VIII. PATIENT CARE SCENARIOS

A. INTRODUCTION

INTRODUCTION

- The preceding sections of this course have provided the participant with the information and skills required to safely and effectively perform in the confined space.

- These Patient Care Scenarios allow the participants to "put it all together" in evaluating, treating and extricating a confined space patient under controlled, supervised conditions.

- For the participates to receive maximal gain from these scenarios, it is important to explain the format and sequence of the sessions and define the students' roles and responsibilities.

OBJECTIVES OF SCENARIOS

- Each student actively participating in physically providing safe, advanced life support and extrication of a victim involved in a confined space emergency by utilizing the materials, skills and equipment demonstrated throughout the class.

- Each team organizing into a "Medical Team" with specific assigned roles being: the medical providers, the recorder/ safety officer, the anticipator, the equipment/supply officer and medical control physician.

- Each team adequately establishing a safe, systematic approach to reach and extricate a victim in a confined space.

- Each team systematically performing a complete BTLS patient assessment and reassessments during the scenario.

- Each team appropriately identifying and treating the medical injuries of the patient including, but not limited to, minor abrasions, oxygenation, psychiatric intervention, hypothermia and pain control.

- Recording timely patient assessments, vital signs, gas monitoring levels, patient treatment and progress of the

extrication via communications to the recorder/safety officer.

VIII. PATIENT CARE SCENARIOS

A. INTRODUCTION

SAFETY

- PROTECTIVE GEAR MUST BE WORN BY THE INSTRUCTORS AND ALL PARTICIPANTS IN THIS EXERCISE. SAFETY AND UNIVERSAL PRECAUTIONS ARE EMPHASIZED.

- All safety rules and Universal Precautions must be followed.

- Should a true emergency arise the exercise will be terminated immediately.

- SIGNALLING - a whistle or air horn:
  - 3 short blasts (one second each) means evacuate.
  - 1 long blast (three seconds) means to stop.
  - 1 long blast and 1 short blast means to resume operations.

PERSONAL GEAR

- Students to provide their own:
  - Dust mask.
  - Eye protection.
  - Light work gloves (latex gloves underneath for Providers).
  - Helmet (with a light if available - otherwise, bring a flashlight).
  - Steel-toe boots.
  - Pen.
  - Pen light.
  - Personal stethoscope (if available).
  - Coveralls.
  - Carabinier and webbing - 4 foot (if available).

VIII. PATIENT CARE SCENARIOS

A. INTRODUCTION

SCENARIOS

- Each student rotates through the three scenarios:
  - "The Tunnel"
  - "The Windy Room"
  - "48 Hours"

- Synopsis of scenario evolution:
  - The Patient Care Scenarios are scripted evolutions of a collapsed structure entrapment.

INSTRUCTOR ROLE

- The instructor is the facilitator for the scenario.

- The instructor acts as the "Rescue Team", provides the scenario introduction and guides the course of the evolution by prompting the "victim" and by providing clinical and rescue information as it becomes available or develops. The instructor may provide cues to guide the occurrence of events.

- The instructor monitors the scenario progression for safety and correct technique.

- The instructor conducts the review that follows the scenario.

PARTICIPANTS' ROLES

- Students perform as the US&R Medical Team.

- The students should organize into functional roles:
  - Put on all personal protective gear.
  - Perform a complete patient assessment and reassessments.
  - Perform appropriate patient interventions, including but not limited to oxygenation, hypothermia, pain control, psychiatric interventions, immobilization and extrication.

VIII. PATIENT CARE SCENARIOS
A. INTRODUCTION

PARTICIPANTS' ROLES (continued)

- All medical interventions should be actually performed except the use of needles or other invasive technique (these should be simulated as time permits). If intubation is required it will be done on an intubation head.

- Utilize the available (supplied) equipment. All equipment/supplies that are needed should be accessed from the cache and physically given to the provider. IV lines and monitor cables, etc., should be attached to the patient.

- Provide timely communications and documentation of patient assessments, treatments, extrication method, extrication progression, and systematic reassessment to the recorder/safety officer for recording on the flip chart or white board.

- The extrication must be completed within the allotted time-frame to allow a brief site clean-up and a fifteen minute discussion of the scenario. This discussion is led by the instructor.

FUNCTIONS TO BE COVERED (by group of six persons)

- As discussed in the lecture on Confined Space Medical Operations, multiple functions must be filled by the Medical Team Personnel.

- It is important that these are addressed and the team is organized at the beginning of the scenario.

Safety/Recorder Person (1)

- Assure safe scene.

- Insure each participant registers and ties-off (if indicated) before entering a confined space.

VIII. PATIENT CARE SCENARIOS
A. INTRODUCTION

FUNCTIONS TO BE COVERED (continued)

Safety/Recorder Person (1) (continued)

- Assure each participant has a dust mask, including one for the patient.
- Assure head/hand/eye/ear protection for each participant.
- Request initial and continuous gas monitoring (if indicated).
- Document all reports from the providers or anticipator on the flip chart/board.

Medical Provider (3)

- Complete an organized BTLS patient assessment and reassessment and report this in a timely fashion to the recorder/safety person via the anticipator.
- Recognize the importance of treating the total patient including oxygenation, pain control, and psychological intervention.
- Perform immobilization as indicated.
- Perform extrication.
- Demonstrate awareness of dust inhalation problems.
- Demonstrate awareness of gas monitoring and gas exposure emergencies, especially Carbon Monoxide.
- Demonstrate awareness of developing hypothermia due to heat loss from radiation, conduction, convection, evaporation, and respiration and provide preventive measures.
- Demonstrate awareness of increased crew stressors during prolonged confined space extrications and rotate roles frequently.

VIII. PATIENT CARE SCENARIOS
A. INTRODUCTION

FUNCTIONS TO BE COVERED (continued)

Anticipator (1)

- Coordinate the internal confined-space requests for equipment and medical directions while being located near the confined-space operations.

- Elicit timely communications from the team working within the confined-space, and relay all information, including assessments, treatments, responses to treatments, reassessments, extrication progress and equipment requests to the recorder/safety and supply officers.

- Vitals:
  - Level of consciousness.
  - Respiratory rate.
  - Pulse rate.
  - Temperature.
  - Blood pressure.
  - O_2 saturation.
  - Gas levels:
    - methane.
    - oxygen.
    - carbon monoxide.
  - Oxygen cylinder level.
  - Condition of medical crew.

- Assure that requested equipment is actually provided.

Equipment/Supply Person (1)

- Coordinate supplies for treatment and extrication.

- Package, prep, and transport all medical supplies and equipment from outside the confined-space area to the confined-space area.

VIII. PATIENT CARE SCENARIOS
A. INTRODUCTION

FUNCTIONS TO BE COVERED (continued)

Medical Control Officer (1)

- Physician (Medical Team Manager).
- Provide "medical command" for the Medical Team specialist/providers.
- Role may be combined with another functional role.

PATIENT CARE SCENARIO CHECKLIST

STATUS REPORT EVERY 15 MINUTES.

	TIME	**COMMENTS**
■ Level of Consciousness		
■ Airway		
■ Respiratory Rate • Quality		
■ Pulse Rate • Quality		
■ EKG		
■ O_2 saturation		
■ Blood pressure		
■ Temperature		
■ Level of O_2 in cylinder		
■ Gas readings: • Methane • Oxygen • CO • Misc.		
■ Crew check: • Medical • Rescue • Misc.		

VIII. PATIENT CARE SCENARIOS
B. "THE TUNNEL"

TIME

- 60 minutes.

SITE SET-UP

- Equipment staging area.
- Area for initial briefing and for final debriefing.
- The actual confined-space set. This area should combine the two handicaps of darkness and coolness. The area should consist of a three-angled tunnel approach ending at an open, yet "confined-area". Actual dimensions may vary, but the tunnel itself **CANNOT** accommodate a back-board, so a KED or XP1 is indicated for extrication/immobilization from the tunnel.
- The patient should be located in the 'open area' lying angled in the left bottom corner (see Diagram) with an imitation wood beam on is left lower leg. The patient's foot is exposed to assess distal circulation, etc.
- The instructors should use their own creativity to design the confined space. Large tables and blankets work well as do large cardboard refrigerator boxes. Please note when staging the prop/scenario, care must be taken to avoid a heavy/unstable roof, sharp objects and other true hazards.

VIII. PATIENT CARE SCENARIOS
B. "THE TUNNEL"

EQUIPMENT CACHE FOR ONE SITE

- Rescue Equipment:
  - Dust masks (for patients) (1)
  - Nasal cannulae (1)
  - stiff cervical collars - no-neck (1)
  - Blankets, cotton (2)
  - Patient straps, 9 ft. or 12 ft. (2)
  - Webbing [4 ft.] for students (1)
  - Carabiniers (2)
  - Cervical Immobilization Device [CID] (1)
  - Backboards, 6 ft. (1)
  - Stokes basket (1)
  - Hood [or tossle cap] for patient (1)
  - Face shield for patient [disposable okay] (1)
  - US&R Patient Care Form (6)
  - Shuttle bag with attached lines (1)
  - Rope (50' section, 9-11mm) (1)

- Medical Equipment:
  - EKG leads and electrodes (or comparable monitoring cable to simulate monitoring). (1 set)
  - Blood pressure cuffs - adult size (1)
  - Oxygen cylinders [may be empty] (1)
  - Normal Saline IV bags - 1 liter [outdated ok] (2)
  - IV administration sets (2)
  - IV pressure infuser [disposable type okay] (1)
  - IV catheters [needles removed] (4)
  - Medication bags (with outdated or empty ampules, needles removed). (1)
    - Bicarb (2)
    - Epi (2)
    - D_{50} (2)
  - Ampules to simulate other meds (4)
  - Cloth tape 1" rolls (2)

- Generic to each skill station and scenarios:
  - Flipchart or whiteboard (1)
  - Markers (different colors) (2)

VIII. PATIENT CARE SCENARIOS
B. "THE TUNNEL"

EQUIPMENT CACHE FOR ONE SITE (continued)

- Students to provide:
  - Dust masks.
  - Eye protection.
  - Light work gloves.
  - Helmet (with a light if available - otherwise, bring a flashlight).
  - Steel-toe boots.
  - Personal stethoscope (if available).
  - Pen light.
  - Coveralls.
  - Pen.
  - Carabinier and webbing - 4 foot (if available).

SYNOPSIS OF SCENARIO EVOLUTION

- Primary medical problems:
  - Pain.
  - Difficult immobilization.
  - Challenging extrication.

- Victim script.
  - You are a 26 year old 70 kg male victim of a collapsed structure that occurred approximately 6 hours ago. You take no meds, have no allergies and have a history of appendectomy and diet-controlled diabetes.
  - You did not lose consciousness. You are slightly anxious because you cannot get yourself disentangled from the wood beam on your leg. Your left lower leg is entangled but not "crushed" by a wood beam that needs to be lifted 1/2 inch to free you. You have multiple abrasions on your hands and face. Your leg may be fractured at the femur because you have maximal pain on movement and palpation. You have positive distal pulses and good sensation, movement, and circulation in the injured leg. Since it is cool you have the possibility of developing hypothermia. During the progression you may shiver or complain of being cold and also in severe

pain.

VIII. PATIENT CARE SCENARIOS
B. "THE TUNNEL"

SYNOPSIS OF SCENARIO EVOLUTION (continued)

- Victim script. (continued)
  - After the Medical Team evaluation has begun the instructor will state that the wooden beam over your left leg is now ready to be lifted. Your extremity will then be "free" of entanglement.
  - When you are being extricated you may become agitated while in the tunnel because of "claustrophobia". You may also complain of having to urinate. If movement of the injured leg is completed in a "rough" manner or without stabilization, the victim should cry out and possibly become belligerent.

INSTRUCTOR INTRODUCTORY SCRIPT

- Acting as a Rescue Team member, give the student group a scenario brief..."The patient is a 26 year old, 70 kg male that was involved in a wood/masonry building collapse six hours ago. The victim is entangled in some debris in the confined space area. He does not have any weighted objects on him, however in order to free him from the confined area, the wood beam must be lifted 1/2 inches. The patient's upper leg appears to be fractured, causing severe pain with movement." The Task Force Rescue Team states that the scene is safe from hazards and further collapse.

- At some point in the scenario, if the care is progressing smoothly, a medical task force member should be assigned to have cardiac symptoms requiring immediate medical interventions.

- The second patient is informed of his impending situation before the scenario commences. The rest of the Medical Team is not to know of this until it occurs in the scenario. This patient is to be given a clue as to when he should complain of his chest pain. Only one (1) O_2 delivery system is to be available for the entire scenario, so that both the victim and the second patient cannot both be given O_2 simultaneously.

VIII. PATIENT CARE SCENARIOS
B. "THE TUNNEL"

SECOND PATIENT SCRIPT

- You are a rescuer inside the confined space. You develop chest pain and shortness of breath. You've been experiencing pain on exertion for the past two (2) weeks but haven't told anyone since you didn't want to miss this response.

- Your dyspnea increases if you are in the supine position. You respond well if given oxygen and nitroglycerine. You take no medications and have no known allergies.

VIII. PATIENT CARE SCENARIOS
B. "THE TUNNEL"

PROGRESSION CHART
(with scenario-specific important medical interventions noted in bold.)

- Role assignments:
  - Recorder/Safety Person (1)
  - Medical Provider (3)
  - Anticipator (1)
  - Equipment/supply Person (1)
  - Medical Control Physician

- Find patient.
  - Communicate to outside.

- Secure Scene:
  - Gas readings:
    - CO
    - Methane
    - Oxygen
  - Ventilation. _____
  - Cribbing.
  - Life-lines.

- BTLS survey:
  - Level of consciousness
  - C-spine stabilization
  - Airway patency

- Breathing rate:
  - Quality: _____ **DUST MASK**

- Circulation: (radial) (carotid) **OXYGEN**
  - Rate: _____
  - Quality: _____
  - Skin color:
  - Temp:
  - Cap Refill:

VIII. PATIENT CARE SCENARIOS
B. "THE TUNNEL"

PROGRESSION CHART (continued)

- Neck:
  - JVD _____ **C-COLLAR**
  - D-Deformity _____ **HAT**
  - C-Contusions _____ **FACE SHIELD**
  - A-Abrasions
  - P-Penetrations
  - Tracheal deviation

- Chest:
  - Symmetry
  - D-Deformity
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - P-Paradoxical (movement)
  - Breath sounds:
    - present
    - type
    - equal

- Abdomen: (assess four quadrants)
  - C-Contusions
  - R-Rigidity
  - A-Abrasions
  - P-Pulsations
  - P-Penetrations

- Pelvis:
  - Extension
  - Flexion

- Lower Extremities:
  - D-Deformities _____ **SPLINT LEFT**
  - C-Contusions _____ **LEG**
  - A-Abrasions
  - P-Penetrations
  - Movement
  - Sensation

- Pulses
- Cap refill

VIII. PATIENT CARE SCENARIOS
B. "THE TUNNEL"

PROGRESSION CHART (continued)

- Upper Extremities:
  - D-Deformities
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - Movement
  - Sensation
  - Pulses
  - Cap refill

- Vitals:
  - Level of consciousness
  - Respiratory rate:
    - quality
  - Oxygen saturation
  - Pulse Rate:
    - quality
  - Blood pressure
  - Monitor
  - Temperature

- Gas readings :
  - CO
  - Methane
  - Oxygen

- Oxygen cylinder Level

- Crew condition _____ **REPOI**

- Establish course of treatment **IMMOBILIZATION**
  IV (NSS or LR)
  ANALGESIC
  DEXTROSTIX

- Establish immobilization/ extrication technique **KED OR XP1**

VIII. PATIENT CARE SCENARIOS
B. "THE TUNNEL"

PROGRESSION CHART (continued)

- Immobilize

- Reassess (including vitals): **REPORT**
  - Level of consciousness
  - Respiratory Rate:
    - quality
  - O_2 Saturation:
    - pulse rate:
    - quality:
  - Blood Pressure
  - Monitor
  - Temperature

- Gas readings :
  - CO
  - Methane
  - Oxygen

- Oxygen cylinder Level

- Crew condition

- Reassess every 10-15 minutes **REPORT**

- Complete extrication

- EVALUATION

VIII. PATIENT CARE SCENARIOS
C. "THE WINDY ROOM"

TIME

- 60 Minutes

SITE SET-UP

- Equipment staging area.
- Area for initial briefing and for final debriefing.
- The actual confined-space set. This area should combine the two handicaps of noise and drafts. The noise may be simulated by a tape recorder of generator noise, etc. The draft may be simulated by an electric fan or even a smoke ejector.
- The site should consist of a short, straight access route ending in an open yet "confined-space" area. Actual dimensions may vary, however a 6' spine board must fit. The patient should be located in the left lateral recumbent position in the confined-space area. There may be debris located in the confined area but none of which is occluding the patient.
- The instructor should use their own creativity to design the confined space. Large tables and blankets work well, as well as large refrigerator boxes. In setting up the props, care must be taken to avoid heavy/unstable roof, sharp objects and other true hazards.

VIII. PATIENT CARE SCENARIOS
C. "THE WINDY ROOM"

EQUIPMENT CACHE FOR ONE SITE

- Rescue Equipment:
  - Dust masks (for patients) (1)
  - Oxygen masks, non-rebreather (1)
  - stiff cervical collars - no-neck (1)
  - Blankets, cotton (2)
  - Patient straps, 9 ft. or 12 ft. (2)
  - Webbing [4 ft.] for students (1)
  - Carabiniers (2)
  - Cervical Immobilization Device [CID] (1)
  - Backboards, 6 ft. (1)
  - Hood [or tossle cap] for patient (1)
  - Face shield for patient [disposable okay] (1)
  - US&R Patient Care Form (6)
  - Shuttle bag with attached lines (1)

- Medical Equipment:
  - EKG leads and electrodes (or comparable monitoring cable to simulate monitoring). (1 set)
  - Blood pressure cuffs - adult size (1)
  - Oxygen cylinders [may be empty] (1)
  - Normal Saline IV bags - 1 liter [outdated ok] (2)
  - IV administration sets (2)
  - IV pressure infuser [disposable type okay] (1)
  - IV catheters [needles removed] (4)
  - Suction catheter and tubing (1)
  - Bag-valve mask (1)
  - Pocket mask (1)
  - Foley catheter drainage bag (1)
  - Medication bags (with outdated or empty ampules, needles removed). (1)
    - Bicarb (2)
    - Epi (2)
    - D_{50} (2)
  - Ampules to simulate other meds (4)
  - Cloth tape 1" rolls (2)
  - Intubation head (1)

- Generic to each skill station and scenarios:

- Flipchart or whiteboard (1)
- Markers (different colors) (2)

VIII. PATIENT CARE SCENARIOS
C. "THE WINDY ROOM"

EQUIPMENT CACHE FOR ONE SITE (continued)

- Students to provide:
  - Dust masks.
  - Eye protection.
  - Light work gloves.
  - Helmet (with a light if available - otherwise, bring a flashlight).
  - Steel-toe boots.
  - Personal stethoscope (if available).
  - Pen light.
  - Coveralls.
  - Pen.
  - Carabinier and webbing - 4 foot (if available).

SYNOPSIS OF SCENARIO PROGRESSION

- Primary medical problems:
  - Shock.
  - Airway compromise.
  - Tension pneumothorax.

- Victim script:
  - You are a 57 year old, 90 kg male victim of a collapsed structure that occurred approximately 10 hours ago. You take no medications, have an allergy to penicillin, and have no significant medical history.
  - You do not know if you lost consciousness. You are extremely anxious and have severe chest pain and dyspnea resultant from a cement block that struck your chest. You are conscious, and guarding/splinting the left chest. You are cyanotic, cool and clammy, with rapid-shallow respirations and prominent use of accessory respiratory muscles. You can not speak in full sentences because of pain and dyspnea. You do have a left anterior-lateral chest contusion with a flail segment.
  - If the initial airway treatment is to needle decompress (the tension pneumothorax), your breathing effort improves followed by shock and unconsciousness 10

minutes later (hemothorax).

VIII. PATIENT CARE SCENARIOS
C. "THE WINDY ROOM"

SYNOPSIS OF SCENARIO PROGRESSION (continued)

- If the initial airway treatment is nasal intubation you tolerate it followed by extreme agitation until the left chest is decompressed. During the intubation phase, if cricoid pressure is not applied begin to gag! In addition to responding to the patient care provider, it is your responsibility to position the intubation head for the intubation.
- After the intubation and needle decompression you may intermittently become agitated with the tube. Be aware that the "drafty" area that you are in may lead to hypothermia because of heat loss due to convection!

INSTRUCTOR INTRODUCTORY SCRIPT

- Acting as a Rescue Team member, give the student group a scenario brief... "The patient is a 57 year old, 90 kg male that was involved in a cement/steel building collapse 10 hours ago. The victim is not entrapped by debris. The victim has obvious chest trauma and will require appropriate advanced life support treatment while in the confined space. The Task Force Rescue Team has accessed the space and has assured roof stability; they state that the patient appears to be severely injured and has worsened since they tried to help him change the position in which he was lying (left lateral recumbency)."

VIII. PATIENT CARE SCENARIOS
C. "THE WINDY ROOM"

PROGRESSION CHART
(with scenario-specific important medical interventions noted in bold.)

- Role assignments:
  - Recorder/Safety Person (1)
  - Medical Provider (3)
  - Anticipator (1)
  - Equipment/supply Person (1)
  - Medical Control Physician

- Find patient.
  - Communicate to outside.

- Secure Scene:
  - Gas readings:
    - CO
    - Methane
    - Oxygen
  - Ventilation. _____
  - Cribbing.
  - Life-lines.

- BTLS survey:
  - Level of consciousness
  - C-spine stabilization
  - Airway patency _____ Note respiratory difficulty

- Breathing rate:
  - Quality:

- Circulation: (radial) (carotid) **OXYGEN**
  - Rate: _____
  - Quality: _____
  - Skin color: _____ Note cyanosis
  - Temp:
  - Cap Refill:

VIII. PATIENT CARE SCENARIOS
C. "THE WINDY ROOM"

PROGRESSION CHART (continued)

- Neck:
  - JVD _____ Note JVD
  - D-Deformity
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - Tracheal deviation

- Chest:
  - Symmetry _____ Note asymmetry
  - D-Deformity
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - P-Paradoxical (movement) _____ Note paradoxical movement
  - Breath sounds:
    - present _____ Suspect
    - type _____ L tension
    - equal _____ pneumothrorax

Needle Decompress

NOTE: If initial treatment is to nasally intubate it is achieved after several attempts. The bag compliance will be poor and there will not be any breath sounds on the left side. Should the tension pneumothorax go unrecognized or untreated the victim will "brady down" into an EMD followed by a code into an asystolic rhythm, unresponsive to catecholamines. Should the tension be recognized and treated after intubation proceed with the initial reassessment step on the progression chart.

- Initial reassessment:
  - Level of consciousness
  - C-spine stabilization
  - Airway patency

- Breathing rate:
  - Quality:

VIII. PATIENT CARE SCENARIOS
C. "THE WINDY ROOM"

PROGRESSION CHART (continued)

- Circulation: (radial) (carotid)
  - Rate: _____
  - Quality: _____
  - Skin color:
  - Temp:
  - Cap Refill:

- Neck:
  - JVD _____ **C-COLLAR**
  - D-Deformity **HAT**
  - C-Contusions _____ **FACE SHIELD**
  - A-Abrasions
  - P-Penetrations
  - Tracheal deviation

- Chest:
  - Symmetry
  - D-Deformity
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - P-Paradoxical (movement) **STABILIZE**
  - Breath sounds: **FLAIL CHEST**
    - present
    - type
    - equal Tension relieved.

- Abdomen: (assess four quadrants)
  - C-Contusions
  - R-Rigidity
  - A-Abrasions
  - P-Pulsations
  - P-Penetrations

- Pelvis:
  - Extension
  - Flexion

VIII. PATIENT CARE SCENARIOS
C. "THE WINDY ROOM"

PROGRESSION CHART (continued)

- Lower Extremities:
  - D-Deformities _____ **SPLINT LEFT**
  - C-Contusions _____ **LEG**
  - A-Abrasions
  - P-Penetrations
  - Movement
  - Sensation
  - Pulses
  - Cap refill

- Upper Extremities:
  - D-Deformities
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - Movement _____ **BLANKETS**
  - Sensation _____ **PRESSURE BAG**
  - Pulses _____ **TO WARM NSS**
  - Cap refill _____ **INITIATE LINES**

- Vitals:
  - Level of consciousness
  - Respiratory rate:
    - quality
  - Oxygen saturation
  - Pulse Rate:
    - quality
  - Blood pressure
  - Monitor
  - Temperature

- Gas readings :
  - CO
  - Methane
  - Oxygen

- Oxygen cylinder Level

VIII. PATIENT CARE SCENARIOS
C. "THE WINDY ROOM"

PROGRESSION CHART (continued)

- Crew condition _____ **REPOI**

CONSIDER AIR TRANSPORT

- Establish course of treatment **IMMOBILIZATION**

IV (NSS or LR)
ANALGESIC
DEXTROSTIX

PATIENT CHANGE

- Reassess:
  - Level of consciousness
  - C-spine stabilization
  - Airway patency

- Breathing rate:
  - Quality: _____ **BAG VALVE MASK**

NOTE: If intubated, reassess breath sounds now.

INTUBATE

- Circulation: (radial) (carotid)
  - Rate: _____
  - Quality: _____
  - Skin color: _____ **SHOCK**
  - Temp: _____ **FLUID RESUSCITATE**
  - Cap Refill:

- Neck:
  - JVD _____ **FLAT JV**
  - D-Deformity
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - Tracheal deviation

VIII. PATIENT CARE SCENARIOS
C. "THE WINDY ROOM"

PROGRESSION CHART (continued)

- Chest:
  - Symmetry
  - D-Deformity
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - P-Paradoxical (movement)
  - Breath sounds:
    - present
    - type
    - equal

STABILIZE FLAIL CHEST

- Vitals:
  - Level of consciousness
  - Respiratory rate:
    - quality
  - Oxygen saturation
  - Pulse Rate:
    - quality
  - Blood pressure
  - Monitor
  - Temperature

- Gas readings :
  - CO
  - Methane
  - Oxygen

- Oxygen cylinder Level

FLUID RESUSCITATE

- Crew condition

REPOI

- Continue course treatment

- Establish immobilization/extrication technique

- Immobilize

VIII. PATIENT CARE SCENARIOS
C. "THE WINDY ROOM"

PROGRESSION CHART (continued)

- Reassess (including vitals):
  - Level of consciousness
  - Respiratory Rate:
    - quality
  - O_2 Saturation:
    - pulse rate:
    - quality:
  - Blood Pressure
  - Monitor
  - Temperature

- Gas readings :
  - CO
  - Methane
  - Oxygen

- Oxygen cylinder Level _____ **FLUID RESUSCITATE**
- Crew condition _____ **REPOI**

- Reassess every 10 minutes **REPORT**
  CONFIRM AIR TRANSPORT
  CHEST TUBE ALERT

- Complete extrication

- EVALUATION

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

TIME

- 60 Minutes

SITE SET-UP

- Equipment staging area.
- Area for initial briefing and for final debriefing.
- The actual confined-space set. This area should combine the three handicaps of many debris obstacles, intermittent darkness and intermittent high CO levels resultant from the release of gas pockets. The obstacles can be anything that one might find in a building collapse. Some examples may be tables, chairs, books, shoes, food, etc. The intermittent darkness can be simulated by turning off the lights or creating the scenario such that it includes several open areas and several confined areas. If actual gas detectors are used in this scenario, high CO can be simulated by blowing the smoke of a lighted cigarette toward the detector.
- The site should consist of a relatively long, straight access route with several "over-under" obstacles ending in a confined area with a sloped roof. Actual dimensions may vary but a 6" spine board and/or Sked must fit. The patient should be located in a supine position in the lowest portion of the confined space area. The debris located in the confined space area should also be covering the patient, so that the only readily accessible parts of the patient are the head, neck and entire right arm.
- The instructors should use their own creativity to design the confined space. Large tables and blankets work well as do large cardboard refrigerator boxes. Please note when staging the prop/scenario, care must be taken to avoid a heavy/ unstable roof, sharp objects and other true hazards.

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

EQUIPMENT CACHE FOR ONE SITE

- Rescue Equipment:
  - Dust masks (for patients) (1)
  - Oxygen masks, non-rebreather (1)
  - stiff cervical collars - no-neck (1)
  - Blankets, cotton (2)
  - Patient straps, 9 ft. or 12 ft. (2)
  - Webbing [4 ft.] for students (1)
  - Carabiniers (2)
  - Cervical Immobilization Device [CID] (1)
  - Backboards, 6 ft. (1)
  - Sked stretcher (1)
  - Hood [or tossle cap] for patient (1)
  - Face shield for patient [disposable okay] (1)
  - US&R Patient Care Form (6)
  - Shuttle bag with attached lines (1)

- Medical Equipment:
  - EKG leads & electrodes (or comparable monitoring cable to simulate monitoring). (1 set)
  - Blood pressure cuffs - adult size (1)
  - Oxygen cylinders [may be empty] (1)
  - Normal Saline IV bags - 1 liter [outdated ok] (2)
  - IV administration sets (2)
  - IV pressure infuser [disposable type okay] (1)
  - IV catheters [needles removed] (4)
  - Suction catheter and tubing (1)
  - Bag-valve mask (1)
  - Medication bags (with outdated or empty ampules, needles removed). (1)
    - Bicarb (2)
    - Epi (2)
    - D_{50} (2)
  - Ampules to simulate other meds (4)
  - Cloth tape 1" rolls (2)

- Generic to each skill station and scenarios:
  - Flipchart or whiteboard (1)

- Markers (different colors) (2)

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

EQUIPMENT CACHE FOR ONE SITE (continued)

- Students to provide:
  - Dust masks.
  - Eye protection.
  - Light work gloves.
  - Helmet (with a light if available - otherwise, bring a flashlight).
  - Steel-toe boots.
  - Personal stethoscope (if available).
  - Pen light.
  - Coveralls.
  - Pen.
  - Carabinier and webbing - 4 foot (if available).

SYNOPSIS OF SCENARIO EVOLUTION

- Primary medical problems:
  - Prolonged entrapment.
  - Crush injury.
  - Poor access to patient.

- Victim script.
  - You are a 33 year old, 80 kg male victim of a collapsed structure that occurred approximately 48 hours ago. You presently are responsive to verbal stimuli appropriately. You have no pertinent medical history or allergies and are on no medications.
  - You have experienced several periods of unconsciousness during the ordeal. You are not in any pain, however you complain of severe thirst and the inability to feel or move your lower extremities. As soon as the debris is removed from your torso, you begin to feel generalized pain all over, and severe pain and tingling in your lower extremities. You must scream of agonizing pain in your lower extremities. Although you can feel the pain in the lower extremities you cannot move them.

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

SYNOPSIS OF SCENARIO EVOLUTION (continued)

- Victim script. (continued)
  - If the medical Providers treat you with pain medication, you may become sleepy from that pain medication. Within ten minutes of removal of the debris and initial movement of you by the providers, you begin to show signs of shock. You have altered sensorium, tachypnea, and EKG changes. If you are not treated promptly with high flow O_2, fluid resuscitation and medication therapy (BiCarb) you will code into EMD, to V-Fib to asystole because of the crush consequences of hypothermia, acidosis, and hyperkalemia.
  - If you are treated appropriately, you become conscious alert and oriented with the chief complaint being severe pain in the lower extremities. You may become unconscious intermittently during the scenario. Should the crew elect to intubate you during an unconscious moment, they may tape the tube in place, and ventilate via the ET tube, but they will not actually do the actual laryngoscopy on you!

INSTRUCTOR INTRODUCTORY SCRIPT

- Acting as a Rescue Team member, give the student group a scenario brief... "The patient is a 33 year old, 80 kg male that was involved in a cement/steel building collapse approximately 24 hours ago. The patient is entrapped by debris and has had intermittent periods of unconsciousness. The victim is only partially accessible, and will require appropriate advanced life support while in the confined space."

- The Task Force Rescue Team states that the scene is safe from hazards and further collapse.

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

PROGRESSION CHART
(with scenario-specific important medical interventions noted in bold.)

- Role assignments:
  - Recorder/Safety Person (1)
  - Medical Provider (3)
  - Anticipator (1)
  - Equipment/supply Person (1)
  - Medical Control Physician

- Find patient.
  - Communicate to outside.

- Secure Scene:
  - Gas readings:
    - CO
    - Methane
    - Oxygen
  - Ventilation. _____
  - Cribbing.
  - Life-lines.

- BTLS survey:
  - Level of consciousness
  - C-spine stabilization
  - Airway patency

- Breathing rate: _____ **DUST**
  - Quality: _____ **FACE SHIELD**
    OXYGEN

- Circulation: (radial) (carotid)
  - Rate: _____
  - Quality: _____
  - Skin color:
  - Temp:
  - Cap Refill: _____ Note partial access.

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

PROGRESSION CHART (continued)

- Neck:
  - JVD
  - D-Deformity
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - Tracheal deviation

- Right arm:
  - D-Deformity
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - Movement
  - Sensation
  - Cap refill

- Vitals:
  - Level of consciousness
  - Respiratory rate:
    - quality
  - Oxygen saturation
  - Pulse Rate:
    - quality
  - Blood pressure
  - Monitor
  - Temperature

- Gas readings :
  - CO
  - Methane
  - Oxygen

- Oxygen cylinder Level

- Crew condition

CONSIDER AIR TRANSPORT

REPOI

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

PROGRESSION CHART (continued)

■	Establish course of action **IV ACCESS** **warm NSS via** **Trauma Tubing,** **pressure bags** **with air cleared!** **MONITORING** **FLUID RESUSCITATE**	**REPORT**
■	Begin Extrication • Upper torso.	**CONSIDER BICARB**
■	Reassess: • Level of consciousness • C-spine stabilization • Airway patency	
■	Breathing rate: • Quality:	
■	Circulation: (radial) (carotid) • Rate: _____ • Quality: _____ • Skin color: • Temp: • Cap Refill:	
■	Neck: • JVD • D-Deformity • C-Contusions • A-Abrasions • P-Penetrations • Tracheal deviation	

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

PROGRESSION CHART (continued)

- Chest:
  - Symmetry
  - D-Deformity
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - P-Paradoxical (movement)
  - Breath sounds:
    - present
    - type
    - equal

REPOSITION
MONITOR
LEADS
BLANKETS

- Vitals:
  - Level of consciousness
  - Respiratory rate:
    - quality
  - Oxygen saturation
  - Pulse Rate:
    - quality
  - Blood pressure
  - Monitor
  - Temperature

- Gas readings :
  - CO
  - Methane
  - Oxygen

- Oxygen cylinder Level

- Crew condition

REPOI
FLUID
RESUSCITATE
ANALGESIC
CONSIDER BICARB
DEXTROSTIX

CONSIDER DEXTROSE

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

PROGRESSION CHART (continued)

- Vitals:
  - Level of consciousness
  - Respiratory rate:
    - quality
  - Oxygen saturation
  - Pulse Rate:
    - quality
  - Blood pressure
  - Monitor _____ **CONSIDER**
  - Temperature _____ **FOLLOW-UP REPORT**
- Continue extrication
  - Abdomen/pelvis.
- Reassess:
  - Level of consciousness
  - C-spine stabilization
  - Airway patency
- Breathing rate:
  - Quality:
- Circulation: (radial) (carotid)
  - Rate: _____
  - Quality: _____
  - Skin color:
  - Temp:
  - Cap Refill:
- Neck:
  - JVD
  - D-Deformity
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - Tracheal deviation

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

PROGRESSION CHART (continued)

- Chest:
  - Symmetry
  - D-Deformity
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - P-Paradoxical (movement)
  - Breath sounds:
    - present
    - type
    - equal

- Abdomen: (assess four quadrants)
  - C-Contusions
  - R-Rigidity
  - A-Abrasions
  - P-Pulsations
  - P-Penetrations

- Pelvis:
  - Extension _____ **REMOVE**
  - Flexion _____ **CLOTHING**

TREAT OBVIOUS INJURY

- Vitals:
  - Level of consciousness
  - Respiratory rate:
    - quality
  - Oxygen saturation
  - Pulse Rate:
    - quality
  - Blood pressure
  - Monitor
  - Temperature

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

PROGRESSION CHART (continued)

- Gas readings :
  - CO
  - Methane
  - Oxygen
- Oxygen cylinder Level
- Crew condition _____ **REPOI**

RESUSCITATE
ANALGESIC
CONSIDER BICARB
DEXTROSTIX

- Vitals: **CONSIDER DEXTROSE**
  - Level of consciousness
  - Respiratory rate:
    - quality
  - Oxygen saturation
  - Pulse Rate:
    - quality
  - Blood pressure
  - Monitor _____ **CONSIDER**
  - Temperature _____ **FOLLOW-UP**

REPORT

- Continue extrication
  - Lower extremities.
- Reassess:
  - Level of consciousness
  - C-spine stabilization
  - Airway patency
- Breathing rate:
  - Quality:
- Circulation: (radial) (carotid)
  - Rate: _____
  - Quality: _____
  - Skin color:

- Temp:
- Cap Refill:

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

PROGRESSION CHART (continued)

- Neck:
  - JVD
  - D-Deformity
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - Tracheal deviation

- Chest:
  - Symmetry
  - D-Deformity
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - P-Paradoxical (movement)
  - Breath sounds:
    - present
    - type
    - equal

- Abdomen: (assess four quadrants)
  - C-Contusions
  - R-Rigidity
  - A-Abrasions
  - P-Pulsations
  - P-Penetrations

- Pelvis:
  - Extension
  - Flexion

- Lower extremities:
  - D-Deformities
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - Movement
  - Sensation

- Cap refill

STABILIZE LEGS

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

PROGRESSION CHART (continued)

- Vitals:
  - Level of consciousness
  - Respiratory rate:
    - quality
  - Oxygen saturation
  - Pulse Rate:
    - quality
  - Blood pressure
  - Monitor
  - Temperature

- Gas readings :
  - CO
  - Methane
  - Oxygen

- Oxygen cylinder Level

- Crew condition _____ **REPOI**

DIPSTICK
DEXTROSTIX
CONSIDER BICARB,
DEXTROSE FLUID
ANALGESIC

- Vitals:
  - Level of consciousness
  - Respiratory rate:
    - quality
  - Oxygen saturation
  - Pulse Rate:
    - quality
  - Blood pressure
  - Monitor
  - Temperature _____ **FOLLOW-UP**

REPORT
CONSIDER
HYPOTHERMIA SUIT

- Immobilize.

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

PROGRESSION CHART (continued)

- Reassess:
  - Level of consciousness
  - C-spine stabilization
  - Airway patency

- Breathing rate:
  - Quality:

- Circulation: (radial) (carotid)
  - Rate: _____
  - Quality: _____
  - Skin color:
  - Temp:
  - Cap Refill:

- Neck:
  - JVD
  - D-Deformity
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - Tracheal deviation

- Chest:
  - Symmetry
  - D-Deformity
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - P-Paradoxical (movement)
  - Breath sounds:
    - present
    - type
    - equal

- Abdomen: (assess four quadrants)
  - C-Contusions
  - R-Rigidity
  - A-Abrasions
  - P-Pulsations
  - P-Penetrations

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

PROGRESSION CHART (continued)

- Pelvis:
  - Extension
  - Flexion

- Lower extremities:
  - D-Deformities
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - Movement
  - Sensation
  - Cap refill

- Upper extremities:
  - D-Deformities
  - C-Contusions
  - A-Abrasions
  - P-Penetrations
  - Movement
  - Sensation
  - Cap refill

- Vitals:
  - Level of consciousness
  - Respiratory rate:
    - quality
  - Oxygen saturation
  - Pulse Rate:
    - quality
  - Blood pressure
  - Monitor
  - Temperature

- Gas readings :
  - CO
  - Methane
  - Oxygen

- Oxygen cylinder Level

VIII. PATIENT CARE SCENARIOS
D. "48 HOURS"

PROGRESSION CHART (continued)

- Crew condition — **REPOI**
  DIPSTICK
  DEXTROSTIX
  CONSIDER BICARB,
  DEXTROSE FLUID
  ANALGESIC
- Vitals:
  - Level of consciousness
  - Respiratory rate:
    - quality
  - Oxygen saturation
  - Pulse Rate:
    - quality
  - Blood pressure
  - Monitor
  - Temperature — **FOLLOW-UP REPORT**
- Begin Extrication — **6' BOARD/SKED**
  HYPOTHERMIA SUIT
- Reassess every 5 minutes and/or change in patient condition. — **CONSIDER**
  BAG-VALVE-MASK
  ASSIST/
  INTUBATION
- Complete extrication.
- Reassess.
- EVALUATION.