

Section Six



2007

EMT-BASIC LEARNING OBJECTIVES

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EMT-BASIC LEARNING OBJECTIVES SECTION SIX

EXTRICATION

1. Define the term "*stabilization*" in relation to a vehicle with an entrapped patient:
 - *Stopping all possible movement of the vehicle before attempting to gain access to the patient. (i.e. letting the air out of the tires and/or using cribbing to prevent movement).*
2. Describe the role of an EMT at an extrication scene where extrication duties are being handled by other personnel:
 - *In this case the EMT's primary responsibility will be patient care. This may involve entering a vehicle to assess and begin treatment on a patient while extrication and disentanglement are still taking place.*
3. Describe at which point during an extrication the vehicle glass should be removed. Additionally, distinguish which window should be broken first and how:
 - *Once the need to remove glass had been identified (i.e. all the doors are locked or jammed), glass removal is done after the scene is checked for safety and the vehicle is stabilized. The glass furthest away from the patient is removed first. If the patient is in the driver's seat, this usually means breaking the back window first with a center punch or screwdriver. The patient should be protected with a tarp or blanket before any glass is broken.*
4. Describe the differences that may exist between "*gaining access*" to a patient and "*disentangling*" and "*extricating*" a patient:
 - *Gaining access = getting an EMT inside the vehicle to tend to the patient.*
 - *Disentangling = untrapping the patient.*
 - *Extrication = removal of a patient.*

HELICOPTER UTILIZATION

1. Identify the appropriate/permitted personnel, to request an aeromedical helicopter:
 - *Law Enforcement*
 - *EMS Providers*
 - *Search and rescue field coordinators*
 - *Fire Fighters*
 - *MD, Nurses, other hospital staff*
2. List at least five safety concerns associated with approaching a helicopter:
 - *Tail rotor – often not visible*
 - *Wind – can cause blades to dip*
 - *Noise - can cause hearing damage without ear protection*
 - *Over head rotor - blades can dip*
 - *Sloping LZ – can lead to dangerously low blade heights*
3. Identify the appropriate personnel to signal your approach to a helicopter:
 - *Members of the flight crew*
4. Identify at least three situations in which aeromedical evacuation of a patient may be appropriate:
 - *ALS not available on scene*
 - *Prolonged extrication*
 - *Heavy traffic conditions*
 - *Multiple casualty incident*
 - *Poor road conditions*
5. Describe the general requirements necessary for establishing a landing zone (LZ) for a helicopter:
 - *100' x 100' in area*
 - *Fairly flat*
 - *LZ should be large enough that the patient is protected from noise and wind.*
 - *No overhead obstacles such as wires*
 - *Large debris moved to avoid being picked up in rotor wash*

EMERGENCY VEHICLE OPERATIONS

1. Identify the location/situation at which most emergency vehicle accidents occur:
 - *Intersections are the most common location of accidents involving emergency vehicles.*

2. Describe the shifts that occur in the emergency vehicle's center of gravity when both braking and accelerating:
 - *Vehicle response time is much slower than in normal vehicles: the center of gravity shifts to front when braking and to the rear when accelerating.*
3. Compare the stopping distance between a regular passenger car and most ambulances:
 - *Stopping distance is 3 times greater.*
4. Explain the relationship between traffic laws and an ambulance engaged in an emergency response:
 - *Emergency vehicles are given the right to ignore posted traffic laws, if done in a safe and responsible manner, with **due regard** for the safety of all persons.*
5. Describe what alerts the general public that an ambulance is engaged in an emergency response:
 - *Flashing lights and siren must be used **as necessary** throughout an emergency response to alert traffic.*

INCIDENT COMMAND SYSTEM

1. Briefly explain the purpose of the Incident Command System (ICS):
 - *To coordinate multiple responders and agencies responding to the same incident and allocate resources in an organized, efficient manner.*
2. Identify the five functional groups of the ICS:
 - *Command*
 - *Logistics*
 - *Planning*
 - *Operations*
 - *Finance/Administration*
3. Identify the section responsible for medical care when medical care is the main mission of the ICS:
 - *Operations*
4. Identify the section responsible for medical care when medical care is a support function of the main incident (e.g. as in a forest fire):
 - *Logistics*

5. Describe at least five advantages or principles of the ICS:

- *Common terminology*
- *Unified command*
- *Small span of control – 7 or less individuals per leader*
- *Organized mobilization/demobilization*
- *Clearly defined roles/responsibilities*
- *Flexibility*

TRIAGE/MCI (Mass Casualty Incident)

1. Identify the responsibilities of the Initial Responding Unit:

- *Declare an MCI through dispatch and request a separate MCI communication channel if available.*
- *Quickly survey the scene and request additional personnel and equipment (i.e., additional rescue, heavy rescue, tow trucks, lighting, law enforcement, cranes, etc.)*
- *The triage officer may assume the communication responsibilities. Due to the varying number of agencies that may be involved, radio communications should be clear text, without ten codes.*

2. Define the term “*triage*” and describe the role of triage in prehospital emergency care:

- *A technique of establishing treatment and transport priorities in an event where the number of casualties is greater than the emergency resources can handle.*

3. Describe the START triage system:

- *The START triage system uses four criteria to categorize patients into one of four categories using Respirations, Perfusion, and Mental status.*
- *Priority One (Red Tag) **immediate** life threat.*
 - *Patients who have a respiratory rate over 30 per minute*
 - *Patients who have a capillary refill longer than 2 seconds **or** No radial puls*
 - *Patients who cannot follow simple commands*
- *Priority Two (Yellow Tag) **urgent care** delay up to an hour.*
 - *Patients who have 30 or less respirations per minute*
 - *Patients who have a capillary refill of less than 2 seconds*
 - *Patients who can follow simple commands*

- *Priority Three (Green Tag) **delay care** up to three hours.*
 - *All walking wounded*

 - *Priority Four (Black Tag) no care required*
 - *Dead / Deceased*
4. List the procedures that are considered appropriate of an initial triage in most triage systems:
- *Assessing all patients' ABC's*
 - *Opening airways*
 - *Delivering one or two rescue breaths to see if spontaneous breathing will return in apneic patients.*
 - *Tagging or marking patients with the appropriate triage category.*
 - *Directing all walking wounded to a staging area.*
 - *Remember triage is not treatment. When the number of casualties outnumber the number of resources, it is inappropriate to begin treatment until all injured have been initially triaged.*

NEW MEXICO EMS LICENSING REGULATIONS

1. Define Emergency Medical Services (EMS) systems:
- *Emergency Medical Services are those resources in a community established with the intent of providing care and assistance in case of a life-threatening emergency. It can include nurses, police, fire, ambulance, clinics, and other resources.*
2. Identify the three (3) approved EMS training programs in New Mexico:
- *University of New Mexico, EMS Academy, Albuquerque*
 - *Dona Branch Community College, Las Cruces*
 - *Eastern New Mexico University, Roswell*
3. Identify the agency responsible for administering the State Licensing Examination and issuing a New Mexico State EMT License:
- *The EMS Bureau, of the New Mexico Department of Health.*

4. Identify the training requirements of the New Mexico EMT-Basic course, including minimum course length:
 - *IP & EMS Bureau approved.*
 - *Must have both didactic and skill portions.*
 - *120 hr. minimum length*

5. Identify the length of Licensure in New Mexico and the requirements for renewal of an EMT-Basic License:
 - *27 month licensure period once in the system.*
 - *License will last from Jan. 01, XX to March 31, XX+2. This allows for 2 years of C.E. obtaining while then allowing for up to 3 months of renewal processing.*

 - *Renewal requirements:*
 - *All renewal requirements **MUST** be completed by December 31st of the second year of licensure.*
 - *EMS Bureau approved EMT-Basic Refresher Course completion certificate or **equivalent.***
 - *24 hours of EMS Bureau approved C.E., of which 4 contact hours shall consist of pediatric content.*
 - *Current BLS Provider CPR card.*
 - *Renewal application.*
 - *Renewal Fee.*

6. Identify the requirements for a New Mexico EMT to be eligible to receive a **Graduate** license from the EMS Bureau, which will allow him/her to work as an EMT, in the State of New Mexico, for up to six (6) months from the course completion date on his/her course completion certificate:
 - *Candidate must have successfully completed an EMT-Basic course from one of the three approved EMS training institutions and be issued a course completion certificate.*

 - *Candidate must have completed an application for licensure/certification, attached all required documentation and fees, and applied for a New Mexico State EMT Examination Test Site.*

 - *Must be at least 18 years old. (17 with parental consent)*

 - *Candidate must have a signed **Graduate** License from the EMS Bureau prior to working as an EMT in the State of New Mexico.*

 - ***Must** have a licensed EMT of equal or higher level observing while administering patient care until **fully** licensed.*

7. Identify the location of the three (3) EMS Regional offices:
 - *Region One – Santa Fe*
 - *Region Two – Las Cruces*
 - *Region Three - Clovis*

8. List two (2) functions of the EMS regional offices:
 - *To coordinate and provide training/C.E. opportunities.*
 - *Provide support and assistance for local EMS systems within their region.*

MEDICAL - LEGAL

1. Explain the “Duty to Act” concept and identify at least two (2) situations or individuals where Duty to Act applies:
 - *Duty to Act is the obligation to respond when called.*
 - *All public entities (i.e. a municipal fire dept.) have a duty to act.*
 - *Volunteer ambulances who have ambulance certification (registered with the Public Regulatory Commission) must respond or have pre-arranged mutual aid agreements for response.*
 - *All on-duty staff (volunteer or paid)*

2. Define “Standard of Care” and identify at least three (3) elements that may set a Standard of Care:
 - *Standard of Care is that level of care identified as common and accepted by law.*
 - *Standard of Care will differ between licensure levels.*
 - *Can be based on:*
 - *Curricula (i.e. the EMT-B course)*
 - *Laws*
 - *Peer performance (what another EMT with same training & experience would have done)*
 - *Protocols*
 - *Research*
 - *Court decisions*

3. Define “negligence” and identify the four (4) necessary elements of a successful negligence lawsuit:
 - *Negligence is conduct that fails to meet the Standard of Care through acts of commission or omission.*
 - *4 elements of a negligence suit must be proven in court:*
 1. *There was a Duty to Act on the part of the EMT.*
 2. *The EMT breached his/her Duty (Standard of Care was violated).*
 3. *Damages occurred to the patient.*
 4. *Proximate cause (the EMT’s actions or lack of action caused the damage (harm)).*

4. Briefly describe each of the following forms of consent and to which type of patient each form applies:
 - *Informed: Patient knows the nature, extent, and risks of treatment.*
 - *Implied: The EMT assumes that an unconscious patient with a life threat would consent if able (also applies to minors with life threatening conditions in absence of parents).*

5. Briefly describe who can convey (give) consent and under what circumstance to the following individuals:
 - *Minors: Parent or legal guardian must give consent (exception is emancipated or married minor). If no one is available, the EMT should still treat & transport if a life threat exists.*
 - *Incompetent Adults: EMS Act of 1993 allows the EMT to transport an incompetent adult against his/her will under the direction of Medical Control if a potential life threat is determined to exist.*
 - *Wards of the State: (i.e. prisoners) Law enforcement officials or court appointed guardian may give consent.*

6. Describe the relationship between a patient’s competence and their right to accept or reject care:
 - *In order for an individual to refuse care, they must have “decision making ability” or be “competent”. If the patient does not have “decision making ability” and is in danger of permanent disability or death, the patient can be taken to a medical facility against their will under the direction of Medical Control (online or offline). 41st Legislature, 1st Session, Laws 1993, Chapter 161.*
 - *Persons impaired by alcohol, drugs, or developmental disorders may not understand the options presented to them and should be treated and transported as necessary for their health and safety.*

7. Define “abandonment” and briefly describe at least two (2) examples of abandonment:
- *Abandonment occurs when a patient is left with lesser care than necessary after initial treatment by a higher trained EMT.*
 - *Ex. include: leaving the scene with no intention of returning after beginning patient care, turning the patient over to a provider with less training when the patient’s care dictates otherwise, and leaving a patient in the ER without giving report to make sure someone knows the patient has been delivered.*
8. Explain the purpose of the Good Samaritan Statute and to whom it applies:
- *To provide protection from civil liability for acts of commission or omission during patient care.*
 - *Applies to off-duty medical personnel outside a medical facility as well as to lay-persons.*
 - ***NOTE:*** *The Good Samaritan Statute does not prevent the EMT or layperson from being sued or provide an attorney or money for an attorney.*
9. Give two (2) examples of actions which would negate the protection of the Good Samaritan Statute:
- *The provider accepts compensation for the aid given.*
 - *The provider is a medical person who is on-duty.*
10. List at least three (3) incidents that you might encounter as an EMT that you would be required by law to report to the proper authorities:
- *Abuse or neglect of children/elderly*
 - *Unattended deaths*
 - *Felony/Assault*
 - *Animal bites*
 - *Communicable diseases*
- NOTE:*** *Rape is not required by law to be reported unless the victim so desires or the victim is under 18 years of age.*
11. Explain the purpose of the Tort Claims Act:
- *It acts as a State insurance/malpractice insurance policy for public employees.*
 - *It will provide defense and money for legal counsel and will pay judgements up to \$750K. However, if the EMT is found guilty of negligence, the State may sue the EMT to recover costs.*

12. Define the following terms and give an example of a situation where these charges could be brought against an EMT rendering care:
- *Assault: The EMT places the patient in fear of impending battery, i.e. the EMT states "We're taking you to the hospital whether you like it or not".*
 - *Battery: Battery is intentional, unconsented touching resulting in physical or emotional harm. An example might be an EMT assessing, treating and transporting a competent adult (without life threats) against his/her will.*
 - *False Imprisonment: For EMT's, this constitutes transporting a competent patient against his/her will.*
 - *Slander: An untruthful statement that damages someone's reputation. An example would be referring to a patient as a "drunk".*
 - *Libel: Written untruthful statements that damage someone's reputation, such as referring to a patient as a "drunk" or a "junkie" in a written report.*
13. Explain the importance, necessity and legality of patient confidentiality:
- *A patient trusts an EMT with their life. Information given in the evaluation and subsequent assessments must be kept in confidence and only released to hospital personnel and Q/A Q/I as required for patient care reviews. While there is no doctor/patient privilege in EMS, patients expect us to act professionally and the laws regarding patient confidentiality apply to EMS as well as to the rest of the medical professionals.*
14. Explain the concept of medical control and how it relates to an EMT:
- *Medical control is physician direction of patient care via written protocols (offline) or radio communication (online). Medical control can be the Medical Director of an EMS service who writes the protocols for that service and oversees quality assurance, and medical control can be the physician (usually the attending MD) who directs patient care, gives orders and answer questions via the radio at the receiving hospital. All EMT's who work for a Certified ambulance service are under the direction of medical control as they perform patient care.*
15. Identify the importance of written documentation:
- *Accurate documentation is important for several reasons. Not only does the written patient report become a legal document in the event of a malpractice or negligence lawsuit, but the patient report is also an important part of the quality assurance review process for the Service and the Medical Director, as well as being a record of the prehospital assessment and treatment that is relayed to the hospital.*

16. Explain the purpose of the Emergency Transportation Statute:
- *The purpose of the Emergency Transportation Statute is to allow EMT's to transport a patient against his/her will to a medical facility. The statute is part of the EMS Act of 1993, and is located in Section 24-10B-9.1.*
17. Describe the conditions that must be met before an EMT can transport a patient against his/her will:
1. *The patient is suffering from an injury or illness that is likely to result in either disability or death.*
 2. *The patient must be judged incapable of making an informed decision.*
 3. *There MUST be a protocol in place for this situation, it is a situation that MUST be made through Medical Control, either online or offline.*
 4. *Transportation is limited to an appropriate health care facility (i.e. if the patient needs a trauma surgeon, transport to a rural health clinic would not be considered an appropriate health care facility).*
18. List the two (2) purposes of DNR orders in the State of New Mexico:
- *To withhold care*
 - *To terminate care*
19. What type of patient is DNR designed to address:
- *Patient in cardiac arrest*
 - *Patient in respiratory arrest*
20. List five (5) resuscitative measures that can be withheld in patients who have New Mexico DNR orders:
- *External chest compressions*
 - *Defibrillation*
 - *Administration of cardiac medications*
 - *Intubation*
 - *Artificial Respiration*
21. List four (4) treatment strategies that are not affected by New Mexico DNR orders:
- *Oxygen administration*
 - *Control of bleeding*
 - *Comfort care*
 - *Suctioning*
 - *Administration of analgesic*
22. List four (4) settings in which New Mexico DNR orders apply:
- *In patient's homes.*
 - *In long term care facilities.*
 - *During transport to or from a health care facility.*
 - *Other locations outside of acute care hospitals.*

ADMINISTRATION OF MEDICATIONS

1. Describe the legalities and responsibilities of the EMT-Basic with respect to administering a patient's own prescribed life-saving medications, such as: Nitroglycerin, Inhalation devices, Epinephrine.

- *According to the rules and regulations, EMT-B's are legally allowed to administer a patient's own prescribed medications under certain conditions. The EMT-B is allowed to **administer** a patient's own life saving medication if it is a pre-measured inhalation device or is a pre-measured Epinephrine injection or if it is Nitroglycerin with direct access to medical control and given under their direct orders.*

- *The following guidelines should be followed:*

1. *Establish that the medication is the patients and that they are for the current complaint.*
2. *Ask the patient if he/she has taken any of the medication as of yet and if so how much.*
3. *Get a list of the other medications the patient takes.*
4. *Contact Medical Control, tell the physician what information you have obtained.*
5. *If the physician agrees the patient should take the medication, you may administer the drug.*
6. *Medical control **must** be attempted to be contacted. If unable to contact and the situation is in the written protocols, the EMT-B may then be able to administer per written protocol.*

*****NOTE*** The exception to this rule is for the administration of a patient's own Nitroglycerin. Direct voice contact with medical control must be established prior to the administration of this medication.**

2. Describe the relationship of medical control and the EMT-B in the administration of authorized medications such as aspirin, acetaminophen and epinephrine.

- *The EMT-B **must** have direction from medical control in order to give medications. The orders may be in the form of voice authorization from the ER physician by phone, radio, (online) or via written protocols by the EMT's Medical Director (offline).*

PROFESSIONALISM

1. Define Profession:

- *A field of practice that:*
 - *Requires the possession of a post-secondary degree or specialized education, licensure, or certification.*
 - *Involves knowledge and competencies that are unique to the occupation.*
 - *Is formally recognized and regulated internally or externally by some type of licensure, accreditation, or certification.*

2. Define professional:

- *A practitioner in a professional field that:*
 - *Has the education, licensure or certification required by the profession.*
 - *Upholds the professional standards of the profession.*

3. Define professionalism:

- *Conducting oneself in a manner that upholds the standards of the profession.*

4. Describe the characteristics that distinguish an EMS Professional:

- *Has integrity in all professional and personal endeavors.*
- *Refuses to participate in unethical or inappropriate activities.*
- *Never uses his/ her skills in a harmful or abusive manner.*
- *Always respects the patient's legal and moral right to privacy and confidentiality.*
- *Always respects the patient's right to autonomy.*
- *Always takes responsibility for his/her actions and judgements.*
- *Pursues higher levels of EMS education and training.*
- *Always seeks to improve field performance through a continuous quality improvement process that involves critical reviews of performance and outcomes.*
- *Always makes clinical decisions on the basis of what is best for the patient.*
- *Maintains continuity of patient care, never abandoning any patient.*
- *Always provides the best possible care to every patient without regards to personal characteristics such as race, religion, ethnicity, sexual preference, or socioeconomic status.*
- *Always holds oneself, ones crew, and ones agency accountable to the highest standards of the profession.*
- *Is always reliable and trustworthy*
- *Always strives to work harmoniously with physicians, nurses, and other allied health professionals.*
- *Always dresses in a professional manner and has good personal hygiene.*

5. List possible reactions that the EMT-Basic may experience when faced with trauma, illness, death, and dying:
 - *An overwhelming feeling can be present when encountering a traumatic injury. Not only injury, but the reason for the injury may cause an EMT to be scared or frightened.*

6. Discuss the possible reactions that a family member may exhibit when confronted with death and dying:
 - *Family members can react in a variety of ways depending on their social and religious beliefs. Many will originally be saddened, then briefly calm, but commonly return to a mournful state soon after the patient is removed.*

7. State the steps in the EMT-Basic's approach to the family confronted with death and dying:
 - *Be honest and forthcoming. Don't use colloquialisms or slang as they may not understand the phrase you're using. Tell them what happened and what the result was. "Your mother is dead. Her heart stopped and we couldn't get it started again". Be ready to help your "new patients", the family. Offer clergy if available.*

8. State the possible reactions that the family of the EMT-Basic may exhibit due to their outside involvement in EMS:
 - *An EMT's family may feel they are being ignored or replaced. Long hours on a busy ambulance make it difficult to make phone calls and visit with family.*

9. Discuss the considerations of the EMT-Basic in issues of organ retrieval:
 - *Organ retrieval in the emergency setting can be confusing. If a patient requested to be an organ donor, or the family is requesting it, there is a need to maintain oxygenation and artificial circulation as long as possible and transport to an appropriate facility. Although the person has died, the organs should be given every chance to save another life. Contact your local service director for details on your department's protocols for organ retrieval.*

10. Define ethics:

- *Ethics are personal and professional standards of conduct and moral judgments that guide ones decision making and behaviors.*

11. Describe what is meant by an ethical dilemma:

- *An ethical dilemma occurs when one is confronted with a choice in which any decision that is made is difficult, leads to unpleasant consequences, or compromises one's self or members of one's team or agency.*

12. Define Quality Improvement and discuss the EMT-Basic's role in the process:

- *Quality Improvement is a process in which reports are reviewed to insure that EMT's are following procedure and that proper care is being administered. If a deficiency is found by Q/I, then training can be performed to correct the problem before it happens again. As an EMT, you need to accurately document all patient care and review your protocols often to be sure you are acting in the best interest of your patients.*

CRITICAL INCIDENT STRESS

1. Define "critical incident stress" and list three (3) situations that might cause critical incident stress to occur:

- *Critical incident stress can be defined as a normal but strong emotional or stress reaction to the death and carnage that rescuers face on the job. Events that might provoke a critical incident stress reaction in an EMT might be: Death of a patient after a prolonged extrication, child abuse, death of a co-worker in the line of duty, mass casualty incidents, death of a child/infant.*

2. List at least three (3) SxS of a stress reaction:

- *Inability to concentrate*
- *Inability to sleep*
- *Mood swings/depression*
- *Loss of appetite*
- *GI upset*
- *Shortness of breath*
- *Flashbacks*
- *Nightmares*

3. Describe the purpose of a critical incident stress debriefing and state the maximum time after a critical incident that a debriefing should occur:

- *CISM is a specialized form of crisis intervention used to reduce stress among emergency service workers.*
- *Debriefings should be conducted 24-72 hours after the incident, the sooner the better.*

4. Identify the primary source of information on the New Mexico CISM team, and the team's dispatching agency:
 - *Information: EMS Bureau*
 - *Dispatch: Santa Fe Control*

RADIO COMMUNICATIONS

1. What is the purpose of the EMSCOM system:
 - *The EMSCOM system is a statewide UHF radio network designed to allow EMS services the ability to communicate with other EMS services, receiving hospitals, and physicians in matters concerning patient care.*
2. Describe the role Santa Fe Control plays within the State EMSCOM system:
 - *Santa Fe Control is the central control point for the statewide EMSCOM system. Their dispatchers have the capability to connect EMS service radio callers to their receiving hospitals, physicians, or dispatch centers through telephone or radio patches.*
3. Describe the function of a "repeater" in the state wide radio communications system:
 - *A repeater is able to receive a signal from another radio and re-broadcast it over a larger geographical area at a higher power.*
4. How many UHF Medical channels are designated for EMS use in New Mexico, and identify the two (2) most commonly used channels:
 - *There are ten (10) UHF Medical channels specifically designated for EMS use. The most commonly used channels are Med channels 4 and 5.*
5. Describe the function of "Albuquerque Base" in EMS communications in the Albuquerque geographical area:
 - *As well as being the dispatch center for Albuquerque Ambulance, Albuquerque Base functions as the coordinating agency for all EMS radio communications in the Albuquerque area. Albuquerque Base assigns specific Med channels for use by EMS units wishing to communicate with area hospitals.*

6. List, in proper sequence, the necessary information given when contacting Santa Fe Control:
 1. *“Santa Fe Control”*
 2. *EMS unit number*
 3. *Med channel being used*
 4. *Name of repeater being used*

7. Identify who is eligible to be authorized to be licensed and/or utilize the Emergency Medical Radio Service:
 - *Persons or entities engaged in the providing of basic or advanced life support services on an ongoing basis are eligible to operate base or mobile stations for transmission of communications essential for the delivery or rendering of emergency medical services.*

8. When communicating with the hospital, list the proper sequence of a patient radio report:
 1. *“XYZ Hospital”*
 2. *EMS unit number*
 3. *Med channel being used*
 4. *Patient report given*
 - *Ideally the patient report will give all pertinent information to the receiving facility and take no more than 60–90 seconds.*

9. Identify when it is acceptable to give a patient’s name over the radio:
 - *It is only acceptable to use a patient’s name over the radio **only** when the receiving physician requests such information. It is usually only given when there is already a patient/physician relationship established and this information may help the receiving physician direct patient care.*

INJURY PREVENTION

1. Give two (2) reasons why an EMT can be an effective community activist in promoting childhood safety and injury prevention issues:
 - *See the consequences of risky behavior immediately and repeatedly.*
 - *Seen as role models, can educate and advocate for change.*
 - *Can identify hazards and individuals at risk.*
 - *Can record data on patient charts to identify problems.*
 - *Closest to the issue.*
 - *Visible, respected members of the community.*

2. Give a brief description of the size and severity of the injury problem for children in New Mexico:
 - *Injury is the #1 cause of death and disability for children in New Mexico.*
 - *New Mexico injury fatality rates rank second in the Nation.*
 - *New Mexico motor vehicle related injuries are nearly double the national average.*

3. List three (3) leading causes of death and injury to children in New Mexico:
 - *Motor vehicle related (includes occupant and pedestrian).*
 - *Homicide.*
 - *Drowning.*
 - *Fire/Burn/Falls/Firearm*

4. Describe how to use the Haddon matrix to create injury prevention strategies:
 - *Time continuum – pre-event, event, and post event*
 - *Identify factors to address – Host, Agent, and Environment*
 - *Variety of approaches – Education, Environment, Enforcement, Engineering*

5. Provide a brief description with specific strategies for preventing at least two (2) of the five leading injuries to children:
 - *See handout.*

6. List five (5) people in your community whom you could contact to form an action team to brainstorm solutions for a local childhood injury problem:

<ul style="list-style-type: none"> - <i>Parents</i> - <i>EMT's</i> - <i>Law enforcement officers</i> - <i>City employees</i> - <i>Religious leaders</i> 	<ul style="list-style-type: none"> - <i>Members of a civic organization</i> - <i>School teachers/administrators</i> - <i>Health or medical providers</i> - <i>Local business owners</i> - <i>Survivors of an injury</i>
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7. List three (3) sources where you could obtain injury data and statistics:
 - *Office of the Medical Investigator (OMI)*
 - *Bureau of Vital Records and Statistics*
 - *New Mexico Traffic Safety Bureau (TSB)*
 - *New Mexico Trauma Registry*
 - *New Mexico EMS Bureau*
 - *EMS for Children Project (EMS-C)*
 - *New Mexico SAFE KIDS Coalition*
 - *New Mexico Division of Epidemiology, Evaluation, and Planning (DEEP)*
 - *Local hospital discharge or ER records, local fire dept. and ambulance reports*

8. Identify two (2) methods for evaluating injury prevention activities:

- *Outcome*

- *Process*

Aeromedical Evacuation

Indications for Helicopter Utilization

Serious or critically ill or injured patients with:

- prolonged transport time
- lengthy ground transport
- extrication
- poor road conditions
- limited access to patient
- heavy traffic conditions
- Advanced Life Support required / not available on scene
- additional equipment, such as external pacer
- Multiple Casualty Incidents

As EMS agencies and counties have varying protocols, these may be altered in your area. Check with your medical director.

Requesting aeromedical transportation

Requests for Aeromedical Transportation will be accepted from:

- Law enforcement
- Firefighters
- EMS providers
- Physicians, nurses, other hospital personnel
- Search and Rescue Field Coordinators
- Others, with prior approval

Requests for Helicopter Response may be made through Santa Fe Control by:

- Any EMS medical radio channel monitored by Santa Fe Control

Information necessary when calling:

- Location
- Ground unit
- Contact frequency of ground unit
- Nature of situation
- Number of patients to be flown

Establishing a safe landing zone

Once the aircraft is en route:

- A landing zone for the helicopter needs to be designated
- It should be far enough from the patient (s) so the wind and noise caused by the helicopter will not affect them
- It should be a minimum of 100 x 100 feet
- Fairly flat
- No overhead obstacles such as wires
- Any debris, such as a long board, piece of tin, plastic bag, etc. should be moved so that they will not be picked up in the rotor wash created by the aircraft
- Note obstacles around the landing zone such as wires, fences, trees, etc.
- If nighttime, the landing zone should be lit using headlights, road flares, strobes, etc. to designate the touchdown zone for the helicopter. If headlights are used, they should shine into the wind across the landing zone.
- Spotlights on vehicles can be aimed at the top of obstacles around the landing zone to help flight crew identify them.
- **NO LIGHTS SHOULD BE POSITIONED WHERE THEY WILL SHINE INTO THE COCKPIT OF THE AIRCRAFT.**
- Designate personnel to secure the landing zone when the helicopter arrives

When helicopter is 5 to 10 minutes from the scene:

- The flight crew will radio the requesting unit and request the following information (communications between the scene and the aircraft should be limited to one ground unit, as determined by area protocol):
 - Location of landing zone
 - Obstacles around landing zone
 - Winds (respond with the direction the winds are blowing from and if they are light, strong, etc.)
- Example Response: Land on the highway between ambulances and the patrol car. There are wires East of highway. The winds are out of the West and they are strong and gusty.
- Actions to be taken at the scene:
 - The persons who were designated to secure the landing zone should do so at this time. If the landing zone is on the highway it is a good idea to physically block the road with a vehicle.
 - Any units near the landing zone should be closed and personnel within 50 feet to the landing zone edge should protect themselves from the blowing dust and gravel which will be caused by the landing helicopter.
 - Landing zone guide, if one is used, should take her/his place

- Landing zone guide:
 - Should wear bright colored vest or garment
 - Stand facing the landing zone with his back to the wind and his arms outstretched pointing toward the landing zone
 - Once the helicopter is on short final approach, the landing zone guide should move away from the landing zone and protect him/herself from blowing debris

Once the helicopter has landed at the scene:

- MAINTAIN LANDING ZONE SECURITY
- The crew will collect the gear they need and proceed to the patient.
- No one should approach the helicopter unless he/she has a specific need to address the pilot or they are requested by the flight crew.
 - Approach only if given with permission by the pilot
 - Make radio or eye contact with the pilot before approaching. He will motion you in if it is safe
 - Approach the helicopter only from the frontal area
 - Approach only from a level or downhill position
 - Never lift anything above your head while under the rotor system
 - Depart the same way you came
- NEVER GO AROUND OR TOWARD THE TAIL OF THE HELICOPTER.
- No smoking or running within 50 feet of the helicopter
- No vehicles should be driven within 30 feet of the rotor
- No lights should be allowed to shine into the cockpit.

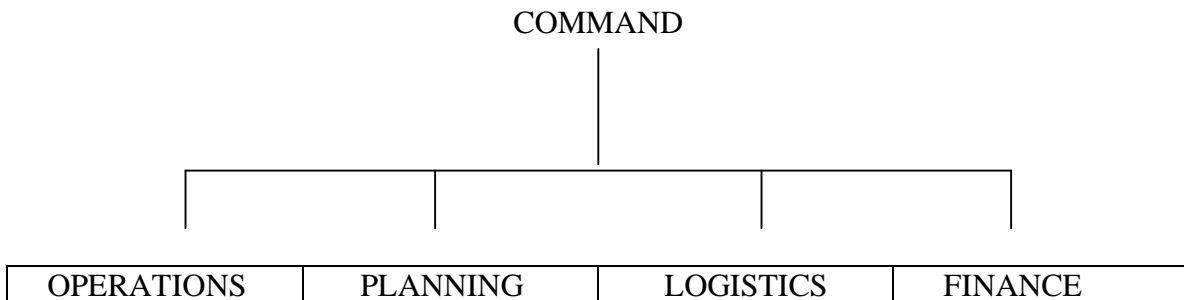
As helicopter is departing the scene:

- MAINTAIN LANDING ZONE SECURITY TILL HELICOPTER HAS DEPARTED
- Suppress any lights which may be aimed into the cockpit

INCIDENT COMMAND SYSTEM

While there are several versions of the Incident Command System (ICS), they all trace their root to fire fighting operations. Most notably, fire services in Arizona, California and the United States Forest Service created varying types of Incident Command Systems to handle mutual aid and large wildfire situations. The applications of ICS is now required by Department of Homeland Security by Presidential Directive, and is now referred to as **NIMS (National Incident Management System)**. Thus, it is important for us to know some basic principles of ICS.

Designated by its geographic location, an incident, is managed by four functional groups. These groups, under the Incident Commander (IC), are Finance, Logistics, Operations, and Planning. Each to these is called a section, commanded by a Section Chief. Also under the IC is the command staff, known as officers. These include the Public Information Officer, Liaison Officer, and the Safety Officer.



Other important principals are:

- Unified command; the ICS allows for representatives of each responding or responsible agency to assist and advise the IC, regardless of the number of jurisdictions involved
- Small span of control; each leader having no more than seven individuals to supervise. The range is 3-7 with 5 being the optimal number.
- Common terminology; each level of the ICS is designated equally and resources are pre-determined by title
- Organized mobilization and de-mobilization; newly arriving resources are assigned to staging until needed, then assigned to task forces or other functional groups
- Common communications; a limited number of radios are used and are designated by position rather than number; no radio codes are used, relying instead on plain English, known as clear text.

- Clearly defined roles and responsibilities; each group and leader has a specific job to perform as explained by pre-written position descriptions which also detail the specific chain-of-command for that position
- Flexibility; the ICS is modular and allows growth or reduction as the size of the incident changes.

One of the confusing items about the ICS for EMS providers is which section is responsible for medical care. When medical care is the main mission, as in Multiple Casualty Incident (MCI), medicine is usually under “Operations”. In a support capacity such as at a fire, medicine is usually under “Logistics”.

APPLICATION OF TRAFFIC LAWS

66-7-6 Authorized emergency vehicles.

- A. The driver of an authorized emergency vehicle, when responding to an emergency call or when in pursuit of an actual or suspected violator of the law or when responding to but not upon returning from a fire alarm, may exercise the privileges set fourth on this section subject to the conditions stated. The director and the chief of the New Mexico state police may designate emergency vehicles and revoke the designation. When vehicles are so designated, they are authorized emergency vehicles.
- B. The driver of an authorized emergency vehicle may:
- (1) park or stand, irrespective of the provisions of the Motor Vehicle Code [66-1-1 to 66-8-104 NMSA 1978];
 - (2) proceed past a red or stop signal or stop sign, but only after slowing down as necessary for safe operation;
 - (3) exceed the maximum speed limits so long as he does not endanger life or property;
 - (4) disregard regulations regarding direction of movement or turning in specified directions.
- C. The exemptions granted to an authorized emergency vehicle apply only when the driver of the vehicle, while in motion, sounds audible signal by bell, siren or exhaust whistle as reasonably necessary, and when the vehicle is equipped with at least one lighted lamp displaying a red light visible under normal atmospheric conditions from a distance of five hundred feet to the front of the vehicle, except that an authorized emergency vehicle operated as a police vehicle need not be equipped with or display a red light visible from in front of the vehicle
- D. This section does not relieve the driver of an authorized emergency vehicle from the duty to drive with due regard for the safety of all persons, nor does it protect the driver from the consequences of his reckless disregard for the safety of others.

A police vehicle showing red lights or sounding a siren is an emergency vehicle and all approaching or pursued vehicles are required to stop. 1959-60 Op. Att'y Gen. No. 59-20

66-7-332 Operation of vehicles on approach of authorized emergency vehicles.

- A. Upon the immediate approach of an authorized emergency vehicle equipped with at least one lighted lamp exhibiting a red light visible under normal atmospheric conditions from a distance of five hundred feet to the front of such vehicle other than a police vehicle when operated as an authorized emergency vehicle, and when the driver is giving audible signal by siren, exhaust whistle or bell, the driver of every

other vehicle must yield the right-of-way and shall immediately drive to a position parallel to, and as close as possible to, the right hand edge or curb of the roadway clear of any intersection and shall stop and remain in such a position, until the authorized emergency vehicle has passed, except when otherwise directed by a police officer.

- B. This section shall not operate to relive the driver of an authorized emergency vehicle from the duty to drive with due regard for the safety of all persons using the highway.

(Copied from the Application of Traffic Laws- 66-7-6. Authorized emergency vehicles)

WEAPONS OF MASS DESTRUCTION (WMD) & BIOTERRORISM

1. List 5 of the biological agents that could be used as weapons:

Anthrax, botulinum toxin (which causes botulism), plague, smallpox, tularemia, and the viral hemorrhagic fevers (such as filoviruses and arenaviruses) are of primary concern. Ricin is also considered a biologic agent since it originates from the Castor Bean Plant.

2. Briefly explain how biological weapons can be delivered, the general SxS of a biological agent contamination, and the general treatment and/or response for such an exposure:

Biological weapons can be aerosolized and put into food or water supplies. The symptoms can take weeks or months to develop, and can include flu-like symptoms, skin ulcers and rashes, exhaustion, pneumonia, weight loss, stomach pain, diarrhea, respiratory failure and shock. It usually takes a few days for it to be realized that a biological attack has taken place, so identifying an attack is difficult. If the EMS Provider suspects a biological weapon contamination, then scene safety, including particular attention to Universal Precautions, will be of paramount importance. The treatment of the patient will likely include the standard care of the ABC's and facilitating further treatment and transport. Other treatments and responses by other public health personnel may include vaccines, antidotes, antibiotics, and in some cases, pumping of the stomach.

3. List 5 chemical and/or nerve agents that could be used as weapons, and briefly describe the SxS of each type of agent:

Chemical agents are classified according to the symptoms they cause, such as blistering agents, blood agents, and nerve agents. Some general signs of an unknown type chemical attack might include numerous dead insects and animals in the area; mass human casualties soon after an attack; numerous surfaces having oily droplets or film on them; discolored or withered trees, bushes, shrubs, or lawns; and unexplained odors ranging from fruity to flowery, sharp or pungent, garlic or horseradish smells, bitter almond or peach odors, and a smell of hay.

Here is more specific information on each agent:

Blistering agents (also known as vesicants) would include chemicals such as mustard gas, mustard-lewisite mixtures, and nitrogen mustard. These cause burning and blistering of the eyes and skin, coughing, and severe respiratory distress if inhaled.

Blood agents include cyanogens, chloride and hydrogen chloride. The patient may report the odor of burnt almonds. These agents rapidly cause seizures, respiratory arrest, and cardiac arrest.

Choking agents include chlorine, diphosgene, and phosgene gases. There may be the smell similar to a swimming pool odor in the presence of chlorine. In the presence of phosgene, an odor similar to the smell of newly mowed grass or hay has been reported. These cause eye and airway irritation, with coughing, hoarseness and dyspnea, chest tightness, and pulmonary edema.

Nerve agents include Tabun, Sarin, Soman (including thickened Soman), and VX. These act on all parts of the nervous system, and are similar to pesticides in how they function. These cause pinpoint pupils, runny noses, difficulty breathing, and in severe exposures, seizures and convulsions.

4. Describe the response and treatment for a chemical agent attack:

For blistering agents (vesicants) such as mustard gas, the best response includes protective clothing and gas masks that the first responder will likely not have. Avoiding vapor clouds, mists, or unknown liquids is best, and leaving the area of contamination as quickly as possible is advisable as well. If the first responder is dealing with patients, follow the decontamination procedures set forth by your service, support the patient's ABC's, dress any large areas of blisters, and evacuate the patient to healthcare facilities prepared for such an exposure.

For the blood agents, again, protective suits and masks are the best response. There are cyanide antidote kits, but they are not approved for use by EMS providers at this time. Should they receive approval, or otherwise become available for your use in this situation, administer them appropriately following the guidelines of your service and medical director. Follow your service's decontamination procedures, support the patient's ABC's and evacuate them rapidly.

Choking agents would necessitate the presence of protective gear as well, in addition to evacuating the area of contamination. If confronted with patients, the first responder would follow their service's decontamination guidelines, support the patient's ABC's and evacuate the patient to a proper healthcare facility.

Nerve agents are best dealt with utilizing protective suits and gas masks as are all chemical agents. The New Mexico Medical Direction Committee

has approved a device called the Nerve Agent Antidote Kit (NAAK) to be carried and used by all levels of EMS Providers. The Kit contains two auto-injectors, one containing a drug called Atropine (2 mg), and the other containing a drug called Pralidoxime Chloride (600 mg). Pralidoxime Chloride is nearly universally referred to as "2-Pam". These drugs are antidotes for patients or providers who have been exposed to various nerve agents. It is intended primarily for providers own use.

Should a patient be experiencing SxS of nerve agent exposure (runny nose, watery eyes, weakness, SOB, pinpoint pupils, twitchy muscles, sweating, nausea & vomiting, and even including seizures and coma), the EMS provider should administer both of the drugs in the antidote kit per the guidelines provided by the provider's service. Sample guidelines are provided here as well. If the EMS provider is experiencing these SxS, the kit may be self-administered. The patient should then be properly decontaminated, their ABC's supported, and evacuated.

It is recommended that the Nerve Agent Antidote Kit be utilized only in the event of an intentional nerve agent attack. However, it is possible for the drugs contained in the kit to be helpful in other non-terrorist or military related situations, such as certain pesticide exposures. It will be up to your medical director to determine the appropriateness of the use of the kit in these situations.

5. List two additional weapons that could be used in a terrorist or military attack, and general procedures for dealing with these devices and the ensuing casualties:

Nuclear weapons, incendiary devices, and "dirty bombs" are all considered weapons that could possibly be used by terrorist organization. (a dirty bomb is simply the use of a smaller device, such as a small conventional bomb or artillery shell, to disperse radioactive material). Additionally, it is feasible that an attack on a nuclear power plant, or infiltrating a plant and venting or overloading a reactor, could also deliver lethal radiation.

If there were a threat of a nuclear or radiological attack, people living around potential targets may be advised to evacuate, ideally to underground blast and fallout shelters. If there is a nuclear blast, do not look at the fireball, and seek cover, preferably underground. Otherwise, take cover behind anything, lie flat on the ground, and cover your head. Fallout may not arrive for about 20 minutes, but can be carried by the wind for hundreds of miles.

If people don't die from the initial impact of the blast, the EMS provider may deal with patients experiencing effects of conventional burn and blast injuries as well as radiation exposure. SxS of radiation exposure may include vomiting, headache, fatigue, weakness, thermal burn-like effects, secondary infections, recurring bleeding, and hair loss. Patients should be dealt with utilizing appropriate protective gear, radioactive decontamination procedures, support of the patients' ABC's, and evacuation to appropriate health care facilities.

Regarding conventional incendiary bombs and devices, it should be remembered that many terrorist organizations and individuals are prone to utilize secondary blast devices in order to kill or injure EMS providers that arrive after an initial blast. Scene safety is of paramount concern. Conventional incendiary devices and bombs will cause burns and blast injuries, and should be dealt with utilizing standard MCI protocols and treatment of these types of injuries.