BY ORDER OF THE COMMANDER *AFSOC INSTRUCTION 16-1201*
AIR FORCE SPECIAL OPERATIONS COMMAND *30 December 1996*

Operations Support

PARARESCUE CONTINUING MEDICAL EDUCATION PROGRAM

COMPLIANCE WITH THIS INSTRUCTION IS MANDATORY. This instruction implements AFPD 16-12, *Combat Pararescue*. It establishes the Pararescue Continuing Medical Education (CME) Program, defines training requirements, establishes minimum criteria, and provides guidelines for conducting and documenting CME training and certification. It applies to all pararescuemen assigned to AFSOC units.

SUMMARY OF REVISIONS
This revision aligns AFSOC requirements with AFPD 16-12 and incorporates requirements and procedures formerly in AFSOCR 160-2. It clarifies pararescue medical training requirements and quantifies specific medical tasks. Medical exercises have been added to enhance combat medical training and evaluation methods.

Supersedes: AFSOCR 160-2, 30 Sep 93
Certified by: 720 STG/CV (Lt Col Steven R. Scott)
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1. Requirements for Recertification of Emergency Medical Technician (EMT) Pararescueman (PJ). These include biennial requirements IAW Department of Transportation (DOT) EMT standards and those specific for Special Tactics PJs.

1.1. **EMT-Basic.**

1.1.1. 24-hour basic EMT refresher course.

1.1.2. 4 hours of CPR refresher training IAW American Heart Association (AHA) or American Red Cross (ARC) standards.

1.1.3. 80 clinical hours (minimum) of sustainment training per certification period.

1.1.4. 48 hours of continuing education units (CEU).

1.2. **EMT-Intermediate.**

1.2.1. 24-hour basic EMT refresher course.

1.2.2. 4 hours of CPR refresher training IAW AHA standards.

1.2.3. 12 hours of EMT-I specific training (curriculum specific to intermediate level (core curriculum)).

1.2.4. 80 clinical hours (minimum) of sustainment training per certification period.

1.2.5. IV and intubation skills verification by a certified Advanced Cardiac Life Support (ACLS) provider.

1.2.6. 36 hours of continuing education units.

1.3. **EMT-Paramedic.**

1.3.1. 48-hour paramedic refresher course.

1.3.2. 4 hours of CPR refresher training IAW AHA or ARC standards.

1.3.3. 16 hours of ACLS IAW AHA standards.

1.3.4. 80 clinical hours (minimum) of sustainment training per certification period.

1.3.5. IV and intubation skills verification by certified ACLS provider.

1.3.6. 24 hours of continuing education units.

2. Recommended Additional Formal Courses.

2.1. All AFSOC PJs (AFSC 1T2X1) are required to attend Basic Trauma Life Support, Pre-Hospital Trauma Life Support, or Advanced Trauma Life Support courses at least once every two years to be applied towards CEUs.

2.2. All assigned PJs are strongly encouraged to attend formal courses that enhance pararescue skills. These courses include:

2.2.1. EMT Wilderness.

2.2.2. EMT Tactical.

2.2.3. Special Operations Forces School of Medicine Foreign Internal Defense (FID) module.

2.2.4. Other 720 STG/SG approved courses in coordination and consultation with AFSOC/SG.

3. Continuing Medical Education (CME).

3.1. **Medical Training.** Must consist of a well organized CME program to augment knowledge, skills, and attitudes toward the rendering of emergency medical care under adverse conditions. CME is the key method of keeping pace with new medical techniques and procedures.

3.2. **CME Program Organization.** Tailor the CME program to meet the tactical operational mission requirements. The program should include all medical related training, medical exercises (MEDEX), didactic training, and clinical training. Unit commanders are responsible for the CME program. In the absence of an assigned surgeon, the squadron commander will appoint a squadron medical training coordinator. This person will perform quarterly reviews of the CME folder (Attachment 2) on each individual, provide direction and tracking of individual and unit CME programs, and submit these reviews to the unit commander.

4. Situational Medical Exercise (Attachments 3 and 4). Situational medical exercises are practical learning experiences designed to improve the ability of individual PJs to provide emergency medical

treatment under field conditions. To be effective, the training must be conducted under conditions which approximate, to the maximum extent possible, actual mission conditions. Exercises must be conducted in conditions of direct threat, relative security and under day and night conditions using appropriate missions scenarios. It is intended to be used as a method for individual PJs to find practical solutions to the difficult problem of providing complete pre-hospital emergency evaluation/treatment under field conditions. Exercises must be conducted as a learning experience and be structured to the level of qualification and certification of the individual. It is recommended that performance of IV cannulation (actual with patient consent), intubation (performed on manikin), and oxygen therapy be required during each exercise.

4.1. Each PJ (AFSC 1T2X1) will accomplish a minimum of one MEDEX quarterly to maintain proficiency. PJs receive 1 hour of CME for each hour spent performing the exercise. Document MEDEX in Tab I and performance in Tab IV of the individual's CME folder. Keep documentation for two years.

4.2. The MEDEX consists of three separate but interdependent phases. Participant roles and responsibilities are found in Tab IV of CME folder.

4.2.1. Establishment of the Exercise. MEDEX should be accomplished with no more than two man teams providing treatment for one victim. For optimal training, the ratio should be one to one: Mass casualty situations may require additional manning. Scenario (time, place, and environment) is determined by the exercise administrator. Scenarios should be combat orientated. The exercise administrator must ensure the victim has a thorough understanding of the appropriate signs and symptoms of their injuries. The administrator must then brief the medic on the background scenario.

4.2.2. Definitive medical care debrief.

4.2.3. Critique. This is the most critical phase of the exercise. Medical treatment conducted IAW *Special Tactics Medication and Procedure Notebook, Lippincott Manual of Nursing Practice, and Brady Paramedic, Emergency Care* (current editions). The purpose is to improve performance, provide constructive advice, direction, and guidance. The administrator must be objective and focus on the PJ's performance. Comments must be documented in Tab IV of the individual's CME folder and should include recommendations for remedial training, if appropriate.

4.3. Didactic. Didactic training is used to update and reinforce the principles outlined in *Special Tactics Medication and Procedure Notebook*, *Lippincott Manual of Nursing Procedures*, and *Brady Paramedic Emergency Care* (current editions). This training is measured in CEUs and can be completed through viewing emergency medical update videos, private study, group study, conference training sponsored by hospitals, etc. Log didactic training hours in the individual's CME folder. Issuance of CEUs will be coordinated with the National Registry of Emergency Medical Technicians through the 720 STG.

4.4. Clinical Training. The squadron medical training coordinator will establish clinical training programs, in the absence of a squadron surgeon. As a minimum, these programs will allow the PJ 80 hours of clinical training during each recertification period. Document all clinical training in Tab III of the individual's CME folder. Establishment of this program requires close coordination with the host base medical treatment facility (MTF). A memorandum of understanding (MOU) must be initiated with the MTF and coordinated through 720 STG/SG stating the needed training and ensuring the continuity of the program. The purpose of all clinical training is to allow PJs patient contact in a well defined, supervised, and coordinated environment and provide instruction with clinical experience focusing on trauma management, general emergency medicine, and pertinent critical care. Clinical programs have been coordinated by the group and MOUs already established. These programs include; Eglin AFB, New Orleans Ride Along program, and the Maryland Institute for Emergency Medical Services Systems. The goals of these programs are:

4.1.1. Formally evaluate the knowledge and skills required of the PJ and develop a mechanism that will enable them to utilize those skills on patients in an appropriate clinical setting.

4.4.2. Develop a program of ongoing CME that meets the recertification requirements of the PJ commensurate with his certification level.

4.4.3. Familiarize the PJ with Advanced Life Support (ALS) utilizing existing ALS medical treatment protocols per clinical training facility, and provide the individual the opportunity to perform these skills commensurate with his certification level.

4.4.4. Minimal objectives (milestones) are:

4.4.4.1. 50 patient assessments per certification period.

4.4.4.1.1. Medical - 40%.

4.4.4.1.2. Trauma - 40%.

4.4.4.1.3. Obstetric - 9%.

4.4.4.1.4. Pediatric - 9%.

4.4.4.1.5. Psychiatric - 2%.

4.4.5. Minimal procedures (skill proficiency) to be performed by PJs.

4.4.5.1. IV initiations (live) - 6 annually.

4.4.5.2. Airway management - 10 per certification period, i.e., oxygen administration, mask, cannula, establishment of airway, etc.

4.4.5.3. Intubations - 6 annually with at least 1 live intubation.

4.4.5.4. Spinal immobilization - 10 per certification period.

4.4.5.5. Bandaging - 6 annually.

4.4.5.6. Splinting - 6 annually.

4.4.5.7. Advanced Cardiac Life Support observation and procedures; ranging from monitoring to full resuscitation - 10 per certification period.

5. Documentation. Each CME session and clinical procedure will be documented by an ACLS certified health care provider in the individual's CME folder.

6. The CME Folder (Attachment 2). Primary source document for all medical training, qualifications, and certifications. Each squadron will maintain a six-section CME folder for each PJ. Organize the folder as follows:

6.1. **Tab I** - This section contains medical training requirements and direction for maintaining training folders.

6.2. **Tab II** - Tracking forms for endotracheal and intravenous procedures.

6.3. **Tab III** - Clinical Training. This tab includes tracking forms for rapid reference to clinical exposure hours, clinical checklist, and an attachment for recording required skills.

6.4. **Tab IV** - Situational Medical Exercises. This section contains the tracking forms and evaluation sheets for medical exercises.

6.5. **Tab V** - Training Certificates. This section contains training certificates.

6.6. **Tab VI** - Recertification requirements and forms.

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Attachments:
1. Glossary of Acronyms and Abbreviations
2. Continuing Medical Education (CME) Folder
3. Situational Medical Exercise Guidelines
4. Situational Medical Exercise (MEDEX)

Attachment 1

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

ACLS	advanced cardiac life support
AFB	Air Force Base
AFPD	Air Force Policy Directive
AHA	American Heart Association
ALS	advanced life support
ARC	American Red Cross
BP	blood pressure
BTLS	basic trauma life support
C3	third cervical vertabrae
C4	fourth cervical vertabrae
cc	centimeter
c/c	chief complaint
CEU	continuing education unit
CME	Continuing Medical Education
CPR	cardiopulmonary resuscitation
DC	disconnect
EKG	electrocardiogram
EMT	emergency medical technician
EMT-B	emergency medical technician-basic
EMT-I	emergency medical technician-intermediate
F	farenheit
FID	Foreign Internal Defense
hr	hour
IAW	in accordance with
IM	intra-muscular
IV	intravenous
L	liter
MEDEX	medical exercise
mg	milligram
min	minute
MOU	memorandum of understanding
MTF	medical treatment facility
NCO	noncommissioned officer
NS	normal saline
P	pulse
PHTLS	pre-hospital trauma life support
PJ	pararescueman
R	respiration
RL	ringer's lactate
SF	Standard Form
SOAP	subjective, objective assessment plan
VF	ventricular fibrillation

Attachment 2

CONTINUING MEDICAL EDUCATION (CME) FOLDER

A2.1. TAB I - CME Log Sheet and Re-registration.

A2.1.1 **For unit documentation:**

Use a locally developed tracking plan or spread sheet to monitor each individuals contact hours.

A2.1.2. **For recertification submission to National Registry:**

Provide copies of completion certificates if applicable. When certificates are not available, provide, on official letterhead signed by the training NCO, a statement outlining dates, times, and topical content.

A2.1.3. **Examples of CME topics:**

explosion injuries	communications	special rescue
crime scene response	electrical hazards	diving
athletic injuries	repelling	aerial
hazardous materials	medical terminology	mountain
radioactive materials	rape intervention	

A2.1.4. **Re-registration:**

To submit request for re-registration use official letterhead stationary for request. Include name, address, social security number and EMT registration number. Attach copies of the following:

Card or certificate of completion - Basic EMT Refresher Training
Card or certificate of completion - Annual CPR Certification

NOTE: MUST be annual training. If using American Heart Association, submit a copy of the biannual training card and a certificate of refresher training for the off year. For 12-hour refresher training, submit a statement outlining date, time, and topical content, on official letterhead, signed by training officer or medical director.

A2.2. TAB II - Daily Clinical Reviews

Use this log to track activities during clinical rotation. Individual may develop a format to meet the needs of whichever clinical rotation program the unit is using. Many support activities already have tracking documentation prepared for their programs. Use whatever format is convenient for the activity being worked and provides the information needed. The documentation should include, but not limited to:

Patient care activities	Notation of unit supervisor
Training activities	Brief SOAP note regarding each patient encounter
Skills performed	

Enter the documentation into the training record at the completion of each rotation.

A2.2.1. **Examples of activities to record:**

Orientation to ambulance and equipment	Xray
Record keeping	Casting/splinting
Ambulance runs requiring patient care (record #)	Number of IVs started/DCed
Vital signs	Assisting with suturing
Skin color and temperature	EKGs

State of consciousness (person, place, time)
Neurovascular check
Wound care/dressing
Care of fractures/sprains
Inhalation therapy
Oxygen administration
Patient history

A2.3. TAB III - Procedures Certifications

This area will contain documentation of intravenous (IV) and intubation training and provide an area to record each IV started and the number of intubations performed. On the intubations, record whether the intubation was performed on a manikin, animal, or actual patient. Each entry should be verified by the training NCO, supervisor, or instructor working with the individual.

A2.4. TAB IV - Medical Exercises

This section will contain documentation of MEDEX performed in accordance with Attachment 4. The evaluator will attach comments and patient treatment cards. The evaluator, evaluate and training NCO will sign the completed exercise sheet.

A2.5. TAB V - Mission Reports, Run Sheets, and SOAPS

SOAP notes for this area are those prepared on patients managed during actual missions, not during training rotations. These may be copies of the SF 600, *Health Record - Chronological Record of Medical Care*, SF 558, *Medical Record - Emergency Care and Treatment*, or brief notes from the mission report form.

The SOAP note consists of::

Subjective Information:

S: Age, sex, mechanism of injury, chief complaint (c/c), history of injury and illness, description of complaint

Objective Information:

O: General appearance, vital signs, physical findings on exam

Assessment:

A: Problem plus a list of possible differential conditions. Example: An assessment of chest pain may have differential conditions of acute myocardial infarction, pleuritis, gastrointestinal reflux, etc. This information lets the reader know all possible causes and ways of managing these conditions were considered.

Plan:

P: Treatment plan to include tests performed (attach patient to monitor, etc.).

Also record all follow-up care provided while managing the patient and evacuation considerations.

A2.6. TAB VI - Personal History and Certificates

Copies of:

Certificate of Completion - PJ training
Certificate of Completion EMT-B
Certificate of Completion EMT-I
CPR Card
Certificate of Completion for: PHTLS, BTLS

Any other diplomas, certificates, etc., accumulated throughout career relating to medical training. Maintain these copies. Do not purge this section when the other sections are updated.

Attachment 3

SITUATIONAL MEDICAL EXERCISE GUIDELINES

A3.1. Scenarios (time, place, environment) is determined by the exercise administrator and briefed to the participant. Information on the patient's condition must not be provided.

A3.2. Appropriate moulage, artificial blood, etc., must be used if available.

A3.3. Exercises must be established and controlled as realistically as possible. Patients must act out the signs and symptoms listed in the situation section of the exercise and respond appropriately to treatment. The administrator must remain silent throughout the problem except to provide:

A3.3.1. Appropriate vital signs after rescuer has obtained actual vital signs on the patient.

A3.3.2. Signs that cannot be simulated, e.g., breath sounds, should be described to the rescuer when the appropriate technique for eliciting these signs is performed.

A3.3.3. Questions to the rescuer on dosages of medications or administration rates/total volumes of intravenous fluids, if not stated by the rescuer.

A3.4. For training purposes, at the completion of the exercise the administrator must provide a balanced critique of the individual's exercise performance IAW *AFSOC Special Tactics Medication and Procedure Notebook*, *Lippincott Manual of Nursing Procedures*, and *Brady Paramedic Emergency Care* (current editions).

A3.5. For evaluation purposes, the following scoring arrangements must be used:

A3.5.1. Total score 100%.

A3.5.2. Score for each numbered sequence of critique as marked.

A3.5.3. Passing score 75% or above.

A3.5.4. The examiner must score only the evaluation/treatment actually performed.

A3.6. For annual proficiency evaluation, the following qualification criteria are applied:

A3.6.1. Qualification level 1 - Meets established standards for emergency medical treatment. No additional training is required.

A3.6.2. Qualification level 2 (Qualified) - Meets established standards for emergency medical treatment. Meets standards for critical care areas (e.g. IV insertion, appropriate use of medications, essential treatment, proper management of fractures, etc., however, evaluation/treatment is inefficient of incomplete. Additional training is required.

A3.6.3. Qualification level 3 (Unqualified) - Does not meet established standards for emergency medical treatment. Does not demonstrate an acceptable level of proficiency. Does harm. Specific disqualifying deficiencies are:

A3.6.3.1. Inappropriate use of medications.

A3.6.3.2. Improper IV technique.

A3.6.3.3. Failure to recognize or provide essential treatment for any of the immediate life-threatening conditions.

A3.6.3.4. Improper handling or splinting of fractures/dislocations.

Attachment 4

SITUATIONAL MEDICAL EXERCISE (MEDEX)

A4.1. MEDEX #1

A4.1.1. **Situation.**

A4.1.1.1. Survivor with:

- Open fracture of the right femur.
- Active hemorrhage from fracture wound.
- Shock.
- Bruised ribs of right lateral chest.

A4.1.1.2. Survivor is exhibiting:

- Pale, cool, moist skin.
- Continued blood loss from fracture wound.
- Complaint of severe pain in right chest aggravated with respirations.
- Confused and apprehensive state.

A4.1.1.3. Vital Signs: P-140 R-16 BP-90/60

A4.1.2. **Response to Treatment.**

A4.1.2.1. Bleeding continues unless a tourniquet is applied or elastic dressing is packed around the bone segments and into the depths of the wound.
NOTE: A bulky dressing strapped on top of the projecting bone ends is not effective.

A4.1.2.2. Pulse slows to 120, BP rises to 110/70 after 2000cc of RL or NS.

A4.1.2.3. Pulse slows to 90, BP rises to 120/80 and other signs of shock (skin color and temp) improve after 3000cc of RL or NS have been infused.

A4.1.3. **Critique.** The following is accomplished in the order listed:

A4.1.3.1. Immediate evaluation and treatment. (50% of points)

- No respiratory distress is noted.
- Active bleeding from fracture wound detected.
- Tourniquet applied followed by packing gauze dressing around bone ends and into depths of the wound. Pressure is maintained by ace bandage wrap over dressing material and around projecting bone segments. After the pressure dressing has been applied, the tourniquet is removed.
- Pulse rate, skin color and temp noted.
- IV of RL or NS started at maximum flow rate.
- BP obtained.
- Oxygen 8-10 L/min when available.

A4.1.3.2. Complete examination in standard pattern. (10% of points)

- No area of body excluded.
- Suspected rib fractures detected.
- Close exam of chest accomplished.
- Fracture of femur previously noted.
- Circulation and sensation of right foot checked closely.

A4.1.3.3. Treatment. (25% of points)

- Continue IV at maximum rate.
- Bandage exposed bone segments.
- Splint fracture in the position found. Avoid direct pressure on bone ends.
- Encourage cough and deep breaths.

A4.1.3.4. Recurrent evaluation and treatment. (10% of points)

- Slow IV rate to 150cc/hr after signs of shock resolve.
- Recheck circulation and sensation for right foot repeatedly.
- Observe respiratory status closely.

A4.1.3.5. Medical history. (5% of points)

A4.2. MEDEX #2

A4.2.1. **Situation.**

A4.2.1.1. Survivor is lying in any position with:

- Pelvic fracture.
- Closed fracture of right radius/ulna

A4.2.1.2. Survivor is exhibiting:

- Pain in pelvis aggravated by movement or pressure.
- Pale, cool, moist skin.
- Hyperventilation without respiratory distress.
- Apprehension.
- Inability to void.
- Pain with any movement of right arm.

A4.2.1.3. Vital Signs: P-140 R-24 BP-90/60

A4.2.2. **Response to Treatment.**

A4.2.2.1. BP increases to 100, pulse slows to 130, after 1500cc of RL or NS has been given.

A4.2.2.2. BP increases to 110/70 immediately after anti-shock trousers are applied and inflated.

A4.2.2.3. All signs of shock resolve (normal skin color and temp), pulse-90, BP rises to 120/80 and remains stable, and urine flow is greater than 30cc/hr after application of anti-shock trousers and administration of

2000cc of RL or NS.

A4.2.2.4. Minimal forearm pain is experienced if the fracture site is supported well on both sides and splint extends from elbow to wrist.

A4.2.3. **Critique.** The following accomplished in the order listed:

A4.2.3.1. Immediate evaluation and treatment. (50% of points)

- Hyperventilation without respiratory distress noted.
- Pulse, skin color and temp noted.
- IV RL or NS at wide open rate.
- BP obtained.
- Oxygen, 8-10L/min as soon as it is available.

A4.2.3.2. Complete examination in standard pattern. (15% of points)

- No area of body excluded.
- Pelvic fracture detected.
- Fracture of right forearm detected.
- Circulation/sensation of right hand checked closely.

A4.2.3.3. Treatment. (35% of points)

- Apply anti-shock trousers, as available.
- Consider insertion of Foley catheter.
- Maintain body temp.
- Do not allow sitting position.
- Lift patient by grasping clothing to maintain pelvic stability.
- The right forearm must be supported well above and below the fracture site during splinting.
- Splint from above elbow to wrist prior to evacuation.

A4.2.3.4. Recurrent evaluation and treatment. (10% of points)

- Vital signs at least every 15 minutes.
- Adjust IV to 150cc/hr after signs of shock resolve.
- Repeated check of circulation/sensation of right hand.

A4.2.3.5. Medical history. (10% of points)

A4.3. MEDEX #3

A4.3.1. **Situation.**

A4.3.1.1. Survivor with:

- Fractures of left 10th,11th,12th ribs (left anterolateral)
- Internal hemorrhage from ruptured spleen.
- Shock.

- Closed fracture of right tibia

A4.3.1.2. Survivor is:

- In sitting position, holding the lower left side of chest.
- Complaining of pain at fracture site and abdominal pain.
- Complaining of pain on top of the left shoulder without tenderness at that site, when placed in the supine position.
- Complains of pain in the right lower leg which increases with pressure or movement at fracture site.
- Pale, cool, moist skin.
- No respiratory distress.

A4.3.1.3. Vital Signs: P-130 R-18 BP-110/70

A4.3.2. **Response to Treatment.**

A4.3.2.1. Pulse drops to 110 and systolic BP rises to 120 when 2000cc of RL or NS is infused IV.

A4.3.2.2. Minimal pains is experience if the fracture site is supported well on both sides of the fracture and if the splint extends above the knee and below the ankle.
NOTE: Anti-shock trousers are currently indicated only for pelvic instability and or when shock persists despite adequate fluid expansion and evacuation is delayed, Previous contraindications still apply.

A4.3.3. **Critique.** The following accomplished in the order listed:

A4.3.3.1. Immediate evaluation and treatment. (40% of points)

- No breathing difficulty noted.
- Rapid pulse and pale, cool skin noted.
- IV started and RL or NS administered at maximum rate.
- BP obtained.
- Oxygen, 8-10L/min, when available.

A4.3.3.2. Complete examination in standard pattern. (20% of points)

- No area of body excluded.
- Rib fractures detected.
- Fracture of right tibia is detected.
- Intra-abdominal hemorrhage is suspected.
- Circulation/sensation of right foot is checked closely.

A4.3.3.3. Treatment. (20% of points)

- Fracture of tibia handled in a manner that provides support above and below the fracture site so that no movement of fracture segments is allowed.
- Body temperature should be maintained.

A4.3.3.4. Recurrent evaluation and treatment. (20% of points)

- IV fluids are slowed to 150cc/hr when signs of shock resolve.

- Circulation/sensation of right foot is checked after splinting and periodically.
- Deep breathing and cough is encouraged.

A4.3.3.5. Medical history. (5% of points)

A4.4. MEDEX #4

A4.4.1. **Situation.**

A4.4.1.1. Survivor with:

- Severe hypothermia.
- Deep frostbite of both feet.
- Open fracture of left tibia without active bleeding.

A4.4.1.2. Survivor is exhibiting:

- Comatose state.
- Pale, cold skin.*
- Dilated pupils.*
- White, hard skin of both feet up to ankles.
- Protruding bone segments left lower leg.*

***NOTE:** Items should be stated by the evaluator when these are checked.

A4.4.1.3. Vital Signs: P-40 R-6 BP-110/70 Rectal Temp 84 degrees F.

A4.4.2. **Response to Treatment.**

A4.4.2.1. Survivor goes into cardio-pulmonary arrest if not handled in gentle manner.

A4.4.2.2. Gradual re-warming occurs with proper management. Rectal temp rises to 88 degrees F., Pulse increases to 60/min, Respirations increase to 16/min, BP-110/70.

A4.4.3. **Critique.** The following accomplished in the order listed:

A4.4.3.1. Immediate evaluation and treatment. (15% of points)

- Prolonged check for breathing and respiratory rate is carried out.
- Prolonged palpation of carotid pulse is carried out.

A4.4.3.2. Complete examination in standard pattern. (20% of points)

- Exam must be performed very rapidly with minimal clothing removal.
- Fracture of left tibia detected.
- Frostbite of both feet detected.
- Survivor must be handled gently with minimal amount of movement during exam.
- Monitor pulse and respiration at least every 5 minutes.
- Maintain horizontal position

A4.4.3.3. Treatment. (50% of points)

- Administer warm oxygen at 2-4L/min if available
- Establish IV and administer warmed NS at 150cc/hr if available.
- Monitor cardiac rhythm if available.
- Bandage fracture wound.
- Splint fracture in position found extending from above the knee to below the ankle.
- In extremely gentle manner, move the survivor to heated shelter.
- Remove damp clothing and place victim in pre-warmed sleeping bag.
- Monitor rectal temperature.
- Place heat to the victim's head, neck, chest, and groin.

NOTE: If pulse and respiration are absent, begin CPR, intubate, defibrillate if VF present, withhold IV medication if core temp less than 86 degrees F, if core temp greater than 86 degrees, administer resuscitative medication as indicated but at longer intervals. Repeat defibrillation as temperature rises.

NOTE: Re-warming in the field should not be attempted in the field unless the survivor is more than 15 minutes from a medical facility.

A4.4.3.4. Recurrent evaluation and treatment. (10% of points)

- Monitor pulse and respirations almost constantly during re-warming.
- Measure rectal temperature every hour.
- Continue to handle survivor in gentle manner with minimum of movement.

A4.4.3.5. Medical history. (5% of points)

A4.5. MEDEX #5

A4.5.1. **Situation.**

A4.5.1.1. Survivor with:

- Gunshot wound of abdomen.
- Gunshot wound of right lower leg producing fracture of tibia.
- Shock.

A4.5.1.2. Survivor is exhibiting:

- Active bleeding from leg wound.
- Pale, cool, moist skin.
- Comatose. Consciousness returns after BP is increased.
- Rigidity of Abdomen.
- No bowel sounds.
- Complaint of pain when right leg is moved (after consciousness is regained).
- No angulation at fracture site.

A4.5.1.3. Vital Signs: P-140 R-20 BP-60/0

A4.5.2. **Response to Treatment.**

A4.5.2.1. Bleeding from lower leg is controlled with a pressure dressing.

A4.5.2.2. BP increases after administration of 4000cc of RL or NS.

NOTE: Anti-shock trousers are currently indicated only for pelvic instability and or when shock persists despite adequate fluid expansion and evacuation is delayed. Previous contraindications still apply.

A4.5.3. **Critique.** The following is accomplished in the order listed.

A4.5.3.1. Immediate evaluation and treatment. (50% of points)

- No respiratory distress is noted.
- Active bleeding controlled by pressure dressing. Tourniquet may be used for temporary control, followed by pressure dressing.
- Pulse, skin, color, temp noted.
- IV started with RL or NS at wide open rate.
- BP obtained.
- Oxygen 8-10L/min when available.

A4.5.3.2. Complete examination in standard pattern. (15% of points)

- Abdominal wound and rigidity detected.
- Examination of lower extremities completed prior to application of antishock trousers if used.
- No area of body is excluded.
- Circulation/sensation of right foot checked.

A4.5.3.3. Treatment. (15% of points)

- If anti-shock trousers are utilized, the right leg portion is applied over the pressure dressing and the abdominal portion applied over the wound dressing.
- Right lower leg is supported well above and below the wound.
- Right lower leg is strapped to the left leg prior to movement.

A4.5.3.4. Recurrent evaluation and treatment. (15% of points)

- IV continued at wide open rate until signs of shock resolve then adjusted to 150cc/hr.
- Circulation/sensation of right foot checked periodically.

A4.5.3.5. Medical history. (5% of points)

A4.6. MEDEX #6

A4.6.1. **Situation:** Survivor with closed fractures of the femur, both legs.

A4.6.1.1. Survivor is exhibiting:

- Mild hyperventilation but no respiratory distress.

- Weakness, stupor, apprehension.
- Pale, cool, moist skin.
- Severe pain in both upper legs aggravated by any movement.

A4.6.1.2. Vital Signs: P-140 R-18 BP-80/60

A4.6.2. **Response to Treatment.** BP rises to 100/60, pulse slows to 110 after administration of 3000cc RL or NS.

NOTE: Anti-shock trousers are currently indicated only for pelvic instability and or when shock persists despite adequate fluid expansion and evacuation is delayed. Previous contraindications still apply.

A4.6.3. **Critique.** The following accomplished in the order listed

A4.6.3.1. Immediate evaluation and treatment. (30% of points)

- No respiratory distress noted.
- Pulse rat obtained.
- Skin color and temp noted.
- The presence of shock recognized and IV RL or NS started at wide open rate.
- Oxygen 8-10L/min when available.

A4.6.3.2. Complete examination in standard pattern. (20% of points)

- No area of body excluded.
- Bilateral femoral fractures detected.
- Circulation/sensation of both feet checked.
- No movement at fracture sites allowed.

A4.6.3.3. Treatment. (30% of points)

- Request assistance for movement.
- Proper application of anti-shock trousers if used.
- Splint utilizing traction splints maintaining traction and good alignment.
- Utilization of stokes litter.
- No movement of the bone ends must be allowed.

A4.6.3.4. Recurrent evaluation and treatment. (15% of points)

- Vital signs and observation of signs of shock.
- IV rate adjusted to 150cc/hr after signs of shock resolve.
- Recheck circulation/sensation of both feet after splinting and periodically.

A4.6.3.5. Medical history. (5% of points)

A4.7. MEDEX #7

A4.7.1. **Situation.**

A4.7.1.1. Survivor lying on the ground in any position with:

- Penetrating wound of the chest wall (open pneumothorax) and minimal superficial bleeding obscured by clothing of position of patient.
- Massive pneumothorax.
- Non-displaced closed fracture of left ankle.

A4.7.1.2. Survivor is exhibiting:

- Deep, rapid, labored respirations with forceful attempts at expiration.
- Ankle pain and tenderness with movement or manual pressure.
- Pale, cool, moist skin.

A4.7.1.3. Vital Signs: P-140 R-30 BP-100/60

A4.7.2. **Response to Treatment.**

A4.7.2.1. If open pneumothorax is not appropriately treated within 5 minute, then cardiopulmonary arrest occurs.

A4.7.2.2. Respiration improves after penetrating wound is covered with non-porous material.

A4.7.2.3. VITAL SIGNS (after chest is sealed): P-140 R-20 BP-90/60.

A4.7.2.4. Pulse drops to 110. BP increases to 100/60 after 2000cc of RL or NS has been infused.

A4.7.2.5. Pulse drops to 90, BP increases to 110/70 after 3000cc of RL or NS has been infused.

A4.7.3. **Critique.** The following accomplished in the order listed:

A4.7.3.1. Immediate evaluation and treatment. (50% of points)

- Respiratory distress without signs of upper airway obstruction is noted.
- Rapid complete exam of chest wall beneath overlying clothing.
- Open pneumothorax recognized and covered immediately with non-porous material.
- Petrolatum gauze applied to wound and held in place by taped on three corners.
- Oxygen, 8-10L/min as soon as it is available.
- Pulse is obtained.
- Start IV of RL or NS at run wide open rate.
- BP obtained.

A4.7.3.2. Complete examination in standard patter. (15% of points)

- No area of body is excluded.
- Ankle injury detected.
- No movement of ankle is allowed.
- Circulation/sensation of foot is checked.

A4.7.3.3. Treatment. (20% of points)

- Place patient in Semi-Fowler's position.
- Cut laces of boot, if boot is not removed.
- Proper handling of ankle.
- Apply splint to leg.
- Anti-shock trousers must not be used.

A4.7.3.4. Recurrent evaluation and treatment. (10% of points)

- Vital signs at least every 15 minutes.
- IV rate decreased to 150cc/hr once signs of shock resolved.
- Respiratory status checked every 15 minutes.
- Circulation/sensation of foot checked after splinting and periodically.

A4.7.3.5. Medical history. (5% of points)

A4.8. MEDEX #8

A4.8.1. **Situation.**

A4.8.1.1. Survivor with:

- Cervical spine injury, C3-C4, without spinal cord pathology.
- Laceration of right forehead without active bleeding.
- Acromioclavicular separation, right shoulder.

A4.8.1.2. Survivor is exhibiting:

- Complaint of pain in the mid-posterior neck, tenderness to pressure at that site.
- Refusal to move because of pain.
- Able to move hands and feet.
- Sensation to touch and pinprick is present over entire body.
- Complaint of pain in right shoulder with refusal to move fight arm because of pain.
- Right arm is held across chest by left hand.

A4.8.1.3. Vital Signs: P-90 R-14 BP-120/80

A4.8.2. **Response to Treatment.**

A4.8.2.1. Flexion of extension of neck produces respiratory arrest plus paralysis and loss of sensation over the entire body.

A4.8.2.2. No change in the survivor's condition if the cervical spine is handled and splinted appropriately.

A4.8.3. **Critique.** The following accomplished in the order listed.

A4.8.3.1. Immediate evaluation and treatment. (10% of points)

- No respiratory distress noted.
- No active bleeding noted.

- Pulse rate, skin color, temp noted.
- IV of RL or NS initiated and rate 150cc/hr maintained.
- BP obtained.

A4.8.3.2. Complete examination in standard pattern. (60% of points)

- Cervical spine injury detected.
- Exam is interrupted immobilize the cervical spine by (1) requesting assistance, (2) applying a cervical extrication collar, (3) correct application of extrication device or equivalent, (4) Complete spinal immobilization with long board.
- No movement of the neck from its normal anatomic position is allowed.
- Remainder of exam is accomplished.
- Shoulder separation is detected.
- Motor function of hands and feet is checked.
- Sensation to pinprick is lower extremities checked.
- Circulation/sensation of right hand is checked.

A4.8.3.3. Treatment. (10% of points) Right arm is splinted and shoulder is splinted.

A4.8.3.4. Recurrent evaluation and treatment. (15% of points)

- Motor and sensory function of lower extremities checked every 15 minutes.
- Circulation/sensation of right hand evaluated after application of splint.
- Vital signs every 15 minutes.
- IV rate and site monitored.

A4.8.3.5. Medical history. (5% of points)

A4.9. MEDEX #9

A4.9.1. **Situation.** Survivor with anaphylactic reaction to a bee sting.

A4.9.1.1. Survivor is exhibiting:

- Standing or sitting, holding left arm.
- Experiences a headache, generalized itching, and restlessness.
- Then collapses to ground.
- Wheezes with respiratory distress.
- Signs of shock. Evaluator states that skin is pale and cool.
- Evaluator states that the patient has swelling of tongue and throat.

A4.9.1.3. Vital Signs: P-140 R-30 BP-70/50

A4.9.2. **Response to Treatment.**

A4.9.2.1. Three minutes after initial administration of epinephrine, 0.3cc IV, respiratory distress is reduced, BP-90/70. P-140, R-26 and swelling of tongue, throat and lips is not progressing. Mild wheezing is still evident.

A4.9.2.2. After 10 minutes, pulse is 120 and respiratory distress increases.

A4.9.2.3. Re-administration of epinephrine, 0.3cc IV and RL or NS at wide open rate results in normal BP and absence of signs of shock and respiratory distress.

A4.9.2.4. VITAL SIGNS after complete treatment: P-120 R-22 BP-120/80.

A4.9.3. **Critique.** The following accomplished in order listed

A4.9.3.1. Immediate evaluation and treatment. (50% of points)

- Rapid onset of respiratory distress noted.
- Pulse checked.
- Skin temp and color noted.
- Immediately, epinephrine 1:1000 0.3cc is injected into an accessible vein. If no vein accessible, then inject under tongue.
- Observe for signs of upper airway obstruction.
- IV RL of NS at wide open rate.
- BP obtained.
- Oxygen 8-10L/min as soon as it is available.

A4.9.3.2. Complete examination in standard pattern. (5% of points) No other injuries are found.

A4.9.3.3. Treatment. (10% of points) Continue IV at wide open rate.

A4.9.3.4. Recurrent evaluation and treatment. (30% of points)

- Continued respiratory distress and signs of shock.
- Epinephrine 1:1000. 0.3cc IV repeated.
- No signs of upper airway obstruction are noted.
- When signs of shock and respiratory distress resolve, then give Benadryl 50 mg IM and Solu-Medrol 125 mg IV or IM.

A4.9.3.5. Medical history. (5% of points)

A4.10. MEDEX #10

A4.10.1. **Situation**

A4.10.1.1. Survivor is lying in any position with:

- Rib fractures of right lateral chest wall.
- Developing tension pneumothorax of the right side of chest.
- Open fracture of right radius/ulna without active bleeding.

A4.10.1.2. Survivor is exhibiting:

- Progressively more severe respiratory distress.
- Involved side of chest moves less with respiration than the opposite.

- Patient complains of dyspnea and pain at the fracture site. Pain aggravated by respiration and manual pressure on site.
- When exam of entire chest wall is accomplished, and the site of pain is found, evaluator states that rib fractures are present but there is no flail segment.
- When chest is bared and observed, the evaluator should state that the side of the chest with the rib fractures is expanded bore and moves less than the other side.
- When the chest is auscultated, the evaluator states that the breath sounds are decreased on the side with the rib fractures.
- If percussion is performed, the evaluator should state that the higher pitch sounds are present on the right side.
- Pain with any movement of the right arm.

A4.10.1.3. Vital Signs: P-140 R-24 progressing to 36 BP-120/80

A4.10.2. **Response to Treatment.**

A4.10.2.1. If needle thoracentesis is not performed within a short period of time, then signs of shock should be provided by the evaluator. P-140 R-36 BP-80/60.

A4.10.2.2. Needle thoracentesis produces rapid relief of respiratory distress (and shock if it developed).

A4.10.2.3. If needle thoracentesis is delayed greater than 10 minutes, then evaluator should state that cardiopulmonary arrest has occurred. Resuscitation cannot be successful.

A4.10.3. **Critique.** The following accomplished in the order listed:

A4.10.3.1. Immediate evaluation and treatment. (50% of points)

- Progressive respiratory distress without signs of upper airway obstruction noted.
- Complete examination of bared chest wall reveals rib fractures and unequal movement of both sides of chest.
- Auscultation of chest reveals unequal breath sounds, i.e., decreased on the affected side.
- Percussion reveals more high pitch sounds on the affected side.
- Tension pneumothorax is diagnosed and needle thoracentesis technique simulated immediately.
- Oxygen, 8-10L/min as soon as it is available.
- Pulse, skin temp and color noted.
- IV of RL or NS at wide open rate.
- BP is obtained.

NOTE: Thoracentesis must not be performed until steps 1, 2, and 3 have been carried out.

A4.10.3.2. Complete examination in standard pattern. (15% of points)

- No area of the body is excluded.
- Open fracture detected.
- Circulation/sensation of right hand is checked.

A4.10.3.3. Treatment. (20% of points)

- Semi-Fowler's position after complete examination.

- Sterile dressing applied to fracture.
- Fracture must be supported properly during splinting so that no movement of bone segments is allowed.
- Fracture is splinted in position found.
- Traction or use of inflatable splint in the standard manner must not be carried out.

A4.10.3.4. Recurrent evaluation and treatment. (10% of points)

- Vital signs at least every 15 minutes.
- Adjust IV rate to 150cc/hr after the patient has remained stable.
- Repeated chest examination accomplished.
- Repeated check of circulation/sensation of right hand.

A4.10.3.5. Medical history. (5% of points)