

Multiple Casualty Drill

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Multiple Casualty Drill

Instructor Guide

Course: Multiple Casualty Drill

Session Reference: 1

Topic: Dealing With a Multiple Casualty Incident Involving Fire, Hazardous Materials, and Other Hazards

Level of Instruction:

Time Required: 3 hours

Materials:

- 5 Vehicles (one of which will be burned);
- Rescue Dummy;
- Dummy to Burn;
- 2 to 3 Rescue Trucks;
- 2 to 3 Engines;
- 3 to 4 Ambulances (based on number of patients used);
- Evaluators;
- Dispatcher;
- Hazmat Personnel (can be role played);
- Portable Radios;
- Flour;
- Bleeding and Bandaging Supplies, Backboards, Collars, Etc.; Moulage Kit(s)

Suggested: Individual to video tape incident for review/critique

Reference:

- Rescue Technician Student Manual
- Maryland Fire and Rescue Institute
- Brady EMT Student Manual
- IFSTA Fire Essentials

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PREPARATION:

Motivation:

Objective (SPO) 1-1:

The members of the company will be able to organize, set up, and conduct a multiple casualty drill utilizing IMS, fire, rescue, and emergency medical services personnel, apparatus, and equipment.

Overview:

Conducting a Multiple Casualty Drill

- Planning For the Drill
- Setting Up The Multiple Casualty Drill
- Conducting The Multiple Casualty Drill

Conducting a Multiple Casualty Drill

- SPO 1-1 The students will be able to participate, at the appropriate level, in a multiple casualty drill.
- EO 1-1 Plan the multiple casualty drill.
- EO 1-2 Set up the multiple casualty drill.
- EO 1-3 Conduct the multiple casualty drill.

The Multiple Casualty Drill is designed for individuals who are responsible for commanding an incident, gaining access to victims, extinguishing fires, and providing emergency care at the scene of an accident. The students should have a basic understanding of auto extrication techniques, basic firefighting techniques, and basic EMT skills and should be involved at the level they are trained to during the practical.

I. Planning For The Drill (1-1)

A. Pick appropriate site.

1. Isolated area
2. Able to set up traffic pattern
3. Access to scene blocked
4. Staging area appropriate distance away that is capable of staging all resources

B. Contact mutual aid companies

1. Use companies you would normally respond with
2. 2 to 3 rescue units required
3. 3 to 4 ambulance units required
4. 3 engines required

C. Arrange for vehicles to be used in extrication and one to be set on fire

D. Arrange for victims

1. Based on number victims available, you can pick and choose the victim scenarios
2. Use dummies for burn victim and crush victim

E. Arrange for evaluators, dispatcher, documentarian.

1. If possible obtain radios that can be operated on separate channel for normal operating frequency.
2. Need evaluators to observe rescue operations, medical operations, fire operations, and have overall safety officer(s).

Planning should begin at least one month prior to exercise.

See attached layout when picking site.

Resources include senior citizens activity centers, Boy Scouts, ROTC, etc.

Victim scenarios included at end.

3. Nurses can be used to check patients as brought into ER to check for proper treatment. Need to arrange for individual to act as EMRC/medical control
4. HazMat personnel may need to be role played.

II. Setting Up the Multiple Casualty Incident (1-2)

- A. Place vehicles based on layout
 1. Vehicle #1 can be a trailer or car.
 2. Vehicle #4 should be T-boned into Vehicle 3.
 3. Vehicle # 3 will have airbags deployed (white garbage bags can be used to simulate either deflated or inflated airbags)
 4. Vehicle # 5 should be overturned and will be set on fire.
 5. Vehicle # 2 will be covered in white powder.
 - a. Vehicle # 1 was shopping and a 25 lb. bag of flour has burst.
 - b. If providers walk into white powder without identifying, it becomes a hazmat and providers are killed.
- B. Set up receiving hospitals - empty apparatus bays can be sectioned off - place nurses/medical evaluators in areas
 1. Shock Trauma
 2. Local ER
 3. Local Trauma Center
- C. Position dispatcher in position where he/she can oversee operations
- D. Moulage and Place Victims
 1. Moulage victims based on the hospital diagnosis listed on 3 X 5 card - this card identifies injuries
 2. Keep moulage card for placement in hospital area
 3. Give victim the 3 X 5 card with vitals only, not with hospital diagnosis

Local ER nurses will be able to give feedback and will gain insight into our operations.

Scenario:

Veh #1 was disabled along side of road - partially on road. Veh. #2 panicked and slid into Veh. #1. Veh. #1 had just finished shopping and has white flour spilled. Veh. #3 passes incident. Veh. #4 goes into slide and hits Veh. #3. Veh. #5 panics and flips and bursts into flames. Passenger in Veh. #3 has head through windshield - cut opening with axe and pad with trauma pads.

Driver of Veh. #1 can walk to providers and identify white substance

Vehicles should have doors wrecked so that they do not open on own.

4. Place victims per layout remembering SAFETY FIRST.
5. Coach victims into screaming for help if they are conscious. Victims in Veh. # 2 need to keep asking for "John" who has wandered off. Coach victims on behaviors - combative, burn victim running to providers for help for friend, etc.

E. Establish Staging Area

1. Individual in charge to control flow of traffic
 - a. Mutual aid companies should be allowed to enter scene after appropriate response time has been met
 - b. First dispatched company will request resources while en route or upon arrival

2. Review procedures with participants

F. Position evaluators, photographer, etc.

III. Conducting the Multiple Casualty Drill (1-3)

- A. Vehicle # 5 should be set on fire - gas tank removed.
- B. Dispatcher should dispatch initial call and assignment
- C. When first unit is in route for period of time (prior to arrival on scene) additional information should be given
- D. Safety Officers should walk constantly around scene to observe safety concerns and stop evolution if necessary
- E. First due crew should recognize that access to scene is blocked by fire hazard, and that hazmat is present.
 1. Need to establish IMS
 2. Need to determine alternate route in
 3. May call for hazmat team, or patient #1 can wander to them and identify white substance
 4. May set up a triage area

Dispatcher should be familiar with jurisdictional procedures.

Placing victims should be done safely - if there is chance for injury, move patient elsewhere.

If providers do not look for patient, you may need to have family arrive on scene to find patient.

See attachment of rules

It is interesting to get reactions of personnel as they arrive and throughout the incident.

Instructional Guide

Instructor Notes

- F. Dispatcher will need to dispatch additional units as requested
- G. First engine will need to extinguish auto fire, additional engines will need to set up lines to rescue operations
- H. Medical command should be established
 - 1. control flow of incoming medical personnel
 - 2. track patient movements to hospitals, etc.
- I. Rescue units should use extrication techniques to remove victims while coordinating efforts with EMS
- J. Rescue units should be doing circle checks - hopefully they will find patient who wandered off

See attached dispatch information.

Additional supplies may be gathered and staged in an area rather than taking off ambulances.

If lines are not set up to protect rescue operations, a fire can be set behind providers.

All victims should be carried in bay rather than loaded in ambulances.

Need to protect victims - stabilize spines, etc.

Patient should be hidden and not in visible line of sight.

Critique Evolutions with feedback from victims, rescuers, and evaluators.

SUMMARY:

Review:

Conducting a Multiple Casualty Drill

- Planning For the Drill
- Setting Up The Multiple Casualty Drill
- Conducting The Multiple Casualty Drill

Remotivation:

Assignment:

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EVALUATION:

SCENARIO

DISPATCHER INFORMATION

Radio Channel/Frequency Information:

Radio traffic will be on Harford Co. 5

Call Type Information:

Rescue Box 1004, 11/13/99, 0900 hours

Initial Dispatch:

Company 10 Norrisville 10-50 PI Rescue 2134 Harkins Road. Cross Streets West Heaps and St. Pauls Church Road.

Additional Information:

Received a call advising several vehicles - possible with entrapment.

After Units Are Responding:

Have received a call that one of the cars is smoking - possible auto fire.

Additional Units/Mutual Aid:

Mutual aid units will respond in the following order:

Ambulances: 56, 7, 6, 57, 54, 13

Rescues: 6, 57, 54

Engines: 56, 7, 6, 57, 54, 13

This could change depending on who shows up.

RULES FOR DRILL

Units will use standard response - no lights or sirens!! When mutual aid companies are requested, each will wait 10 minutes prior to responding.

We want this to be as realistic as possible. This is also a learning tool. Nobody is going to be graded or made fun of for what they did.

Please, the number 1 priority in this entire event is "safety". Please be careful in what you do and don't be a hot dog. We will pull you out if this happens. Also, the evaluators have the right to stop the entire drill if they see something that they feel is not safe.

All patients shall be transported to the hospital, which will be the fire house. There will be people there that you will turn patients and give report to just like normal operations.

We Appreciate Your Coming Today And Taking Part In The Drill.

**PATIENT SCENARIOS DESIGNED TO BE PRINTED
AND PLACED ON 3 X 5 CARDS**

PATIENT #1:

Patient Information: Driver of Trailer - outside of vehicle when accident occurred;
45 yr old, conscious, very anxious, chest pain, no meds

Vitals: Pulse - 136; Resp - 22, shallow & labored; BP - 150/96; PEARL

----- for evaluator's eyes only -----

Hospital Diagnosis: Possible MI - Priority 2 or 1

Treatment Should Include: IV, Monitor, oxygen

PATIENT #2:

Patient Information: Passenger of Trailer - outside of vehicle when accident occurred;
38 yr old, conscious, hyper and wants to help

Vitals: Pulse - 116, Resp -16, normal; BP - 136/82; PEARL

----- for evaluator's eyes only -----

Hospital Diagnosis: Walking wounded - Priority 4 - No need for transportation to hospital

PATIENT #3:

Patient Information: Driver of vehicle striking trailer - unbelted - windshield fractured -
steering wheel bent; 18 yr old, unconscious, lung sounds decreased on left side

Vitals: Pulse - 132, weak; Resp - 10, shallow; BP - 94/60; PEARL

----- for evaluator's eyes only -----

Hospital Diagnosis: Priority 1 - chest injuries, head laceration, lower leg and foot fractures,
possible helicopter, backboard & collar

Treatment Should Include: Oxygen, IV, Monitor, splints on legs, chest may or may not be
taped - May ask for chest decompression of left chest

PATIENT #4:

Patient Information: Unbelted passenger striking trailer; 16 yr old, unresponsive except to deep pain

Vitals: Pulse - Rapid, weak; Resp - 8, shallow; BP - 180/110, Unequal pupils

----- for evaluator's eyes only -----

Hospital Diagnosis: Priority 1 - Closed Head Injury/Numerous Fxs,

Treatment Should Include: IV; Monitor; Head Injury - dressed; Raccoon Eyes & Battle Signs (monitor); right fx arm - splinted; right fx femur - Hare Traction Splint, Backboard & Collar, Possible Helicopter

PATIENT #5:

Patient Information: Unbelted rear seat passenger behind driver of vehicle striking trailer; 19 yr old, responsive, complaining of rt. shoulder & rt. hip pain

Vitals: Pulse - 98; Resp - 16; BP - 120/82; PEARL

----- for evaluator's eyes only -----

Hospital Diagnosis: Priority 3

Treatment Should Include: possible oxygen; may use sling and swathe on shoulder, and immobilize hip, Backboard & collar

PATIENT #6:

Patient Information: Unbelted center rear seat passenger of vehicle striking trailer; 19 yr old, responsive, complaining of neck pain and minor lacerations

Vitals: Pulse - 112; Resp. 20; BP - 114/78; PEARL

----- for evaluator's eyes only -----

Hospital Diagnosis: Priority 3 or 2

Treatment Should Include: Should be backboarded and collar applied; lacerations dressed; oxygen;

PATIENT #7:

Patient Information: Rear seat passenger on passenger side - unbelted; 17 yr old, confused, dazed, head lacerations

Vitals: Pulse - 118; Resp - 18; BP - 146/92; PEARL

----- for evaluator's eyes only -----

Hospital Diagnosis: Priority 3 - Patient wandered off looking for help - no major trauma - small lacerations that need dressed - may need psychiatric evaluation

PATIENT #8:

Patient Information: Seatbelted driver of vehicle struck on drivers side; 28 yr old, responsive, complaining of abdominal pain

----- for evaluator's eyes only -----

Hospital Diagnosis: Priority 3 or 2

Treatment Should Include: Right dislocated shoulder should be immobilized; knee bruised and may be immobilized; bruised abdomen should be monitored

PATIENT #9:

Patient Information: Seatbelted passenger of vehicle struck on drivers side; 27 yr old, responsive, complaining of elbow pain and knee pain

Vitals: Pulse - 112; Resp - 18; BP - 130/88; PEARL

----- for evaluator's eyes only -----

Hospital Diagnosis: Priority 3 - various knee injuries (cuts, bruising, deformity)

Treatment Should Include: should be bandaged; knees may be immobilized, oxygen

PATIENT #10:

Patient Information: Seatbelted driver of vehicle crossing center line and striking another vehicle. Airbag deployed; 65 yr old, conscious and alert

Vitals: Pulse - 120; Resp - 20; BP - 150/70; PEARL

----- for evaluator's eyes only -----

Hospital Diagnosis: Priority 3

Treatment Should Include: oxygen; monitor; ankle should be immobilized

PATIENT #11:

Patient Information: Unbelted passenger of vehicle crossing center line and striking another vehicle. Airbag deployed, however patient went through windshield; 66 yr old, conscious and alert

Vitals: Pulse - 132; Resp - 24; BP - 180/90; PEARL

----- for evaluator's eyes only -----

Hospital Diagnosis: Priority 3

Treatment Should Include: stabilized impaled object; oxygen, collar and backboard.

PATIENT #12:

Patient Information: Ejected passenger from vehicle 3 or 4, 12 yr old, unresponsive

Vitals: Pulse - 0; Resp - 0; BP - 0/0; Pupils dilated

----- for evaluator's eyes only -----

Hospital Diagnosis: DOA - Should not have been transported - multiple fractures, abrasions, lacerations - IF RUN PATIENT WHEN ADDITIONAL PERSONNEL ARRIVE, MUST BE A PRIORITY 1

PATIENT #13:

Patient Information: Patient ran over by vehicle 1, 3, or 4; 13 yr old, unresponsive

Vitals: Pulse - 0; Resp - 0; BP - 0/0

----- for evaluator's eyes only -----

Hospital Diagnosis: DOA - Patient should not be transported to hospital - moulage with facial and body lacerations, fractures, etc.

PATIENT #14:

Patient Information: Bystander who attempted to rescue burning victim from Vehicle # 5; 42 yr old, conscious, in severe pain, anxious, difficulty breathing, will be extremely concerned over friend who is in burning vehicle

Vitals: Pulse - 158; Resp - 32; BP - 190/90; PEARL

----- for evaluator's eyes only -----

Hospital Diagnosis: Priority 1 - (possible inhalation burns due to soot around face, mouth, nose)

Treatment Should Include: IV, oxygen; dry, sterile dressings to both arms with fingers separated; may ask for morphine for pain; consult referral to burn center

PATIENT #15:

Patient Information: Crushed between vehicle 1 and 2; 38 yr old, unresponsive, massive crushing injuries

NOTE: Use a dummy for this evolution - do not place a live person between 2 vehicles for safety reasons

Vitals: Pulse - 0; Resp - 0; BP - 0/0; Pupils dilated

----- for evaluator's eyes only -----

Hospital Diagnosis: DOA - should never be transported to hospital - unless to morgue

PATIENT #16:

Patient Information: Nurse who stopped to help; reached inside vehicle to check on patient status; 35 yr old, conscious, severe pain, cool, clammy skin, Medical History includes asthma

Vitals: Pulse - 136; Resp - 28, shallow; BP - 90/40; Dilated pupils slow to react

----- for evaluator's eyes only -----

Hospital Diagnosis: Priority 1 or 2

Treatment Should Include: oxygen, IV, laceration (cut from glass when reaching into vehicle), monitor

