**** DO NOT ADMINISTER LIDOCAINE if you suspect hyperkalemia (e.g., renal failure patients on dialysis) or if the underlying rhythm is believed secondary to an overdose by an agent that blocks sodium channels (e.g., tricyclic antidepressants, phenothiazines, B-blockers, antihistamines, and cocaine).
- Synchronized Cardioversion *** @ maximum joule setting after each bolus of Lidocaine (if given).
- Consider Torsades de Pointes (A special form of polymorphic VT which displays a gradual alteration in the amplitude and direction of the electrical activity, so that it appears to rotate around an isoelectric line): Paramedics must understand that torsades is often due to various offending agents, such as tricyclic agents, phenothiazines, non-sedating antihistamines, and certain anti arrhythmic drugs. Although it can be suppressed by Magnesium sulfate, it will often recur unless the precipitating mechanisms are removed.)

If the patient with Torsades de Pointes is HEMODYNAMICALLY UNSTABLE:

- Synchronized Cardioversion (As outlined above for Polymorphic V-Tach)
- Administer Magnesium Sulfate 2gms IV over 6 minutes (1 gm q 3 minutes) and initiate 30mg/min infusion
- If no change in rhythm, repeat cardioversion.

***Defibrillate if Synchronized Cardioversion is delayed

Remember to check pulses after delivering stacked defibrillation, wait for rhythm change before proceeding to next step. Frequently reassess breath sounds following intubation.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	4/20/94	06/01/94	12/16/04	6	04/01/05

Pediatric Cardiac Section [PC]

Definitions

Neonatal	Resuscitation during or directly after birth
Infant	Birth to 1 year of age or 10 kg
Child	Greater than 10 kg but less than 50 kg
Adolescent	Greater than 50 kg (same as adult)

PC-1 Pediatric Asystole

Designation of Condition: The patient will be unconscious, unresponsive, pulseless, apneic, and show Asystole on the monitor (confirmed in at least 2 leads). If you believe there is any possibility the rhythm is ventricular fibrillation, proceed to ventricular fibrillation protocol.

Field Treatment:

- Secure airway,oxygenate, and intubate ASAP, perform CPR.
- Optimize ventilation w/ 100% oxygen
- Infant & Child
- Epinephrine - First Dose
  - IV/IO: 0.01 mg/kg (1:10,000)
  - ET: 0.1 mg/kg (1:1000) diluted in NS
  - If delivering drug via ET dilute in NS (2-3 cc in infants, 3-5 cc in children)
- Epinephrine- Second & subsequent dosage
  - IV/IO/ET: May repeat q 3-5 minutes at same dose
- Adolescent (> 50kg)
  - Treat as adult
- *Do not use the external pacer in Asystole unless* a monitored organized rhythm is noted to precede Asystole.
- Consider hypoglycemia, check blood glucose level
- TRANSPORT ASAP

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 10/14/02	Revision # 1	Implemented 01/01/03

PC-2 Pediatric Bradycardia

Designation of Condition: The patient will present with a hemodynamically unstable bradycardia and decreased LOC.

Field Treatment:

- Assess for symptoms of hypotension or poor perfusion.
- Secure airway/100% Oxygen. Assess rate & depth of ventilation. In an emergency, bradycardia most often results from hypoxemia. Therefore treatment should *initially* be directed at ventilation and oxygenation rather than administration of medications.
- Initiate IV or IO line
- INFANT - If symptomatic and heart rate is less than 80 bpm, begin CPR
  - Epinephrine, IV or IO, (1:10,000) 0.01 mg/kg (0.1ml/kg)
  - Epinephrine, ET, (1:1,000) 0.1 mg./kg (0.1 ml/kg) diluted in 2-3 cc's
  - Repeat dose q 3-5 minutes at the same dose until change is noted.
- CHILD - If symptomatic and heart rate is less than 60 bpm, begin CPR.
  - Epinephrine, IV or IO, (1:10,000) 0.01 mg/kg (0.1ml/kg)
  - Epinephrine, ET, (1:1,000) 0.1 mg/kg (0.1 ml/kg) diluted in 3-5 cc's
  - Repeat dose q 3-5 minutes at the same dose until change is noted. If Epinephrine is ineffective proceed to Atropine.
- Atropine, IV/IO/ET, 0.02 mg/kg (0.1 mg. minimum dose, 0.5 mg maximum single dose for child) q 5 minutes. May be repeated once
- Consider hypoglycemia, check blood glucose level
- Consider Pacing if medications are ineffective
- TRANSPORT ASAP

MCB	Passed	Implemented	Revised:	Revision #	Implemented
Action	4/20/94	06/01/94	10/14/02	1	01/01/03

PC-3 Pediatric Pulseless Electrical Activity

(Electromechanical Dissociation)

Designation of Condition: Consider and expeditiously treat underlying causes such as hypovolemia, hypoxemia, acidosis, tension pneumothorax, cardiac tamponade, or drug overdose.

Field Treatment:

- Provide ABC's, assist airway with BVM and 100% oxygen
- Intubate ASAP, CPR
- Infant & Child
- Epinephrine - First Dose
  - IV/IO: 0.01 mg/kg (1:10,000)
  - ET: 0.1 mg/kg (1:1000) diluted in NS
  - If delivering drug via ET dilute in NS (2-3 cc in infants, 3-5 cc in children)
- Epinephrine- Second & subsequent dosage
  - IV/IO/ET: May repeat q 3-5 minutes at same dose
- Adolescent (> 50kg)
  - Treat as adult
- Rapid Fluid Bolus, IV or IO (NS or LR) 20cc/kg.
- Consider pacing, only with bradycardic rhythm.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 10/14/02	Revision # 1	Implemented 01/01/03

PC-4 Neonatal Resuscitation

Designation of Condition: The patient is a newborn that requires resuscitative intervention. The extent and level of intervention is patient condition dependent.

Field Treatment:

- DO NOT delay delivery if it appears imminent.
- After delivery of head:
- If meconium present:
  - DO NOT STIMULATE BABY, suction mouth, then nose as completely and quickly as possible.
- If fine meconium particles are present mouth and nasal suctioning only is generally all that is necessary
- If Thick Meconium:
  - Deliver baby, suction deeply with meconium aspirator or with small-uncuffed endotracheal tube. Note: this should not be done at the expense of adequate oxygenation of the baby, or if bradycardia is present (<100 bpm). If need be, oxygenate the baby, then repeat the above suction process until as much meconium as possible has been removed.
- If meconium is not present, gently suction mouth first, then nose.
- Warm and dry baby.
- Place in supine position in slight Trendelenburg and open/maintain airway.
- Tactile stimulation of feet and/or back.
- If cyanosis is present, and RR & HR are adequate, provide 100% Oxygen blow by.
- If apneic, or HR < 100 bpm: Administer 100 % O2 via BVM for 30 seconds
  - Consider Naloxone 0.01 mg/kg IM/IV/IO only if mother does not have a history of long term opiate usage.
- If no improvement, begin CPR at a 3:1 ratio (3 compressions to 1 ventilation)
- If BVM and tracheal suctioning are not effective, intubate patient with an appropriate size (2.5-3.5), uncuffed endotracheal tube. Confirm ET placement, per intubation guidelines and optimally ventilate.
- Obtain a heel stick glucose reading. If less than 60 mg/dl: bolus infant with 2 ml/kg (200 mg/kg) D_{10}.
- Dilute each 1ml of D_{50} with 4ml IV fluid to make D_{10} [100mg/ml.])
- Administer Epinephrine ONLY if CPR and 100% Oxygen via BVM do not raise HR >80.
- Epinephrine:
  - Refer to appropriate protocol if PEA or Asystole are encountered
  - IV/ IO, (1:10,000) 0.01 mg/kg (0.1 ml/kg)
  - ET, (1:1,000) 0.1 mg/kg (0.1 ml/kg) dilute to total volume 1-2 ml's NS
  - repeat q 3 - 5 minutes
- Rapid transport to a facility with NICU or PICU capabilities (reference PC-10).

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	4/20/94	06/01/94	06/15/05	7	10/01/05

PC-5 Pediatric Sinus Tachycardia

Designation of Condition: The patient has a pulse and heart rate greater than 140 bpm. (age > 2yrs) or over 190 bpm (age < 2 yrs) The monitor will show a rhythm, which is readily identifiable as sinus in origin.

Field Treatment:

- Secure airway/high flow Oxygen.
- Assess for symptoms of hypotension or poor perfusion.
- Consider etiology: blood loss, pain, fever, dehydration, hypoxia, and anxiety.
- Begin appropriate treatment of underlying cause.
- Transport

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised	Revision #	Implemented

PC-6 Pediatric Supraventricular Tachycardia

Designation of Condition: The patient will have a heart rate greater than 220 bpm. The monitor will show a rhythm with a supraventricular focus.

Field Treatment:

- Stable
- Heart rate usually greater than 220 beats/minute.
- Oxygenation: 100%.
- Transport.
- Unstable
- Assess ABC's and provide oxygenation with 100% O2.
- Expeditious transport.
- IV access and fluid resuscitation, as needed, en route.
- Contact MCEP

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised	Revision #	Implemented

PC-7 Pediatric Ventricular Fibrillation-Pulseless Ventricular Tachycardia

Designation of Condition: The patient will be unconscious, unresponsive, apneic and pulseless. The monitor will show ventricular fibrillation or ventricular tachycardia (wide QRS).

Field Treatment:

- Begin CPR. Ensure adequate oxygenation and ventilation.
- Defibrillate at 2 J/kg (Standard and Biphasic).
- If unsuccessful defibrillate at 4 J/kg (Standard and Biphasic).
- If unsuccessful defibrillate again at 4 J/kg (Standard and Biphasic).
- Intubate, Oxygen, BVM, CPR, check breath sounds to insure correct tube placement. Secure tube. Frequently REASSESS.
- IV or Intraosseous access if possible. Consider endotracheal route for administration of approved drugs.
- Epinephrine - First Dose
  - IV/IO: 0.01 mg/kg (1:10,000)
  - ET: 0.1 mg/kg (1:1000) diluted in NS
  - If delivering drug via ET dilute in NS (2-3 cc in infants, 3-5 cc in children)
- Epinephrine- Second & subsequent dosage
  - IV/IO/ET: May repeat q 3-5 minutes at same dose
- Lidocaine
  - IV /IO/ET 1 mg/kg,
  - Repeat 0.5 mg/kg. q 3-5 minutes up to total of 3 mg/kg
- Defibrillate at 4 J/kg (Standard and Biphasic) 30-60 seconds after each medication administration/intervention.
- Contact MCEP

Remember to check pulses after delivering stacked defibrillation, wait for rhythm change before proceeding to next step. Frequently reassess breath sounds following intubation.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 08/03	Revision # 2	Implemented 10/03

PC-8 Pediatric Ventricular Tachycardia

Designation of Condition: The patient will have a pulse and show sustained ventricular tachycardia (wide QRS) on the monitor.

Field Treatment:

Hemodynamically Stable V-Tach (Child is alert with palpable pulses and no signs of shock)

- Assess & Secure Airway/Oxygen.
- Establish IV Rapid Transport
- Assess perfusion status at regular intervals, Provide continuous ECG monitoring.

Hemodynamically Unstable V-Tach (Pulses present with signs of shock)

- Assess and secure airway/Oxygen
- Establish IV or IO access.
- Consider sedation, Diazepam 0.1-0.2 mg/kg IV/IO or 0.3-0.5 mg/kg rectal
- Synchronized Cardioversion, 0.5-1.0 J/kg (Standard and Biphasic).
- If successful, administer Lidocaine 1.0 mg/kg IV/IO/ET. Rebolus in 5 min with 0.5 mg/kg and start a Lidocaine drip 20-50 mcg/kg/min **** DO NOT ADMINISTER LIDOCAINE if you suspect hyperkalemia (e.g., renal failure patients on dialysis) or if the underlying rhythm is believed secondary to an overdose by an agent that blocks sodium channels (e.g., tricyclic antidepressants, phenothiazines, B-blockers, antihistamines, and cocaine).
- If unsuccessful, administer Lidocaine 1.0 mg/kg bolus, then repeat synchronized cardioversion at 2 J/kg (Standard and Biphasic) up to two attempts.
- Consider Torsades de Pointes (A special form of polymorphic VT which displays a gradual alteration in the amplitude and direction of the electrical activity so that it appears to rotate around an isoelectric line): Paramedics must understand that torsades is often due to various offending agents, such as tricyclic agents, phenothiazines, non-sedating antihistamines, and certain anti arrhythmic drugs. Although it can be suppressed by Magnesium sulfate, it will often recur unless the precipitating mechanisms are removed.):

If Torsades de Pointes is present, and the patient is HEMODYNAMICALLY STABLE:

- Administer Magnesium Sulfate 25 mg/kg IV over 6 minutes and initiate 0.5mg/kg/min infusion
- Monitor BP carefully, and cease administration if hypotension develops.
- If no change in rhythm, contact MCEP.

If the patient with Torsades de Pointes is HEMODYNAMICALLY UNSTABLE:

- Synchronized Cardioversion (As outlined above)
- Administer Magnesium Sulfate 25mg/kg IV over 6 minutes and initiate 0.5mg/kg/min infusion
- If no change in rhythm, repeat cardioversion.

***Defibrillate if Synchronized Cardioversion is delayed

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 01/2004	Revision # 4	Implemented 10/01/2004

PC-9 Pediatric Transport Protocol

Designation of Condition: When presented with an unstable or critical pediatric medical patient, it is important to remember that only hospitals with NICU/PICU capabilities are equipped to handle these patients.

Field Treatment:

- Provide ABC's, assist ventilations as appropriate.
- Follow necessary protocol for given condition.
- Consider transport to closest facility with NICU/PICU capability.
- University of New Mexico Hospital (NICU/PICU)
- Presbyterian Hospital (NICU/PICU)

Important Considerations:

- If confronted with a medical patient that you are unable to maintain an airway and are unable to successfully intubate, divert to the closest facility for airway stabilization.
- It is important that the receiving hospital be notified as soon as possible during the transport so that the appropriate personnel can be in the ER when you arrive.

MCB Action	Passed 12/06/98	Implemented 04/01/99	Revised	Revision #	Implemented

Medical Section

M-1 Anaphylaxis

Designation of Condition: A true life-threatening emergency. Patients will present with severe respiratory distress, hypotension, or airway swelling. Often associated with urticaria and wheezing.

Field Treatment:

- Assess and ensure adequate oxygenation and ventilations.
- Administer high concentration O2.
- Intubate if impending airway obstruction or respiratory failure.
- Monitor cardiac rhythm.
- Establish at least one large bore isotonic IV (LR or NS), titrate to blood pressure.
- Remove offending agent (e.g. stinger) in appropriate manner.
- Administer Epinephrine (1:1,000) IM at scene.
  - Adults, 0.3 mg 1:1000 IM. May repeat the dose in 5 minutes if necessary. Contact MCEP, if further dosing required.
  - Children, 0.01 mg/kg IM (max. 0.3mg). May repeat the dose in 5 minutes if necessary. Contact MCEP if further dosing required.
- Diphenhydramine, 0.5 mg - 1 mg/kg IVP/IM to a maximum of 50 mg.
- Albuterol, 2.5 - 5.0 mg nebulizer if wheezing is detected.
- **If significant intra-oral or pharyngeal swelling observed, or patient has inspiratory stridor: Epinepherine nebulizer (1:1000): 0.05 mg/kg (maximum dose 3 mg) in NS, to a total volume of 3 cc.**
- Contact MCEP, if patient continues to decompensate, to obtain an order for IV infusion of Dopamine.
- NOTE: Epinephrine can be life saving for patients in anaphylactic shock. However, in certain situations it should be used with great caution (and only if absolutely necessary). These include:
  - Patients on B-blockers (unopposed alpha effects)
  - Pregnancy (decreased blood flow to placenta)
  - Patients with severe CAD
  - Wheezing due to pulmonary edema
  - Hydrocarbon aspiration (myocardium sensitive to epinephrine)

Consider MCEP consultation, if time permits, in these situations.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	4/20/94	06/01/94	11/2003	4	10/01/2004

M-2 Reactive Airway Disease

Designation of Condition: Most commonly associated with Asthma, COPD, Bronchitis, Bronchiolitis (RSV), and Anaphylactic/allergic reactions. Caused by small airway obstruction usually secondary to hyperactive bronchial smooth muscle contraction (bronchospasm) and/or peribronchial inflammation. Common clinical findings include Wheezing, tachypnea, and a prolonged expiratory phase. If airflow is severely compromised, wheezing may be absent and/or the patient may be hypoxic (O2 Sat < 90%).

Field Treatment: (All Patients)

- Quickly assess ABC's
- Administer supplemental oxygen: Goal is to maintain O2 sat >90%.
- Allow patient to assume position that is most conducive to maximal airflow.
- If patient remains in respiratory distress begin Albuterol nebulizer
- Children < 2 yrs of age—2.5 mg in NS.
- Adults & children > 2 yrs of age—5mg in NS
- Transport ASAP
- En route: monitor vital signs, IV NS, titrate fluid to patient's condition.
- Repeat Albuterol as needed.
- Manage airway as necessary with BVM or intubation.

Patients with A History of Bronchial Asthma:

- If attack is severe or life threatening (e.g., cyanosis, inability to speak, respiratory extremis), Administer Epinephrine (1:1000) SQ. Contact MCEP BEFORE administration if patient has history of CAD or HTN.
- Adults: 0.3 mg SQ; may repeat in 5 minutes with MCEP approval
- Children: 0.01 mg/kg SQ; MAX 0.3 mg. May repeat in 5 minutes with MCEP approval.
- In cases of severe asthma, refractory to Albuterol and Epinephrine, Administer Magnesium Sulfate: 2 grams SIVP over 5-10 minutes en route or 20-25 mg/kg for patients under 50 kg.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	4/20/94	06/01/94	01/01/03	4	04/01/03

M-3 Carbon Monoxide Poisoning

Designation of Condition: Carbon monoxide poisoning may occur in two different circumstances. By slow exposure: (e.g., a defective furnace) or by rapid exposure: (e.g., from by-products of combustion during a fire or a suicide attempt by auto exhaust). Signs and symptoms include headache, nausea, vomiting, weakness, dizziness, chest pain and changes in level of consciousness. Carbon Monoxide poisoning should be suspected after smoke inhalation in a confined space fire, and if several patients in the same dwelling present with the similar complaints (usually, headache, nausea and vomiting) during cold weather months.

Treatment:

- Provider safety is a priority. If CO exposure is suspected, only properly equipped rescuers should enter the hazardous environment to remove patients to the safe zone.
- Establish and secure an airway by appropriate means
- Administer 100% Oxygen. Use a Non-rebreathing mask with reservoir, if patient breathing spontaneously.
- Ventilate as needed.
  - Remember that O2 Saturation monitors confuse carboxyhemoglobin with oxyhemoglobin and may show high O2 saturations even in severe poisonings.
- Establish IV access with BGL check
- EKG monitoring

Transport Considerations

- Any hospital is capable of caring for the mild to moderate CO exposure patient. Most patients respond well to high flow O2 and gradual off-gassing of CO.
- Patients with any alteration of LOC should be transported to a facility with hyperbaric oxygen capabilities. Pregnant patients with suspected exposures (even if mild) should also be transported to a facility with a hyperbaric chamber (as fetal hemoglobin has a much greater affinity to CO than adult hemoglobin). Currently the only facility with a chamber is Presbyterian Hospital Downtown.
- If there are multiple patients, follow the MCI protocol for distribution: patients with most severely altered mental status should be transported to Presbyterian.
- Any patient with burns meeting Trauma Triage criteria should be transported to UNMH.

MCB Action	Passed 06/15/2005	Implemented 10/01/05	Revised	Revision #	Implemented

M-4 Heat Exhaustion and Heat Stroke

HEAT EXHAUSTION, Designation of Condition: Patient will have a prolonged exposure to a warm environment or have excessive body heat produced by physical activity. S&S of hypovolemia may be present.

Field Treatment:

- If trauma suspected protect C-spine
- ABC's, High flow Oxygen
- Remove patient from hot environment
- Remove clothing, moisten skin with cool water
- Monitor vital signs & EKG
- IV of NS/ LR
- Expeditious Transport

HEAT STROKE, Designation of Condition: Patient will have a prolonged exposure to a warm environment or have excessive body heat produced by physical activity. S&S of hypovolemia may be present. Patient will have an altered LOC. Patient will be hot to touch.

Field Treatment:

- If trauma suspected protect C-spine
- ABC's, High flow Oxygen
- Remove patient from hot environment
- Remove clothing, moisten skin with cool water
- Monitor vital signs & EKG
- IV of NS/ LR
- Expeditious Transport

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 2/16/00	Revision # 1	Implemented 4/1/00

M-5 Hypoglycemia

Designation of Condition: Patient may present an altered mental state, confused, agitated, unconscious or seizing. The patient will present with a blood glucose level less than 60 mg/dL and with an altered mental status.

Field Treatment

- ABC's, High flow Oxygen.
- Check BGL.
- Initiate IV of NS.
- Dextrose
- ADULT: D50W, 12.5 – 25grams Slow IVP titrate to effect.
- PEDIATRIC: 0.5 grams per kg D25W, Slow IVP. Dilute D50W 1 to 1 with IV fluid to make D25W solution.
- If prompt improvement does not occur, repeat BGL and see protocol for unknown cause.
- Field glucose determination guidelines:
- Field glucose determination is appropriate in patients with altered mental status, seizures, or coma.
- Dextrose should be given regardless of field glucose reading if your suspicion of hypoglycemia is high, i.e., insulin dependent diabetic who thinks they are hypoglycemic, has not eaten, etc.

Patient Refusal Guidelines: If the patient refuses transport after being treated for a documented hypoglycemic episode, follow these guidelines:

- If the patient is only on a short acting insulin (Regular, Semilente) and displayed an adequate response (Normal vital signs, normal mentation, and a BGL within normal limits.) to a challenge of: Adult- less than or equal to one amp of dextrose; Pediatric- less than or equal to 0.5 grams/kg of D25, refusal of transport is acceptable if they have no acute co-morbid medical condition. (Liver disease, kidney disease, alcoholism or febrile illness), and the pt is released to a competent adult for observation for 2-3 hours.
- If the patient is known to take or has access to an oral diabetic medication in the sufonylureal class, they must be transported to a hospital for further evaluation.
- If the patient is on an insulin preparation that is long acting (lente,NPH, ultralente), they must be transported to a hospital for further evaluation.
- If there is a question regarding a specific agent and whether or not it may have caused the hypoglycemic episode, Poison Control (272-2222) must be contacted for clarification.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 2/16/00	Revision # 2	Implemented 4/1/00

M-6 Hypothermia

Designation of Condition: The patient will have experienced a prolonged exposure to a cold environment. The patient will be cool or cold to touch.

Field Treatment:

- ABCs; 100% oxygen.
- Move to warm environment (heated rescue/ambulance). Handle gently. Rough handling may precipitate V-FIB.
- Carefully remove cold/wet clothing.
- Wrap torso in warm dry blankets
- Expeditious Transport
- IVs of LR (warm by wrapping tubing around instant hot packs).
- Monitor VS and cardiac rhythm. Allow one full minute to ascertain if carotid pulse present.
- If patient is without a pulse, begin CPR and gently intubate.
- Treat patient per VT/VF protocol.
- Defibrillate at 200, 300, 360, if unsuccessful perform CPR and avoid further defibrillation attempts
- Administer Epinephrine or Lidocaine, 1 dose only. Administer per Protocol AC-12
- Attempt rapid core rewarming
- If ANY pulse is detected, DO NOT PERFORM CPR.
- If pulse present, do not treat bradycardia or A-FIB. (Assuming severe hypothermia). If patient is in Ventricular Tachycardia with a pulse give Lidocaine 1.0-1.5 mg/kg

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 10/01/02	Revision # 2	Implemented 01/01/03

M-8 Drug Overdose

Designation of Condition: The patient will have ingested, inhaled, or injected an unknown quantity of one or more medications or substances.

Field Treatment:

- ABC's, High flow Oxygen.
- Identify substance, amount ingested, inhaled or injected. Secure any containers for transport to the hospital.
- Establish an isotonic IV, titrate to patient condition.
- Monitor EKG & Vital Signs.
- For known or suspected tricyclic antidepressant overdose, if patient exhibits any of the following signs contact MCEP for possible 1 meq/kg IV Sodium Bicarbonate order:
  - <u>Cardiac</u>
    - QRS > .12mm
    - Ventricular arrhythmia
    - Hypotension
    - Tachycardia
  - <u>Neurologic</u>
    - Seizures
- For known or suspected narcotic overdose:

Adult

- If apnea or cyanosis present, administer Naloxone 0.4-0.8 mg IM or IV
  - Titrate Naloxone 0.2-0.4 mg increments IVP to reversal of ventilatory depression.
- If bradypnea with pulse: Establish patent airway and begin bag ventilation with 100% oxygen
  - Load syringe with 2 mg (2 ml) of Naloxone and attach MAD™ nasal atomizer
  - Place atomizer 1.5 cm within the nostril
  - Briskly compress syringe to administer 1 ml of atomized spray.
  - Remove and repeat in other nostril, so all 2 ml (2 mg) of medication are administered
  - Small increments of Naloxone may be re-administered via intranasal route as needed and titrated to effect
  - Continue ventilating patient as needed
  - If no arousal occurs after 3 minutes,
    - Naloxone 0.4mg IM or IV
- Establish an isotonic IV, obtain BGL and titrate Naloxone 0.2-0.4 mg increments IVP to reversal of ventilatory depression. Intralingual and sublingual injections will not be used.
- Naloxone 0.2- 0.4mg may be repeated every 2-4 minutes if little or no improvement is noted, until 2.0mg has been administered.
- The dosage of Naloxone should be titrated to reverse only the ventilatory depression.
- Intubation should be performed as needed, depending on the patient’s level of consciousness after receiving Naloxone.

Pediatric

- 0.02 mg/kg Naloxone IV/IO/IM/IN, up to a total of 2.0 mg. IN Administer: Divide dosage. Give one-half of total volume per nostril.
- Transport without delay.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 08/03	Revision # 8	Implemented 10/01/03

M-9 Stroke

Designation of Condition: Stroke is defined as an interruption of perfusion to the brain. The patient may present with one or more disturbances involving vision, sensory, motor or cognitive functions.

Field Treatment:

- Establish and maintain airway with appropriate adjuncts.
- Maintain ventilatory support as needed.
- O2
- Transport without delay
- IV of NS or LR
- Determine baseline blood glucose reading.
- Monitor vital signs and EKG.
- Do not attempt to alter the blood pressure of a hypertensive patient.
- Rapid assessment of GCS, LOC and motor and sensory functions.
- Utilize the Cincinnati Prehospital Stroke Scale.
- Treat seizures per protocol.(M-10)
- A detailed history and time of onset are critical, OR determine the last known time the patient was asymptomatic.

The Cincinnati Prehospital Stroke Scale© (Kothari R, et al. *Acad Emerg Med.* 1997;4:986-990)

Facial Droop (have patient show teeth or smile):

- Normal – both sides of face move equally.
- Abnormal – one side of face does not move as well as the other side.

Arm Drift (patient closes eyes and holds both arms straight out for 10 seconds):

- Normal – Both arms move the same *or* both arms do not move at all (other findings, such as pronator grip, may be helpful)
- Abnormal – one arm does not move *or* one-arm drifts down compared with the other.

Abnormal Speech (have the patient say “you can’t teach an old dog new tricks”):

- Normal – patient uses correct words with no slurring.
- Abnormal – patient slurs words, uses the wrong words, or is unable to speak.

MCB Action	Passed 05/15/02	Implemented 07/01/02	Revised	Revision #	Implemented

M-10 Seizures, Status Epilepticus

Designation of Condition: Patient will present with involuntary muscular contractions

Field Treatment:

- Establish and maintain airway. Supplemental oxygen.
- Position on left side (left lateral recumbent position). Provide suction as needed. Prevent injury.
- Establish venous access with an isotonic solution.
- Perform field glucose determination. If < 60 mg/dl, administer dextrose per protocol
- If unable to perform field glucose determination, and patient is still convulsing, give D25 (2ml/kg) to children or D50 (1ml/kg) to adults--SIVP.
- If patient is still seizing and:
  - Generalized seizure is prolonged (>5 minutes), OR
  - If more than two generalized seizures recur without an intervening lucid period, administer Diazepam. (See dosing below)
- Contact MCEP in all other cases
- Diazepam:
  - Infant: 0.2 mg/kg dose IV or IO over 2-3 minutes
  - Children: 0.2 mg/kg IV or IO, not to exceed 1mg/min
  - Adult: 0.2 mg/kg IV, not to exceed 5mg/min
- Diazepam may be administered rectally via a lubricated 3cc syringe. *The Rectal dose is up to a maximum of 0.5 mg/kg.*
- If greater doses are required, contact MCEP
- Transport ASAP.
- Anticonvulsants are rarely necessary in the field. If Diazepam is administered, be prepared to actively manage the patient's airway as respiratory arrest may result.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 09/20/00	Revision # 3	Implemented 01/01/01

M-11 Unconscious, Unknown Cause

Designation of Condition: The patient will be unconscious for an undetermined reason

Field Treatment:

- Assess and ensure a patent airway, rate, and depth of respiration and circulation.
- If the patient was traumatically injured, perform full spinal immobilization using C-spine precautions.
- Establish an IV line of NS. Blood will be obtained via a syringe or, when appropriate by lancet for glucose determination by strip oxidation (dextrostick). The determination may be read manually or by glucometer.
- If the plasma glucose is below 60 mg/dl with signs and symptoms consistent with hypoglycemia, administer Dextrose. Administer glucose regardless of glucometer reading if the patient is symptomatic and your suspicion is high.
- Dextrose:
  - Adult: Dextrose, 25 grams (50 ml.) SIVP through a patent IV line.
  - Pediatric: Dextrose, administer 0.5 grams/ kg of a D25 solution.
- If the patient has signs and symptoms consistent with opiate intoxication (decreased respiratory drive, constricted pupils, LOC, etc.), Administer Naloxone.
- Naloxone:
  - Adult: Narcan, 0.2- 0.4 mg (1 ml) increments IM, IV, or ETT (never sub/intralingual) to reversal of ventilatory depression.
  - Pediatric: Narcan, 0.4mg up to 1.2mg.
- Contact MCEP if additional doses are required.
- Reassess frequently.

If the history of present illness does not reveal the probable cause of unresponsiveness, a dextrostick or glucometry should be used to rule out hypoglycemia. If the history of present illness is suggestive of opiate intoxication, naloxone should be administered first. Glucose is relatively contraindicated in stroke and perhaps trauma.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 09/20/00	Revision # 1	Implemented 01/01/01

M-12 Snakebite

Designation of condition: Patient has sustained bite from Rattlesnake (bites from other snakes including exotics require different treatment methods; Contact MCEP), usually recognized by two small puncture wounds. Even though snake may be venomous, venom may not have been injected.

Field Treatment:

- Attempt to calm the patient verbally.
- Keep patient as still as possible.
- Obtain history including, if possible, the type of snake.
- Identify the puncture site or sites and cover with sterile gauze with no circumferential taping.
- Oxygen
- Cardiac monitoring
- Start IV of NS TKO in unaffected limb.
- **DO NOT**
  - make any incisions
  - apply a tourniquet
  - apply ice
  - elevate above level of heart
- Expect swelling and discoloration of the area
- Treat Hypotension with aggressive IV fluid boluses.
  - Adults: En route establish two IV's of LR or NS with blood set or regular drip tubing and bolus 20 ml/kg, reassess and adjust to desired effect.
  - Child: En route establish an IV or IO line with LR or NS, and bolus 20 ml/kg, reassess and titrate to effect.
- If no response: Dopamine drip @ 4-12 mcg/kg/min.
- Treat pain per Protocol P-17 Pain Management. Use Morphine cautiously with hypotensive patients.
- Transport

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	7/19/95	07.19.1995	01.01.2003	1	04.01.2003

M-13 Transport Drugs

The following drugs are allowed to be monitored by paramedics during transport:

Medications Requiring An Infusion Pump	Medications NOT Requiring An Infusion Pump
• Aminophylline • Beta Blockers • Diltiazem(Cardizem) • Dobutamine (Dobutrex) • Fibrolytic Drugs (e.g., TPA, streptokinase, etc. • Flolan • Glycoprotein IIb-IIIa inhibitors / antagonists • Heparin and Protamine Sulfate • Insulin • Mannitol • Methylprednisolone (Solu Medrol) • Non-Depolarizing neuromuscular agents • Norepinephrine (Levophed) • Potassium An infusion pump and cardiac monitor are required for concentrations greater than 20-mEq/1,000 ml. Cardiac monitor required for infusion rates greater than 10 mEq/hour. • Procainamide • Sodium Nitroprusside (Nipride) • Terbutaline • Octreotide • TPN	• Antibiotics • Blood and Blood Products Medications for Administration During Patient Transfer • Retavase (second dose only) • Protamine Sulfate • Phenergan Medical Procedure Monitoring • Monitoring chest tubes

Paramedics may not initiate any of the above listed medications. Dosage and administration instructions must be obtained from the physician or nursing staff of the sending facility. All paramedics must complete training (as outlined by the NM EMS Bureau) for transport medications before they can monitor these infusions. If problems occur during transport, contact an MCEP for instructions as soon as possible.

MCB Action	Passed 11/15/95	Implemented 04/01/96	Revised 06/15/05	Revision # 3	Implemented 10/01/05

M-14 Septic Shock

Designation of Condition: The patient will be hypotensive (with a widened pulse pressure), tachycardic, and tachypneic. Mental status changes will be present, ranging from mild disorientation to coma. Fever is typical, but hypothermia is possible.

Field Treatment

- ABC's, High flow oxygen.
- IV NS
- Adults: One liter bolus (Unless contraindicated)
- Children: 20 ml/kg bolus (Unless contraindicated)
- Rapid Transport
- Repeat crystalloid bolus if no response to initial fluid therapy.
- Titrate fluids to obtain stabilization of patient's mentation, blood pressure, respiration, heart rate, and skin perfusion.
- Dopamine: If the patient has not responded to 3 fluid boluses, or if pulmonary edema is present. Begin drip @ 4 mcg/kg/min. May increase dose 2 mcg/kg/min every 5 minutes as needed, to a maximum rate of 12 mcg/kg/min. Contact MCEP if higher doses are required.

MCB Action	Passed 10/14/02	Implemented 01/01/03	Revised	Revision #	Implemented 01/01/03

M-15 Drowning/Near Drowning

Designation of Condition: Arrest or survival after suffocation by submersion.
Field Treatment:

- Search and Rescue by appropriate personnel/resources
- Rapid cautious removal of patient from the water
- Immobilize spine if mechanism of injury raises suspicion of spinal injury.
- Transport ALL patients to the hospital

CONSCIOUS WITH ADEQUATE RESPIRATORY EFFORT

- Clear airway of debris and/or fluid
- Assess and secure airway, Provide O2. Maintain O2 sats above 92%
- Assess circulatory status
- Monitor cardiac rhythm
- Begin warming patient
- Transport without delay

NOTE: Remember, no matter how good the patient looks at the scene, the secondary component of the drowning cascade is pulmonary edema which can begin hours after the initial submersion event.

ALTERED LEVEL OF CONSCIOUSNESS WITH ADEQUATE RESPIRATIONS

- Clear airway of debris and/or fluid
- Assess and secure airway, high flow O2 by partial non-rebreather mask.
- Assist ventilations as needed.
- Assess circulatory status
- Monitor cardiac rhythm
- Begin warming patient
- Transport without delay to appropriate facility

UNCONSCIOUS WITH ABSENT/INADEQUATE RESPIRATIONS

- Clear airway of debris and/or fluid
- Assess and secure airway, oxygenate, provide high flowO2 by partial non-rebreather mask
- Assist ventilation
- Anterior cricoid pressure prn
- Intubate if no sign of rapid improvement: Administer positive pressure ventilations with 100% O2
- Assess circulatory status; if pulse is absent, begin CPR and proceed to appropriate cardiac arrest protocol
- Monitor cardiac rhythm
- Begin warming patient
- Transport without delay to appropriate facility

NOTE: Consider hypoglycemia, check blood glucose level

MCB Action	Passed 04/01/03	Implemented 04/01/03	Revised	Revision #	Implemented

Obstetrics Section

OB-1 General Active Labor

Designation of condition: The patient will be pregnant or have a suspected pregnancy and present with complaints of intermittent abdominal contractions with abdominal cramping and/or lower back pain.

History

- Estimated gestational age
- Date of last period
- Duration and time interval of contractions
- Vaginal bleeding: amount? (OB-3 Vaginal Bleeding During Pregnancy)
- Amniotic fluid? Color? When noted?
- Previous deliveries
- Prenatal care
- Known abnormal presentation or obstetrical complication (previa, abruption, circlage)
- Single or multiple gestation
- Drug or alcohol abuse
- Pregnancy Induced Hypertension, pre-eclampsia or Gestational Diabetes

Physical Exam

- Vital signs
- Examine perineum for:
  - Visible cord (See M***) or presenting parts in vagina other than head (See M***)
  - Head crowning (See M-7)
  - Active vaginal bleeding
  - Amniotic Fluid
  - Meconium staining of amniotic fluid

Treatment

- ABC's
- Oxygen as needed to maintain SaO2 > 90%
- IV
- Reassurance of mother

Transport

- If 30 weeks gestation or greater, patients without complications should be transported to an OB capable facility (preferably where the patient has had prenatal care). These include Presbyterian Downtown, , UNMH, and The Women's Hospital.
- Any patient with gestational age between 20-29 weeks should be transported to a NICU facility. These include Presbyterian Downtown or UNMH.

MCB Action	Passed 06/15/2005	Implemented 10/01/05	Revised	Revision #	Implemented

OB-2 Imminent Vertex Delivery Guidelines

Designation of Condition: Pregnant patient in active labor with delivery imminent as evidenced by crowning (or other presenting part), urgent desire to push, continuous intense contractions, etc.
Field Treatment:

- Universal precautions. Open OB delivery pack containing the following: sterile gloves, sterile clamps and scissors, sterile towels for neonate, bulb suction, silver swaddler and placenta bag. Don sterile gloves, and create field for delivery
- Initiate large IV NS (If time permits prior to delivery).
- If membranes are ruptured, look for meconium (See PC-4) or prolapsed cord (See OB-4) and prepare to treat appropriately.
- Proceed with delivery:
  - Control delivery of head with one palm. Sterile towel in other hand at perineum will protect infants mouth/nose from anal contamination. Gently wipe baby's face. Suction oral cavity and nares with bulb suction
  - With delivery of neck, check for nuchal cord: If nuchal cord is present, gently loosen and slip over baby's head. If unable to manually remove cord, double clamp and cut cord.
  - If necessary, gently assist delivery of anterior shoulder by placing hands on side of head and exerting very mild downward pressure. Then, a very gentle upward lift of the head may aid in delivery of posterior shoulder. The remainder of the body usually follows without difficulty. Do not exert traction or try to "pull" baby from birth canal, as this may result in injury.
  - Once delivered, hold infant at or slightly below the level of the introitus for 60 seconds prior to clamping cord.
  - Thoroughly suction the airway
  - Dry/stimulate baby with sterile towels. Keep infant covered (including head) to prevent heat loss.
  - Place sterile clamps at approximately 6-8 inches from infant's abdomen, and cut between them using sterile scissors (Never use non-sterile equipment to cut cord)
  - If infant is pink and vigorous you may place infant on mother's breast
  - If infant is cyanotic, limp, depressed or not well-appearing (See PC-4)
- If abnormal presentation at delivery e.g., breech or shoulder dystocia (See OB-5 and contact MCEP)
- Placental delivery: The placenta usually delivers spontaneously (often preceded by a sudden gush of blood) within 5-10 minutes of delivery. As the placenta passes through the introitus gently lift it away with both hands employing a slight twisting motion. Never exert traction on the cord to pull placenta from uterus. When expelled, place placenta in plastic bag or other container and give to personnel at receiving hospital.
- If bleeding from mother is severe start a second IV.
  - If placenta has been delivered, and uterus does not feel firm, massage the uterine fundus by supporting the lower uterine segment with one hand just above the symphysis pubis, and massaging the uterus with the other hand.
- Transport to the closest appropriate medical facility. (Hospital with a Labor & Delivery Unit)

Women's Hospital University Hospital Presbyterian Hospital Center

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 06/15/2005	Revision # 4	Implemented 10/01/05

OB-3 Vaginal Bleeding During Pregnancy

Designation of Condition: Vaginal bleeding during pregnancy is abnormal. First trimester bleeding may result from threatened miscarriage, miscarriage or ectopic pregnancy. Bleeding after 20 weeks gestation may result from placentae previa (usually painless), placental abruption (usually associated with pain, often secondary to trauma), premature rupture of membranes or post-partum hemorrhage. Third trimester bleeding should always be considered an emergency, as profound shock secondary to exsanguinating hemorrhage, may occur within minutes.

NOTE: The amount of visualized vaginal blood loss is NOT a reliable indicator as to the actual amount of blood loss occurring.

NOTE: Digital vaginal examinations should never be performed. Visual inspection of the perineum is indicated if preterm labor is suspected. If crowning is noted, see OB-2 Imminent Vertex Delivery protocol.

Treatment:

- ABC's
- Follow blood and body fluid exposure guidelines
- Oxygen, if indicated
- If uterine fundus is palpable at or above umbilicus, place patient in a left lateral recumbent position to avoid supine hypotension syndrome.
- IV of Normal Saline. Titrate IV flow rate to patient's hemodynamic status.

If gestational age is 30 weeks or greater, the patient should be transported to an OB capable facility. (UNMH, Presbyterian, Women's Hospital). If pre-term labor is suspected, and the gestational age is > 20 weeks, but < 30 weeks, transport patient to a facility with a NICU. (Presbyterian, UNMH). Trauma patients should be transported to UNMH.

Lovelace/Sandia patients: If gestational age is < 20 weeks and patient presents with vaginal bleeding and/or abdominal pain, transport to Women's Hospital.

MCB Action	Passed 06/15/2005	Implemented 10/01/05	Revised	Revision #	Implemented

OB-4 Prolapsed Umbilical Cord

Designation of condition: This occurs when the cord slips down into the vagina or presents externally after the amniotic membranes have ruptured. The umbilical cord is compressed against the presenting part, diminishing fetal blood flow from the placenta. Fetal asphyxia may rapidly ensue if circulation through the cord is not re-established and maintained until delivery.

Treatment

- ABC's
- Oxygen
- IV
- Maintain universal blood and body fluid precautions.
- Rapid transport to the nearest OB capable facility
- Position the mother with hips elevated in Trendelenburg or knee-chest-position to relieve pressure on the cord.
- Instruct the mother to "pant" with each contraction to prevent her from bearing down
- Insert two gloved fingers into the vagina and gently elevate the presenting part to relieve pressure on the cord and restore umbilical pulse. DO NOT attempt to reposition or push the cord back into the uterus.
- If assistance is available, apply moist sterile dressings to the exposed cord.
- Maintain hand position (preventing compression of the cord) during rapid transport to receiving hospital, and until such time that hospital personnel are able to relieve you of this life-saving intervention.
- The definitive treatment is an emergency cesarean section.
- Early notification of receiving facility is mandatory

MCB Action	Passed 06/15/2005	Implemented 10/01/05	Revised	Revision #	Implemented

OB-5 Breech Delivery

Designation of condition: The largest part of the fetus (head) is delivered last. In general, breech presentations include buttocks presentation and/or footling presentation. An infant in a breech presentation is best delivered in the hospital setting since an emergency cesarean section is often necessary. However, if it is necessary to perform a breech delivery in a pre-hospital setting, the following procedures should be performed:
Treatment

- ABC's
- Oxygen as needed
- IV
- Maintain universal blood and body fluid precautions.
- Follow general treatment guidelines as indicated in general active labor protocol.
- If breech presentation identified, begin immediate transport to OB capable hospital. Determine need for imminent delivery (The mere appearance of the feet through the vulva does not mandate delivery. It is important to allow the feet, legs, and buttocks to advance through the introitus before intervention). If imminent delivery necessary:
- Position mother for delivery.
- Whenever possible, use sterile or aseptic technique
- Allow the fetus to deliver spontaneously up to the level of the umbilicus. If the fetus is in a front presentation, gently, extract the legs downward after the buttocks are delivered.
- After the infant's legs are clear, support the baby's body with the palm of the hand and volar surface of the arm.
- After the umbilicus is visualized, gently extract a 4"-6" loop of umbilical cord to allow for delivery without excessive traction on the cord. Gently rotate the fetus to align the shoulder in an anterior-posterior position. Continue with gentle traction until the axilla is visible.
- Gently guide the infant upward to allow delivery of the posterior shoulder.
- Gently guide the infant downward to deliver the anterior shoulder.
- During a breech delivery, position the head so that the fetal face is downward, away from the maternal symphysis.
- The head may deliver without difficulty. However, be careful to avoid excessive head and spine manipulation or traction.
- If the head does not deliver immediately, action must be taken to prevent suffocation of the infant. Perform Mariceau's maneuver
- Rotate mothers legs up towards her shoulders
- Place a gloved hand in the vagina with the palm toward the babies face.
- With the index and middle fingers, form a "V" on either side of the infant's nose on the maxilla.
- Gently push the vaginal wall away from the infant's face while applying gentle traction to the baby's face to roll the occiput under the pubic symphysis. An assistant may apply gentle downward pressure above the pubic symphysis until the head is delivered.
- If unable to deliver infant's head within three (3) minutes, maintain the infant's airway with the "V" formation and rapidly transport to the hospital.
- Early notification of the receiving facility of a complicated delivery is mandatory.

MCB Action	Passed 06/15/2005	Implemented 10/01/05	Revised	Revision #	Implemented

OB-6 Pre-Eclampsia and Eclampsia

Designation of Condition: Pre-eclampsia: A condition of pregnancy characterized by increasing hypertension, headaches, clonus, visual disturbances, right upper quadrant pain and edema of the lower extremities. This condition may progress to Eclampsia, an active life threatening seizure in the pregnant patient.

Treatment:

- Establish and maintain airway. Provide supplemental oxygen.
- Position on left side (left lateral recumbent position). Avoid supine hypotension syndrome.
- Establish venous access with an isotonic solution at TKO.
- ECG monitoring
- Pre-Eclampsia

  If patient is exhibiting signs and symptoms of severe pre-eclampsia: 1) Systolic BP > 170 and/or diastolic BP > 110, **OR**, 2) Systolic BP > 150 and/or diastolic BP > 100, AND the patient exhibits at least 2 signs and symptoms of severe pre-eclampsia (severe headache, blurred vision, or abdominal pain), contact MCEP for possible magnesium order. Administer 2 Gm $MgSO_4$ IV over 12 minutes (1 Gm q 6 minutes).
- **<u>Eclampsia: If patient begins seizing</u>:**
  - Administer a total of 4 Gm $MgSO_4$ IV over 12 minutes (1Gm q 3 minutes) and then begin MgSO4 drip at 30 mg/min. If seizure continues after giving magnesium, administer Diazepam. (See dosing below)
  - Perform field glucose determination. If < 60 mg/dl, administer dextrose per protocol.
  - Magnesium is contraindicated in patients with renal failure.
  - If magnesium is administered too rapidly (i.e., faster than parameters listed above) severe hypotension, arrhythmia, and/or cardiac arrest may occur.
  - Diazepam:
    - If Diazepam is administered, be prepared to actively manage the patient's airway as respiratory arrest may result.
    - Adult: 0.2 mg/kg IV, not to exceed 5mg/min (Maximum Dose 0.2 mg/kg)
    - <u>Diazepam may be administered rectally via a lubricated 3cc syringe. The rectal dose is up to a maximum of 0.5 mg/kg.</u>
  - Transport ASAP.
  - Contact MCEP If greater Diazepam doses are required.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	06/16/99	10/01/99	06/18/03	3	07/01/3

Trauma Section

T-1 Airway Management for the Trauma Patient

Designation of Condition: The patient will be unable to adequately maintain an airway in the presence of trauma.

Field Treatment

- Immobilize the cervical spine (axial immobilization). An airway may be maintained by utilizing the trauma jaw thrust or trauma chin lift. An oral or nasal airway may be utilized. Suction as necessary.
- If patient is not breathing adequately or is in respiratory arrest, and BVM ineffective, the neck should be stabilized with axial immobilization (in-line) and the trachea orally intubated without extension or flexion of the head. If the attempt at an axial immobilization oral intubation is not successful, consider: Combitube (See P-36) or surgical cricothyrotomy (See P-6).
- In the unresponsive breathing patient, consider nasotracheal intubation, unless contraindicated. (See A-1)

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	4/20/94	06/01/94	12/01/04	2	04/01/05

T-2 Major Trauma Patients, Penetrating

Penetrating Trauma: Transport to the appropriate Trauma Center should be initiated as soon as possible.

Designation of Condition: See Trauma Triage Protocol.

For Category 1 or Category 2 penetrating trauma patients, prolongation of scene time is unacceptable except in the following circumstances:

- The scene is unsafe.
- The patient is not accessible
- Airway has not been established and requires prompt intervention.
- Multiple patients
- Belligerent combative patients who require additional personnel.

Field Procedures:

- Rapid transport is the priority.
- Secure airway as appropriate utilizing axial immobilization, oxygen, BVM, suction, and intubation as indicated. (See T-1)
- If evidence of tension pneumothorax, treat appropriately. (See P-4)
- Control major external bleeding with direct pressure. (See P-13)
- Immobilize C-spine as appropriate. Immobilize only if focal neurological deficit is noted below the injury, or if you suspect a spinal injury based on the anatomic location of the wound and the patient is unconscious or severely obtunded.
- Begin immediate transport to appropriate facility according to the trauma triage protocol. (See T-4)
- Initiate two large bore IV's en route and provide fluid resuscitation. Cautiously titrate fluids to maintain mental status or a systolic BP at or near 100. In cases of severe brain trauma, titrate fluids (aggressively if necessary) to maintain SBP at or above 100.
- Monitor and obtain vital signs en route.

PENETRATING TRAUMATIC ARREST (patient apneic, pulseless, no signs of life):

- Resuscitation should be initiated in all trauma arrest cases except patients whose bodies are decapitated, transected, have extruded brain matter, or livormortis.
- Mandatory resuscitation field procedures include:
    - Secure airway as appropriate, utilizing axial immobilization (as indicated); ensure adequate oxygenation and ventilation.
    - If evidence of tension pneumothorax, treat appropriately.
    - If patient remains pulseless and apneic after above,
    - Place patient on cardiac monitor:
    - If PEA > 40bpm, provide rapid transport. Commence CPR and IV fluids.
    - If Asystole or PEA <40, you may call MCEP for DC order.
    - If there is a return of pulses, titrate fluids to maintain systolic BP of 100mmHg.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 06/15/05	Revision # 3	Implemented 10/01/05

T-3 Major Trauma Patients, Blunt

Blunt Trauma: Transport to the appropriate Trauma Center should be initiated as soon as possible.

Designation of Condition: See trauma triage protocol.

For Category 1 or Category 2 blunt trauma patients, prolongation of scene time is unacceptable except in the following circumstances:

- The scene is unsafe.
- The patient is not accessible
- Airway has not been established and requires prompt intervention.
- Multiple patients.
- Belligerent combative patient who requires additional personnel.

Field Procedures:

- Rapid transport is the priority.
- ABC's. Secure airway as appropriate; oxygen, BVM, suction, and ETT or combitube as indicated. (See T-1)
- If evidence of tension pneumothorax, treat appropriately. (See P-4)
- Immobilize and protect the C-spine as appropriate.(See P-21)
- Control bleeding with direct pressure. (See P-13)
- Begin immediate transport to appropriate facility according to trauma triage protocol. (See T-4)
- Initiate two large bore IV's en route and provide fluid resuscitation. Cautiously titrate fluids to maintain mental status or a systolic BP at or near 100. In cases of severe brain trauma, titrate fluids (aggressively if necessary) to maintain SBP at or above 100.
- Consider MAST if available, as appropriate. (See P-13)
- Heart monitor and vital signs en route.

BLUNT TRAUMATIC ARREST (patient apneic, pulseless, no signs of life):

- Resuscitation should be initiated in all trauma arrest cases except patients whose bodies are decapitated, transected, have extruded brain matter, or livormortis.
- Mandatory resuscitation field procedures include:
    - Secure airway as appropriate utilizing axial immobilization; Ensure adequate oxygenation and ventilation.
    - If evidence of tension pneumothorax, treat appropriately.
    - If patient remains pulseless and apneic after the above modalities have been instituted, you may contact the MCEP for DC orders.
- If there is a reasonable suspicion (based on mechanism or history) that the arrest was secondary to a primary cardiac event, and not trauma, then treat patient in accordance with the appropriate cardiac protocols.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	4/20/94	06/01/94	06/15/05	3	10/01/05

T-4 Trauma Triage Algorithm

Category 1 Trauma

Assess physiologic status

- Hemodynamic compromise [1]
- Respiratory compromise [2]
- Unconscious or deteriorating mental status

If yes to any of the above, transport to Level 1 Trauma Center (University Hospital)

If no, continue trauma triage

Category 2 Trauma

Assess anatomical injury

- All penetrating injuries to head, neck, torso, or proximal extremities[3]
- Flail chest
- Trauma with burns of 10% or > or inhalation injuries
- 2 or more suspected proximal long bone fractures
- Potential multi-system trauma
- Limb paralysis
- Amputation proximal to distal phalangeal joint
- Open or suspected depressed skull fracture
- Unstable pelvis or suspected pelvic fracture
- Altered mental status [4]

If yes to any of the above, transport to Level 1 Trauma Center (University Hospital)

If no, continue trauma triage

Category 3 Trauma

Assess mechanism of injury and risk for occult injury

- Ejection from vehicle
- Death in same vehicle
- Falls > 15 feet
- Pregnant > 20 weeks
- Evidence of high energy event of clinical significance [5,6]

If yes to any of the above, transport to Level 1 Trauma Center (University Hospital)

If no, the patient meets non-category trauma criteria and may be transported to a:

- Level 1 trauma center (University Hospital) or
- Presbyterian, Albuquerque Regional Medical Center or Lovelace Medical Center or

- Requested facility or
- Closest facility by proximity or access or Capacity status
- If the patient or paramedic requests a non-listed facility, contact MCEP at requested facility and follow their guidance prior to transport

Footnotes

1. Hypotension, pallor, tachycardia, or diaphoresis
2. Tachypnea (hyperventilation) alone will not necessarily initiate this level of response
3. Non-life threatening, minor injuries excluded
4. Altered mental status (secondary to sedative or hypnotic will not necessarily initiate this level of response)
5. High-energy event of clinical significance = large release of uncontrolled energy to patient. These events may include rollover crashes, motorcycle, ATV or bicycle crashes, auto versus pedestrian impacts, significant assaults or altercations, or extrication times > 20 minutes. Assume patient is injured until proven otherwise (multi-system injuries may be present) and exercise clinical judgement considering direction and velocity of impact, patient kinematics, physical size and vehicle damage. Age and co-morbid factors/conditions should be considered in triage level decisions.
6. IF a patient with evidence of a high energy event of clinical significance but without any clinical signs or symptoms of injury refuses transport to the trauma center and requests another facility, the paramedic will contact the MCEP at the requested facility and follow their guidance.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	02/21/96	04/01/96	04/2004	6	10/01/2004

T-5 Hypovolemic Shock

Designation of Condition: The patient may present with any of the following: an altered mental status (anxious, combative, confused, etc.), pale, clammy skin, weakness, nausea, decreased blood pressure (systolic < 90 mm Hg) weak rapid pulse, rapid, shallow respirations and a mechanism (medical or trauma) which may cause severe blood or fluid loss.

Field Treatment:

- ABC's, High flow Oxygen.
- Control hemorrhage, support respiration and circulation
- Rapid transport is the priority.
- Vital signs, place on a cardiac monitor.
- Adults: En route establish two IV's of LR or NS with blood set or regular drip tubing and bolus 20 ml/kg, reassess and adjust to desired effect.
- Child: En route establish an IV or IO line with LR or NS, and bolus 20 ml/kg, reassess and titrate to effect.
- NOTE: Over-aggressive fluid resuscitation may be detrimental in certain hypovolemic shock situations and caution combined with good clinical judgement is required to manage them.
    1. Patients in cardiogenic shock with signs of pulmonary edema (dyspnea, hypoxia, rales, JVD, dependant edema). See AC-6
    2. Hypovolemia secondary to penetrating torso trauma. New guidelines support the concept of cautious fluid resuscitation, with a goal of maintaining systolic blood pressure at or about 90-100 mg Hg. See T-2
- Consider applying MAST (see MAST Guideline)

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 06/15/05	Revision # 3	Implemented 10/01/05

T-6 University Hospital Trauma Distribution Plan

The mission of University Hospital is to be able to care for all trauma patients. However at times it may become necessary to prioritize the receipt of the critically injured. During these times, distribution of Category I, II, III and non-category patients will be necessary.

Procedure:

- Lifeguard Communication Center will notify AAS, AFD and BCFD Dispatch centers regarding the specific category of patient divert.
- AAS, AFD and BCFD Dispatch centers will notify their supervisors of the status.
- Due to the potential short time frame of the divert status; field units will only be notified on a case-by-case basis as the need arises. This will cut down on the confusion and the lengthy notification process to rescind the divert.
- All category III patients will be taken to Lovelace, Presbyterian or Albuquerque Regional Emergency Departments, these patients will be distributed according to:
    - Patient preference
    - closest facility
    - Capacity status
- Non-categorized patients will be transported to any facility according to:
    - Patient preference
    - Closest facility
    - Capacity status

Lifeguard Communication Center will notify the three dispatch centers once the divert status has been lifted. These times will be recorded in the Lifeguard Communication Center logs.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	05/20/98	07/01/98	11/11/01	1	01/01/02

T-7 Burns

Designation of Condition: The patient will have suffered a chemical, electrical or thermal injury.

Burns: Initial Examination and Evaluation

- ABC's, High flow Oxygen.
- Evaluate the Patient and determine type of burn
- History of the Injury (GLOBAL SURVEY/MECHANISM OF INJURY)
- Record time of injury and location: [indoor (closed space) outdoors, etc.]
- Mechanism: scald, flame, chemical, electrical, explosion, etc
- En route, roughly estimate extent of injury using the RULE OF NINES
- Determine age of patient
- Note any significant medical history
- Electrical injury may produce apnea. If the patient is in cardiac arrest initiate CPR & Advanced Life Support.
- When burns are associated with severe trauma, trauma protocols will supercede burn protocols.
- In simple chemical accidents, remove all contaminated clothing. Copious irrigation of the affected areas with water, unless contraindicated, should be instituted for 20 minutes as it will dilute the concentration of the offending agent and may lessen the severity of injury.

Field Treatment

- Remove from injuring source, remove all smoldering clothing.
- Assess ABC's. Check for associated injuries. REASSESS FREQUENTLY.
- Patients suspected of having inhalation injury or carbon monoxide poisoning should receive high flow O2 by mask.
- Cover burns with dry sterile dressings. Do not apply creams or ointments.
- A cool, moist dressing may be used to alleviate pain, if the BSA (body surface area) of the burn is less than 10%. DO NOT cover the patients with wet dressings if the BSA of the burn is greater than 10%.
- <u>En route</u>, establish one large bore peripheral IV with Lactated Ringers Solution. Avoid burned area if possible when establishing IV access. Do not delay transport to establish IV's on scene in critical patients.
- If possible, cover the stretcher with a sterile sheet. Place patient on stretcher and cover with another sterile sheet & blanket to prevent heat loss.
- Morphine Sulfate per pain management protocol (P-17) Titrate Morphine Sulfate, up to 0.15mg/kg, SIVP PRN for pain.
- Contact an MCEP *for Morphine Sulfate order above amounts in the pain management protocol to manage discomfort associated with burns.*

Transportation:

- Major Burns should be transported to the Regional Burn Center: Major burns are categorized as:
  - Partial thickness burns greater than 25% in adults, 20% in children.
  - ALL severe full-thickness burns involving 10% or more of the body surface area.
  - ALL full thickness burns involving hands, face, eyes, ears, feet, and perineum.
  - ALL burns that compromise circulation.
  - ALL burns with evidence of respiratory involvement. If unable to secure airway and patient is in respiratory distress, go to nearest facility.

  - ALL high voltage electrical injuries.
  - Burns with associated multi-system trauma.
  - ALL high-risk patients.
- Moderate Burns should be transported to the Regional Burn Center. Moderate burns are categorized as;
  - Partial thickness burns of 15-25% in adults; 10-20% in children.
  - Full thickness injuries of less than 10% body surface area.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 11/11/01	Revision # 4	Implemented 01/01/02

Protocols for the EMT-Intermediate [EMT-I]

This section addresses the scope of EMT Intermediate practice in the Bernalillo County EMS service area.

EMT-Intermediates are required to ensure immediate ALS response and transport. EMT-Is will provide care according to these protocols until the first paramedic arrives. At that time, the paramedic will take a report from the EMT-I and will assume care of the patient. EMT-Is who have not yet received Scope of Practice Update training will function within their prior scope until they have received such training.

I-1 EMT-I Respiratory Arrest

Designation of Condition: The patient is unconscious and apneic.

Field Treatment:

- If trauma is suspected, protect c-spine.
- Open airway using appropriate technique. Suction as needed. Assess and treat for foreign body airway obstruction. Insert oral/ nasal airway and ventilate with 100% O2/BVM.
- If no response, and gag reflex is absent, consider Combi-tube (multi-lumen) airway if equipped.
- If Combi-tube has been utilized, frequently reassess lung and abdominal sounds and inflation of pilot tubes during transport and after movement of patient. Note whether Combi-tube has been placed in the esophagus or the trachea, and communicate this information to the arriving ALS crew.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	4/20/94	06/01/94	2/16/00	2	4/1/00

I-2 EMT-I Myocardial Infarction

Designation of Condition: A chief complaint, which has signs and symptoms suggestive of AMI. Patient may present with any, one or more of the following: diaphoresis, chest pain/discomfort (radiating/non-radiating), discomfort or altered sensations to neck, jaw, and either shoulder/arm or into the back. There may be complaints of SOB, weakness, nausea and/or vomiting.

Field Treatment:

- Have SAED immediately available.
- ABCs, High flow Oxygen.
- Allow patient to assume position of comfort.
- Baseline vital signs.
- Obtain complete AMPLE and PQRSTU history.
- Administer two 81 mg chewable ASA, if not contraindicated.
- Initiate 1 IV of NS TKO.*
- If systolic BP > 100 mm Hg, and heart rate > 60 and < 120, administer 0.4 mg Nitroglycerin SL. Reassess. May repeat dose q5 minutes, not to exceed 1.2 mg. You must have an IV established prior to administration of NTG.
- If transport unit not yet on scene, and pain has not been relieved by Nitroglycerin, contact MCEP for orders for Morphine Sulfate, titrated in 2 mg increments q5 minutes, up to a maximum of 0.15 mg/kg, to relief of pain. Reassess between doses, ensuring normal LOC, RR and systolic BP > 100 mm Hg.
- If patient becomes unconscious, support ABC's and evaluate for respiratory and circulatory status. Perform CPR/SAED as needed. (See Cardiac Arrest Protocol I-2.)

* Due to the possibility of these patients receiving thrombolytics, consider the risk vs. benefit of multiple IV attempts.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 09/20/00	Revision # 3	Implemented 01/01/01

I-3 EMT-I Cardiogenic Shock

Designation of Condition: The patient may present with shortness of breath (wet, noisy respirations/crackles), possibly pink frothy sputum (pulmonary edema), and indicators of hypotension (BP < 90 mm Hg and decreasing LOC). These signs and symptoms are usually observed in the setting of AMI, and require expeditious transport.

Field Treatment:

- ABCs, High flow Oxygen.
- Allow/Assist the patient to seek a position of comfort, if possible (fowlers).
- The patient may require assisted ventilations with a BVM. If patient unresponsive, consider placing a Combi-tube if equipped.
- Establish an IV of NS @ TKO rate.
- Obtain a baseline set of vital signs.
- If lung sounds are clear:
- Administer a 5-10 cc/kg NS bolus.
- If patient complains of chest pain, is able to protect own airway, and there are no contraindications,
- Administer two-81 mg chewable ASA.

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised	Revision #	Implemented

I-4 EMT-I Pulmonary Edema

Designation of Condition: The patient will usually present with shortness of breath (wet noisy respirations/crackles), and possibly pink, frothy sputum (pulmonary edema).

Field Treatment:

- ABCs, High flow Oxygen.
- Allow/Assist the patient to seek a position of comfort, if possible (fowlers).
- The patient may require assisted ventilations with a BVM. If patient unresponsive, consider placing a Combi-tube.
- Obtain a baseline set of vital signs.
- Establish an IV of NS TKO.
- If the patient has chest pain (and has a systolic BP > 110 mm Hg, and a heart rate between 60 and 120):
- Administer 0.4 mg Nitroglycerin SL. The dose may be repeated, if necessary, q5 minutes up to a total dose of 1.2 mg, reassessing LOC, BP and HR between doses.
- If no contraindications, administer two – 81 mg chewable ASA.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 2/16/00	Revision # 2	Implemented 4/1/00

I-5 EMT-I Cardiac Arrest

Designation of Condition: The patient is unconscious, unresponsive, and without pulse or respiration.

Field Treatment

- Verify Cardio-Respiratory arrest.
- Initiate CPR, 100% O2/ BVM.
- Confirm scene is safe for SAED use. Application of SAED should not be delayed for any reason. Application should be performed as soon as possible.
- DO NOT use SAED to defibrillate patients who weigh less than 80# (unless directed by MCEP).
- If cardiac arrest is secondary to trauma, limit field care to BLS, package and initiate transport. Attempt ALS intercept.
- Analyze and shock as appropriate. Prior to delivery of shock confirm patient is "Clear": (no EMS workers, family members, etc. are in contact with patient).
- Resume CPR, 100% O2/ BVM.
- If Combi-tube available, follow Respiratory Arrest protocol.
- Continue CPR, 100% O2/ BVM for one minute.
- Initiate at least 1 large bore IV of NS @ TKO rate.
- If arrest is due to trauma or hypovolemia, bolus 20 cc/kg NS, apply MAST and inflate if appropriate (see Protocol I-13).
- If patient remains pulseless and apneic, administer 1 mg Epinephrine 1:10,000 IVP q 3-5 minutes. Circulate medication with a 20cc fluid bolus.
- Pediatric: .01 mg/kg Epi 1:10,000 IV initial dose; 0.1 mg/kg Epi 1:1,000 IV all subsequent doses. Circulate medication with a 3-5 cc fluid bolus.
- Reassess pulse and analyze rhythm with SAED after first minute of CPR and thereafter 1 minute after each dose of Epinephrine.
- Check BGL. Follow hypoglycemia protocol as indicated.
- If suspected narcotic overdose follow Drug Overdose protocol.

Maintain continuous CPR until ALS arrival, stopping CPR only during rhythm analysis with SAED. If ALS is unable to respond within 30 minutes of your arrival, you may contact MCEP for possible D/C orders provided patient has not regained an organized rhythm or pulses at any time during 30 minutes of continuous resuscitation efforts.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 2/16/00	Revision # 2	Implemented 4/1/00

I-6 EMT-I Anaphylaxis

Designation of Condition: Patients who present with shortness of breath, wheezing, urticaria, and hypotension. A true life-threatening emergency.

Field Treatment:

- ABC's, High flow Oxygen.
- Airway management as required. Combi-tube device may not assure patent airway in these patients if airway tissues are swelling.
- Remove offending agent (e.g., stinger) in appropriate manner.
- Administer Epinephrine (1:1,000) SQ at scene.
- Adults: 0.3 mg 1:1000 SQ - may repeat the dose every 5 minutes with MCEP approval.
- Children: 0.01 mg/kg SQ (max 0.3mg) - may repeat the dose every 5 minutes with MCEP approval.
- Establish at least one large bore isotonic IV (LR or NS). Adjust rate to blood pressure.
- Diphenhydramine, 0.5 – 1.0 mg/kg slow IVP/IM.
- Albuterol, 2.5-5.0 mg nebulizer if wheezing is detected.

MCB Action	Passed 8/16/95	Implemented	Revised 2/16/00	Revision # 2	Implemented 4/1/00

I-7 EMT-I Asthma

Designation of Condition: The patient will almost always have a history of asthma, and will be suffering some degree of dyspnea. Physical exam reveals respiratory distress, decreased air movement and bilateral wheezing. Wheezing may vanish just prior to respiratory arrest.

Field Treatment:

- ABC's High flow Oxygen.
- Manage airway and ventilations as necessary with BVM (or Combi-tube if appropriate and patient becomes unconscious).
- Albuterol nebulizer:
    - Adults & Children > 2 yrs of age: 5 mg.
    - Children < 2 yrs of age: 2.5 mg.
- Obtain vital signs.
- Establish one IV NS. Administer fluid bolus as needed.
- If asthma attack is severe or life threatening (cyanosis, inability to speak, respiratory extremis):
- Administer Epinephrine (1:1,000) SQ at scene.
    - Adult: 0.3 mg 1:1,000 SQ – may repeat the dose every 5 minutes with MCEP approval.
    - Pediatric: 0.01 mg/kg SQ (max 0.3 mg) – may repeat the dose every 5 minutes with MCEP approval.
- If history of CAD or severe hypertension, consult MCEP prior to administration.

MCB Action	Passed 8/16/95	Implemented	Revised 2/16/00	Revision # 3	Implemented 4/1/00

I-8 EMT-I Heat Exhaustion and Heat Stroke

Heat Exhaustion

Designation of Condition: Patient will have a prolonged exposure to a warm environment or have excessive body heat produced by physical activity. S&S of hypovolemia may be present.

Field Treatment:

- If trauma is suspected protect C-spine
- ABC's, High flow Oxygen.
- Remove patient from hot environment
- Remove clothing; moisten skin with cool water
- Monitor vital signs
- IV of NS/LR
- Administer IV fluid bolus(es) as necessary to support vital signs. Bolus in 250 cc increments, with reassessment of LOC, vital signs and lung sounds between boluses.

Heat Stroke

Designation of Condition: Patient will have a prolonged exposure to a warm environment or have excessive body heat produced by physical activity. SxS of hypovolemia may be present. Patient will have an altered LOC. Patient will be hot to touch.

Field Treatment:

- If trauma is suspected protect C-spine
- ABC's, High flow Oxygen
- Remove patient from hot environment
- Remove clothing and aggressively cool patient
- Monitor vital signs
- IV of NS/LR.
- Administer IV fluid bolus(es) as necessary to support vital signs. Bolus in 250 cc increments, with reassessment of LOC, vital signs and lung sounds between boluses.
- If no change in patient LOC, and ALS not yet on scene, consider securing airway with Combi-tube if appropriate and equipped.
- Contact MCEP

S & S of Heat Exhaustion & Heat Stroke are often mixed. If in doubt, treat as heat stroke.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	4/20/94	06/01/94	2/16/00	2	4/1/00

I-9 EMT-I Hypoglycemia

Designation of Condition: Patient may present with an altered mental state, confused, agitated, unconscious or seizing.

Field Treatment:

- ABC's, High flow Oxygen.
- Check BGL.
- If BGL <60 mg/dl, administer Dextrose.
- Initiate IV of NS.
- Dextrose:
  - ADULT: D50W, 12.5-25 grams Slow IVP titrate to effect.
  - PEDIATRIC: 0.5 gram/kg D25W Slow IVP. Dilute D50W 1 to 1 with NS to make D25 solution.
    - If prompt improvement does not occur, repeat BGL and see protocol for Unconscious, Unknown Cause (I-14).
- Field glucose determination guidelines:
  - Field glucose determination is appropriate for patients with altered mental status, seizures, or coma.
  - Dextrose should be given regardless of field glucose reading if your suspicion of hypoglycemia is high, i.e., insulin dependent diabetic who thinks they are hypoglycemic, has not eaten, etc.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 2/16/00	Revision # 2	Implemented 4/1/00

I-10 EMT-I Hypothermia

Designation of Condition: Patient will have experienced a prolonged exposure to a cold environment. The patient will be cool or cold to touch.

Field Treatment:

- If trauma is suspected protect C-spine.
- ABC's, High flow Oxygen.
- Move patient to warm environment (heated rescue/ambulance).
- Handle patient gently. Rough handling of hypothermic patients may be detrimental to patient condition.
- Carefully remove cold/wet clothing
- Wrap torso in warm, dry blankets
- IV of LR (warm solution by wrapping IV tubing around instant hot packs)
- Monitor vital signs. Allow 1 full minute to ascertain if carotid pulse is present.
- If patient is without a pulse, apply SAED. Deliver up to 3 shocks as advised. If patient remains pulseless, begin CPR with BVM. Insert Combi-tube if appropriate. Avoid further defibrillation attempts. Administer only one dose of Epinephrine.
- Adult: 1 mg Epinephrine 1:10,000 IVP. Circulate medication with a 20cc fluid bolus.
- Pediatric: .01 mg/kg Epinephrine 1:10,000 IV. Circulate medication with a 3-5 cc fluid bolus.
- If any pulse is detected <u>DO NOT</u> perform CPR.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 2/16/00	Revision # 2	Implemented 4/1/00

I-11 EMT-I Imminent Vertex Delivery Guidelines

Designation of Condition: Pregnant patient in active labor with delivery imminent as evidenced by crowning (or other presenting part), urgent desire to push, continuous intense contractions, etc.

Field Treatment:

- ABCs, High flow Oxygen.
- Initiate large bore IV NS/LR (If time permits before delivery).
- If membranes are ruptured, look for meconium or prolapsed cord and prepare to treat appropriately.
- Proceed with delivery.
- If abnormal delivery occurred, contact MCEP.
- If the baby is depressed or abnormal, follow Neonatal Resuscitation protocols.
- Double clamp the umbilical cord and cut.
- Clean and dry baby and wrap in clean sheet, towel or blanket. Cover head.
- If bleeding from mother is abnormal start a second IV
- Gently deliver the placenta (Do not pull on cord)
- Massage the uterine fundus

Transport to the closest appropriate medical facility. (Hospital with a Labor & Delivery Unit)

Northeast Heights Medical Center
University Hospital
Presbyterian Hospital Center, Downtown

MCB Action	Passed 8/16/95	Implemented	Revised 07/01/04	Revision # 4	Implemented 10/01/04

I-12 EMT-I Drug Overdose

Designation of Condition: The patient will have ingested, inhaled, or injected an unknown quantity of one or more medications or substances.

Field Treatment:

- ABC's, High flow Oxygen. Obtain vital signs.
- Identify substance, amount ingested, and if possible, secure container for transport to the hospital.
- Establish an isotonic IV; titrate fluid to patient condition.
- Check BGL. Follow hypoglycemia protocol if indicated.
- Monitor vital signs.
- For known or suspected narcotic overdose:

Adult:

- If apnea or cyanosis present, manage airway and support ventilations and oxygenation as necessary (see A-1). Administer Naloxone 0.4-0.8 mg IM or IV
  - Titrate Naloxone 0.2-0.4 mg increments IVP to reversal of ventilatory depression.
- If bradypnea with pulse: Establish patent airway and begin bag ventilation with 100% oxygen
  - Load syringe with 2 mg (2 ml) of Naloxone and attach MAD™ nasal atomizer
  - Place atomizer 1.5 cm within the nostril
  - Briskly compress syringe to administer 1 ml of atomized spray.
  - Remove and repeat in other nostril, so all 2 ml (2 mg) of medication are administered
  - Small increments of Naloxone may be re-administered via intranasal route as needed and titrated to reverse ventilatory depression.
  - Continue ventilating patient as needed
  - If no arousal occurs after 3 minutes,
    - Naloxone 0.4mg IM or IV
  - Intralingual and sublingual injections will not be used.
  - Naloxone 0.2- 0.4mg may be repeated every 2-4 minutes if little or no improvement is noted, until 2.0mg has been administered.

Pediatric:

- 0.02 mg/kg Naloxone IV/IO/IM/IN, up to a total of 2.0 mg. IN Administer: Divide dosage. Give one-half of total volume per nostril.
- Transport without delay.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 06/15/05	Revision # 3	Implemented 10/01/05

I-13 EMT-I Seizures, Status Epilepticus

Designation of Condition: Patient will present with involuntary muscular contractions.

Field Treatment:

- ABC's, High flow Oxygen.
- Position on left side (left lateral recumbent position).
- Provide suction as needed.
- Prevent injury.
- Establish IV NS/LR
- Check BGL. Follow hypoglycemia protocol if indicated.
- If unable to perform BGL, and patient is still convulsing, give Dextrose:
  - ADULT: D50W, 12.5-25 grams Slow IVP titrate to effect.
  - PEDIATRIC: 0.5 gram/kg D25W Slow IVP. Dilute D50W 1 to 1 with NS to make D25 solution.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	4/20/94	06/01/94	2/16/00	2	4/1/00

I-14 EMT-I Unconscious, Unknown Cause

Designation of Condition: The patient will be unconscious for an undetermined cause.

Field Treatment:

- ABC's, High flow Oxygen.
- If the patient was traumatically injured, perform spinal immobilization.
- Manage airway with BVM and 100% oxygen.
- Establish an IV of NS.
- Check BGL. Follow hypoglycemia protocol if indicated.
- Administer glucose regardless of glucometer reading if the patient is symptomatic and your suspicion of hypoglycemia is high. Glucose is relatively contraindicated in stroke and perhaps trauma.
- If the patient has signs and symptoms consistent with opiate or other drug intoxication, refer to Drug Overdose protocol.
- Reassess frequently.
- If no improvement in LOC, consider placing Combi-tube, if appropriate and equipped.

If the history of present illness does not reveal the probable cause of unresponsiveness, glucometry should be used to rule out hypoglycemia. If the history of present illness is suggestive of opiate intoxication, Naloxone should be administered first.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 2/16/00	Revision # 2	Implemented 4/1/00

I-15 EMT-I Trauma

Designation of Condition: The patient will present with blunt and/or penetrating traumatic injury or will have sustained a traumatic mechanism of injury. Multi-system trauma involves more than one body system, more than one extremity, or any penetrating wound, which may or may not be isolated to one system (i.e., gunshot wounds, knife wounds, or impaled objects to head, neck or trunk.)

Field Treatment:

- ABC's, High flow Oxygen. Simultaneously protect C-spine.
- Support respiratory effort as needed with BVM.
- Secure airway with Combi-tube, if appropriate and equipped. Maintain spinal immobilization during insertion.
- Apply C-collar and secure patient on long spine board if appropriate.
- Consider applying MAST (see MAST Guideline Protocol P-13)
- Vital Signs.
- Conserve body heat; keep patient normothermic.
- If transport unit not yet on scene:
- Adults: Establish two IVs of NS or LR with blood tubing administration set if available. Bolus 20 ml/kg. Reassess and titrate to LOC, systolic BP of 90 mm Hg and clear lung sounds.
- Pediatric: Establish an IV of NS or LR using 60 gtt tubing or volutrol. Bolus 20 ml/kg. Reassess LOC, VS and lung sounds. Rebolus as needed up to a total of 60 ml/kg.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	4/20/94	06/01/94	2/16/00	2	4/1/00

I-16 EMT-I Hypovolemic Shock

Designation of Condition: The patient may present with any of the following: an altered mental status (anxious, combative, confused, etc.), pale, clammy skin, weakness, nausea, decreased blood pressure (systolic < 90 mm Hg), weak, rapid pulse, rapid, shallow respirations, and a mechanism (medical or trauma) which may cause severe blood or fluid loss.

Field Treatment:

- ABCs, High flow Oxygen.
- Control hemorrhage, support respirations and circulation.
- Rapid transport is the priority.
- Obtain Vital signs.
- Adults: Establish two IVs of NS or LR with blood tubing administration set if available. Bolus 20 ml/kg. Reassess and titrate to LOC, systolic BP of 90 mm Hg and clear LS.
- Pediatric: Establish an IV of NS or LR using 60 gtt tubing or volutrol. Bolus 20 ml/kg. Reassess LOC, VS and LS. Rebolus as needed up to a total of 60 ml/kg.
- Conserve body heat with blankets.
- Consider applying MAST (see MAST Guideline Protocol P-13).

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	4/20/94	06/01/94	2/16/00	2	4/1/00

I-17 EMT-I Burns

Designation of Condition: The patient will have suffered a chemical, electrical or thermal injury.

Burns: Initial Examination and Evaluation

- ABCs, High flow Oxygen.
- Evaluate the patient and determine type of burn
- Electrical injury may produce apnea. If the patient is in cardiac arrest, initiate CPR and continue until ALS arrives, as this group of patients may recover after prolonged cardiac arrest. (Refer to Cardiac Arrest Protocol I-2.)
- History of the Injury (GLOBAL SURVEY/MECHANISM OF INJURY)
- Record time of injury
- Location: [indoor (closed space) outdoors, etc.]
- Mechanism: scald, flame, chemical, electrical, explosion, etc.
- Roughly estimate extent of injury

RULE OF NINES

Determine age of patient

Note any significant medical history

- When burns are associated with severe trauma, trauma protocols will supersede burn protocols.
- In simple chemical accidents, remove all contaminated clothing.
- Copious irrigation of the affected areas with water, unless contraindicated, should be instituted for 20 minutes as it will dilute the concentration of the offending agent and may lessen the severity of injury.

Field Treatment:

- Remove from injuring source
- Remove all smoldering clothing.
- Assess ABC's. Check for associated injuries. REASSESS FREQUENTLY.
- Patients suspected of having inhalation injury or carbon monoxide poisoning should receive high flow O2 by mask.
- Cover the burns with dry sterile dressings. Do not apply creams or ointments.
- A cool, moist dressing may be used to alleviate pain, if the BSA (body surface area) of the burn is less than 10%. DO NOT cover the patients with wet dressings if the BSA of the burn is greater than 10%.
- Establish one large bore peripheral I.V. with Lactated Ringers Solution. Avoid burned area if possible when establishing IV access. Do not delay transport to establish IV's on scene in critical patients.
- If possible, cover the stretcher with a sterile sheet. Place patient on stretcher and cover with another sterile sheet and blankets to prevent heat loss.
- If pain management is needed and patient meets criteria, contact MCEP to request orders for Morphine Sulfate (MSO4) slow IVP, titrated to vital signs and relief of pain, up to a maximum of 0.15mg/kg. The EMT-Intermediate may administer MSO4 under the direction of the paramedic in charge without MCEP approval according to the Pain Management protocol.

- MSO4 criteria: patient awake, alert and oriented; systolic BP >100 mm Hg; no possibility for head, chest or abdominal injuries or multi-system trauma; normal circulatory and respiratory status; no burns involving the airway
- MSO4 should be titrated in 2-3 mg increments slow IVP q 3-5 minutes, up to a maximum dose of 0.15 mg/kg. Carefully observe level of consciousness, blood pressure and respiratory status.

Major and moderate Burns should be transported to the Regional Burn Center at UNMH.

Major burns are categorized as:

- Partial thickness burns greater than 25% in adults, 20% in children.
- ALL severe full-thickness burns involving 10% or more of the body surface area.
- ALL full thickness burns involving hands, face, eyes, ears, feet, and perineum.
- ALL burns with evidence of respiratory involvement. If unable to secure airway and patient is in respiratory distress, go to nearest facility.
- ALL burns that compromise circulation.
- ALL high voltage electrical injuries.
- Burns with associated multi-system trauma.
- All high risk patients

Moderate burns include:

- Partial thickness burns of 15-25% in adults; 10-20% in children.
- Full thickness injuries of less than 10% body surface area.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 09/20/00	Revision # 4	Implemented 01/01/01

Protocols for EMT-Basics [EMT-B]

This section addresses the scope of EMT-Basic practice in the Bernalillo County EMS service area.

EMT-Basics are required to ensure immediate ALS response and transport. EMT-Bs will provide care according to these protocols until the first EMT- Intermediate or EMT-Paramedic arrives. At that time, the Intermediate or Paramedic will take report from the EMT-B and will assume care of the patient.

B-1 EMT-B Respiratory Arrest-Combi-tube

Designation of Condition: The patient is unconscious and apneic.

Field Treatment:

- If trauma suspected, protect C-spine.
- Open airway using appropriate technique. Suction as needed. Assess and treat for foreign body airway obstruction. Insert oral/nasal airway and ventilate with 100% O2/BVM.
- If no response, and gag reflex is absent, consider Combi-tube (multi-lumen) airway, if equipped.
- If Combi-tube has been utilized, frequently reassess lung and abdominal sounds and inflation of pilot tubes during transport and after movement of patient. Note whether Combi-tube has been placed in the esophagus or the trachea, and communicate this information to the arriving ALS crew.

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised	Revision #	Implemented

B-2 EMT-B Myocardial Infarction

Designation of Condition: A chief complaint, which has signs and symptoms suggestive of AMI. Patient may present with any one or more of the following: diaphoresis, chest pain/discomfort (radiating/non-radiating), discomfort or altered sensations to neck, jaw, either shoulder/arm, or into the back. There may be complaints of SOB, nausea and/or vomiting.

Treatment: Upon assessment of any patient, with any/all of the above signs and symptoms or other factors consistent to raise one's index of suspicion of AMI, expeditious transport is paramount.

- Have SAED immediately available.
- ABCs, High flow Oxygen.
- Allow patient to assume position of comfort.
- Obtain baseline Vital signs.
- Administer two 81 mg. chewable ASA, if not contraindicated.
- Early contact with receiving hospital.
- If available obtain O2 sat.

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised	Revision #	Implemented

B-3 EMT-B Pulmonary Edema

Designation of Condition: The patient will usually present with shortness of breath (wet noisy respirations/crackles), and possibly pink frothy sputum (pulmonary edema).

Field Treatment:

- ABCs, High flow Oxygen.
- Allow/assist the patient to seek a position of comfort, if possible (fowlers).
- The patient may require assisted respirations with the use of a BVM. If patient is unresponsive, consider placing a Combi-tube, if equipped.
- Monitor Vital signs.

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised	Revision #	Implemented

B-4 EMT-B Cardiac Arrest-SAED

Designation of Condition: The patient is unconscious, unresponsive, and without pulse or respiration.

- Verify Cardio-Respiratory arrest.
- Initiate CPR, 100% O2/BVM.
- Confirm scene is safe for SAED use. Application of SAED should not be delayed for any reason. Application should be performed as soon as possible.
- DO NOT use SAED to defibrillate patients who weigh less than 80# (unless directed by MCEP).
- If cardiac arrest is secondary to trauma, limit field care to BLS, package and initiate transport. Attempt ALS intercept.
- Prep patient: (continue CPR while prepping pt./setting up SAED).
- Dry diaphoretic skin.
- Attach leads to electrode pads/apply pads/turn SAED on.
- When AED signals “analyze” stop CPR. Depress analyze button.
- SAED will analyze rhythm, if shock is indicated, SAED will charge to preset AHA recommended joule setting.
- Confirm pulselessness.
- Analyze and shock as appropriate. Prior to delivery of shock confirm pt. is “Clear” (no EMS workers, family members, etc. are in contact with pt.).
- If no change in rhythm after third shock, and pt. remains pulseless:
- Resume CPR, 100% O2/BVM.
- If Combi-tube available and if equipped, follow Respiratory Arrest-Combi-tube protocol.
- Continue CPR/100% O2 via BVM or Combi-tube for one minute.
- After one minute, stop CPR, use SAED to analyze patient, confirm pt. is “Clear” and deliver shocks as appropriate.
- Resume CPR, 100% O2/BVM & Combi-tube for one minute.
- After one minute, repeat steps above.
- If no rhythm changes, confirm the presence/absence of a pulse. If SAED advises “No shock” and NO PULSE is detected (PEA/EMD) continue CPR.
- If a pulse returns, do not remove AED/electrodes.

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised	Revision #	Implemented

B-5 EMT-B Anaphylaxis

Designation of Condition: Patients who present with shortness of breath, wheezing, urticaria, and hypotension. A true life-threatening emergency.

Field Treatment:

- ABCs, High flow Oxygen.
- Airway management as required. Combi-tube device may not assure patent airway in these patients if airway tissues are swelling.
- Remove offending agent (e.g., stinger) in appropriate manner.
- Contact MCEP
- May Assist with the self-administration of patient's own (prescribed) pre-measured Epinephrine (Epi-Pen), after contact with MCEP.

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised	Revision #	Implemented

B-6 EMT-B Reactive Airway Disease

Designation of condition: Most commonly associated with asthma, COPD, bronchitis, and anaphylactic/allergic reactions. Caused by small airway obstruction usually secondary to hyperactive bronchial smooth muscle contraction (bronchospasm) and/or peribronchial inflammation. Common clinical findings include wheezing, tachypnea, and a prolonged expiratory phase. If airflow is severely compromised, wheezing may be absent and/or the patient may be hypoxic (O2 sat < 90%).

Field Treatment: (All patients)

- Quickly assess ABC's
- Administer supplemental oxygen: Goal is to maintain O2 sat>90%.
- Allow patient to assume position that is most conducive to maximal airflow.
- Can assist ALS/ILS in their presence.
- If patient remains in respiratory distress and ALS/ILS are not available or have a delayed response time begin albuterol nebulizer.
  - Children < 2yrs of age = 2.5 mg in NS.
  - Adults & children > 2 yrs of age = 5mg in NS.
- Transport ASAP if available.
- If no transport available and/or ALS/ILS are not available, launch Rotary Air Ambulance.
- Monitor vital signs.
- Repeat albuterol up to 2 times..
- Manage airway as necessary with BVM or combitube.

MCB Action	Passed 02/16/00	Implemented 04/01/05	Revised 12/16/04	Revision # 1	Implemented

B-7 EMT-B Heat Exhaustion and Heat Stroke

Heat Exhaustion

Designation of Condition: Patient will have a prolonged exposure to a warm environment or have excessive body heat produced by physical activity. S&S of hypovolemia may be present.

Field Treatment:

- If trauma is suspected protect C-spine.
- ABC's, high flow Oxygen.
- Remove patient from hot environment.
- Remove clothing; moisten skin with cool water.
- Monitor vital signs.

Heat Stroke

Designation of Condition: Patient will have a prolonged exposure to a warm environment or have excessive body heat produced by physical activity. S&S of hypovolemia may be present. Patient will have an altered LOC. Patient will be hot to touch.

Field Treatment:

- If trauma is suspected protect C-spine.
- ABC's, high flow Oxygen.
- Remove patient from heat source.
- Remove clothing; moisten skin with cool water.
- Monitor vital signs.
- Signs and symptoms of Heat Exhaustion and Heat Stroke are often mixed. If in doubt treat as heat stroke.

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised	Revision #	Implemented

B-8 EMT-B Hypoglycemia

Designation of Condition: Patient may present with an altered mental state, confused, agitated, unconscious or seizing.

Field Treatment:

- ABC's, High flow Oxygen.
- Check BGL.
- If less than 60 mg/dl administer oral glucose. Administer only if patient is conscious and able to swallow solution without difficulty.

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised	Revision #	Implemented

B-9 EMT-B Hypothermia

Designation of Condition: Patient will have experienced a prolonged exposure to a cold environment. The patient will be cool or cold to touch.

Field Treatment:

- If trauma is suspected protect C-spine.
- ABC's, High flow Oxygen.
- Move patient to a warm environment (heated rescue/ambulance).
- Handle patient gently. Rough handling of hypothermic patients may be detrimental to patient condition.
- Carefully remove cold/wet clothing.
- Wrap torso in warm, dry blankets.
- Monitor vital signs for one full minute to discern if carotid pulse is present.
- If patient is without a pulse, begin CPR with gentle BVM (apply SAED. If shock is advised, deliver no more than one set of stacked shocks. Combi-tube should not be used if pulse is present.)
- If any pulse is detected DO NOT perform CPR.

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised	Revision #	Implemented

B-10 EMT-B Imminent Vertex Delivery

Designation of Condition: Pregnant patient in active labor with delivery imminent as evidenced by crowning (or other presenting part), urgent desire to push, continuous intense contractions, etc.

Field Treatment:

- ABCs, High flow Oxygen.
- Universal precautions, glove up, create a field for delivery.
- If membranes are ruptured, look for meconium or prolapsed cord, prepare to treat appropriately.
- Proceed with delivery.
- If abnormal delivery is occurring or has occurred, contact MCEP.
- Apply clamps to umbilical cord and cut (in between the clamps).
- Clean and dry baby and wrap in clean sheet, towel or blanket. Cover head, keep face exposed.
- If the baby is depressed, administer O2, suction. Follow neonatal resuscitation protocol.
- Gently deliver the placenta (Do not pull on cord).
- Massage the uterine fundus if heavy bleeding
- Transport to the closest medical facility with a labor & delivery unit. (If possible, the facility associated with the mother's prenatal care).

Area Hospitals with L & D Units:

Northeast Heights Medical Center
University Hospital
Presbyterian Hospital, Downtown

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised 07/01/04	Revision # 1	Implemented 10/01/04

B-11 EMT-B Drug Overdose

Designation of Condition: The patient will have ingested, inhaled or injected an unknown quantity of one or more medications or substances.

Field Treatment:

- ABC's, Oxygen.
- Ventilate if appropriate
- Request ALS intercept
- Obtain vital signs.
- Check BGL. Follow hypoglycemia protocol if indicated.

  Identify substance, amount ingested, inhaled or injected. Secure any containers if available for transport to the hospital.

Narcotic overdose

Designation of Condition: The patient will be unconscious or have a depressed mental status and be either apneic or bradypneic. Opiate ingestion will be suspected based on history or circumstances found at scene. Pupils will be small to pinpoint.

- Establish patent airway. Administer 100% oxygen. Assist ventilations with BVM as needed.
- Administer Naloxone 2 mg IN
- Load syringe with 2 mg (2 ml) of Naloxone and attach nasal atomizer
- Place atomizer 1.5 cm within the nostril
- Briskly compress syringe to administer 1 ml of atomized spray.
- Remove and repeat in other nostril, so all 2 ml (2 mg) of medication are administered
- Continue ventilating patient as needed
- Small increments of Naloxone may be re-administered via intranasal route as needed and titrated to effect.
- The dosage of Naloxone should be titrated to reverse only the ventilatory depression.

<u>Pediatric Dosage:</u> 0.02 mg/kg Naloxone IN: Divide dosage. Give one-half of total volume per nostril.

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised 08/03	Revision # 1	Implemented 10/03

B-12 EMT-B Seizures & Status Epilepticus

Designation of Condition: Patient will present with involuntary muscular contractions.
Field Treatment:

- ABCs, High flow Oxygen.
- Position on left side (left lateral recumbent position).
- Provide suction as needed.
- Prevent injury.
- Check BGL. Follow hypoglycemia protocol if indicated.

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised	Revision #	Implemented

B-13 EMT-B Unconscious, Unknown Cause

Designation of Condition: The patient will be unconscious for an undetermined cause.
Field Treatment:

- ABCs, High flow Oxygen.
- If the patient was traumatically injured, perform spinal immobilization.
- Manage airway with BVM, if indicated. Consider Combi-tube, if equipped.
- If Overdose is suspected, refer to B-11 Overdose protocol
- Check BGL. If hypoglycemia is suspected, refer to B-8 Hypoglycemia protocol if indicated.
- Reassess frequently.

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised 08/03	Revision # 1	Implemented 10/03

B-14 EMT-B Trauma

Designation of Condition: The patient will present with blunt and/or penetrating traumatic injury or will have sustained a traumatic mechanism of injury. Multi-system trauma involves more that one body system, more than one extremity, or any penetrating wound, which may or may not be isolated to one system (i.e., gunshot wounds, knife wounds, or impaled objects to head, neck or trunk.)

Field Treatment:

- ABC's, high flow Oxygen. Simultaneously protect C-spine.
- Support respiratory effort as needed with BVM.
- Secure airway with Combi-tube, if appropriate and equipped. Maintain spinal immobilization during insertion.
- Apply C-collar and secure patient on long spine board if appropriate.
- Consider applying MAST (see MAST Guideline Protocol P-13)
- Vital signs.
- Conserve body heat; keep patient normothermic.

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised	Revision #	Implemented

B-15 EMT-B Hypovolemic Shock

Designation of Condition: The patient will present with an altered mental status (anxious, combative, confused, etc.), pale clammy skin, weakness, nausea, decreased blood pressure (systolic <90 mm Hg.), weak rapid pulse, rapid, shallow respirations and a mechanism (medical or trauma) which may cause severe blood or fluid loss.

Field Treatment:

- ABCs, High flow Oxygen.
- Control hemorrhage, support respiration and circulation.
- Rapid transport is the priority.
- Monitor vital signs.
- Conserve body heat with blankets.
- Consider applying MAST (See MAST Guideline Protocol P-13).

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised	Revision #	Implemented

B-16 EMT-B Burns

Designation of Condition: The patient will have suffered a chemical, electrical or thermal injury.
Burns: Initial Examination and Evaluation

- Ensure Airway, Breathing, Circulation (ABC's).
- Evaluate the Patient and determine type of burn.
- History of the Injury (GLOBAL SURVEY/MECHANISM OF INJURY).
- Record time of injury

Location: [indoors (closed space), outdoors, etc]

  - Mechanism: scald, flame, chemical, electrical, explosion, etc.

Roughly estimate extent of injury –

- (RULE OF NINES)
- Determine age of patient.
- Note any significant medical history.
- Electrical injury may produce apnea. If the patient is in cardiac arrest initiate CPR. (Refer to cardiac arrest protocol)
- When burns are associated with severe trauma, trauma Protocol will supercede burn Protocol.
- In simple chemical accidents, remove all contaminated clothing.
- Copious irrigation of the affected area with water, unless contraindicated, should be instituted for 20 minutes as it will dilute the concentration of the offending agent and may lessen the severity of injury.

Field Treatment:

- Remove from injuring source. Remove all smoldering clothing.
- Assess and support ABC's. Check for associated injuries. REASSESS FREQUENTLY.
- Patients suspected of having an inhalation injury or carbon monoxide poisoning should receive high flow O2 by mask.
- A cool, moist dressing may be used to alleviate pain, if the BSA (body surface area) of the burn is less than 10%. DO NOT cover the patients with wet dressings if the BSA of the burn is greater than 10%.
- Cover the burns with dry sterile dressings. Do not apply creams or ointments.
- If possible, cover the stretcher with a sterile sheet. Place patient on stretcher and cover with another sterile sheet and blanket to prevent heat loss.

Transportation: Ensure ALS Response and Transport Availability

Major Burns should be transported to the Regional Burn Center. Major burns are categorized as:

- Partial thickness burns greater than 25% in adults, 20% in children.
- ALL full-thickness burns involving 10% or more of the body surface area.
- ALL full-thickness burns involving hands, face, eyes, ears, feet and perineum.
- ALL burns that compromise circulation.
- ALL burns with evidence of respiratory involvement. If patient is in respiratory distress and unable to secure airway, go to nearest facility.
- ALL high voltage electrical injuries.
- Burns with associated multi-system trauma.
  - ALL high-risk patients.

Moderate burns should be transported to the Regional Burn Center. Moderate burns are categorized as:

- Partial thickness burns of 15-25% in adults; 10-20% in children.
- Full thickness injuries of less than 10% body surface area.

MCB Action	Passed 2/16/00	Implemented 4/1/00	Revised	Revision #	Implemented

B-17 EMT-B Eye Injuries

Designation of Condition: Injury to the eye that results from blunt trauma, penetrating trauma, chemical exposure, foreign body or scratch.

Field Treatment:

- Obtain history
- Consider traumatic mechanism and immobilize C-spine if necessary
- Physical Exam: Assess vision and examine pupils for size, shape, and reactivity to light;
- Check eye movement in all directions and document any soft tissue injury.
- Penetrating Eye Injuries: Protect globe by covering orbital area with moist dressing and bulky padding. Do not apply pressure to globe. Once a penetrating injury is discovered, further pupillary and eye examination is contraindicated.
- Protruding Intraocular Foreign Body: Do not remove. Further pupillary and eye examination is contraindicated. Stabilize foreign body and cover with bulky padding and secure with tape. Patch unaffected eye to diminish consensual eye movement.
- Small particulate foreign bodies (e.g., dust/dirt): Irrigate with saline. Flip lids back and irrigate as necessary. If present, contact lenses should be removed prior to irrigation.
- Chemical Injury
- Alkalis and Acids: Immediate treatment upon arrival. Copious irrigation with saline (brush off dry powders first). Continue irrigation en route to hospital.
- Mace and Pepper Spray: Irrigate eyes and affected skin with saline or water until pain relief obtained. Patients with significant pain after irrigation, prolonged visual impairment or shortness of breath should be transported to hospital.
- If present, contact lenses should be removed prior to irrigation.

MCB Action	Passed 04.16.2003	Implemented 07/01/2003	Revised	Revision #	Implemented

Appendix A Procedures

THE FOLLOWING PROCEDURES HAVE BEEN APPROVED BY THE ALBUQUERQUE & BERNALILLO COUNTY EMERGENCY MEDICAL SERVICES AUTHORITY & MEDICAL CONTROL BOARD

P-1 New Procedure-Product - Trial Guidelines

Purpose: To provide an organized system approach to suggestions from EMS Agencies, Medical Directors or field personnel for new procedures and products in a timely fashion.

- Suggestions for new procedures, product trials, or other requests not part of the current standing protocols must be made to the Medical Control Board in writing.
- The proposal will include the following:
    1. Request
    2. Rationale
    3. Service or specific group to be utilized
    4. Written protocol for use of procedure or product
    5. Time frame planned: start of project, duration
    6. Training needs identified and training plan.
    7. Cost-analysis information
    8. Scientific evidence (bibliography) supporting proposal
- The proposal will be prioritized and placed on the next available MCB agenda. The agency sponsoring the proposal should be represented at the meeting.
- If accepted, the hospital and pre-hospital representatives will disseminate the appropriate information to their respective agencies.
- A follow-up report will be made at the MCB meeting within three months of the actual implementation of the proposal. The report will include:
    1. Incidence of use
    2. Positive and negative outcomes associated with use
    3. Recommended modifications
- A written report will be submitted at the end of the project, or at 6 months, and will include the above information, as well as recommendations for future use.

MCB Action	Passed 10/15/97	Implemented 01/01/98	Revised	Revision #	Implemented

P-4 Chest Decompression

Designation of Condition: To be used when signs and symptoms of tension pneumothorax are present. Unless the situation is immediately life-threatening, contact an MCEP before performing this procedure.

Field Treatment:

- Locate the landmark on the anterior chest; 2nd or 3rd intercostal space at the mid-clavicular line. Alternatively, the 4th or 5th intercostal space at the mid-axillary line may be used.
- Prep skin with antiseptic swab, if possible.
- Insert a #14 angiocath at a 90-degree angle at the superior border of the third rib to a depth sufficient enough to obtain free air from the pleural space. Withdraw the stylet, leaving the catheter in place.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised	Revision #	Implemented

P-5 Communications

The MCEP or his / her designee should be contacted at the earliest opportunity during critical care cases. It is of extreme importance that the MCEP be involved early in critical care cases to give advice, to become familiar with the case, and to prepare the emergency department to accept the patient. Examples of critical care cases requiring early MCEP involvement include but are not limited to:

- Cardiac Arrest
- Major Trauma
- Respiratory distress
- Anaphylaxis

The purpose of early MCEP notification is not necessarily to obtain authorization for care. Rather, it is to provide adequate preparation by the MCEP and the emergency department to receive the patient.

Radio Reports: If patient is unstable, contact Albuquerque Base ASAP from scene to provide early notification to the receiving ED. Early notification includes: Age and Chief Complaint

ETA: In most cases the Paramedic will not need to talk to an MCEP, unless required by protocol. Instead they may talk to other medical E.D. personnel answering the radio to give a patient report, estimated time of arrival, etc.

When requesting to speak to the MCEP, state the reason or need for direct MCEP This type of communication allows the MCEP to prepare for your call and prioritize it in relation to other patients in the emergency department.

Patient name and medical record number cannot be given over the radio because this is an open channel. Radio reports should be kept to a minimum of 15 -25 seconds for the majority of the minor medical and trauma patients. For those major cases when you have a serious or critical patient it is important to provide a "picture" of the patient and their condition to the MCEP. Brevity is still important. It is not important at this stage to include everything about the patient’s recent or past medical history unless something in that history is important in obtaining a medication order.

Radio report structure:

- En route code 1 or code 3
- Sex, age
- Mechanism of Injury (i.e.. fall of 20 ft., MVA, etc.)
- Present condition
- Life threatening injuries
- Other injuries
- Vital signs
- Treatment rendered
- Orders needed from MCEP
- Estimated time of arrival

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 01/01/03	Revision # 3	Implemented 04/01/03

P-6 Cricothyrotomy, Vertical Approach

Designation of Condition: Cricothyrotomy may be attempted in an unconscious patient with immediate life threatening airway compromise and when other modalities of airway management are ineffective or contraindicated.

Field Treatment:

- Locate and identify cricothyroid membrane and prep with betadine.
- Identify the thyroid cartilage and palpate the inferior border. The cricoid cartilage is the hard cartilaginous ring inferior to the thyroid cartilage. The cricothyroid membrane is situated between the two structures.
- Make a vertical incision through the skin over the cricothyroid membrane 2-3 cm. with sufficient depth to expose the cricothyroid membrane. Horizontally puncture the membrane with the scalpel to facilitate access to the trachea.
- Insert and maintain airway with a cuffed endotracheal tube (in most adults, a 6 mm. tube will suffice). Advance cuff 2 centimeters past the opening and check for chest excursions and auscultate lung fields. Inflate cuff. Reassess (visualize, palpate, auscultate, compliance).
- Secure the tube and Optimize ventilation with high flow oxygen.
- Consider using Adjuncts for confirming tube placement
- Place an end tidal CO2 detector between the ETT and BVM on all patients with a pulse.
- Consider using a toomey/suction tip syringe, aspirate the ETT, if 30cc of air can be drawn freely into the syringe, the tube is almost certainly in the trachea.
- Prior to releasing intubated patient to receiving hospital physician or respiratory therapist, you <u>must</u> reconfirm tube placement & patency.
- Contact MCEP if possible, for further orders.
- The service medical director will review all cricothyrotomy attempts.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 8/18/99	Revision # 1	Implemented 10/01/99

P-7 D N R

E M S - D N R for DOH Reg. 94-10

Designation of Condition: If the patient has a valid EMS-DNR Order, per DOH Reg. 94-10, the specifics of the document will be followed and care will be administered as outlined.

- The EMS-DNR Order does not affect the provision of other emergency medical care, such as oxygen and other comfort care measures.

Alternate DNR/Living Will/Advanced Medical Directive

Designation of Condition: If the patient has an Alternate DNR Order, a Living Will, or an Advanced Medical Directive, the specifics of the document will be followed and care will be administered as judged appropriate by the Paramedic.

- Contact MCEP
- At the scene of a cardiac arrest:
  - While initiating basic life support, ask if the patient has an “Advanced Medical Directive”, a "Living Will" or a "Do Not Resuscitate" (DNR) form.
  - If the patient does not have a Advanced Medical Directive, a Living Will or a DNR form that prohibits ACLS intervention in the event of cardiac arrest, begin the following:
    - Full ALS resuscitation efforts will be initiated. If the patient remains in cardiac arrest after completion of ACLS algorithms, resuscitation may be terminated after MCEP contact. The scene will then be considered an unattended death/crime scene until law enforcement and/or Office of the Medical Investigator (OMI) arrives at the scene.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 01/17/96	Revision # 1	Implemented 04/01/96

P-8 Dead At The Scene

Designation of Condition: The patient will be unconscious, unresponsive, pulseless and apneic. Resuscitation efforts may be withheld if any of the following criteria are met:

- Obviously expired;
- presence of rigormortis or livormortis
- obvious external exsanguination
- decapitation or visible brain contents
- decomposition
- Advanced resuscitation efforts may be withheld in the presence of an approved DNR form (Refer to P-7)
- Advanced resuscitation efforts may be withheld in an expected death of a terminal patient without a DNR form, but will require MCEP contact.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 10/21/98	Revision # 1	Implemented 01/01/99

P-9 FEF CO_2 Detector & Toomey Syringe

FEFs may be useful in certain situations.

FEF Purple: Note that a purple color FEF may indicate either an esophageal intubation or proper intubation with poor CO_2 delivery from the lungs.

- If FEF is purple and the syringe does not draw free air easily then the cords must be visualized again to assure ETT isn't the esophagus.
- Intubate
- Toomey. if free air,
- Apply FEF CO2 detector
- Ventilate 4 times while listening to chest & stomach
- Good Breath Sounds>>>>Note depth, inflate cuff, listen again,
- If acceptable, secure it with a tube tamer

FEF Yellow:

- Questionable Breath Sounds>>>>Check insertion depth of ET tube*
- Withdraw & auscultate simultaneously
- Secure at proper depth (FEF still yellow)
- Toomey, >>>>>Free Flow>>>>Check insertion depth of ET tube*
- Inflate cuff and secure at proper depth

FEF Purple:

- Toomey>>>auscultate>>>*obstruction*>>>visualize>>>>reintubate
- Toomey>>>auscultate>>>*free-flow*>>>>auscultate>>>>secure

ETT Depth Guideline

*ET tube size:	ET tube insertion depth
3 mm	9 cm insertion depth
5 mm	15 cm insertion depth
7 mm	21 cm insertion depth

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised	Revision #	Implemented

P-10 Transport of 911 Patients

An agreement has been reached between the Medical Control Board and Superior Ambulance regarding the transport of patients that have been entered into the 911 system. Any 911 patient will be transported by a 911 system provider (AFD, BCFD, AAS) and not by Superior Ambulance. If Superior Ambulance comes across a patient in need of EMS or a scheduled transport patient deteriorates or is deemed unstable, Superior Ambulance will activate the 911 system. At this point, Superior Ambulance will provide initial stabilization and wait for the 911 system providers to continue further treatment and transport of the patient.

MCB Action	Passed 10/29/99	Implemented 01/01/00	Revised	Revision #	Implemented

P-11 Involuntary Emergency Transport

Under state law 24-10B1, Emergency Medical Services System Act, section 24-10B-13, any person may be transported to a health care facility by an EMT when the EMT makes a good-faith judgment that the person is incapable of making an informed decision about his own safety or need for medical attention and is reasonably likely to suffer disability or death absent the medical intervention available at such a facility.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	4/20/94	06/01/94	05/16/01	1	07/01/01

P-12 Lifeguard Helicopter

Guidelines for trauma scene responses and rendezvous. Field providers should always use their best judgement.

Within 20 minutes ground transport time to University Hospital

- Helicopter transport rarely indicated
- Consider if prolonged extrication of patient who is in severe shock or requires airway management.
- Consider in MCI with multiple patients meeting 20-40 minute criteria (yellow)

20-40 minutes ground transport time to University Hospital

- All of the above
- GCS < 13 and not likely due to intoxication alone
- Signs of shock
- Respiratory distress
- MCI

40 minutes ground transport time to University Hospital

- All of the above
- Severe mechanism of injury
- Passenger space intrusion > 20 inches
- Ejection from vehicle
- Fatality in same vehicle
- Fall > twice patient height
- Prolonged extrication
- High speed rollover
- Auto versus pedestrian or bicyclist
- Auto versus tractor trailer
- Penetrating trauma to head or neck or torso
- Motorcycle/ATV crash
- Other high risk features
- Age > 65
- Age < 3
- Loss of consciousness > 2 minutes
- Limb threatening injuries, amputations, etc.

Burns > 20% BSA or face/airway involvement

- Lifeguard may be canceled at any time by the paramedic in charge or the Incident Commander when deemed necessary.
- The Incident Commander, designee, or local Law Enforcement Agency will be responsible for establishing a safe Landing Zone.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	4/20/94	06/01/94	01/01/03	2	04/01/03

P-13 Bleeding-Hemorrhagic Shock

Designation of Condition: Control of bleeding will be established to prevent hemorrhagic shock from developing.

Field Treatment:

- Manage airway as needed.
- Administer Oxygen.
- Apply direct pressure over wound.
- Elevation/Trendelenburg.
- Apply a temporary tourniquet if direct pressure is unsuccessful at controlling bleeding.
- Document time applied.
- Re-evaluate every 5 minutes.
- Consider rapid ground or air transport.
- MAST (if available) may be considered for bleeding control or fracture stabilization below the level of MAST with prolonged transport times.
- MAST should not delay transport.
- MAST should not be used if penetrating trauma to the chest or abdomen exists.
- Establish large bore IV access.
- Titrate IV fluids to systolic BP of 100 mm/Hg
- Patient should be transported to appropriate level trauma facility to manage care.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 06/20/01	Revision # 1	Implemented 01/01/02

P-14 MD at Scene

Card or note to be presented to M.D. at scene, which reads:

An Emergency Medical Services System with comprehensive written protocols has been established and is monitored by the Albuquerque-Bernalillo County Medical Control Board. By showing proof that you are a licensed medical physician, you may take responsibility for the patient's care if you accept full responsibility for patient management and the issuing of orders conforming to the established protocols, attending the patient to the hospital and signing the EMS patient report form. If the paramedic believes there is a problem with patient care they are instructed to contact an Emergency Physician (MCEP) at a local emergency department via radio.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised	Revision #	Implemented

P-15 Psychiatric Emergencies

Designation of Condition: The patient will be alert, but may have other mental status alterations, such as: disorders of perception and thought, inappropriate situational behavior, appearance and attitude, abnormal affect or mood, poor insight and poor judgment, and disordered speech or speech content. Signs and symptoms may include: depression and suicidality, hallucinations, pressured speech, loose associations, racing thoughts, grandiose or paranoid ideation, delusions, hysteria, extreme anxiety, or any other aggressive actions that could cause harm to the patient or others.

Field treatment:

- Make sure the scene is safe
- Approach the patient in a calm, slow, reassuring and honest manner. Multiple people attempting to intervene may increase the patient's confusion and agitation.
- Protect the patient from injury. Involuntary restraint should be considered if indicated by patient behavior and if necessary to render care and protect rescuers. Refer to protocol P-11, "Involuntary Emergency Transport."
- Remove patient from stressful environment if possible. Remember psychiatric episodes can be extremely difficult for the patient and their families.
- Be sure to consider and treat all possible trauma/medical causes for aberrant behavior per protocols. Be aware that medical illnesses including hypoglycemia, hypoxia, stroke, head injury, CNS infection, etc. may mimic psychiatric illness. Do not assume the patient's condition is purely psychiatric.
- If the Crises Intervention Team (CIT) is on scene, EMS assessment and intervention must not be delayed or hampered, however, in certain "volatile" situations the CIT will need the necessary time to diffuse the situation in order to allow for EMS intervention to occur as smoothly as possible. When arriving on scene where a CIT interview has taken place or is in progress, EMS crews should get an initial report from the CIT Officer in charge so as not to duplicate questions to the patient already in crises. Conversely, if EMS is first on scene, give an initial report to the CIT Officer so that duplication of questioning can be kept to a minimum.
- All patients will be assessed and evaluated by EMS regardless of transport status.

Patient Exam: ABC's, Vital signs, and a thorough medical and psychiatric history. (Including all current medications), O2, IV and monitor as necessary. Do not agitate or irritate the patient with a prolonged exam

Transport: Patients may be transferred directly to a mental health facility if they are not under the influence of drugs or alcohol, if pre-hospital personnel harbor no suspicion of OD (e.g., patients own psychiatric medications), and both of the following conditions apply:

1. Patient is alert, with normal vital signs (see parameters below) and has no signs or symptoms of an acute medical illness or injury, and has either an unambiguous psychiatric condition (e.g. suicidal ideation) or has a history of a psychiatric illness which is consistent with current presentation

2. After consultation with MCEP of the receiving facility a joint decision is made that the patient does not require an ED evaluation and that the patient is appropriate for transport to a mental health facility, OR

- Prior acceptance of patient has been arranged by the accepting mental health facility.
- Law Enforcement officers may transport directly to a mental health facility if vital signs fall within stated parameters and the paramedic does not suspect any other underlying traumatic or medical causes.
- Vital signs parameters

- HR of 60-110
- RR of 12-25
- O2 SAT. >90%
- Systolic BP 90-160
- BGL 70-200, (if performed)

In all other situations, paramedics will transport psychiatric/mental patients directly to the emergency room for evaluation.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 05/15/02	Revision # 4	Implemented 07/01/02

P-16 Noninvasive Pacing

Designation of Condition: There will be a need for noninvasive cardiac pacing in the presence of hemodynamically unstable bradycardias (pulse rate < 60 bpm)

Field Treatment

- Consider sedation with Diazepam 2 mg. IVP q 3-5 mins up to 0.2 mg/kg. MCEP must be contacted for dosage over 0.2 mg/kg. total.
- Attach pacing pads to the patient on clean, dry, skin. The left anterior (-)/ left posterior (+) positioning is optimal, but the right anterior (+)/ left axillary (-) positioning can be used if necessary, and make sure the cable is connected to the pacer.

Physio-Control Product

- Turn pacer on
- Set rate for 70 bpm
- Check ECG monitor for sensing of QRS complexes (adjust gain if necessary)
- Increase energy by increments of 20 mA up to 60 mA for electrical capture
- Increase by increments of 5 mA until mechanical capture occurs,(i.e. verification of pulse)
- Observe the patient and ECG for electrical/mechanical capture

Zoll Product

- Turn mode key twice to enable Zoll pacer
- Ensure limb leads are attached
- Verify proper r-wave detection. (r-wave detector flashes on monitor when proper detection is taking place).
- Set pacer rate 10-20bpm higher than patients intrinsic rate. If no intrinsic rate exists, use 60 bpm.
- Increase mA until electrical capture is seen.
- Evaluate for mechanical capture, increase mA until mechanical capture occurs.

Electrical capture can usually be seen in the form of a wide QRS and a tall, broad t-wave.

Mechanical capture should exhibit an increased pulse rate, improved blood pressure and improved level of consciousness.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 05/16/01	Revision # 2	Implemented 07/01/01

P-17 Pain Management

Designation of Condition: The patient that presents with severe pain/discomfort from an isolated extremity injury or burn. Carefully evaluate and examine the patient and consider the mechanism of injury to rule out trauma to the head, chest, or abdomen.

Field Treatment:

- Morphine Sulfate should be titrated in 2-3 mg increments IVP q 3-5 minutes, up to a maximum dose of 0.15 mg/kg. Carefully observe level of consciousness, blood pressure and respiratory status.
- Morphine Sulfate should not be administered to patients who are hypotensive (BP < 100 in adults), if the patient has an allergy to Morphine Sulfate, or if you suspect head, chest, or abdominal injuries.
- Contact MCEP if the patient requires more than the maximum allowable dose, is allergic to Morphine, or presents with a condition not described above for pain management direction.

MCB Action	Passed 07/21/99	Implemented 10/01/99	Revised 06/20/01	Revision # 2	Implemented 01/01/02

P-18 Patient Refusal of Treatment or Transport

Introduction: To provide guidelines for instances where patients are not treated or transported to a hospital.

Interpretations and Guidelines: As emergency service providers we should respond to all calls with the intention of providing appropriate pre-hospital patient care. At no time should we try to talk the patient out of going to the hospital. Whatever their decision, it must be theirs alone. If the patient asks you whether he/she really needs to go to the hospital or be seen by a physician, it is recommended that you tell them, "we can't make that determination, if you would like to go to the emergency room to be seen by a doctor, we will provide transportation for you to the hospital of your choice, if available."

Requirements for Patient Refusals: Certain criteria must be met before a patient may sign a refusal of treatment and/or transport.

Age Criteria:

- Adult, 18 years of age or older
- Emancipated Minor-16 years of age and married, a minor in the military or court order divorcing minor from the parents.

Patient Assessment Criteria:

- Patient must be alert and able to maintain coherent thought and speech
- Patient must be oriented and able to reference Time/Date/Place/Person/Situation
- Patient judgment must not be clouded with alcohol or drug use
- Patient must not have evidence of suicidal tendencies and must not have evidence that they are a danger to themselves or others
- Patient must not exhibit evidence of bizarre or psychotic thought/behavior
- Patient vital signs must be within normal limits
- Patient must have a neurologic exam including coordination and gait that is normal or consistent with their past medical history.
- Patient must not have evidence of life or limb threatening injury or illness

If above criteria are met and the patient refuses treatment or transport, they must demonstrate an understanding of their medical situation and the risks associated with refusal.

If the patient meets the above criteria and refuses treatment and/or transport, have the patient sign the patient refusal portion of the run report.

If the patient does not meet the above criteria, attempt to persuade the patient of the need for treatment /transport. If the patient continues to refuse, consider utilizing protocol P-11 or contact an MCEP.

Minors: A minor may NOT sign a refusal form.

The refusal form MUST BE SIGNED BY : Natural Parent or Adopted Parent or Legal Guardian

In no event will legal consent procedures delay emergent patient care or transport. All cases resulting in non-transport will generate a thorough patient care narrative for each patient seen.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 10/21/98	Revision # 3	Implemented 07/01/01

P-19 Patient Care Responsibilities

The first on duty paramedic to arrive on scene will assume charge of, and direct patient care. All subsequent pre-hospital providers will take direction from that person by:

- Receiving a verbal report from the on-scene provider and at the paramedics direction assisting with further patient care.
- In the event ambulance personnel and fire personnel arrive on scene simultaneously, the fire department paramedic will assume charge of patient care until the patient is transferred to the transport ambulance.
- Patient care responsibility reverts to the ambulance service paramedic once the patient has been moved into the ambulance, regardless of whether another service paramedic accompanies the patient to the hospital. The transporting service should transport the patient to their hospital of choice (or, if no preference, the nearest hospital) appropriate to medical needs and protocols.
- If in the judgment of any of the paramedics on scene, patient care requires additional support, fire department personnel will accompany the patient to the hospital in the ambulance.

MCB Action	Passed 04/20/94	Implemented 06/01/94	Revised 09/20/00	Revision # 2	Implemented 01/01/01

P-20 Sexual Assault

Field Paramedic Assesses Patient

Algorithm

ED Transport Not Required

INDIVIDUAL STABLE

1. No symptoms as listed in box to the right
2. Person **wants** a sexual assault exam **and is within 5 days of the assault**

884-SANE

(24/7 Dispatch service.)

Nurse and Paramedic Consult. Provide the following info. to SANE nurse:

- Medical condition
- Consentibility

Client transport to SANE Unit at Carrie Tingley via POV, Law enforcement, Yellow Cab, or EMS. (**NOTE: the SANE nurse will dispatch the cab.**)

Emergency Room

Requires Transport to ED

1. Significant AMS/Intoxication/Suspected or Confirmed Overdose
2. Decreased oxygen saturation <90%
3. Unstable vital signs

P>110, RR >24, SBP <90 or >180

4. Dysrryhthmia
5. Loss of Consciousness
6. Incoherent or combative
7. Compromised airway or anticipated, based on report of recent strangulation attempt or ligature use
8. Significant Trauma
9. Uncontrolled bleeding
10. Signs and symptoms of head injury
11. Suicidal

ER per EMS Protocol

(Sexual assault is secondary concern)

NOTE: The SANE Dispatch service can be asked to contact the SANE Administrator-on-Call if there are any difficulties.

Procedure:

Field Assessment:

1. EMS personnel determine if the sexual assault victim requires further medical assessment and/or treatment at a ED prior to a Sexual Assault (SA) exam.
2. See above algorithm for transport criteria.
3. Individuals not requiring ED treatment can be referred to the SANE unit at Carrie Tingley Hospital for a SA exam.

SCENE Responsibilities for SANE referral:

1. See above algorithm for SANE Dispatch process. NOTE: SANE nurses are not on-site. You must page the SANE nurse by calling 884-7263. Nurse response time to the Clinic at Carrie Tingley Hospital (CTH) can be up to 1 hour. It is preferable for the SANE and Paramedic to speak directly to each other. If this is not possible, the EMS Dispatch will have to be the intermediary.
2. The SANE and Paramedic will consult and proceed accordingly. If possible, the SANE client should be transported to the Clinic via private vehicle or law enforcement. If neither of those options is available, then the SANE nurse can dispatch Yellow Cab. Response time for Yellow Cab is usually within 20 minutes, at no charge to the patient. NOTE: SANE clients under 16 years old must be accompanied by an adult in the taxi. It will be assumed that EMS will not transport to CTH unless there are no other available or appropriate means of transportation.
3. In the rare instance a SANE client is transported to CTH by EMS, the Paramedic will give report to the SANE nurse via phone or through the EMS Dispatch. The CTH ambulance bay is located on the West (back) side of the building. 0600 – 1800 hrs, the West door is unlocked. After 1800 hours, EMS personnel or the SANE client should press the buzzer, state they are here to see a SANE nurse, and then the in-patient personnel will electronically open the door.
4. During 0830 – 1630, the SANE client can go directly to our Clinic (Exam Rm. 4) on the 2nd floor.
5. After hours, the SANE client will be directed or escorted to the appropriate waiting area in the in-patient wing by CTH personnel.
6. In the unlikely event that the SANE client needs emergency medical assistance before the SANE nurse arrives, the CTH in-patient staff will activate EMS personnel.
7. Advise patient against eating, drinking, bathing, smoking, and urinating, if possible.
8. Encourage patient to wear or bring the clothing he/she was wearing at time of assault, if possible.

MCB Action	Passed 08/16/00	Implemented 10/01/00	Revised 06/15/05	Revision # 1	Implemented 10/01/05

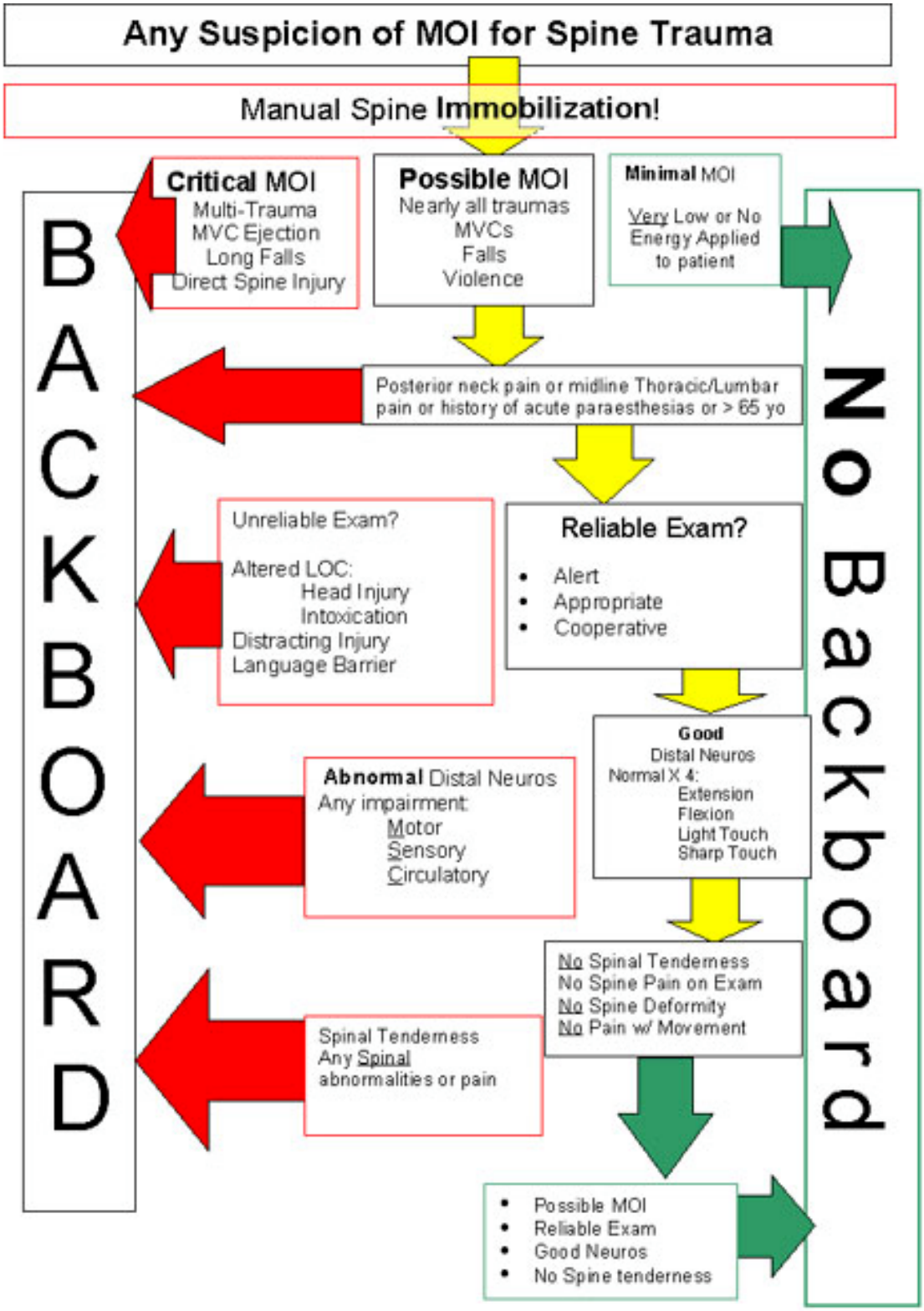
P-21 Spinal Immobilization

Designation of Condition: Full spinal immobilization (backboard, strapping of torso, C-collar, and head block) are required for these patients. Only in cases where there is clearly a potential detriment to the patient if they are fully immobilized should you consider using a C-collar only to transport neck pain patients.

- For detailed spinal immobilization protocol, see algorithm P-21.1
- Victims of penetrating trauma must be immobilized if they meet the following:
- A spinal injury or potential for injury is suspected based on location of wound and/or evidence of a neurological deficit.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	4/20/94	06/01/94	05/15/02	3	07/01/02

P-21.1 Spinal Immobilization Algorithm



MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 04/17/02	Revision # 3	Implemented 07/01/02

P-22 Helmet Removal

Designation of Condition: A patient with a suspected spinal injury based upon a physical assessment and/or mechanism of injury, who is wearing a helmet.

Football Helmets: Indications for football helmet removal.

- When a patient is wearing a helmet and not the shoulder pads.
- In the presence of head and or facial trauma.
- Patients requiring advanced airway management when removal of the facemask is not sufficient.
- When the helmet is loose on the patient's head.
- In the presence of cardiopulmonary arrest. (The shoulder pads must also be removed.)

When the helmet and shoulder pads are both on, the spine is kept in neutral alignment.

Note: If the patient is wearing only the helmet or the shoulder pads, neutral alignment must be maintained. Either remove the other piece of equipment or pad under the missing piece.

All Other Helmets: Due to the absence of offsetting padding as in football shoulder pads, all other helmets must be removed in order to maintain spinal alignment. These include but are not limited to motorcycle helmets, bicycle helmets, roller blading helmets and skiing helmets.

MCB Action	Passed 10/20/99	Implemented 01/01/00	Revised	Revision #	Implemented

P-23 Transfer of Patient Care Responsibility

Purpose: To facilitate smooth transfer of patient from pre-hospital to hospital including:

- Arrival at Hospital
- Patient Unloading
- Moving Patient from Transport Unit Stretcher to Hospital Stretcher
- Verbal Turnover Report to Designated Hospital Personnel

Transport unit personnel will maintain charge of patient care on arrival at hospital until all of the following are accomplished:

- Arrival at Hospital: The pre-hospital team will be responsible for unloading the patient. Hospital personnel will remain outside the transport unit unless asked by the transport paramedic.
- Patient unloading: The transport paramedic will be responsible for and oversee all patient care during unloading of the patient. This includes maintenance of all pre-hospital performed procedures (endotracheal tube placement and ventilation, intravenous line placement, etc.) Only the transport unit personnel will operate the stretcher during the unloading procedure. The transport paramedic will maintain charge as the patient is moved into the hospital.
- Moving Patient from Transport Unit Stretcher to Hospital Stretcher: The transport paramedic will be responsible for and oversee all patient care during transfer of the patient from the transport unit stretcher to the hospital stretcher. This includes maintenance of all pre-hospital performed procedures (endotracheal tube placement and ventilation, intravenous line placement, etc.) After transfer of patient to the hospital stretcher, the transport paramedic will reassess and verify placement of the endotracheal tube before transferring care to hospital personnel. The transport paramedic will maintain charge during transfer of the patient from the transport unit stretcher to the hospital stretcher.
- Verbal turnover Report to Designated Hospital Personnel: The transport paramedic will give a verbal report as appropriate to inform designated hospital personnel of the recent event.

<u>Note: While on hospital premises, Emergency Room M.D. may at any time assume responsibility for the care, transfer and maintenance of lines and tubes as deemed necessary by the physician. in the event the Emergency Room M.D. takes charge of patient care before transfer of patient care responsibility occurs, the Emergency Room M.D. assumes responsibility for patency of all procedures performed to that point.</u>

MCB Action	Passed 5/15/96	Implemented 07/01/96	Revised	Revision #	Implemented

P-25 Adult Airway Management & Ventilator Guidelines

Designation of Condition: Patient on ventilator being transferred to transport paramedic service.

Field Treatment:

- Immediately perform a thorough reassessment of the airway.
- The referring ESM caregiver must accompany the transport paramedic if the ventilator continues to be utilized.
- If the referring EMS service is unable to accompany transport paramedic, the ventilator will be removed and the patient will be ventilated by bag valve mask.
- If concerns arise regarding airway or ventilator status, the transport paramedic has final judgment regarding airway management

MCB Action	Passed 05/19/99	Implemented 07/01/99	Revised	Revision #	Implemented

P-26 EMS Unit Diversion

Designation of Condition: To promote optimal patient care through the coordinated efforts of the EMS and hospital systems. To allow for proper patient destination based on patient request and facility status during times when the facility staff feels it is temporarily incapable of providing optimal care to further patients.

- All hospital systems must work to keep their facilities on an open status. They must maintain their system screens to allow field personnel to appropriately route patients to hospitals that are staffed, equipped and prepared to administer emergency care appropriate to the needs of the patient.
- Current protocol for patient destination should be maintained including patient request and closest hospital.
- When possible, all EMSystems status should be followed. Early contact with Albuquerque Base will help facilitate patients to the closest appropriate open hospital.
- Cardiac arrest or unstable airway patients will still go to the closest facility, unless they are on "totally *closed"* status. MCI protocols may alter the patient destination decisions.
- If a circumstance arises when a field EMS provider feels it is mandatory to go to a diverting hospital (except for "total" closures) because of risk to the patient or provider, they should advise the receiving hospital that they are overriding closed status and give a med report and ETA. These cases will prompt mandatory QI reporting to the appropriate medical director.
- Special circumstances such as:
- Discharge from receiving hospital in the past last 24 hours
- Special or experimental drugs or procedures provided and monitored at receiving hospital
- Patient threatens bodily harm to self or provider if not allowed transport to receiving hospital
- Patient has recent complex medical and/or surgical history managed by receiving hospital
- Patient has been previously accepted by the facility
- If a unit is on the property of a hospital (cross the driveway), you should not leave the facility. Advise the facility you are already on the hospital grounds.

MCB Action	Passed 08/16/00	Implemented 10/01/00	Revised 07.08.2002	Revision # 1	Implemented 10/01/2002

P-27 Public Inebriate

Designation of Condition: Upon evaluation, Patient is determined to be intoxicated with ETOH, without evidence of acute injury or illness.

All intoxicated patients who request evaluation or transport to the hospital, should be transported to the appropriate ED. Those who request transport to the sobering facility may be transported there by Police, PSO, van or taxi, if they meet the following criteria:

Non-EMS First Responder:

1. This includes Police, PSO, Van driver
   a) Patient must be easy to arouse.
   b) Must be able to make focused eye contact and state name.
   c) Must be ambulatory without assistance and have no focal motor or sensory deficits.
2. Patient should have no evidence of acute injury or illness.
   a) If this criteria is met -> transport to the Inebriate Facility by Van or the agency involved.
   b) If this criteria is not met -> Activate EMS if not already done.

EMT-P

1. Full H&P
   a) Patient must be easy to arouse.
   b) Must be alert and oriented x 3
   c) Must be ambulatory without assistance and have no focal motor or sensory deficits.
   2. Complete set of vital signs within the stated parameters.
   a) Pulse 60-110
   b) SBP 90-160
   c) RR 12-25
   d) O2 Sat. > 90%
   e) CBG 70-200
   3. If above parameters are met, and the patient consents, he/she can be transported to the facility by van or other agencies involved. If above parameters are not met, transport to the closest, or requested, facility.
4. At no time can this patient be left unattended prior to transport.
5. When a difference of opinion exists on patient disposition, err on the side of the patient. The lead medic will be the final decision-maker.

MCB Action	Passed 11/15/00	Implemented 01/01/01	Revised	Revision #	Implemented

P-28 EMS Helicopter Transfers

Designation of Condition: Allow for safe transfer of patients from EMS units to a helicopter when the helipad is on hospital grounds.

- Circumstances may require utilization of a hospital helipad to facilitate transfer of either a medical or trauma patient to an appropriate facility.
- Request the helicopter intercept through Albuquerque Base.
- It must be determined that it is in the best interest of the patient for emergent transfer via helicopter verses evaluation in the hospital's emergency department.
- Notify the hospital's emergency department that its helipad will be used for the helicopter intercept only and that no evaluation or treatment of the hospital's emergency department is being requested.

Explanation: EMTALA applies where an individual comes to the hospital's emergency room and a request is made on the individual's behalf for examination or treatment of a medical condition. HCFA has interpreted the phrase, "comes to the hospital's emergency room" to mean that the individual is on the hospital's premises or is in an ambulance owned by the hospital. Where the hospital's helipad is being used only to accommodate a transfer of a patient from a ground ambulance to an air ambulance, it is necessary that the hospital's emergency department be informed of what is going on and that no request for examination or treatment is being made.

MCB Action	Passed 02/21/01	Implemented 04/01/01	Revised	Revision #	Implemented

P-29 EMTALA Risk

Designation of condition: To minimize EMTALA risk to hospitals by EMS transport units.

- It is expected that all hospitals will adhere to current status that is reflected in the EMSystem window for ED and inpatient statuses.
- When circumstances arise and an EMS transport unit is on a hospital's property, the EMS unit will not divert to another hospital.
- If you get a divert order from the facility and you are on their property, you will advise the facility that you are on their property and will not be diverting.
- Upon arrival advise the staff of the EMTALA risk and tell them that an internal quality assurance will be generated and will be reviewed by the medical director.
- Radio reports will be done as early as possible during transport to minimize EMTALA risk.

MCB Action	Passed 02/21/01	Implemented 04/01/01	Revised	Revision #	Implemented

P-30 Patient Restraint

Designation of Condition: The patient exhibits violent, combative and/or uncooperative behavior that results from a medical or psychiatric condition and such behavior place the patient or others in imminent danger.

Indications For Use: The application of mechanical restraints are allowed only when all less restrictive measures of control have failed (e.g., verbal de-escalation), and the patient's behavior continues to pose a threat to himself or others. Involuntary restraint is also appropriate when an EMT makes a good faith judgment that a patient is incapable of making an informed decision about his own safety or need for medical attention and is reasonably likely to suffer disability or death absent medical intervention. (See P-11) The application of restraints should always be done out of necessity, to ensure patient or provider safety.

Procedure:

- Request law enforcement at the earliest opportunity
- Ensure the presence of sufficient personnel to safely apply restraints.
- Explain to the patient and family why restraints are necessary.
- Apply restraints in a humane manner, affording the patient as much dignity as possible.
- Use the least restrictive method of restraint necessary to protect the patient and still insure provider safety during transport.
- Devices: Restraint devices that are appropriate for EMS utilization include: spine board, KED, vacuum splint, soft gauze, blankets and sheets, or other system approved commercially available devices. Prone or "hobble" restraints are not appropriate for EMS.
- Obtain vital signs at the earliest opportunity. Violent and combative behavior may be secondary to hypoxia, hypoglycemia, or CNS infection. Obtain O2 sat and CBG as soon as it is feasible. Assess for fever. Treat trauma and seizure if applicable.
- All restrained patients require continuous monitoring of the airway, circulatory and respiratory status, neurovascular function in restrained limbs and the need for continued restraint.
- **A paramedic and at least one other EMT will attend the patient at all times.**

NOTE: A Restraint QA Form and Restraint Monitoring Form must be completed on all restrained patients. All will undergo quality assurance review.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	08/15/01	10/01/01	01/01/03	1	04/01/03

P-31 Emergency Department Patient Turnover

Designation of Condition: Expedite appropriate and timely turnover of pre-hospital patients to the Emergency Department staff.

- Expeditious and complete patient turnover will be the goals of all personnel involved.
- The responsibility for patient care transfers to the E.D. staff once the patient enters the E.D.. EMS personnel will strive to do what is medically appropriate for the patient and keep continuity of care until report is given.
- It is expected that ED staff will receive pre-hospital personnel in a timely manner on arrival to ED and direct them to the appropriate bed or ED area.
- Pre hospital personnel will assist in moving patient to the hospital gurney and give a complete pre-hospital report.
- Except when dictated by call volume, EMS run reports will be left at the hospital when the patient is turned over to the hospital staff.
- It is expected that a complete turnover will be completed within 15 minutes of ED arrival or when the relevant EMS run report is complete, which ever is longer.
- If the above criteria is not met and the patient remains on the pre-hospital gurney greater than 15 minutes, pre-hospital personnel will seek a safe and appropriate place to unload the patient and give the written run report to the first available ED staff RN and then return to service.
- There is no EMS obligation to provide personnel or equipment in the E.D.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	07/18/01	01/01/02	05/15/02	1	07/01/02

P-32 Transport to Multiple Destinations

Designation of Condition: At times circumstances necessitate transport of several patients in transport unit. There will be times that it is necessary to transport these patients to different hospitals.

- Multiple destinations may be the result of patient request or to optimize patient care.
- The more severely ill or injured patient will mandate the first hospital destination. If both patients are deemed equal in illness or injury, the transport unit will go to the closest hospital first.
- Based on Paramedic judgment, if transport to the second hospital puts the patient at any risk to well being, the patient should be unloaded at the first destination.
- If a patient is on hospital property and is requesting to be transported to a second hospital against the Paramedic's advice, clearly document the refusal (consider MCEP consult) of evaluation at the first hospital and transport to the second hospital, if open.

MCB Action	Passed 07/18/01	Implemented 01/01/02	Revised	Revision #	Implemented

P-33 Pulmonary Hypertension

Designation of Condition**:** A patient with pulmonary hypertension being treated with continuous **Flolan®** infusion activates the EMS system by calling 911 or by calling the AAS System Status Center directly.

Field Treatment

If patient is conscious:

- Perform primary and secondary surveys and provide care as appropriate.
- If a problem exists with the patient's central IV line that compromises the continuous infusion of **Flolan®,** initiate a peripheral IV and connect the **Flolan®** tubing directly to the peripheral IV catheter after ensuring patency of the peripheral line.
- Utilize patient's expertise to ensure patient's ambulatory pump is working properly and **Flolan®** is infusing at the correct rate.
- Transport to hospital of patient's choice.
- If you need to administer any other IV medications, initiate a second peripheral IV line; **Flolan®** is incompatible with all other medications.

If patient is unconscious:

- Perform primary and secondary surveys and provide care as appropriate.
- Evaluate whether **Flolan®** is infusing properly *via* patient's central IV line by inspecting the patient's ambulatory pump for signs of proper operation.
- If **Flolan®** is infusing properly, leave infusion as is and allow patient's ambulatory pump to control **Flolan®** infusion en route to the hospital.
- If **Flolan®** is not infusing properly via the patient's central IV line and you determine it is due to occlusion of the central IV line, initiate a peripheral IV and connect the **Flolan®** tubing directly to the peripheral IV catheter after ensuring patency of the peripheral line.
- If patient's ambulatory pump is alarming another type of failure, troubleshoot as possible, gather all materials necessary and transport patient emergently to the hospital.

If patient is in cardiac arrest:

- Perform a primary survey and treat the cardiac arrest per protocol.
- Ensure the continuous infusion of **Flolan®** either through the patient's central IV line or through a designated peripheral IV line. Remember, **Flolan®** is incompatible with all other medications; ACLS drugs must be administered *via* a separate IV line or through an endotracheal tube as appropriate.

In all cases, upon arrival at the hospital, ensure the staff is informed of the patient's condition and of the need for the **Flolan®** to infuse continuous

Toll Free Assistance Number: 1-800-9FLOLAN (1-800-935-6526)

MCB Action	Passed 08/03	Implemented 10/03	Revised	Revision #	Implemented

P-34 Infection Control

Designation of Condition: Appropriate use of universal precautions to minimize the risk of disease transmission to providers and patients.
Procedure:

- Universal Infection control precautions will be utilized on all patients, as appropriate, per OSHA directives.
- Routine infection control precautions for potential contact with blood or infectious material include:
    - Hand hygiene
    - Eye protection
    - Gown
    - Gloves
- All patients with cough will be fitted with a surgical mask, and screened for possible SARS or TB infection (criteria is subject to change per CDC recommendations).
    - SARS screening test will help identify patients who are at increased risk of SARS infection. Patient will have cough or fever AND:
        - Has recently traveled (within 10 days) to East Asia (China, Hong Kong, Taiwan, Viet Nam, or Singapore). Or,
        - Has had recent contact (within 10 days) with a person infected with SARS.
    - TB screening test will help identify patients at increased risk of active TB infection. Patient has cough AND:
        - Has a known history of active TB
        - Is Homeless
        - Has diagnosis of AIDS
        - Has recently been in prison
        - Has lived in high endemic area
- Providers will wear N-95 respirator mask while caring for patients with positive SARS or TB screening exams. All secretions in these patients will be considered infectious. Notify receiving hospital ASAP to allow for early consideration of respiratory isolation.
- For endotracheal intubation, suctioning, and bag valve mask assisted ventilation, full face mask shield is required
- Hand washing before and after patient contact is imperative. If hands come in contact with blood or other bio-hazardous material, immediately wash with Cal Stat solution or equivalent
- All sharps will not be recapped, bent, or broken. They will be discarded intact immediately after use into an needle disposal box
- All blood spills and other biohazard spills will be cleaned up with Virex or equivalent
- All needle stick accidents, mucosal splashes or contamination of open wounds with blood or body fluids will be reported immediately per departmental policy
- Annual Influenza vaccine is strongly recommended for all EMTs.

MCB Action	Passed 12-17-03	Implemented 01-01-04	Revised	Revision #	Implemented

P-35 Air Taser Injuries

Designation of Condition: EMS personnel may be requested to assess patients after taser deployment, and/or to remove Air Taser probes lodged in a subject's skin. Be aware that secondary injuries may result from falls sustained after the device has been deployed. Subjects may be dazed/confused for several minutes post device deployment. The patient may require additional restraint as defined in protocols **P-11 Involuntary Emergency Transport** and **P-30 Patient Restraint**.

Procedure approved for EMT-P, EMT-I, and EMT-B

- Scene Safety
- Confirm that the Air Taser has been shut off and the probe is no longer connected to the taser gun.
- Obtain vital signs at the earliest opportunity. Violent and combative behavior may be secondary to intoxication, psychosis, hypoxia, hypoglycemia, OD or CNS infection. Obtain O2 sat and CBG as soon as it is feasible. Treat trauma and seizure if applicable.
- Evaluate the anatomical location of the probe (s) puncture zone(s). High-risk/sensitive zones will require transport to a medical facility for removal. They include:
  - Eyes, ears, nose, mouth and neck. (Darts to scalp, and low risk areas of forehead and cheek, can be removed in the field, but these wounds may require assessment by a physician).
  - Breast
  - Genitals
  - Hands or Feet
  - Joints

Dart Removal:

- Utilize PPE. Place hand in the form of a "V" around the taser dart in order to stabilize the surrounding skin and to keep loose skin from coming up with the dart. Firmly grasp the probe and with one smooth hard jerk, remove probe from subject's skin.
- Prior to probe removal inform all caregivers that you are about to remove the contaminated sharp.
- Examine the probe and the patient closely in an effort to make sure the probe tip did not break off during removal. Accordingly, it is important that the person removing the barb visually inspect it to make sure that the tip is fully intact. If the barb remains in the subject, the patient will transported to a medical facility for removal.
- Be careful to avoid accidental needle sticks when removing probes.
- Promptly dispose of the probe immediately after removal and examination to ensure that it is intact. Place in an appropriate sharps disposal container. If the dart falls into the law enforcement chain of custody ensure it is placed in an appropriate container that contains no other sharps.
- Provide wound care by cleansing the affected area with saline, and apply a bandaid.
- Inform patient of basic wound care and the need to seek additional care in event that signs of infection occur (redness-fever-drainage-swelling-etc.)
- Clear and thorough documentation is required in the body of the report narrative whether or not EMS transports the patient.
- If transport is necessary, transport to the closest appropriate hospital

MCB Action	Passed 05/2004	Implemented 10/01/2004	Revised	Revision #	Implemented

P-36 Combitube (Multilumen Airway)

Designation of Condition:

- BLS – A primary airway device to secure a patent airway in the indicated patient population.
- ALS – A secondary airway device to be used after 2 attempts at normal intubation have failed or when intubation is not practical.

Indications: Patient is unconscious and unable to protect own airway, no apparent gag reflex.

- Use 37 F "Small Adult" device for patients 4 to 6 feet tall.
- Use 41 F "Large Adult" device for patients over 6 feet tall.

Contraindications

- Responsive patients with an intact gag reflex.
- Patients with known esophageal disease.
- Patients who have ingested caustic substances.
- Known or suspected foreign body obstruction of the larynx or trachea.
- Patients under 4 feet in height.

Insertion

- Prior to combitube insertion the patient should be preoxygenated with a BVM @ 100% 02. Cricothyroid pressure (Sellick's maneuver) should be applied to minimize gastric distention during BVM..
- The recommended position for the patient's head is in the neutral position.
- Lubricate the device with a water-based lubricant.
- In the supine patient, insert the thumb of a gloved hand into the patient's mouth, grasping the tongue and lower jaw between the thumb and index finger, and lift upward.
- When facial trauma has resulted in sharp, broken teeth or dentures remove debris and exercise extreme caution when passing the Combitube into the mouth to prevent the cuff from tearing.
- With the other hand, hold the Combitube with the curve in the same direction as the curve of the pharynx. Insert the tip into the mouth and advance along the true midline of the oropharynx. Advance carefully and gently until the printed ring is aligned with the teeth. Caution: DO NOT FORCE THE COMBITUBE. If the tube does not advance easily, redirect it (to true midline) and reinsert. Have suction available and ready whenever withdrawing tube.
- If the Combitube is not successfully placed within 30 seconds, remove the device and ventilate and pre-oxygenate the patient for 30 seconds using basic methods, as described above, before re-attempting insertion.
- Once successfully inserted, inflate the large proximal (#1), blue pilot balloon leading to the pharyngeal cuff, with 85ml of air using the large (cc) syringe. (This may cause the Combitube to move slightly from the patient's mouth). (If using the large adult device inflate with 100cc of air)
- Inflate the distal (#2), white pilot balloon leading to the distal cuff, with approximately 10ml of air using the small syringe. (15 cc for large device)
- Begin ventilation through the longer blue tube. Watch for chest rise. If auscultation of breath sounds is positive and auscultation of gastric air sounds is negative, continue ventilation. The presence of air entry into the lungs and absence of gastric insufflation indicates the Combitube is in

the esophagus, which occurs virtually all the time. Place suction catheter through tube #2 and decompress the stomach.

- If no chest rise, negative lung sounds, and/or positive gastric air sounds with ventilation through the blue tube, then the Combitube is in the trachea, and begin ventilation through the shorter clear tube. Confirm ventilation with chest rise, presence of auscultated lung sounds, and absence of gastric air sounds.
- If the patient has a pulse, utilize a colorimetric End-tidal Carbon Dioxide detector and observe for color changes.
- If there is no chest rise or positive lung sounds through either tube, remove the device, ventilate and pre-oxygenate the patient for 30 seconds as described above and repeat the insertion/inflation/ventilation procedures.
- After successful insertion, ventilate the patient through the tube that resulted in lung sounds using a BVM.
- REASSESS TUBE PLACEMENT FOLLOWING EVERY PATIENT MOVEMENT.

Removal of Combitube: At direction of Medical Control or when attempting reinsertion, or if the patient awakens. Remove Combitube as follows:

- Place the patient on side if practical
- Have suction ready
- Deflate blue tube
- Deflate white tube
- Remove Combitube
- Be prepared for vomiting

Exchange of Combitube with endotracheal tube: Some ED physicians are unfamiliar with the Combitube and may require your assistance to intubate around the Combitube. Always keep the inflation/deflation syringes with the device when you relinquish patient care.

1. Have suction ready
2. Deflate large pharyngeal balloon---blue tube.
3. Keep small distal cuff inflated---white tube (To help prevent regurgitation).
4. Insert ETT around Combitube and inflate cuff. Begin ventilations. Secure ETT.
5. Deflate small distal balloon (white tube) and remove Combitube from patient.

NOTE ON SUCTIONING THROUGH THE COMBITUBE: When suctioning the patient through the Combitube, always introduce the suction catheter through Tube #2 (white). Because the Combitube will usually be in the esophagus, most through-the-tube suctioning will be gastric suctioning and will result in decreased gastric distension. In the event that the Combitube is in the trachea, placement of the catheter into the white tube will result in tracheal suctioning.

MCB Action	Passed 12/16/04	Implemented 04/01/05	Revised	Revision #	Implemented

Appendix B Multiple Transport Unit Response

Multiple Transport Unit Response [MTUR]

Designation of Condition:

A *Multiple Transport Unit Response Incident* is any incident involving a number of patients that cannot be processed with the normal/standard transport unit response. These incidents may include Chemical, Biological, Radiological, Nuclear, and Incendiary/Explosive, as well as other medical or trauma multi-casualty incidents.

Definitions:

Standard Transport Unit Response: the normal response for any given incident; the standard dispatch; the "First Alarm Assignment".

Multiple Transport Unit Response: a response that requires additional transport resources above the "standard transport unit response"; comparable to "Multiple Alarms;" resources may also be technical in nature (extrication, high angle, Haz Mat)

Disaster: An incident with a sufficient number of patients to exceed local and regional mutual aid EMS resource capabilities.

FIELD PROCEDURES:

- Declaration and Notification
- A "clear text" message using common language will be used to communicate the type of incident and the additional resources requested.
- The first arriving unit must determine the number of patients and the resources necessary to deal with them. The first arriving unit will name the event with a unique identifier. Notification to the communications center will include:
    1. Type of incident
    2. Estimated number of patients
    3. Additional resources needed

EXAMPLE: "Rescue 6 to Dispatch-- we have a multiple transport unit response incident; we have approximately 11 patients; we need 5 additional transport units, two Engines, three heavy rescues, and the duty supervisor. We will call this the 'Tramway Incident'."

- The local dispatch center notify all other area dispatch centers and Santa Fe Control [Albuquerque Base if patients will be transported to Albuquerque]. Initial notification of the regional hospitals will be done via EMSystems®. All facilities on caution or closed status will open or be forced open for the duration of the Incident. All hospitals will utilize EMSystems® for initial and ongoing capacity updates.
- Dispatch will follow local EMS operating procedures to locate additional resources requested. If resources are needed beyond available mutual aid resources, Dispatch will contact the local county Emergency Operations Manager. The Office of Emergency Management will be notified for all large events.

Incident Command System

- The National Incident Management System (NIMS) will be the Incident Command System (ICS) used at all Multiple Transport Unit Response Incidents. It will be the responsibility of the appropriate public safety agency to institute and manage the system. Appropriate vests will be worn.
- The Fire Department will have overall control of the EMS and Fire/Rescue operations. The highest ranking officer on scene should assume the role of Incident Commander. Only Fire Department personnel will be involved in the specialty rescue/hazmat/fire suppression role. EMS personnel, whether Fire Department or ambulance service, will fill the roles of triage, treatment, and transportation. As Fire Department personnel

become available, they can and should replace the transport agency personnel in the triage and treatment sectors so they may return to a transport mode. Any incident that requires a multiple transport unit response will necessitate mandatory use of the START Triage tag system.

- If there is an EMS component to the incident, the incident will be placed on EMS 1 or 2 radio channels so that all responding agencies will have the ability to communicate. If the incident will necessitate the involvement of non-system mutual aid providers, request a "patch" or bridge between the 800 MHz system and State Fire.

Patient Management

- Patients will be triaged using the state adopted START Triage System by a Triage Officer.
- Following triage, a Triage Report will be given to Command identifying the number of patients in each triaged category in this order:
    - Number of Immediate (Red)
    - Number of Delayed (Yellow)
    - Number of Minor (Green)
    - Number of Dead/Dying (Black)
- A MCI Trailer is additional resource for triage and treatment equipment. It should be requested as early in an incident as possible. The Trailer will contain sufficient BLS equipment to treat approximately 35 patients.

START Triage Categorization Criteria

Triage Category	Description
Red Tag (Immediate/Critical)	These are patients of the highest priority which, in most circumstances, are removed and treated first. This categorization EXCLUDES patients that are in cardiopulmonary arrest or are near death and have, in the judgement of the Triage Officer, fatal injuries.
Yellow Tag (Delayed/Serious)	Patients whose condition is serious and needs attention. However, treatment and removal may be delayed until viable Red Tag patients have been treated and transported.
Green Tag (Minor/Stable)	Patients who may have treatment and/or transport delayed, but require treatment and transport. They may be the last to be transported.
Black Tag (Deceased)	Patients who are already dead, or so severely injured, that death is certain within a short time, regardless of treatment given.
Contaminated	These patients may be from any triage category but need to be grossly decontaminated prior to transport.

START Triage Algorithm

Move Walking Wounded	MINOR	
No Resp. After Head Tilt/OPA	DEAD-DYING	
Respirations - Over 30	IMMEDIATE	
Pulse – No Radial Pulse	IMMEDIATE	
Mental Status – Unable to follow simple commands	IMMEDIATE	
Otherwise…	DELAYED	

* Remember Respirations-Pulse-Mentation (RPM) while determining IMMEDIATE patients

Treatment:

All treatment will follow local standard of care. However, in a Multiple Transport Unit Response Incident on scene treatment will be minimal and patients will be transported as expeditiously as possible.

Transporting Patients

- Patient Distribution Guidelines: The following is a starting point in determining initial patient transport destinations, as well as a guide for each successive wave of transports in a Multiple Transport Unit Response Incident. The hospitals must, at a minimum, accept the following numbers of patients. Some hospitals may choose to increase their patient allotment, or accept patients with a higher level of acuity. Local hospital capacities may change daily and will require frequent re-evaluation as appropriate. During declared MTUR incidents, any closed facility will automatically be put on open status (unless on black closure), no facilities will be allowed to close, and no facilities will divert patients brought to them based on the protocols below.

	Hospital	Trauma	Medical
1. Most severely injured.	University	up to 3 Red Tag or 3Yellow Tag or 3 Green Tag patients (or any combination, not to exceed 3 per wave)	2 Patients/wave
2. Next most injured .	Lovelace Or	up to 1Red Tag or 2 Yellow Tag or 3 Green Tag patients (or any combination, not to exceed 3 per wave)	2 Patients/wave
	Presbyterian Or	up to 1Red Tag or 2Yellow Tag or 3 Green Tag patients (or any combination, not to exceed 3 per wave)	2 Patients/wave
	Albuquerque Regional Or	up to 3 Yellow Tag or 4 Green Tag patients (or any combination, not to exceed 3 per wave)	2 Patients/wave
3. Any Green Tag Patients	Kaseman Women's West Mesa VA Heart Hospital	Up to 2 Green Tag patients per wave Heart Hospital will accept 1 Red Tag or 1 yellow tag isolated chest trauma patient if necessary.	2 Patients/wave

Patient distribution will follow above guidelines in initial and all subsequent waves

- Transport Officer will:
  1. Assign patients to ambulances and designate appropriate destination.
  2. Request dispatch to notify receiving hospitals of patients' arrivals
  3. Notify command when all patients have been transported
- Media Communications will be handled by the appropriate Public Information Officer.

MCB	Passed	Implemented	Revised	Revision #	Implemented
Action	4/20/94	06/01/94	06/15/05	5	10/01/05

Appendix C Medical Control Emergency Physician Handbook

MCEP Handbook

Purpose - This handbook is designed to familiarize emergency physicians with pre-hospital protocols and capabilities of pre-hospital providers. MCEP's (Medical Control Emergency Physicians) are authorized by the City/County EMS Authority to give on line orders to EMT's providing care within Bernalillo County.

EMS System - The City of Albuquerque and Bernalillo County have designed and implemented an emergency medical services system that provides pre-hospital emergency medical care to the citizens of Bernalillo County. Access and activation of EMS is accomplished by enhanced 911 telephone dispatch centers. The Emergency Medical Services Authority (EMSA), the Medical Control Board and the Providers Advisory Committee oversee, direct and provide information and feedback to the agencies providing emergency medical services to citizens of Albuquerque and Bernalillo County. Currently, the Albuquerque Fire Department, Albuquerque Ambulance Service and Bernalillo County Fire Department provide emergency medical services for the EMS System.

Albuquerque Fire Department – The Albuquerque Fire Department provides first response at the Basic and Paramedic level for the City of Albuquerque and to certain areas of the county. Albuquerque Fire Department EMT's and Paramedics may ride in with Albuquerque Ambulance Service to help provide patient care during transport of critical patients. In general Albuquerque Fire Department Rescues do not transport, as Albuquerque Ambulance is the primary transport agency.

Albuquerque Ambulance Service - Albuquerque Ambulance Service is a private, nonprofit, 501, C, 3 corporation, and is a division of Presbyterian Hospital. The Albuquerque Ambulance Service Board of Directors is made up of representatives from all the area hospitals. Albuquerque Ambulance Service is CAAS accredited and provides emergency 911 system paramedic transport services for the City of Albuquerque and Bernalillo County. Albuquerque Ambulance Service also provides emergent and non-emergent interfacility advanced life support transport services, within Bernalillo County and throughout the state.

Bernalillo County Fire Department – The Bernalillo County Fire Department operates advanced life support rescues and engines that provide first response emergency medical services within the unincorporated areas of Bernalillo County. In general, Bernalillo County Fire Department Rescues do not provide transport service, as Albuquerque Ambulance Service is the primary transport agency. Bernalillo County Fire Department paramedics & EMT's may ride in with Albuquerque Ambulance to help provide care for critical patients.

Lifeguard Air Medical Service - Lifeguard-I is a helicopter service affiliated with University Hospital. Lifeguard provides air transports in Bernalillo County. Lifeguard flies with two medical personnel, an R.N., and a paramedic or two RNs. The helicopter can land at University, Presbyterian, St. Joseph West Mesa and the VA Hospital. Transports to other facilities require a secondary ambulance ride or clearing the hospital parking lot. Lifeguard protocols differ from Bernalillo County EMS protocols. Whenever possible Lifeguard utilizes the Bernalillo County EMS protocols.

Superior Ambulance is a private, for profit, corporation operating at the EMT Basic, Intermediate and ALS level providing non-emergency and emergency inter-facility advanced life support transport services statewide, including the City of Albuquerque and Bernalillo County. Superior Ambulance is not a 911-transport provider.

State Organizations - Licensing of EMT's is under the authority of the IPEMS Bureau in Santa Fe. The state legislature also funds the EMS Academy, at the University of New Mexico, to provide training for EMT's at all levels. At the national level, the Department of Transportation (DOT) is charged with developing EMT curricula. The National Registry of EMT's is a private corporation dedicated to

testing EMT's nationwide. Passing the National Registry EMT examination is one way of becoming a licensed EMT in New Mexico, i.e., New Mexico is a National Registry State.

Trauma System - Bernalillo County has a recognized trauma system authorized by the state and agreed to by all the area hospitals. This, in general, matches the American College of Surgeons Trauma designations although there have been a few modifications. University Hospital is a level one-trauma center, and is the only designated trauma center in Bernalillo County.

Training - There are three levels of EMT's recognized in the state of New Mexico.

EMT Basics

Training-	Minimum of 120 hours.
Skills	Basic airway management (including obstructive airway interventions), basic airway equipment, BVM, Combitube, Suctioning, CPR, Semi-automatic defibrillation, Bleeding control, Wound management, Spinal immobilization, Splinting of extremities, Glucometry, Scene assessment, Triage, Scene safety, Emergency childbirth.
Allowable Meds-	Activated Charcoal Aspirin (for MI) Oxygen Oral Glucose Preparation Epinepherine 0.3mg 1:1000 (By pre-measured device only)

EMT Intermediates

Training	Minimum of 180 hours (72 in field)
Skills-	All EMT Basic skills, peripheral venous puncture, I.V. fluid therapy.
Allowable Meds-	All EMT Basic Meds I.V. Dextrose Naloxone Epinepherine Albuterol Nitroglycerine Morphine Diphenhydramine

EMT Paramedics

Training: Minimum of 1128 hours (didactic and clinical)

Skills: All EMT Basic and Intermediate skills, direct laryngoscopy, endotracheal intubation, thoracic needle, decompression, surgical cricothyrotomy, synchronized cardioversion, external cardiac , pacing, cardiac monitoring.

Allowable Meds: All EMT Basic and Intermediate medications, Adenosine, Atropine, Benzodiazepines , Diazepam), Dopamine, Furosemide, Lidocaine, Magnesium Sulfate, Sodium Bicarbonate

Protocols: In Bernalillo County most EMT and paramedic medical functions are determined by protocols approved by the Medical Control Board and individual service Medical Directors. The general philosophy of these protocols is that the emergency life saving interventions must be made by Emergency Medical Technicians, utilizing standing orders, without direct on-line medical control. On-line medical control should be contacted "as soon as possible" for guidance in situations not

specifically covered by written protocol, or in certain circumstances that are mandated by protocol, (e.g., requesting DC orders for a cardiac arrest). Medical Control Emergency Physicians (MCEP) are authorized to give orders outside of the Bernalillo County protocols provided that such orders do not violate the scope of practice of the provider, or involve the use of medications that have not been approved for use in Bernalillo County. See above list for allowable medications and approved skills. Once an MCEP has been contacted the Paramedic & EMTs provide care under the direction of the on-line MCEP. EMT's are also encouraged to directly contact medical control if they have difficulties at the scene that a physician may help to resolve, for example, if a patient refuses transport or desires to go in by private vehicle against the medical advise of the EMT.

MCB Action	Passed 4/20/94	Implemented 06/01/94	Revised 02/20/02	Revision # 2	Implemented 04/01/02

Appendix D Interagency Interaction Guidelines

Interagency Interaction Guidelines

Introduction: Emergency Medical Services in the Albuquerque Metro Area is provided by several agencies that must interact cooperatively within a two-tiered EMS system. In order to achieve the goal of Quality Patient Care, it is critical that interactions between the services be predictable and consistently professional. The following guidelines have been developed jointly by AFD, BCFD and AAS, in order to facilitate optimal patient care, transfer and scene flow, and so that all field providers can approach scenes with the same expectations and cooperation.

1. The first arriving unit will relay information on scene safety, scene access, equipment needs, and staging, as appropriate, to subsequent arriving units utilizing the 800 mghz radio system or relay through respective communication centers.
2. The ALS transport provider will bring in their stretcher when immediate patient transport is deemed necessary by the first arriving EMS units via radio or once the need for transport has been determined. It is optimal to bring in the stretcher upon arriving on scene on all calls. Good judgment should be used at all times.
3. The first on duty paramedic (lead paramedic) to arrive on scene will assume charge of and direct patient care. All subsequent pre-hospital providers will take direction from that person.
   - If a BLS Engine Company is first on scene, the engine officer will brief the first arriving paramedic on patient condition and transfer patient care responsibilities to the lead paramedic. BLS personnel will continue to assist in patient care under the direction of the lead paramedic.
   - If a BLS Engine Company is second on scene, they will report to the lead paramedic for a brief verbal report as well as direction and instructions.
4. The lead agency (agency first on scene) is responsible for initially directing patient assessment and care. This includes:
   - Obtaining consent for treatment and transport.
   - In <u>non-emergency</u> situations, the ALS transport provider will inform the patient of their financial responsibility for payment of the transport if their insurance carrier deems the transport unnecessary or not medically necessary. They will also inform the patient as to the estimated cost of the transport. The patient may at that point refuse transport as long as they meet Refusal Guidelines in accordance with the City of Albuquerque/Bernalillo County EMS Protocols. (i.e. P-18)
   - Obtain a signed and fully documented refusal on any patient who refuses treatment/transport and meets refusal criteria in accordance with the City of Albuquerque/Bernalillo County EMS Protocols and guidelines. Only the lead agency is required to complete the refusal documentation.
5. If the ALS transport provider is first on scene, or first ALS, then following a complete patient assessment, an evaluation fee will be charged if the patient refuses transport. Complete refusal documentation will be generated.
6. Once the lead paramedic is on scene, the second arriving paramedic will approach the lead paramedic and offer assistance. As soon as it is clinically practical, the lead paramedic will give a brief verbal report to subsequent arriving EMS units.
7. The first arriving unit will bring in appropriate equipment upon their arrival. If ambulance and rescue/paramedic personnel arrive simultaneously, then the rescue/paramedic personnel will

take in their equipment and ambulance personnel will bring in their stretcher. (If deemed necessary)

8. In the event the ALS transport paramedic and fire/rescue personnel arrive on scene simultaneously, the fire department paramedic will take responsibility of directing patient care. Paramedics will work cooperatively and in a professional manner to ensure high quality patient care. If a disagreement regarding patient care occurs in this context, MCEP guidance will be sought.
9. The first arriving EMS providers will begin to assess the patient, (history and physical) and gather other pertinent information. Other arriving personnel will approach the first EMS provider to obtain patient report. (See #3) It is inappropriate for subsequent arriving providers to go directly to the patient and repeat questions that have been asked. Although the first arriving paramedic is in charge of patient care, please remember that this is a team concept and any disagreements will be approached from that standpoint, or deferred to an MCEP.
10. All agencies will assist each other in every possible way (i.e. moving/gathering of equipment and stretcher); however, due to risk management considerations, any time there is a patient on a stretcher, employees from that agency must perform operation of the stretcher at the head and the foot. Other personnel on scene will be utilized to help lift in the interest of patient safety and comfort.
11. The ALS transport paramedic assumes responsibility of patient care after receiving a complete patient turnover report. (See protocol P-19) In critical life threatening situations the transfer of patient care responsibility will automatically happen once the patient is loaded into the back of the ambulance. Although the ALS transport paramedic is in charge of patient care, please remember this is a team concept and any disagreements will be approached from that standpoint, or deferred to an MCEP. While awaiting MCEP advice, the ALS transport paramedic will continue to direct patient care. Disagreements will not delay transport. Again, patient care will remain a cooperative effort.
12. Upon transfer of patient care, an appropriate patient turnover report must be given and accepted in a professional manner by both services involved. Once patient care is transferred, a confirmatory patient assessment by the transport paramedic is both appropriate and necessary. However, as a routine, such assessments should not delay transport, and should be done en route if possible. Transport should not be delayed in order for fire/rescue personnel to complete their written patient report.
13. If a patient has been loaded into the ambulance prior to the fire/rescue unit arrival (BLS or ALS), it is appropriate for the arriving personnel to inquire if they can be of any assistance. If the ALS transport provider deems assistance unnecessary, the fire department unit may cancel at their discretion. Transport will not be delayed in order for BLS or ALS reassessment, information gathering and/or report writing if the patient is loaded and ready for transport.
14. If in the judgment of any paramedics on the scene, patient care requires additional support, other agency personnel may accompany the patient to the hospital in the transporting unit.
15. The ALS transport provider will accept cancellations from all fire/rescue agencies. The ALS transport provider cannot cancel fire/rescue units unless the patient has been transported off the scene, or fire/rescue personnel have made appropriate patient contact. ** It is appropriate for on scene agencies to downgrade responding units when emergency response is not medically necessary.

    **NOTE. Appropriate patient contact is a matter of judgment. If upon arrival fire/rescue personnel are informed by the transport medic that the patient is stable, and ready transport and

that no assistance is required; and a brief visualization of the patient and scene verify this, then the fire/rescue units may cancel, without further intervention or assessment.

16. The Bernalillo County EMS system follows the Incident Command System structure. Be familiar with the ICS and be able to execute it when called for. A good example of this would be any scene where hazards such as fire, fluids, power lines, etc. exist. In these situations, the incident commander is in charge of all personnel to ensure that only properly protected and/or trained responders will be in the "hot" zones. Fire Department IC will direct all responding EMS personnel to an appropriate staging area for duty assignments.

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