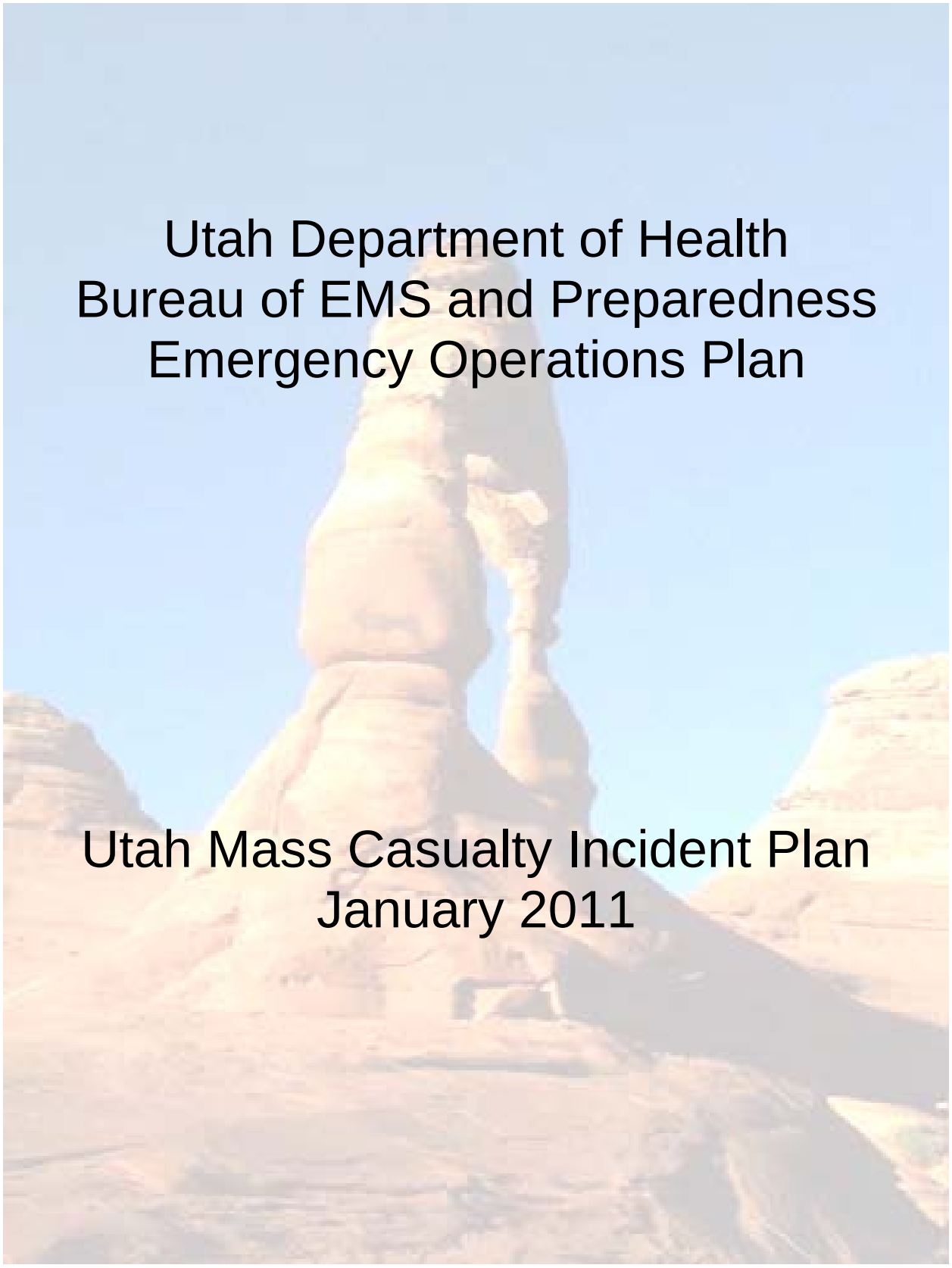

Utah Department of Health
Bureau of EMS and Preparedness
Emergency Operations Plan

Utah Mass Casualty Incident Plan
January 2011

STATE OF UTAH
DEPARTMENT OF HEALTH

BUREAU OF EMERGENCY MEDICAL SERVICES AND PREPAREDNESS

EMERGENCY OPERATIONS PLAN

UTAH MASS CASUALTY INCIDENT PLAN

January 2011

PREFACE

This guide was developed with the goal of providing a step-by-step guide in the management of multiple patient incidents. The purpose of this guide is to support a consistent approach to managing mass casualty events throughout Utah.

Utah's ability to respond to mass casualty events throughout the State should be a concern to all emergency services. Success in dealing with a mass casualty incident (MCI) incident requires the responder to deal with immediate rescue and treatment, transportation of survivors to medical facilities, and the adequacy of those local medical facilities. The information in this guideline is provided to help local emergency planners develop plans that can be expanded to include responders from throughout the State.

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NIMS/ICS ORGANIZATION – DEFINITIONS

Command: Title that refers to the Incident Commander.

Command Staff: The Command Staff consists of the Information Officer, Safety Officer, and Liaison Officer, who report directly to the Incident Commander.

Command Post: The central base of operations at the disaster scene.

Divisions: Refers to geographically defined areas, e.g., the area around a stadium, floors of a building, or sections of open ground.

Extrication Group: Group responsible for locating, removing, and transporting patients to a safe location for further treatment and care.

Finance Section: Section responsible for tracking the related costs, personnel and equipment records, and administering procurement contracts.

Groups: A functional activity such as triage, treatment, extrication, etc.

Incident Command System: A situation management approach with a common organizational structure responsible for the management of assigned resources to effectively accomplish stated objectives pertaining to an incident.

Incident Command (IC): Responsible for overall scene incident operations.

Law Enforcement Group: Responsible for traffic control, overall security of the incident, and investigation if incident is caused by an unlawful act.

Liaison Officer: The point-of-contact for assisting or coordinating with other agencies.

Local EOC: The EOC at the municipal or jurisdictional level. If none, the County EOC serves this function.

Logistics Section Chief: Manages those units that provide personnel, apparatus, equipment, facilities and personal needs to support incident activities.

Medical Branch Director: Supervises the triage, treatment, and transportation groups.

Morgue Unit Leader: Establishes and maintains a temporary morgue designated by the Medical Operations Supervisor.

Mutual Aid: Agreements arranged prior to incidents that allow jurisdictions to work together to increase resources. Per R-426-14-500 of the Utah state rules and regulations.

Operations Section: The section responsible for all tactical operations at an incident to meet incident objectives.

Public Information Officer: The person responsible to interface with the media or other appropriate agencies requiring information directly from the incident scene.

Resource Assembly Point (RAP): A pre-designated geographic location in the community, such a store near a freeway exit, for outside resources to assemble for assignment to the community or incident.

Safety Officer: The Command Staff person responsible for monitoring and assessing safety hazards, unsafe situations, and developing measures to insure personnel safety.

Staging: A specific function where resources are assembled and managed in an area at or near the incident scene.

Staging Area: The location where incident personnel and equipment are assigned on an immediately available status.

Staging Area Manager: Position responsible for the check-in of all incoming resources; to dispatch resources at the request of command; and to request for additional resources to report to staging.

Standard Operating Guideline (SOG): A document with the aim of guiding decisions and criteria regarding management.

Standard Operating Procedure (SOP): An organizational directive that establishes a standard course of action from which there is no deviation.

State EOC: Is operated by the Division of Homeland Security, which is a division of the Department of Public Safety.

County EOC: Operated by County Emergency Management.

Strike Team: A combination of a designated number of the same kind and type of resources with common communications and a leader (i.e. ambulance strike team).

Transportation Group Supervisor: Coordinates the transportation of the injured to appropriate care facilities.

Tracking Group Supervisor: Ensures that all patients are accounted for from inception to acceptance at receiving center.

Treatment Group Supervisor: Provides coordination of medical care to injured.

Triage Group Supervisor: Coordinates sorting of casualties for treatment and transportation.

Unified Command: A standard method to coordinate the command of all agencies responding to an incident.

UTAH MASS CASUALTY INCIDENT PLAN

MASS CASUALTY INCIDENT (MCI):
A mass casualty incident is defined as an event with injuries that may exceed the normal response capability of an emergency care provider agency. Classification of a mass casualty incident may vary throughout the State based upon the number of patients, severity of injuries, the cause of the incident, and available resources.

INTRODUCTION

Utah's ability to respond to mass casualty events is a statewide concern to emergency care providers. The purpose of this operating guide is to provide a template for a consistent approach to managing mass casualty events throughout the State of Utah.

OBJECTIVES

1. To minimize the loss of life, disabling injuries and human suffering by providing effective emergency medical assistance through the efficient utilization of medical and other resources in the event of emergencies resulting in multiple casualties.

2. To ensure the provision of adequate and integrated resources needed to mobilize teams to effectively manage casualties while also maintaining the capability and resources to respond to other emergency situations within the community.

SCOPE OF PLAN

This plan has been prepared to provide a coordinated response to the single site disaster that could overwhelm the day-to-day emergency health care delivery system. The MCI Plan is designed to supplement a countywide disaster plan.

Few, if any, government agencies have the resources to properly respond to major multiple casualty incidents. Law enforcement, fire, emergency medical services, hospitals, Red Cross and amateur radio operators are among the public and private agencies that become involved upon activation of the plan.

ACCOUNTABILITY AND SAFETY

To insure responder safety, an Incident Command System (ICS) should be established by the first arriving emergency responder. This will provide a common organizational structure to accomplish set objectives and provide a means to interface with all agencies at any type of major emergency. A responder accountability system will be established to insure the safety of all emergency personnel.

Incident Command System (ICS): An organizational structure formed to acquire and manage resources with the purpose of accomplishing stated objectives pertaining to the incident.

JURISDICTION AND COMMAND

Each agency shall retain full command authority within its jurisdiction at all times. Agencies that are assisting in support of a single jurisdiction will function under the direction of that jurisdiction's designated Incident Commander and ICS for effective use of resources.

In multi-jurisdictional incidents, Incident Commanders will establish a Unified Command by planning and coordinating strategies for controlling resources and the overall incident at a single location command post.

UTAH DEPARTMENT OF HEALTH BUREAU OF EMERGENCY MEDICAL SERVICES AND PREPAREDNESS ROLE IN MASS CASUALTY INCIDENTS

The role of the Utah Department of Health, Bureau of Emergency Medical Services and Preparedness (BEMS) is to function as an Emergency Coordinating Center (ECC) to respond to requests for assistance from Incident Command or Area Command needing additional resources to adequately respond to a major event or disaster. BEMS is charged with the coordination and integration of available state health and medical service resources with local resources in the event of a state declared disaster or upon the request of a local jurisdiction. In addition, BEMS acts as the liaison with federal partners when their assistance and resources are needed. The role of the BEMS is to acquire adequate resources and ensure that those resources are made available for the provision of integrated emergency medical services.

STATE OR MAJOR DISASTER

- Affects multiple jurisdictions within the state; or significantly affects one jurisdiction;
- Requires coordinated response and resources from other jurisdictions;

- Is expected to result in an emergency or major disaster declaration by the Governor or the President of the United States or the mobilization and application of federal government human or material resources;
- Involves Weapons of Mass Destruction;
- Has the potential for extraordinary or unusual impact;
- Is expected to require types of assistance that exceed the combined capacity of the affected local jurisdictions; or
- Creates national news media attention.

When the size and scope of the event requires activation of the State Emergency Operations Center (EOC), the event will be deemed a "state disaster". At this point, the Bureau of EMS will mobilize, and liaisons will be sent to the state and county EOC's. During this phase, coordination with the various other state emergency response agencies, as well as city and county agencies is crucial. The incident command system established locally will be observed by the State liaisons responding to the local or state EOC's.

Prior to activation of the State EOC, BEMS can respond immediately at the request of an **Incident Commander** or **County** or **Local EOC**. Call 1-866-364-8824 (1-866-DOH-UTAH), available 24 hours a day, seven days a week.

FEDERAL DISASTER

A disaster that results in the full or partial implementation of the National Response Framework (NRF) may have the following characteristics:

- Exceeds the capabilities of local and state government to provide timely and effective response to meet the needs of the situation;
- Has the potential to cause substantial deaths or injuries; or
- Has the potential to cause significant damage, particularly to the economic and physical infrastructure of the state or political subdivisions.

BEMS, in communication with the Department of Health Executive Director's office and Comprehensive Emergency Management, will act as the lead agency in requesting federal support from the Emergency Support Function Coordinator. Department of Health and Human Services and Federal coordinators will manage support and resources thereafter.

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.

In order to determine the level of impact an emergency has had on the community, and to standardize the notification and use of resources, five levels of response to mass casualty incidents have been established. Based on these five levels Emergency communications centers should consider activating there MCI operations and notification protocols.

LEVEL I: NORMAL RESPONSE

A. 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.

1. Incident Command has determined that the initial response is adequate to meet the incident requirements.
2. Incident Command may request additional resources individually as needed.
3. Incident Command or emergency communications center alerts local hospitals as appropriate.
4. Examples
   a) House fire with injuries
   b) HazMat Level I

LEVEL II: COMMUNITY EMERGENCY RESPONSE

A. An event that may require a substantial commitment of local resources, and will impact local hospital or community clinic systems.

1. Incident Command has determined that the incident is of sufficient magnitude to require the implementation of an expanded incident command system.
2. Incident Command notifies dispatch center of Level II incident status.
3. Dispatch center makes appropriate notifications as per local protocols.
4. Dispatch notifies all local hospitals and community clinics of potential for patient surge, and retrieves a current staffed bed availability count. The Facility's administrative officer's can then make an informed decision to activate there surge capacity plan, and call in additional staff as needed.
5. Incident Command determines utilization of mutual aid and need for off duty personnel.
6. Incident Command alerts local hospitals as appropriate.

7. Examples:
   a) Multiple Level I HazMat incidents
   b) Multiple family dwelling fire
   c) Limited area storm damage

LEVEL III: MINOR DISASTER RESPONSE

A. 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.

1. Incident Command should consider requesting a local state of emergency.
2. The incident is coordinated from local emergency operations center (EOC).
3. Incident Command determines Level III incident status and determines need for additional assistance and resources.
4. Incidents Command or communications center, alerts local and/or regional hospitals of incident, MCI level, number and types of patients, per jurisdictional protocol.
5. Notify the Bureau of EMS to request additional resources beyond mutual aid capabilities.
6. Examples:
   a) Earthquake with area wide minor damage
   b) HazMat Level II
   c) Wide spread civil disturbances

LEVEL IV: MAJOR DISASTER RESPONSE

A. An event that will exceed local response and hospital surge capabilities, and require a broad range of state and federal assistance.

1. Incident Command should declare a state of emergency.
2. The incident is coordinated from local, County and State EOCs.
3. Local, County, EOCs request state and federal assistance.
4. Incident Command alerts local, regional and statewide trauma, pediatric and burn specialty hospitals of incident, including level of MCI, number and types of patients.
5. Notify BEMS to request additional resources beyond mutual aid capabilities.
6. Examples:
   a) Moderate earthquake
   b) Tornado
   c) Terrorist attack (WMD) with no loss of infrastructure

LEVEL V: CATASTROPHIC DISASTER RESPONSE, emergency response or hospital systems are overwhelmed, depleted or incapable of response.

A. An event of such a magnitude that massive state and federal assistance is required.

1. Incident Command declares a state of emergency.
2. The incident is coordinated from local, County, State and Federal EOCs.
3. Local, County, EOCs request state, and federal assistance.
4. Incident Command, or emergency communications center alerts local, regional, State, and border states hospitals. State may consider activation of the National Disaster Medical System (NDMS).
5. Notify BEMS to request additional resources beyond mutual aid capabilities.
6. Examples:
   a) Major earthquake
   b) Terrorist attack (WMD) with loss of infrastructure
   c) This plan is applicable to medical preparedness and response for all disaster events regardless of type.

MCI OPERATIONS

EOC ACTIVATION

Local emergency operation centers will become operational when an incident will require many of the infrastructure resources of the governmental entity, in the event that no local EOC exists or is rendered incapable of operating. Then the local jurisdictions county will activate that counties EOC, and if it is determined by that counties EOC that a higher level of assistance is required then that EOC will request state EOC assistance and resources. It is expected that it will take a minimum of one to three hours to ramp up the staffing and functionality of the EOC. The Incident Command must realize and expect that they must operate independently during that time frame. This does not mean that the Incident Commander can not request additional assistance. It is just that requests, rather than going through the EOC, must be made by other means, such as:

1. Local EOC's will be activated per local Standard Operating Guidelines.(SOG's), or Policies and Procedures (P&P's)
2. County EOC's will be activated per local request, state per county request
3. **Contact BEMS via disaster hotline at 1-866-364-8824 for assistance such as additional resources and coordination. Utah DOH Hot line 1-866-DOH-UTAH**

COMMUNITY WIDE OPERATIONS

Administration of the responding agency must be cognizant of the need to continue providing service to the remaining community. An example would be back filling stations with mutual aid providers during a second or third alarm fire. If all local and mutual aid resources are being directed at a specific incident, the State BEMS office May be contacted to coordinate outlying resources to cover the remaining community. This coordination needs to be handled separately from the Incident Command (i.e. all incident communications should be handled on one frequency while, if possible, community services and incoming resources should be handled on another frequency). Incoming community resources should report to a resource assembly point to await assignment.

PLAN ACTIVATION

A. When To Activate The Plan:

A single site incident that overwhelms the initial responder's overall resources.

B. Who May Activate The Plan:

Any fire, law enforcement or EMS personnel that have arrived on, assessed the scene and assumed incident command.

C. How To Activate The Plan:

Report to your communication center the level of MCI that you have on scene and that you will be in MCI operations. At this point the communications center should activate there MCI/Disaster SOG's, P&P's

D. Provide The Following Information At The Time Of Activation:

1. Type of incident (MVA, WMD, HazMat, Etc.)
2. Location of incident
3. Best access routes to incident site
4. Approximate number of patients involved
5. Approximate types and severity of injuries (burns, trauma, respiratory, etc.)
6. Need for specific additional resources

E. Specify What Needs You Have (do not use acronyms). Tell The Communications Center What Exactly You Need:

1. Special rescue equipment
2. Additional manpower
3. Public works (heavy machinery, work force, trucks, etc.)
4. Utilities (Electric lines down, gas leak, water main break)
5. Lighting
6. Additional ambulances
7. Search and Rescue Teams
8. Disease prevention (i.e. vaccinations, sanitation, etc.)
9. Stress debriefing
10. Medical Examiner assistance
11. Mass care resources (EMS personnel, cots, blankets, medical supplies, etc.)
12. EOC Activation at Local, County and/or State level.
13. ECC State BEMS Activation.

INCIDENT COMMAND

Incident Commander – The individual responsible for the management of all incident operations. Also referred to as "Command".

A. The Incident Command System will be established by the first arriving fire, EMS or law enforcement officer on scene. Overall command of the situation will be assumed and a command post established. Overall incident operations are under the direction of the Incident Commander.

B. The Incident Commander will identify him/herself and give a brief report of the situation to dispatch that will include:

1. Name of incident and identify Incident Commander.
2. Report MCI situation on scene, provide an EMS scene report.
3. Assign initial arriving units as needed.
4. Position at, and transmit the exact location of the Command Post.
5. Consider dedicating a radio frequency to the command if available.
6. Identify and designate approach routes and staging areas.
7. Request additional resources as needed.
8. Have local and regional hospitals alerted per local or emergency communications SOG's. *Hospitals must be kept updated on numbers and triage types of patients expected at their facilities as far in advance as possible. "Designate a Hospital Communications group, unit or resource, to use the Hospital Common 800 MHz Talk Group for continuous updating*

of hospitals as the MCI develops. Dispatch agencies may assist by alerting hospitals to monitor the Hospital Common 800 MHz Talk Group or even assume this responsibility. "

9. Assign divisions/braches as not to exceed span of control
10. Ensure the safety of responders, the scene and bystanders.
11. ICS forms 201-204

COMMAND POST

Command Post (CP) - The location where primary Command functions are executed; co-located with unified command when applicable.

A single site command post should be established and made immediately identifiable by the Incident Commander. The command post will be established, keeping in mind:

1. Command post location. Position away from the general noise and confusion associated with the incident.
2. Position outside of the present and potential hazard zone.
3. Ease of access. Have the ability to provide security and to control access as necessary.
4. Location of operations that does not interfere with emergency operations and provides a margin of safety for all command and liaison personnel.

Command Post Functions Include:

1. A location from which all operations are directed.
2. Unified Command will be established as soon as possible.
3. Law enforcement, Public Information officers and Safety officers will co-locate at the command post.
4. Other agencies and responders will report to designated resources assembly points or, when requested, staging areas when established.
5. All ICS Forms

STAGING AREAS

Staging Area - A temporary location near an incident where additional personnel and equipment are strategically located while awaiting tactical assignments.

Staging Areas provide locations for immediately available resources to await active assignments. They also provide greater accountability by having available personnel and equipment together in one location and prevent resources from freelancing or "doing their own thing". **This will be managed by the Staging area manager**

This plan assumes incidents will dictate the establishment of staging areas for scene management, perimeter control and resource (personnel and equipment) control.

1. Staging will be utilized for all arriving resources on the initial assignment. This is a temporary location designated by Incident operations until the resource is assigned a job function or to a Division/group. This is an area designated by the Incident Commander that is large enough to function as a staging area for all additional resources necessary. This area should be far enough away from the operations area as to not interfere with movement of personnel and equipment. A staging area manager will be established by Incident operations to keep track of personnel and equipment. ICS forms 210 and 218

RESOURCE ASSEMBLY POINTS

An incident of such a magnitude that requires an outside response to respond to the regular community calls or mitigate the incident. Incident Command or the jurisdictional EOC should consider identifying Resource Assembly Points (RAP) within their community. These should be large, easily identifiable locations that outside resources would initially respond to and wait for further assignment to either the incident or community response.

MEDICAL OPERATIONS

The establishment of a Medical branch should be a priority of the Incident Commander. The medical scene is under the direction of the Medical Branch Director. The priorities of the Medical Branch Director are:

1. To ensure the safety of the scene for both patients and responders.
2. To establish decontamination, rescue/extrication, triage, treatment and transportation groups as needed.
3. To coordinate with these groups to provide additional equipment and resources as needed.
4. To coordinate with the Incident Command, report situation status, request resources as needed.
5. ICS form 206

RESCUE/EXTRICATION

The Rescue/ Extrication Group Supervisor is generally a first responder who is responsible for site safety, responder safety and the movement of victims/patients into a safe zone.

Rescue/Extrication is the removal of victims that may still be in physical danger because of their location. The first priority, following scene safety, is to locate patients and remove them from any immediate physical danger into a safe zone. "Where they are found" could be within a "hazard zone", that is within a vehicle(s), an aircraft, a HazMat situation or a collapsed building. Trapped victims requiring prolonged extrication should receive advanced life support care as required and feasible. The extrication supervisor and the safety officer are responsible for the safety of all those within any hazard zone. In Hazardous Materials MCIs, the Rescue/ Extrication Group Supervisor is usually a Hazmat officer.

If the disaster location is explosive or hazardous, victims will be moved to a safe location at least 300 feet upwind.

TRIAGE

"Triage" - the French word meaning "to sort".

Initial triage consists of a "walk through" by the Triage Supervisor and first arriving emergency care personnel to determine an approximate patient count and injury severity. This information is relayed to the Incident Commander. This information will be the basis for initial treatment and transport decisions that will then occur. Simple extrication and triage might include directing or assisting the walking wounded to a location where they may be gathered and accounted for.

Triage should be conducted in a safe location for both victims/patients and rescue personnel. The Rescue/Extrication Group Supervisor will be responsible for determining whether to provide initial triage "where they are found" or to move the victim(s) quickly to the Treatment Area.

The "START System" (Simple Triage and Rapid Treatment) 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. Triage is a BLS skill and should be staffed by EMT's when available. Teams of two EMT's move from victim to victim performing START/JUMP START Triage, applying bleeding control or BLS airways if needed, applying surveyor's tapes so as to be visible from a distance, and submitting a count of victims triaged with triage category to the Triage Group Leader. Whenever available, a START triage belt system should be utilized to assist the rescue personnel in triaging and applying surveyor's tapes to patients.
Triage team members and civilians may then become litter-bearers (under the direction of the Triage Group Supervisor) to move first the red, then the yellow taped victims to those treatment areas.

See Appendix A – START Belt System

TREATMENT & TRACKING

The function of the Treatment Area is to provide definitive basic and advanced life support for stabilization and begin the tracking process, and continuing care of patients until they can be transported to a medical facility.

A TRIAGE/Treatment tag (see recommended examples in appendix C should be filled out in the Treatment Area for each patient, and tracking process implemented. The treatment tag should indicate priority and serve as an area in which to write vital signs, injuries, and other pertinent patient information while simultaneously beginning the tracking process. Begin treatment of casualties, immediate priority first, delayed second, and so on, in accordance with local protocols. Treatment should not delay transport unless absolutely necessary to stabilize life threatening injuries. Tracking must be initiated immediately post triage/treatment.

The Treatment/Tracking Group Supervisor is responsible for the establishment and operation of the treatment area and the initiation of all patients in to the tracking system. The location should be determined by terrain, circumstances of the incident or accident, and existing safety hazards at the site. This area should be readily accessible to ambulances but isolated from any dangerous conditions associated with the incident.

The Treatment/Tracking Area shall have a readily identifiable entrance with easy ambulance access. Signs, traffic cones, or other markers should be utilized to mark the entrance to this area. The Treatment/Tracking Area location should be made known to all members of the medical group. The Treatment/Tracking Area shall be divided into three separate zones. These zones can be readily marked with red, yellow and green barrier tape, flags or colored plastic tarps to identify the appropriate treatment/Tracking area. The Walking Wounded Area should be clearly visible (marked by green flags or lights) and is generally placed out of view of the other treatment areas, and within access of mass transportation such as busses. Traffic cones or barriers may be used to create approach paths for delivery of patients into these areas.

First arriving patients should be placed near the rear or exit to the Transportation/Tracking Area. Place all patients in an orderly manner. Adequate space should be provided between patients to allow working room for treatment personnel. Treatment personnel must provide ongoing assessment of all patients for changes in conditions to maintain appropriate triage classification and to establish treatment and transportation priorities. The Treatment/Tracking Group Supervisor should be continually updated on victims' medical and tracking status, and is responsible for relaying this information to the potential receiving hospitals and IC through the Communications Group or Unit.

IMMEDIATE (RED)

The Immediate Treatment Area is for the treatment of critical patients requiring life-saving advanced life support procedures: As per State & local protocol on or off line. Record and time all interventions on the triage tag. The Immediate Treatment Area should be staffed by Paramedics when available, with 1 Paramedic per victim if possible.

DELAYED (YELLOW)

A Delayed Treatment Area will be established for non-critical patients. Patients in this area will receive basic and advanced life support (pain control, splinting and bandaging as time and resources permit) and continuous monitoring. If the condition of a patient in the delayed zone changes and requires life-saving advanced life support, the patient will be re-triaged/tagged and moved to the Immediate Area for more definitive care and transport.

A holding area should be established for those patients who do not need definitive care and whose transport will be delayed. Patients in this zone need shelter and care from the elements. Monitoring these patients for changes in condition should be ongoing. The Delayed Treatment Area should be staffed by Paramedics when available, with 1 Paramedic per 4 victims if possible.

WALKING WOUNDED (GREEN)

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 Walking Wounded Treatment Area for further assistance. At least one medically trained individual should be assigned to assess these patients for less than obvious injuries (penetrating wounds, upper extremity fractures) and monitor their status until transportation can be arranged. A green triage tape is applied as they walk into the Walking Wounded Treatment Area, and a green triage tag should be applied after they've been assessed. Patients with more urgent needs may be retriaged to the Delayed Treatment Area. The Walking Wounded Treatment Area should be staffed by EMTs when available, with 1 EMT per 5-10 victims if possible.

DECEASED (BLACK): Patients tagged with black tape, are to be left in place.

ADDITIONAL INFORMATION TAGS: See Appendix A - START Belt System for Orange and Blue tapes, with corresponding information on triage tag in correct box. (see triage tag example in appendix c)

DOA

See Mass Fatality plan in Appendix D

In the case of obvious deaths at a scene, the Incident Commander will request assistance from the Medical Examiners Office through the EOC or State EMS office.

The Medical Examiner's designee shall be assigned to establish and maintain a temporary morgue and to carry out the necessary investigation, recovery and processing of human remains. The Medical Examiner's role will include identifying the dead and determining the cause of death.

During initial triage, it is essential that any and all human remains be left "where found" at any accident or incident site. The exception will be if existing hazards preclude leaving the remains "where found". Bodies should be initially triage taped and then all possible data including photo documentation, concerning where and how the patient was found should be noted on a triage tag after all survivors have been transported from the scene.

TRANSPORTATION

> To facilitate the movement of patients out of the scene and to area hospitals, a transportation area will be established in conjunction with the treatment area.

The Transportation Group Supervisor is responsible for providing and coordinating all of the patient transportation. Generally, a person from the first ambulance on scene will assume this responsibility until relieved by a supervisor or another designee. The Transportation Group Supervisor will be designated by the Medical Branch Director, and may be under the direction of the local ambulance provider.

The Transportation Group Supervisor will set up operations close to the exit of the Treatment Area and very close to where patient loading will take place. The Transportation Group Supervisor will work closely with the Treatment Supervisor in determining which patients are to be transported first. The Transportation Group Supervisor will provide the appropriate transportation, air or ground as needed or available.

The Transportation Group Supervisor needs to have radio communications with the incident site commander, local ambulances, air ambulances and hospitals. A Hospital Communications Group, Unit or emergency communications Resource can serve this function.

Additional ambulances should be staged in an area that is accessible to the scene and with a clear entrance and exit. Vehicles used for transporting patients should be staged as close as possible. Extra equipment is to be off-loaded upon arrival at the staging area, to be utilized by the triage and treatment teams. Transport teams are to stay together with their ambulances.

As soon as possible, a status board should be initiated by the transportation group supervisor or designee (see patient tracking group, or hospital communications group) and maintained that indicates the number of patients that each local hospital is able to accept and how many patients at what level of criticality have been transported to each facility. Communications should be established with the receiving hospital as early as possible to indicate the numbers and injury severity of patients requiring transportation and treatment. A Patient Tracking Group, Unit or Resource can serve this function, and may be combined with the Hospital Communications Group, Unit or Resource.

It is important that there are no delays in transporting patients to area hospitals. Patients are to be distributed to hospitals in such a manner that no single hospital becomes overloaded if patient numbers allow. However, if all hospitals are at capacity, they may be overloaded, and no diversion of ambulances will be permitted. All hospitals are expected to have contingency plans for MCI surge events. If necessary, two or three ambulances can be loading simultaneously, and safely, multiple patients may be transported in each ambulance. The Transportation Group Supervisor will coordinate helicopter transportation with the Air Division Supervisor.

AIR OPERATIONS

> When available, air transportation of the injured may greatly enhance survivability of the severely injured. The Transportation Group Supervisor should consider the availability of patient movement by helicopter.

The Transportation Group Supervisor may assign an Air Transport Group or Unit Supervisor or Leader who will be responsible for:

1. Landing zone selection
2. Communication with the arriving aircrews
3. Providing security of the landing zone
4. Assisting in the loading of the aircraft
5. Coordination and tracking of patient's destinations with the Transportation Supervisor

The first priority for movement of casualties by air will be given to those in the immediate (RED) group, who are physically and mentally fit for air transportation.

MISCELLANEOUS TRANSPORTATION

The number and severity of injuries can quickly overwhelm local resources. The Incident Commander and the Transportation Group Supervisor should consider:

Shelter In Place: If necessary, patients who can be stabilized can be sheltered in place. In the immediate area, consider the nearby community resources that may be utilized as a holding area for transportation. Be sure to consider patient and rescuer comfort needs. Areas that can be considered for a shelter in place include:

- Churches
- Schools
- Public and/or private meeting places
- Recreation halls
- Community health clinics
- Insta-cares, urgent care and free standing or emergency care clinic's

Mass Transportation: A large number of patients may be transported by mass transportation. The transportation officer should group those individuals who do not require immediate medical attention and transport these patients using mass transportation. These will generally fall into the GREEN or "walking wounded" category.

Consider utilizing the following resources for mass transportation:

- UTA
- School buses
- Shuttle vans

Casualty Collection Points: If local area hospitals are overwhelmed with patients or unavailable, they may need to be sheltered in Casualty Collection Points (CCP's) *where patients are taken by Recue/Extrication Group for initial triage; treatment areas; where delayed patients are held until transport is available; where patients evacuating large MCI scenes are directed to assemble for triage, or even alternate care sites established by EMS or hospital's* until health care facilities can be made available. Resources will need to be requested from local, State, and Federal agencies to assist in the care of these individuals.

These collection points can be any of the following.

- Community health clinics
- Free standing emergency or urgent care clinics
- Any large assembly structure that has been established as a CCP by IC

COMMUNICATIONS

In the event of a Mass Casualty Incident, local acute care hospitals with emergency departments will be alerted by the local dispatch agency per protocol, with follow up from the IC or designate as the MCI evolves. A Hospital Communications Group, Unit or emergency communications Resource can serve this function.

Information provided to hospitals should include:

- Location and type of incident
- Estimated number, severity, and types of injuries
- Special resources needed
- Decontamination performed/needed

Each Hospital should make preparations for the activation of their external disaster plans depending on the number of victims expected.

Each hospital should be prepared to provide to the Transportation Group Supervisor the following information:

Emergency Department Status *(Generally, diversion is not permitted during a disaster/MCI)*

- Ability to receive and care for:
  - Immediate (RED) Casualties
  - Delayed (YELLOW) Casualties
  - Walking Wounded (GREEN) Casualties
  - Burns, % OF TOTAL Body Surface Area (%BSA) see MCI/disaster burn assessment chart. Minor burns, defined as <20% TBSA 2nd and 3rd degree burns not involving special care areas.) All burns will be assigned a start or jump start triage category, see burn assessment charts in Appendix B

Each hospital will also internally evaluate the availability of operating rooms, including the number of scrub teams, and note the number of critical care beds available.

TRACKING

Patient accountability must be maintained from a patient's inception into triage/ treatment/transport/tracking and terminates at patients discharge from field care or hospital. Tracking is a function under Treatment, communications and transportation. As all groups must have continuous bidirectional information flow in order to maintain continuity of patient flow and accountability.
(Tracking system research & development currently in progress)

Mutual Aid and Exercise

GETTING YOUR AGENCY READY

MUTUAL AID

As defined earlier, a Level III disaster means that your local resources are overwhelmed or depleted. This situation calls for mutual aid from neighboring EMS jurisdictions. EMS planners must realize that their local EMS system might be expected to respond to a mutual aid request as well as being the recipient of mutual aid. Mutual aid is a very important component of disaster planning. Discussions should begin early with neighboring agencies. Written agreements are required to be established, as per of R-426-14-500 per the Utah state rules and regulations, and regulated by the BEMS. EMS personnel, supervisors and dispatchers should be familiar with local mutual aid agreements. It is the responsibility of the Fire/EMS, Police and communications chiefs to ensure that these are in place and clearly understood by all parties involved. As Regulated by the State of Utah BEMS.

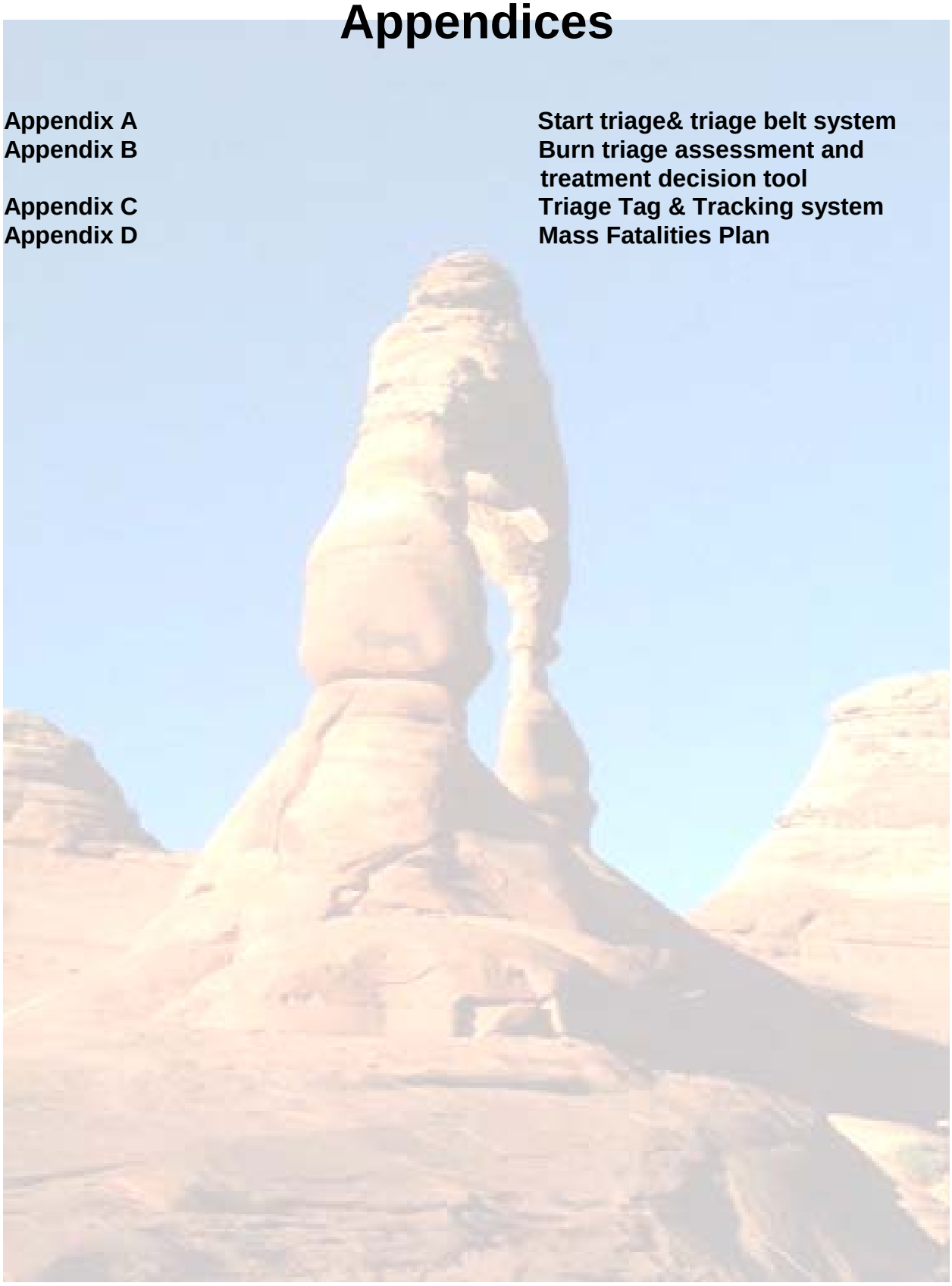
PRACTICE

Test all elements of your local plan by developing scenarios that will allow you to test your plan. Look at your community and identify those factors that might determine the type of disaster that would most likely occur. Then, each responding agency should determine its role in the mitigation of that event. Evaluate your response in all areas. Build upon any weakness in your plan.

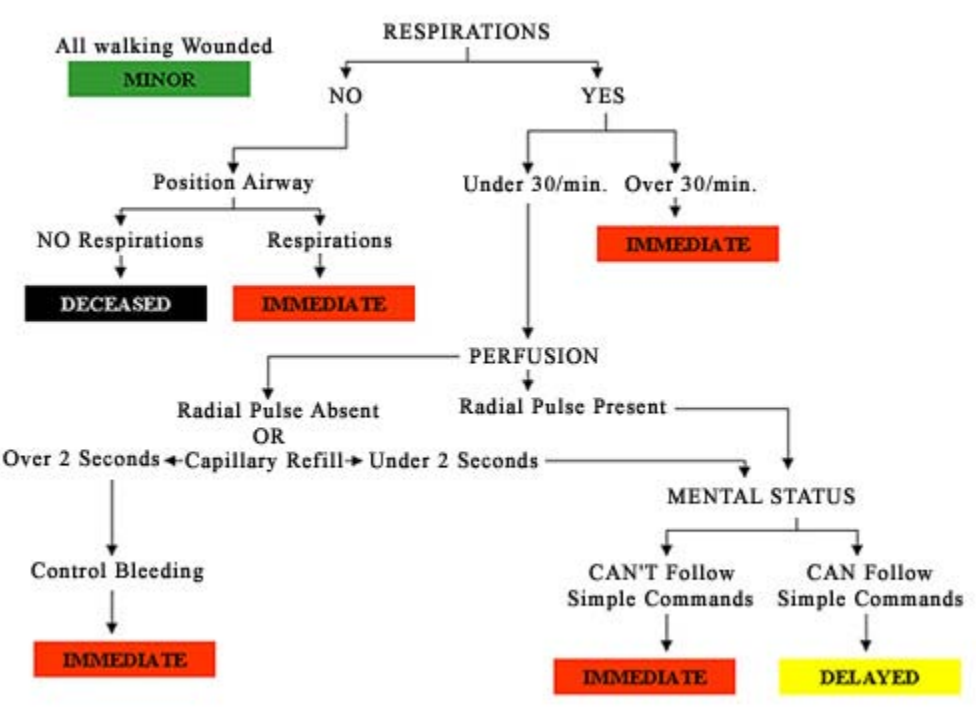
Planning, Preparing and Practicing are the key elements that can help any organization to better serve its community. It is better to find a weakness in training than to have it surface during a serious event.

Appendices

Appendix A	**Start triage& triage belt system**
Appendix B	**Burn triage assessment and treatment decision tool**
Appendix C	**Triage Tag & Tracking system**
Appendix D	**Mass Fatalities Plan**



APPENDIX A
Start Triage



START BELT SYSTEM

The START belt system consists of a belt similar to a fanny pack that contains the following.

5m - rolls of surveyors tape (green, yellow, red, black, (blue Decontaminated), and (orange antidote given)
4 Tourniquets

START Triage: Each victim is to be triaged using the RPM method.

R - respiration P - pulse M - mental status

Perform a primary survey on all patients using the START & Jump Start method of triage,(SEE ALGORYTHM) During the rapid evaluation, simple hemorrhage control and airway protection techniques are used. The only treatment should be completed by adjusting the airway or placing a dressing to stop bleeding.

Based on the primary survey findings, casualties should be prioritized. The triage team will quickly evaluate and categorize the injured into one of the following groups:

IMMEDIATE (PRIORITY I) (RED TAPE): These patients are of the highest priority and are removed and treated first. These patients have severe airway, breathing, or circulation problems, or altered mental status. Examples may include:

- Airway obstruction
- Massive bleeding
- Shock
- Open chest or abdominal wounds
- Severe head injuries
- Severe cardiac emergencies other than cardiac arrest.

DELAYED (PRIORITY II) (YELLOW TAPE): These injuries are serious and need attention. However, treatment and removal may be delayed until the Priority I patients have been stabilized. These patients do not have severe airway, breathing, circulatory, or mental status problems. Examples may include:

- Burns
- Major multiple fractures
- Spinal injuries

WALKING WOUNDED (PRIORITY III) (GREEN TAPE): The patients in this category have no apparent injuries as described above, they may have treatment delayed and are generally transported by some other means other than ambulance. Examples may include:

- Minor fractures
- Lacerations with minimal blood loss
- Chest injuries without breathing difficulties
- Minor burns

D.O.A./NON-RESUSCITABLE (PRIORITY IV) (BLACK TAPE): These patients are dead or so severely injured that death is certain within a short time, regardless of treatment given. Examples may include:

- Traumatic cardiac arrest
- Massive head injuries with brain matter exposed
- Massive body mutilation or decapitation

DECONTAMINATED (BLUE TAPE): These patients will be triaged according to the START system based upon their injuries. In addition, a blue surveyors tape 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. The specific decontamination method used should be listed on the Treatment Tag.

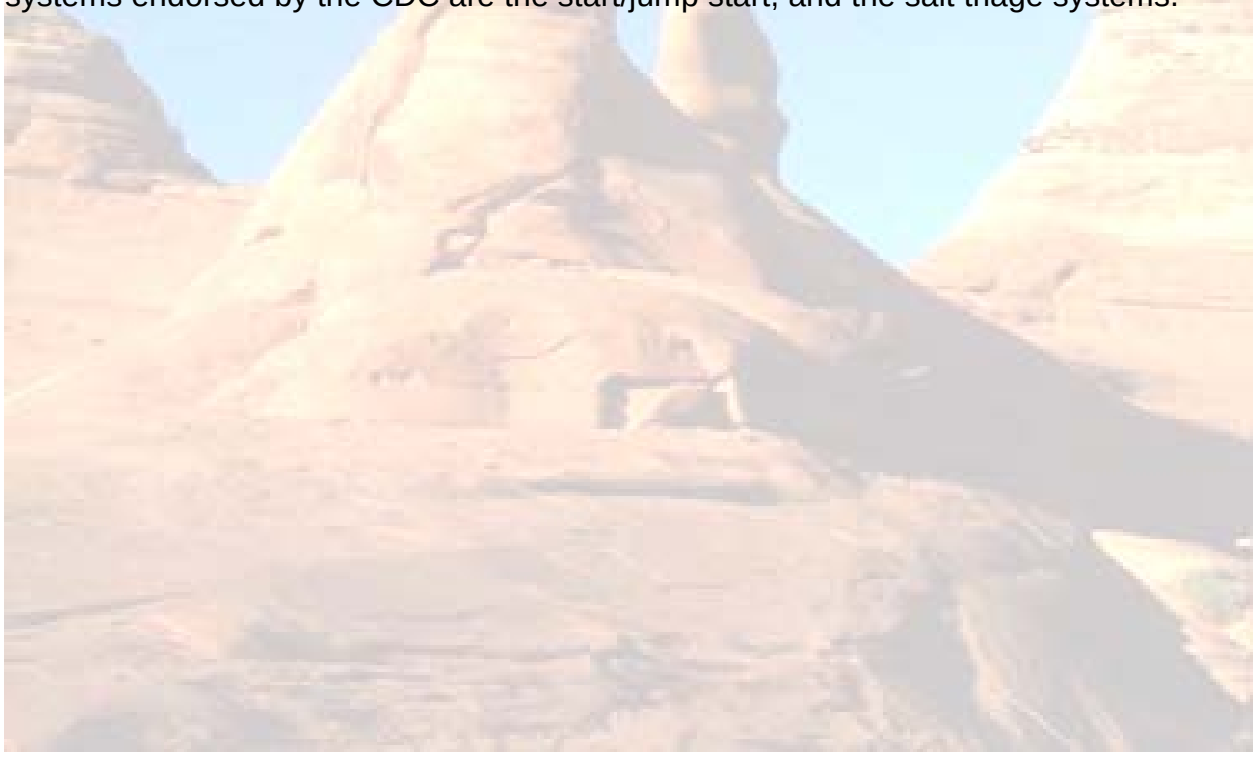
ANTIDOTE GIVEN (ORANGE TAPE): Patients that have been exposed to a hazardous material and required an antidote to be given will receive an orange tape after the antidote has been administered. (Antidotes expected to be used in MCIs include Calcium compounds for fluorides, Atropine and protopam chloride or Duo-dote for nerve agent/insecticide poisoning, and Hydroxocobalamin for cyanide poisoning. Use of specific antidotes, doses and time of administration, should be listed on the Treatment Tag.)

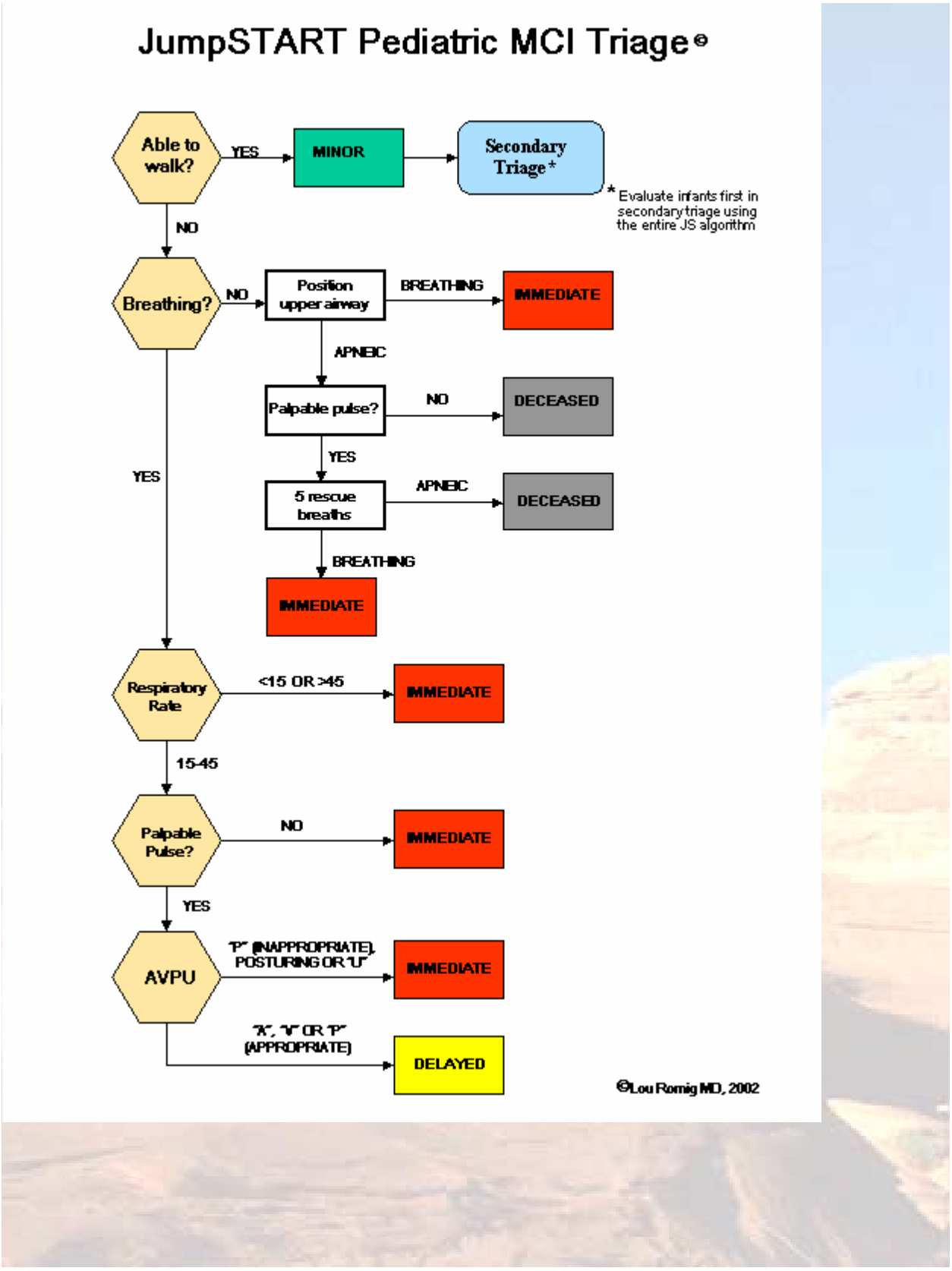
A rapid triage will include tying the appropriate colored surveyors tape on the patient according to the START triage system and gathering these patients into treatment staging areas by priority. **If the patient's condition changes prior to the treatment area, attach a new tape that better identifies the patient's current condition. Remove old tape (otherwise, triage/treatment category is not clear).**

THE "JumpSTART" RAPID PEDIATRIC TRIAGE SYSTEM

Rescuers should acquaint themselves with the "JumpSTART" pediatric triage system. Because of the differences in the causes of respiratory arrest between children and adults, this system is different from the START system. Anyone familiar with the START system should easily to able to integrate the pediatric modifications.

The state of Utah requires an organized triage system be implemented; the two systems endorsed by the CDC are the start/jump start, and the salt triage systems.




JumpSTART Pediatric MCI Triage©
Able to walk?
YES
MINOR
Secondary Triage*
* Evaluate infants first in secondary triage using the entire JS algorithm
NO
Breathing?
NO
Position upper airway
BREATHING
IMMEDIATE
APNEIC
Palpable pulse?
NO
DECEASED
YES
5 rescue breaths
APNEIC
DECEASED
BREATHING
IMMEDIATE
YES
Respiratory Rate
<15 OR >45
IMMEDIATE
15-45
Palpable Pulse?
NO
IMMEDIATE
YES
AVPU
"P" (INAPPROPRIATE), POSTURING OR "U"
IMMEDIATE
"A", "V" OR "P" (APPROPRIATE)
DELAYED
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Appendix B

Burns

BURN TRIAGE MATRIX: This grid illustrates the anticipated ratio of resources to benefit from the treatment of burns of various sizes in various aged patients. Each category reflects both the volume of resources necessary to care for the patients in each group, and the expected outcome. Categories are defined as follows:

NOTE: This matrix is intended for use ONLY in a mass casualty/Disaster declaration in which patient Numbers exceed available resources, and care must therefore be rationed. In addition, decisions regarding provision of care should not be made until the patient has assessed

Age	0 – 10 %	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91+%
0-1.99	High	High	Medium	Medium	Medium	Low	Low	Medium	Expectant	Expectant
2-4.99	Outpatient	High	High	Medium	Medium	Medium	Medium	Medium	Medium	Medium
5-19.9	Outpatient	High	High	High	Medium	Medium	Medium	Medium	Medium	Medium
20-29.9	Outpatient	High	High	High	Medium	Medium	Medium	Medium	Low	Low
30-39.9	Outpatient	High	High	Medium	Medium	Medium	Medium	Medium	Low	Low
40-49.9	Outpatient	High	High	Medium	Medium	Medium	Medium	Low	Low	Low
50-59.9	Outpatient	High	High	Medium	Medium	Medium	Low	Low	Low	Expectant
60-69.9	High	High	Medium	Medium	Medium	Low	Low	Low	Expectant	Expectant
70+	High	Medium	Medium	Low	Low	Low	Expectant	Expectant	Expectant	Expectant

Definition of Outcome/Resource Categories:

1. **OUTPATIENT**: Survival and good outcome expected without requiring initial admission
2. **VERY HIGH**: Survival and good outcome expected (survival ≥ 90%) with limited/short term initial admission and resource allocation (straightforward resuscitation, LOS ≤ 14-21 days, 1-2 surgical procedures).
3. **HIGH**: Survival and good outcome expected (survival ≥ 90%) with aggressive care and comprehensive resource allocation, including aggressive fluid resuscitation, admission ≥ 14-21 days, multiple surgeries, prolonged rehabilitation
4. **MEDIUM**: Survival 50-90%, and/or aggressive care and comprehensive resource allocation required, including aggressive resuscitation, initial admission ≥ 14-21 days , multiple surgeries, prolonged rehabilitation.
5. **LOW**: Survival <50% even with long-term, aggressive treatment and resource allocation.
6. **EXPECTANT**: Predicted survival 10% or less even with unlimited, aggressive treatment.

Burn Disaster Trigger	**Differential:**	**Critical (Red)**	**Serious (Yellow)**	**Minor (Green)**
Based on the capacity for burn patients across Utah , typically the U of U Burn center can absorb up to approximately 10 burn patients, thus **9** or more patients with burn injuries will trigger a **"Burn Medical Disaster"** And, these patients have 2nd or 3rd degree burns covering more than **5%** of the total body surface area Then a **Burn Medical Disaster** is declared, either at the scene or at the area receiving hospital	**Superficial (1st Degree)** red and painful **Partial Thickness (2nd Degree)** blistering **Full Thickness (3rd Degree)** painless/ charred or leathery skin **Thermal Chemical Electrical Radiation circumferential burns to extremities Circumferential burns to chest may require escharotomy please consult burn attending.**	**>15% TBSA 2nd/3rd Degree Burn Burns w/ Multiple Trauma Burns w/ definitive airway compromise (When reasonable accessible, transport to a Burn Ctr.) Circumferential burns to chest may require escharotomy please consult burn attending.** @ (801-581-2700)	**5- 15% TBSA 2nd/3rd Degree Suspected Inhalation injury or requiring intubation for airway stabilization Hypotension, GCS < 14 (When reasonable accessible, transport to either a Burn Ctr. or a Trauma Ctr.) circumferential burns to extremities**	**< 5% TBSA 2nd/3rd Degree Burn No inhalation injury, Not Intubated, Normotensive GCS>14 (Transport to the Local Hospital)**

Does this event include **9** or more patients with burn injuries?
Using the Rule of Nines; Do the burn injured patients have more than **5%** of 2nd Degree or 3rd Degree Burns?
(If the answer is yes to both questions above, **Declare a: "Burn Medical Disaster"**
The Declaration of a ***Burn Medical Disaster*** should include:
1: Scene EMS Command or delegate will notify the **local hospital's** of a potential surge of patients with significant burn injuries
2: Contact with ALL **Trauma Center's UMC, IMC, UVMC, PCMC, McKDH, OgdRMC,** to plan on a potential surge of patients with significant burn injuries
3: Contact the U **of U Transfer Center** @ (801-587-8980) this will trigger a waterfall of staff response (Burn charge nurse, Burn Attending, Air-med, and house supervisor.
4: Where applicable, request sufficient ground and air transport services for transport to either the appropriate burn
center(s) or trauma center depending on local Medical Control predetermination for burn patients

Formula for Fluid Resuscitation of the Burn Patient

(Also known as the Parkland Formula)

Pts Wt kg x %TBSA x 4.0cc LR/NS infused over 24 hours with half given in the first 8 hours. (For the equation, the abbreviations are: PW x TBSA x 4.0 cc) EMS focuses on the care given during the 1st hour or several hours following the Event. Thus the formula as adapted for EMS and the first 8 hours is: PW x TBSA x 4.0 cc, divide by 2 to take this to the hourly rate, divide that solution by 8 and the equation becomes: PW x TBSA x 4.0cc / 2 / 8 = total to be Infused for each of the first 8 hours. Another way to state the equation is to use: PW x TBSA x 0.25cc = total to be infused for Each hour of the first 8 hours.

Example, 80 kg (198 lb) patient with 50 %TBSA x 0.25 cc = 1000 cc/hr. Two IV's are started, thus each are running at 500 cc/hr per IV.

Remember: Patient's Weight in kg (2.2 lbs = 1.0 kg) example: 220 lbs adult = 100 kg % TSBA = Rule of Nine Total Body Surface Area Factor for the 1st hr. and each hr. for the 1st 8 hrs. = 0.25 Reminder, if two IV's are running, divide total amount to be infused each hr. by 2

Also, this is based on a timely response Following the burn event. If there is a delay between the time of the burn event and the Initiation of fluid therapy, the patient may need to be bolused to compensate for the delay.

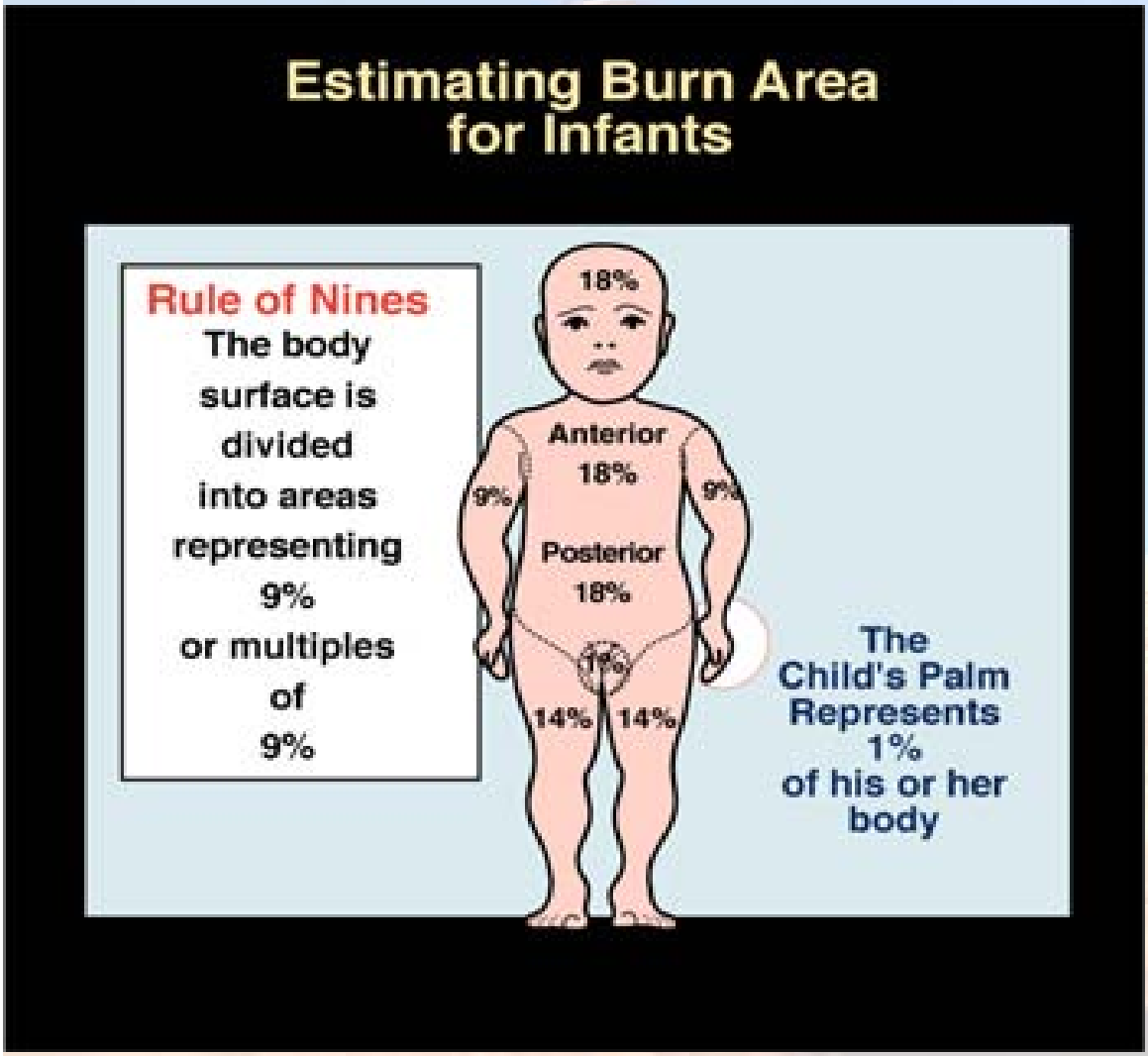
Please consult Burn center Attending regarding the need for fluid boluses. (801-581-2700)

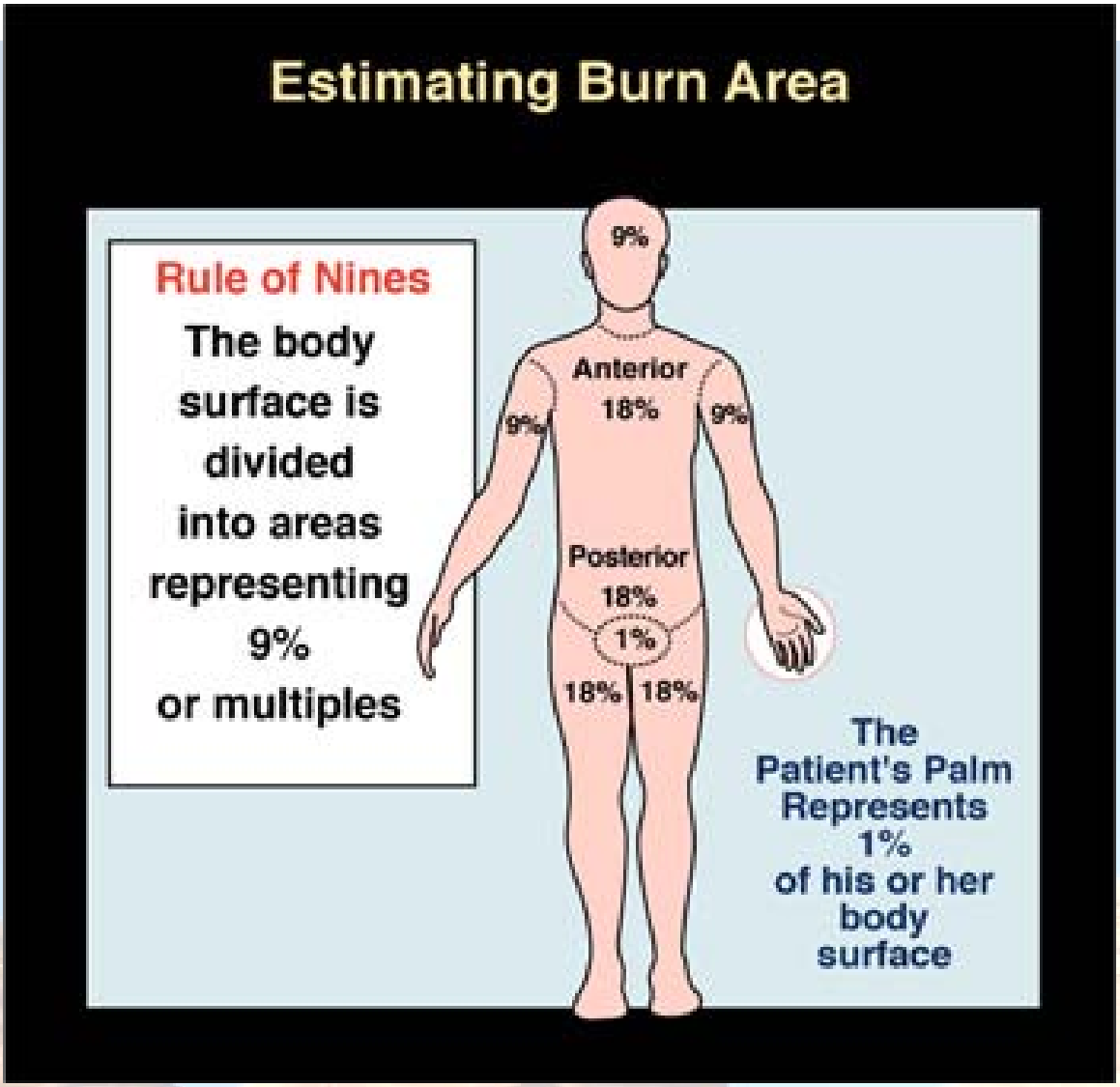
Fluid Boluses should only be administered without a burn attending consult in the presence of multiple trauma, or hypotension with burn injury.

LR is preferred NS can be used until LR is available; Use of other fluids is not recommended.

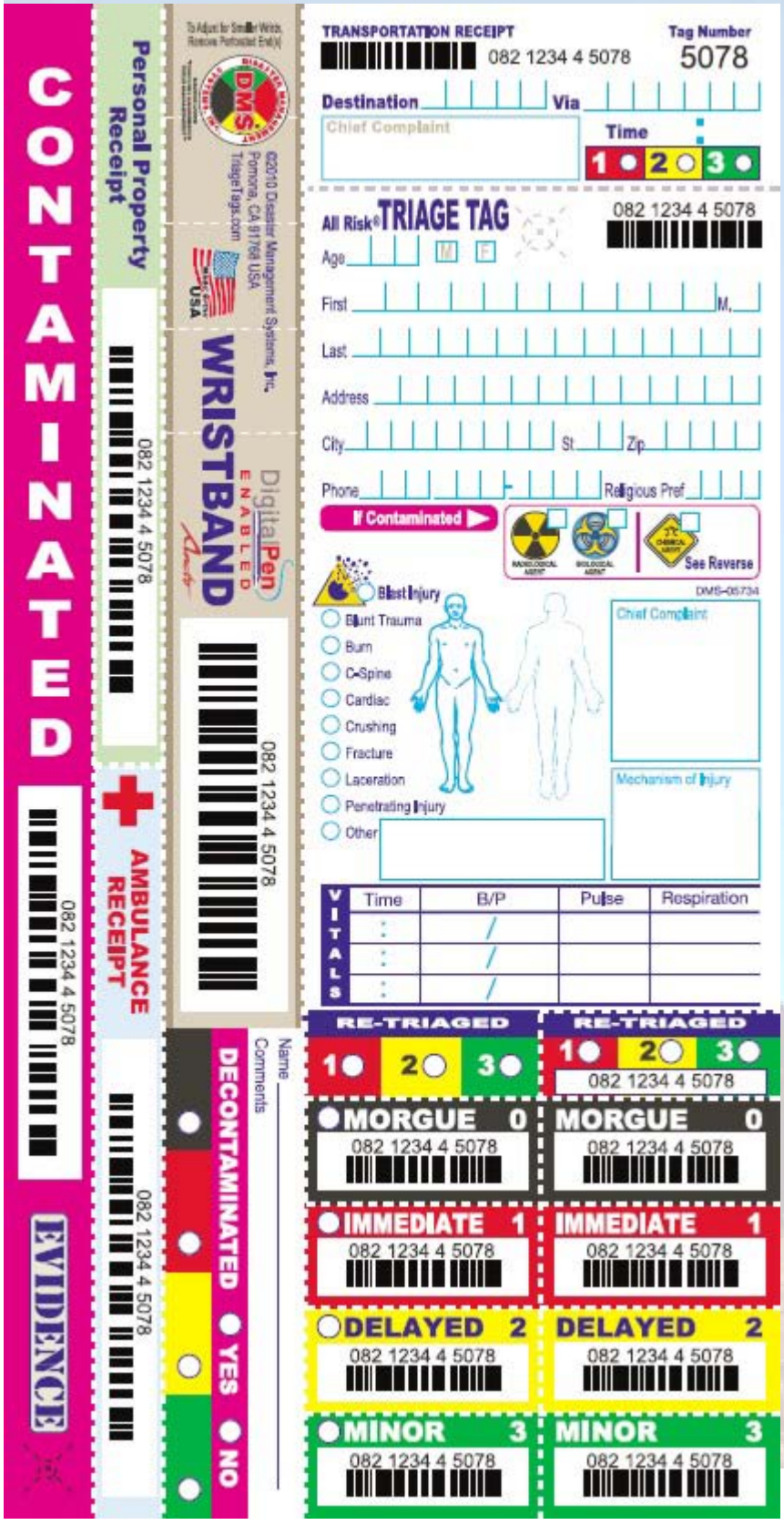
Burn WT (LBS)	Resource WT (KG)	and % TBSA	Fluid ML/HR 1st 8HR	Resuscitation 60 gtt gtt/min	Formula 20 gtt gtt/min	Chart 15 gtt gtt/min	LR or NS 10 gtt gtt/min
22	10	10	25	25	8.3	6.3	4.2
22	10	20	50	50	16.7	12.5	8.3
22	10	30	75	75	25	18.8	12.5
22	10	40	100	100	33.3	25	16.7
22	10	50	125	125	41.7	31.3	20.8
44	20	10	50	50	16.7	12.5	8.3
44	20	20	100	100	33.3	25	16.7
44	20	30	150	150	50	37.5	25
44	20	40	200	200	66.7	50	33.3
44	20	50	250	250	83.3	62.5	41.7
66	30	10	75	75	25	18.8	12.5
66	30	20	150	150	50	37.5	25
66	30	30	225	225	75	56.3	37.5
66	30	40	300	300	100	75	50
66	30	50	375	375	125	93.8	62.5
88	40	10	100	100	33.3	25	16.7
88	40	20	200	200	66.7	50	33.3
88	40	30	300	300	100	75	50
88	40	40	400	400	133.3	100	66.7
88	40	50	500	500	166.7	125	83.3
110	50	10	125	125	41.7	31.3	20.8
110	50	20	250	250	83.3	62.5	41.7
110	50	30	375	375	125	93.8	62.5
110	50	40	500	500	166.7	125	83.3
110	50	50	625	625	208.3	156.3	104.2
132	60	10	150	150	50	37.5	25
132	60	20	300	300	100	75	50
132	60	30	450	450	150	112.5	75
132	60	40	600	600	200	150	100
132	60	50	750	750	250	187.5	125
154	70	10	175	175	58.3	43.8	29.2
154	70	20	350	350	116.7	87.5	58.3
154	70	30	525	525	175	131.3	87.5
154	70	40	700	700	233.3	175	116.7
154	70	50	875	875	291.7	218.8	145.8
176	80	10	200	200	66.7	50	33.3
176	80	20	400	400	133.3	100	66.7
176	80	30	600	600	200	150	100
176	80	40	800	800	266.7	200	133.3
176	80	50	1000	1000	333.3	250	166.7
198	90	10	225	225	75	56.3	37.5
198	90	20	450	450	150	112.5	75
198	90	30	675	675	225	168.8	112.5
198	90	40	900	900	300	225	150
198	90	50	1125	1125	375	281.3	187.5
220	100	10	250	250	83.3	62.5	41.7
220	100	20	500	500	166.7	125	83.3
220	100	30	750	750	250	187.5	125
220	100	40	1000	1000	333.3	250	166.7
220	100	50	1250	1250	416.7	312.5	208.3

Rule of Nines or the rule of Palms are both acceptable For Calculating % TBSA.





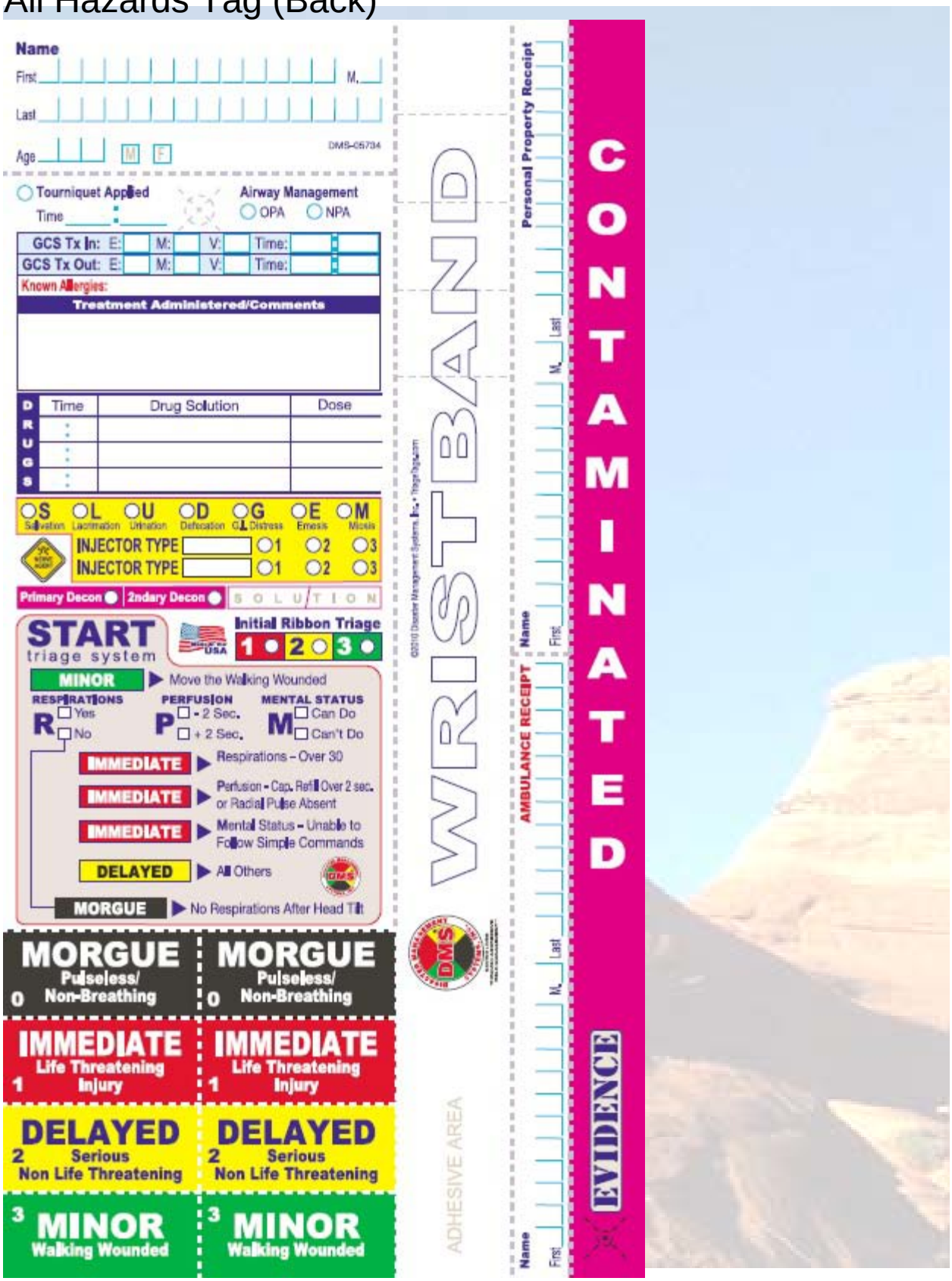
Fluid calculation chart and burn disaster trigger, completed and reprinted in collaboration and with permission of Dr's B Kearns & Karns et al. The burn centers of Chapel Hill, Wake Forrest and University of North Carolina. Burn triage matrix and rule of nines and palms, Printed with the Permission of University of Utah Burn center and Dr J Saffle. Reference material for both includes The Advanced Burn Life Support textbook.



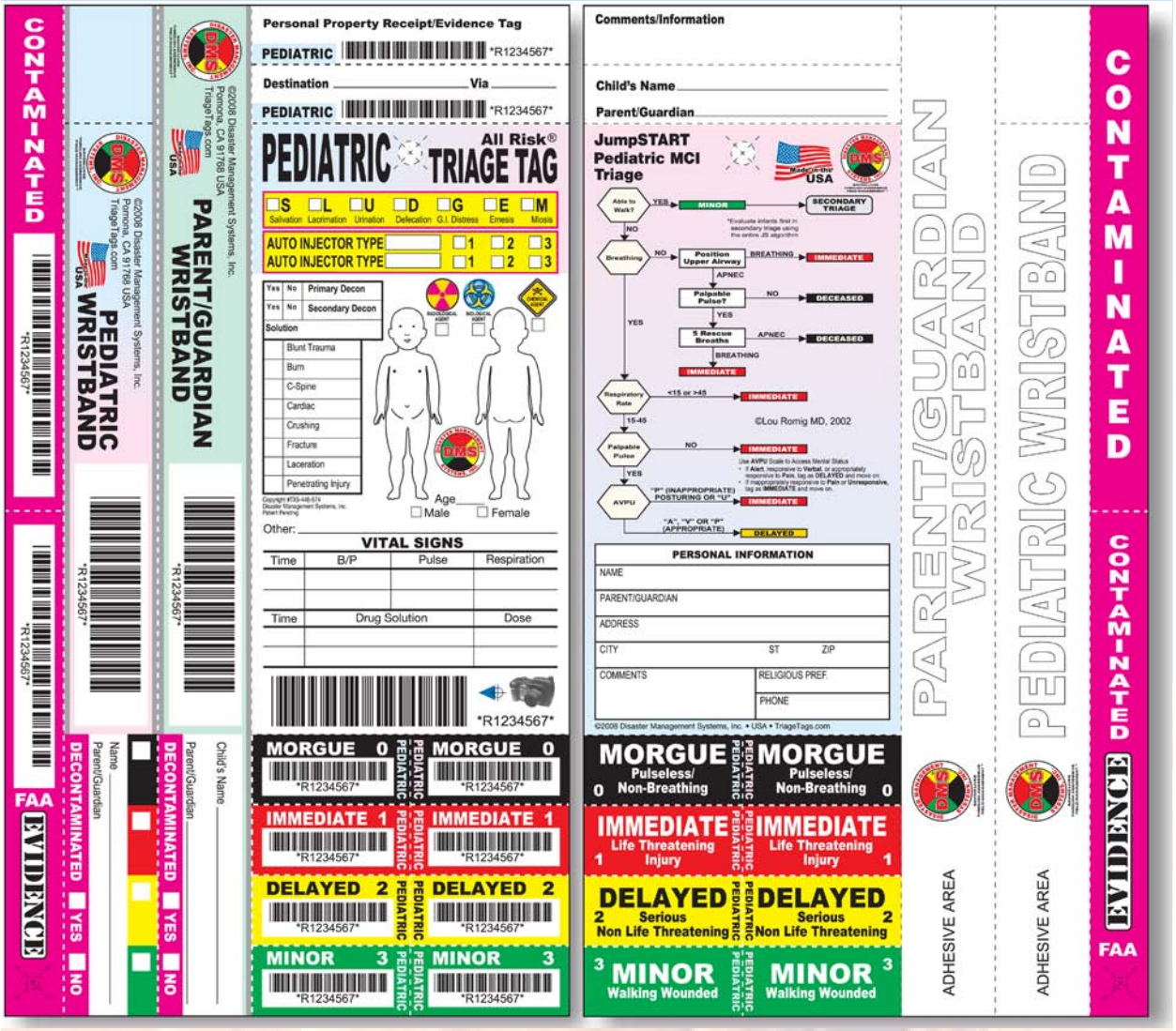
APPENDIX C
Triage tag Front

All hazards tag Example, must be tracking system compatible

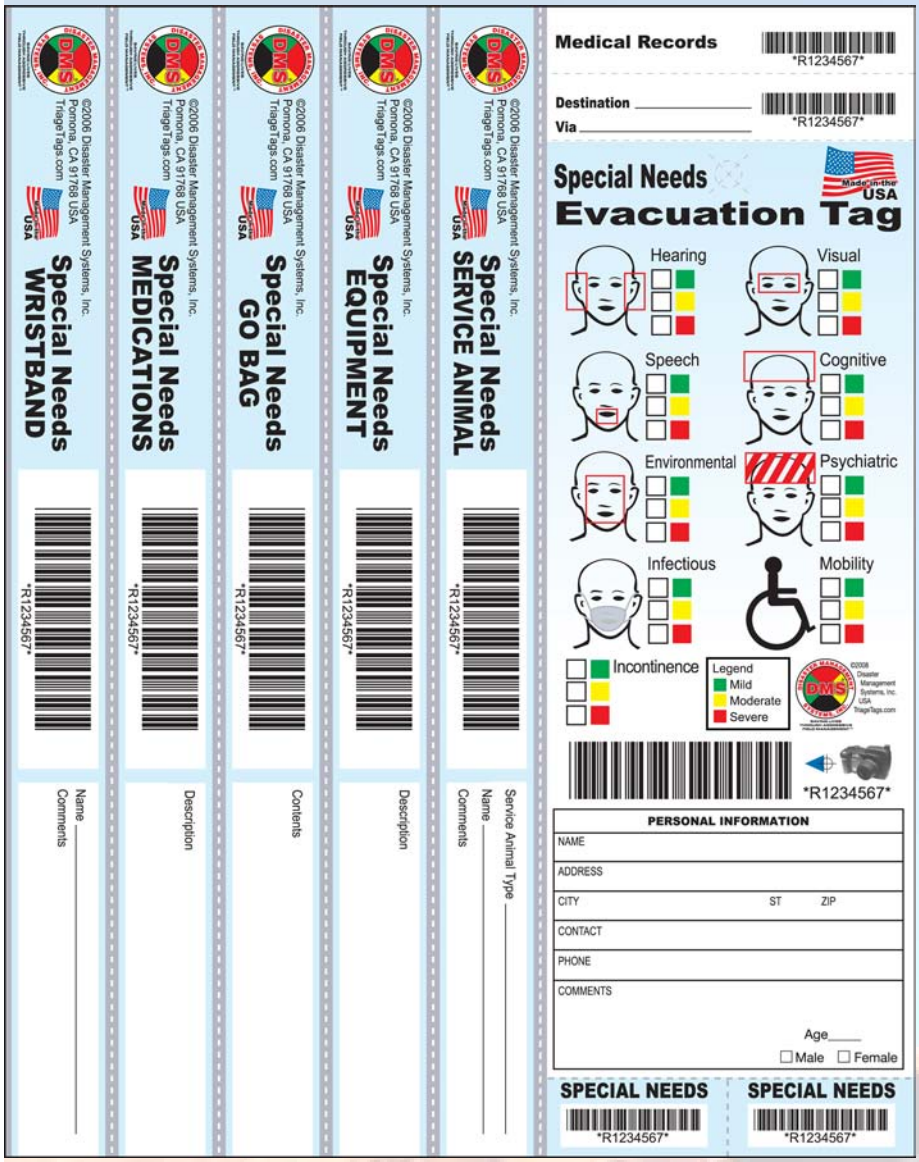
All Hazards Tag (Back)



All Hazards Pediatric Tag Example



Special Health Care Needs Tag Example



General Evacuation Tag Example

UTAH DEPARTMENT OF HEALTH

EMERGENCY OPERATIONS PLAN

MASS FATALITY INCIDENT RESPONSE PLAN: APPENDIX D

I. INTRODUCTION

A. A mass fatality incident is defined as an occurrence of multiple deaths that overwhelms the capability of local agencies to respond.

B. Mass Fatalities Plans. The Office of the Medical Examiner (OME) in the Utah Department of Health, maintains protocols and Standard Operating Procedures for the processing of human remains resulting from a Mass Fatalities Incident. Appendix D to the Mass Casualty Incident Plan outlines responsibilities and procedures required to manage an incident where many deaths occur thus overwhelming the ability of local agencies to respond.

II. RESPONSIBILITIES

A. The National Incident Management System (NIMS) has proven to be the best overall plan of response to a mass fatalities incident. The Utah Department of Health and the OME endorse the concepts of NIMS. The Chief Medical Examiner, or designee, is an integral part of a unified command. NIMS provides for an integrated response with supporting operations, planning, logistics and finance sections that are required to handle:

1. Search for and Recovery of human remains resulting from disasters.

2. Security of the disaster scene and the preservation of evidence.

3. Morgue sites and the identification of remains.

4. Documentation of the disaster scene and the reconstruction of the incident.

5. Resource Planning (before, during and after).

6. Locating technical specialists, equipment, supplies, communication, food and shelter for the emergency responders.

7. A Family Assistance Center is planned to provide care for the families of the victims to afford them access to counseling, temporary food and shelter, privacy and to solicit information which may be helpful in identifying deceased persons.

B. The OME has jurisdiction over disaster scenes involving mass fatalities. Subordinate state, county and city agencies should fully cooperate with the OME to ensure that critical information and evidence is not lost.

III. CONCEPT OF OPERATIONS

A. Major Operations include the following activities:

1. Disaster Scene: This scene is the first place the OME will become involved. It is where the recovery of human remains, and the documentation and reconstruction of the disaster occurs. Once efforts to rescue the living have been completed, the process of recovery will begin. Additional manpower and equipment support must be identified and quickly provided so as to not impede an efficient recovery operation.

a. Body Recovery Teams consist of the following members:

(1) Chief Medical Examiner Investigator

(2) Medical Examiner Assistant

(3) Scribe/Narrator for documentation of disaster scene

(4) Photographer

b. Body Transportation Teams consist of four members who remove remains from the disaster scene to the temporary morgue or staging area.

2. Examination Center: It's important to identify personnel and equipment in advance of the disaster that will be responsible for body identification and processing. When the disaster occurs, preassigned teams must be deployed immediately. Detailed records are to be maintained to track personnel and equipment use, source of procurement, team member's names, agencies represented, hours worked and duties performed. Teams must be merged into the appropriate sections of the Incident Command System to allow proper supervision and support. Details and assignments for the examination center operations include:

a. Security - ID badges, vests or distinctive markings will be used to preclude non-authorized access to the disaster scene or temporary morgue sites. A system of credentialing must be determined in advance and periodically changed to preserve evidence at the disaster scene.

b. Refrigerated trucks or vans will likely be needed for the storage of victim remains or fragmented body parts. Ensure that ramps are available for entrance into cargo areas. Mutual aid agreements must be drafted and possible sources for reefer trailers identified before the disaster occurs.

c. Protective clothing such as waterproof and surgical gloves, eye splash shields, scrubs, shoe covers, N-95 masks, coveralls and hard hats must be available for all disaster workers. Chemical/biological agent-resistant personal protective equipment should be available for personnel that must enter contaminated environments. Those tasked with donning protective equipment must be properly screened, trained and qualified prior to the incident. Make provisions to check vital signs and stay times for all responders entering a contaminated area. Ensure that OSHA two-in/two-out requirements are observed at all times.

d. Communication - Capabilities must include telephones, cell phones, fax machines, and PA systems. VHF/UHF radios may be considered for use in the event of the loss of telephone

service. Amateur radio operators are also an excellent resource that should not be overlooked.

e. Automation – Internet, laptop computers, with modems and fax capabilities, and printers are invaluable tools if electrical or battery power is available. An automation specialist should be available to assist with data processing problems.

f. Post and ante mortem records must be maintained. Place someone in charge to systematically file and distribute critical records. Ante-mortem information must be entered into a database for quick retrieval to identify human remains.

g. Office equipment should include copiers, typewriters, fax machines and an assortment of supplies (pens, paper, etc).

3. Temporary Morgue Sites: A suitable site may be determined for the temporary storage and assembling of human remains. Adequate space must be available to accommodate the bodies or body parts in a dignified and orderly manner. Bodies will be laid in rows, with aisles, to allow easy access and transporting. A minimum of 20 square feet of space is required for each body. Other considerations include:

a. Adequate lighting in the work area to permit safe, efficient operation.

b. Temperature control for the comfort of the workers and to prevent accelerated decomposition or freezing of the bodies or fragments. The optimal temperature for the storage of human remains is 37 to 42 degrees Fahrenheit. Human remains must be quickly relocated from the temporary site and into refrigerated trucks or to the state morgue at 48 North Medical Drive, Salt Lake City, Utah.

c. Although autopsies may not be performed at the temporary morgue, washing of bodies or decontaminated may be required. This will require containment of waste water in approved hazmat barrels or storage bladder

d. The disposal of contaminated (biohazard) and uncontaminated trash must be considered and a contractor hired to safely remove it.

e. Electrical power is required for lighting, heating and to operate computers, copiers and other essential equipment.

f. Hard-wired telephone lines for communicating from the temporary morgue are preferred over the less secure cell phones or radios that can be monitored by others.

4. Portable Autopsy Suite: A 24' trailer was purchased to allow off-site operation to be performed by the OME staff. This trailer, fully capable of autopsies, will be transported to the scene by the Utah Department of Transportation at the request of the Chief Investigator or Medical Examiner. The trailer is self contained but an external water source is needed. A waste water bladder or 55 gallon barrels are needed to contain the waste water which will be properly disposed of by a contract hazardous material vendor.

5. Disaster Mortuary Operational Response Team (DMORT): Regional DMORTs are assets of the National Disaster Medical System (NDMS) and may be available to assist the Medical Examiner during a mass fatality incident. Members are skilled in photography, forensic dentistry, anthropology, pathology, radiology, finger printing and medico-legal investigation. DMORTs deploy with a Disaster Portable Morgue Unit (DPMU) that has all the stations required to process and identify human remains. Depending on the severity of the disaster, NDMS may request a federal declaration of emergency. In such case, the cost of the deployment is paid by the federal government. DMORTs and the DPMU are requested through the Utah Department of Health,

Bureau of EMS on the 24 hour emergency line: 1-866-364-8824 to the Utah Division of Homeland Security.

6. Family Assistance Center (FAC): The OME is responsible for establishing a FAC. Its purpose is to provide a secure place for family members of the disaster victims to gather for temporary care and counseling. Often family members are able to provide important ante-mortem information that will assist morgue technicians to identify recovered remains. The American Red Cross and the Fatality Incident Team (Enclosure 1) will assist the OME in staffing and operating the FAC. State and local agencies that may also be involved in the Center are:

a. Mental Health - Staff support for counseling and assisting with death notification.

b. Local Clergy - Religious support for bereaved families and survivors of the disaster.

c. Communications - Skilled telephone operators are needed to receive inquiries from families, friends and concerned citizens.

d. American Red Cross and Other Volunteer Agencies - Family support, transportation, housing, supplies, feeding, mental health counseling and administrative coordination.

e. Technical and Legal - Local funeral homes, insurance agents and legal firms may provide important counseling which is beyond the scope of Mental Health therapists and religious leaders.

f. Site Support - Food service, housing, recreation, medical care, administrative, security, custodial and site maintenance. Donated items must be properly managed to prevent impeding the recovery and identification process.

7. Fatality Incident Team: Selected volunteers from the Utah Department of Health are available to assist the Chief Medical Examiner during a mass fatality incident. A more detailed description of capabilities and duties appear in Enclosure 1 to this appendix.

a. Resources during a Mass Fatality Incident

(1) University of Utah Pathology Department

(2) Intermountain Pathology Association

(3) Memorandums of Agreement:

a. Hill Air Force Base

b. Utah Air National Guard

c. C.R. England Trucking Company

b. Critical Incident Stress Management. Few responders have had the experience of dealing with a mass fatality incident. The resultant sights and smells will cause most to experience feelings of stress and burnout. Trained disaster counselors are available through state sources to deal with the mental anguish that will be experienced by morgue and Family Assistance Center workers. Planning to rotate personnel frequently and allowing decompression time is critical to maintaining mental health. Critical Incident Stress Debriefing teams are requested by calling 801-779-2865.