Utah County
EMS Administrative
Operating Guidelines

2024

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Section One
Professional Practice

Introduction - What is "Professional Practice"

EMS is a practice of medicine. *A unique practice at that…*

Every EMS System is a complex marriage between sound science and the appropriate delivery of that science to a patient in a compassionate, operationally sound manner. The Professional Practice section of the Utah State EMS System Clinical Operating Guidelines (COG) defines those areas of the Practice that support the delivery of sound science to the ill and injured patients.

The concepts and specific issues discussed in the Professional Practice section describe *how* we deliver clinical medicine to our patients and the "rules" of membership in this System.

System Design

Our "EMS System" is comprised of multiple agencies, all with multiple individuals with varying roles, experience, operational responsibilities and credential levels. This includes a diverse group of healthcare professionals including communications, first responders and transport providers. By design, the practice is integrated with the Hospital Networks, and individual emergency and specialty physicians in the community. Together, this "System" provides the basis for seamless delivery of care to acutely ill or injured patients in our community. Our collaborative approach maximizes the potential outcome of the patients we are entrusted to serve.

While there are many different agencies and individuals participating in care throughout our System (all with separate command structures, governing boards and funding sources), there are a set of "rules", or parameters, that guide our continued growth and change. These parameters can be considered the "roadmap" of the big picture to our System.

- All medical care within the EMS System should be provided according to the current Clinical Operating Guidelines (COG).
- All individuals providing medical care, as part of the EMS System will be credentialed according to the Credentialing requirements of the Utah Department of Public Safety, Bureau of Emergency Medical Services.
- Specific medical care in the system will be delivered by appropriately credentialed AND (if applicable) Qualified individuals within the environment specified in the COG.
- Individuals holding current qualifications may deliver specialty care as defined by the COG when appropriate equipment and conditions exist (Qualifications follow the individual).
- All individuals providing medical care, as part of the EMS System will be currently certified by the Utah Department of Health, Bureau of Emergency Medical Services, or licensed by the Utah Division of Occupational and Professional Licensing.

- A non-certified or licensed individual that is trained in an approved CPR/AED Course may respond to and deliver CPR and rapid defibrillation on cardiac arrest patients.
- All organizations providing medical care as part of the EMS System will comply with Utah Department Public Safety, Bureau of Emergency Medical Services requirements for provider and service licensure, designation or certification as outlined in the Utah Emergency Medical Services Act and Utah State EMS Administrative Rules.
- All organizations will meet the minimum standards for equipment and personnel as outlined in the Utah Emergency Medical Services Act and Utah State EMS Administrative Rules.
- During unusual or extreme conditions or circumstances, the above criteria may be modified to best meet the needs of the EMS System in providing quality care.
- Providers should know that any medication that has been officially approved under rule may be used in any appropriate delivery mechanism with the appropriate training, adjustment in dosing requirements and approval by the medical director.
- Generally, the guidelines are intended to follow current nationally established certification programs (e.g. ACLS, PALS, NALS and other such certifications). Whenever there is a conflict, the current national guidelines should be followed or call the OLMC for clarification. Medical directors should ensure proper training under these programs to allow the providers to provide the most up to date care.

Medical Oversight of the System

Oversight of medical care provided within the System is accomplished in several ways:

The Medical Directors

By Utah Department Public Safety, Bureau of Emergency Medical Services (UTBEMS) regulation, each individual agency Medical Director is responsible for establishing the clinical care requirements for their system.

The Utah State EMS Committee

The EMS committee is a representative group of providers from the system who review Utah State business and clinical considerations on a quarterly basis. This group includes representatives from EMS agencies, hospitals, medical directors, dispatch agencies, and air medical transport services (AMTS) appointed by the Governor of Utah.

Bureau of Emergency Medical Services (BEMS)

BEMS is a division of the Utah State Department of Public Safety that provides direction and certification to all EMS agencies in the state. BEMS includes a state medical director who is responsible for providing physician insight in the policymaking and direction of BEMS.

Credentialing

Each Credential level builds on all previous Credential levels (i.e., AEMT is responsible for all EMT- basic provider & AEMT skills). The skill levels and execution of the skills are defined by the Bureau of EMS for the State of Utah and contained in rule. The Utah State Bureau of EMS controls EMT certification. Certification requires the understanding and ability to perform the skills taught for each level. Providers are responsible to know what skills they can and cannot perform. BEMS is the final authority on the list of skills each level of certification will need to learn and maintain. Any variances to the current list must be approved by BEMS and overseen by the medical director for the service.

Logistics of Patient Care On-Scene

Incident Command Structure

An Incident Command Structure (ICS) will be established for all scenes. The Fire Chief, Chief Officer, or Captain for the jurisdiction in which the scene starts will assume Incident Command. If police or medical personnel have arrived first and implemented an ICS, they will turn over the command to the jurisdictional command upon their arrival. Police will have command of security for the scene. Fire will have command for fire and personnel safety, as the scene expands a Unified Command will be established as necessary. Medical authority is described in the next section.

Authority for Patient Care/On-Scene Healthcare Providers

Credentialed Providers within the Utah State EMS System are responsible for providing patient care in accordance with the Clinical Operating Guidelines. Emphasis should always be placed on providing appropriate, safe, and patient-focused care. On occasion, there may be disagreement regarding how that care should be provided. Similarly, there may be operational interventions that impact clinical care of patients. While questions regarding care are a healthy part of any practice of medicine, delays or on-scene conflicts in emergency care are not. In ANY disagreement regarding patient care or issues that impact patient care on a scene, decisions must always focus on what is in the best interest of the patient and can be delivered safely by the providers on the scene.

In the event of conflicting approaches to providing patient care, extraction, or transport, it is the responsibility of the on-scene credentialed providers to reach consensus as to the most appropriate care for the patient(s). In the event of unresolved conflict, the senior credentialed provider on-scene has final authority for decisions regarding patient care. Seniority of credentials (in ascending order) is:

- Emergency Medical Technician
- Advanced Emergency Medical Technician
- Paramedic
- Paramedic/Flight Nurse on the Transporting Unit
- On-scene Physician given authority by the on-line Medical Control Physician
- On-Line Medical Control Physician
- EMS System Medical Director or designee on scene

All significant or unresolved conflicts regarding on-scene management of patients should be reported via the appropriate chain of command and will be retrospectively reviewed by the appropriate medical director or their designee.

Cancellation or Alteration of a Response

Resources will be initially dispatched to a 9-1-1 request for service based on the currently approved Medical Priority Dispatch (MPD) standards. During the course of providing care in the System, only the highest responding ground credentialed provider may modify or cancel the response mode of any other system provider. If cancelled, responders may, at their discretion and with legitimate cause, reduce their response to non-lights and sirens (“Code 1”) and continue to the scene in order to provide other assistance deemed appropriate by their organization or department. This does not apply to responses for responsibilities other than patient care (scene safety, fluids, etc.).

Transfer of Care to a Provider of Lesser Credentialing

Occasionally, providers are presented with multiple patients, limited resources, or patient conditions requiring early rapid transport in order to maximize potential outcome (for example one critically injured patient and multiple non-injured occupants in a motor-vehicle crash). The ultimate decision of whether or not to initiate transport of a critically ill or injured patient while awaiting additional resources rests with the on-scene provider with the most advanced level of system credentials. When making these determinations, the following applies:

- Leaving patients on-scene should not be a routine procedure. It is to be considered only when a patient requires immediate transport in order to maximize potential outcome.
- The transport provider may transfer patient care to a provider of lesser credentialing while awaiting additional transport resources when transfer of established care is not beyond the scope and/or training of the provider(s) assuming care (i.e., an intubated patient may not be left with an EMT credentialed provider).
- All patients should be accounted for, triaged, and appropriate additional resources requested prior to transport of the critically injured patient.
- No patient requiring immediate advanced stabilization (i.e., pleural decompression, intubation, defibrillation etc.) is to be left on-scene awaiting additional resources unless an appropriately credentialed and equipped provider is present and able to perform such care.
- Mass and multi-casualty incident transport decisions will be made by the On-scene Command Structure.

First Responder Accompanying Ambulance Transport of Critically Injured/Ill Patients

When requested, first responders will accompany transport Providers during transport of critically ill/injured patients. If first responders are unavailable to accompany a patient in an ambulance in need of additional Providers, an additional resource should be requested (first responders from another organization, an EMS supervisor, or other available resources) to accompany the patient to the hospital. On occasion, a rendezvous with additional resources may be preferable and should be considered.

On-Line Medical Consultation or Control (OLMC)

On occasion, it will be necessary and desirable to contact a physician for assistance with patient care decisions or to approve specific clinical care. This may include discussing care with the patient's personal physician or requesting guidance from OLMC. If contact with OLMC is required, it should be requested from the facility that the patient is being transported to (or is requesting in cases of conflict), or with the facility responsible for receiving specific patient populations (for example – trauma, critical pediatrics, sexual assault, etc.). To ensure continuity of care, once OLMC has been established, the provider will follow the physician's medical orders, within the scope of the Provider's Credentials. Orders from OLMC or a patient's personal physician should be conveyed via appropriate communications over a designated line and fully documented on the Patient Care Record. Unless an alternate facility is approved by OLMC, the patient should be transported to the contacted facility.

Interacting with On-Scene Healthcare Professionals

It is our collective desire to work collaboratively with <u>appropriately identified</u> (i.e. The provider must have documentation readily available or be known by the Provider on-scene) healthcare professionals on the

scene of a medical emergency to enhance patient care. It is also our collective responsibility to assure that our patients only receive care from appropriate, acceptable practitioners.

In Utah, control at the scene of a medical emergency shall be the responsibility of the individual in attendance who is most appropriately trained and knowledgeable in providing prehospital emergency stabilization and transport. Utah BEMS has specific rules pertaining to the authority of a physician to order specific patient care interventions on the scene of a medical call. There are two different types of situations regarding on-scene physicians. One is when the patient's own physician is on-scene ("**Patient's Personal Physician**"). The other is when a physician that does not have an established relationship with the patient is on-scene ("**Intervener Physician**").

Physician On-Scene/General Guidelines

The Credentialed Provider on-scene is responsible for management of the patient(s) and acts as the agent of the Medical Director or OLMC. In order to participate in care physicians must present a valid State of Utah Physician & Surgeon License (all physicians are issued a wallet card) or be personally recognized as a physician by the Provider.

Patient's Personal Physician On-Scene

If the patient's personal physician is present and assumes care, the Credentialed Provider should defer to the orders of the patient's personal physician.

The patient's personal physician must document his or her interventions and/or orders on the EMS Patient Care Record.

OLMC should be notified of the participation of the patient's personal physician from the scene.

If there is a disagreement between the patient's personal physician and the System COG, the physician shall be placed in direct communication with OLMC. If the patient's personal physician and the on-line physician disagree on treatment, the patient's personal physician must either continue to provide direct patient care and accompany the patient to the hospital or must defer all remaining care to the on-line physician.

Intervener Physician On-Scene

If an intervener physician is present at the scene, has been satisfactorily identified as a licensed physician (by showing a valid copy of his/her Utah Medical License), and expressed willingness to assume responsibility for care of the patient, OLMC should be contacted. The on-line physician has the option to:

- manage the case exclusively
- work with the intervener physician
- allow the intervener physician to assume complete responsibility for the patient.
  If there is a disagreement between the intervener physician and OLMC, the Provider will take direction from the on-line physician and place the intervener physician in contact with the on-line physician.

The intervener physician must document his or her interventions and/or orders on the EMS Patient Care Record.

The decision of the intervener physician to not accompany the patient to the hospital shall be made with the approval of the on-line physician.

Medical orders are not accepted by any non-physician health care Providers unless specifically approved by OLMC.

Applicability of COG

One of the toughest parts of any medical practice is determining *when* specific guidelines apply and in *what circumstances* they apply. All providers should make contact with their receiving hospital as soon as possible during the course of care provided to a patient. The following definitions apply to specific circumstances commonly encountered in our System. As in all patient care guidelines, provider judgment, experience and evaluation of the circumstances are essential for us to make the most appropriate decisions as consistently as possible.

Definition of a "Patient"

With the availability of cell phones and the increased number of requests for emergency medical care by individuals other than patients themselves (for example, a passer-by that calls 9-1-1 for a motor vehicle crash where there are no injuries, complaints or indication of injury, and EMS is dispatched to the scene), it is necessary to define a patient in our System. Anyone that fits the definition of a patient must be properly evaluated and/or appropriate treatment options taken (including an informed refusal if the competent patient absolutely does not wish medical care or transport despite our suggestions that they do). Similarly, anyone that does not fit the definition of a patient as defined by our System does not require an evaluation or completion of a Patient Care Record. If there is ever any doubt, an individual should be deemed a patient and appropriate evaluation should take place.

It is important to remember that the definition of a patient requires the input of both the individual and the Provider, and an assessment of the circumstances that led to the 9-1-1 call. The definition of a patient is a separate question from whether or not the patient gets evaluated or treated.

The definition of a patient is any human being that:

- Has a complaint suggestive of potential illness or injury
- Requests evaluation for potential illness or injury
- Has obvious evidence of illness or injury
- Has experienced an acute event that could reasonably lead to illness or injury
- Is in a circumstance or situation that could reasonably lead to illness or injury

All individuals meeting any of the above criteria are considered "patients" in the Utah. These criteria are intended to be considered in the widest sense. If there are any questions or doubts, the individual should be considered a patient.
To assist in further distinguishing our patients, the following should apply:

The definition of an adult is:

- One who has reached the age of legal consent and refusal for medical treatment. In Utah, this is 18 years of age.

The definition of a minor is:

- One who has not yet reached the age of consent and refusal for purposes of medical treatment. Generally, minors can neither consent to, nor refuse, medical treatment. Some minors, however, are considered to be *emancipated*, which means either that a court of law has removed the minor's disability to make legally binding decisions or, that as a practical matter, they are living apart from their parents and functioning on their own as adults.

The definition of a pediatric patient is:

- Any patient younger than 15 years of age. "Younger than 15 years of age" applies specifically to Patient Care Guidelines and disposition decisions.

Patient Consent and Refusal

The United States Supreme Court has recognized that a "person has a constitutionally protected liberty interest in refusing unwanted medical treatment" even if refusal could result in death. Although courts protect a patient's rights to refuse care, "preservation of life, prevention of suicide, maintenance of the ethical integrity of the medical profession, and protection of innocent third parties" may also be considered when evaluating a patient's wish to refuse treatment. Each case must be examined individually.

In providing medical care, the universal goal is to act in the best interest of the patient. This goal is based on the principle of autonomy, which allows patients to decide what is best for them. A patient's best interest may be served by providing leading-edge medical treatment, or it may be served simply by honoring a patient's refusal of care. Although complicated issues can arise when providers and patients disagree, the best policy is to provide adequate information to the patient, allow time for ample discussion, and document the medical record meticulously.

With certain exceptions (see Implied Consent), all adult patients, and select minor patients, have a right to consent to medical evaluation and/or treatment, or to refuse medical evaluation and/or treatment if they have the legal competency and present mental capacity to do so. There are three specific forms of consent that apply to EMS: Informed Consent, Implied Consent, and Substituted Consent.

Informed Consent

Informed consent is more than legality. It is a moral responsibility on the part of the provider. It is based on the recognition of individual autonomy, dignity, and the present mental capacity for self-determination. With informed consent, the patient is aware of, and understands, the risk(s) of any care provided, procedures performed, medications administered, and the consequences of refusing treatment and/or transport. They should also be aware of the options available to them if they choose not to accept our evaluation and/or treatment. Informed consent is verified with an appropriate signature of the patient, parent and/or guardian on scene.

Implied Consent

In potentially life-threatening emergency situations when a patient, parent and/or guardian cannot give consent; consent for treatment is not required. The law presumes that if the individual with a real or potential life-threatening injury or illness were able to appropriately communicate, he/she would consent to emergency treatment. In life-threatening emergency situations, consent for emergency care <u>is not</u> required if the individual is:

- Unable to communicate or unconscious because of an injury, accident, or illness and is suffering from what reasonably appears to be a life-threatening injury or illness
  OR
- Suffering from impaired present mental capacity due to any source
  OR
- A minor who is suffering from what appears to be a life-threatening injury or illness and whose parents, managing or possessory conservator (legal custody but not living with them), or guardian is not present.

Substituted Consent

This is the situation in which a person consents for the patient, as in minors, incapacitated patients, incarcerated patients, and those determined by courts to be legally incompetent. The fundamental issue in informed, substituted consent is a question of how decisions should be made for those who are not fully competent to decide for themselves. Parents or guardians are entitled to provide permission because they have the legal responsibility, and in the absence of abuse or neglect, are assumed to act in the best interest of the child. However, there is a moral and ethical "need to respect the rights and autonomy of every individual, regardless of age." Providers must walk a fine line between respect for minors' autonomy, respect for parental rights, and the law. "Laws may be ethical or unethical; ethical actions may be legal or illegal."

Priority of Surrogate Decision Makers in Substituted Consent

No person of a higher priority class may direct a patient's care if a person of a higher priority class is able and willing to act as a surrogate for the patient. The following list will help you decide who is in charge on scene of making decisions for a patient who is unable to make a decision for their healthcare due to age, injury or illness:

1. Agent appointed in an Advance Health Care Directive or in a Power of Attorney for Healthcare document.
2. Court-appointed guardian who has been granted the authority to make health care decisions.
3. The adult's spouse, unless the adult is divorced or legally separated.
4. The following family members:
    a. An adult child of the patient;
    b. A competent parent;
    c. A competent adult sibling;
    d. A competent adult grandchild; or
    e. A competent grandparent.
5. If no person named above is reasonably available and able to act as a surrogate then a person 18 years or older may act as a surrogate if they:
    a. Have health care decision making capacity;
    b. Have exhibited special care and concern for the patient;
    c. Knows the patient and the patient's personal values;
    d. Is reasonably able to act as a surrogate, or;
    e. Have been designated appropriately by a surrogate of a higher priority class.

Health Care Decision Making Capacity

The issue of when a patient may or may not be considered legally competent and possessing the mental capacity to consent to, or refuse care, is complex and confusing in the emergency care environment. It is our obligation to make sure we address each of the following principles:

- When they can, patients must give us permission to evaluate and/or treat them for any presumed or real medical condition.
- We must evaluate and/or treat those patients who are unable to make a decision due to their illness, injury or circumstances.
- We must be able to determine whether a patient has the legal competency and present mental capacity to refuse evaluation and/or treatment.
- We must inform the patient of the risks and potential alternatives to refusing or accepting care and be reasonably certain they understand.
- We must honor a patient's refusal of evaluation and/or treatment if they have the legal competency and present mental capacity to refuse that evaluation and/or treatment.

Any person, eighteen (18) years of age or older, that is deemed to have the legal competency and present mental capacity to consent, may consent to, or **refuse** evaluation, treatment, and/or transportation. That person may also sign a legal document for refusal. If that person refuses to sign the refusal form, then the provider should document the refusal to sign on the form and sign the form himself or herself with at least one other witness. Any **refusal** of treatment with concern for serious pathology requires contact with the OLMC at the potential receiving facility to document the refusal and/or have the OLMC physician discuss the refusal of the patient.

If the patient has the legal competency and present mental capacity to consent and chooses to refuse further evaluation and/or treatment, the provider must, after assessing the patient's ability to understand, provide the patient with information regarding the risks of refusal, the alternative options available, and what to do if conditions persist or worsen.

A provider may be denied access to personal property (land and home) by the property owner or patient, if there is no obvious immediate life threat to a patient.

On Scene Release or Refusal by EMS personnel To Provide Transport

There are times when there are potential patients on scene who have been evaluated and there appears to be no reason to transport them to a hospital. In these cases, patients may choose to be released at the scene. Below are examples of types of patients that could be considered for release on scene or be refused transport by EMS personnel:

- Patient has been evaluated, found to have no emergency medical condition and it appears safe for them to seek care at their own discretion
- Patient has been evaluated and clearly has no condition requiring ambulance transport or rapid assessment by medical personnel but desires transport.
- Patient has been evaluated and found to have no emergency medical condition and requests transport out of the county. (Refer to Out of County Transport Guideline)

In any case, when the patient asks or is asked to be released at scene it must be insured that the patient has access to alternative transport to a facility if they choose. In addition, all denials of transport, with concern for serious pathology, must be done with notice to the OLMC at the potential receiving facility, documentation of the physician's name, and agreement of the physician prior to denial of transport. If these conditions are not met the agency has a responsibility to transport the patient.

All releases of patient need to be documented well and include the reasons why the provider allowed the patient to be released. Any concerns about patients being released at scene will be evaluated your medical director's quality assurance process. Any patient concerns about their release should be first directed to the agency's command personnel.

Special Conditions for Release After Treatment On-Scene

In general, any patient who has received treatment in the field should be transported. If the patient feels that they no longer need transport after the treatment/interventions then the provider should discuss the case with the OLMC. If the online medical control physician agrees then a provider may release a patient on scene following the treatment. The exceptions are below:

Hypoglycemia – Diabetic patients deal with hypoglycemia as a normal part of their everyday treatment of their disease. Patients requesting transport should be transported, however, hypoglycemia can be easily reversed and the patient can be released on scene if the following criteria are met:

- Patient returns to what appears to be normal mental capacity following the administration of dextrose or other medications for the treatment of hypoglycemia.
- Patient requests **not** to be transported to a hospital.
- Patient is only on insulin and not an oral diabetic medication.
- Patient denies suicidal ideations or attempt at suicide.
- Patient has family members or a responsible adult with them that can assist them as they recover from their episode of hypoglycemia.
- OLMC has been contacted and agrees with the release on scene.

Heroin Overdose - In cases of pure heroin overdose, patients should be offered ED transport, but they may refuse and be left at scene after naloxone administration if:

- An attendant and second dose of naloxone should be available for anyone left on scene.
- All oral opioid overdoses must be transported, as re-sedation will occur after naloxone administration.

Legal Competency and Present Mental Capacity to Consent or Refuse Evaluation or Treatment

It is our obligation to offer evaluation and/or treatment to *anyone* with evidence of illness or injury regardless of whether they initially choose to refuse that evaluation and/or treatment. However, a patient must have the legal competency and present mental capacity to consent before consent is deemed to be valid.

- **Mental competency:** This is a legal term, and there is a presumption of legal mental competency unless one has been declared mentally incompetent by a court of law. Legally competent individuals have a right to refuse medical treatment.
- **Present mental capacity:** This refers to one's present mental ability to understand and appreciate the nature and consequences of his/her condition and to make rational treatment decisions.

While there are criteria for legal competency and present mental capacity as defined below, there is no way to cover every potential circumstance with a written guideline. Thus, we should always provide a patient with a disposition that is safe and appropriate given the circumstances. A patient is able to make decisions for themselves if they are:

- 18 years of age or older
- Alert, able to communicate, and demonstrates appropriate cognitive skills for the circumstances of the situation
- Showing no indication of impairment by alcohol or drug use
- Showing no current evidence of suicidal ideations, suicide attempts or any indication that they may be a danger to themselves or others. Law enforcement may be requested for any of these patients that refuse care or transport.
- Showing no current evidence of bizarre/psychotic thoughts and/or behavior, or displaying behavior that is inconsistent with the circumstances of the situation
- No physical finding or evidence of illness or injury that may impair their ability to understand and evaluate their current situation (for example, a patient with a head injury and an abnormal GCS, a patient with significant hypoxia or hypotension, etc.)
- A patient that has NOT been declared legally incompetent by a court of law.
- If a patient has been declared legally incompetent, his/her court appointed guardian has the right to consent to, or refuse, evaluation, treatment, and/or transportation for the patient.

Testing Mental Status

When evaluating a patient for the ability to consent to or refuse treatment, the Provider must determine whether or not the patient possesses the present mental capacity to understand and appreciate the nature and consequences of his/her condition and to make rational treatment decisions. Such an evaluation must take into consideration not only the patient's orientation to person, place, time, and event, but also their memory function, their ability to engage in associative and abstract thinking about their condition, their ability to respond rationally to questions, and their ability to apply information given to them by the providers.

A thorough test of the patient's mental status is one that assesses o*rientation, registration (memory), attention, calculation, recall and language*. This can be accomplished fairly rapidly following these simple tests:

- **Level of Consciousness (AVPU)-** The use of appropriate "noxious stimuli" is an acceptable practice in our System to assist in determining a patient's level of consciousness. This may be in the form of ammonia inhalants or painful stimuli through the application of pressure to the fingernail bed or precordial area.
- **Awake, alert, and oriented**- Elicit specific/detailed responses when questioning your patient to determine A and A and O status
- **Registration**- Give your patient the name of 3 unrelated items (dog, pencil, ball) and ask them to repeat them and remember them because you will ask again later.
- **Attention and calculation**- ask the patient to spell a five-letter word backwards (pound, earth, space, ready, daily, etc.), or count backward from 100 subtracting 7's.
- **Recall**- Ask the patient to recall the 3 items identified in "registration."
- **Language**- State a simple phrase ("no if, ands, or buts") and ask the patient to repeat. Also test the patient's ability to respond to verbal commands by asking the patient to do something with an

object (“hold this piece of paper”, “fold this paper in half”) or identify two objects held up such as a watch or pencil.

Patients with impaired present mental capacity may be treated under *implied consent*. If the patient does not have the legal competency and present mental capacity to consent, and the principles of implied consent do not apply, OLMC must be contacted for specific orders and the patient should be transported to a medical facility for further evaluation.

OLMC must be contacted prior to any patient being transported against their will. Obviously, if in the opinion of the ALS Credentialed Provider in charge, there is an *immediate* risk to life or significant morbidity, patient safety and care are the priority (*implied consent* would apply here).

Finally, the provider’s findings must be documented with facts, not conclusions, and such documentation must be sufficient to demonstrate the patient’s mental status and understanding of his/her condition and the consequences of refusing treatment.

Consent to Evaluation/Treatment for a Minor and Refusal of Evaluation/Treatment for a Minor

The following person(s) may consent to, or refuse, the evaluation, treatment, and/or transportation of a minor:

- Parent
- Grandparent
- Adult (≥ 18) brother or sister
- Adult (≥ 18) aunt or uncle
- Educational institution in which the child is enrolled that has received written authorization to consent/refuse from a person having the right to consent/refuse.
- Adult who has actual care, control, and possession of the child *and/or* has written authorization to consent/refuse from a person having the right to consent/refuse (i.e., daycare camps, soccer moms, carpools, etc.)
- Adult who has actual care, control, and possession of a child under the jurisdiction of a juvenile court
- A court having jurisdiction over a suit affecting the parent-child relationship of which the child is the subject
- A peace officer who has lawfully taken custody of the minor, if the peace officer has reasonable grounds to believe the minor is in need of immediate medical treatment.
- A managing/ possessory conservator or guardian.

A provider may be denied access to minor children by a parent or guardian if there is no obvious immediate life threat to the patient. However, in general, parents or guardians cannot refuse life-saving therapy for a child based on religious or other grounds.

In certain circumstances, a patient under 18 years of age (who has the legal competency and present mental capacity to consent or refuse evaluation/treatment) may do so. In such cases, the law states that a person under 18 years of age may consent to evaluation and/or treatment if the person:

- Is on active duty with the Armed Services of the United States of America ***OR***
- Is 16 years of age or older and resides separate and apart from his/her parents, managing conservator (an individual appointed by the court, usually during divorce proceedings, to have

custody of a minor, to make decisions for the minor and to make a home for the minor), or guardian, with or without the consent of the parents, managing conservator, or guardian regardless of the duration of the residence; and managing their own financial affairs, regardless of the source of the income ***OR***

- Is consenting to the diagnosis and treatment of an infectious, contagious, or communicable disease that is required by law or rule to be reported by the licensed physician or dentist to a local health officer or the Utah Department of Public Safety, Bureau of Emergency Medical Services ***OR***
- Is consenting to examination and treatment for drug or chemical addiction, drug or chemical dependency, or any other condition directly related to drug or chemical use ***OR***
- Is unmarried and pregnant and consenting to evaluation and/or treatment related to the pregnancy ***OR***
- Is unmarried, is the parent of a child, and has actual custody of the child, consenting to evaluation and/or treatment of the child.

A pregnant minor must have adult consent unless she fits within one of the previously mentioned exceptions.

When treating minors, it is important that there be an interactive process between them and the provider. The interaction should involve developmentally appropriate disclosure about the illness/injury, the solicitation of the minor's willingness and preferences regarding treatment, and decision options. Although the intent of this interaction is to involve the child in decisions, the way in which the participation is framed is important. As with any patient, minors should be treated with respect.

Restraint/Transport Against Patient Will

An EMS System has an obligation to treat and transport certain patients who may be suffering from an illness or injury that impairs their ability to make an informed decision. These patients may refuse treatment or transport to a medical facility. In circumstances where an acute illness or injury impairs a patient's ability to make an informed decision AND the patient is in need of medical treatment or evaluation to prevent further significant illness or injury, the patient shall be transported to an ED for further evaluation. There are certain circumstances where a patient's condition or behavior poses an immediate threat to the health and safety of themselves or others around them. In these circumstances, the patient should be safely and humanely restrained and continuously monitored during restraint. **Patient restraint and transport against their will should never be taken lightly**. Every individual has a legal and moral right to refuse medical treatment, even if that refusal results in potential harm. It is our responsibility to make sure the patient is making an informed decision and that the patient causes no harm to themselves or others as a result of their behavior.

- Determine scene safety. Attempts to physically restrain a patient should be made, when possible, with law enforcement assistance.
- Determine that a potentially harmful condition exists (if the condition is immediately life-threatening, the patient should be treated and transported as soon as safely possible).
- Determine patient's competency to make an informed decision using the following:
  - Is the patient alert? Oriented times three (person, place, time)?
  - Does the patient understand his / her illness or injury and the potential for adverse outcome?
  - Can the patient describe his / her condition to you?
  - Does patient understand consequences (including death) of not treating his/her illness or injury?

    - Does the patient understand the alternatives to immediate care by EMS?
    - Does the patient have any physical findings suggestive of impaired physiology that could affect decision-making? (e.g. hypotension, hypothermia, hypoxia, head injury, alcohol / drug intoxication, evidence of CVA, symptoms of psychiatric decompensation, etc.)
- If, based on provider assessment, the patient **is not** capable of making an informed decision (because of abnormalities defined above) **AND** the patient has a potentially harmful illness or injury, the patient should be extensively counseled regarding the need for medical care. If the patient **STILL refuses** further care/evaluation or is a harm to (him/her) self or others, the patient should be physically restrained by EMS personnel (with law enforcement assistance when available).
- PHYSICAL RESTRAINTS should be safe & humane. At NO TIME should a patient be struck or managed in such a way as to impose pain. Restrain in a position of comfort and safety.
- Thoroughly document the reason for restraint, the mental status exam, options attempted, and method of restraint, without exceptions.
- If CHEMICAL RESTRAINT is deemed necessary, refer to the "Violent Patient" chemical sedation Patient Care Guideline.
- Patients should be monitored every 5-10 minutes during any restraint. The restraint period and findings should be documented. Never leave a patient alone after any form of restraint.

Transport of Patients in Police Custody or Primary psychiatric patients

Your first responsibility on scene is to ensure the safety of the EMS personnel. If a patient has to be restrained or placed in custody by police prior to EMS arrival then the patient should still be considered a threat. Primary psychiatric patients that have no need of medical care but require evaluation at an appropriate facility should also be considered a threat. If a situation poses a possible threat to EMS personnel, they consider the following:

- Enlist the assistance of a police officer to accompany the EMS personnel in the ambulance for safety.
- Consider transport by the police officer if there is no need for medical treatment by EMS personnel.
- Contact an EMS supervisor for assistance in ensuring the safety of the EMS personnel.
- Contact OLMC for instructions on how to best provide transport of the patient and ensure safety of the EMS personnel.

On-Scene Resuscitation Special Considerations

Initiation and Termination of resuscitation efforts is a sensitive subject. As EMS providers we all desire to do as much as possible to save the lives of our patients. Sometimes those efforts are futile or frankly inappropriate given the situation of the patient. In the Cardiac Care Patient Guidelines, we have a defined approach to addressing these issues. The guideline outlines in detail the way we should handle these situations on scene. This particular section is to help further define the guideline itself.

Terminology concerning Resuscitation in Utah

Below is a short list of terms that are often used in discussions about end of life treatment. Because there are so many particularly defined terms concerning a patient's wishes for treatment in Utah, we will refer to them collectively as Patient Health Care Directives (PHCD).

Advance Directive:

An instruction, given in advance, that tells others what health care you want if you can't communicate because of illness or injury.

Living Will:
A written legal document that speaks for you if you are unable to communicate and are terminally ill or are in a persistent vegetative state. This document can specify what kind of lifesaving and life-maintaining care or treatment you do or do not want to receive in case of terminal illness. If you have a living will, you should bring a copy of it with you whenever you are admitted to a hospital. A living will has nothing to do with the distribution of your property.

Special Medical Power of Attorney (also called Durable Medical Power of Attorney):
This legal document lets you appoint someone to make medical decisions for you if you become unable to speak for yourself. If you have a Special Medical Power of Attorney, you should bring a copy of it with you any time you are admitted to a hospital. This document gives legal power for medical decisions only, not property or financial matters.

Verbal Directions:
If you have made decisions about your care and told your doctor and/or family about them, these too are considered advance directives even though they aren't written. You have the right to accept or refuse medical care or treatment after discussing it with your physician.

Terminally Ill:
A condition caused by injury or disease that will result in death no matter what life-sustaining procedures are used and in which, the use of life-sustaining procedures only would postpone death.

Persistent Vegetative State:
A state of severe mental impairment in which only involuntary bodily functions are present.

Do-Not-Resuscitate (also called DNR):
A medical order that can be written by your physician after discussions with you, your family or proxy that states you will not receive artificial breathing or chest compressions if you stop breathing or if your heart stops beating. DNR orders do not mean you will receive less treatment up until the point when you stop breathing or your heart stops beating. This should not be confused with Do Not Treat orders that could be a part of another document.

Utah Law Concerning Life, Choice and Resuscitation

Utah Code Title 75-chapter 2a - **Advance Health Care Directive Act** These sections of the Utah State Code outline all of the laws concerning health care directives and documents. Contained within these sections are specific laws directing EMS personnel and on-line medical control physicians. These laws serve as the defining directives to all medical personnel in the care of their patients.

Utah Administrative Code (Rules) R432-31 - Life with Dignity Order Established 10/1/2011, this code provides for a patient's preferences and the Life with Dignity Order on a transferable physician order form. The transferable Life with Dignity Order is fully transferable between all

health care facilities. This item can be used to help make determinations of treatment only with OLMC with a physician after confirmation of validity.

POLST - Physician Order for Life Sustaining Treatment The physician order for life-sustaining treatment is fully transferable between all licensed health care facilities. The forms are maintained by the Bureau of Health Facility Licensing, Certification and Resident Assessment and are used by EMS and other medical personnel when making treatment decisions. The Bureau of EMS provides on their website the POLST/Life with Dignity Provider Guide which provides a comprehensive explanation of the POLST and its application. In addition, the Bureau of EMS has on its website copies of downloadable forms.

Utah EMS/DNR for Health Care Providers This was a previous order that is still recognized by Utah and under the above codes will still provide direction to EMS personnel.

Out of Hospital Advanced Directives Pertaining to Resuscitation

Patients have a legal right to consent to, or refuse, recommended medical interventions, including resuscitative efforts. The decision to honor, or not to honor, POLST/Life with Dignity order, an EMS/DNR from Utah or an out of state Do Not Resuscitate (DNR) must be made quickly and accurately. It is our obligation to carry out the patient's appropriately designated medical choices, even when they can't direct us.

A POLST/Life with Dignity order, EMS/DNR or out of state DNR is VOID and should **NOT** be honored if any of the following exists:

- The patient or person who executed the order tells the EMS Providers, attending physician available on scene or another adult witness that it is his/her intent to revoke the order and they desire resuscitation;
- The order has "Void" written across it;
- The order is burned, torn or otherwise destroyed or defaced;
- The patient or person who executed the order directs someone in their presence to destroy or void the form and/or removes the identification device;
- The patient or person who executed the order signs or directs another adult to sign a written revocation on the person's behalf;
- The attending physician or physician's designee, if present at the time of revocation, has recorded in the patient's medical record the time, date, and place of the revocation and enters *"VOID"* on order;
- A new Life with Dignity order has been completed and will supersede an older version.
- In the event that there is a question as to honor or not honor an order, contact OLMC to talk with a physician.

Important Considerations on Scene

- It is appropriate to transport patients who have arrested to the hospital for pronouncement if, in the assessment of the transport providers, circumstances mandate such an action (for example, death in a public place).
- Always rule out a non-traumatic etiology for what may be perceived as a traumatic arrest (for example, primary Ventricular Fibrillation resulting in a minor car crash).
- Anytime a DNR is not honored, the reason must be documented in the Patient Care Record (PCR).

- An Advanced Directive does not imply that a patient refuses palliative and/or supportive care. Care intended for the comfort of the patient should not be withheld.
- Many “Boiler Plate” advanced directives provide for termination of life support only after the patient has been stabilized and evaluated by 2 physicians. These advance directives do not prohibit the initiation of resuscitation efforts even though that may have been the intent of the patient or their representative.
- **Always remember** when in doubt initiate resuscitative efforts. Later termination can be implemented if appropriate.

Transportation of Bodies

Once a patient is pronounced dead on scene the body is turned over to the investigating officer who has the responsibility to contact the Medical Examiner and determine disposition of the body. Once released by the investigating officer the ambulance may choose, but is not required, to transport the body for the officer to one of the following:

- Medical Examiner’s Office for all medical examiner cases.
- Funeral home of the patient or family’s desire if released by the medical examiner.
- Nearest Hospital Emergency Department if neither of the first 2 are an option. EMS personnel should check to see if that hospital has a morgue for the patient.

Medical Examiner Cases

The following situations fall under the jurisdiction of the Utah State Medical Examiner and must be reported to them as per Section 26-4-7 of the Utah State Medical Examiner Act so they may assume custody of a deceased body if it appears that death was:

(1) by violence, gunshot, suicide, or accident;
(2) sudden death while in apparent good health;
(3) unattended deaths, except that an autopsy may only be performed in accordance Utah code;
(4) under suspicious or unusual circumstances;
(5) resulting from poisoning or overdose of drugs;
(6) resulting from diseases that may constitute a threat to the public health;
(7) resulting from disease, injury, toxic effect, or unusual exertion incurred within the scope of the decedent's employment;
(8) due to sudden infant death syndrome;
(9) resulting while the decedent was in prison, jail, police custody, the state hospital, or in a detention or medical facility operated for the treatment of persons with a mental illness, persons who are emotionally disturbed, or delinquent persons;
(10) associated with diagnostic or therapeutic procedures; or
(11) described in this section when request is made to assume custody by a county or district attorney or law enforcement agency in connection with a potential homicide investigation or prosecution.

The emergency teams should attempt to get back in service as soon as possible. Notification of the Medical Examiner should be turned over to the Police as per Section 26B-8-206 of the Utah Medical Examiner Act.

Crime Scene Preservation Principles/Access to Patients in a Potential Crime Scene (The specific details pertaining to how EMS interfaces with Law Enforcement requirements in potential crime scenes)

Emergency personnel often respond to incidents where a crime may have been committed. It is every provider's responsibility to maintain a heightened awareness of the possibility of weapons, and to preserve evidence at potential crime scenes to the extent possible without compromising patient care. Any scene involving a patient that is pulseless and apneic is to be considered a crime scene and treated accordingly.

General principles of crime scene management:

- The first arriving credentialed provider on-scene must attain patient access to determine whether resuscitative efforts are indicated or not. If law enforcement prevents entry, notification should be made to all responding units immediately. All refusals to allow access of credentialed providers to patients will be retrospectively reviewed with law enforcement.
- A provider should not handle weapons unless necessary to ensure a safe patient care environment. If weapons must be handled, the Provider must wear gloves, clearly document the items original/new location, and inform on-scene Law Enforcement.
- Never use anything (phones, sink, bathroom, towels, sheets, blankets, pillows, etc.) from an incident scene.
- Victims of assault should be strongly discouraged against "cleaning up" prior to arrival of Law Enforcement or transport.
- As always, the focus must remain on patient care, not obtaining patient demographics. Patient information should be obtained from on-scene Law Enforcement, not from items in or around the patient's location. If demographics are not available, the patient should be named "John Doe" or "Jane Doe" with an estimated age range.
- Any ligature used in a suicide attempt should be left as intact as possible and should be cut rather than untied. All cuts made should be in an area well away from knots.
- Containers of any substance, which may have been ingested in a suicide attempt, should be left in the position found unless they need to be taken to the hospital. If the container must be touched, use gloved hands and limit handling to a minimum in order to preserve any fingerprints that may be present.
- Disposable items used during resuscitation efforts are to be left in place. Sharps used during the resuscitation should be stored in an appropriate container with the container being left in the area.
- Intravenous lines, endotracheal tubes and all other disposable equipment used, successfully or unsuccessfully, are to remain in place and/or on-scene.
- Pronouncement times should be documented.
- Providers are not to cover a body, even if requested to do so by Law Enforcement. A top sheet may be provided to the officer on-scene. All efforts should be made to protect the dignity of the patient and block the public view of the body.
- Once a pronouncement time is obtained, the body becomes the property of the Medical Examiner. It may not be touched or altered in any way without authorization from the Medical Examiner's Office.
- It is acceptable to share Patient Care information with appropriate on-scene Law Enforcement if the patient has been Pronounced Dead.

Crime scene management where no resuscitation is initiated:

- Any responder, who is not properly credentialed to seek pronouncements of an obvious Dead on Scene (DOS), should immediately leave the area the same way entry was made without touching anything.
- When confirmation of death is required, only one properly credentialed provider should make entry to the area.

Crime scene management with unsuccessful resuscitation:

- Once resuscitation efforts have ceased and a pronouncement has been obtained, providers should immediately vacate the area.
- The Medical Examiner must be able to differentiate between punctures originating from resuscitation efforts and those present prior to arrival. All unsuccessful intravenous or pleural decompression attempts should be marked on the body by circling with a marker or pen.

Crime scene management with patient transport:

- Clothing, jewelry or other objects removed from the patient should be left on-scene. Clearly document any items left and inform on-scene Law Enforcement of the items original and current locations.
- If the patient has been placed on a sheet, notify the receiving facility that the sheet and all personal effects may be considered evidence.
- If law enforcement is not on-scene prior to transport, the first response agency is to remain on-scene, out of the crime scene perimeter, until arrival of law enforcement. An effort should be made to keep all individuals out of the area.

Patient Care Reporting Requirements

Guiding Principles of Documentation for All Organizations

At a minimum, all patient care documentation by any credentialed provider in the system shall:

- Be truthful, accurate, objective, pertinent, legible, and complete with appropriate spelling, abbreviations and grammar.
- Reflect our patient's chief complaint and a complete history or sequence of events that led to their current request or need for care.
- Detail our assessment of the nature of the patient's complaints and the rationale for that assessment.
- Reflect our initial physical findings, a complete set of initial vital signs, all details of abnormal findings considered important to an accurate assessment and significant changes important to patient care.
- Reflect our ongoing monitoring of abnormal findings.
- Summarize all assessments, interventions and the results of the interventions with appropriate detail so that the reader may fully understand and recreate the events.
- Include an explanation for why an intuitively indicated and appropriate assessment, intervention, or action that is part of our Clinical Operating Guidelines did NOT occur.
- Clearly describe the circumstances and findings associated with any complex call or out-of-the-ordinary situations.
- Be available in an acceptable time period after our patient encounter.
- Remain confidential and be shared only with legally acceptable entities.

Minimal Data Elements Required for Patient Care Report Documentation

Emergency Medical Services Providers shall submit the data to the Department electronically in the National Emergency Medical Services Information System (NEMSIS) format for every dispatch instance, regardless of patient disposition.

Emergency Medical Services Providers shall submit NEMSIS EMS incident data elements for each Patient Care Report in the format defined in the NEMSIS EMSDataSet.

The Utah Department of Public Safety, Bureau of Emergency Medical Services is responsible for designating the minimum data required for patient care reporting. The following lists the minimum data to be collected on all patient encounters.

- Date and time of incident (dispatch, arrival, destination, back in service, etc. times)
- Location of incident (complete address demographics)
- Disposition of Incident
- Dispatch reason
- Responders and incident number
- Patient name (John Doe/Jane Doe if unknown) and demographics (including city, state, county)
- Gender, age, & date of birth
- Chief complaint & provider impression
- Patient assessment (including Trauma Categories as applicable) including vitals & exams
- Available witness account of incident
- Patient treatment and procedures provided
- Transporting unit and location of transport (if immediately available)
- Refusal of treatment (if immediately available)
- Cancelled run information

Data may be collected and stored in whatever manner each individual organization deems most suitable for their needs. It is each organization's responsibility to ensure that collection and storage of patient care information is compliant with HIPAA guidelines and that the information is readily available for review as may be required for quality review.

Clinical Errors and Reporting

In any practice of medicine, it is understood that errors will occasionally occur. In order to improve as a system, be a responsible member of the medical community, and be accountable to the citizens we serve, it is essential that these incidents be promptly, and thoroughly reviewed.

The purpose of the review is to attempt to determine why the error occurred and address those things that we can change as a system to prevent further similar errors from occurring.

As a credentialed provider in Utah, and as part of that privilege to participate in care within the system, all providers agree to report clinical errors through the appropriate organizational channels and/or the Medical Director. The first step in any process in this system is to review the error and/or reporting issue(s) in your respective agency's own Quality Assurance process then determine if you believe that the incident should be reviewed or shared at a higher level. The Medical Director will facilitate the collection of data and review of the incident for the agency.

All Providers involved in reviewing errors and evaluating care should be committed to an educational (non-punitive) approach to correcting circumstances that led to a medical error.

Philosophy

The goal of the quality review process is to protect the public that we serve by assuring appropriate medical care. We recognize that in any practice of medicine performed by humans, errors will occasionally occur.

We are committed to looking at all clinical issues as a system and require that anyone engaging in medical care participate in the process. The process is structured to be fair and objective with an emphasis on education as the means to improve personal and collective performance. Our collective desire is to foster an environment where the self-reporting of medical concerns and incidents is not only encouraged but also expected.

- **Steps in the Clinical Review Process**
  - Contact with a Medical Director

    This is the first step in the process. Circumstances that should be reported to the Medical Director may include events such as:
    - Those that could potentially have an adverse impact on patient care, or on the System as a whole (any medical error, regardless of severity)
    - A Provider operating outside the scope of their Credentials or qualifications.
    - A Provider failing to initiate care appropriate to the patient condition and their level of Credentialing.
    - A Provider delivering patient care while impaired by the use of drugs or alcohol.
    - A Provider providing patient care that is in conflict with the System Clinical Operating Guidelines.
    - A Provider refusing to accompany a patient to the hospital, if so requested, and is reasonably able to comply with the request.
    - Needle and/or surgical cricothyrotomy are attempted.
    - Any interagency scene call with questions that arise concerning care or outcome.
    - Cardiac and/or respiratory arrest occurs during or after:
      - Sedative or analgesic administration.
      - Pharmacologically Assisted Intubations (PAI)
      - Synchronized cardioversion.
      - Physical or chemical restraint.

  - Investigation

    The investigation of a Clinical Inquiry is performed by the Medical Director or their designee. The Medical Director will report findings and/or outcomes back to the providers. The following items may be reviewed (as available) in the course of the investigation:
    - Review of the initial concern or questions
    - Review of the patient care record
    - Review of the computer aided dispatch (CAD) record
    - Interview with the crew involved
    - Interview with other responders, bystanders, patient/family or hospital staff
    - Hospital reports or autopsy results
    - Any other relevant information source

  - Peer Review Process

    The Peer Review Process is a tool used to look at clinical issues in a fair and objective way. Peers from each agency may participate in the review of an incident. Peer Review may be initiated to better understand the complexities of an incident.

    Peer reviews **may** be conducted in any or all of the following situations at the discretion of the Medical Director:

- An incident with multi-agency involvement where it may be useful to get all parties together in order to discuss the incident
- A Provider specifically requests a peer review
- Incidents of significant or unusual magnitude

Final Words on Professional Practice…

Professional practice is just what the name implies…Professional.

We all have a powerful responsibility to care for our patients in a compassionate, scientifically sound, and operationally appropriate way. If it feels *wrong*, it probably is. When the going gets tough, the scene gets complex, the environment becomes challenging or emotions run high, remember to always focus on what's best for our patients.

We have an obligation to do our absolute best to care for them in a humane, clinically sophisticated fashion. It's our privilege

Section Two

Provider Safety and Care

Introduction – Protection of the Provider

One of the most basic and important principles in EMS is protection of our colleagues and us. The environment we work in puts us at risk for infectious disease exposure, trauma related to motor vehicle crashes (particularly during lights & siren driving), musculoskeletal strains & sprains, trauma related to violence, cardiovascular events (cardiac events are the number one cause of work-related fatalities in the Fire Service nationally) and the psychological stressors of being in the business we're in.

Making sure a scene is secure is the first step in minimizing Provider risk. The Provider should perform an initial scene survey to determine any readily apparent hazards that require additional resources. The Provider must make an evaluation each and every time they approach a scene. There is a balance between the need for immediate patient access and Provider and patient safety. Once on-scene, Providers must continually evaluate the situation and make judgments accordingly. Examples of scenes requiring caution include but are not limited to the following:

- Downed power lines
- Fuel spills
- Unstable vehicles
- Water hazards
- Crowds (large, unruly, threatening)
- Weapons involved

Our best weapon against the hazards we all face is awareness and prevention. We're in the business of being prepared for the unexpected and this Core Principle is targeted at looking out for the provider.

Infection Control

Adherence to infection control principles is the responsibility of each Provider. All EMS Providers must be aware of well-known infectious agents (Hepatitis B, influenza, etc.), as well as emerging new pathogens (Avian Flu, SARS, etc.) that present challenges to medicine and risks to Providers. A personal commitment to employing basic infection control measures on every single incident will provide the simplest and best protection against infectious diseases. Make it a habit!

Basic Protection Guidelines and Immunizations

The infection "triad" requires a portal of entry, an adequate amount of the infectious agent, and a susceptible host (that's you) in order for a person to actually become infected. Through the engineering of safer equipment and the use of Personal Protective Equipment (PPE), we can prevent portals of entry and reduce the amount of materials to which you may be exposed.

Individuals that are well nourished, rested, and physically fit have immune systems that are more responsive and better prepared to mount an effective fight against invading pathogens. Taking care of ourselves decreases our long-term morbidity and allows us to recover more quickly should we become infected.

In any health care environment, Providers can expect to be routinely exposed to infectious agents. Immunizations are an extremely important weapon against infection from many of the more common agents. Keeping current on appropriate immunizations protects you, protects patients from becoming infected by you, and decreases overall disease transmission (this is a concept in public health known as *herd immunity*). As always, you should consult with your regular physician regarding your health care and immunization status. For healthcare workers, the currently available recommended immunizations (or documented immunity) include:

- Diphtheria
- Hepatitis A (particularly for Providers routinely involved in water rescue operations)
- Hepatitis B
- Influenza (seasonal)
- Measles
- Meningococcal Meningitis Vaccine
- Mumps
- Pertussis
- Rubella
- Tetanus
- Varicella

Attention to ongoing hand washing, especially during the cold and flu season, is very important. Contact with contaminated surfaces provides a ready way for you to become infected and for you to infect others. Hands should be washed after each patient contact; gloves should be changed and all equipment cleaned. Waterless, alcohol-based hand cleaners are an acceptable alternative to soap and water provided there is no gross organic material present. To be effective, hand washing with soap and water needs to be performed for a minimum of twenty (20) seconds, using a vigorous rubbing together of all surfaces of lathered hands followed by thorough rinsing under a stream of water. If soap and water are not available at the scene, a waterless hand wash/wipe should be used before boarding the vehicle. Upon return to the station, all Providers should wash their hands with soap and water.

Additionally, it is important to conduct a self-check of your skin (particularly hands and exposed surfaces) prior to any potential patient contact. Identify scrapes, wounds, or other non-intact surfaces and cover all open and scabbed wounds with bandages. The integrity of any bandages should be monitored during your shift to ensure the continuation of their protection.

Personal Protective Equipment (PPE)

PPE is designed to stop the transmission chain of an infectious agent by preventing potentially infectious microorganisms from contaminating a Provider's skin, mucous membrane, or clothing, and subsequently being transmitted to others. While PPE reduces the risk, it does not completely eliminate the possibility of infection, and is only effective if chosen and used correctly.

Remember, PPE should always be readily available, not just carried in the vehicle for those “surprise” circumstances where the possibility of exposure exists. There are instances that the selection of appropriate PPE should be obvious and regarded by all Providers as standard practice. These include:

- Anytime patient contact is made, gloves are to be worn. The EMS System has adopted the use of latex free materials whenever possible and certainly in all cases where a patient or Provider suffers from latex sensitivity.
- During any type of airway management procedure, or other situation that fluid splash contact with the Provider’s face is a possibility, the protection of mucous membrane is crucial. Effective mucous membrane protection may be afforded by use of the combination eye shield and mask apparatus, or N95 mask in conjunction with department issued or approved eyewear (goggles).
- Whenever the possibility exists that a patient’s bodily fluids could be splashed onto a Provider, gowns should be utilized.

There are times when the selection of proper PPE, especially respiratory protection is not so obvious and must be made based on how a disease is spread. In these situations, the difficulty in determining the appropriate level of protection is that a truly informed decision usually can’t be made until a patient assessment is completed and/or a history is obtained. By then, it’s too late! For that reason, a patient exhibiting any of the following signs or symptoms should be a signal to Providers, that in addition to gloves and, possibly a gown, some level of respiratory protection is required:

- Productive cough (with or without blood)
- Fever and chills with coughing
- Night sweats
- Dramatic (>10%) unexplained weight loss
- Fatigue (in the presence of other symptoms)
- Hemoptysis (coughing up blood)
- Nuchal rigidity (stiff neck)
- Chest and upper torso rash

In determining the type of respiratory protection needed, remember that only the N95 mask will afford protection against disease spread via airborne particles (i.e., tuberculosis), while the combination eye shield and mask apparatus is appropriate protection against disease spread through larger droplets (i.e., meningitis). In either case, protection is only afforded if the mask is worn properly.

- For a patient exhibiting signs and/or symptoms of a disease spread via airborne particles, the N95 mask should be donned prior to entering an enclosed area that the patient may have contaminated
- When caring for a patient with signs and symptoms of a disease spread through larger droplets, the N95 mask or combination eye shield and mask should be donned as soon as possible and worn anytime the Provider is within five (5) feet of the patient.
- When airborne or droplet precautions are appropriate, the additional step of placing a non-rebreather mask with supplemental oxygen on the patient should be employed. This will limit the amount of aerosolized agent emitted. An N95 mask should never be used on a patient as it could inhibit his/her respiratory function.
- If the patient needs to expectorate, every attempt to should be made to capture the sputum in a tissue or 4X4 and dispose of properly.
- When in doubt, maximal rather than minimal PPE should be selected.

Sharps Hazards

- The greatest risk for an occupational exposure to blood occurs with the use of needles and other sharp utensils. The most common occupational blood exposure occurs when needles are recapped. Needles that have contact with human tissue will not be recapped, resheathed, bent, broken, or separated from disposable syringes.
- Used needles and other sharps shall be disposed of in approved sharps containers.
- Providers should ensure that no sharp is used in a manner inconsistent with its intended purpose or attempt to circumvent the safety features of the device.
- See Crime Scene Preservation (in Professional Practice section) regarding used sharps at a potential crime scene.

Cleaning and Disinfection of Equipment and Work Areas

Remember how important it is to keep all medical equipment clean and free from infectious agents. The essential part of cleaning and disinfecting equipment is ensuring the removal of all accumulated organic material. Failure to remove organic material provides a continuing breeding ground for organisms. After the removal of the organic material, disinfecting can take place.

Be thorough with your cleaning and consider using your PPE eyewear if you need to do heavy cleaning that may result in splashing. Remember to clean any surface that your gloved hand may have contacted. After applying your disinfectant, permit the equipment to air dry. Wiping dries the wet disinfected surface will negate the effects of the agent and render it useless. Always follow manufacturers specifications on the label of the cleaning product. Upon completion of the cleaning, make sure you wash your hands (do you hear your mother's voice?).

Exposure Follow-up

The purpose of PPE, and always using sound infection control practices, is to reduce or eliminate the potential for infection. On occasion, a Provider is exposed to blood, bodily fluids, or airborne particles, and appropriate action must be taken. Many of these actions are time-dependent so it's important to initiate the reporting and follow up process as soon as possible. Besides adherence to sound infection control practices, the most important thing you can do to ensure your health and well-being is to educate yourself. Become knowledgeable about infectious diseases, and the exposure reporting and follow-up process for your organization. Knowledge of the process specific to your organization ensures the right people are notified in a timely manner should post-exposure testing, follow-up, and documentation be required. Following are general guidelines to be followed should you experience, or suspect that you have experienced, an exposure to blood or other infectious material:

- Withdraw from patient care as soon as it is appropriate. This is usually at the completion of care but may need to occur sooner in some cases.
- Take self-care steps and cleanse the wound (or irrigate the membranes) with the appropriate solution immediately after any exposure to a patient's bodily fluids. Don't attempt to "milk" any needle stick injuries. This does not appear to be useful in removing source patient material.

Exposures require immediate intervention. Report any suspected exposure to communicable diseases to the appropriate designated individual in your department as quickly as possible. Questions and consultation regarding post exposure actions should be immediately directed to the designated person in your department or contracted with your department to treat such exposures. Consultation may reveal

that medical evaluation of the exposure, testing, follow-up, and/or additional documentation is necessary. All post exposure guidelines should be developed by the individual agency and be in compliance with Utah State Code.

Motor Vehicle Crashes – Lights & Siren Driving

Unfortunately, one of our greatest occupational challenges is motor vehicle crashes resulting in injury or death to EMS Providers, patients and other vehicle occupants. In a study published in 2002, the general public had a motor vehicle fatality rate of 2/100,000. EMS Providers, on the other hand, had a motor vehicle crash fatality rate of 9.6/100,000 (almost 5 times the incidence of the general public). In 2001, a researcher (Kahn) published the summary results of characteristics associated with fatal ambulance crashes over a ten-year period.

The characteristics most commonly associated with fatalities included:

- Between noon – 1800 (39%)
- Improved roadways (99%)
- Straight road (86%)
- Dry pavement (69%)
- Clear weather (77%)
- Intersection (53%)
- Striking (81%)
- Another vehicle (80%)
- Angle (56%)

An important part of that study was that serious injuries and fatalities were much more likely to occur to unrestrained occupants in the back of the ambulance.

According to 2004 data from the National Fire Protection Agency (NFPA), of the 103 reported firefighter deaths, the largest proportion, 34% (35 deaths) occurred while responding to or returning from alarms. There were 29 deaths reported during operations at fire incidents. The proportion of deaths occurring while responding to or returning from alarms continues to be close to its highest point ever. Of the 35 response related deaths, 17 firefighters died from injuries directly related to vehicle crashes. The failure to wear seat belts and speeding continue to be listed as the major contributing factors in crash related deaths.

The bottom line is that Lights & Siren (Code 3) driving is a necessary part of our response to our patients but poses a significant mortality hazard to us. Always use appropriate caution when driving Code 3.

Violence Against Providers

On occasion, the very nature of EMS places us in violent environments. It is important to remember that our first obligation on any medical scene is to assure a secure environment for us. It is acceptable, and expected, that EMS Providers not place themselves in any situation that has a high likelihood of causing harm to the Provider (that just makes more patients…).

Staging and Retreat

The dynamic environment in which we operate presents many challenges. Dangerous situations may be brought on by unplanned and often tragic events. During these times we must remember to provide for our own safety as well as the safety of our fellow public safety responders and the general public. In these situations, Providers should use their best judgment to either stage at a distance from the patient, or retreat from the scene if immediate danger exists. In ALL circumstances, Law Enforcement should be part of the scene management. Any delays in care provided to the patient should be documented included the appropriately identified circumstances.

Psychological Stress & Burnout

It should come as no surprise that multiple studies have demonstrated high rates of psychological stress in emergency health care providers. Not only are acute events stressful (for example a particularly difficult resuscitation involving the death of a child), but also chronic stress takes a long-term toll on both our physical and mental well-being.

Of immediate concern is impaired job performance. Excessive stress and/or inadequate coping strategies are associated with poor situational reasoning and judgment, tunnel vision, impaired driving skills, impulsiveness, injuries, and poor communication with patients and others on-scene.

Obviously, lack of sleep, lack of exercise, addiction, and relationship and financial stress can overwhelm one's ability to cope effectively. Likewise, managing those lifestyle habits can improve work performance, as well as general happiness and fulfillment,

Chronic stress is also associated with increased risk of health problems, such as: hypertension, back pain, peptic ulcer disease and decreased immunological response. Studies have also demonstrated a significant increase in the divorce rate of individuals who work nights.

An added challenge for Public Safety Providers as a group is that we don't like to be perceived as "impaired" by emotional or psychological stress. There is also a substantial increased risk of long-term tobacco, alcohol and drug use. Addictive behaviors often begin as "fun" coping habits, "to blow off steam", but can with time, become harmful career-ending problems.

While it's certainly beyond the scope of our Clinical Operating Guidelines to address all the approaches to this daunting career hazard, it's a critical part of our Core Principles for this System. We're all in this together, and we have an obligation as professionals to keep an eye on each other and to support each other in obtaining help before things spin out of control. We owe it to our patients, our loved ones, and ourselves to practice excellent stress management in our personal and professional lives.

Section Three
Patient Comfort

Introduction

One of the most important objectives of any emergency healthcare provider is relief of pain. Patients have significant concerns about pain and want relief quickly. Historically, EMS Providers (and EMS Systems) have not concentrated on pain relief as a significant component of patient care.

The establishment of Patient Comfort as a Core Principle emphasizes our commitment to always focus on relieving pain, both by behavioral and technical means. Pain may also be emotional because people don't usually plan their emergencies.

Patient Interactions

As Utah EMS System Providers, it is our obligation to provide for both our patient's physical and psychological well-being. This begins with the demeanor and approach of each Provider in the System. All interactions should be professional and caring. Patients in these circumstances rely heavily on the advice and care we provide and trust that it is given in their best interest. This is a responsibility we all take seriously and a trust that it part of a unique patient relationship.

We exist to do the best job we can to solve our patient's problems.

Pain

Reactions to Pain

A small degree of anxiety can actually raise the tolerance level of pain. However, studies have shown that increases in anxiety actually lower the pain tolerance in most people. Environment has also been shown to have an effect on a patient's reaction to pain. Individual pain perception and response to pain is based on three major factors:

- The interpretation of the severity of the initial injury.
- Past experiences with pain create a memory of past events. Repeated exposure to painful experiences lowers a patient's threshold.
- Events surrounding the injury.

Pain Assessment

Patients experience a variety of insults that may result in discomfort. It is our responsibility to manage this discomfort whenever possible while we appropriately treat underlying illness or injury. Remember the power of focusing on the patient and listening to their responses to your interventions. Typically pain in adults is rated on a 1-10 scale with 10 being the worst pain they have ever experienced. In children and other non-verbal patients, facial grimaces can be used to assess pain from a chart.

Non-Verbal Cues to Pain

- Tachycardia
- Tachypnea
- Sweating
- Blood Pressure Increases
- Decreased SpO2
- Nausea/Vomiting
- Flushing or Pallor
- Shivering
- Increased muscle tension, position changes or immobility

Guidelines for Pharmacological Pain Management

Allergies to medications should be reviewed with the patient directly prior to the administration of any medication.

Naloxone should be available anytime an opiate is administered for rapid reversal.

A baseline blood pressure, radial pulse (age appropriate), SpO2 and GCS should be assessed prior to analgesia and should be reassessed every 5 minutes, or as appropriate. If the SBP is <100mm Hg, SpO2 is <90% or GCS <14 then medication should not be given until permission is granted by the OLMC.

Analgesics should be titrated to the patient's perception of pain and stopped once adequate sedation or pain relief is achieved. Indications that adequate sedation/pain relief has been achieved:

- Deeper and slower respiratory rate
- Patient reports decrease in pain to 4 out of 10 on their pain scale.
- Sleepy or alteration in awareness (GCS < 14)
- SBP goes to < 100 mm Hg.
- Drop in SpO2 to <90%.

Constant monitoring of patient condition utilizing all available tools including SpO2, and vital signs is critical.

Any patient that has been given a medication for the relief of pain and/or anxiety will have documented vitals (BP, Pulse, SpO2 and GCS) and $ETCO_2$ (when available) prior to and post administration. This will become a permanent part of the Patient Care Record (PCR).

Tools for Patient Comfort

Non-Pharmacological

- Provide a calm and controlled interaction. When the environment surrounding the patient is controlled it helps to relieve anxiety and provides initial pain relief. Examples include: dimming lights, quiet room and soft-spoken voice.
- Explanation of procedures and calm re-assurance.
- Providing relaxation techniques, distractions and guided imagery
- Splint and stabilize fractures/dislocations. By limiting the spinal reflex, tissue and muscle metabolism is slowed preventing spasms that increase pain reception and transmission.
- Minimizing tissue damage – prevention and protection of the environment to reduce further injury thereby reducing the perception of pain by receptors.
- Use of cold and heat packs.
- Pad backboards including padding the natural voids created by the curvature of the spine.
- Allow patients to remain in the position that is most comfortable, thus minimizing anxiety and reducing pain transmission.
- Appropriate Traction Device has improved the ability to provide femoral traction. The traction pole length should be quickly adjusted for both adult and pediatric applications.

Pharmacological

- Medication should only be used for anxiety when severe enough to impede appropriate patient care and impair safety or worsen physiology. Remember that almost all patients experience some anxiety associated with acute illness or injury that does not require medication.
- Patient Care Guidelines that contain pain or behavioral emergency medications include “to the desired effect” dosing. It is critical that attention be paid to onset of action for each.

Full Spinal Immobilization or Clearance

Full spinal immobilization can be uncomfortable for any patient. We need to be sensitive to the patient’s comfort while we try to provide the best possible care to them. It is the responsibility of all Providers to see that every patient involved in a traumatic event be evaluated for possible spinal injury. The only exception would be when the patient has an isolated extremity injury with a mechanism of injury that would not result in a spinal injury. A patient must be placed in full spinal immobilization for transport unless they can be cleared in the field per the Spinal Immobilization guideline.

If at any time the patient refuses full spinal immobilization then contact the OLMC for further instructions.

Section Four
Hospital Transport Guidelines

Utah Transport Code

Unstable or Critical Patients

Utah EMS laws (Utah Code Title 26, Chapter 8a, section 307) provides patients with a choice of which hospital they would like to be transported to within the guidelines for care. In Utah all unstable or critical patients must be transported to the closest facility by distance except as provided for in particular guidelines (e.g. Trauma, Stroke, AMI, etc.). Patients who are **not** unstable may choose where they would like to be transported within the restrictions and abilities of the responding agency and their service area needs, with the approval of OLMC.

There are times when the appropriate transport of a patient may need to include the use of other services such as a medical helicopter. The responding agency may need to call for the services of a helicopter to facilitate the transport of the patient or choose to go to the closest facility for assistance until transport to a trauma center can be completed. The Helicopter EMS guideline outline how the agency should proceed once the choice has been made to enlist their services.

Below is a list of patients that may be considered unstable or critical. This list is by no means complete. EMS personnel should use their clinical assessment skills in consultation with OLMC to determine the best disposition for any patient. Unstable or critical patients may be in one of the following categories:

- Cardiac Arrest
- Shock
    - Systolic Blood Pressure less than 90 mm Hg in adults
    - Heart Rate greater than 130 bpm with peripheral signs of shock, especially in adults
    - Heart Rate less than 60 bpm with a Systolic Blood Pressure less than 90 mm Hg in adults
    - Pediatric lowest acceptable systolic blood pressures are age to 1 month = 60, 1 month to 1 year = 70, 1 year to 10 years is = 70 + (age x 2) and over 10 years is 90, all in mmHg
    - Pediatric Normal Range of Resting Values are noted below. Children outside these ranges may be unstable or critical.

Age	Weight (kg)*	Pulse (bpm)	Respirations (/min)
Newborn	3.5	100-160	30-60
6 months	7	110-160	24-38
1 year	10	90-150	22-30
3 years	14	80-125	22-30
5 years	18	70-115	20-24

10 years	33	60-100	16-22
12 years	40	60-100	16-22
14 years	50	60-100	14-20

    - Peripheral signs of shock
        - Cool, clammy, or pale skin
        - Agitated mental status
        - Weak or thready pulse
        - Delayed capillary refill
- Respiratory Compromise
    - Respiratory Rate greater than 25 in adults and labored
    - Respiratory Rate less than 10 in adults with poor inspiratory effort
    - Shallow and ineffective respirations
    - Labored respiration
    - Head or Neck injury with evidence of respiratory difficulty
- Altered Mental Status
    - Glascow Coma Scale less than 10
    - Significant substance induced mental status change
- Trauma Patient (Referred to Trauma Transport Information)
- Other Severe Signs or Symptoms
    - Pulmonary Edema or severe CHF
    - Acute Coronary Syndrome
    - Acute Myocardial Infarction (consider a STEMI/PCI center)
    - Uncontrolled active hemorrhage
    - Evidence of significant spinal cord injury
    - Severe Abdominal Pain in patients older than 50 years of age.
    - Imminent delivery of a baby with a prolapsed umbilical cord or limb presentation.

Helicopter Transport

In Utah, any bystander or responding agency may call for the services of an Air Medical Transport Service, however, only the highest responding medical authority may “call-off” the Air Medical Transport Service (AMTS) after the agency has assessed the patient and scene.

Central Utah 911 dispatch center will maintain a schedule for the AMTS’s. The default for the system will be to contact the service that is the closest or most quickly available for response. Dispatch centers should use their own guidelines as directed to secure AMTS. The AMTS estimated time of arrival or inability to provide the service should be immediately conveyed to the on-ground EMS command.

Each AMTS should provide estimated time(s) of arrival. There are instances where these times may be inaccurate and could cause delay in transporting a patient to definitive care. EMS providers should be prepared for these circumstances. The following is an outline of how to deal with these circumstances:

- Stabilize and prepare the patient for transport to the closest facility capable of handling the patient.
- Once you are ready to transport the patient check to see if either auditory or visual confirmation of the AMTS can be made.
- If you are unable to see or hear the AMTS then transport the patient by ground ambulance to the closest facility capable of handling the patient and contact the AMTS to re-direct them to that facility or to a landing zone along your route to facilitate the patient's care.
- If the AMTS is on the ground awaiting your arrival at the facility the agency may rendezvous with the helicopter and transfer care to the AMTS for transport.
- If the AMTS is not on the ground, ready to accept your patient, go directly into the facility emergency department and transfer care of the patient.
- At each step the decision will be made on what is best for the patient's immediate care needs.

Inter-hospital Transport

In Utah, generally, the transporting agency for inter-hospital transports will be the agency that is responsible for the service area that includes the hospital. If the hospital or agency desires a different arrangement then an inter-agency agreement must be created that outlines the exceptions to this rule. In addition, any agency may choose from time to time to allow another agency to transport a patient if the responsible agency feels that it is appropriate.

In preparation for an inter-hospital transport the transporting agency must have in their possession all of the following:

- The Patient
- Copies of all documents relating to the patient's care as can be reasonably collected, such as;
    - Labs, x-rays, CT scans, or MRI's
    - Patient encounter forms with diagnosis and physician signature
    - Blue Slip for psychiatric patients
- EMTALA appropriate Transfer Form which includes;
    - Both facility's names
    - Reasons for transport
    - Risks and benefits of transfer
    - Persons contacted at the receiving facility who accepted the patient transfer
- Medication Instructions

Once a transfer has been initiated the receiving facility must be contacted to make sure they are aware of the transport and confirm instructions on the patient's final disposition.

Out-of-Area Transport Requests

Anytime a patient or facility requests a transport out of the area the responding agency may choose one of the following responses.

- Graciously accept and transport the patient.

- Explain to the patient or facility that due to local area restrictions in EMS coverage that the agency can only transport within a prescribed area and outline the choices of hospital(s) for the patient/facility.
- Explain to the patient or facility that a private ambulance service, if available, would be able to transport them out of the county for a fee and that the agency could have dispatch contact the private ambulance service if the patient or facility wishes. If the patient chooses this option on scene, then a release form must be completed and the agency should wait on scene until the care of the patient is transferred to the private ambulance service.
- Explain that if the patient is stable on scene, he/she may refuse transport at this time and elect to go to the out of area hospital of their choice by private vehicle.
- All non-transported patients in this scenario on scene shall have a Patient Contact Record completed with documentation of the interaction and the patient's mental capacity to make the final choice recorded.
- Unstable patients in the field must be transported to the closest facility.
- Unstable, complicated or otherwise compromised facility patients must have all appropriate personnel and equipment transferred with them and EMS agencies should not transfer these patients unless they have the capability of supporting the patient during the transfer.

Diversion of Ambulances by Hospitals

At times hospitals experience conditions when they cannot receive another critical patient due to an already overwhelmed system. During these times agencies must be able to be flexible enough to transport to another facility.

Hospitals should maintain internal policies for managing patient triage and treatment and will not divert ambulance carriers unless there are no alternatives. Only the physician in the Emergency Department or a designee of the OLMC may initiate a declaration of diversion in consultation with the hospital administration.

Hospitals should establish a need for diversion prior to receiving a call from an agency.

All hospitals will agree that they will accept patients **in extremis** that cannot be transferred to the next possible hospital without significant risk to life or limb prior to emergency resuscitation.

The Utah County EMS Committee will maintain a "diversion notification list" and will update as necessary Dispatch on changes to that list.

Once a hospital declares diversion status the System will initiate the following:

- The hospital will notify Dispatch.
- Dispatch, using an automated notification system, will make notification to those agencies on the diversion notification list.
- The hospital will notify Dispatch when it's no longer diverting.
- Dispatch will notify those on the diversion notification list that the hospital is no longer diverting patients.

Section Five
Mass Casualty Incidents

PURPOSE	To establish a common approach for the organization and management of the emergency response to mass casualty incidents; and, provide for the survival of the greatest number of casualties.
DEFINITIONS	Definitions relative to this guideline include: • *"Mass Casualty Incident"* – An event in which local emergency medical service providers are overwhelmed by the number and severity of casualties. • "*Duty Chief*" – An on-call or on-duty fire department supervisor charged with managing multi-company incidents.
GENERAL	As currently adopted and hereinafter amended by the State of Utah, Department of Public Safety, Bureau of Emergency Medical Services and Preparedness, the Utah Mass Casualty Incident Plan will be used to coordinate the emergency response to, and management of, a mass casualty incident. All incident-related activities should be managed in accordance with the Utah Mass Casualty Incident Plan, and applicable Utah County Operational Guidelines (see: https://bemsp.utah.gov/2011/01/01/utah-mass-casualty-incident-plan/)
DISPATCH STACK	The type and number of units dispatched on the initial response to a mass casualty incident will be based on the information known at the time of dispatch, and as outlined in the county response guideline. It is important to note, the dispatch stacks are limited to the type and number of units to be included on the initial dispatch and they do not equate to the response levels outlined in the Utah Mass Casualty Incident Plan.
RESPONSE LEVEL	Taking into consideration the established guidelines for the five response levels (e.g., Level I, Level II Level III, etc.), as outlined in the Utah Mass Casualty Incident Plan, the incident commander should consider initiating the recommended notification protocols for the appropriate response level.
COMMUNICATION WITH HOSPITALS	At the direction of the responding fire department duty chief, of the authority having jurisdiction, or if established, the Incident Commander, area hospitals will be notified of the incident as early as possible. This notification will occur on the P25 [800 MHz] public safety radio system, hospital common frequency. The information provided during the initial

notification may be limited to the type of incident, city or general area of the incident, and estimated number of patients.

Following the initial notification, as soon as possible, the Transportation Group Supervisor, or his/her designee, will establish and maintain communications with the hospitals, throughout the incident. Upon contact by the Transportation Group designee:

- additional details relative to the incident, actual or estimated number of patients by category, and other pertinent information, will be provided to hospitals; and,
- each hospital polled, will provide a count of the number of patients they can receive, by triage category.

Communication between the hospitals and Transportation Group designee will occur on the aforementioned hospital common frequency.

INCIDENT MANAGEMENT KIT

The duty chief of each fire department should maintain a mass casualty incident management kit in their response vehicle; and, upon arrival at a mass casualty incident, provide for the immediate deployment and use of the items contained in the kit.
The kit should include:

- One ICS identification vest for each of the following positions:
  - Incident Commander
  - Law Enforcement Branch Director
  - Medical Branch Director
  - Fire Branch Director
  - Triage Group Supervisor
  - Treatment Group Supervisor
  - Transportation Group Supervisor
  - Safety Officer
- A job aid for each of the following ICS positions:
  - Incident Commander (see Appendix A1)
  - Law Enforcement Branch Director (see Appendix A2)
  - Medical Branch Director (see Appendix A3)
  - Triage Group Supervisor (see Appendix A4)
  - Treatment Group Supervisor (see Appendix A5)
  - Transportation Group Supervisor (see Appendix A6)
  - Hospital Capacity/Destination Form (see Appendix A7)
  - Patient Tracking Form (see Appendix A8)
- Four treatment area tarps and/or treatment area flags (one red, one yellow, one green, and one black)
- Two START triage belt kits
- 50 all-hazard triage tags

RELATED GUIDELINES

Management of Emergency Incidents – Utah County Fire Chiefs
Apparatus Placement at Incidents – Utah County Fire Chiefs

APPENDIX A1: MCI JOB AID, INCIDENT COMMANDER

INCIDENT COMMANDER
MCI Position Job Aid

DESCRIPTION

Responsible to manage the mass casualty incident, in accordance with the principals outlined in NIMS.

- Provide for the safety and welfare of responders, patients, and others
- **Establish a Unified Command**
- Identify and communicate the location of the command post
- Don position identification vest
- Complete a size-up
- Establish location for Level II Staging
- Develop an organizational structure based on incident needs
- Appoint and brief command and general staff, as needed

Medical Branch Director	Aid/Support Officer
Law Enforcement Branch Director	Operations Section Chief
Fire Branch Director	Safety Officer/PIO/Liaison
Staging Officer	

- Verify type and number of resources on scene and dispatched – request additional resources as needed
- Provide for accountability of all responders
- Establish hot, warm, and cold zones
- Consider evacuation of area, as appropriate
- Ensure the threat is contained, a perimeter is established, and security is maintained
- Provide for the preservation of evidence, as needed
- Develop and implement incident objectives/operational plan
- Communicate benchmarks achieved/updates to Dispatch
- Request outside support agencies, as needed

Medical Examiner	EOC Activation
Public Utilities	Emergency Management
Red Cross	County Health Department

- If appropriate, declare the Mass Casualty Response Level, as outlined in the Utah Mass Casualty Incident Plan, and consider initiating notifications outlined therein
- Maintain incident records
- Monitor operations for effectiveness and modify as appropriate
- Provide for demobilization

APPENDIX A2: MCI JOB AID, LAW ENFORCEMENT BRANCH

LAW ENFORCEMENT BRANCH DIRECTOR
MCI Position Job Aid

DESCRIPTION

Responsible to implement the assigned objectives, as communicated verbally or in writing by Command. This generally includes objectives related to locating and securing any threats, establishing and maintaining containment and a perimeter, providing scene security, evacuating non-essential people, coordinating ingress and egress for responders, preserving evidence, and conducting or coordinating the investigation.

Radio Identifier: **"LAW ENFORCEMENT BRANCH"**

- Provide for the safety and welfare of responders, patients, and others
- Obtain a briefing from the IC, or Operations Section Chief, if established
- Don position identification vest
- Establish a work area, in or adjacent to the command post
- Coordinate with Command to identify and secure needed radio frequencies, if not already assigned
- Appoint and brief staff, as needed

Tactical Group	Perimeter Group
Containment Group	Investigation Group

- Communicate objectives to each assigned group/division supervisor
- Verify type and number of resources assigned, assign and reassign resources to groups, divisions, and units, and request additional resources as needed
- Maintain written accountability for all resources assigned to the Branch
- Review group/division assignments for effectiveness and modify as needed
- Provide input to IC or if assigned, the Operations Section Chief
- Supervise branch activities
- Coordinate activities with other branches, groups, and divisions
- Provide status reports to designated supervisor
- Release units/personnel back to the IC or Ops Section Chief when they are no longer needed within the Branch

APPENDIX A3: MCI JOB AID, MEDICAL BRANCH

MEDICAL BRANCH DIRECTOR
MCI Position Job Aid

DESCRIPTION
Responsible to implement the assigned objectives, as communicated verbally or in writing by Command. This generally includes objectives related to locating patients, triaging all patients, providing gross decontamination and medical care, and providing for the transportation of all patients to definitive care.

Radio Identifier: **"MEDICAL BRANCH"**

- Provide for the safety and welfare of responders, patients, and others
- Obtain a briefing from the IC, or Operations Section Chief, if established
- Don position identification vest
- Establish a work area, in or adjacent to the command post
- Coordinate with Command to identify and secure needed radio frequencies, if not already assigned
- Appoint and brief staff, as needed

Triage Group	Transportation Group
Treatment Group	Decontamination Group

- Communicate objectives to each assigned group/division supervisor
- Verify type and number of resources assigned, assign and reassign resources to groups, divisions, and units, and request additional resources as needed
- Maintain written accountability for all resources assigned to the Branch
- Review group/division assignments for effectiveness and modify as needed
- Provide input to IC or if assigned, the Operations Section Chief
- Supervise branch activities
- Coordinate activities with other branches, groups, and divisions
- Provide status reports to designated supervisor
- Release units/personnel back to the IC or Ops Section Chief when they are no longer needed within the Branch

APPENDIX A4: MCI JOB AID, TRIAGE GROUP

TRIAGE GROUP SUPERVISOR
MCI Position Job Aid

DESCRIPTION
Responsible to locate and triage all patients; and, move each patient from the location found to the appropriate the appropriate treatment area. Coordinates activities with the Treatment Group.

Radio Identifier: **"TRIAGE GROUP"**

- Obtain a briefing from the Operations Chief, or if established, the Medical Branch Director
- Don position identification vest
- Evaluate and request resources, including a medical supply cache, as needed
- Appoint and brief staff, as needed:

Triage Team 1, 2, 3, etc.	
Transfer Team 1, 2, 3, etc.	

- Issue START triage belt kits to triage teams, as needed
- Locate and triage all patients
- Ensure critical medical care is provided during triage, as appropriate
- Ensure each patient has a triage ribbon attached before leaving the triage area
- Establish funnel point for transfer of patients from triage to treatment
- Prioritize transfer of patients from triage to treatment
- Coordinate with treatment group
- Maintain a written record of the number of patients transferred to treatment, by category
- Provide status reports to the designated supervisor
- When assigned resources are no longer needed, release personnel/units back to the IC, of if established, the Medical Branch Director

APPENDIX A5: MCI JOB AID, TREATMENT GROUP

TREATMENT GROUP SUPERVISOR
MCI Position Job Aid

DESCRIPTION
Responsible to establish treatment areas and provide for the appropriate medical care of patients in the treatment area; and, coordinate with the Transportation Group to assure patients are transported from treatment to definitive care.

Radio Identifier: **"TREATMENT GROUP"**

- Obtain a briefing from the Operations Chief, or if established, the Medical Branch Director
- Don position identification vest
- Evaluate and request resources, including a medical supply cache, as needed
- Appoint and brief staff, as needed:

Immediate Treatment Area Manager	Morgue Manager
Delayed Treatment Area Manager	Treatment Dispatch Manager
Minor Treatment Area Manager	

- Coordinate the establishment of treatment areas – mark treatment areas with colored tarps, flags, and/or cones - notify Medical Branch Director of location
- Assign medical care personnel to treatment areas
- Issue triage tags to treatment area managers
- Prioritize care and transportation of patients
- Ensure proper medical care procedures are followed
- Establish route for movement of patients from treatment to the ambulance loading area(s)
- Ensure each patient has a completed triage tag attached before leaving the treatment area
- Prioritize care and determine order and method of transport of all patients from treatment to definitive care
- Coordinate with triage group and transportation group
- Maintain records of number of patients treated, by category
- Provide status reports to the designated supervisor

APPENDIX A6: MCI JOB AID, TRANSPORTATION GROUP

TRANSPORTATION GROUP SUPERVISOR
MCI Position Job Aid

DESCRIPTION

Responsible to coordinate patient transportation, by ground and air, from treatment to definitive care; and, maintain records relative to patient identification, condition, and destination.

Radio Identifier: **"TRANSPORTATION GROUP"**

- Obtain a briefing from the Operations Chief, or if established, the Medical Branch Director
- Don position identification vest
- Evaluate and request resources, as needed
- Appoint and brief staff, as needed:

Ground Ambulance Coordinator	Patient Tracking Coordinator
Air Operations Coordinator	Hospital Communications Manager

- Establish communications with receiving facilities - determine and maintain status of availability/capability - provide facilities with incident information, including any decontamination procedures, if needed
- Establish and mark the ground transportation area
- Establish ingress and egress route for ambulances – coordinate with PD - notify Staging of the designated routes
- Coordinate the establishment of helistops - notify the Medical Branch Director of the location
- Coordinate with Treatment Group and Staging
- Provide for patient transport from treatment to definitive care, by ground and air, as requested by the Treatment Group
- Provide for patient transfer from treatment to the helistops, as needed
- Assure recording of patient information to include: triage tag number, chief complaint, transport unit, category, destination, and time left scene
- Provide status reports to the designated supervisor

APPENDIX A7: MCI JOB AID, HOSPITAL CAPACITY

HOSPITAL CAPACITY & DESTINATION

MCI Position Job Aid

Hospital		Immediate	Delayed	Minor
Mountain Point	Avail			
	Sent			
American Fork	Avail			
	Sent			
Timpanogos	Avail			
	Sent			
Utah Valley	Avail			
	Sent			
Orem Community	Avail			
	Sent			
Mountain View	Avail			
	Sent			

Spanish Fork	Avail			
	Sent			
IMC Trauma I	Avail			
	Sent			
U of U Trauma I	Avail			
	Sent			
Primary Children's Trauma I	Avail			
	Sent			
Riverton	Avail			
	Sent			
Alta View	Avail			
	Sent			
Jordan Valley-WJC	Avail			
	Sent			
Jordan Valley-WVC	Avail			
	Sent			
U of U Daybreak	Avail			
	Sent			
St Marks	Avail			
	Sent			
SL Regional	Avail			
	Sent			

LDS	Avail			
	Sent			
Primary Children's Lehi	Avail			
	Sent			
Westlake ED	Avail			
	Sent			
Saratoga Springs ED	Avail			
	Sent			
	Avail			
	Sent			
	Avail			
	Sent			
	Avail			
	Sent			
	Avail			
	Sent			
	Avail			
	Sent			

APPENDIX A8: M

PATIENT TRACKING FORM

MCI Position Job Aid

Date: _____ Incident Name: _____

	Name/Tag #	AGE	M/F	Chief Complaint	Transport Unit	Category R, Y, G, B	Destination	Time Left Scene
1								
2								
3								
4								
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Mass Casualty Incident Standard Response Levels

A mass casualty incident may be declared at the scene by the initial responding units. Considerations for initiation of an MCI should include location, number of victims, weather, exposures, HazMat, potential cause (WMD) and resources available.

Level 1: Normal Response (Approximately 1-5 patients)
An event that is handled through normal local response without reducing the agency's capability to respond to other emergencies or having significant potential impact on local hospital system's normal operations.

Level 2: Community Emergency Response (Approximately 6-11 patients)
An event that may require a substantial commitment of local resources and will impact local hospital or community clinic systems.

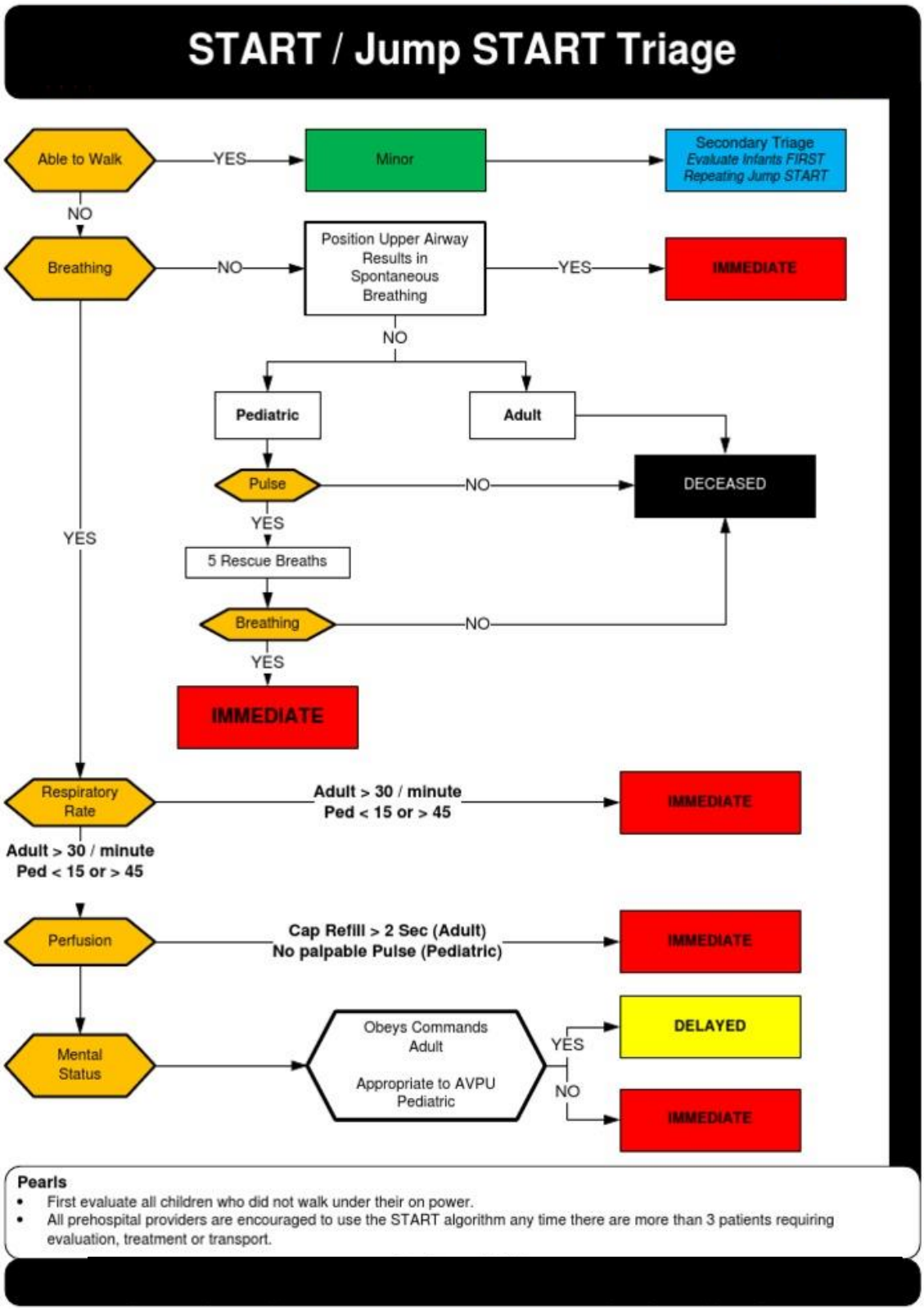
Level 3: Minor Disaster Response (Approximately 12-20 patients)
An event that is likely to extend beyond the response capabilities of one agency and their mutual aid agreements and results in a multi-jurisdictional response and will have significant impact on local and regional hospital systems. Incident Command should consider requesting a local state of emergency, activate local emergency operations center (EOC), and consider activating the State EOC.

Level 4: Major Disaster Response (Approximately 21-50 patients)
An event that will exceed local response capabilities and require a broad range of state and federal assistance. Activate local, county and state EOCs.

Level 5: Catastrophic Disaster Response (Declared by an Emergency Manager)
An event of such magnitude that massive state and federal assistance is required. Local, county, state and federal EOCs should be activated.

Combined START/JumpSTART Triage of Patients

The "START System" (Simple Triage and Rapid Transport) is a method of rapidly assessing and triaging mass casualty patients. The triage group should implement the "START" system whenever an incident involves four or more patients. Only BLS airway maneuvers and bleeding control by direct pressure are done during triage. Any other treatment gets done in treatment area. Re-triage by assessment should be done frequently during the care of patients and adjustments to their status should be relayed to the medical incident commander.


START / Jump START Triage
Able to Walk
YES
Minor
Secondary Triage
Evaluate Infants FIRST
Repeating Jump START
NO
Breathing
NO
Position Upper Airway Results in Spontaneous Breathing
YES
IMMEDIATE
NO
Pediatric
Adult
Pulse
NO
DECEASED
YES
5 Rescue Breaths
Breathing
NO
YES
IMMEDIATE
YES
Respiratory Rate
Adult > 30 / minute
Ped < 15 or > 45
IMMEDIATE
Adult > 30 / minute
Ped < 15 or > 45
Perfusion
Cap Refill > 2 Sec (Adult)
No palpable Pulse (Pediatric)
IMMEDIATE
Mental Status
Obeys Commands
Adult
Appropriate to AVPU
Pediatric
YES
DELAYED
NO
IMMEDIATE
Pearls
First evaluate all children who did not walk under their on power.
All prehospital providers are encouraged to use the START algorithm any time there are more than 3 patients requiring evaluation, treatment or transport.

Scene Treatment by Color Designation

Immediate (RED) Treatment Area
The immediate zone is for the treatment of critical patients identified by START as requiring - lifesaving interventions such as advanced airway treatment, pleural decompression, protection of eviscerations, control of bleeding and treatment of shock. IV fluids resuscitation should begin in the field but do not delay transport if it can be started in route. Vital signs should be reassessed frequently. After treatment and re-triage apply appropriate triage tag and replace wristband if their designation has changed.

Delayed (YELLOW) Treatment Area
Provide ALS treatment for non-life-threatening injuries as indicated. Dress wounds, burns, and apply splints as required and time allows. After treatment and re-triage apply appropriate triage tag and replace wristband if their designation has changed.

Walking Wounded (GREEN) Treatment Area
Ambulatory patients who do not need urgent medical assistance should be removed from the scene as soon as possible to reduce confusion. These patients may be gathered together at an assembly area for further assistance. At least one medically trained individual should be assigned to monitor their status until transportation can be arranged. After treatment and re-triage apply appropriate triage tag and replace wristband if their designation has changed.

Deceased (BLACK)
Patients tagged with black tape are to be left in place.

Additional Color Tape Indicators or Wristbands

Decontaminated (BLUE TAPE)
These patients will be triaged according to the START system based upon their injuries. In addition, a blue surveyor's tape or wristband will be added to indicate that decontamination of the individual has taken place. Patients involved in a HazMat situation will not be moved into treatment areas without the determination of appropriate decontamination. Note the type and extent of decontamination on the treatment tag before the patient reaches the treatment area.

Antidote Given (ORANGE TAPE)
Patients that have been exposed to a hazardous material and required an antidote to be given will receive an orange tape or wristband after the antidote has been administered. Note the specific antidote(s), dose(s), and time(s) on the treatment tag before the patient reaches the treatment area.

Rescue Task Force (BLACK & White STRIPE TAPE)
Triage of casualties in a warm zone may occur by RTF members. This is generally limited to assessing patient mobility and viability. Black & White Stripe tape – Casualties that are dead or dying (injuries not compatible with life). Dying patients should be extracted to the CCP after viable patients have been extracted. Casualties that are dead should be left at the location found.

Rescue Task Force (Orange & White STRIPE TAPE)
Triage of casualties in a warm zone may occur by RTF members. This is generally limited to assessing patient mobility and viability. Orange & White Stripe tape – Viable patients that cannot move on their own. Viable patients should be moved to the CCP or cold zone as soon as possible. They will then go through a more extensive triage where they will be designated according to START Triage guidelines. (GREEN, YELLOW, RED, & BLACK)

Section Six
Hazardous Material Contamination Control

Principles of Haz-Mat Control

Scene Management

- The Incident Command System should be in effect.
- Area should be isolated. All access and personal protective equipment should be approved through the Haz-Mat Command.
- As indicated by the circumstances, the Haz-Mat team should do all within their ability to provide cursory medical treatment or triage to contaminated patients during retrieval and decontamination.
- Prior to treatment within the medical treatment area, all contaminated patients shall be decontaminated and identified as decontaminated in an appropriate manner.
- As soon as possible, contact all potential receiving hospitals with preliminary information of incident, chemical, and possible number of patients.
- When able, update all potential receiving hospitals as information becomes available.

Medical Treatment Area

- Patient treatment in the medical treatment area and transport to the receiving hospital will be delayed until the patient is decontaminated.
- Prior to invasive treatment, obtain medical treatment information (including any antidotes, concerns, special hazards, etc.) from the Haz-Mat team.
- As soon as possible, contact the receiving hospital and relay appropriate patient information, Haz-Mat information, and decontamination procedures completed or needed.
- Obtain instructions on approaching and entering the hospital.
- Do not bring patients into the emergency department without permission from the hospital staff.

Hospital Responsibilities

- Each hospital shall have an incident operational plan that conforms to recognized Hazardous Materials Management standards.
- Each hospital shall coordinate their hazardous materials response with the Haz-Mat teams within the System.
- When notified, the hospital shall inform the Incident Command Team of the hospital's capabilities.
- Prepare for tertiary decontamination (initial and secondary decontamination will be done prior to transport) if needed.
- Provide all known medical and treatment information concerning the hazard to the hospital staff.

Note: Fire department guidelines should address the dispatch of all HazMat resources in the area. Provisions should be made in your area to determine the Haz-Mat team and how to dispatch them to the scene.