Mass Casualty Incident Program
Initial Triage Training

Sponsored by A.E.M.S.

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Mass Casualty Incident Program
Initial Triage Training

CLASS DESCRIPTION

The goal of the Mass Casualty Incident Program is to increase first responder readiness to respond, triage, treat and transport patients arising from a multiple patient or mass casualty incident. This program is funded by a grant from the Arizona Department of Health with implementation and oversight provided by *AEMS* Inc.

The purpose of *Initial Triage Training* is to introduce students to the Arizona Triage System using a triage method called *S.T.A.R.T.-- Simple Triage and Rapid Treatment.*[1] Students will also practice the *START* technique on disaster mannequins using a newly-developed triage tag and polish their skills during a simulated multi-patient incident.[2]

LEARNING COMPETENCIES

Upon the completion of this module, the student will be able to:

- Know how to triage patients using *START* method
- Know how to use the Arizona Triage System
- Describe what to do when first arriving at a multiple-patient incident
- Identify the use of EMS tactical benchmarks

MATERIALS NEEDED

1- Lesson Plan
2- Handouts
- Triage Exercise I
- MCI Review
- Triage Exercise II
- Student Evaluation Form
3- *START* Wallet Cards
4- *START* Training Video
5- *START* Slides (or PowerPoint CD-ROM) and slide printout
6- Triage Kits
7- Video Projector, Slide Projector(or computer projector) & Television Screen
8- Disaster Mannequins

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1 START is a registered trademark of the Newport Beach (CA) Fire and Marine Department.
2 Advanced Mass Casualty Incident Training is also available through *AEMS*, Inc.

OUTLINE

Sessions II and I are designed as 1½ hour training blocks to be taught on different days. If taught continuously, it is not necessary to re-play the *START* training video or review the Arizona Triage System as indicated in the Session II outline, Parts B & D.

Session I (90 minutes)

    A. Introduction

    B. Lecture: Goal/Objectives/Terminology/*START* (Slides 1 –17)

    C. Show *START* video

    D. Lecture: Triage Categories/*START* Practice (Slides 18-26)

    E. Triage Assessment Exercise I

    F. Demonstrate Use Arizona Triage System

    G. Lecture: Triage Goal & Priorities/ Triage Tag Field Trial/Tactical Benchmarks (Slides 27-38)

    H. MCI Review (self-graded quiz)

Session II (90 minutes)

    A. Introduction

    B. Review *START* (Show *START* video if necessary)

    C. Triage Assessment Exercise II

    D. Use of the Arizona Triage System

    E. Responsibilities of the First Unit On Scene

    F. Review the Use of EMS Tactical Benchmarks

    G. Simulated Multi-Patient Incident (5-10 patients) using the Arizona Triage System

    H. Optional Lecture: MCI's Involving More Than 25 Patients (Slides 39-47)

SESSION I NARRATIVE
Introduction, Goal & Objectives

Based on research by the Phoenix Fire Department, EMS Personnel in Central Arizona respond to more than eighty major medical incidents per year. More than 80% of these emergencies involve motor vehicle collisions where five to 12 patients are treated and transported. Response to these multiple patient incidents will continue to occur throughout the region, along with an increasing likelihood of a mass casualty incident (25+ patients) occurring from causes such as a detonation of an explosive device or release of hazardous materials.

Few EMS responders have been involved in a mass casualty incident. If a disaster occurred and dozens of injured people needed to be triaged, how does one begin? While past agency SOPs/ directives/guidelines and EMT textbooks have indicated the need to triage patients in a multiple-patient setting, none showed EMS personnel how to do it accurately and quickly.

The goal of *Initial Triage Training* is to increase EMS first responder ability to triage, treat and transport patients arising from a multiple patient or mass casualty incident.

By the end of this session, the student will be able to:

- Know how to triage patients using *START* method
- Know how to use the Arizona Triage System
- Describe what to do when first arriving at a multiple-patient incident
- Identify the use of EMS tactical benchmarks

MCI Terminology

The following terms are useful when discussing major medical incidents:

- M.P.I. -- Multi-patient Incident (up to 25 patients)
- M.C.I. -- Mass Casualty Incident (25-100 patients)
- Disaster -- Over 100 patients
- M.O.I. -- Mechanism of Injury
- M.V.C. -- Motor Vehicle Collision

Phoenix Fire Department Study of Major Medical Incidents

Phoenix Fire Department conducted a review of all major medical incidents occurring between 1996 and 1997 that involved agencies within its "Automatic Aid Consortium". There were 56 incidents in 1996, 87%, which were MVAs. These incidents averaged just over five patients per event, with nearly 280 patients treated overall.

Using an old triage system, half of the patients were assessed as "Priority I" patients (or "Priority-I-by-Mechanism") and taken to Level I Trauma Centers. Twenty-six percent of the patients were rated as "Priority IIs" and 21% were assessed as "Priority III" patients. Four patients were found deceased on scene. Almost one in four incidents involved seven or more patients.

The statistics for 1997 are similar. There were a total of 41 incidents in 1997, with 255 patients treated. Again, more than eight out of 10 of these major medical emergencies were MVAs. Compared to the previous year, 1997 saw the average patient count rise from five to 6.2 patients per incident. In addition, the number of incidents with seven patients or more patients jumped from 23% to 43%. Forty-six percent of the patients were treated as "Priority I" patients (or "Priority I-by-Mechanism"), 27% were treated as "Priority II" patients and 24% were assessed as "Priority III patients." Eight patients were found deceased on-scene.

Triage Considerations

Phoenix Fire Department assembled the "Valley EMS Triage Work Group" to study the triage system used within the Automatic Aid Consortium and to propose a standard system for use across the state. This group was composed of thirteen agencies within the Fire Department's Automatic Aid Consortium, along with representatives from Gilbert, Chandler, and Mesa Fire Departments and Southwest/ Rural Metro Ambulance.

The Triage Work Group identified several problems with its current system. These focused on three areas. **First, what triage tag process is used**? Do we have a process? Is there a triage process in use around the U.S. that allows EMTs and paramedics to systematically triage patients . . . in the same way? Is this technique accurate, that is, will any two firefighters perform triage do so and arrive at the same conclusion? **Second, what triage tag should we use?** How good is our current triage tag? Is there a better tag on the market that is easy to use and simple to understand? **Third, what colors should be used to identify and categorize patients?** Do these colors coincide with national standards?

These questions are important. To be successful, a triage system must be easy to understand simple to use, fast and accurate.

START--Simple Triage and Rapid Treatment

Although triage tags have existed for quite some time, there has never been a clearly defined triage process to be used by EMS providers in Central Arizona. While EMS personnel had tags on their rigs, there was no regional standards or consistent training that showed how to rapidly *and accurately* assess patient status prior to placing the tag.

In that past few years, a triage method called "S.T.A.R.T.--*Simple Triage and Rapid Treatment"* has gained wide acceptance by EMS providers across the nation. *START* was developed by the Newport Beach (CA.) Fire and Marine Department to quickly identify and sort patients during a multiple patient incident. *START* quickly distinguishes between critically ill victims and the less-severely injured.

Following a specific algorithm, an EMS first responder quickly assesses airway, respiration, pulse and level of consciousness to categorize a patient's condition. With *START*, a triage team of two can assess an average of one patient every 30 seconds.

At an incident with 40 casualties, two triage teams will take approximately 10 minutes to accurately triage patients using the *START* process. The only treatment rendered by the triage team is to open a patient's airway by head/tilt neck lift or by insertion of an OPA, or to apply direct pressure to stop an obvious bleed or by elevating the extremities.

START has been adopted throughout California, Oregon and Washington. It was used successfully during the Trade Center and Oklahoma City bombings. Foreign countries including France, Saudi Arabia and Israel have adopted *START*. It is the standard of care recognized by the U.S. Department of Transportation and widely published in EMT textbooks.

What three items are checked when using *START*? Just remember RPM: Respiration, Pulse & Mental Status.

(Show *START* Video and distribute *START* wallet cards)

Review Key Concepts

To review keys points from the video, what is the terminology used to classify patients using *START*? They are IMMEDIATE, DELAYED, MINOR and DEAD/DYING. Let's review each category.

IMMEDIATE patients are those who "RPM" is altered. You saw in the video that the triager, after using *START* to evaluate a patient, folded and tore the bottom of the tag in both directions to expose the IMMEDIATE label at the bottom of the tag. He then placed a tracking slip in the triage kit and put an IMMEDIATE label on the patient.

Patients who are unable to follow instructions to evacuate the scene, but who "RPM" is intact are categorized DELAYED. This is the most common category. It also includes patients who have a significant mechanism of injury, but whose "RPM is intact.

MINOR patients are those at large incidents who were able to leave the impact area on the instruction of EMS personnel. The are the "walking wounded" and should be tagged later. **(Note: Minor patients should not be confused with "pediatric" patients.)**

The DEAD/DYING are those who cannot breath after the airway is opened and are mortally wounded. The patients will probably die despite the best resuscitation efforts. It is often a difficult decision to leave a dying patient, especially if it is a child. But remember resources are often wasted here on unsalvageable victims.

To review, what are the three medical treatments rendered when performing *START* triage? Open an airway or insert an OPA. Stop any visible bleeding. Elevate the extremities for shock.

START Practice

Let's review the *START* system on three patients. Patient I is 21 year old male complaining of pain to his upper right leg. You see an obvious open right femur fracture. What is your *START* assessment? What is your treatment?

The patient is awake, his airway is open (remember, he's talking) and his respiration's are over 30/minute.

The *START* assessment is "RPM." Using RPM, the patient is categorized as IMMEDIATE. Why? Because his respirations are over 30 per minute. What is your treatment? None during triage.

Patient 2 is a 15-year-old female who is complaining of numbness to her legs and is unable to move them. You see a 2" laceration to her left skull with moderate bleeding. What is your *START* assessment?

She is awake, her airway is open, her respiration's are under 30 a minute and she has a radial pulse.

Using *START*, her RPM assessment indicated she is DELAYED. Why? Her respirations were under 30, she has a radial pulse and she is alert and oriented.

What about Patient 3? Patient 3 is a 40-year-old male who looks really bad. He's unconscious, pale and limp. What is your *START* assessment? What is your treatment?

When you open the patient's airway, there is no breathing, even after you slip in an OPA. Should you work him? Maybe. Maybe not.

Just remember what a noted Disaster Researcher, Alexander Buttman, has said... (Read slide quote).

(Complete Triage Assessment Exercise I)

Triage Priorities

Your initial goal during triage is to find IMMEDIATE patients. You want to "find the red and get it out" (kinda like Visine!). Your efforts should focus on locating all IMMEDIATE patients, getting them treated and transporting them as soon as possible.

Once IMMEDIATE patients have been treated and transported, reassess all DELAYED patients and upgrade any to "IMMEDIATE-by-mechanism," depending on their injury, age, medical history, etc.

When performing the triage function, regardless of incident size, don't get distracted, move quickly and focus your attention on IMMEDIATE patients. Those are the real lives you'll save.
The goal is to stay focused on red.

A modification the *START* system involves smaller major medical incidents with less than 10 patients. First, don't yell out to move the MINOR "walking wounded" to a collection area. It is not the standard of care to ask these patients to move at a smaller incident.

Victims who have self-extricated themselves prior to our arrival can be labeled MINOR, all other patients should be tagged IMMEDIATE, DELAYED or DEAD/DYING, depending on your *START* assessment.

Triage Tag Field Trial

Before 1999 there was no universally accepted triage system in Central Arizona. While many EMS providers throughout the region used a four color-coded triage tag system, other agencies used one of several commercial tear-off triage tags. This led to confusion, misunderstanding and inappropriate triage during multi-agency responses to major medical events.

To identify the best of several commercial triage-tagging systems, the "Valley EMS Triage Work Group" undertook the Triage Tag Field Trial. The purpose of the Trial was to test various tag systems under several simulated multi-patient and mass casualty incidents.

There were three types of tags identified that are in common use throughout the United States. They are a separate colored triage tag, triage tape and treatment tag and the multicolored triage tag. The first is from the Phoenix Fire Department, the second is from Seattle, and the third is from California.

The study also looked at the ways to attach the tag to the victim's body and three ways to affix the kit to the rescuer.

The Triage Tag Field Trial resulted in the development of a new triage system using a multicolored tear-off tag. (See: "Triage: A Comparison of Triage Tags in Common Use in the United States," by Dean Pedrotti, MBA, and Ronald Perry Ph.D., *Prehospital Care Research Forum* in May 1999.)

(Hand out tag samples)

Using the Arizona Triage System

The Arizona Triage System is a fanny pack containing 35 triage tags, 15 IMMEDIATE labels, 35 nylon ties, 6 assorted OPAs, 3 ink pens and 1 pair of scissors.

During an incident, this triage tag is used in the following way:

- Evaluate patient using *START*
- Tear off the bottom of the tag
- Tear off a tracking slip and place it in the kit
- Attach tag to the patient with a nylon tie
- If IMMEIDATE, affix adhesive label on/near patient
- Give tracking slips to the Triage Officer

Once triage is complete, Command should give a Triage Report to Dispatch. This is one of two EMS Tactical Benchmarks that will be covered in the next session.

Conclusion

In *Responding to the Mass Casualty Incident: A Guide for EMS Personnel,* Alexander Buttman states "there is probably no subject in the EMS field that is as little understood and, therefore, as poorly handled as mass casualty." In his review of 27 mass casualty incidents, he found that most mass casualty planning, response and patient care is poor. He also discovered that problems occur with regularity at major incidents in communities with or without disaster plans, and in communities with or without advanced daily EMS delivery.

He concludes that instances where the handling of a mass casualty incident is a "virtuoso performance" and "saved countless lives" have occurred in organizations with impressive leadership qualities where EMS resources, structure, response and command used at the MCI are used on a daily basis by that department.

SESSION II NARRATIVE
First On Scene Unit Responsibilities

The initial actions of the first arriving officer shall be directed toward scene size-up, requesting appropriate resources and initial organization of the scene.

The first arriving company officer at a multiple patient incident will assume Command and give an on scene report which will answer the question. . . *What do I have? What action will I take? What resources do I need?* The type of situation and the approximate number and condition of patients should be communicated to Dispatch as soon as possible.

Command should rapidly survey the scene to identify any hazards or safety concerns and establish a safe zone for crews to operate. This can be accomplished through proper defensive rig positioning, use of flashing lights and the placement of flares or reflectors. Additional traffic control should be requested from law enforcement through Dispatch.

Command should immediately request additional assistance if the need is indicated. Initial reports should indicate the scale of the incident to allow Dispatch to notify other agencies.

Triage will be initiated early in an incident, especially when the number of patients and/or the severity of their injuries exceeds the capabilities of the on scene personnel to provide effective extrication, treatment and transportation. Once triage is complete, a Triage Report should be radioed to Dispatch.

The first arriving company officer needs to quickly determine the most effective means to treat patients. In incidents with few patients, it may be more effective to treat patients "in place." At EMS incidents with a greater number of patients, a treatment area should be established.

Command should assign specific task(s) to crew(s) and sectorize the incident by function (e.g., Triage, Extrication, Treatment, Transportation) or location (e.g., North, East). Command is responsible for assuring patient assessment and treatment functions, and arranging patient transportation. (For more information on EMS Command Responsibilities, See "Advanced MCI Training Curriculum", *AEMS*, Inc.).

EMS Tactical Benchmarks: Triage Report

Once Triage Sector has identified and sorted all patients, it contacts Command and gives a "Triage Report." This includes the number of patients and their condition. A Triage Report may sound like: *"Triage to Command. Triage has been completed. We have 2 IMMEDIATES, 3 DELAYED, 4 MINOR and 1 DEAD/DYING."*

A "Triage Report" signifies that initial triage has been completed on the incident using the *START* system. Command uses the Triage Report to call for additional resources or to scale back the response, and relays this information to Dispatch.

A Triage Report becomes the triage benchmark, similar to the way an "All Clear" signifies the completion of a "Search and Rescue" at a fire incident. This means that all patients have been triaged and are ready for transfer to Treatment or Transportation Sector based on the severity of injury.

Some incidents may require patients to be extricated from the scene to the patient treatment area before triage has been performed. This may be due to safety considerations such as a building collapse or hazardous materials release, or the nature of the incident such as a bus collision or train wreck. Under these circumstances, a Triage Sector Officer performs triage at the entrance to the Treatment area.

In many situations, patients are often discovered and identified as the incident proceeds. When this occurs, a "Triage Update" can be relayed to Command by the Triage Officer or Treatment Officer.

EMS Tactical Benchmarks: All Immediates Transported

When all IMMEDIATE patients have been transported, Transportation should notify Command that all critically injured patients have been transported from the scene by relaying to Command that "All IMMEDIATES have been transported." This should be relayed by Command to Dispatch.

The declaration of "All IMMEDIATES Transported" emphasizes the need for EMS personnel to quickly stabilize and transport critical patients rather than spending too much time on scene. When possible, ALS procedures should be performed en route to a trauma center. An "All IMMEDIATES Transported" declaration also serves to lower the stress of field personnel by notifying them that all critical patients are gone; they can now focus on treating delayed and minor injured patients.

Designation of Major Medical Incidents

Managing major medical incident successfully depends on several ongoing activities . . . many that are transparent to the end user (the firefighter or EMT). How many of these activities take place depend on the size of the event and the resources available.

Here is one way to classify the incident by size that lists the various activities that can take place:

Multi-Patient Incident MPI
(5 to 10 Patients)

- Triage Function Assigned
- Nearby Hospitals Notified
- Consider a Treatment Area
- Order Ambulances Early
- Complete EMS Tactical Benchmarks

Multi-Patient Incident MPI
(10 to 25 Patients)

- Local MCMAS (Maricopa County Medical Alerting System) Notification
- Assign Triage Sector

- Establish Treatment Area
- Complete EMS Tactical Benchmarks

**Mass Casualty Incident
(25 – 100 patients)**

- Full MCMAS Notification
- Triage Sector (s) Assigned
- Establish Multiple Treatment Areas
- Establish Medical Supply Sector
- Complete EMS Tactical Benchmarks

In addition, the following may be considered:

- ALS Should Stay on Scene
- No EMS Forms Completed
- Order additional medical supplies for delivery to the scene

MCIs Involving More Than 25 Patients

A review was conducted on how fire departments around the country manage their major medical incidents (or drills). Based on these interviews and discussions, the following suggestions may improve response to mass casualty incidents.

Create the position of *an Ambulance Coordinator* within the Transportation Sector. This person is assigned to *directly* oversee patient assignment to rescues. (In larger incidents, significant delays have occurred as critical patients awaited transport while available ambulances waited in Ambulance Staging).

ALS personnel should remain on scene, usually in Treatment, to render advanced life support care to patients awaiting transport. All patients, except those with critical airway difficulties, should be transported BLS. Intubation or IV administration treatments can be monitored by BLS crews en route to the hospital in critical situations.

When incidents involve more than 50 casualties, Transportation Sector should initially direct patients away from the nearest hospital or trauma center until they can be checked for availability. Why? Because research indicates that in past large disasters, over three-fourths of the patients are sent to the nearest hospital or trauma center. This quickly overloads those facilities. Don't relocate the disaster to the nearest hospital.

In his book "Responding to the Mass Casualty Incident: A Guide for EMS Personnel," Alexander Butman indicates that several pitfalls can hamper our effectiveness at multiple patient incidents. They are:

- Failure to alert hospitals quickly
- Failure to perform any triage at all
- Lack of focus on critical patients. This results in slow stabilization and movement of patients.
- Rendering time-consuming care on scene
- Sending too many patients too quickly to nearby hospitals

In addition, there are other mistakes often made which have been identified in his research on disaster response:

- Improper use of personnel (BLS does BLS stuff. ALS does ALS stuff)
- Patients not uniformly distributed to hospitals
- Lack of strong, visible Command
- Lack of preparation or training
- Failure to adapt to circumstances
- Poor communication

(Complete Triage Assessment Exercise II & Review Questions)

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STUDENT HANDOUTS
Triage Assessment Exercise I

Directions: You are working on an ambulance and are dispatched as a second due unit to a reported bombing of an abortion clinic. As you arrive on scene, you hear shouts and screams and see several victims lying about. You report your staging location as you arrive. Command directs you to perform triage and to follow-up with a Triage Report.

You survey the scene and direct all those who can walk to get up and walk 200' down the street to a collection area. You advise the walking wounded that an EMT will be there to assist them in about 10-15 minutes. You and your partner begin triage. You find the nineteen patients below. What is their Triage Category? What is the reason for your decision?

Victim	Type of Injury	Pertinent Information	Triage Category	Reason for Selected Category
#1	Compound fracture of the left femur	**R**espirations: Under 30 **P**ulse (radial): Absent **M**ental Status: A O x 4	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#2	Sudden onset of chest pain, no shortness of breath	**R**espirations: Under 30 **P**ulse (radial): Present **M**ental Status: A O x 4	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#3	90% second degree burns over body	**R**espirations: None **P**ulse (radial): Present **M**ental Status: Unconscious	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#4	Patient states she is a diabetic. Skin is moist and clammy	**R**espirations: Under 30 **P**ulse (radial): Absent **M**ental Status: A O x 4	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#5	Unable to move legs	**R**espirations: Under 30 **P**ulse (radial): Present **M**ental Status: Confused	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#6	No apparent injuries	**R**espirations: Under 30 **P**ulse (radial) Present **M**ental Status: A O x 4	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#7	Sucking chest wound	**R**espirations: Over 30 **P**ulse (radial): Present **M**ental Status: Unconscious	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#8	Dislocated right shoulder	**R**espirations: Under 30 **P**ulse (radial) Present **M**ental Status: A O x 4	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	

Victim	Type of Injury	Pertinent Information	Triage Category	Reason for Selected Category
#9	No visible wounds	**R**espirations : None **P**ulse: (radial): Absent **M**ental Status: Unconscious	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#10	Scalp wound with an estimated blood loss of 500 cc	**R**espirations: Over 30 **P**ulse (radial): Present **M**ental Status: **C**onfused	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#11	Significant head injury	**R**espiration: Under 30 **P**ulse (radial): Absent **M**ental Status: Unconscious	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#12	Three month old Infant	**R**espirations: Under 30 **P**ulse (radial): Present **M**ental Status: Unconscious	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#13	Impaled, 1 foot piece of shrapnel in right eye	**R**espirations: Under 30 **P**ulse (radial) Present **M**ental Status: Awake & Oriented	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#14	Female 6 mos. pregnant, broken left lower leg	**R**espirations: Under 30 **P**ulse (radial) Present **M**ental Status: Awake & Oriented	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#15	Severe difficulty breathing, chest sinks in on inspiration	**R**espirations: Over 30 **P**ulse (radial) Present **M**ental Status: Awake & Oriented	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#16	Unable to move, no verbal response	**R**espirations: Under 30 **P**ulse (radial) Present **M**ental Status: Awake but stares into space	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#17	Amputated left arm, bleeding controlled	**R**espirations: Under 30 **P**ulse (radial) Present **M**ental Status: Awake & Oriented	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#18	Large head wound, brain matter showing	**R**espiration: None **P**ulse (radial): Absent **M**ental Status: Unconscious	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	
#19	Minor abrasions	**R**espirations: Under 30 **P**ulse (radial) Present **M**ental Status: Awake & Oriented	❑ Immediate ❑ Delayed ❑ Minor ❑ Dead/Dying	

TRIAGE ASSESSMENT EXERCISE I
Answer Sheet

Victim	Triage Category	Reason for Selected Category
#1	Immediate	No radial pulse.
#2	Delayed	No abnormalities according to criteria.
#3	Immediate Dead/Dying	If respiration begins after airway established. If no respiration after airway established.
#4	Immediate	No radial pulse.
#5	Immediate	Impaired mental status.
#6	Delayed	No abnormalities according to criteria.
#7	Immediate	Respiration over 30/minute.
#8	Delayed	No abnormalities according to criteria.
#9	Immediate Dead/Dying	If respiration begins after airway established. If no respiration after airway established.
#10	Immediate	Respiration over 30/minute.
#11	Immediate	Radial pulse absent.
#12	Immediate	Impaired mental status.
#13	Delayed	No abnormalities according to criteria.
#14	Delayed	No abnormalities according to criteria.
#15	Immediate	Respirations over 30/minute.
#16	Immediate	Impaired mental status.
#17	Delayed	No abnormalities according to criteria.
#18	Dead/Dying	No respirations. Obvious mortal injury.
#19	Delayed	No abnormalities according to criteria

Review Questions

Directions: The following twenty questions provide a review of Initial Triage Training. Not all of the material may be relevant to your fire jurisdiction or ambulance agency. Please pick the one best answer to each of the following questions.

1.   When first arriving at any incident involving multiple patients, the first-arriving EMS Officer should rapidly survey the scene, ensure the safety of the first responders and . . .

        A.   Initiate triage
        B.   Call for a first alarm medical
        C.   Set up a treatment area
        D.   Stage all rescues

2.   The most common type of multiple-patient incident encountered by EMS providers is . . .

        A.   A gang-type shooting involving three or more victims
        B.   A three vehicle 962 with eight or less patients
        C.   A hazardous material spill involving several patients and site evacuation
        D.   A plane crash with over 100 patients

3.   *S.T.A.R.T.* stands for . . .

        A.   Stupid Triage and Ridiculous Treatment
        B.   So To Are Restaurants Tempting
        C.   Simple Triage and Rapid Treatment
        D.   Smiling Tunisians Around Rastafarian Trekkers

4.   An effective triage system is . . .

        A.   Fast
        B.   Simple and Easy to Understand
        C.   Accurate
        D.   All of the Above

5. Using the S.T.A.R.T. triage method, the <u>three</u> areas assessed by a first responder are. . .

    A. Airway, breathing and circulation
    B. Head tilt, breath sounds and level of consciousness
    C. Lash reflex, pupillary response and skin color
    D. Respiration, pulse and mental status

6. What are the only <u>three</u> medical treatments that should be performed when using the S.T.A.R.T. triage method?

    A. Open the airway or insert an OPA, listen for breath sounds and stop any external bleeding.
    B. Open the airway or insert an OPA, stop any external bleeding and elevate the extremities.
    C. Stop any external bleeding, apply oxygen and apply a cervical collar.
    D. Insert an NPA, apply oxygen by mask, and call for ALS.

7. Using the S.T.A.R.T. method, what terminology is used to classify the severity of a patient's injury?

    A. Level I, Level II, Level III and 901-H.
    B. Priority I, Priority II, Priority III and Priority IV.
    C. Urgent, Non Urgent, Uninjured, Expectant.
    D. Immediate, Delayed, Minor and Dead/Dying.

8. A terrorist group called the "Hamburger Haters" bombs a nearby fast food restaurant. While performing triage, you assess a 12-year-old boy. He complains of numbness to his legs and is unable to move them. There is a 2" laceration on his skull. His airway is open, his respirations are under 30 per minute and he has a radial pulse. He is awake and oriented to person, place time and purpose. What is his S.T.A.R.T. assessment?

    A. Immediate
    B. Delayed
    C. Minor
    D. Dead/Dying

9.   The next patient you find is a 36-year-old female who's unconscious, pale and limp.   When you open her airway, there is no breathing. What is your S.T.A.R.T. assessment?

        A.   Immediate
        B.   Delayed
        C.   Minor
        D.   Dead/Dying

10.   If resources are available and all Immediate patients are being treated and transported, then it is appropriate to upgrade a serious Delayed patient to Immediate status.

        A.   True
        B.   False

11.   When performing triage at an incident with less than 10 victims, Minor patients should be moved as Walking Wounded to a designated area.

        A.   True
        B.   False

12.   Once Immediate patients have been triaged, treated and/or transported, first responders should reassess Delayed patients and upgrade them to Minor as necessary.

        A.   True
        B.   False

13.   The color Red signifies which type of patient?

        A.   Immediate
        B.   Delayed
        C.   Minor
        D.   Dead/Dying

14.   The color Yellow signifies which type of patient?

        A.   Immediate
        B.   Delayed
        C.   Minor
        D.   Dead/Dying

15. The color <u>Green</u> signifies which type of patient?

    A.   Immediate
    B.   Delayed
    C.   Minor
    D.   Dead/Dying

16. The color <u>Black</u> signifies which type of patient?

    A.   Immediate
    B.   Delayed
    C.   Minor
    D.   Dead/Dying

17. A new type of triage tag approved for use throughout Arizona is the...

    A.   Multi-colored tear-off tag with removal tracking slips
    B.   Two piece carbon copy
    C.   Colored I.D. bracelet with treatment tag
    D.   Colored ribbon with treatment tag

18. What are the two tactical benchmarks used at EMS incidents?

    A.   All Clear, Extrication Complete
    B.   Extrication Complete, Rescues Staged
    C.   Triage Report and All Immediates Transported
    D.   Triage Report and All Patients Transported

19. At incidents involving more than 10 victims, patients should be treated in place.

    A.   True
    B.   False

20. At incidents involving more than 50 victims, ALS personnel should remain on scene to treat patients (unless a patient has a serious airway problem).

    A.   True
    B.   False

Answer Sheet

1. A
2. B
3. C
4. D
5. D
6. B
7. D
8. B
9. D
10. A
11. B
12. B
13. A
14. B
15. C
16. D
17. A
18. C
19. B
20. A

Triage Assessment Exercise II

Directions: You respond on Engine 432 to a vehicle collision on US 89 near Benson, AZ, at the entrance to Karchner Caverns. You arrive on scene and see victims trapped inside a minivan that collided into the side of a large sport utility vehicle (SUV). A smaller car with moderate damage is stalled to the side of the intersection. Your Company Officer asks you to begin triage. You see 2 injured victims standing curbside near the sedan, 2 adults inside the SUV and 2 adults, a child and an infant inside the minivan.

1. What is your On Scene Report? *(Hint: What do you have? What are you doing? What do you need?)*

2. Triage the eight patients below using *START*:

Victim	Type of Injury	Pertinent Info.	Triage Category	Reason
1	**SUV Driver-- c/o** neck & shoulder pain, elderly, history of cardiac illness	**R**espirations: Under 30 **P**ulse (radial): Present **M**ental Status: Awake & Oriented	☐ Immediate ☐ Delayed ☐ Minor ☐ Dead/Dying	
2	**SUV Passenger**-- Upset but no apparent complaints, elderly female	**R**espirations: Under 30 **P**ulse (radial): Present **M**ental Status: Awake & Oriented	☐ Immediate ☐ Delayed ☐ Minor ☐ Dead/Dying	
3	**Minivan Driver** -- Blood from ears, facial fracture, skull laceration, unconscious	**R**espirations: Under 30 **P**ulse (radial) : None **M**ental Status: Unconscious	☐ Immediate ☐ Delayed ☐ Minor ☐ Dead/Dying	
4	**Minivan Passenger** -- Major skull fracture with eye socket hanging out	**R**esp: None after head tilt **P**ulse (radial): None **M**ental Status: Unconscious	☐ Immediate ☐ Delayed ☐ Minor ☐ Dead/Dying	
5	**Minivan Passenger**-- child in back seat with seat belt on, answers questions but whimpers	**R**espirations: Under 30 **P**ulse (radial): Present **M**ental Status: Awake & Oriented	☐ Immediate ☐ Delayed ☐ Minor ☐ Dead/Dying	
6	**Minivan Passenger**-- **i**nfant properly restrained in car seat, crying & whimpering	**R**espirations: Under 30 **P**ulse (radial): Present **M**ental Status: Awake & Oriented	☐ Immediate ☐ Delayed ☐ Minor ☐ Dead/Dying	
7	**Adult Male #1**-- Curbside, shook up, grabbing neck	**R**espirations: Under 30 **P**ulse (radial): Present **M**ental Status: Awake & Oriented	☐ Immediate ☐ Delayed ☐ Minor ☐ Dead/Dying	
8	**Adult Female #2**-- Curbside. No apparent complaints.	**R**espirations: Under 30 **P**ulse (radial): Present **M**ental Status: Awake & Oriented	☐ Immediate ☐ Delayed ☐ Minor ☐ Dead/Dying	

3. What is your Triage Report?

4. What patients are you likely to upgrade from *Delayed* to *Immediate* later due to mechanism?

Triage Assessment Exercise II
Answer Sheet

1. **On Scene Report:** *Engine 432 is on scene of a three-vehicle collision with several victims down, some are trapped. Engine 432 is pulling a handline for occupant protection, initiating triage and assuming Karchner Command. Give me the balance of a First Alarm Medical.*

2. **Triage Results Using *START*:**

Victim	Triage Category	Reason for Selected Category
#1	Delayed	No abnormalities according to criteria.
#2	Delayed	No abnormalities according to criteria
#3	Immediate	No radial pulse.
#4	Dead/ Dying	No respiration after head tilt.
#5	Delayed	No abnormalities according to criteria.
#6	Delayed	No abnormalities according to criteria.
#7	Delayed	No abnormalities according to criteria.
#8	Minor	Self-extricated. No complaints.

3. **Triage Report:** *Triage to Command. Triage is complete. We have a total of 8 patients, 1 Immediate, 5 Delayed, 1 Minor and 1 901-H.*

4. **Patients Upgraded Due to Mechanism:** Patient *5 and Patient 6 are likely to be upgraded later in the incident since they were inside the same vehicle as the Dead/Dying victim and Immediate patients. Patient #1 may need to be upgraded, depending on condition, especially because of age and medical history*

COURSE EVALUATION

The objectives of Initial Triage Training are to introduce EMS responders to a new triage method called S.T.A.R.T.-- Simple Triage and Rapid Treatment, and to allow them to practice their triage skills on disaster mannequins using the new Arizona state-approved triage tag.

Date: _____   Lead Instructor: _____

Location: _____   Other Instructor(s): _____

1. Using the scale to the right, please rate the following aspects of the program:

	Excellent	Good	Fair	Poor
• Quality of Lead Instructor's Presentation:	☐	☐	☐	☐
• Helpfulness of the Additional Instructor(s):	☐	☐	☐	☐
• Quality of the Slides & Video:	☐	☐	☐	☐
• Usefulness of the Handouts (assessment exercises & review questions)	☐	☐	☐	☐
• Usefulness of Triage Tagging Exercise (using disaster mannequins)	☐	☐	☐	☐

2. After today's training, how comfortable or confident do you feel if you had to perform triage at a multiple patient incident?

Very Confident	Confident	Somewhat Unsure of Myself	Very Unsure of Myself
☐	☐	☐	☐

3. Would you be interested in participating in a multi-agency mass casualty exercise in the next 12 months?

☐ Yes   ☐ Maybe   ☐ No

4. Additional Comments (What did you like the MOST about the program? . . . the LEAST?):

_____

_____

_____

_____

THANK YOU !