MCI Innovations: The Arizona Triage System

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Goal

To introduce attendees to the Arizona Triage System, demonstrating how it can improve EMS response to major medical incidents.
After today’s talk, you should:

- Be familiar with the START triage method.
- Understand the Arizona Triage System.
- Identify the use of EMS Tactical Benchmarks.
- Describe what to do when first arriving at a multi-patient incident.
Phoenix Fire Department

- 477 square miles
- 1.3 million residents
- 50 fire stations
- 130,000 incidents
Simple Triage & Rapid Treatment (S.T.A.R.T.)

- Developed by the Newport Beach (CA.) Fire & Marine Dept.
- Current DOT Standard
Where is START used?

- California
- Oregon
- Washington
- France
- Saudi Arabia
- Israel
MCI Terminology

- M.P.I. -- Multi-Patient Incident (< 25)
- M.C.I. -- Mass Casualty Incident (25 - 100)
- M.O.I. -- Mechanism of Injury
- M.V.C. -- Motor Vehicle Collision
87% were MVAs
Averaged 5 patients
20% had 7 or more patients
Only 4% had 10+ patients
Major Medical Events -- Field Assessment

- 50% were Priority I’s
- 25% were Priority II’s
- 23% were Priority III’s
PFD Study of Major Medical Events -- 1997

- 86% were MVAs
- Averaged 6.2 patients
- 46% had 7 or more patients
- 11% had 10+ patients
Approximately 100 events throughout Arizona each year.

Range from 5 to 10 patients at each incident.
Plan, Prepare & Train for . . .

- 3 Vehicle Accident involving 6-7 patients
- Initial Triage Yields
  - 1 Immediate
  - 4 Delayed
  - 1 Minor
- 1 Delayed later upgraded to Immediate
Triage Considerations

- What triage process do you use?
- What type of tag do we triage with?
- What color?
S.T.A.R.T. stands for:

- Simple
- Triage
- And
- Rapid
- Treatment
Why Use *START*?

- Fast
- Simple
- Easy to Use
- Easy to Remember
- Consistent
START Assessment

Respirations
Pulse
Mental Status
START Now . . .
Patient 1

- Patient 1 is a 21 YOM c/o pain to his upper right leg. You see an obvious open right femur fracture.
- What is your START assessment?
- What is your treatment?
Patient 1

- He is awake.
- His airway is open (remember he’s talking).
- His respiration’s are over 30/ min.
Patient 2

- Patient 2 is a 15 YOF c/o numbness to her legs and is unable to move them. She has a 2” laceration to the left skull with moderate bleeding.

- What is your START assessment?

- What is your treatment?
Patient 2

- Her airway is open.
- Her respiration’s are slower than one every two seconds.
- She has a radial pulse.
- She is alert and oriented.
Patient 3

- Patient 3 is a 40 YOM who looks real bad. He’s unconscious, pale and limp.
- What is your START assessment?
- What is your treatment?
Patient 3

- You open his airway and insert an OPA but found there is no breathing.

What do you tag him?
"Time and time again the catastrophically injured, who have almost no chance of survival, are provided with heroic resuscitation efforts and are transported by the first crews, leaving little or no personnel and equipment in the field."

Dr. Alexander Butman
Disaster Researcher
IMMEDIATE

- All patients whose RPM is altered
- Fold & tear off tag
- Retain tracking slip
- Place “Immediate” Label on Victim
Triage Categories

DELAYED

- Most victims in this category
- Includes those w/ significant MOI, but whose RPM is intact
Triage Categories

MINOR

- These are the “walking wounded.”
- Direct them to a gathering place.
- Tag ‘em later!
Triage Categories

- Mortally wounded
- Probably will die despite our efforts
- Difficult decision
- Resources often wasted here
Only 3 Treatments During Triage

- *Open* Airway / Insert OPA
- *Stop* Bleeding
- *Elevate* Extremities
Triage Priorities

- Find & transport all “Immediates”
- Reassess “Delayed” & upgrade (Serious MOI / Age/ History)
Triage Goal

Focus on the “Immediate” patients.
Everyone else can wait!
Changes to *START* during an MPI (5 - 10 patients)

- Don’t move *Minor* patients!!
- Reassess *Delayed* patients as soon as possible and upgrade to *Immediate* if necessary (Serious MOI / Age/ HX).
Triage Tag Field Trial

Three triage tags

- Phoenix FD -- Separate colored tags
- Seattle FD -- Triage tape w/ TX tag
- California -- Multi-colored tag
Triage Tag Field Trial

Three methods of attachment

- Nylon tie
- String
- Elastic strap
Three methods of donning triage kit

- Fanny pack
- Chest harness
- Holster
Triage Kit Contents

- 35 Triage Tags
- 15 Immediate Labels
- 35 Nylon Ties
- 6 Assorted. OPAs
- 3 Ink Pens
- 1 Scissors
1- Evaluate patient using *START*. 

**Arizona Triage Tag**

- **MINOR**
  - Move The Walking Wounded
  - No Resp. After Head Tilt/OPA

- **DEAD/DYING**
  - Respirations – Over 30
  - Pulse – No Radial Pulse
  - Mental Status – Unable To Follow Simple Commands

- **IMMEDIATE**
  - Otherwise . . .

- **DELAYED**
  - Otherwise . . .
Using the Arizona Triage System

2- Tear off bottom of tag & remove tracking slip.
Using the Arizona Triage System

3- Place tracking slip in kit.
Using the Arizona Triage System

4- Attach tag to patient with nylon tie.
Using the Arizona Triage System

5- If Immediate, affix adhesive label.

6- Give tracking slips to Triage Officer.
Once triage is complete . . .

- Give a Triage Report to Command
  "Triage to Command...We have 13 patients, 4 Immediate, 5 Delayed, 3 Minor and 1 Dead."
- Give tracking slips to Command
Tactical Benchmarks

* Triage Report Complete

* Declaration of: “All Immediates Transported”
Transportation

- Second Tracking Slip-- Completed and kept by Transportation Sector
- What is the minimal info. Needed?
  - Transport Unit ID
  - Receiving hospital
- Fill in name/age/address as available
EMS Documentation

- Triage tags can be used in lieu of a patient care report (EMS form)

- Command will determine when START will occur
First Unit On Scene

- Give on-scene report
- Survey the scene
- Control traffic
- Pull a handline
- Begin triage
- Request resources

- Give Triage Report
- Establish treatment area
- Assign tasks
- Assign sectors
- Notify hospitals
Multi-Patient Incident (MPI)
5-10 patients

- Triage function assigned
- Nearby hospitals notified
- Consider a treatment area
- Order ambulances early
- Complete EMS Tactical Benchmarks
Multi-Patient Incident (MPI) 11-25 patients

- Triage Sector assigned
- Area Hospitals Notified
- Establish a treatment area
- Complete EMS Tactical Benchmarks
Mass Casualty Incident (MCI) 25-100 patients

- Triage Sector(s) assigned
- Full Hospital System Notification
- Multiple treatment area(s) established
- Establish Medical Supply Sector
- Complete EMS Tactical Benchmarks
MCIs involving more than 25 patients

- Assign an Ambulance Coordinator
- Do we keep ALS personnel on scene?
- If a huge incidents, direct first ambulance *away from* nearest hospitals.
Common Pitfalls at MCIs

- Failure to alert
- Failure to triage
- Slow “primary” stabilization
- Slow movement & collection
- Inappropriate, time consuming care
- Premature transportation

From *Responding to the Mass Casualty Incident: A Guide for EMS Personnel* by Alexander Butman
Common Pitfalls (Cont’d)

- Improper use of personnel
- Poor distribution of patients
- Poor EMS Command
- Lack of preparation or training
- Failure to adapt
- Poor communication

*From Responding to the Mass Casualty Incident: A Guide for EMS Personnel* by Alexander Butman
Triage Kit

Bound Tree Medical
2465 S. Industrial Park Ave.
Tempe, AZ  85282
Ph.  800-533-0523
Disaster Mannequins

Supersigns, Inc.
1335 W. University Dr.
Suite 18
Tempe, AZ  85281
Ph.  480-968-2200
Teaching Material

Initial Triage Training Curriculum
Advanced MCI Curriculum
Powerpoint Slides

WWW.AEMS.org
Initial Triage Training

Phoenix Fire Department