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ADVANCED EMT MODEL CURRICULUM

DRAFT

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ADVANCED EMT MODEL CURRICULUM

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INTRODUCTION

The California Model Advanced EMT Curriculum was developed by a subcommittee of EMS educators who were part of a multidisciplinary Task Force of EMS providers, educators, physicians, administrators, and labor groups. The EMT-II Task Force not only developed this model curriculum, but also made recommendations to revise the EMT-II Regulations which establishes the standards for the EMT-II scope of practice, training, certification, medical control, and other requirements.

The scope of practice and the training curriculum were originally developed by the Imperial County Emergency Medical Services Agency (ICEMSA) which is a rural county that experiences, as with most rural areas, long response times of their paramedic transport providers. Their EMT-I (Basic) first responders were on scene administering basic life support measures while waiting for the advanced life support providers to arrive. The ICEMSA developed the concept of training their EMT-I first responders to practice certain skills (blood glucose determination, esophageal-tracheal airway maneuvers, defibrillate with an automated external defibrillator) and administer certain medications (activated charcoal, albuterol, aspirin, epinephrine, glucagon, nitroglycerine, naloxone) while waiting for the paramedic providers to arrive. Because the skills and medications were outside the EMT-I's scope of practice, the ICEMSA received approval from the California EMS Authority to conduct a trial study in order to study the safety and effectiveness of their concept. The conclusion of the trial study was that EMT-Is with the proper training and medical oversight can safely administer the medications in this study. This Trial Study was then repeated in five local EMS systems in California and was eventually published in the October/December 1999 issue of Prehospital Emergency Care.

The EMT-II Task Force's Educational Subcommittee began with the Imperial County Trial Study and abstracted the relevant curriculum content from the U. S. Department of Transportation's 1999 EMT-Intermediate National Standard Curriculum. The Educational Subcommittee also turned to the Los Angeles EMS Agency for skills sheets which were amended to meet the requirements for Advanced EMT training. The Clinical and Field Internship evaluation standards and forms were adopted from the California Paramedic Program Directors' Paramedic evaluation forms.

Because the training and scope of practice of this newly developed Advanced EMT is a hybrid of California's previous EMT-II, the hours of training are much less than the 300 to 400 hours of training for the previous EMT-II (EMT-Intermediate). The hours assigned to this curriculum are based on the experience from the Imperial County EMS Agency's trial study as well as the more focused scope of practice. This Advanced EMT curriculum is competency based and intended to develop psychomotor skills and pattern recognition based on strict protocols. During the didactic, clinical, and field internship phases of training the Advanced EMT student will be evaluated for their competency in a minimum of various skills, mostly involving actual patient contacts and scene management.

Course Overview

Advanced EMT Course Curriculum Overview

This curriculum for the Advanced EMT Course was developed in accordance with the EMT-Intermediate National Standard Curriculum (1999).

Prerequisites
EMT-I (or EMT-Basic) certification is the only prerequisite for the Advanced EMT curriculum.

Program Planning/Communities of Interest
The Advanced EMT education program was planned, executed and evaluated in a continuous quality improvement model. As part of the planning process, the program regularly assessed the communities of interest, and established objectives to best serve them. This was originally accomplished by establishing an advisory board consisting of representatives from various communities of interest within Imperial County and questioning them as to their expectations of entry level Advanced EMTs. The program used this information for program planning and to clarify how to achieve program goals and objectives. The EMT-II Task Force, a multidisciplinary group of California EMS constituents, expanded the educational program, that was initially developed on Imperial County, by abstracting relevant topics of instruction from the U. S. Department of Transportation's EMT-Intermediate National Standard Curriculum.

Program Goal
The goal of the Advanced EMT Education program is to produce competent, entry level Advanced EMTs to serve in career and volunteer positions.

Program Objectives
Program Cognitive Objective:

At the completion of the program, the student will demonstrate the ability to comprehend, apply, and evaluate the clinical information relative to his/her role as an entry level Advanced EMT in Imperial County.

Program Psychomotor Objective:

At the completion of the program, the student will demonstrate technical proficiency in all skills necessary to fulfill the role of entry level Advanced EMT.

Program Affective Objective:

At the completion of the program, the student will demonstrate personal behaviors consistent with professional and employer expectations for the entry level Advanced EMT.

Course Design
The Advanced EMT program consists of four components of instruction: didactic instruction, skills laboratory, clinical education, and field internship. The first two occur concurrently followed by the clinical education and then the field internship, which serves as a verification that the student is serving as a competent, entry-level practitioner.

Didactic Instruction
The didactic instruction represents the delivery of primarily cognitive material. Although this is often delivered as lecture material, instructors are strongly encouraged to utilize alternate delivery methods (video, discussion, demonstration, simulation, etc.) as an adjunct to traditional classroom instruction. The continued development and increased sophistication of computer-aided instruction offers many options for the creative instructor. It is not the responsibility of the instructor to cover all of the material in a purely didactic format, but it is the responsibility of the program director to assure that all students are competent over the material identified by the declarative section.

Skills Laboratory
The skills laboratory is the section of the curriculum that provides the student with the opportunity to develop the psychomotor skills of the Advanced EMT. The skills laboratory has been integrated into the curriculum in such a way as to present skills in a sequential, building fashion. Initially, the skills are typically taught in isolation, and then integrated into simulated patient care situations. Toward the latter part of the program, the skills lab should is used to present instructional scenarios to emphasize the application and integration of didactic and skills into patient management.

Clinical Education
Clinical education represents the most important component of Advanced EMT education since this is where the student learns to synthesize cognitive and psychomotor skills. Clinical education reinforces the didactic and skills laboratory components of the program. Clinical instruction follows sound educational principles, is logically sequenced to proceed from simple to complex tasks, has specific objectives, and is closely supervised and evaluated.

Hospital Clinical - Because of the unpredictable nature of emergency medicine, the hospital environment offers two advantages in Advanced EMT education: volume and specificity. In the hospital setting, the Advanced EMT student can see many more patients than is possible in the field. This is a very important component in building up a library of patient care experiences to draw upon in clinical decision-making.

Clinical affiliations must be established and confirmed in written affiliation agreements with institutions that provide clinical experience under appropriate medical direction and clinical supervision. During the clinical phase of training, students work in hospital emergency departments where they have access to patients who present with common

problems distributed by age and sex. Supervision is provided by instructors or preceptors approved by the program. The clinical site is periodically evaluated with respect to its continued appropriateness and efficacy in meeting the expectations of the programs. Clinical affiliates shall be accredited by the Joint Commission on Accreditation of Healthcare Organizations.

Field Internship

The final ability to integrate all of the didactic, psychomotor skills, and clinical instruction into the ability to serve as an entry level Advanced EMT is conducted during the field internshipphase of the program. The field internship occurs toward the end of the program, after the completion of all other instruction to assure that the student is able to serve as an entry level Advanced EMT. During the field internship the student will be under the close supervision of an field preceptor. Field personnel are under direct medical control of on-line physicians or utilize standing orders. Timely medical audits and close medical supervision provide for quality improvement. Affiliations have also been established and confirmed in written agreements with agencies that provide field experience.

Student Assessment

The educational program includes several methods for assessing student achievement. Quizzes of the cognitive and psychomotor domains are provided for regularly and frequently enough to provide the students and the faculty with valid and timely indicators of the student's progress toward and the achievement of the competencies and objectives stated in the curriculum. The program director is responsible for the design, development, administration and grading of all written and practical examinations. This task is often delegated to others.

The primary purpose of this course is to meet the entry-level job expectations. Each student, therefore, must demonstrate attainment of knowledge, attitude, and skills in each area taught in the course. It is the responsibility of the educational institution, program director, medical director, and faculty to assure that students obtain proficiency in all content areas. If after counseling and remediation a student fails to demonstrate the ability to learn specific knowledge, attitudes and skills, the student will be dismissed from the program. The level of knowledge, attitudes and skills attained by a student in the program will be reflected in his performance on the job as an Advanced EMT. This is ultimately a reflection on the program director, primary instructor, medical director and educational institution.

Requirements for successful completion of the course are as follows:

Cognitive - Students must demonstrate competency of all content areas. This is done using quizzes, regular topical exams, and a comprehensive final exam. Special remedial sessions are utilized to assist in the completion of a unit instruction when necessary.

Affective - Students must demonstrate professionalism, conscientiousness and interest in learning. Affective evaluation instruments will be incorporated into all four components of the program: didactic, practical laboratory, clinical and field internship. Students who fail to meet the affective evaluations will be counseled while the course is in progress in order to provide them the opportunity to develop and exhibit the proper attitude expected of an Advanced EMT.

Psychomotor - Students must demonstrate proficiency in all skills. A complete list of skill competencies to be completed within the program will be available to each student. Students will know pass/fail score of any instrument utilized in the program. Scenarios will be medically accurate and flow as they would in a typical EMS call. In clinical and field internship all instructional staff will be familiar with psychomotor instruments and expectations. Course ending skills examinations will be administered as part of the comprehensive final exam. Special remedial sessions will be utilized to assist in the completion of a unit of instruction. Pass/fail scores will be in accordance with accepted practices.

Program Personnel

Program Director

The Program Director is the individual responsible for course planning, organization, administration, periodic review, program evaluation, continued development, and effectiveness.

The program director will have appropriate training and experience to fulfill the role. They shall have at least equivalent academic training and preparation and hold all credentials for which the students are being prepared, or hold comparable credentials which demonstrate at least equivalent training and experience.

The program director shall have training and education in education and evaluation and be knowledgeable in administration of education and related legislative issues for Advanced EMT education. The program director shall assume ultimate responsibility for the administration of the didactic, clinical, and field internship phases of the program. It is the program director's responsibility to monitor all phases of the program and assure that they are appropriate and successful. The minimum requirements for the program director are contained in Chapter 3 of the California Code of Regulations, Title 22, Division 9, Section 100109.

Program Medical Director

The Medical Director of the Advanced EMT program shall be a physician with emergency medical experience who will act as the ultimate medical authority regarding course content, procedures, and protocols.

During the program the Medical Director will be responsible for reviewing the quality of care rendered by the Advanced EMT student in the clinical and field setting. The Course Medical Director shall review all course content material and examinations. The medical director should periodically observe lectures and practical laboratories, field and clinical internships. The medical director should participate in clinical instruction, student counseling, psychomotor and oral testing, and summative evaluation.

Most importantly, the Course Medical Director is responsible to verify student competence in the cognitive, affective and psychomotor domains. Students shall not be awarded course completion certificates unless the medical director and program director can assure through documentation of completion of terminal competencies that each student has completed the full complement of education. Documentation of completion of course competencies shall be affixed to the student file with signatures of the medical director and program director at the completion of the course. The qualifications of the Medical Director are contained in in Chapter 3 of the California Code of Regulations, Title 22, Division 9, Section 100109.

Program Faculty

Course instructors shall be approved by the course director in coordination with the program medical director as qualified to teach those sections of the course to which s/he is assigned as specified in Chapter 3 of the California Code of Regulations, Title 22, Division 9, Section 100109.

Program Evaluation

On-going evaluation will be conducted to identify instructional or organizational deficiencies which affect student performance. The evaluation process shall include both objective and subjective methods. Main methods of objective evaluation are:
1) Graduates' performance on standardized examinations, and
2) Graduates' performance in practice in accordance with established standards of care.

Subjective evaluation shall be conducted at regular intervals by providing students with written questions on their opinions of the program's strengths and weaknesses. The purpose of this evaluation process is to strengthen future educational efforts.

Facilities

The physical environment for the provision of the Advanced EMT program is a critical component for the success of the overall program. The facility shall provide sufficient space for seating all students. Abundant space shall be made available for demonstration during the presentation of the course material.

Equipment and Supplies

Sufficient supplies and equipment to be used in the provision of instruction shall be available and consistent with the needs of the curriculum and adequate for the students

enrolled. The equipment will be in proper working order and sufficient to demonstrate skills of patients in various age groups.

RECOMMENDED COURSE HOURS

The following time frames are meant only as a guide to help in program planning. Training institutes must adjust these times based on their individual needs, goals and objectives. These times are only recommendations, and should NOT be interpreted as minimums or maximums. Those agencies responsible for program oversight are cautioned against using these hours as a measure of program quality or having satisfied minimum standards. **Competence of the graduate, not adherence to arbitrary time frames, is the only measure of program quality**.

Based on the results of the Imperial County Advanced EMT Trial Study, it is suggested that the course be planned for approximately 88 total hours of instruction (48 hours of classroom/practical laboratory, 16 hours clinical, and a minimum of 24 hours field internship. Additional clinical and field hours may be required to achieve competency.)

	Recommended didactic time (hours)	Recommended practical laboratory time (hours)
Module 1: Preparatory		
Foundations of the Advanced EMT	1	
Overview of Human System/Roles & Responsibilities	1	
Emergency Pharmacology	4	
Medication Administration	2	2
Venous Access	2	2
Module Totals	8	4
Module 2: Airway Management & Ventilation		
Airway and Ventilation	2	3
Module Totals	2	3

	Recommended didactic time (hours)	Recommended practical laboratory time (hours)
Module 3: Patient Assessment		
History Taking / Patient Assessment	2	2
Communications	1	1
Documentation	1	1
Module Totals	4	4
Module 4: Trauma		
Trauma	1	1
Hemorrhage and Shock	1	1
Module Totals	2	2
Module 5: Medical		
Respiratory Emergencies	4	1
Cardiovascular Emergencies	3	1
Diabetic Emergencies	2	1
Allergic Reaction	1	1
Poisoning/OD Emergencies	1	1
Environmental Emergencies	2	1
Module Totals	13	6
Clinical and Field		
Clinical		16
Field		16

Module 1

MODULE 1:
PREPARATORY

Number of Lecture Hours: 8 Hours

Topics:

1.	Foundations of the Advanced EMT	1 Hour
2.	Overview of Human Systems	1 Hour
3.	Emergency Pharmacology	4 Hours
4.	Venous Access and Medication Administration	2 Hours

Labs/Workshops: Number of Hours: 4 Hours

1.	Medication Administration	2 Hours
2.	Venous Access	2 Hours

Testing: Number of Hours: 2 Hours

MODULE 1: PREPARATORY

MODULE TERMINAL OBJECTIVES:

At the completion of this module the Advanced EMT student as an active participant will be able to successfully:

1. Understand his or her roles and responsibilities within an EMS system, and how these roles and responsibilities differ from other levels of providers.

2. Understand the role of medical direction in the prehospital environment.

3. Understand and value the importance of personal wellness in EMS and serve as a healthy role model for peers.

4. Understand the legal issues that impact decisions made in the prehospital environment.

5. Value the role that ethics plays in decision making in the prehospital environment.

6. Understand basic anatomy and physiology and how it relates to the foundations of medicine.

7. Understand the basic principles of pharmacology and be able to develop a drug profile for common emergency medications.

8. Safely and precisely access the venous circulation and administer medications.

MODULE 1: PREPARATORY

Topic: FOUNDATIONS OF THE ADVANCED EMT

Purpose:

This topic will give the Advanced EMT student an introduction of advanced life support and how the Advanced EMT functions in the prehospital environment.

Suggested Time Frame: 1 Hour

Objectives:

At the conclusion of this topic, the Advanced EMT student as an active participant will be able to successfully:

1. Identify his/her roles and responsibilities as an advanced level practitioner.

2. Describe the role of the Advanced EMT in the local EMS System.

3. Discuss the role of the EMS Medical Director.

4. Define on-line medical control, standing orders, and scope of practice.

5. Describe the components of continuous quality improvement.

6. Discuss the importance of continuous quality improvement in EMS to evaluate the effectiveness and compliance with these protocols.

7. State the importance of using protocols in algorithm form for patient care.

8. Identify the Advanced EMT protocols included in this program.

9. Explain the components of wellness for the EMS provider.

10. Discuss the importance of universal precautions and body substance isolation practices.

11. Describe the steps to take for personal protection from airborne and blood borne pathogens.

12. Understand the legal issues that impact decisions made in the prehospital setting.

    a. Review the four elements that must be present in order to prove negligence.

    b. Discuss the different types of patient consent and the steps to take for refusal of care or transport.

    c. Review the conditions under which the use of force, including restraint is acceptable.

    d. Advocate and practice the use of personal safety precautions in all scene situations.

DECLARATIVE
MODULE 1: PREPARATORY
FOUNDATIONS OF THE ADVANCED EMT

I. Introduction to foundations of Advanced EMT:
  A. EMS systems/ roles and responsibilities
  B. Medical direction
  C. Well-Being
  D. Medical/ legal issues

II. EMS systems/ roles and responsibilities of the Advanced EMT
  A. Introduction
    1. Role of the Advanced EMT
    2. Review of local EMS system

  B. Overview of Advanced EMT Program
    1. Competencies
    2. Includes cognitive, psychomotor, affective objectives
    3. Didactic/Clinical/Field requirements
    4. Course length

  C. Roles and responsibilities of the Advanced EMT
    1. Primary responsibilities
      a. Preparation
        (1) Physical, mental, emotional
        (2) Appropriate equipment and supplies
        (3) Adequate knowledge and skill maintenance
      b. Response
        (1) Safety
        (2) Timeliness
      c. Scene assessment
        (1) Safety
        (2) Mechanism
      d. Patient assessment
        (1) Recognition of injury or illness
        (2) Prioritization
      e. Management
        (1) Following protocols
        (2) Interacting with medical direction physician, as needed
      f. Appropriate disposition

(1) Treat and transport
(a) Ground
(b) Air
(2) Selection of the proper receiving facility
(a) Requires knowledge of the receiving facilities
(b) Hospital designation / categorization
(c) Based on hospital resource capabilities with regard to optimal patient care

g. Documentation
(1) Thorough, accurate patient care reports
(2) Completed in timely manner

h. Returning to service
(1) Preparation of equipment and supplies
(2) Preparing crew

D. Role of the EMS Medical Director:
1. Education and training of personnel
2. Participation in personnel selection process
3. Participation in equipment selection
4. Development of clinical protocols
5. Participation in quality improvement and problem resolution
6. Provides direct input into patient care
7. Interfaces between EMS systems and other health care agencies
8. Advocacy within the medical community
9. Types of medical direction ~
a. On-line/ direct
b. Off-line/ indirect

E. Medical Control
1. On-line
a. Concurrent
(1) Direct patient care
(2) Base hospital communication
2. Off-line
a. Prospective
(1) Development of protocols/ standing orders, training
(2) Selection of equipment, supplies and personnel
b. Retrospective
(1) Patient care report review

(2) Continuous quality improvement

III. Improving system quality
- A. Develop a system for continually evaluating and improving care
- B. Continuous quality improvement (CQI)
  1. Focus on the system and not an individual
  2. Fix system problems in areas such as
     - a. Medical direction
     - b. Financing
     - c. Training
     - d. Communication
     - e. Out-of-hospital treatment and transport
     - f. Inter-facility transport
     - g. Receiving facilities
     - h. Specialty care units
     - i. Dispatch
     - j. Public information and education
     - k. Audit and quality assurance
     - I. Disaster planning
     - m. Mutual aid

- C. Dynamic process
  1. Delineate system-wide problems identified
  2. Elaborate on the cause(s) of the problem
  3. Aid the problem and develop remedy(ies)
  4. Layout plan to correct the problem
  5. Enforce the plan of correction
  6. Re-examine the problem

- D. Appropriate EMS research can help enhance quality improvement efforts

IV. The well-being of the Advanced EMT
- A. Review preventing disease transmission
  1. Occupational Safety and Health Administration (OSHA) and Centers for Disease Control and Prevention (CDC) Guidelines for blood borne pathogens
  2. Terminology
     - a. Air/ blood borne pathogens
     - b. Exposure

(1) Contact with a potentially infectious body fluid substance
(2) Contact with other infectious agent
c. Cleaning, disinfection, sterilization
d. Body substance isolation, universal precautions
(1) Practices designed to prevent contact with body substances
(2) Practices designed to reduce contact with other agents
3. Common sources of exposure
a. Needle stick
b. Broken or scraped skin
c. Mucous membranes of the eyes, nose, or mouth
4. Protection from air/ blood borne pathogens
a. Follow engineering and work practices
(1) Puncture resistant containers
(2) Laundry
(3) Labeling
b. Body substance isolation/ universal precautions
(1) Gloves
(2) Mask, gown, eyewear
(3) Other equipment
c. Proper disposal of contaminated supplies
d. Cleaning and disinfecting of used materials/ equipment
5. Documenting and managing an exposure
a. Wash the area of contact thoroughly and immediately
b. Document the situation in which the exposure occurred
c. Describe actions taken to reduce chances of infection
d. Comply with all required reporting responsibilities and time frames
e. Complete medical follow-up

V. Medical/ legal issues
A. Review
1. Legal duties to the patient, medical director, and public
a. Set by statutes and regulations
b. Based on generally accepted standards
2. Failing to perform the job appropriately can result in civil or criminal liability
3. The best legal protection is provision of appropriate assessment and care coupled with accurate and complete documentation
B. How laws affect the Advanced EMT
1. Scope of practice

a. Range of duties and skills an Advanced EMT is allowed and expected to perform when necessary
b. Usually set by state law or regulation and by local medical direction

2. Medical direction
   a. Required for Advanced EMT practice
   b. May be off-line or on-line, depending on state and local requirements
   c. Each system should have a policy to guide Advanced EMTs in dealing with an on-scene physician
3. Certification
   a. Grants recognition to an individual who has met predetermined qualifications to participate in an activity
   b. Usually granted by a certifying agency or professional association, not necessarily a government agency

C. Legal Issues

1. Accountability of the Advanced EMT
   a. Responsible to act in a reasonable and prudent manner
   b. Responsible to provide a level of care and transportation consistent with education/ training
   c. Negligence can result in legal accountability and liability
      (1). Components of negligence
         (a) Duty to act
         (b) May be a formal contractual or an informal duty
         (c) Duty may be undertaken voluntarily by beginning to care for a patient
         (d) Duties include
            i) Duty to respond and render care
            ii) Duty to obey laws and regulations
            iii) Duty to operate emergency vehicle reasonably and prudently
            iv) Duty to provide care and transportation to the expected standard
            v) Duty to provide care and transportation consistent with the scope of practice and local medical protocols
            vi) Duty to continue care and transportation through to its appropriate conclusion
      (2) Breach of duty
         (a) Standard of care
            i) Exercising the degree of care, skill, and judgement which would be expected under like or similar circumstances by a similarly trained, reasonable EMT- Intermediate in the location involved

ii) Standard of care is established by court testimony and reference to published codes, standards, criteria, and guidelines applicable to the situation

(b) Breach of duty may occur by

i) Malfeasance -performing a wrongful or unlawful act

ii) Misfeasance -performing a legal act in a manner which is harmful or injurious

iii) Non-feasance -failure to perform a required act or duty

(c) In some cases, negligence may be so obvious that it does not require extensive proof

i) Res ipsa loquitur -the injury could only have been caused by negligence

ii) Negligence per se -negligence is shown by the fact that a statute was violated and injury resulted

(3) Damage to patient or other individual (i.e., the plaintiff)

(a) Proof that the plaintiff suffered compensable physical or psychological damages, such as

i) Medical expenses

ii) Lost earnings

iii) Conscious pain and suffering

iv) Wrongful death

(b) Punitive (punishing) damages could be awarded

i) Awarded to punish gross negligence or willful and wanton misconduct

ii) Punitive damages are usually not covered by malpractice insurance

(4) Proximate cause

(a) The action or inaction of the Advanced EMT was the cause of or worsened the damage

(b) The fact that the Advanced EMT's act or inaction would result in the damage must have been reasonably foreseeable by the Advanced EMT

(c) Usually established by expert testimony

(5) Good Samaritan laws

(a) Do not generally protect providers from acts of gross negligence, reckless disregard, or willful or wanton conduct

(b) Do not generally prohibit the filing of a lawsuit

(c) May provide coverage for paid or volunteer providers

(d) Varies from state to state

(6) Governmental immunity

(a) Trend is toward limiting protection
(b) May only protect governmental agency, not provider
(c) Varies from state to state

(7) Statute of limitations
(a) Limit the number of years after an incident during which a lawsuit can be filed
(b) Set by law and may differ for cases involving adults and children
(c) Varies from state to state

2. Consent
a. Conscious, competent patients have the right to decide what medical care and transportation to accept
(1) Patient must be of legal age and able to make a reasoned decision
(2) Patient must be properly informed
(a) Nature of the illness or injury
(b) Treatment recommended
(c) Risks and dangers of treatment
(d) Alternative treatment possible and the risks
(e) Dangers of refusing treatment (including transport)
(f) May include death and permanent disability
(3) Conscious, competent patient can revoke consent at any time during care and transport
b. Types of consent
(1) Expressed consent
(a) Patient directly agrees to treatment and gives permission to proceed
(b) Consent can be expressed non-verbally by action or allowing care to be rendered
(2) Informed consent -consent given based on full disclosure of information
(3) Implied consent
(a) Consent assumed from a patient requiring emergency intervention who is mentally, physically or emotionally unable to provide expressed consent; sometimes called emergency doctrine
(b) Is effective only until patient no longer requires emergency care or regains competence to make decisions
(4) Involuntary consent
(a) Treatment allowed in certain situations granted by authority of law

(b) Patients held for mental health evaluation or as directed by law enforcement personnel who have the patient under arrest

c. Special consent situations

(1) Minors

(a) In most states, a person is a minor until age 18 unless emancipated

(b) Emancipation may include

i) Minors who are married, parents, or in the armed services

ii) Individual living independently and self-supporting (e.g., college student not living at home or receiving financial aid from parents)

(c) Unemancipated minors are not able to give or withhold consent - consent of parent, legal guardian or court-appointed custodian is usually required

(d) Emergency doctrine applies to minors when parent or guardian cannot be contacted

(2) Mentally incompetent adults

(a) If there is a legal guardian, consent may be given or withheld by the guardian

(b) Emergency doctrine applies if no one legally able to give consent can be contacted

(3) Prisoners or arrestees

(a) Court or police who have custody may authorize emergency treatment

(b) Usually limited to care needed to save life or limb

(4) Refusal of care or transport

(a) Patient must be conscious, competent, and able to make a reasonable decision

(b) Make multiple attempts to convince the patient to accept care

(c) Enlist the help of others to convince the patient

(d) Assure that the patient is informed about the implication of the decision and potential for harm

(e) Consult medical direction

(f) Request patient and a disinterested witness to sign a "release from liability" form

(g) Advise the patient that he or she may call again for help if needed

(h) Attempt to get family or friends to stay with the patient

(i) Document situation and actions thoroughly on patient care report

(5) Decisions not to transport
(a) Involve medical direction
(b) Thoroughly document reasons for decision
d. Legal complications related to consent
(1) Abandonment
(a) Terminating care when it is still needed and desired by the patient, and without assuring that appropriate care continues to be provided by another qualified provider
(b) May occur in the field or when a patient is delivered to the emergency department
(2) False imprisonment
(a) May be charged by a patient who is transported without consent or who is restrained without proper cause or authority
(b) May be a civil or criminal violation

3. Use of force
a. Unruly or violent patients
b. Use of restraints
c. Involve law enforcement, if possible
d. Use only force considered to be "reasonable" to prevent harm to the patient or others
e. Must never be punitive

D. Resuscitation issues
1. Withholding or stopping resuscitation
a. Procedure should be established by local protocols
b. Role of medical direction should be clearly delineated
2. Advance directives
a. Status depends on state laws and local protocols
b. Written patient statements of preference for future medical treatment
(1) Living will
(2) Durable power of attorney for health care
(3) Do not resuscitate (DNR) orders
c. Authority granted in part by the Patient Self-Determination Act of 1990
d. Medical direction must establish and implement policies for dealing with advance directives
(1) Policy should specify Advanced EMT care for the patient with an advance directive

(2) Must provide for reasonable measures of comfort to the patient and emotional support to family and loved ones

MODULE 1: **PREPARATORY**

Topic: **OVERVIEW OF HUMAN SYSTEMS**

Purpose:

This topic will give the Advanced EMT student a review of basic anatomy and physiology and how it relates to the foundations of medicine.

Suggested Time Frame: 1 Hour

Objectives:

At the conclusion of this topic, the Advanced EMT student as an active participant will be able to successfully:

1. Define anatomy, physiology, and pathophysiology.
2. Review the levels of organization of the body from the simplest to the most complex.
3. State the anatomical terms for the parts of the body.
4. Review the body cavities and the major organs within each.
5. Review the anatomy and function of the major body systems.
6. Appreciate how anatomy and physiology are the foundation of medicine.

DECLARATIVE
MODULE 1: PREPARATORY
OVERVIEW OF HUMAN SYSTEMS

I. Introduction
A. Define
    1. Anatomy
    2. Physiology
    3. Pathophysiology
II. Organization of the body
A. Cells
B. Tissues
C. Organs
D. Systems
    1. Integumentary system
    2. Skeletal system
    3. Muscular system
    4. Nervous system
    5. Respiratory system
    6. Circulatory system
    7. Lymphatic system
    8. Digestive system
    9. Excretory system
    10. Endocrine system
    11. Reproductive system
E. Homeostasis
F. Anatomical terminology
    1. Descriptive terms for body parts and areas
    2. Normal anatomical position
    3. Body cavities
        a. Cranial cavity
        b. Spinal cavity
        c. Thoracic cavity
        d. Abdominal cavity
        e. Pelvic cavity
    4. Abdominal quadrants
        a. Right upper (RUQ)
        b. Left upper (LUQ)
        c. Right lower (RLQ)
        d. Left lower (LLQ)

Overview of Human Systems
continued

III. The nervous system
- A. Function
  - 1. Voluntary activity
  - 2. Involuntary activity
- B. Nervous system divisions
  - 1. Central nervous system
  - 2. Peripheral nervous system
- C. Nerve types
  - 1. Sensory
  - 2. Motor
- D. The central nervous system
  - 1. The spinal cord
  - 2. Brain
  - 3. Meninges and cerebral spinal fluid
  - 4. The autonomic nervous system
    - a. Sympathetic division
    - b. Parasympathetic division
    - c. Neuroreceptors
      - (1) Alpha
      - (2) Beta

IV. The endocrine system
- A. Regulation of hormonal secretion
- B. Function of hormones
- C. Pancreatic hormones
  - 1. Insulin
  - 2. Glucagon
- D. Adrenal hormones
  - 1. Epinephrine

V. Blood
- A. Characteristics of blood
- B. Plasma
- C. Blood cells
  - 1. Red blood cells
  - 2. White blood cells
  - 3. Platelets

Overview of Human Systems
continued

VI. The heart
- A. Location
- B. Pericardium & Myocardium
- C. Chambers, vessels, and valves
  - 1. Right atrium
    - a. Vena cavae
      - (1) Superior vena cava
      - (2) Inferior vena cava
    - b. Tricuspid valve
  - 2. Left atrium
    - a. Pulmonary veins
    - b. Mitral valves/ bicuspid
  - 3. Right ventricle
    - a. Pulmonary artery
    - b. Pulmonary semilunar valve
  - 4. Left ventricle
    - a. Aorta
    - b. Aortic semilunar valve
  - 5. Coronary vessels
- D. The cardiac cycle
  - 1. Systole
  - 2. Diastole
- E. Cardiac output
  - 1. Heart rate
  - 2. Stroke volume

VII. The vascular system
- A. Arteries, arterioles
- B. Veins, venules
  - 1. Valves
- C. Capillaries
- D. Gaseous exchange
- E. Pathways of circulation
  - 1. Pulmonary circulation
  - 2. Systemic circulation
- F. Blood pressure
  - 1. Maintenance of systemic blood pressure
  - 2. Regulation of blood pressure

Overview of Human Systems
continued

VIII. The lymphatic system and immunity
- A. Functions
- B. Immunity
  1. Antigens and antibodies
  2. Antibody response

IX. Respiratory system
- A. Function
- B. Anatomy
  1 .Nose and nasal cavities
  2. Pharynx
  3. Larynx
  4. Trachea and bronchial tree
  5. Lungs and pleural membranes
  6. Alveoli
- C. The mechanics of breathing
  1. Inhalation
  2. Exhalation
- D. Exchange of gases
- E. Regulation of respiration

X. Fluids and electrolytes
- A. Water compartments
  1. Intracellular
  2. Intravascular
  3. Interstitial (3rd Space)
- B. Fluid balance

MODULE 1: **PREPARATORY**

Topic: **EMERGENCY PHARMACOLOGY**

Purpose:

This topic will give the Advanced EMT student an understanding of the basic principals of pharmacology.

Suggested Time Frame: 4 Hours

Objectives:

At the conclusion of this topic, the Advanced EMT student as an active participant will be able to successfully:

1. Explain the importance of developing expertise in the administration of drugs.

2. Differentiate between the chemical, generic, official, and trade names of drugs.

3. Discuss the Advanced EMT's responsibilities to the administration of medications.

4. List and describe the general properties of drugs.

5. List and differentiate routes of drug administration.

6. Discuss considerations for storing drugs.

7. List the components of a drug profile.

8. List and describe drugs the Advanced EMT may administer according to local protocol.

9. Advocate the importance of safe administration of medications.

10. Given patient scenarios, identify correct medications and dosages to be given per local protocol.

DECLARATIVE
MODULE 1: PREPARATORY
EMERGENCY PHARMACOLOGY

I. Names of drugs
- A. Drugs -chemical agents used in the diagnosis, treatment, or prevention of disease
- B. Pharmacology -the study of drugs and their actions on the body
- C. Chemical name -a precise description of the drug's chemical composition and molecular structure
- D. Generic name or non-proprietary name
  1. Official name approved by the FDA
  2. Usually suggested by the first manufacturer
- E. Trade or proprietary name -the brand name registered to a specific manufacturer or owner
- F. Official name -the name assigned by USP

II. Responsibilities of the Advanced EMT for medication administration
- A. Responsible for safe and therapeutically effective drug administration
- B. Responsible legally, morally, and ethically for each drug administered
- C. Advanced EMT's
  1. Use correct precautions and techniques
  2. Observe and document the effects of the drugs
  3. Keep their knowledge current in pharmacology
  4. Take a drug history from patients including
     - a. Prescribed medications
     - b. Over the counter medications
     - c. Vitamins
     - d. Drug reactions

II. General properties of drugs
- A. Drugs modify existing functions on a tissue or organ in the body
- B. Once administered, drugs go through four stages
  1 .Absorption
  2. Distribution
  3. Metabolism
  4. Excretion

III. Overview of drug administration
- A. The mode of drug administration affects the rate at which onset of action occurs and may affect the therapeutic response that results

Emergency Pharmacology
continued

B. The routes of drug administration are categorized as
   1. Drugs administered by the inhalation route
      a. Nebulized medications
   2. Enteral (drugs administered along any portion of the gastrointestinal tract)
      a. Sublingual
      b. Oral
   3. Parenteral (any medication route other than the alimentary canal)
      a. Subcutaneous
      b. Intramuscular
      c. Intravenous
   4. Endotracheal
C. Predictable responses
   1. Desired action
   2. Side effects
D. Unpredictable adverse responses
   1. Hypersensitivity (drug allergy)
   2. Anaphylactic reaction
   3. Tolerance
   7. Cumulative effect
   9. Drug antagonism

IV. Drug storage
A. Certain precepts should guide the manner in which drugs are secured, stored, distributed, and accounted for
B. Refer to local protocol
C. Drug potency can be affected by
   1. Temperature
   2. Light
   3. Moisture
   4. Shelf life

V. Components of a drug profile
A. Drug names
B. Classification
C. Mechanisms of action
D. Indications
E. Side/ adverse effects
F. Routes of administration

Emergency Pharmacology
continued

G. How supplied
H. Dosages
I. Contraindications
J. Considerations for pediatric patients, geriatric patients, pregnant patients, and other special patient groups
K. Other profile components

VI. Drugs used in pharmacological management plans
A. Activated Charcoal
1. Drug names
2. Classification
3. Mechanism of actions
4. Indications
5. Contraindications
6. Side/ adverse effects
7. Routes of administration
8. How supplied
9. Dosages
10. Special considerations

B. Aspirin
1. Drug names
2. Classification
3. Mechanism of actions
4. Indications
5. Contraindications
6. Side/ adverse effects
7. Routes of administration
8. How supplied
9. Dosages
10. Special considerations

C. Albuterol
1. Drug names
2. Classification
3. Mechanism of actions
4. Indications
5. Contraindications

Emergency Pharmacology
continued

6. Side/ adverse effects
7. Routes of administration
8. How supplied
9. Dosages
10. Special considerations

D. Dextrose 50%
1. Drug names
2. Classification
3. Mechanism of actions
4. Indications
5. Contraindications
6. Side/ adverse effects
7. Routes of administration
8. How supplied
9. Dosages
10. Special considerations

E. Epinephrine (1:1,000)
1. Drug names
2. Classification
3. Mechanism of actions
4. Indications
5. Contraindications
6. Side/ adverse effects
7. Routes of administration
8. How supplied
9. Dosages
10. Special considerations

F. Glucagon
1. Drug names
2. Classification
3. Mechanism of actions
4. Indications
5. Contraindications
6. Side/ adverse effects
7. Routes of administration

Emergency Pharmacology
continued

8. How supplied
9. Dosages
10. Special considerations

G. Naloxone
1. Drug names
2. Classification
3. Mechanism of actions
4. Indications
5. Contraindications
6. Side/ adverse effects
7. Routes of administration
8. How supplied
9. Dosages
10. Special considerations

H. Nitroglycerine
1. Drug names
2. Classification
3. Mechanism of actions
4. Indications
5. Contraindications
6. Side/ adverse effects
7. Routes of administration
8. How supplied
9. Dosages
10. Special considerations

MODULE 1: PREPARATORY

Topic: VENOUS ACCESS AND MEDICATION ADMINISTRATION

Purpose:

This topic will give the Advanced EMT student the techniques to safely access peripheral intravenous cannulation and administer medication

Suggested Time Frame: 2 Hour

Objectives:

At the conclusion of this topic, the Advanced EMT student as an active participant will be able to successfully:

1. Identify the routes medications can be delivered and explain the possible complications and absorption rates for each.

2. Discuss formulas as a basis for performing drug calculations.

3. Calculate drug dosages for oral, sublingual, subcutaneous, intramuscular, and intravenous routes.

4. Discuss the legal aspects and medical control regarding medication administration.

5. Identify the 6 “Rights” of drug administration.

6. Describe the use of universal precautions and body substance isolation procedures when administering medications.

7. Discuss medical asepsis and the use of antiseptics and disinfectants.

8. Describe the indications, equipment needed, techniques utilized, precautions, and the general principals of peripheral venous cannulation.

9. Describe the indications, equipment needed, techniques utilized, precautions, and the general principals of administering medications by the following routes:

Venous Access and Medication Administration
continued

A. Oral
B. Nebulizer
C. Sublingual
D. Subcutaneous
E. Intramuscular
F. Intravenous

10. Describe the indications, equipment needed, techniques utilized, precautions, and the general principals for obtaining a blood sample.

11. Describe disposal of contaminated items and sharps.

12. Explain the importance of evaluating a patient's response to medications.

13. Comply with Advanced EMT standards of medication administration.

14. Advocate the importance of universal precautions, body substance isolations, and disposing of contaminated items and sharps.

15. Demonstrate how to prepare for administrating medications from the following:

    A. Vials
    B. Ampules
    C. Preloaded syringes

16. Demonstrate the proper procedure for cannulation of peripheral veins.

17. Demonstrate the proper procedure for administering medications by the following routes:

    A. Oral
    B. Nebulizer
    C. Sublingual
    D. Subcutaneous
    E. Intramuscular
    F. Intravenous

DECLARATIVE
MODULE 1: PREPARATORY
VENOUS ACCESS AND MEDICATION ADMINISTRATION

I. Calculating drug dosages
  A. Calculation methods
    1. Desired dose over available concentration method (Desired/Have)
  B. Calculating dosages
    1. Oral medications
      a. Capsules and tablets
      b. Liquids
    2. Parenteral medications
      a. Quantity (typically weight)
      b. Volume
      c. Units (i.e. insulin)
    3. Intravenous infusions
      a. Flow rates for infants and children
    4. Calculating dosages for infants and children
      a. Body weight
      b. Use of tables, charts, and other adjuncts
      c. Length-based resuscitation tapes

II. Medical direction
  A. Medication administration is bound by the Advanced EMT's on-line or off-line medical direction
  B. Patient management protocols
    1. Written standing orders
  C. Legal considerations -policies and procedures that specify regulations of medication administration

III. Principles of medication administration
  A. Local drug distribution system -policies which establish stocking and supply of drugs
  B. Advanced EMT's responsibility associated with the drug order
    1. Verification of the drug order
  C. The "six rights" of medication administration
    1. "Right" patient
    2. "Right" drug
    3. "Right" dose
    4. "Right" route
    5. "Right" time
    6. "Right" documentation

Venous Access and Medication Administration
continued

IV. Universal precautions and body substance isolation (BSI) in medication administration

V. Venous access
- A. Peripheral intravenous cannulation
  - 1. General principles
  - 2. Indications
  - 3. Precautions
  - 4. Equipment
  - 5. Technique
    - a. Extremity
      - (1) Indications
      - (2) Precautions
      - (3) Equipment
      - (4) Procedure

VI. Medications administered by the inhalation route
- A. Bronchodilator (beta agonist) medications
  - 1. Other medications
- B. Equipment
  - 1. Oxygen or compressed air source
  - 2. Small volume nebulizer (SVN)
    - a. Other inhaler equipment
    - b. Other adapter equipment
    - c. Modified inhaler equipment
- C. Administering medications by the inhalation route
  - 1. Indications
  - 2. Techniques
  - 3. Precautions
  - 4. General principles for administering medications by the inhalation route

VII. Enteral medication administration
- A. Oral administration of medications
  - 1. Dosage forms of solid-form and liquid-form oral medications
    - a. Pills (aspirin, NTG)
    - b. Syrups (activated charcoal)
  - 2. Equipment
  - 3. General principles for administration of solid-form and liquid-form oral medications

Venous Access and Medication Administration
continued

VIII. Parenteral administration of medications
- A. Parenteral routes used by Advanced EMTs
  1. Subcutaneous
  2. Intramuscular
  3. Intravenous bolus
  4. Sublingual
- B. Reasons for parenteral administration of medications
- C. Equipment used in parenteral administration of medications
  1. Syringes
     a. Calibration of the syringe
     b. Prefilled syringes
  2. Needles
  3. Selection of the syringe and needle
  4. Packaging of syringes and needles
  5. Packaging of parenteral medications
     a. Ampules
     b. Vials
     c. Prefilled syringes
     d. Other
  6. Intravenous (IV) administration sets
     a. Various types
     b. Macrodrip chamber-type
     c. Microdrip chamber-type
     d. Variety of extensions and other pieces of equipment
     e. Some IV administration sets are manufacturer specific
  7. Intravenous (IV) solutions
     a. Types of containers
     b. Variety of volumes
- D. Preparation of parenteral medication
  1. Equipment needed for preparing a parenteral medication
  2. Standard procedures for preparing all parenteral medications
     a. Prefilled syringes
     b. To prepare a medication from an ampule
     c. Removal of a volume of liquid from a vial
     d. Preparing a drug from a mix-o-vial
- E. Administration of medication by the subcutaneous route
  1. Subcutaneous route-injections are made into the loose connective tissue between the dermis and muscle layer

Venous Access and Medication Administration
continued

2. Equipment needed for administration of a medication by the subcutaneous route
3. Locate anatomical sites
   a. Upper arms
   b. Anterior thighs
   c. Abdomen
   d. Sublingual injection
4. Technique for administration of medication by the subcutaneous route
5. Precautions

F. Administration of medication by the intramuscular route
1. Intramuscular route - injections are made by penetrating a needle through the dermis and subcutaneous tissue into the muscle layer
2. Equipment needed for administration of a medication by the intramuscular route
3. Locate anatomical sites for adults and children
   a. Vastus lateralis muscle
   b. Rectus femoris muscle
   c. Gluteal area
   d. Deltoid muscle
4. Technique for administration of medication by the intramuscular route
5. Precautions

G. Administration of medication by intravenous bolus
1. Intravenous route
   a. Places the drug directly into the bloodstream
   b. Bypasses all barriers to drug absorption
2. Drugs are administered by direct injection with a needle and syringe into an established peripheral line
3. Dosage forms for IV administration
4. General principles of IV medication administration
5. Steps in performing administration of medications into an established IV line
6. Steps in performing administration of medication by a heparin lock
7. Steps in changing to the next container of IV solution
8. Steps in administering medication by a venous access device
   a. Equipment
   b. Technique
9. Complications
   a. Phlebitis or infection
   b. Extravasation
   c. Air in tubing
   d. Circulatory overload and pulmonary edema

Venous Access and Medication Administration
continued

e. Allergic reaction
f. Pulmonary embolism
g. Failure to infuse properly

H. Administering medications by the sublingual route
1. Places where medications are commonly applied
a. Under the tongue (sublingual)
c. Dosage forms
(1) Tablets
(2) Liquid/Spray

IX. Obtaining a blood sample
A. Purposes for obtaining a blood sample
B. Equipment needed for obtaining a blood sample
C. Locations from which to obtain a blood sample
1. Anatomical sites
2. From the established intravenous catheter
3. Other locations
D. Steps to preparing equipment for obtaining a blood sample
E. Techniques for obtaining a blood sample
F. Complications

X. Disposal of contaminated items and sharps
A. Follow local protocol for disposal of contaminated items and sharps

MODULE 1: PREPARATORY

Topic: VENOUS ACCESS AND MEDICATION ADMINISTRATION LAB

Purpose:

This lab will give the Advanced EMT student the techniques to safely access peripheral intravenous cannulation and administer medications.

Suggested Time Frame: 4 Hours

Objectives:

At the conclusion of this lab, the Advanced EMT student as an active participant will be able to successfully:

18. Demonstrate how to prepare for administrating medications from the following:

    D. Vials
    E. Ampules
    F. Preloaded syringes

19. Demonstrate the proper procedure for cannulation of peripheral veins.

20. Demonstrate the proper technique of disposing sharps and use of sharps containers.

21. Demonstrate the proper procedure for administering medications by the following routes:

    G. Oral
    H. Nebulizer
    I. Sublingual
    J. Subcutaneous
    K. Intramuscular
    L. Intravenous

MODULE 1: PREPARATORY
VENOUS ACCESS AND MEDICATION ADMINISTRATION LAB

The Advanced EMT student in a lab setting with an instructor will demonstrate the following skills either as a single skill or in a scenario based demonstration.

a. The preparation of administering medications.
   - i. Calculating the proper drug dosage
   - ii. Six rights of drug administration
   - iii. Proper BSI
   - iv. Select appropriate drug
   - v. Check ampule or vial for name, concentration, clarity, color, integrity, expiration date
   - vi. Aseptic technique
   - vii. Break off tip of ampule while protecting fingers or remove protective cap from vial, cleanse top with alcohol wipe
   - viii. Remove cap from needle
   - ix. Ampule – insert needle into open ampule without contamination, withdraw correct amount of medication
   - x. Vial – inject appropriate amount of air into vial, withdraw correct amount of medication
   - xi. Confirm drug order

b. Proper procedure for cannulation of peripheral veins
   - i. Proper BSI
   - ii. Checks IV fluid, proper fluid, clarity
   - iii. Selection of appropriate IV catheter
   - iv. Selection of proper administration set
   - v. Connects IV tubing to IV bag
   - vi. Prepares administration set (fills drip chamber and flushes tubing)
   - vii. Cuts tape
   - viii. Applies tourniquet
   - ix. Palpates suitable vein
   - x. Preparing site for cannulation
   - xi. Proper cannulation of vein using aseptic technique
   - xii. Releases tourniquet
   - xiii. Assures patency of IV
   - xiv. Secures catheter
   - xv. Adjusting appropriate flow rate
   - xvi. Proper disposal technique

VENOUS ACCESS AND MEDICATION ADMINISTRATION LAB
continued

xvii. Correct documentation

c. Administration of medications by following routes
   i. Oral
      1. Proper BSI
      2. Confirm order
      3. Verify patient's allergies
      4. Explain procedure to patient
      5. Remove the proper dosage of medication (tablet or liquid)
      6. Give medication to patient
      7. Correct documentation
   ii. Nebulizer
      1. Indications of use
      2. Proper BSI
      3. Explain procedure to patient
      4. Assembly of nebulizer
      5. Procedure to add medication
      6. Rate of oxygen source delivery
      7. Dosage of albuterol – per protocol
      8. Reassessment of lung sound
      9. Correct documentation
   iii. Sublingual
      1. Proper BSI
      2. Confirm order
      3. Verify patient's allergies
      4. Explain procedure to patient
      5. Remove tablet from container, check that it is intact
      6. Instruct patient to open mouth and lift tongue
      7. Place tablet under tongue
      8. Instruct patient to allow tablet to dissolve and NOT swallow
      9. Reassess blood pressure and pain response
   iv. Subcutanous
      1. Proper BSI
      2. Confirm order
      3. Verify patient's allergies
      4. Explain procedure to patient
      5. Landmark identification
      6. Selection of proper syringe and needle

VENOUS ACCESS AND MEDICATION ADMINISTRATION LAB
continued

7. Insertion technique and angle of insertion
8. Needle aspiration
9. Inject medication
10. Counter pressure with alcohol wipe, withdraw, apply direct pressure
11. Proper disposal technique
12. Correct documentation

v. Intramuscular
1. Proper BSI
2. Confirm order
3. Verify patient's allergies
4. Explain procedure to patient
5. Landmark identification
6. Selection of proper syringe and needle
7. Spread skin around site without contamination
8. Insertion technique and angle of insertion
9. Needle aspiration
10. Inject medication
11. Counter pressure with alcohol wipe, withdraw, apply direct pressure
12. Proper disposal technique
13. Correct documentation

vi. Intravenous
1. Proper BSI
2. Verify patient's allergies
3. Explain procedure to patient
4. Selects correct medication
5. Assures correct concentration of drug
6. Assembles prefilled syringe correctly, dispels air
7. Continues infection control precaurions
8. Cleanses injection site
9. Rechecks medication
10. Stops IV flow rate
11. Administers correct dose
12. Flushes tubing
13. Adjusts drip rate
14. Proper disposal technique
15. Reassess patient
16. Correct documentation

ADVANCED EMT SKILL

INSTRUCTOR RESOURCE

INTRAMUSCULAR INJECTION

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in administering an intramuscular injection.

CONDITION
The examinee will be requested to appropriately administer an IM injection.

EQUIPMENT
Gloves, injection manikin, syringes (various sizes), alcohol preps, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

Skill Component	Teaching Points
PREPARATION	
♦ **Take body substance isolation precautions**	
♦ **Confirm drug order**	▪ **Check medication for:** ▪ **Drug name** ▪ **Integrity of container/medication** ▪ **Concentration/Dose** ▪ **Clarity** ▪ **Expiration date** ▪ **Check the six "rights" of patients** ▪ **right patient** ▪ **right drug** ▪ **right amount/dose** ▪ **right route** ▪ **right time** ▪ **right documentation**
♦ **Ask if patient has any allergies**	

Skill Component	Teaching Points
♦ Explain procedure to patient	· Reassure patient and explain the reason for the procedure. This will help calm the patient and improve cooperation.
♦ Select appropriate site and verify landmarks · Use either the deltoid muscle or the upper outer quadrant of the gluteal muscle. · Prepare site using aseptic techniques	· Avoid areas that are bruised or scarred. · Cleanse the site with alcohol wipe. · Start at the site itself and work outward in an expanding circle. This pushes pathogens away from the puncture site. · Allow the area to dry before penetrating the skin.
♦ Select the appropriate syringe and withdraw volume of medication appropriate for chosen site.	
PROCEDURE	
♦ Remove cap from needle without contamination.	
♦ Spread skin around injection site with non-dominant hand without contaminating the site.	
♦ Insert needle at 90 degree angle with bevel up. · Aspirate and observe for blood return (if positive for blood return, discontinue procedure and begin again in another location)	
♦ Slowly inject medication.	
♦ Apply circular pressure with alcohol prep and quickly withdraw needle. · Apply direct pressure over injection site. · Apply bandage if needed.	· Gentle circular pressure will help to disperse and absorb medication.
♦ Dispose syringe using appropriate technique.	
ONGOING ASSESSMENT	
§ Repeat an ongoing assessment every 5 minutes: · Initial assessment · Relevant portion of the focused assessment · Evaluate response to treatment · Compare results to baseline condition and vital signs	· The initial and focused examination is repeated every 15 minutes for stable patients and every 5 minutes for priority patients. · Every patient must be re-evaluated at least every 5 minutes, if any treatment was initiated or medication administered, unless changes in the patient's condition are anticipated sooner. · Priority patients are patients who have abnormal vital signs, signs/symptoms of poor perfusion or if there is a suspicion that the patient's condition may deteriorate.

Skill Component	Teaching Points
DOCUMENTATION	
§ **Document:** · **Medication** · **Dosage** · **Route** · **Location** · **Time and date**	· **Documentation must be on an approved prehospital care report form. Follow local policies and protocols.**

ADVANCED EMT SKILL

INTRAMUSCULAR INJECTION

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in administering an intramuscular injection.

CONDITION
The examinee will be requested to appropriately administer an IM injection.

EQUIPMENT
Gloves, injection manikin, syringes (various sizes), alcohol preps, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

NAME_____ **DATE** _____/_____/_____ **EXAMINER(S)**_____

PASS FAIL **1st** **2nd** **3rd (final)**

Skill Component	Yes	No	Comments
PREPARATION			
♦ Take body substance isolation precautions			
♦ Confirm drug order			
♦ Ask if patient has any allergies			
♦ Explain procedure to patient			
♦ Select appropriate site and verify landmarks · Use either the deltoid muscle or the upper outer quadrant of the gluteal muscle. · Prepare site using aseptic techniques			
♦ Select the appropriate syringe and withdraw volume of medication appropriate for chosen site.			
PROCEDURE			
♦ Remove cap from needle without contamination.			
♦ Spread skin around injection site with non-dominant hand without contaminating the site.			

Skill Component	Yes	No	Comments
♦ Insert needle at 90 degree angle with bevel up. · Aspirate and observe for blood return (if positive for blood return, discontinue procedure and begin again in another location)			
♦ Slowly inject medication.			
♦ Apply circular pressure with alcohol prep and quickly withdraw needle. · Apply direct pressure over injection site. · Apply bandage if needed			
♦ Dispose syringe using appropriate technique.			
ONGOING ASSESSMENT			
§ Repeat an ongoing assessment every 5 minutes: · Initial assessment · Relevant portion of the focused assessment · Evaluate response to treatment · Compare results to baseline condition and vital signs			
DOCUMENTATION			
§ Document: · Location · Medication · Dose · Route · Time and date . Flow rate			

ADVANCED EMT SKILL

INSTRUCTOR RESOURCE

INTRAVENOUS BOLUS MEDICATIONS

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in administering an intravenous bolus of a medication.

CONDITION
The examinee will be requested to appropriately administer an IVP bolus.

EQUIPMENT
Gloves, existing intravenous line with medication port, syringes (various sizes), alcohol preps, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

Skill Component	Teaching Points
PREPARATION	
♦ Take body substance isolation precautions	
♦ Assure the primary IV line is patent and not infiltrated	
♦ Ask if patient has any allergies	
♦ Confirm drug order and select the correct medication	· Check medication for: · Drug name · Integrity of container/medication · Concentration/Dose · Clarity · Expiration date · Check the six "rights" of patients ▪ right patient ▪ right drug ▪ right amount/dose ▪ right route ▪ right time · right documentation

Skill Component	Teaching Points
♦ Explain procedure to patient	· Reassure patient and explain the reason for the procedure. This will help calm the patient and improve cooperation.
PROCEDURE	
♦ Draw up the medication or prepare a prefilled syringe as appropriate, dispel air.	
♦ Cleanse the medication port nearest the IV site with an alcohol prep.	
♦ Recheck medication.	
♦ Insert the needle of syringe through the port membrane.	
♦ Pinch the IV line above the medication port.	· This prevents the medication from traveling up towards the IV bag, forcing it towards the patient.
♦ Inject the medication as appropriate.	
♦ Remove the needle and syringe and release the tubing.	
♦ Open the flow regulator to allow a 20 cc fluid flush. Then adjust flow rate of IV.	· The fluid will push the medication into the patient's circulatory system.
♦ Dispose needle and syringe using appropriate technique.	
ONGOING ASSESSMENT	
§ Repeat an ongoing assessment every 5 minutes: · Initial assessment · Relevant portion of the focused assessment · Evaluate response to treatment · Compare results to baseline condition and vital signs	· The initial and focused examination is repeated every 15 minutes for stable patients and every 5 minutes for priority patients. · Every patient must be re-evaluated at least every 5 minutes, if any treatment was initiated or medication administered, unless changes in the patient's condition are anticipated sooner. · Priority patients are patients who have abnormal vital signs, signs/symptoms of poor perfusion or if there is a suspicion that the patient's condition may deteriorate.

Skill Component	Teaching Points
DOCUMENTATION	
§ **Document:** · **Medication** · **Dosage** · **Route** · **Flow rate** · **Time and date**	· **Documentation must be on an approved prehospital care report form. Follow local policies and protocols.**

ADVANCED EMT SKILL

INTRAVENOUS BOLUS MEDICATIONS

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in administering an intravenous bolus of a medication.

CONDITION
The examinee will be requested to appropriately administer an IVP bolus.

EQUIPMENT
Gloves, existing intravenous line with medication port, syringes (various sizes), alcohol preps, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

NAME_____ **DATE** _____/_____/_____ **EXAMINER(S)**_____

PASS FAIL **1st** **2nd** **3rd (final)**

Skill Component	Yes	No	Comments
PREPARATION			
♦ Take body substance isolation precautions			
♦ Assure the primary IV line is patent and not infiltrated			
♦ Ask if patient has any allergies			
♦ Confirm drug order and select the correct medication			
♦ Explain procedure to patient			
PROCEDURE			
♦ Draw up the medication or prepare a prefilled syringe as appropriate, dispel air.			
♦ Cleanse the medication port syringe nearest the IV site with an alcohol prep.			
♦ Recheck medication.			
♦ Insert the needle of syringe through the port membrane.			

Skill Component	Yes	No	Comments
♦ Pinch the IV line above the medication port.			· This prevents the medication from traveling up towards the IV bag, forcing it towards the patient.
♦ Inject the medication as appropriate.			
♦ Remove the needle and release the tubing.			
♦ Open the flow regulator to allow a 20 cc fluid flush. Then adjust flow rate of IV.			· The fluid will push the medication into the patient's circulatory system.
♦ Dispose needle and syringe using appropriate technique.			
ONGOING ASSESSMENT			
§ Repeat an ongoing assessment every 5 minutes: · Initial assessment · Relevant portion of the focused assessment · Evaluate response to treatment · Compare results to baseline condition and vital signs			
DOCUMENTATION			
§ Document: · Route · Type and amount of solution · Time and date . Flow rate			

ADVANCED EMT SKILL

INSTRUCTOR RESOURCE

INTRAVENOUS THERAPY

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in establishing a peripheral IV on a manikin arm.

CONDITION
The examinee will be requested to appropriately establish an IV on a manikin arm with the appropriate IV solution, IV catheter and establish the appropriate IV rate according to the scenario given by the proctor.

EQUIPMENT
Gloves, goggles, IV infusion arm, a selection of IV solutions, Administration sets, and IV catheters, tape, gauze pads, syringes (various sizes), tourniquet, alcohol preps, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

Skill Component	Teaching Points
PREPARATION	
♦ Take body substance isolation precautions	· Mandatory personal protective equipment.
♦ Explain the procedure to the patient · Explain the need for the IV · Ask if the patient has any allergies	· Describe the procedure to the patient and what the patient can expect to feel. · Understanding the procedure will help alleviate some of the patient's anxiety. Anxiety can lead to a vasomotor response or venous constriction. · Pediatric patients may have unrealistic fears.
♦ Check the selected IV solution for ▪ Proper fluid ▪ Clarity ▪ Expiration date ▪ No damage to IV bag	· Discard bag if solution is not clear, expired or damage to the bag.
♦ Select appropriate catheter	· Select the appropriate sized catheter according to scenario used. 14-16 gauge for trauma, volume replacement, cardiac arrest. 18-20 for medical conditions. · Follow local protocols.

Skill Component	Teaching Points
♦ Select the proper administration set	· Macrodrip for trauma, microdrip for medical conditions and drug administration · Follow local protocols.
♦ Prepare the IV bag and administration set using aseptic technique ▪ Connect IV tubing to the IV bag ▪ Fills drip chamber ▪ Flushes tubing	· Dispose of the IV administration set if it becomes contaminated. · Leave the protective cap in place on the connector end of the administration set until you are ready to connect it to the hub of the catheter.
♦ Cuts or tears tape	
PROCEDURE	
♦ Apply Tourniquet	· The tourniquet should be tied smoothly and snugly. · The tourniquet should be kept as flat as possible. · Avoid keeping in place for more than 2 minutes. · A tourniquet that is too tight will impede arterial flow. Feel for the patient's radial pulse, if absent, the tourniquet is too tight. · Release the tourniquet as soon as the catheter is placed in vein and blood samples drawn (if applicable). Bruising may occur if tourniquet is kept in place too long.
♦ Palpate suitable vein	· Acceptable sites have clearly visible veins. · Free of bruising or scarring. · Avoid areas of vein where a valve is situated. · Avoid veins that roll, feels hard or ropelike.
♦ Cleanse the site appropriately	· Cleanse the site with povidone-iodine or alcohol wipe. · Start at the site itself and work outward in an expanding circle. This pushes pathogens away from the puncture site. · Allow the area to dry before penetrating the skin. · It may be necessary to shave the hair around the site to provide better adherence of the tape to secure the catheter

Skill Component	Teaching Points
♦ **Performs venipuncture** · **Inserts stylet, bevel up** · **Notes flashback** . **Occludes vein proximal to catheter** . **Removes stylet** · **Disposes needle into an approved container** · **Releases tourniquet** . **Connects IV tubing to catheter**	· **With the non-dominant hand, pull skin taut to stabilize the vein and prevent rolling.** · **With the distal bevel of the metal stylet up, insert into vein at a 10 to 30 degree angle. Do not touch any portion of the catheter, a contaminated catheter is not usable.** · **Continue until you feel a "pop" into the vein or see a flashback.** · **Advance the catheter over the needle into the vein. (If you meet resistance, do not force, withdraw the needle and catheter as a unit.)** · **Place a finger over the vein beyond the catheter tip to apply pressure to prevent blood from flowing from the catheter or air entering.** · **Carefully remove the metal stylet and promptly dispose into an approved disposable container.** · **Release tourniquet** · **Connect the IV tubing to cannula. Tightly secure the needle adapter into the cannula hub. Open the flow regulator to allow fluid to run freely for a few seconds to assure patency.**
♦ **Adjust the appropriate flow rate for the scenario given.**	
♦ **Cover the site with povidone-iodine ointment and a sterile dressing.**	
♦ **Secures catheter by taping IV appropriately**	· **Secure catheter, administration set tubing, and dressing in place with tape.** · **The tubing should be looped and secured with tape above the IV canulation site. The loop gives the tubing more give and helps prevent the catheter from becoming dislodged by accidental pulling.**

Skill Component	Teaching Points
♦ **Adjusts flow rate as appropriate for scenario**	
ONGOING ASSESSMENT	
§ **Repeat an ongoing assessment every 5 minutes:** · **Initial assessment** · **Relevant portion of the focused assessment** · **Evaluate response to treatment** · **Compare results to baseline condition and vital signs**	· **The initial and focused examination is repeated every 15 minutes for stable patients and every 5 minutes for priority patients.** · **Every patient must be re-evaluated at least every 5 minutes, if any treatment was initiated or medication administered, unless changes in the patient's condition are anticipated sooner.** · **Priority patients are patients who have abnormal vital signs, signs/symptoms of poor perfusion or if there is a suspicion that the patient's condition may deteriorate.**
DOCUMENTATON	
§ **Document:** · **Location** · **Type and amount of solution** · **Size of catheter** · **Time and date** . **Flow rate**	· **Documentation must be on an approved prehospital care report form. Follow local policies and protocols.**

ADVANCED EMT SKILL

INTRAVENOUS THERAPY

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in establishing a peripheral IV on a manikin arm.

CONDITION
The examinee will be requested to appropriately establish an IV on a manikin arm with the appropriate IV solution, IV catheter and establish the appropriate IV rate according to the scenario given by the proctor.

EQUIPMENT
Gloves, goggles, IV infusion arm, a selection of IV solutions, Administration sets, and IV catheters, tape, gauze pads, syringes (various sizes), tourniquet, alcohol preps, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

NAME_____ **DATE** _____/_____/_____ **EXAMINER(S)**_____

PASS FAIL **1st** **2nd** **3rd (final)**

Skill Component	Yes	No	Comments
PREPARATION			
♦ Take body substance isolation precautions			
♦ Explain the procedure to the patient · Explain the need for the IV · Ask if the patient has any allergies			
♦ Check the selected IV solution for ▪ Proper fluid ▪ Clarity ▪ Expiration date ▪ No damage to IV bag			
♦ Select appropriate catheter			
♦ Select the proper administration set			

♦ **Prepare the IV bag and administration set using aseptic technique** ▪ **Connect IV tubing to the IV bag** ▪ **Fills drip chamber** ▪ **Flushes tubing**			
♦ **Cuts or tears tape**			
PROCEDURE			
♦ **Apply tourniquet**			
♦ **Palpate suitable vein**			
♦ **Cleanse the site appropriately**			
♦ **Performs venipuncture** · **Inserts stylet, bevel up** · **Notes flashback** · **Advance catheter over the stylet into the vein** · **Occludes vein proximal** · **Removes stylet** · **Disposes needle into an approved container** · **Releases tourniquet** · **Connects IV tubing to catheter**			
♦ **Adjust the appropriate flow rate for the scenario given**			
♦ **Cover the site with povidone-iodine ointment and a sterile dressing**			
♦ **Secures catheter by taping IV appropriately**			
♦ **Adjusts flow rate as appropriate for scenario**			

ONGOING ASSESSMENT			
§ **Repeat an ongoing assessment every 5 minutes:** · **Initial assessment** · **Relevant portion of the focused assessment** · **Evaluate response to treatment** · **Compare results to baseline condition and vital signs**			
DOCUMENTATION			
§ Document: · Location · Type and amount of solution · Size of catheter · Time and date . Flow rate			

ADVANCED EMT SKILL

INSTRUCTOR RESOURCE

MEDICATION ADMINISTRATION
BRONCHODILATOR METERED DOSE INHALER (MDI)

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in recognizing the indications, contraindications, criteria, and assist the patient with the administration of a prescribed bronchodilator inhaler.

CONDITION
The examinee will be requested to establish that a simulated patient who is complaining of difficulty breathing meets the criteria for administration of a bronchodilator inhaler. The examinee will assist the patient with administering the medication with or without using a spacer device. Necessary equipment will be adjacent to the simulated patient.

EQUIPMENT
Simulated patient, oxygen tank with a flow meter, oxygen mask, blood pressure cuff, stethoscope, placebo bronchodilator inhaler cartridge and plastic mouthpiece case, spacer device, timing device, clipboard, pen, goggles, masks, gown, gloves.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item. Appropriate body substance isolation precautions must be instituted.

Skill Component	Teaching Points
PREPARATION	
♦ Take body substance isolation precautions	· Mandatory personal protective equipment - gloves · Situational - long sleeves, goggles, masks, gown
♦ Complete an initial assessment: · General impression · Life-threatening condition · Assess mental status/stimulus response (AVPU) · Assess/Manage airway · Assess/Manage breathing ** *Administer 100% oxygen*	· Any patient complaining of difficulty breathing should be placed on oxygen as soon as possible. · Follow local protocol for administration of oxygen
♦ Confirm order with Medical Control ♦ Confirm patient is not allergic to medication	▪ Consult with medical control or follow local policies and protocols

♦ **Check the six "rights" of patients** ▪ **right patient** ▪ **right drug** ▪ **right amount/dose** ▪ **right route** ▪ **right time** ▪ **right documentation**	▪ **It is important to always check the six "rights" to ensure proper administration of medication in a correct and safe method.**
♦ **Verbalize the <u>indications</u> for administration of a bronchodilator inhaler:** · **Symptoms of respiratory distress** - **shortness of breath** - **wheezing** - **coughing** - **difficulty speaking.**	· **Symptoms include: shortness of breath, wheezing, coughing (usually dry and irritative), distressed breathing, and difficulty speaking.** ▪ **Follow local policies and protocols.**
♦ **Verbalize the <u>contraindications</u> for administration of a bronchodilator inhaler:** · **Patient does not meet indication or criteria for administration** · **Patient has taken maximum prescribed dose before EMS arrival** · **Patient is unable to follow directions or use the inhaler**	
PROCEDURE	
♦ **Check medication for:** · **Drug name** · **Integrity of container/medication** · **Concentration/Dose** · **Clarity** · **Expiration date**	· **<u>Drug name</u> - Trade and generic names include: albuterol, Proventil®, Ventolin®, Atrovent®, Alupent®, Metaprel®, Brethaire®, Bronchometer®, etc** · **<u>Integrity of container/medication</u> - Make sure container is NOT broken** · **<u>Concentration/Dose</u> - dose of a bronchodilator is the number metered sprays administered. (Concentration only refers to liquid form of medications.)** · **<u>Clarity</u> -if container is transparent, the liquid should be clear** · **<u>Expiration date</u> - not to be administered after this date**

♦ **Prepare Medication:** · **Remove the mouthpiece cover** · **Shake inhaler 5-6 times** ** ***Insert cartridge into plastic mouthpiece case - if not done previously*** ** ***Attach spacer - if needed***	· **Inhaler cartridge should be already placed in the mouthpiece. Teach student how to connect if first time use for medication.** · **Always check mouthpiece to make sure there are no foreign objects lodged in mouthpiece that may either be inhaled or plug dispenser.** · **If the inhaler has not been used for several days "test spray" it into the air before use.**
♦ **Instruct patient to breath out normally (not forcefully)**	
♦ **Position the inhaler:** · **Hold inhaler 2 finger-widths in front of open mouth** **OR** **Place inhaler inside of mouth, past the teeth, above the tongue** **OR** **Attach a spacer to the mouth piece and close lips around spacer**	· **Ensure that spray opening is pointed toward patient** · **The cartridge should be on top and the mouthpiece on the bottom.** · **Not everyone is able to use an inhaler effectively. Spacers may be used by patients who are older, have arthritis, or just cannot coordinate inhalation and medication administration activity.**
♦ **Instruct patient to take a slow, deep breath and take in as much air as possible on command**	
♦ **Instruct patient to inhale:** **Without Spacer** · **Inhale for 5-7 seconds and press the inhaler 1 time** **(1 spray or puff)** **With Spacer** · **Press inhaler 1 time and have patient breath in and out normally 3-4 breaths** ** **May repeat sprays as prescribed - *if needed***	· **Patient should not stop inhaling once the spray is delivered, but continue to inhale as long as possible (usually 5-7 seconds).** · **This time frame mixes the medication with the incoming air and pulls it into the lungs slowly.** · **If using a spacer, there may be a whistling sound if the patient inhales too rapidly.** · **Avoid spraying into patient's eyes or vision will be temporarily blurred.** · **Dose of a bronchodilator is the numbered metered sprays that were administered.**
♦ **Instruct patient to hold breath for as long as comfortable or up to 10 seconds before breathing out slowly through pursed lips**	
♦ **Remove inhaler and replace oxygen**	· **Administer supplemental O_2 before and after treatment to decrease hypoxemia.**
♦ **Reassess respiratory function, breath sounds and patient's response after 3 minutes**	· **Medication will take effect in within 5 minutes and last 4-6 hours depending on medication administered.**

♦ **Monitor pulse periodically for irregularity**	· **Hypoxic patients may experience dysrhythmias.**
ONGOING ASSESSMENT	
§ **Repeat an ongoing assessment every 5 minutes:** · **Initial assessment** · **Relevant portion of the focused assessment** · **Evaluate response to treatment** · **Compare results to baseline condition and vital signs**	· **The initial and focused examination is repeated every 15 minutes for stable patients and every 5 minutes for priority patients.** · **Every patient must be re-evaluated at least every 5 minutes, if any treatment was initiated or medication administered, unless changes in the patient's condition are anticipated sooner.** **Priority patients are patients who have abnormal vital signs, signs / symptoms of poor perfusion or if there is a suspicion that the patient's condition may deteriorate.**
DOCUMENTATION	
§ **Verbalize/Document** · **Assessment findings before and after administration** · **Drug** - **name** - **dose** - **route** - **site** - **time** - **who administered medication** · **Repeat dose - *if indicated*** · **Patient's response to medication** · **Respiratory status** · **Cardiovascular status** · **Mental status** · **Vital signs**	· **Documentation must be on an approved prehospital care report form.** · **Documenting reassessment information provides a comprehensive picture of patient's response to treatment.** · **Last reassessment information (before patient care is transferred) should be documented. Follow local protocols and policies regarding documentation.**

ADVANCED EMT SKILL

MEDICATION ADMINISTRATION
BRONCHODILATOR METERED DOSE INHALER (MDI)

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in recognizing the indications, contraindications, criteria, and assist the patient with the administration of a prescribed bronchodilator inhaler.

CONDITION
The examinee will be requested to establish that a simulated patient who is complaining of difficulty breathing meets the criteria for administration of a bronchodilator inhaler. The examinee will assist the patient with administering the medication with or without using a spacer device. Necessary equipment will be adjacent to the simulated patient.

EQUIPMENT
Simulated patient, oxygen tank with a flow meter, oxygen mask, blood pressure cuff, stethoscope, placebo bronchodilator inhaler cartridge and plastic mouthpiece case, spacer device, timing device, clipboard, pen, goggles, masks, gown, gloves.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item. Appropriate body substance isolation precautions must be instituted.

NAME_____ **DATE** _____/_____/_____ **EXAMINER(S)**_____

PASS FAIL **1st 2nd 3rd (final)**

Skill Component	Yes	No	Comments
PREPARATION			
♦ **Take body substance isolation precautions**			
♦ **Complete an initial assessment:** · **General impression** · **Life-threatening condition** · **Assess mental status/stimulus response (AVPU)** · **Assess/Manage airway** · **Assess/Manage breathing** ** ***Administer 100% oxygen***			
♦ **Confirm order with Medical Control** ♦ **Confirm patient is not allergic to medication**			

♦ **Check the six "rights" of patients** ▪ **right patient** ▪ **right drug** ▪ **right amount/dose** ▪ **right route** ▪ **right time** ▪ **right documentation**			
♦ **Verbalize the <u>indications</u> for administration of a bronchodilator inhaler:** · **Symptoms of respiratory distress** - **shortness of breath** - **wheezing** - **coughing** - **difficulty speaking.**			
♦ **Verbalize the <u>contraindications</u> for administration of a bronchodilator inhaler:** · **Patient does not meet indication or criteria for administration** · **Patient has taken maximum prescribed dose before EMS arrival** · **Patient is unable to follow directions or use the inhaler**			
PROCEDURE			
♦ **Check medication for:** · **Drug name** · **Integrity of container/medication** · **Concentration/Dose** · **Clarity** · **Expiration date**			

♦ **Prepare Medication:** · **Remove the mouthpiece cover** · **Shake inhaler 5-6 times** ** ***Insert cartridge into plastic mouthpiece case - <u>if not done previously</u>*** ** ***Attach spacer - <u>if needed</u>***			
♦ **Instruct patient to breathe out normally (not forcefully)**			
♦ **Position the inhaler:** · **Hold inhaler 2 finger-widths in front of open mouth** **OR** **Place inhaler inside of mouth, past the teeth, above the tongue** **OR** **Attach a spacer to the mouth piece and close lips around spacer**			
♦ **Instruct patient to take a slow, deep breath and take in as much air as possible <u>on command</u>**			
♦ **Instruct patient to inhale:** **Without Spacer** · **Inhale for 5-7 seconds and press the inhaler 1 time** **(1 spray or puff)** **With Spacer** · **Press inhaler 1 time and have patient breathe in and out normally 3-4 breaths** ** **May repeat sprays as prescribed - *<u>if needed</u>***			
♦ **Instruct patient to hold breath for as long as comfortable or up to 10 seconds before breathing out slowly through pursed lips**			
♦ **Remove inhaler and replace oxygen**			
♦ **Reassess respiratory function, breath sounds and patient's response after 3 minutes**			

♦ **Monitor pulse periodically for irregularity**			
ONGOING ASSESSMENT			
§ **Repeat an ongoing assessment every 5 minutes:** · **Initial assessment** · **Relevant portion of the focused assessment** · **Evaluate response to treatment** · **Compare results to baseline condition and vital signs**			
DOCUMENTATION			
§ **Verbalize/Document** · **Assessment findings before and after administration** · **Drug** - **name** - **dose** - **route** - **site** - **time** - **who administered medication** · **Repeat dose - *if indicated*** · **Patient's response to medication** · **Respiratory status** · **Cardiovascular status** · **Mental status** · **Vital signs**			

ADVANCED EMT SKILL
INSTRUCTOR RESOURCE

MEDICATION ADMINISTRATION
ADMINISTRATION OF NEBULIZED MEDICATION

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in recognizing the indications, contraindications, criteria, and assist the patient with the administration of a nebulized medication.

CONDITION
The examinee will be requested to establish that a simulated patient who is complaining of difficulty breathing meets the criteria for administration of a nebulized medication. The examinee will assist the patient with administering the nebulized medication. Necessary equipment will be adjacent to the simulated patient.

EQUIPMENT
Simulated patient, oxygen tank with a flow meter, oxygen mask, blood pressure cuff, stethoscope, medication, handheld nebulizer, T-tube, 6 inch flex tube, mouthpiece, clipboard, pen, goggles, masks, gown, gloves.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item. Appropriate body substance isolation precautions must be instituted.

Skill Component	Teaching Points
PREPARATION	
♦ Take body substance isolation precautions	▪ Mandatory personal protective equipment – gloves ▪ Situational - long sleeves, goggles, masks, gown
♦ Confirm the order with Medical Control ♦ Confirm patient is not allergic to medication	▪ Consult with medical control or follow local policies and procedures
♦ Check the six "rights" of patients ▪ right patient ▪ right drug ▪ right amount/dose ▪ right route ▪ right time ▪ right documentation	▪ It is important to always check the six "rights" to ensure proper administration of medication in a correct and safe method.

♦ **Verbalize the <u>indications</u> for administering a nebulized medication:** ▪ **Symptoms of respiratory distress** **- shortness of breath** **- wheezing** **- coughing** **- difficulty speaking.**	▪ **Symptoms include: shortness of breath, wheezing, coughing (usually dry and irritative), distressed breathing, and difficulty speaking.** ▪ **Follow local policies and procedures.**
♦ **Explain procedure to the patient:**	▪ **Explain the procedure in a way the patient can understand. The patient will need to assist you. If the patient is unable to assist you properly and is done incorrectly the medication will not be absorbed correctly and will be less effective.**
PROCEDURE	
♦ **Check medication for:** ▪ **Drug name** ▪ **Integrity of container/medication** ▪ **Concentration/Dose** ▪ **Clarity** ▪ **Expiration date**	▪ **<u>Drug name</u> - Trade and generic names include: albuterol, Proventil®, Ventolin®, Alupent®** ▪ **<u>Integrity of container/medication</u> - Make sure container is NOT broken or damaged** ▪ **<u>Concentration/Dose</u> – unit dose** ▪ **<u>Clarity</u> -if container is transparent, the liquid should be clear** ▪ **<u>Expiration date</u> - not to be administered after this date**
♦ **Prepare Medication / Equipment:** ▪ **Remove contents of nebulizer pack** ▪ **Open nebulizer by twisting top and bottom sections** ▪ **Add medication to bottom portion** ▪ **Close nebulizer and maintain in upright position to avoid spilling** ▪ **Fasten the T-tube to the nebulizer chamber** ▪ **Connect the mouthpiece to one end of the T-tube and the reservoir tube to the opposite end** ▪ **Connect ends of O2 tubing to nebulizer and O2 source** ▪ **Adjust oxygen to 6 liters per minute** ▪ **Sit the patient upright as much as possible**	

♦ **Have the patient hold the nebulizer or you may hold the nebulizer if patient is unable to.** ♦ **Have patient firmly place mouthpiece in mouth and seal lips tightly around mouthpiece** ♦ **Have the patient breathe as deeply as possible and hold his/her breath for 3 to 5 seconds before exhaling**	
♦ **Reassess respiratory function, breath sounds and patient's response after 5 minutes**	▪ **Medication will take effect in within 5-15 minutes and last 3-4 hours.**
♦ **Monitor pulse periodically for irregularity**	▪ **Hypoxic patients may experience dysrhythmias.**
ONGOING ASSESSMENT	
§ **Repeat an ongoing assessment every 5 minutes:** ▪ **Initial assessment** ▪ **Relevant portion of the focused assessment** ▪ **Evaluate response to treatment** ▪ **Compare results to baseline condition and vital signs**	▪ **The initial and focused examination is repeated every 15 minutes for stable patients and every 5 minutes for priority patients.** ▪ **Every patient must be re-evaluated at least every 5 minutes, if any treatment was initiated or medication administered, unless changes in the patient's condition are anticipated sooner.** **Priority patients are patients who have abnormal vital signs, signs / symptoms of poor perfusion or if there is a suspicion that the patient's condition may deteriorate.**

DOCUMENTATION

§ **Verbalize/Document** ▪ **Assessment findings before and after administration** ▪ **Drug** - **name** - **dose** - **route** - **site** - **time** - **who administered medication** ▪ **Repeat dose - *if indicated*** ▪ **Patient's response to medication** ▪ **Respiratory status** ▪ **Cardiovascular status** ▪ **Mental status** ▪ **Vital signs**	▪ **Documentation must be on prehospital field report form per local policies and procedures.** ▪ **Documenting reassessment information provides a comprehensive picture of patient's response to treatment.** ▪ **Last reassessment information (before patient care is transferred) should be documented.**

ADVANCED EMT SKILL

ADMINISTRATION OF NEBULIZED MEDICATION

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in recognizing the indications, contraindications, criteria, and assist the patient with the administration of a nebulized medication.

CONDITION
The examinee will be requested to establish that a simulated patient who is complaining of difficulty breathing meets the criteria for administration of a nebulized medication. The examinee will assist the patient with administering the nebulized medication. Necessary equipment will be adjacent to the simulated patient.

EQUIPMENT
Simulated patient, oxygen tank with a flow meter, oxygen mask, blood pressure cuff, stethoscope, medication, handheld nebulizer, T-tube, 6 inch flex tube, mouthpiece, clipboard, pen, goggles, masks, gown, gloves.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item. Appropriate body substance isolation precautions must be instituted.

NAME_____ **DATE** _____/_____/_____ **EXAMINER(S)**_____

PASS FAIL **1st** **2nd** **3rd (final)**

Skill Component	Yes	No	Comments
PREPARATION			
♦ Take body substance isolation precautions			
♦ Confirm the order with Medical Control ♦ Confirm patient is not allergic to medication			
♦ Check the six "rights" of patients ▪ right patient ▪ right drug ▪ right amount/dose ▪ right route ▪ right time ▪ right documentation			

♦ **Verbalize the <u>indications</u> for administering a nebulized medication:** ▪ **Symptoms of respiratory distress** - **shortness of breath** - **wheezing** - **coughing** - **difficulty speaking**			
♦ **Explain procedure to the patient**			
PROCEDURE			
♦ **Check medication for:** ▪ **Drug name** ▪ **Integrity of container/medication** ▪ **Concentration/Dose** ▪ **Clarity** ▪ **Expiration date**			
♦ **Prepare Medication / Equipment:** ▪ **Remove contents of nebulizer pack** ▪ **Open nebulizer by twisting top and bottom sections** ▪ **Add medication to bottom portion** ▪ **Close nebulizer and maintain in upright position to avoid spilling** ▪ **Fasten the T-tube to the nebulizer chamber** ▪ **Connect the mouthpiece to one end of the T-tube and the reservoir tube to the opposite end** ▪ **Connect ends of O2 tubing to nebulizer and O2 source** ▪ **Adjust oxygen to 6 liters per minute** ▪ **Sit the patient upright as much as possible**			

♦ **Have the patient hold the nebulizer or you may hold the nebulizer if patient is unable to.** ♦ **Have patient firmly place mouthpiece in mouth and seal lips tightly around mouthpiece**			
♦ **Reassess respiratory function, breath sounds and patient's response after 5 minutes**			
♦ **Monitor pulse periodically for irregularity**			
ONGOING ASSESSMENT			
§ **Repeat an ongoing assessment every 5 minutes:** · **Initial assessment** · **Relevant portion of the focused assessment** · **Evaluate response to treatment** · **Compare results to baseline condition and vital signs**			
DOCUMENTATION			
§ **Document:** ▪ **Assessment findings before and after administration** ▪ **Drug** - **name** - **dose** - **route** - **site** - **time** - **who administered medication** ▪ **Repeat dose - *if indicated*** ▪ **Patient's response to medication** ▪ **Respiratory status** ▪ **Cardiovascular status** ▪ **Mental status** ▪ **Vital signs**			

ADVANCED EMT SKILL
INSTRUCTOR RESOURCE

MEDICATION ADMINISTRATION
NITROGLYCERIN

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in recognizing the indications, contraindications, criteria, and assist the patient with the administration of the prescribed medication nitroglycerin.

CONDITION
The examinee will be requested to establish that a simulated patient complaining of substernal chest discomfort meets the criteria for administration of nitroglycerin and will administer either the nitroglycerin spray or tablet or two different patients may be selected to demonstrate both methods of administration. Necessary equipment will be adjacent to the simulated patient.

EQUIPMENT
Simulated patient, oxygen tank with a flow meter, oxygen mask, blood pressure cuff, stethoscope, placebo nitroglycerin spray and tablets, timing device, clipboard, pen, goggles, masks, gown, gloves.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item. Appropriate body substance isolation precautions must be instituted.

Skill Component	Teaching Points
PREPARATION	
♦ **Take body substance isolation precautions**	· **Mandatory personal protective equipment - gloves** · **Situational - long sleeves, goggles, masks, gown**
♦ **Complete an initial assessment and pertinent vital signs:** · **General impression** · **Life-threatening condition** · **Assess mental status/stimulus response (AVPU)** · **Assess/Manage airway** · **Assess/Manage breathing** · **Blood pressure** ** ***Administer 100% oxygen*** ** ***Obtain blood pressure***	· **Any patient complaining of difficulty breathing should be placed on oxygen as soon as possible.** · **If in respiratory distress, patients with a history of COPD should be placed on 15 Liters/minute via mask. DO NOT withhold oxygen from these patients.** · **Any patient complaining of chest pain should be placed on oxygen as soon as possible.** · **Nitroglycerin may cause hypotension due to vasodilation. Always take blood pressure before administration and 5 minutes after administration.**

♦ **Verbalize the criteria for assisting patients with medications:** · **Medication prescribed by a physician** · **Medication prescribed for patient** · **Meets indication for administration** · **No contraindications are present for administration**	
♦ **Verbalize the <u>indications</u> for assisting the patient with nitroglycerin:** · **Symptoms of chest pain/discomfort** · **Symptoms of congestive heart failure** · **Systolic blood pressure > 100mm/Hg**	· **Any degree of chest pain/discomfort should be treated with Nitroglycerin regardless how the patient rates the pain.** . **Follow local protocols and policies**
♦ **Verbalize the <u>contraindications</u> for administration of nitroglycerin:** · **Patient does not meet indication or criteria for administration** · **Patient has taken 3 doses before EMS arrival within the last 5 minutes** · **Last dose was < 5 minutes ago** · **Systolic blood pressure < 100mm/Hg** · **Administration of Sildenafil citrate (Viagra®) or similar medication within 24 hours**	· **If last dose of nitroglycerin exceeds 5 minutes, nitroglycerin may be administered.** · **Follow local protocols and policies**

PROCEDURE NITROGLYCERIN TABLET OR SPRAY	
♦ **Check medication for:** · **Drug name** · **Integrity of container/medication** · **Concentration/Dose** · **Clarity** · **Expiration date** ♦ **Check the six "rights" of patients** ▪ **right patient** ▪ **right drug** ▪ **right amount/dose** ▪ **right route** ▪ **right time** ▪ **right documentation**	· **<u>Drug name</u> - Trade names for nitroglycerin may include:** **Nitrolingual Spray®, Nitrobid®, Nitrostat®** · **<u>Integrity of container/medication</u> - Make sure container is NOT broken and tablet is whole** · **<u>Concentration/Dose</u> - dose of nitroglycerin is 0.4mg (grain 1/150) per tablet. (Concentration only refers to liquid form of medications.)** · **<u>Clarity</u> - not applicable to tablets or unable to see liquid in spray container** · **<u>Expiration date</u> - not to be administered after this date** ▪ **It is important to always check the six "rights" to ensure proper administration of medication in a correct and safe method.**
♦ **Prepare Medication:** **<u>Tablet</u>** · **Remove tablet from container and check that it is intact** **<u>Spray</u>** · **Remove top of spray canister**	**<u>Tablet</u>** · **Make sure that tablet is intact for administration of correct dose.** · **DO NOT contaminate medication. Pour tablet into lid of container then into the palm for administration. Gloves should be worn when administering nitroglycerin.** **<u>Spray</u>** · **One spray delivers 0.4mg of nitroglycerin. DO NOT shake container or it will alter the dose.** · **Ensure that spray opening is pointed toward patient**
♦ **Remove oxygen mask and instruct patient to open mouth and lift tongue**	

♦ **Administer medication:** **<u>Tablet</u>** · **Place tablet under patient's tongue** · **Instruct patient to allow tablet to dissolve and NOT to swallow** **<u>Spray</u>** · **Deliver one spray sublingually or transmucosal** · **Instruct patient NOT to inhale spray**	**<u>Tablet</u>** · **If patient swallows the tablet it will change the absorption rate and the amount of drug absorbed. Sublingual absorption is faster than gastrointestinal absorption.** **<u>Spray</u>** · **If patient inhales the spray it will change the absorption rate and the amount of drug absorbed. Sublingual absorption is faster and more accurate than inhaling medication into lungs.**
♦ **Replace oxygen mask**	
♦ **Reassess blood pressure and pain response in 5 minutes** ** ***Place patient in shock position - <u>if indicated</u>***	· **Use the pain scale of mild, moderate, severe or the 1-10 scale.** · **Nitroglycerin may cause hypotension due to vasodilation. Always take blood pressure before administration and 5 minutes after administration.** · **In life-threatening situations, an ALS Unit <u>must</u> be enroute or BLS should consider transport if ALS arrival is longer than transport time.**
ONGOING ASSESSMENT	
§ **Repeat an ongoing assessment every 5 minutes:** · **Initial assessment** · **Relevant portion of the focused assessment** · **Evaluate response to treatment** · **Compare results to baseline condition and vital signs**	· **The initial and focused examination is repeated every 15 minutes for stable patients and every 5 minutes for priority patients.** · **Every patient must be re-evaluated at least every 5 minutes, if any treatment was initiated or medication administered, unless changes in the patient's condition are anticipated sooner.** · **Priority patients are patients who have abnormal vital signs, signs/symptoms of poor perfusion or if there is a suspicion that the patient's condition may deteriorate.**

DOCUMENTATION	
§ **Verbalize/Document** · **Assessment findings before and after administration** · **Blood pressure before administration** · **Drug** - **name** - **dose** - **route** - **site** - **time** - **who administered medication** · **Patient's response to medication** · **Blood pressure 5 minutes after administration**	· **Documentation on an approved Prehospital Care Report.** . **Follow local Policies and Protocols.**

ADVANCED EMT SKILL

MEDICATION ADMINISTRATION
NITROGLYCERIN

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in recognizing the indications, contraindications, criteria, and assist the patient with the administration of the prescribed medication nitroglycerin.

CONDITION
The examinee will be requested to establish that a simulated patient complaining of substernal chest discomfort meets the criteria for administration of nitroglycerin and will assist the patient by administering either the nitroglycerin spray or tablet or two different patients may be selected to demonstrate both methods of administration. Necessary equipment will be adjacent to the simulated patient.

EQUIPMENT
Simulated patient, oxygen tank with a flow meter, oxygen mask, blood pressure cuff, stethoscope, placebo nitroglycerin spray and tablets, timing device, clipboard, pen, goggles, masks, gown, gloves.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item. Appropriate body substance isolation precautions must be instituted.

NAME_____ **DATE** _____/_____/_____**EXAMINER(S)**_____

PASS FAIL **1st 2nd 3rd (final)**

Skill Component	Yes	No	Comments
PREPARATION			
♦ **Take body substance isolation precautions**			
♦ **Complete an initial assessment and pertinent vital signs:** · **General impression** · **Life-threatening condition** · **Assess mental status/stimulus response (AVPU)** · **Assess/Manage airway** · **Assess/Manage breathing** · **Blood pressure** ** ***Administer 100% oxygen*** ** ***Obtain blood pressure***			

Skill Component	Yes	No	Comments
♦ **Verbalize the indications for administration of nitroglycerin:** · **Symptoms of chest pain/discomfort** · **Systolic blood pressure > 100mm/Hg**			
♦ **Verbalize the contraindications for administration of nitroglycerin:** · **Patient does not meet indication or criteria for administration** · **Patient has taken 3 doses before EMS arrival within the last 5 minutes** · **Last dose was < 5 minutes ago** · **Systolic blood pressure < 100mm/Hg** · **Administration of Sildenafil citrate (Viagra®) or similar medication within 24 hours**			
PROCEDURE **NITROGLYCERIN TABLET OR SPRAY**			
♦ **Check medication for:** · **Drug name** · **Integrity of container/medication** · **Concentration/Dose** · **Clarity** · **Expiration date** ♦ **Check the six "rights" of patients** ▪ **right patient** ▪ **right drug** ▪ **right amount/dose** ▪ **right route** ▪ **right time** ▪ **right documentation**			

Skill Component	Yes	No	Comments
♦ **Prepare Medication:** **<u>Tablet</u>** · **Remove tablet from container and check that it is intact** **<u>Spray</u>** · **Remove top of spray canister**			
♦ **Remove oxygen mask and instruct patient to open mouth and lift tongue**			
♦ **Administer medication:** **<u>Tablet</u>** · **Place tablet under patient's tongue** · **Instruct patient to allow tablet to dissolve and NOT to swallow** **<u>Spray</u>** · **Deliver one spray sublingually or transmucosal** · **Instruct patient NOT to inhale spray**			
♦ **Replace oxygen mask**			
♦ **Reassess blood pressure and pain response in 5 minutes** ** ***Place patient in shock position - <u>if indicated</u>***			
ONGOING ASSESSMENT			
§ **Repeat an ongoing assessment every 5 minutes:** · **Initial assessment** · **Relevant portion of the focused assessment** · **Evaluate response to treatment** · **Compare results to baseline condition and vital signs**			

Skill Component	Yes	No	Comments
DOCUMENTATION			
§ **Verbalize/Document**			
· **Assessment findings before and after administration**			
· **Blood pressure before administration**			
· **Drug**			
- **name**			
- **dose**			
- **route**			
- **site**			
- **time**			
- **who administered medication**			
· **Patient's response to medication**			
· **Blood pressure 5 minutes after administration**			

ADVANCED EMT SKILL

INSTRUCTOR RESOURCE

ORAL MEDICATION ADMINISTRATION

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in administering a medication orally.

CONDITION
The examinee will be requested to appropriately administer an oral medication.

EQUIPMENT
Gloves, medication tablet or liquid, medicine cup.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

Skill Component	Teaching Points
PREPARATION	
♦ Take body substance isolation precautions	
♦ Confirm drug order	▪ Check medication for: ▪ Drug name ▪ Integrity of container/medication ▪ Concentration/Dose ▪ Clarity ▪ Expiration date ▪ Check the six "rights" of patients ▪ right patient ▪ right drug ▪ right amount/dose ▪ right route ▪ right time ▪ right documentation
♦ Ask if patient has any allergies.	
♦ Explain procedure to patient.	▪ Reassure patient and explain the reason for the procedure.

	This will help calm the patient and improve cooperation.
♦ **Gather any necessary equipment – medicine cup, syringe.** ♦ **Prepare medication if necessary. Mix liquid medication if necessary.**	
♦ **Have your patient sit upright if not contraindicated.**	
PROCEDURE	
♦ **Uncap container and removed the correct amount of medication.** ♦ **If a liquid medication is being given, pour the correct amount of liquid in a calibrated medicine cup.**	
♦ **Place the medication into your patient's mouth.**	▪ **Allow self-administration when possible. Assist the patient when needed.**
♦ **Give the patient 4-8 ounces of water or other liquid and direct the patient to swallow the tablet.** ♦ **When giving a liquid medication, instruct the patient to swallow the liquid.**	
♦ **Ensure the patient has swallowed the medication.**	▪ **Sometimes it is necessary to check with the patient to make sure the medication is not hidden in their mouth and they have swallowed the medication.**
♦ **Dispose of any containers appropriately.**	
ONGOING ASSESSMENT	
§ **Repeat an ongoing assessment every 5 minutes:** ▪ **Initial assessment** ▪ **Relevant portion of the focused assessment** ▪ **Evaluate response to treatment** ▪ **Compare results to baseline condition and vital signs**	

DOCUMENTATION

§ **Document:** ▪ **Medication** ▪ **Dosage** ▪ **Route** ▪ **Time and date**	▪ **Documentation must be on an approved prehospital care report form. Follow local policies and protocols.**

ADVANCED EMT SKILL

ORAL MEDICATION ADMINISTRATION

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in administering a medication orally.

CONDITION
The examinee will be requested to appropriately administer an oral medication.

EQUIPMENT
Gloves, medication, tablet or liquid, medicine cup.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

NAME_____ **DATE** _____/_____/_____ **EXAMINER(S)**_____

PASS FAIL **1st 2nd 3rd (final)**

Skill Component	Yes	No	Comments
PREPARATION			
♦ Take body substance isolation precautions			
♦ Confirm drug order			
♦ Ask if patient has any allergies			
♦ Explain procedure to patient			
♦ Gather any necessary equipment – medicine cup, syringe. Prepare medication if necessary. Mix liquid medication if necessary.			
♦ Have your patient sit upright if not contraindicated.			
PROCEDURE			
♦ Uncap container and removed the correct amount of medication. ♦ If a liquid medication is being given, pour the correct amount of liquid in a calibrated medicine cup.			

Skill Component	Yes	No	Comments
♦ **Place the medication into your patient's mouth.**			
♦ **Give the patient 4-8 ounces of water or other liquid and direct the patient to swallow the tablet.** ♦ **When giving a liquid medication, instruct the patient to swallow the liquid.**			
♦ **Ensure the patient has swallowed the medication.**			
♦ **Dispose of any containers appropriately.**			
ONGOING ASSESSMENT			
§ **Repeat an ongoing assessment every 5 minutes:** ▪ **Initial assessment** ▪ **Relevant portion of the focused assessment** ▪ **Evaluate response to treatment** ▪ **Compare results to baseline condition and vital signs**			
DOCUMENTATION			
§ **Document:** ▪ **Medication** ▪ **Dosage** ▪ **Route** ▪ **Time and date**			

ADVANCED EMT SKILL

INSTRUCTOR RESOURCE

SALINE LOCK INSERTION

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in establishing a saline lock, administer an IVP medication and IV fluid administration on a manikin arm.

CONDITION
The examinee will be requested to appropriately establish a saline lock, administer an IVP medication and IV fluid administration on a manikin arm appropriately

EQUIPMENT
Gloves, goggles, IV infusion arm, saline lock, IV catheters, tape, gauze pads, syringes with 3-5 cc sterile saline, tourniquet, alcohol preps, packaged medication, transfer needles or needleless device, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

Skill Component	Teaching Points
PREPARATION	
♦ Take body substance isolation precautions	· Mandatory personal protective equipment.
♦ Explain the procedure to the patient · Explain the need for the saline lock · Ask if the patient has any allergies	· Describe the procedure to the patient and what the patient can expect to feel. · Understanding the procedure will help alleviate some of the patient's anxiety. Anxiety can lead to a vasomotor response or venous constriction. · Pediatric patients may have unrealistic fears.
♦ Select the venipuncture site	· Acceptable sites have clearly visible veins. · Free of bruising or scarring. · Avoid areas of vein where a valve is situated. · Avoid veins that roll, feels hard or ropelike.
♦ Select appropriate IV catheter	

Skill Component	Teaching Points
PROCEDURE	
♦ Apply Tourniquet	· The tourniquet should be tied smoothly and snugly. · The tourniquet should be kept as slat as possible. · Avoid keeping in place for more than 2 minutes. · A tourniquet that is too tight will impede arterial flow. Feel for the patient's radial pulse, if absent, the tourniquet is too tight. · Release the tourniquet as soon as the catheter is placed in vein and blood samples drawn (if applicable). Bruising may occur if tourniquet is kept in place too long.
♦ Cleanse the site appropriately	· Cleanse the site with povidone-iodine or alcohol wipe. · Start at the site itself and work outward in an expanding circle. This pushes pathogens away from the puncture site. · Allow the area to dry before penetrating the skin. · It may be necessary to shave the hair around the site to provide better adherence of the tape to secure the catheter
♦ Performs venipuncture · Inserts stylet · Notes flashback . Occludes vein proximal to catheter . Removes stylet · Disposes needle into an approved container · Releases tourniquet	· With the non-dominant hand, pull skin taut to stabilze the vein and prevent rolling. · With the distal bevel of the metal stylet up, insert into vein at a 10 to 30 degree angle. Do not touch any portion of the catheter, a contaminated catheter is not usable. · Continue until you feel a "pop" into the vein or see a flashback. · Advance the catheter over the needle into the vein. (If you meet resistance, do not force, withdraw the needle and catheter as a unit.) · Place a finger over the vein beyond the catheter tip to apply pressure to prevent blood from flowing from the catheter or air entering. · Carefully remove the metal stylet and promptly dispose into an approved disposable container. · Release tourniquet
♦ Attach heparin lock tubing to the angiocatheter hub	
♦ Cleanse the medication port and inject 3-5 ml of sterile saline into the lock.	. Patency is indicated by easy flow of the saline and no edema or swelling at the puncture site. . If you meet resistance or edema occurs at the site, remove catheter and restart the procedure with new equipment.

Skill Component	Teaching Points
♦ Apply antibiotic ointment to the site and cover with an adhesive bandage or other commercial device.	· Follow local protocol.
IVP MEDICATION ADMINISTRATION	
♦ Confirm the medication to be given, indication, dose. ♦ Draw up medication or prepare a prefilled syringe as appropriate.	
♦ Cleanse the injection port with an alcohol wipe.	
♦ Insert the needle of a syringe or needleless device with 3 cc of saline to injection port. ♦ Aspirate for blood return. ♦ If blood returns, slowing start injecting the flush solution.	. If resistance is met during aspiration, or the patient complains of pain or discomfort, or there is signs of infiltration, remove the saline lock and replace the saline lock in another location. . If none of the signs above are present you may go ahead and administer the medication.
♦ Slowly inject the medication into the injection port.	
♦ Follow the medication with a 3 cc sterile saline flush. ♦ Dispose of the syringes appropriately.	
IV FLUID ADMINISTRATION	
♦ Prepare the appropriate IV solution and tubing.	
♦ Cleanse the injection port with an alcohol wipe.	
♦ Attach IV tubing to saline lock with an 18 g needle, or needleless device.	
♦ Set the appropriate IV flow rate and tape securely in place.	
♦ Dispose of equipment using an approved container.	
ONGOING ASSESSMENT	
§ Repeat an ongoing assessment every 5 minutes: · Initial assessment · Relevant portion of the focused assessment · Evaluate response to treatment · Compare results to baseline condition and vital signs	· The initial and focused examination is repeated every 15 minutes for stable patients and every 5 minutes for priority patients. · Every patient must be re-evaluated at least every 5 minutes, if any treatment was initiated or medication administered, unless changes in the patient's condition are anticipated sooner. · Priority patients are patients who have abnormal vital signs, signs/symptoms of poor perfusion or if there is a suspicion that the patient's condition may deteriorate.

Skill Component	Teaching Points
DOCUMENTATION	
§ **Document:** · **Location** · **Size of catheter** · **Time and date** . **IV fluid** . **Medication, route and dosage**	· **Documentation must be on an approved prehospital care report form. Follow local policies and protocols.**

ADVANCED EMT SKILL

SALINE LOCK INSERTION

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in establishing a saline lock, administer an IVP medication and IV fluid administration on a manikin arm.

CONDITION
The examinee will be requested to appropriately establish a saline lock, administer an IVP medication and IV fluid administration on a manikin arm appropriately

EQUIPMENT
Gloves, goggles, IV infusion arm, saline lock, IV catheters, tape, gauze pads, syringes with 3-5 cc sterile saline, tourniquet, alcohol preps, packaged medication, transfer needles or needleless device, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

NAME_____ **DATE** _____/_____/_____ **EXAMINER(S)**_____

PASS FAIL **1st 2nd 3rd (final)**

Skill Component	Yes	No	Comments
PREPARATION			
♦ Take body substance isolation precautions			
♦ Explain the procedure to the patient · Explain the need for the IV · Ask if the patient has any allergies			
♦ Select the venipuncture site			
♦ Select appropriate IV catheter			
PROCEDURE			
♦ Apply Tourniquet			
♦ Cleanse the site appropriately			

Skill Component	Yes	No	Comments
♦ Performs venipuncture · Inserts stylet · Notes flashback . Occludes vein proximal to catheter . Removes stylet · Disposes needle into an approved container · Releases tourniquet . Connects IV tubing to catheter			
♦ Attach heparin lock tubing to the angiocatheter hub			
♦ Cleanse the medication port and inject 3-5 ml of sterile saline into the lock.			
♦ Apply antibiotic ointment to the site and cover with an adhesive bandage or other commercial device.			
IVP MEDICATION ADMINISTRATION			
♦ Confirm the medication to be given, indication, dose. ♦ Draw up medication or prepare a prefilled syringe as appropriate.			
♦ Cleanse the injection port with an alcohol wipe.			
♦ Insert the needle of a syringe or needleless device with 3 cc of saline to injection port. ♦ Aspirate for blood return. ♦ If blood returns, slowing start injecting the flush solution.			
♦ Slowly inject the medication into the injection port.			
♦ Follow the medication with a 3 cc sterile saline flush. ♦ Dispose of the syringes appropriately.			
IV FLUID ADMINISTRATION			
♦ Prepare the appropriate IV solution and tubing.			
♦ Cleanse the injection port with an alcohol wipe.			

Skill Component	Yes	No	Comments
Attach IV tubing to saline lock with an 18 g needle, or needleless device.			
♦ **Set the appropriate IV flow rate and tape securely in place.** ♦ **Dispose of equipment using an approved container.**			
ONGOING ASSESSMENT			
§ **Repeat an ongoing assessment every 5 minutes:** · **Initial assessment** · **Relevant portion of the focused assessment** · **Evaluate response to treatment** · **Compare results to baseline condition and vital signs**			
DOCUMENTATION			
§ **Document:** · **Location** · **Size of catheter** · **Time and date** . **IV fluid** . **Medication, route and dosage**			

ADVANCED EMT SKILL

INSTRUCTOR RESOURCE

SUBCUTANEOUS INJECTION

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in administering a subcutaneous injection.

CONDITION
The examinee will be requested to appropriately administer a subcutaneous injection.

EQUIPMENT
Gloves, injection manikin, syringes (various sizes), alcohol preps, sterile gauze, package medication, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

Skill Component	Teaching Points
PREPARATION	
♦ Take body substance isolation precautions	
♦ Confirm drug order	· Check medication for: · Drug name · Integrity of container/medication · Concentration/Dose · Clarity · Expiration date · Check the six "rights" of patients ▪ right patient ▪ right drug ▪ right amount/dose ▪ right route ▪ right time · right documentation
♦ Ask if patient has any allergies	

Skill Component	Teaching Points
♦ Explain procedure to patient	· Reassure patient and explain the reason for the procedure. This will help calm the patient and improve cooperation.
♦ Select appropriate site and verify landmarks · Prepare site using aseptic techniques	· Sites should be free of superficial blood vessels, nerves, tendons, Avoid areas with tattoos or bruising. · Cleanse the site with alcohol wipe. · Start at the site itself and work outward in an expanding circle. This pushes pathogens away from the puncture site. · Allow the area to dry before penetrating the skin.
♦ Select the appropriate syringe and withdraw 0.5 cc of medication.	
PROCEDURE	
♦ Remove cap from needle without contamination.	
♦ Pinch skin around injection site with non-dominant hand without contaminating the site.	
♦ Insert needle at 45 degree angle with bevel up. · Aspirate and observe for blood return (if positive for blood returen, discontinue procedure and begin again in another location)	
♦ Slowly inject medication.	
♦ Apply circular pressure with alcohol prep and quickly withdraw needle. · Apply direct pressure over injection site. · Apply bandage if needed.	· Gentle circular pressure will help to disperse and absorb medication.
♦ Dispose syringe using appropriate technique.	
ONGOING ASSESSMENT	
§ Repeat an ongoing assessment every 5 minutes: · Initial assessment · Relevant portion of the focused assessment · Evaluate response to treatment · Compare results to baseline condition and vital signs	· The initial and focused examination is repeated every 15 minutes for stable patients and every 5 minutes for priority patients. · Every patient must be re-evaluated at least every 5 minutes, if any treatment was initiated or medication administered, unless changes in the patient's condition are anticipated sooner. · Priority patients are patients who have abnormal vital signs, signs/symptoms of poor perfusion or if there is a suspicion that the patient's condition may deteriorate.

Skill Component	Teaching Points
DOCUMENTATION	
§ **Document:** · **Medication** · **Dosage** · **Route** · **Location** · **Time and date**	· **Documentation must be on an approved prehospital care report form. Follow local policies and protocols.**

ADVANCED EMT SKILL

SUBCUTANEOUS INJECTION

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in administering a subcutaneous injection.

CONDITION
The examinee will be requested to appropriately administer a subcutaneous injection.

EQUIPMENT
Gloves, injection manikin, syringes (various sizes), alcohol preps, sterile gauze, packaged medication, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

NAME_____ **DATE** _____/_____/_____ **EXAMINER(S)**_____

PASS FAIL **1st** **2nd** **3rd (final)**

Skill Component	Yes	No	Comments
PREPARATION			
♦ Take body substance isolation precautions			
♦ Confirm drug order			
♦ Ask if patient has any allergies			
♦ Explain procedure to patient			
♦ Select appropriate site and verify landmarks · Prepare site using aseptic techniques			
♦ Select the appropriate syringe and withdraw 0.5 cc of medication			
PROCEDURE			
♦ Remove cap from needle without contamination.			
♦ Pinch skin around injection site with non-dominant hand without contaminating the site.			

Skill Component	Yes	No	Comments
♦ Insert needle at 45 degree angle with bevel up. · Aspirate and observe for blood return (if positive for blood return, discontinue procedure and begin again in another location)			
♦ Slowly inject medication.			
♦ Apply circular pressure with alcohol prep and quickly withdraw needle. · Apply direct pressure over injection site. · Apply bandage if needed			
♦ Dispose syringe using appropriate technique.			
ONGOING ASSESSMENT			
§ Repeat an ongoing assessment every 5 minutes: · Initial assessment · Relevant portion of the focused assessment · Evaluate response to treatment · Compare results to baseline condition and vital signs			
DOCUMENTATION			
§ Document: · Location · Medication · Dose · Time and date . Route			

ADVANCED EMT SKILL

INSTRUCTOR RESOURCE

WITHDRAWAL OF MEDICATION FROM AMPULE OR VIAL

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in withdrawing a medication from an ampule and vial for in preparation of administering a medication.

CONDITION
The examinee will be requested to appropriately withdraw a medication from an ampule and vial for in preparation of administering a medication.

EQUIPMENT
Gloves, syringes (various sizes), alcohol preps, packaged medications, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

Skill Component	Teaching Points
PROCEDURE - AMPULE	
♦ Take body substance isolation precautions	
♦ Confirm drug order ♦ Select appropriate drug ♦ Ask if patient has any allergies	· Check medication for: · Drug name · Integrity of container/medication · Concentration/Dose · Clarity, Color · Expiration date · Check the six "rights" of patients ▪ right patient ▪ right drug ▪ right amount/dose ▪ right route ▪ right time · right documentation

Skill Component	Teaching Points
♦ Shake the ampule or tap the stem and top to shift the fluid to the bottom.	
♦ Place a gauze square or alcohol wipe over the ampule's neck and snap the top off.	· Protect your fingers with the gauze or wipe. . Once ampule is opened, the contents must be used or discarded, the contents can not be kept sterile.
♦ Remove cap from needle and insert the needle into the open ampule without touching the sides, and draw up the medication into the syringe.	
♦ Invert the syringe (needle pointing up) and tap the syringe barrel to get the air bubbles to the top. ♦ Push on the plunger to expel any trapped air. ♦ Recap the needle, being careful not to contaminate it.	
PROCEDURE - VIAL	
♦ Take body substance isolation precautions	
♦ Confirm drug order ♦ Select appropriate drug ♦ Ask if patient has any allergies	· Check medication for: · Drug name · Integrity of container/medication · Concentration/Dose · Clarity, Color · Expiration date · Check the six "rights" of patients ▪ right patient ▪ right drug ▪ right amount/dose ▪ right route ▪ right time ▪ right documentation
♦ Clean the rubber stopper with an alcohol wipe.	

Skill Component	Teaching Points
♦ **Remove cap from needle, invert the vial.** ♦ **Insert the needle through the rubber stopper and inject the appropriate amount of air into vial**	
♦ **Withdrawal the desired amount of medication from the vial. Remove the needle from the vial**	
♦ **Invert the syringe (needle pointing up) and tap the syringe barrel to get the air bubbles to the top.** ♦ **Push on the plunger to expel any trapped air.** ♦ **Recap the needle, being careful not to contaminate it.**	
♦ **Reconfirm the drug, type, concentration, and dose.**	
DOCUMENTATION	
§ **Document:** · **Medication** · **Dosage** · **Route** · **Location** · **Time and date**	· **Documentation must be on an approved prehospital care report form. Follow local policies and protocols.**

ADVANCED EMT SKILL

WITHDRAWAL OF MEDICATION FROM AMPULE OR VIAL

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in withdrawing a medication from an ampule and vial for in preparation of administering a medication.

CONDITION
The examinee will be requested to appropriately withdraw a medication from an ampule and vial for in preparation of administering a medication.

EQUIPMENT
Gloves, syringes (various sizes), alcohol preps, packaged medications, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

NAME_____ **DATE** _____/_____/_____ **EXAMINER(S)**_____

PASS FAIL **1st** **2nd** **3rd (final)**

Skill Component	Yes	No	Comments
PROCEDURE - AMPULE			
♦ Take body substance isolation precautions			
♦ Confirm drug order ♦ Select appropriate drug ♦ Ask if patient has any allergies			
♦ Shake the ampule or tap the stem and top to shift the fluid to the bottom.			
♦ Place a gauze square or alcohol wipe over the ampule's neck and snap the top off.			
♦ Remove cap from needle and insert the needle into the open ampule without touching the sides, and draw up the medication into the syringe.			
♦ Invert the syringe (needle pointing up) and tap the syringe barrel to get the air bubbles to the top. ♦ Push on the plunger to expel any trapped air. ♦ Recap the needle, being careful not to contaminate			

Skill Component	Yes	No	Comments
it.			
PROCEDURE - VIAL			
♦ Take body substance isolation precautions			
♦ Confirm drug order ♦ Select appropriate drug ♦ Ask if patient has any allergies			
♦ Clean the rubber stopper with an alcohol wipe.			
♦ Remove cap from needle, invert the vial. ♦ Insert the needle through the rubber stopper and inject the appropriate amount of air into vial.			
♦ Invert the syringe (needle pointing up) and tap the syringe barrel to get the air bubbles to the top. ♦ Push on the plunger to expel any trapped air. ♦ Recap the needle, being careful not to contaminate it.			
♦ Reconfirm the drug, type, concentration, and dose.			
DOCUMENTATION			
§ Document: · Medication · Dosage · Route · Location . Time and date			

Module 2

MODULE 2:
AIRWAY MANAGEMENT

Number of Lecture Hours: 2 Hours

Topics:

1. Airway Management and Ventilation 2 Hours

Labs/Workshops: Number of Hours: 3 Hours

1. Airway Lab 3 Hours

Testing: 2 Hours

MODULE 2:
AIRWAY MANAGEMENT

MODULE TERMINAL OBJECTIVES:

At the completion of this module the Advanced EMT student will be able to successfully:

1. Establish and maintain a patent airway using basic life support and advanced life support measures.

2. Establish and maintain a patent airway, oxygenate, and ventilate a patient.

MODULE 2: **AIRWAY MANAGEMENT**

Topic: **AIRWAY MANAGEMENT AND VENTILATION**

Purpose:

This topic will give the Advanced EMT student an understanding and techniques of airway management and ventilation.

Suggested Time Frame: 2 Hours

Objectives:

At the conclusion of this topic, the Advanced EMT student as an active participant will be able to successfully:

1. Explain the primary objective of airway maintenance.
2. Identify the anatomy and describe the functions of the upper airway.
3. Identify the anatomy and describe the functions of the lower airway.
4. List factors that affect respiratory rate and depth.
5. Define normal respiratory rates for adult, child, and infant.
6. Discuss the causes of respiratory distress.
7. Describe a tracheostomy, stoma, and tracheostomy tube.
8. Describe the indications, contraindications, advantages, disadvantages, complications, and technique for ventilating a patient by the bag-valve-mask.
9. Discuss the indications and techniques for suctioning the upper airway.
10. Describe how to ventilate and suction a patient with a stoma.
11. Describe the indications, contraindications, advantages, disadvantages, complications, and technique for inserting an oropharyngeal and nasopharyngeal airways.
12. Describe the indications, contraindications, advantages, disadvantages, complications, and technique for using the dual lumen airway.

AIRWAY MANAGEMENT AND VENTILATION
continued

13. Describe the special considerations in airway management and ventilation for patients with facial injuries.

14. Describe the special considerations in airway management and ventilation for pediatric patients.

15. Describe the necessity of establishing and/or maintaining patency of a patient's airway.

16. Demonstrate the proper technique of ventilating a patient with a bag-valve-mask.

17. Demonstrate the proper technique of suctioning the upper airway.

18. Demonstrate the proper technique of suctioning a stoma.

19. Demonstrate the proper technique of inserting an oropharyngeal and nasopharyngeal airways.

20. Demonstrate the proper technique to ventilate a pediatric patient.

21. Demonstrate the proper technique to insert a dual lumen airway.

22. Perform an assessment to confirm correct placement of a dual lumen airway.

DECLARATIVE
MODULE 2: AIRWAY MANAGEMENT
AIRWAY MANAGEMENT AND VENTILATION

I. Introduction
A. The body's need for oxygen
B. Primary objective of emergency care
  1. Ensure optimal ventilation
    a. Delivery of oxygen
    b. Elimination of CO_2
C. Brain death occurs within 6 to 10 minutes
D. Major prehospital causes of preventable death
  1. Early detection
  2. Early intervention
  3. Lay-person BLS education
E. Most often neglected of prehospital skills
  1. Basics taken for granted
  2. Poor techniques
    a. BVM seal
    b. Improper positioning
    c. Failure to reassess

II. Anatomy of Upper Airway
A. Pharynx
  1. Nasopharynx
  2. Orophayrnx
B. Larynx

III. Anatomy of Lower Airway
A. Trachea
B. Bronchi
C. Bronchioles
D. Alveoli
E. Lungs
F. Pleura

IV. Airway evaluation
A. Essential parameters
  1. Rate
    a. Normal resting rate in:
      (1) Adult
      (2) Child
      (3) Infant
  2. Regularity

a. Steady pattern
b. Irregular respiratory patterns are significant until proven otherwise
3. Effort
a. Breathing at rest should be effortless
b. Effort changes may be subtle in rate or regularity
c. Patients often compensate by preferential positioning
(1) Upright sniffing
(2) Semi-Fowlers
(3) Frequently avoid supine

B. Recognition of airway problems
1. Respiratory distress
a. Upper and lower airway obstruction
b. Inadequate ventilation
c. Impairment of the respiratory muscles
d. Impairment of the nervous system
2. Difficulty in rate, regularity, or effort is defined as dyspnea
3. Dyspnea may be the result of or result in hypoxia
a. Hypoxia -lack of oxygen
b. Hypoxemia -lack of oxygen to tissues
c. Anoxia -total absence of oxygen
4. Recognition and treatment of dyspnea is crucial to patient survival
a. Expert assessment and management is essential
(1) The brain can survive only a few minutes of anoxia
(2) All therapies fail if airway is inadequate
5. Visual techniques
a. Position
(1) Tripod positioning
(2) Orthopnea
b. Rise and fall of chest
c. Gasping
d. Color of skin
e. Flaring of nares
f. Pursed lips
g. Retraction
(1) Intercostal
(2) Suprasternal notch
(3) Supraclavicular fossa
(4) Subcostal
6. Auscultation techniques
a. Air movement at mouth and nose
b. Bilateral lung fields equal

7. Palpation techniques
   a. Air movement at mouth and nose
   b. Chest wall
      (1) Paradoxical motion
      (2) Retractions
8. Bag-valve-mask
   a. Resistance or changing compliance with bag-valve-mask ventilations
9. History
   a. Evolution
      (1) Sudden
      (2) Gradual over time
      (3) Known cause or "trigger"
   b. Duration
      (1) Constant
      (2) Recurrent
   c. Ease -what makes it better?
   d. Exacerbate -what makes it worse?
   e. Associate
      (1) Other symptoms (productive cough, chest pain, fever, etc.)
   f. Interventions
      (1) Evaluations/ admissions to hospital
      (2) Medications (include compliance)

V. Ventilation

A. Bag-Valve-Mask
1. Fixed volume self-inflating bag can deliver adequate tidal volumes and O_2 enrichment
2. Indications
   a. Apnea from any mechanism
   b. Unsatisfactory respiratory effort
3. Contraindication
   a. Awake, intolerant patients
4. Advantages
   a. Excellent blood / body fluid barrier
   b. Good tidal volumes
   c. Oxygen enrichment
   d. Rescuer can ventilate for extended periods without fatigue
5. Disadvantages
   a. Difficult skill to master
   b. Mask seal may be difficult to obtain and maintain
   c. Tidal volume delivered is dependent on mask seal integrity

6. Complications
   a. Inadequate tidal volume delivery with
      (1) Poor technique
      (2) Poor mask seal
      (3) Gastric distention
7. Method for use
   a. Position appropriately
   b. Choose proper mask size -seats from bridge of nose to chin
   c. Position, finger spread / mold / seal mask
   d. Hold mask in place
   e. Squeeze bag completely over 1.5 to 2 seconds for adults
   f. Avoid overinflation,
   g. Reinflate completely over several seconds
8. Special considerations
   a. Medical
      (1) Observe for:
         (a) Gastric distension
         (b) Changes in compliance of bag with ventilation
         (c) Improvement or deterioration of ventilation status (i.e., color change, responsiveness, air leak around mask)
   b. Trauma
      (1) Very difficult to perform with cervical spine immobilization in place

VI. Airway Management
A. Multi-lumen airways
1. Combitube
   a. Pharyngeal and endotracheal tube molded into a single unit
   b. Indication
      (1) Alternative airway control when conventional intubation measures are unsuccessful or unavailable
   c. Contraindications
      (1) Children too small for the tube
      (2) Esophageal trauma or disease
      (3) Caustic ingestion
   d. Advantages
      (1) Rapid insertion
      (2) No special equipment
      (3) Does not require sniffing position
   e. Disadvantages
      (1) Impossible to suction trachea when tube is in esophagus
      (2) Adults only
      (3) Unconscious only

(4) Very difficult to intubate around
f. Method
(1) Head -neutral position
(2) Pre-intubation precautions
(3) Insert with jaw-lift at midline
(4) Inflate pharyngeal cuff with 100 cc's of air
(5) Inflate distal cuff with 10-15 cc's of air
(6) Ventilate through longest tube first (pharyngeal)
(a) Chest rise indicates esophageal placement of distal tip
(b) No chest rise indicates tracheal placement, switch ports and ventilate
g. Special considerations
(1) Good assessment skills are essential to confirm proper placement
(2) Mis-identification of placement has been reported
(3) Reinforce multiple confirmation techniques

VII. Special patient considerations
A. Airway Management Considerations for Patients with Facial Injuries
1. Facial injuries lend to a high suspicion of cervical spine injury
a. In-line stabilization
(1) Trauma technique same as endotracheal intubation
2. Foreign body/ blood in oropharynx
a. Suction airway
3. Inability to ventilate/ intubate orally
a. May require surgical intervention

MODULE 2: AIRWAY MANAGEMENT

Topic: AIRWAY MANAGEMENT AND VENTILATION LAB

Purpose:

This lab will give the Advanced EMT student the techniques of airway management and ventilation.

Suggested Time Frame: 3 Hours

Objectives:

At the conclusion of this lab, the Advanced EMT student as an active participant will be able to successfully:

1. Demonstrate the proper technique of ventilating a patient with a bag-valve-mask.
2. Demonstrate the proper technique of suctioning the upper airway.
3. Demonstrate the proper technique of suctioning a stoma.
4. Demonstrate the proper technique of inserting an oropharyngeal and nasopharyngeal airways.
5. Demonstrate the proper technique to ventilate a pediatric patient.
6. Demonstrate the proper technique to insert a dual lumen airway.
7. Perform an assessment to confirm correct placement of a dual lumen airway.

MODULE 2: AIRWAY MANAGEMENT
AIRWAY MANAGEMENT LAB

The Advanced EMT student in a lab setting with an instructor will demonstrate the following skillseither as a single skill or in a scenario based demonstration.

I. Demonstrate ventilation with a bag-valve-mask.
   - A. Proper BSI precautions
   - B. Select appropriate size mask and bag
   - C. Assemble bag-valve-mask
   - D. Connect oxygen source
   - E. Turn oxygen to deliver 15L/min
   - F. Open airway
   - G. Insert OPA or NPA
   - H. Secure mask over mouth and nose, with a tight seal
   - I. Ventilate patient with appropriate tidal volume
   - J. Reassess patient
   - K. Documentation

II. Demonstrate the proper technique of suctioning the upper airway.
   - A. Proper BSI precautions
   - B. Check equipment, ensure proper functioning
   - C. Hyperventilate patient with 100% oxygen
   - D. Determine depth of catheter insertion by measuring from patient's earlobe to lips.
   - E. With suction turned off, insert catheter into patient's pharynx to predetermined depth.
   - F. Turn on suction unit and place thumb over suction control orifice
   - G. Suction while withdrawing catheter, no more than 10 seconds
   - H. Hyperventilate patient with 100% oxygen
   - I. Reassess patient
   - J. Documentation

III. Demonstrate the proper technique of suctioning a stoma.
   - A. Proper BSI
   - B. Check equipment, ensure proper functioning
   - C. Hyperventilate patient with 100% oxygen
   - D. Turn on suction machine, select soft catheter
   - E. If mucus is thick, inject 3-5 cc of normal saline through stoma to break up the mucus plug
   - F. With thumb off air vent, insert catheter through stoma until resistance is met
   - G. Place thumb over air vent, withdrawing and rotating catheter
   - H. Maximum suction time 10 seconds for adults, 5 second for pediatrics

AIRWAY MANAGEMENT LAB
continued

I. Hyperventilate patient with 100% oxygen
J. Reassess patient
K. Documentation

IV. Demonstrate the proper technique of inserting an oropharyngeal and nasopharyngeal airways.

A. Oropharyngeal airway
1. Proper BSI
2. Open airway – head tilt/chin lift or jaw thrust
3. Select proper size of OPA – from corner of mouth to earlobe, or from the corner of the mouth to the angle of the jaw
4. Open patient's mouth using cross-finger technique
5. Insert the airway, with tip pointing towards roof of mouth, slide along the roof of the mouth, past the uvula or until resistance is met. Be careful not to push tongue back
6. Gently rotate the airway 180 degrees. Continue until airway lies flat on tongue and flange rest against the patient's mouth
7. Reassess patient's airway and begin ventilations as necessary
8. Documentation

B. Nasopharyngeal airway
1. Proper BSI
2. Open airway – head tilt/chin lift or jaw thrust
3. Select proper size of OPA – from tip of nose to earlobe
4. Apply a water-soluble lubricant
5. Open patient's mouth using cross-finger technique
6. Gently insert the airway bevel pointing toward nasal septum. Advance the tip directed along floor of nasal cavity
7. Advance until flange rests against the patient's nostril. Tip should be in the nasopharynx
8. Reassess patient's airway and breathing
9. Documentation

V. Demonstrate the proper technique to ventilate a pediatric patient.

A. Proper BSI
B. Position the patient properly using an appropriate airway maneuver
C. Insert an OPA or NPA if appropriate
D. Select the appropriate mask size
1. The proper size fits from bridge of nose to cleft of the chin
2. Broselow Tape can be used to determine size
3. Proper size and adequate seal is important

4. Flat nasal bridge makes it challenging for an adequate mask seal

E. Place mask on patient's face with narrow end (apex) over bridge of nose and wide end (base) in the groove between lower lip and chin. Avoid compressing the patient's eyes

F. Using one hand, place your thumb on the mask at the apex and index finger on the mask at the chin (C-grip).
   1. Chin-lift maneuver should be used when ventilating if no cervical trauma is suspected. Infants use the sniffing position.

G. With gentle pressure, push down on mask to establish an adequate seal. Maintain airway by lifting the bony prominence of chin with remaining fingers forming an E.
   1. Take care not to push too hard on the soft tissue under the chin, it may move the tongue into an obstructing position.

H. Squeeze the bag with one hand. Obtain chest rise with each breath. Compression of the bag should be a smooth, steady action to avoid overinflating the lungs. Begin ventilation and say "Squeeze". Provide just enough volume to initiate chest rise. DO NOT OVERVENTILATE
   1. Ventilation rate 20 per minute

I. Allow adequate time for exhalation. Release bag and say, "Release, release". Continue ventilations using "squeeze, release, release" method.

J. Watch for adequate chest rise

K. Assess for improvement in color and/or heart rate

L. Documentation

VI. Demonstrate the proper technique to insert a dual lumen airway and assess the patient for proper placement

A. Proper BSI

B. Open patient's airway. Insert OPA

C. Confirm patient for proper age and size

D. Assemble and check equipment, check for air leaks.

E. Lubricate the distal end of the tube

F. Keep patient supine, head in a neutral position, or in-line position for trauma.

G. Hyperventilate patient

H. Open airway, remove OPA

I. Insert dual lumen airway into patient's mouth and gently insert the airway. If resistance is met, do not force tube.

J. Advance tube until the airway's black rings meet the level of the patient's teeth.

K. With the large syringe, inflate the pharyngeal cuff, (blue) with 100 cc of air and remove the syringe

L. With the smaller syringe, inflate the distal cuff (clear) with 15 cc of air and

remove the syringe

M. Attach the BVM to tube #1 (blue) and begin ventilations

N. Assess breath sounds bilaterally, watch for chest rise and listen for gurgling sounds over the stomach. If breath sounds are heard bilaterally, see chest rise and fall and no gurgling sounds are heard over the stomach, ventilate patient through tube #1 (blue).

O. If breath sounds are absent, the chest does not rise and fall and there is gurgling sounds over the stomach, remove the BVM from tube #1 and attach BVM to tube #2 (clear) and ventilate through tube #2.

P. Reassess breath sounds bilaterally, the rise and fall of the chest and no gurgling sounds over the stomach.

Q. Document findings

ADVANCED EMT SKILL
INSTRUCTOR RESOURCE

AIRWAY MANAGEMENT
ESOPHAGEAL TRACHEAL COMBITUBE

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in the insertion of an esophageal tracheal Combitube.

CONDITION
The examinee will be requested to insert an esophageal tracheal Combitube in a manikin. Necessary equipment will be adjacent to the simulated patient.

EQUIPMENT
Manikin, oxygen tank with a flow meter, oxygen mask, BVM and reservoir, Combitube, water-soluble lubricant, 100 cc syringe, 20 cc syringe, blood pressure cuff, stethoscope, clipboard, pen, goggles, masks, gown, gloves.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item. Appropriate body substance isolation precautions must be instituted.

Skill Component	Teaching Points
PREPARATION	
♦ Take body substance isolation precautions	▪ Mandatory personal protective equipment – gloves and eye protection are required, a gown may be needed if there are large amounts of blood or fluid present.
♦ Verbalize the indications for insertion of a Combitube ▪ Patient is unconscious ▪ Patient has no gag reflex	
♦ Verbalize contraindications for insertion of a Combitube ▪ Patients younger than 16 years of age ▪ Patients less than 5 feet tall or over 7 feet tall ▪ Patients are conscious or has a gag reflex ▪ Suspected hydrocarbon or caustic ingestion ▪ Suspected esophageal disease	
♦ Place patient in supine position	▪ It is important to maintain proper anatomical alignment. The Comibtube was designed to use in patients in supine position only.
♦ Open patient's airway	▪ Open airway manually suing the head-tilt / chin-lift or jaw-thrust maneuver

Skill Component	Teaching Points
♦ Suction if needed ♦ Preoxygenate with bag-valve-mask device supplied with 100% oxygen.	▪ Prevents aspiration of materials and/or fluids into the upper airway. This will prevent the patient from getting the proper oxygenation.
PROCEDURE	
♦ Position yourself at the patient's head	▪ This is the best location for placement of the tube.
♦ Select the appropriate equipment, check and assemble components ♦ Inflate cuff#1 (blue) with 100 ml of air and remove syringe ♦ Check integrity of cuff then remove air, leave syringe attached with 100 ml of air ♦ Inflate cuff#2 (clear) with 15 ml of air and remove syringe ♦ Check for integrity of cuff then remove air, leave syringe attached with 15 ml of air ♦ Lubricate tube distal to the air holes	▪ Checking the equipment now is important to prevent any problems later during the insertion process. ▪ Make sure you maintain the equipment in a clean environment, to prevent the patient from obtaining an infection later. ▪ Lubrication allows for easier insertion of the tube and reduces the risk of trauma during insertion.
♦ Position patient's head ▪ No trauma – neutral position ▪ Trauma – neutral position with in-line stabilization	▪ Maintaining the head in neutral position is important to maintain proper anatomical alignment for proper insertion.
♦ Ventilate the patient for a few minutes ▪ Remove OPA if one has been inserted	▪ Ventilating the patient can reduce the chance of the patient becoming hypoxic during insertion. ▪ It is important to keep track how long the insertion process is taking.
♦ Insert the thumb of non-dominant hand deep into the patient's mouth, grasping the tongue and lower jaw between thumb and index finger. ♦ Lift the tongue and lower jaw anteriorly, away from the posterior pharynx	▪ This will allow easy access to the oral cavity for insertion. Be careful in performing this maneuver if the patient has facial trauma.
♦ Hold the Combitube so that it curves the same as the natural curvature of the pharynx. ♦ Insert the tip of the tube into the mouth along the midline and advance it carefully along the tongue ▪ Gently guide the Combitube along the base of the tongue. ▪ Do not force the Combitube if resistance is met.	▪ Trauma to the upper airway could be caused by forceful insertion of the Combitube. ▪ Insertion to the black rings is the point for the Combitube to have proper positioning in the patient's airway.

Skill Component	Teaching Points
♦ Insert the Combitube until the teeth or gums are between airway's black rings	
♦ Inflate cuff #1 (blue) with large syringe of 100 ml of air and detach syringe, hold tube in place ♦ Inflate cuff #2 (clear) with smaller syringe of 15 ml of air and detach syringe	▪ Inflate balloon and hold tube in place. The ensures that the Combitube is in the correct anatomical location.
♦ Attach BVM to tube #1 (blue) and ventilate, assess patient. ♦ If breath sounds are present bilaterally, and chest rises and falls with ventilation and epigastric sounds are absent – the Combitube is in the esophagus and continue to ventilate through blue tube ♦ If breath sounds are absent, the chest does not rise and fall, - the Combitube is in the trachea, ventilate through tube #2 (clear) tube	▪ It is important to assess for placement of tube because it is blindly inserted. ▪ Assessment is important to determine the correct tube to ventilate, prolong ventilations into the stomach can cause gastric distention and put pressure on the diaphragm and make ventilations difficult. ▪ Consider hyperventilation for 2 minutes then resume normal ventilations. Your patient may become hypoxic during the procedure.
♦ If breath sounds are absent, there is no chest rise, and epigastric sounds are not auscultated – deflate both cuffs, recess the tube 1-3 cm, re-inflate both cuffs, ventilate tube #1 and reassess breath sounds.	▪ Assessment is important to determine correct placement. Ventilating a patient through the wrong tube can result in death or severe disability. Reassess your placement, to make adjustments or remove tube if unsure of placement. ▪ 1 cm equals approximately ½ inch.
♦ If unable to verify placement, there is no chest rise, and breath sounds are absent – deflate both cuffs, remove tube and resume BVM ventilation with NP or OP airway.	
♦ Secure tube and continue ventilating with 100% oxygen.	
♦ Dispose of equipment using approved technique.	
ONGOING ASSESSMENT	
§ Repeat an ongoing assessment every 5 minutes: ▪ Initial assessment ▪ Relevant portion of the focused assessment ▪ Respiratory assessment ▪ Assessment of placement of device	▪ The initial and focused examination is repeated every 15 minutes for stable patients and every 5 minutes for priority patients. ▪ Every patient must be re-evaluated at least every 5 minutes, if any treatment was initiated or medication administered, unless changes in the patient's condition are anticipated sooner. ▪ Priority patients are patients who have abnormal vital signs, signs/symptoms of poor perfusion or if there is a suspicion that

Skill Component	Teaching Points
▪ Evaluate response to treatment ▪ Compare results to baseline condition and vital signs	the patient's condition may deteriorate. ▪ Assessment of placement of device should be continuously monitored and after each movement of the patient. ▪ Assess for any balloon cuff leaks or tears.
DOCUMENTATION	
§ Verbalize/Document ▪ Assessment findings before and after treatment ▪ Patient's response to treatment ▪ Respiratory status ▪ Cardiovascular status ▪ Mental status ▪ Vital signs	▪ Documentation must be on prehospital care report form per local policies and procedures. ▪ Documenting reassessment information provides a comprehensive picture of patient's response to treatment. ▪ Last reassessment information (before patient care is transferred) should be documented.

ADVANCED EMT SKILL

AIRWAY MANAGEMENT
ESOPHAGEAL TRACHEAL COMBITUBE

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in the insertion of an esophageal tracheal combitube.

CONDITION
The examinee will be requested to insert an esophageal tracheal combitube in a manikin. Necessary equipment will be adjacent to the simulated patient.

EQUIPMENT
Manikin, oxygen tank with a flow meter, oxygen mask, BVM and reservoir, combitube, water-soluble lubricant, 100 cc syringe, 20 cc syringe, blood pressure cuff, stethoscope, clipboard, pen, goggles, masks, gown, gloves.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item. Appropriate body substance isolation precautions must be instituted.

NAME_____**DATE** _____/_____/_____ **EXAMINER(S)**_____

PASS FAIL **1st 2nd 3rd (final)**

Skill Component	Yes	No	Comments
PREPARATION			
♦ Take body substance isolation precautions			
♦ Verbalize the indications for insertion of a Combitube ▪ Patient is unconscious ▪ Patient has no gag reflex			
♦ Verbalize contraindications for insertion of a Combitube ▪ Patients younger than 16 years of age ▪ Patients less than 5 feet tall or over 7 feet tall ▪ Patients are conscious or has a gag reflex ▪ Suspected hydrocarbon or caustic ingestion ▪ Suspected esophageal disease			

Skill Component	Yes	No	Comments
♦ Place patient in supine position			
♦ Open patient's airway ♦ Suction if needed ♦ Preoxygenate with bag-valve-mask device supplied with 100% oxygen.			
PROCEDURE			
♦ Position yourself at the patient's head			
♦ Select the appropriate equipment, check and assemble components ▪ Inflate cuff#1 (blue) with 100 ml of air and remove syringe ▪ Check integrity of cuff then remove air, leave syringe attached with 100 ml of air ▪ Inflate cuff#2 (white) with 15 ml of air and remove syringe ▪ Check for integrity of cuff then remove air, leave syringe attached with 15 ml of air ▪ Lubricate tube distal to the air holes			
♦ Position patient's head ▪ No trauma – neutral position ▪ Trauma – neutral position with in-line stabilization			
♦ Hyperventilate the patient for a few minutes ♦ Remove OPA if one has been inserted			
♦ Insert the thumb of non-dominant hand deep into the patient's mouth, grasping the tongue and lower jaw between thumb and index finger. ♦ Lift the tongue and lower jaw anteriorly, away from the posterior pharynx			
♦ Hold the Combitube so that it curves the same as the natural curvature of the pharynx. ♦ Insert the tip of the tube into the mouth along the midline and advance it carefully along the tongue ▪ Gently guide the Combitube along the base of the			

Skill Component	Yes	No	Comments
tongue. ▪ Do not force the Combitube if resistance is met. ▪ Insert the Combitube until the teeth or gums are between airway's black rings			
♦ Inflate cuff #1 (blue) with large syringe of 100 ml of air and detach syringe, hold tube in place ♦ Inflate cuff #2 (clear) with smaller syringe of 15 ml of air and detach syringe			
♦ Attach BVM to tube #1 (blue) and ventilate, assess patient. ♦ If breath sounds are present bilaterally, and chest rises and falls with ventilation and epigastric sounds are absent –the Combitube is in the esophagus and continue to ventilate through blue tube ♦ If breath sounds are absent, the chest does not rise and fall, - the Combitube is in the trachea, ventilate through tube #1 (clear) tube			
♦ If breath sounds are absent, there is no chest rise, and epigastric sounds are not auscultated – deflate both cuffs, recess the tube 1-3 cm, re-inflate both cuffs, ventilate tube #1 and reassess breath sounds.			
♦ If unable to verify placement, there is no chest rise, and breath sounds are absent – deflate both cuffs, remove tube and resume BVM ventilation with NP or OP airway.			
♦ Secure tube and continue ventilating with 100% oxygen.			
Dispose of equipment using approved technique.			
ONGOING ASSESSMENT			
§ Repeat an ongoing assessment every 5 minutes: ▪ Initial assessment			

Skill Component	Yes	No	Comments
▪ **Relevant portion of the focused assessment** ▪ **Respiratory assessment** ▪ **Assessment of placement of device** ▪ **Evaluate response to treatment** ▪ **Compare results to baseline condition and vital signs**			
DOCUMENTATION			
§ **Document:** ▪ **Assessment findings before and after treatment** ▪ **Patient's response to treatment** ▪ **Respiratory status** ▪ **Cardiovascular status** ▪ **Mental status**			

Module 3

MODULE 3:
PATIENT ASSESSMENT

Number of Lecture Hours: 4 Hours

Topics:

1.	History Taking / Patient Assessment	2 Hours
2.	Communications	1 Hour
3.	Documentation	1 Hour

Labs/Workshops: Number of Hours: 4 Hours

1.	History Taking / Patient Assessment	2 Hours
2.	Communications	1 Hour
3.	Documentation	1 Hour

Testing Number of Hours: 2 Hours

MODULE 3:
PATIENT ASSESSMENT

MODULE TERMINAL OBJECTIVES:

At the completion of this module the Advanced EMT student as an active participant will be able to successfully:

1. Describe the techniques and components of a physical exam.

2. Use the appropriate techniques to obtain a medical history from a patient.

3. Integrate the principals of history taking and techniques of the physical exam to perform a patient assessment on an emergency patient.

4. Apply a process of clinical decision making to use the assessment findings to help form a field impression.

5. Use an accepted format for the dissemination of patient information in verbal form, either in person or over the radio.

6. Document the essential elements of patient assessment, care, and transport.

MODULE 3: PATIENT ASSESSMEMT

Topic: HISTORY TAKING / PATIENT ASSESSMENT

Purpose:

This topic will give the Advanced EMT student a review of the techniques of physical exam and integrate the principals of history taking and physical exam to perform a patient assessment and apply a process of decision making to form a field impression.

Suggested Time Frame: 2 Hours

Objectives:

At the conclusion of this topic, the Advanced EMT student as an active participant will be able to successfully:

1. Describe factors than may influence the Advanced EMT's ability to collect a medical history.

2. List the components of a history on a patient.

3. Describe the techniques of history taking.

4. Discuss strategies to overcome situations that may represent special challenges in obtaining a medical history.

5. Defend the importance of empathy when obtaining a patient history

6. Practice the importance of confidentiality when obtaining a patient history.

7. Review the importance of scene size-up and scene safety.

8. Discuss the common mechanisms of injury /nature of illness for medical and trauma patients.

9. Discuss the components of the initial assessment.

10. Describe the steps of the focused history and physical exam.

11. State the areas of the body evaluated in the focused history and physical exam.

HISTORY TAKING / PATIENT ASSESSMENT
continued

12. Discuss the reason and importance of performing the focused history and physical

13. Apply the techniques of physical examination to the medical patient.

14. Differentiate between the assessment that is performed for a patient who has an altered mental status and other medical patients.

15. Apply the techniques of physical examination to the trauma patient.

16. Describe when to perform a rapid trauma assessment and the areas included in the rapid trauma assessment.

17. Discuss the components of the detailed physical and when it is performed.

18. State the areas of the body that is evaluated during the detailed physical exam.

19. Distinguish between the detailed physical exam that is performed on the trauma patient and that of the medical patient.

20. Describe the components of the on-going assessment.

21. Discuss the reasons for repeating the initial assessment as part of the on-going assessment.

22. Discuss special considerations to take when performing physical examinations on a pediatric patient.

23. Differentiate between critical life-threatening, potentially life-threatening, and non-life threatening patient presentations.

24. Define the components, stages, and sequences of critical thinking in performing patient assessment.

25. Develop strategies for effective thinking under pressure.

26. Discuss the “six R’s” of putting it all together

HISTORY TAKING / PATIENT ASSESSMENT
Continued

27. Value the need for maintaining a professional caring attitude when performing a patient assessment.

28. Demonstrate a caring attitude when performing a patient assessment.

29. Demonstrate an appropriate physical exam on a medical patient to include the following:

    A. An initial assessment
    B. A focus history and physical exam
    C. Detailed physical exam
    D. On-going assessment

30. Demonstrate the techniques for assessing a patient with an altered mental status.

31. Demonstrate the assessment of a trauma patient.

32. Demonstrate a rapid trauma assessment used to assess a patient based on mechanism of injury.

33. Perform a focused history and physical exam on a non-critically injured patient and a patient with life-threatening injuries.

DECLARATIVE
MODULE 3: PATIENT ASSESSMENT
HISTORY TAKING

I. Influences on collecting a history
   A. Source of history
      1. Patient
      2. Family
      3. Friends
      4. Police
      5. Others
   B. Reliability
      1. Variable
         a. Memory
         b. Trust
         c. Motivation
      2. Made at the end of the evaluation, not the beginning
   C. Contents of history
      1. Date
         a. Always important
         b. Time may be a consideration
      2. Identifying data
         a. Age
         b. Sex
         c. Race
   D. Chief Complaint
      1. Main part of the health history
      2. The one or more symptoms for which the patient is seeking medical care
   E. History of present illness
      1. Detailed evaluation of the chief complaint
      2. Provides a full, clear, chronological account of symptoms
   F. Past Medical History
      1. Pertinent information to the current condition
   G. Current Health Status
      1. Focuses on present state of health
      2. Environmental conditions
      3. Individual factors
         a. Current medications
         b. Allergies
         c. Tobacco use
         d. Alcohol, drugs, and related substances

HISTORY TAKING
continued

e. Diet
f. Environmental hazards
g. Use of safety measures
h. Family history
i. Home situation

II. Techniques of history taking
A. Setting the stage
1. Environment
a. Proper environment enhances communication
b. Be cautious of power relationship
c. Personal space
2. Your demeanor and appearance
a. Patient will be watching you
b. Messages of body language
c. Clean, neat, professional appearance
3. Note taking
a. Difficult to remember all details
b. Most patients are comfortable with note taking
1. Do not divert your attention from patient to take notes
4. Refer to patient by name
a. Avoid using unfamiliar or demeaning terms, such as “Granny” or “Hon”
B. Questioning
1. Types of questions
a. Open-ended
b. Direct
2. Determine chief complaint
a. Use general, open-ended questions
b. Follow the patient’s lead
3. History of present illness
a. Location
i. Where is it
ii. Does it radiate
b. Quality
i. What is it like
c. Quantity or severity
i. How bad is it
ii. Attempt to quantify the pain
1. 1-10 scale

HISTORY TAKING
continued

2. Other scales
d. Duration/timing
i. When did it start
ii. How long does it last
e. Onset/setting
i. Emotional response
ii. Environmental factors
f. Aggravation/alleviation
g. Associated complaints
4. Assess past medical history
a. Pre-existing medical problems or surgeries
b. Medication
c. Allergies
d. Physician
e. Family history
f. Social history
i. Housing environment
ii. Economic status
iii. Occupation
iv. High risk behavior
v. Travel history
g. Current health status
i. Tobacco use
ii. Use of alcohol, drugs
iii. Diet

C. Standardized approach to history taking
1. SAMPLE
a. Signs
b. Allergies
c. Medications
d. Past medical history
e. Last meal
f. Events leading to complaint
2. OPQRST
a. Onset
b. Provoking
c. Quality
d. Radiation/Region

HISTORY TAKING
continued

e. Severity
f. Time

IV. Special challenges
A. Silent patient
1. Silence is often uncomfortable
2. Silence has meaning and many uses
a. Patients may use this to collect their thoughts, remember details, or decide whether or not they trust you
b. Be alert for non-verbal clues of sensitivity
3. Silence may be a result of the interviewer's lack of sensitivity
B. Overly talkative patient
1. Faced with a limited amount of time, interviewers may become impatient
a. Lower your goals, accept a less comprehensive history
b. Give the patient free reign only for the first several minutes
c. Summarize frequently
C. Patient with multiple symptoms
D. Anxious patient
1. Be sensitive to non-verbal clues
E. Reassurance
1. It's tempting to be overly reassuring
2. Premature reassurance blocks communication
F. Angry and hostile patient
1. Understand anger and hostility are natural
2. Do not get angry in return
G. Intoxicated patient
1. Be accepting, not challenging
H. Crying patient
1. Crying can provide valuable insight
I. Depressed patient
J. Patient with confusing behavior or history
1. Be prepared for the confusion and frustration of varying behaviors and histories
2. Be alert for mental illness, delirium, or dementia
a. Do not overlook the ability of these patients to provide you with adequate information
b. Be alert for omissions
c. May require you to get information from family or friends
K. Patients with language barriers

HISTORY TAKING
continued

1. Make an effort to find a translator
2. A few broken words are not an acceptable substitute

L. Patients with a hearing problem
   1. Make an effort to find a translator

M. Blind patients
   1. Be careful to announce yourself and explain who you are and why you are there

MODULE 3: PATIENT ASSESSMEMT

Topic: PATIENT ASSESSMENT

Purpose:

This topic will give the Advanced EMT student a review of the techniques of physical exam and integrate the principals of history taking and physical exam to perform a patient assessment and apply a process of decision making to form a field impression.

Suggested Time Frame: 1 Hour

Objectives:

At the conclusion of this topic, the Advanced EMT student as an active participant will be able to successfully:

1. Review the importance of scene size-up and scene safety.

2. Discuss the common mechanisms of injury /nature of illness for medical and trauma patients.

3. Discuss the components of the initial assessment.

4. Describe the steps of the focused history and physical exam.

5. State the areas of the body evaluated in the focused history and physical exam.

6. Discuss the reason and importance of performing the focused history and physical exam.

7. Apply the techniques of physical examination to the medical patient.

8. Differentiate between the assessment that is performed for a patient who has an altered mental status and other medical patients.

9. Apply the techniques of physical examination to the trauma patient.

10. Describe when to perform a rapid trauma assessment and the areas included in the rapid trauma assessment.

PATIENT ASSESSMENT
continued

11. Discuss the components of the detailed physical and when it is performed.

12. State the areas of the body that is evaluated during the detailed physical exam.

13. Distinguish between the detailed physical exam that is performed on the trauma patient and that of the medical patient.

14. Describe the components of the on-going assessment.

15. Discuss the reasons for repeating the initial assessment as part of the on-going assessment.

16. Discuss special considerations to take when performing physical examinations on a pediatric patient.

17. Differentiate between critical life-threatening, potentially life-threatening, and non-life threatening patient presentations.

18. Define the components, stages, and sequences of critical thinking in performing patient assessment.

19. Develop strategies for effective thinking under pressure.

20. Discuss the “six R’s” of putting it all together

21. Value the need for maintaining a professional caring attitude when performing a patient assessment.

22. Demonstrate a caring attitude when performing a patient assessment.

23. Demonstrate an appropriate physical exam on a medical patient to include the following:

    A. An initial assessment
    B. A focus history and physical exam
    C. Detailed physical exam
    D. On-going assessment

PATIENT ASSESSMENT
continued

24. Demonstrate the techniques for assessing a patient with an altered mental status.

25. Demonstrate the assessment of a trauma patient.

26. Demonstrate a rapid trauma assessment used to assess a patient based on mechanism of injury.

27. Perform a focused history and physical exam on a non-critically injured patient and a patient with life-threatening injuries.

DECLARATIVE
MODULE 3: PATIENT ASSESSMENT
PATIENT ASSESSMENT

I. Scene size-up / assessment
- A. Body substance isolation review
  1. Eye protection if necessary
  2. Gloves if necessary
  3. Gown if necessary
  4. Mask if necessary
- B. Scene safety
  1. Definition -an assessment to assure the well-being of the Advanced EMT
  2. Personal protection - is it safe to approach the patient?
     - a. Crash rescue scenes
     - b. Toxic substances - low oxygen areas
     - c. Crime scenes - potential for violence
     - d. Unstable surfaces -slope, ice, water
  3. Protection of the patient - environmental considerations
  4. Protection of bystanders - if necessary, help the bystander avoid becoming a patient
  5. Do not enter unsafe scenes
  6. Scenes may be dangerous even if they appear to be safe
- C. Definition -an assessment of the scene and surroundings that will provide valuable information to the Advanced EMT
- D. Mechanism of injury / nature of illness
  1. Medical
     - a. Nature of illness - determine from the patient, family, or bystanders why EMS was activated
     - b. Determine the total number of patients
     - c. If there are more patients than the responding unit can effectively handle, initiate a mass casualty plan
       - (1) EMT-II is less likely to call for help if involved in patient care
       - (2) Prior to contact with patients, obtain additional help: law enforcement, fire, rescue, ALS, and utilities
       - (3) Begin triage
  2. Trauma
     - a. Mechanism of injury
       - (1) determine from the patient, family, or bystanders and inspection of the scene
       - (2) Immobilize the cervical spine
     - b. Determine the total number of patients

c. If there are more patients than the responding unit can effectively handle, initiate a mass casualty plan
(1) Advanced EMT is less likely to call for help if involved in patient care
(2) Prior to contact with patients, obtain additional help: law enforcement, fire, rescue, ALS, and utilities
(3) Begin triage
(4) If the responding crew can manage the situation, consider spinal precautions and continue care

II. Initial assessment
A. General impression of the patient
1. Formed to determine priority of care and is based on the Advanced EMT's immediate assessment of the environment and the patient's chief complaint
2. Determine if ill, i.e., medical or injured (trauma)
a. If injured, identify mechanism of injury
b. If ill, identify nature of illness
B. Assess the patient and determine if the patient has a life-threatening condition
1. If a life threatening condition is found, treat immediately
2. Assess nature of illness or mechanism of injury
C. Assess patient's mental status (maintain spinal immobilization if needed)
1. Levels of mental status (AVPU)
a. Alert
b. Responds to verbal stimuli
c. Responds to painful stimuli
d. Unresponsive -no gag or cough
D. Assess the patient's airway status
1. Patent
2. Obstructed
a. Suction
b. Position
c. Airway adjuncts
d. Invasive techniques
(1) Multi-lumen airways
E. Assess the patient's breathing
1. Adequate
2. Inadequate
F. Assess the patient's circulation
1. Pulse

2. If major bleeding is present -if bleeding is present, control bleeding
3. Perfusion by evaluating skin color, temperature, capillary refill, and condition

G. Identify priority patient
1. Consider
a. Poor general impression
b. Altered mental status
c. Responsive, not following commands
d. Difficulty breathing
e. Inadequate minute volume
f. Shock (hypoperfusion)
g. Complicated childbirth
h. Chest pain with suspected cardiac origin
i. Uncontrolled bleeding
j. Severe pain anywhere
k. Multiple injuries
2. Expedite transport of the patient

H. Proceed to the appropriate focused history and physical examination

III. Focused history and physical exam - medical patient
A. Responsive medical patient
1. Assess patient history
a. Chief complaint
b. History of present illness
(1) Attributes of a symptom
(a) Location
i) Where is it
ii) Does it radiate
(b) Quality
i) What is it like
(c) Quantity or severity
i) How bad is it
(d) Timing
i) When did it start
ii) How long does it last
(e) Setting in which it occurs
i) Emotional response
ii) Environmental factors
(f) Factors that make it better or worse

(g) Associated manifestations
c. Past medical history
d. Current health status
2. Perform physical examination
a. Utilize the techniques of physical examination to
(1) Assess the head as necessary
(2) Assess the neck as necessary
(3) Assess the chest as necessary
(4) Assess the abdomen as necessary
(5) Assess the pelvis as necessary
(6) Assess the extremities as necessary
(7) Assess the posterior body as necessary
3. Assess baseline vital signs
a. Consider orthostatic vital signs
4. Provide emergency medical care based on signs and symptoms in consultation with medical direction
B. Unresponsive medical patient
1. Perform rapid assessment
2. Utilize the techniques of patient assessment
a. Position patient to protect airway
b. Assess the head
c. Assess the neck
d. Assess the chest
e. Assess the abdomen
f. Assess the pelvis
g. Assess the extremities
h. Assess the posterior aspect of the body
3. Assess baseline vital signs
4. Obtain patient history from bystander, family, friends, and/ or medical identification devices/ services
a. Chief complaint
b. History of present illness
c. Past medical history
d. Current health status

IV. Focused history and physical exam - trauma patient
A. Re-consider mechanism of injury
1. Helps to identify priority patients

2. Helps to guide the assessment
3. Significant mechanism of injury
   a. Ejection from vehicle
   b. Death in same passenger compartment
   c. Falls> 20 feet
   d. Roll-over of vehicle
   e. High speed vehicle crash
   f. Vehicle-pedestrian crash
   g. Motorcycle crash
   h. Unresponsive or altered mental status
   i. Penetrations of the head, chest, or abdomen
   j. Hidden injuries
      (1) Seat belts
         (a) If buckled, may have produced injuries
         (b) If patient had seat belt on, it does not mean they do not have injuries
      (2) Airbags
         (a) May not be effective without seat belt
         (b) Patient can hit steering wheel after deflation
         (c) Lift the deployed airbag and look at the steering wheel for deformation
            i) Lift and look under the bag after the patient has been removed
            ii) Any visible deformation of the steering wheel should be regarded as an indicator of potentially serious internal injury, and appropriate action should be taken
            iii) Child safety seats
               a) Injury patterns with airbags
               b) Proper use in vehicles with airbags
4. Infant and child considerations
   a. Falls >10 feet
   b. Bicycle collision
   c. Vehicle in medium speed collision

B. Perform rapid trauma physical examination on patients with significant mechanism of injury to determine life-threatening injuries
   1. In the responsive patient, symptoms should be sought before and during the trauma assessment
   2. Continue spinal stabilization
   3. Reconsider transport decision
   4. Assess mental status
   5. As you inspect and palpate, look and feel for injuries or signs of injury

6. Examination
   a. Assess the head, inspect and palpate for injuries or signs of injury
   b. Assess the neck, inspect and palpate for injuries or signs of injury
   c. Apply cervical spinal immobilization collar (CSIC)
   d. Assess the chest, inspect and palpate for injuries or signs of injury
   e. Assess the abdomen, inspect and palpate for injuries or signs of injury
   f. Assess the pelvis, inspect and palpate for injuries or signs of injury
   g. Assess all four extremities, inspect and palpate for injuries or signs of injury
   h. Roll patient with spinal precautions and assess posterior body, inspect and palpate for injuries or signs of injury
   i. Look for medical identification devices
   j. Assess baseline vital signs
   k. Assess patient history
      (1) Chief complaint
      (2) History of present illness
      (3) Past medical history
      (4) Current health status

C. For patients with no significant mechanism of injury, e.g., cut finger
   1. Perform focused history and physical exam of injuries based on the techniques of examination
   2. The focused assessment is performed on the specific injury site
   3. Assess baseline vital signs
   4. Assess patient history
      a. Chief complaint
      b. History of present illness
      c. Past medical history
      d. Current health status

V. Detailed physical exam
   A. Patient and injury specific, e.g., cut finger would not require the detailed physical exam
   B. Perform a detailed physical examination on the patient to gather additional information
   C. General approach
      1. Assess patient history
         a. Chief complaint
         b. History of present illness
         c. Past medical history

d. Current health status
2. Examine the patient systematically
3. Place special emphasis on areas suggested by the present illness and chief complaint
4. Keep in mind that most patients view a physical exam with apprehension and anxiety - they feel vulnerable and exposed

D. Overview of the detailed physical exam
1. Mental status
a. Appearance and behavior
b. Posture and motor behavior
c. Speech and language
d. Mood
e. Thought and perceptions
f. Thought content
g. Perceptions
h. Insight and judgement
i. Memory and attention
j. Remote memory (i.e., birthdays)
k. Recent memory (i.e., events of the day)
l. New learning ability
2. General survey
a. Level of consciousness
b. Signs of distress
c. Apparent state of health
d. Skin color and obvious lesions
e. Height and build
f. Sexual development
g. Weight
h. Posture, gait, and motor activity
i. Dress, grooming and personal hygiene
j. Odors of breath or body
k. Facial expression
3. Skin
4. Head
5. Eyes
6. Ears
7. Nose and sinuses
8. Mouth and pharynx

9. Neck
10. Thorax and lungs
11. Cardiovascular system
12. Abdomen
13. External genitalia
14. Peripheral vascular system
15. Musculoskeletal system
16. Nervous system

E. Recording examination findings
F. Assess baseline vital signs

VI. On-going assessment
A. Repeat initial assessment
1. For a stable patient, repeat and record every 15 minutes
2. For an unstable patient, repeat and record at a minimum of every 5 minutes
3. Reassess mental status
4. Reassess airway
5. Monitor breathing for rate and quality
6. Reassess circulation
7. Re-establish patient priorities

B. Reassess and record vital signs
C. Repeat focused assessment regarding patient complaint or injuries
D. Assess interventions
1. Assess response to management
2. Maintain or modify management plan

VII. Pediatric Considerations
A. Assessment
1. General considerations
2. Physical exam
a. Scene survey
b. Initial assessment
c. Vital functions
3. Focused history
4. Detailed physical exam
5. Ongoing Exam

VIII. Key Concepts in differentiating critical life-threatening, potentially life-threatening, and

non-life threatening presentations.

A. The cornerstone of effective decision making
   1. Gathering, evaluating, and synthesizing information
   2. Developing and implementing appropriate patient management plans
   3. Applying judgment and exercising independent decision making
   4. Thinking and working effectively under pressure
B. Spectrum of patient care in the prehospital setting
   1. Critical life-threats
      a. Major, multi-system trauma
      b. Devastating single system trauma
      c. End-stage disease presentations
      d. Acute presentations of chronic conditions
   2. Potential life-threats
      a. Serious, multi-system trauma
      b. Multiple disease etiologies
   3. Non-life threatening presentations
C. Providing guidance and authority for Advanced EMT treatment
   1. Protocols, standing orders, and patient care algorithms
      a. Can clearly define and outline performance parameters
      b. Promote a standardized approach
   2. Limitations of protocols, standing orders, and patient care algorithms
      a. Only address “classic” patient presentations
      b. May not address multiple disease etiologies
      c. May not address multiple treatment modalities

XIV. Components, stages, and sequence of critical thinking process
   A. Concept formation
      1. MOI / scene assessment
      2. Initial assessment and physical examination
      3. Chief complaint
      4. Patient history
      5. Patient affect
      6. Technical tools
   B. Data interpretation
      1. Data gathered
      2. Knowledge of anatomy and physiology
      3. Attitude
      4. Previous experience
   C. Application of principle

1. Field impression
2. Protocols, standing orders
3. Treatment/intervention

D. Evaluation
1. Reassessment of patient
2. Reflection in action
3. Revision in impression
4. Protocols/standing orders
5. Revision of treatment/intervention

E. Review on action
1. Run critique
2. Addition to/modification of experience base for the Advanced EMT

F. Thinking under pressure
1. "Fight or flight" response impacts the Advanced EMT both positively and negatively
   a. Enhanced visual and auditory acuity
   b. Improved reflexes and muscle strength
   c. Impaired critical thinking skills
   d. Diminished concentration and assessment ability
2. Mental conditioning is the key to effective performance under pressure
   a. Skills learned at a pseudo-instinctive performance level
   b. Automatic response for technical treatment requirements

1 Mental checklist for thinking under pressure
1. Stop and think
2. Scan the situation
3. Decide and Act
4. Maintain clear, concise control
5. Regularly and continually reevaluate the patient
6. Stay calm, don't panic
7. Assume and plan for the worse
8. Maintain a systematic assessment pattern
9. Situation awareness
   a. Reading the scene
   b. Reading the patient

2 Putting it all together – "the six R's"
1. Read the patient
   a. Observe the patient
      i. Level of responsiveness/conciousness

ii. Skin color
iii. Position and location of patient – obvious deformity or asymmetry

b. Talk to the patient
i. Determine chief complaint
ii. New problem or worsening of preexisting condition

c. Touch the patient
i. Skin temperature and moisture

ii. Pulse rate, strength, and regularity

d. Auscultate the patient
i. Identify problems with the lower airway
ii. Identify problems with the upper airway

e. Status of ABC's – identifying life-threats

f. Complete and accurate set of vital signs
i. Use as triage tool to estimate severity
ii. Can assist in identifying the majority of life-threatening conditions
iii. Influenced by patient age, underlying physical and medical conditions and current medications

2. Read the scene
   a. General environment conditions
   b. Evaluate immediate surroundings
   c. Mechanism of injury
3. React
   a. Address life-threats in the order they are found
   b. Determine the most common and statistically probable cause that fits the patient's initial presentation
   c. Consider the most serious condition that fits the patient's initial presentation
   d. Treat based on presenting signs and symptoms
4. Reevaluate
   a. Focused and detailed assessment
   b. Response to initial management/interventions
   c. Discovery of less obvious problems
5. Revise treatment plan
6. Review performance

MODULE 3: PATIENT ASSESSMENT

Topic: COMMUNICATIONS

Purpose:

This topic will give the Advanced EMT student an understanding of appropriate formats for giving patient information over the radio.

Suggested Time Frame: 1 Hour

Objectives:

At the conclusion of this topic, the Advanced EMT student as an active participant will be able to successfully:

1. Identify the importance of communications when providing EMS.

2. Identify the role of verbal, written, and electronic communications in providing EMS.

3. Describe the phases of communications necessary to complete a typical EMS event.

4. Identify the importance of proper terminology when communicating during an EMS event.

5. Identify the importance of proper verbal and written communication during and EMS event.

6. List factors that impede and enhance verbal / written communications.

7. Identify and differentiate the following communication systems:

    A. Simplex
    B. Multiplex
    C. Duplex
    D. Trunked
    E. Digital communications
    F. Cellular telephone
    G. Facsimile

COMMUNICATIONS
continued

H. Computer

8. Identify the components of the local dispatch communications system and describe their function and use.

9. Describe the functions and responsibilities to the Federal Communications Commission.

10. Describe the role of the EMS Dispatcher as part of the EMS team.

11. Describe the procedure of verbal communication of patient information to the hospital.

12. Describe the information that should be included in patient information verbally reported to medical direction.

13. Discuss the local policy/procedure addressing:

    A. Indications for radio contact with a base hospital
    B. Appropriate radio call-in format
    C. Communications failure policy
    D. Overview of local communications system

14. Demonstrate an appropriate call-in to the base hospital, giving all pertinent information that constitutes a complete radio report.

DECLARATIVE
MODULE 3: PATIENT ASSESSMENT
COMMUNICATIONS

I. General
- A. Importance of communications when providing EMS
  1. Functions as one part of a team
  2. Need to effectively communicate patient information and scene assessment
  3. Medical direction
  4. System control and administration
  5. Scene control
- B. Role of verbal, written, and electronic communications in the provision of EMS
  1. Communications between party requesting help and the dispatcher
  2. Communications between the dispatcher and the Advanced EMT
  3. Communications between the field and receiving hospital and / or medical direction physician (on-line)
  4. Communication with receiving hospital personnel (on-arrival)
- C. Phases of communications necessary to complete a typical EMS event
  1. Occurrence
  2. Detection
  3. Notification and response
  4. Treatment and preparation for transport
  5. Preparation for next event
     - a. Pre-arrival instructions
     - b. Communication on scene among other providers and with patient
- D. Diagram of a basic model of communications
  1. Idea
  2. Encoder
  3. Sender
  4. Media or channel
  5. Receiver
  6. Decoder
  7. Feedback
- E. Role of proper terminology when communicating during an EMS event
  1. Can shorten transmissions / narratives
  2. Unambiguous
  3. Common means of communications with other medical professionals
- F. Role of proper verbal communications during an EMS event
  1. Exchange of system information
  2. Exchange of patient information
  3. Medical control

COMMUNICATIONS
continued

4. Professionalism

G. Factors that impede effective verbal communications
1. Semantic
2. Technical

H. Factors which enhance verbal communications
1. Semantic
2. Technical

I. Importance of proper written communications during an EMS event
1. Written record of incident
2. Legal record of incident
3. Professionalism
4. Other
a. Medical audit
b. Quality improvement
c. Billing
d. Data collection

J. Factors which impede effective written communications
1. Semantic
2. Technical

K. Factors which enhance written communications
1. Semantic
2. Technical

L. Legal status of written communications related to an EMS event
1. Record of incident
2. Part of medical record
3. Confidentiality / disclosure

M. Importance of data collection during an EMS event
1. System administration
2. Research
3. Quality management -often results in policy change

N. New technology used to collect and exchange patient and / or scene information electronically
1. Technology-based
2. Real-time capture of events / information
3. Integrated with diagnostic technology
4. Reduces dependence on traditional means of documentation, i.e., written
5. Influences role of medical direction
a. Provides for advanced notification

COMMUNICATIONS
continued

b. Potential for reduced time to in-hospital diagnosis and therapy

O. Legal status of patient medical information collected and exchanged electronically
1. Same status as traditional written documentation
2. May not have a "paper record" of incident

II. Systems
A. Methodology used for EMS communication
1. Simplex
a. Advantages
(1) Allows speaker to get message out without interruption
b. Disadvantages
(1) Slows process
(2) More formal
(3) Takes away ability to discuss case
2. Multiplex
a. Advantages
(1) Either party can interrupt as necessary
(2) Facilitates discussion
b. Disadvantages
(1) Each end has tendency to interrupt the other
(2) Voice interferes with data transmission
3. Duplex
a. Advantages
(1) Either party can interrupt as necessary
(2) Facilitates discussion
b. Disadvantages
(1) Each end has tendency to interrupt the other
4. Trunked
a. Advantages
b. Disadvantages
5. Digital
a. Advantages
b. Disadvantages
6. Cellular telephone
a. Advantages
(1) Less formal
(2) Promotes discussion
(3) Can reduce on-line times

(4) Physician can speak directly with patient
b. Disadvantages
(1) Geography can interfere with signal
(2) Cell site may be unavailable
(3) External antenna necessary
(4) Problems with denied access to cell (PIN numbers unknown or forgotten)
7. Facsimile
a. Advantages
(1) Provides earlier notification
(2) Produces another piece of medical documentation
b. Disadvantages
(1) Must have access to a fax machine (at each end)
8. Computer
a. Advantages
(1) Potential to save retrospective data entry step
(2) Can document in real-time
(3) Sort on many categories
(4) Create multiple reporting formats
(5) Provide system data quickly
b. Disadvantages
(1) Subject to limitation of the computer and the operator
(2) Lose flexibility
B. Components of the local dispatch communications system and function
1. Define 9-1-1 AND E 9-1-1
2. Public safety access point
3. Emergency medical dispatcher
4. Pre-arrival instructions

III. Regulation -The Federal Communications Commission (FCC)
A. Federal agency established to regulate telecommunications in the U.S.
B. Functions
1. Licensing
2. Frequency allocation
3. Technical standards
4. Rule making and enforcement
C. Responsibilities

IV. Dispatch

COMMUNICATIONS
continued

A. The functions of an Emergency Medical Dispatcher
    1. Call taking
    2. Alerting and directing response
    3. Monitoring and coordinating communications
    4. Pre-arrival instructions
    5. Maintaining incident record
B. Appropriate information to be gathered by the Emergency Medical Dispatcher
    1. Caller's name and call-back number
        a. Enhanced 9-1-1 system
    2. Address of event
    3. Nature of event
    4. Specific event information
        a. Call screening
        b. Pre-arrival instructions
C. Role of emergency medical dispatch in a typical EMS event
    1. Part of the EMS system team
    2. First contact with the EMS system
    3. Coordination of response
    4. Coordination of communications
    5. Provision of pre-arrival instructions to mitigate event prior to arrival of units
    6. Incident data collection
D. Importance of pre-arrival instructions in a typical EMS event
    1. Provides immediate assistance
    2. Complements call screening
    3. Provides updated information to responding unit(s)
    4. May be life sustaining in critical incidents
    5. Emotional support for caller / bystanders / victim

V. Procedures
A. Information that should be verbally reported to medical direction
    1. Depends on technology used for transmission
    2. May vary with local protocol
    3. Based on patient priority
    4. Standard format
        a. Efficient use of communications system
        b. Assists medical direction
        c. Assures no significant information is omitted
    5. Information

COMMUNICATIONS
continued

a. Unit identification / provider identification
b. Description of scene
c. Patient's age, sex, and approximate weight (for drug orders)
d. Patient's chief complaint
e. Associated symptoms
f. Brief, pertinent history of the present illness / injury
g. Pertinent past medical history, medications, and allergies
h. Pertinent physical exam findings
i. Treatment given so far
j. Estimated time of arrival at hospital
k. Other pertinent information

B. General procedures for exchange of information
1 .Protect privacy of the patient
2. Use proper unit numbers, hospital numbers, proper names, and titles
3. Do not use slang or profanity
4. Use standard formats for transmission
5. Utilize the "echo" procedure when receiving directions from the dispatcher or physician orders
6. Obtain confirmation that message was received

VI. Orientation to local public safety communication system
A. Local public safety communication system overview
1. Infrastructure
2. Public Safety Answering Points (PSAPs)
B. Local communication protocols
1. EMS Medical Communications (MedComm)
2. Interoperability (Law/Fire/EMS)
3. Mutual Aid/ Disaster communications
C. Radio equipment
1. Portable radios
2. Mobile radios

MODULE 3: PATIENT ASSESSMENT

Topic: DOCUMENTATION

Purpose:

This topic will give the Advanced EMT student the understanding to be able to effectively document the essential elements of patient assessment, care, and transport.

Suggested Time Frame: 1 Hour

Objectives:

At the conclusion of this topic, the Advanced EMT student as an active participant will be able to successfully:

1. Identify the general principals regarding the importance of EMS documentation and ways in which documentation is used.

2. Discuss the importance of using appropriate and accurate medical abbreviations and acronyms.

3. Explain the pertinent information needed for documentation.

4. Describe the elements of a properly written report.

5. Describe what information is required in each section of the patient care report.

6. Discuss the potential consequences of illegible, incomplete, or inaccurate documentation.

7. Explain the special considerations concerning patient refusal of transport.

8. Describe special considerations concerning mass casualty incident documentation.

9. Discuss state and/or local record and reporting requirements.

10. Demonstrate proper completion of a patient care report used locally.

DECLARATIVE
MODULE 3: PATIENT ASSESSMENT
DOCUMENTATION

I. Introduction
- A. Importance of documentation
- B. Written record of incident
  1. May be the only source of information for persons subsequently interested in the event
  2. Provides a source for identifying pertinent reportable clinical data from each patient interaction
  3. Legal record of incident
     - a. May be used in court proceedings
     - b. May be the Advanced EMT's sole source of reference to a case
  4. Professionalism
     - a. As a link to subsequent care, documentation may be the only means for EMT-IIs to represent themselves as professionals to certain other health professionals
- C. Other uses of documentation
  1. Medical audit
     - a. Run review conferences
     - b. Other educational forums
  2. Quality improvement
     - a. Tally the individual's performance of patient care procedures and to review individual performance
     - b. Identify systems issues regarding quality improvement
  3. Billing and administration
     - a. Acquire the necessary billing and administrative data
  4. Data collection
     - a. Research purposes

II. General considerations
- A. Be familiar with common medical terms, their meaning and correct spelling
- B. Be familiar with commonly-accepted medical abbreviations and their correct spelling
- C. Be familiar with common industry acronyms
- D. Incident times
  1. Understand the legal purposes of accurate recording of the following incident times
     - a. Time of call
     - b. Time of dispatch
     - c. Time of arrival at the scene

DOCUMENTATION
continued

d. Time(s) of medication administration and certain medical procedures as defined by local protocol
e. Time of departure from the scene
f. Time of arrival at the medical facility (when transporting a patient)
g. Time back in service

E. Accurately note in the document narrative (and elsewhere, when applicable) medical direction's advice and orders, and the results of implementing that advice and those orders
F. "Pertinent findings"
1. Findings that are relevant to the clinical situation
G. "Pertinent negatives"
1. Findings that warrant no medical care or intervention, but which, by seeking them, show evidence of the thoroughness of the Advanced EMT's examination and history of the event
2. Record all "pertinent negative" findings
H. Pertinent oral statements made by patients and other on-scene people
1. Record statements made which may have an impact on subsequent patient care or resolution of the situation, including reports of
a. Mechanism of injury
b. Patient's behavior
c. First aid interventions attempted prior to the arrival of EMS personnel
d. Safety-related information, including disposition of weapons
e. Information of interest to crime scene investigators
f. Disposition of valuable personal property (e.g., watches, wallets)
2. Use of quotations
a. The Advanced EMT should put into quotation marks any statements by patients or others, which relate to possible criminal activity or admissions of suicidal intention
I. Record support services used (e.g., helicopter, coroner, rescue/ extrication)
J. Record use of mutual aid services

III. Elements of a properly written EMS document
A. Accurate
1. Document accuracy depends on all information provided, both narrative and checkbox, being
a. Precise
b. Comprehensive

DOCUMENTATION
continued

2. All checkbox sections of a document must show that the Advanced EMT attended to them, even if a given section was unused on a call
3. Medical terms, abbreviations, and acronyms are properly used and correctly spelled

B. Legible
1. Legibility means that handwriting, especially in the narrative portion of the document, can be read by others without difficulty
2. Checkbox marking should be clear and consistent from the top page of the document to all underlying pages

C. Timely
1. Documentation should be completed ideally before the Advanced EMT handles tasks subsequent to the patient interaction

D. Unaltered
1. While writing the document, should the Advanced EMT make an error, a single line should be drawn through the error, initialed, and dated
2. Should alterations to a document be required after the document has been submitted, see "document revision/ correction" (below)

E. Free of non-professional/ extraneous information
1. Jargon
2. Slang
3. Bias
4. Libel / slander
5. Irrelevant opinion / impression
6. Unacceptable abbreviations / acronyms

IV. Systems of narrative writing
A. Head to toe approach
1. The narrative uses a comprehensive, consistent physical approach from head to toe

B. Body systems approach
1. The narrative uses a comprehensive review of the primary body systems

C. Call incident approach
D. Patient management approach
E. Other formats
F. Know how to differentiate subjective from objective elements of documentation

V. Special considerations of documentation
A. Documentation of patient's refusal of care and / or transport

DOCUMENTATION
continued

1. When a patient refuses medical care, the Advanced EMT must show in the report the process undergone to reach that conclusion, including
   a. The Advanced EMT's advice to the patient
   b. The advice rendered by medical direction by telephone or radio
   c. Signatures of witness (es) to the event, according to local protocol
   d. Complete narrative, including quotations or statements by others

B. Document decisions / events where care and transportation were not needed
1. If canceled en route, note canceling authority and the time
2. If canceled at scene, note canceling authority and special circumstances (e.g., "On scene officer reported no injuries and asked us to leave the scene - no patient contacts made")

C. Documentation in mass casualty situations
1. In unusual circumstances, comprehensive documentation has to wait until after mass casualties are triaged and transported
2. The Advanced EMT should know and follow local procedures for documentation of mass casualty situations

VI. Document revision / correction

A. Procedure
1. Write revisions to documents on separate report forms
2. Note the purpose of the revision, and why the information did not appear on the original document
3. Note the date and time
4. Revisions should be made by the original author of a document
5. When the need for revision is realized, it should be done as soon as possible

B. Acceptable method(s)
1. Corrections
   a. Written narrative is appropriate, on a new report form which is then attached to the original
2. Deletions and additions
   a. Should only be done on a new report form, not the original
3. Supplemental narratives
   a. If more information comes to the Advanced EMT's attention, a supplemental narrative can be written on a separate report form and attached to the original

VII. Consequences of errors, omissions, and inappropriate documentation

A. Implications to medical care

DOCUMENTATION
continued

1. An incomplete, inaccurate, or illegible report may cause subsequent care givers to provide inappropriate care to a patient

B. Legal implications
1. A lawyer considering the merits of an impending lawsuit can be dissuaded from a case when the documentation is done correctly
2. The converse is true if documentation is anything less

C. Timeliness

VIII. Patient Care Reports – local policies, procedures, protocols
A. Paper PCR
1. Completion
2. Distribution

B. Electronic / Web-based PCR
1. Completion
2. Distribution

IX. Closing
A. The Advanced EMT shall assume responsibility for self-assessment of all documentation
B. Peer advocacy for good documentation
1. Documentation is a maligned task in EMS, but one of utmost importance for a variety of reasons
2. A professional EMS provider appreciates this and strives to set a good example to others regarding the completion of the documentation tasks

C. Respect the confidential nature of an EMS report
D. Principals of documentation are to remain valid regarding computer charting, as that technology becomes available

MODULE 3: PATIENT ASSESSMENT

Topic: **HISTORY TAKING AND PATIENT ASSESSMENT LAB**

Purpose:

This lab will give the Advanced EMT student the techniques to take an appropriate patient history and complete a patient assessment.

Suggested Time Frame: 2 Hours

Objectives:

At the conclusion of this lab, the Advanced EMT student as an active participant will be able to successfully:

1. Given a medical and trauma scenario, obtain a complete patient history.

2. Demonstrate an appropriate physical exam on a medical patient to include the following:

   A. An initial assessment
   B. A focus history and physical exam
   C. Detailed physical exam
   D. On-going assessment

3. Demonstrate the techniques for assessing a patient with an altered mental status.

4. Demonstrate the assessment of a trauma patient.

5. Demonstrate a rapid trauma assessment used to assess a patient based on mechanism of injury.

6. Perform a focused history and physical exam on a non-critically injured patient and a patient with life-threatening injuries.

MODULE 3: PATIENT ASSESSMENT
HISTORY TAKING AND PATIENT ASSESSMENT LAB

The Advanced EMT student in a lab setting with an instructor will demonstrate the following skills either as a single skill or in a scenario based demonstration. Once the students have mastered performing the skill, the instructor should incorporate all the skill in this unit together in scenarios to test the application of the knowledge from this unit.

I. Obtaining a patient history – Given various scenarios, including medical and trauma, the student will demonstrate obtaining a complete patient history
   A. Establishes patient rapport and trust
   B. Performs proper introductions
   C. Obtains essential components of the patient's history
      1. Date, timing of event
      2. Identifying data – age, gender
      3. Chief complaint
      4. History of present illness
         a. OPQRST
         b. SAMPLE
      5. Past medical history
      6. Current health status
         a. Medications
         b. Allergies
         c. Alcohol, drugs, tobacco, related substances
         d. Diet
         e. Exercise
         f. Environmental hazards
         g. Use of safety measures
         h. Daily life
   D. Demonstrates active listening
   E. Asks appropriate open-ended and closed-ended questions
   F. Performs a review of body systems
   G. Handles special challenges appropriately

II. Patient Assessment - Given various scenarios, including medical and trauma, the student will perform an appropriate patient assessment including all the components of the patient assessment.
   A. Proper BSI
   B. Scene Size-up
      1. Scene safety – personnel and patient
      2. Environmental hazards

HISTORY TAKING / PATIENT ASSESSMENT LAB
continued

3. Number of patients
4. Nature of illness or mechanism of injury
5. Determine needs for additional resources, specialized equipment, extrication needs

C. Initial Assessment
1. General impression
   a. Priority of care
2. Provide spinal stabilization if indicated
3. Assess patient's mental status
   a. Establish rapport
   b. AVPU
4. Assess / Manage airway
5. Assess / Manage breathing
6. Assess / Manage circulation
7. Assess major disability and deformities
   a. Altered mental status
   b. Neurological deficits
8. Determine chief complaint / problem, transport priority
9. Documentation

D. Rapid trauma Assessment – if indicated by mechanism of injury with life-threatening injuries
1. Reassess mental status
2. Inspect, palpate, look and feel for signs of injury for rapid head to toe examination using DCAP-BTLS and crepitation
   a. D – Deformity
   b. C – Contusions
   c. A – Abrasions
   d. P – Punctures / penetrations
   e. B – Burns
   f. T – Tenderness
   g. L – Lacerations
   h. S – Swelling
3. Using above acronym assess the following:
   a. Inspect and palpate the head
   b. Inspect and palpate the neck. Place cervical collar if indication and if it hasn't already been done.
      i. Jugular vein distention
      ii. Tracheal deviation

iii. Subcutaneous emphysema
iv. Crepitation of cervical spinal bones

c. Inspect and palpate chest
   i. Crepitation
   ii. Paradoxical motion
   iii. Breath sounds
d. Inspect and palpate abdomen
   i. Firmness
   ii. Distention
e. Inspect and palpate the pelvis
f. Inspect and palpate all four extremities
   i. Distal pulse
   ii. Motor function and sensory
g. Roll patient to side, using spinal precautions, inspect and palpate posterior chest, buttocks, and legs
h. Treat injuries identified by the rapid trauma assessment
i. Document

E. Focused history and physical exam – second stage of patient assessment, and is a problem-oriented process based on the initial assessment and patient's chief complaint
   1. Assess current problem
      a. Signs and symptoms
   2. Assess pain or current problem
      a. OPQRST
      b. Events leading to illness / mechanism of injury
   3. Obtain personal and past medical history
      a. SAMPLE
   4. Assess vital signs
   5. Examine neurological status
   6. Examine injured or affected area

F. Detailed Physical Exam – is a more detailed exam than the focused history and physical exam. This is an organized subjective and objective exam. This exam is patient and injury specific. The patient's injury or illness will determine whether this part of the patient assessment is necessary. For "priority" patients this exam may be done enroute to the hospital.

   Refer to skill sheet for details
   1. Mental status

HISTORY TAKING / PATIENT ASSESSMENT LAB
continued

2. General survey
3. Skin
4. Head, eyes, ears, nose and sinuses
5. Mouth and pharynx
6. Neck
7. Thorax and lungs
8. Cardiovascular system
9. Abdomen
10. External genitalia
11. Peripheral vascular system
12. Musculoskeletal system
13. Nervous system
14. Documentation

G. Ongoing Assessment – patient condition can change suddenly. Patient assessment is an ongoing process. Reassessment in the stable patient is repeated every 15 minutes, reassessment in the unstable patient is repeated every 5 minutes.
   1. Reassess the patient's mental status
   2. Monitor the airway
   3. Monitor the breathing rate and quality
   4. Reassess the pulse rate and quality
   5. Monitor the skin for color, temperature, and condition
   6. Realign patient priorities and treatment
   7. Reassess vital signs
   8. Repeat focused examination regarding the complaints or injuries
   9. Reassess the results of treatment

MODULE 3: PATIENT ASSESSMENT

Topic: COMMUNICATIONS LAB

Purpose:

This lab will give the Advanced EMT student the techniques to give an appropriate radio report according to local protocol and policy.

Suggested Time Frame: 1 Hour

Objectives:

At the conclusion of this lab, the Advanced EMT student as an active participant will be able to successfully:

1. Demonstrate an appropriate call-in to the base hospital, giving all pertinent information that constitutes a complete radio report.

MODULE 3: PATIENT ASSESSMENT
COMMUNICATIONS LAB

The Advanced EMT student in a lab setting with an instructor will demonstrate the following skills either as a single skill or in a scenario based demonstration. The student when given various simulated medical and trauma scenarios will give an appropriate radio call per local protocol and policy.

I. Radio Report
   - A. Verifies open channel before speaking
   - B. Transmits correctly
   - C. Speaks slowly and clearly
   - D. Speaks in normal pitch, avoiding emotion
   - E. Is brief, knows what to say before transmitting
   - F. Does not waste air time
   - G. Protects privacy of patient
   - H. Repeats back orders if indicated
   - I. Confirms message is received
   - J. Documents orders and information given
   - K. Follows correct radio call format per local protocol
   - H. Demonstrates ability to troubleshoot basic equipment malfunction

MODULE 3: **PATIENT ASSESSMENT**

Topic: **DOCUMENTATION LAB**

Purpose:

This lab will give the Advanced EMT student the techniques to accurately complete a patient care report per local protocol.

Suggested Time Frame: 1 Hour

Objectives:

At the conclusion of this lab, the Advanced EMT student as an active participant will be able to successfully:

1. Demonstrate proper completion of a patient care report used locally.

MODULE 3: PATIENT ASSESSMENT
DOCUMENTATION LAB

The Advanced EMT student in a lab setting with an instructor will demonstrate the following skills either as a single skill or in a scenario based demonstration. The student when given various simulated medical and trauma scenarios will correctly document the patient information, history, physical examination, treatment, and transport priorities on a patient care record per local protocol.

I. Documentation of patient information, history, physical examination, treatment, and transport priorities on a patient care record.
   A. Records all pertinent administrative information using a consistent format
   B. Identifies and records all pertinent, reportable clinical data for each patient, including pertinent negatives
   C. Uses appropriate medical terminology, abbreviations, and acronyms
   D. Records accurate, consistent times
   E. Includes relevant history given by witnesses, bystanders, and patients
   F. Uses correct spelling and grammar
   G. Writes legibly
   H. Uses appropriate narrative format
   I. Properly corrects errors and omissions
   J. Includes all personnel and resources
   K. Completes report completely and as soon as possible after the call

Advanced EMT

INSTRUCTOR RESOURCE

PATIENT ASSESSMENT & MANAGEMENT

PERFORMANCE OBJECTIVES

The examinee will demonstrate proficiency in performing a complete medical or trauma assessment involving scene size-up, initial assessment, focused history, physical examination, ongoing assessment, and perform initial interventions as necessary.

CONDITION

The examinee will be requested to perform a complete medical or trauma assessment on a simulated patient and perform initial interventions as necessary. Required equipment will be either next to the patient or brought to the scene by the prehospital provider.

EQUIPMENT

Live model or manikin, oxygen tank with flow meter, oxygen tubing, BVM device, oxygen mask, nasal cannula, stethoscope, blood pressure cuff, pen light, timing device, clipboard, pen, goggles, masks, gown, gloves.

PERFORMANCE CRITERIA

100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation must be taught and practiced, but is not a requirement for passing the skill. Appropriate body substance isolation precautions must be instituted as required for scenario given.

Skill Component	Teaching Points
PREPARATION	
♦ Take body substance isolation precautions	· Mandatory personal protective equipment - gloves · Situational - long sleeves, goggles, masks, gown
SCENE SIZE-UP **CRITICAL DECISIONS**	
♦ Assess: · Personnel/patient safety · Environmental hazards · Number of patients · Mechanism of injury	· Discourage blind reciting of elements. · Have student verbalize what is actually seen. · Instructors should write on tape or provide assessment information on body for more realistic assessment to reinforce observation skills.

Skill Component	Teaching Points
♦ **Determine:** · **Additional resources** · **Specialized equipment** · **Need for extrication/spinal immobilization**	· **Manual spinal stabilization begins here – C-collar is applied after initial assessment is completed.**
INITIAL ASSESSMENT **CRITICAL MANAGEMENT AND TRANSPORT DECISIONS**	
♦ **Consider:** · **General impression** · **Life-threatening condition**	· **Continue to reinforce observation skills.** · **Demonstrate how chief complaint can often be deduced by overall appearance, patient position, sounds, and smell.**
♦ **Establish patient rapport:** · **Ask the right questions** · **Respond with empathy**	· **Situation and patient condition determines the level of rapport that is possible.** · **Pertinent questions assess chief complaint and patient symptoms, assist in deciding which areas need more in-depth information and what systems to focus on.** · **Responding with empathy develops trust and encourages essential patient communication.**
♦ **Assess mental status/stimulus response (AVPU):** · **Awake/not awake and orientation to environment** · **Verbal stimulus response** · **Painful stimulus response** · **Unresponsive** ** ***Consider blood glucose level - if unresponsive***	· **Emphasize that this is NOT the time to obtain a complete orientation level, but to assess how the patient responds to environmental stimuli.** · **Observe orientation to environment and then assess by using the lowest level of stimuli.**
♦ **Assess/Manage airway:** · **Patent** · **Obstructed** ** ***Open and clear/suction airway - if indicated*** ** ***Consider basic airway adjuncts - if indicated***	· **Reinforce that noisy respirations indicate an obstructed airway and airway positioning or maneuvers must be instituted to provide a patent airway.** · **Assess for foreign body such as food, gum, etc.** · **Use an NP airway for responsive or unresponsive patients.** · **Use an OP airway for the unresponsive patient.**

Skill Component	Teaching Points
♦ **Assess/Manage breathing:** · **Rate** · **Effort** · **Tidal volume** · **Breath sounds (rapid chest auscultation) - *if difficulty breathing or shortness of breath*** ** ***Consider O_2 therapy*** ** ***Consider BVM - if inadequate ventilation***	· **Determine if tidal volume and rate are adequate to assure effective ventilation - use BVM to increase tidal volume or rate if necessary.** · **Administer O2 therapy if vital organs are at risk for hypoperfusion.** · **Breath sounds are assessed in *2 spaces only*, for presence and equality, at the 5th-6th intercostal space, mid-axillary line.** · **Respiratory rate > 40 or < 10 may not provide adequate tidal volume. Be prepared to assist with bag-valve-mask ventilation if level of consciousness is decreased.**
♦ **Assess/Manage circulation:** · **Pulse - rate, rhythm, quality** · **Skin - color, temperature, moisture** · **Bleeding** · **Capillary refill - *if appropriate*** ** ***Control severe bleeding*** ** ***Consider shock position - if hypotensive*** ** ***Consider cardiac monitor/AED - if indicated*** ** ***Consider venous access - if indicated***	· **Check radial and carotid pulses at same time in critical situations. Radial pulse may be absent due to decreased blood pressure.** · **An irregular pulse is an indicator for ECG monitoring.** · **Capillary refill is most appropriate in pediatric patients. NOT always accurate in adults due to chronically poor peripheral circulation. NOT ACCURATE in cold environments.** · **Capillary refill can be taken at any skin area such as: fingernail bed, palm, chest, forehead, etc. (If using the ball of the foot in pediatric patients, child must be in a supine position.)**
♦ **Assess major disability & deformities:** · **Altered mental status** · **Neurological deficits** · **Abnormal body presentation (posture)**	· **Neurological deficits include: facial droop, slurred speech, drooling, paresthesia, paralysis, agitation, headache, blurred vision, etc.** · **Note abnormal presentation such as tripod position, decerebrate or decorticate posturing, contractures, etc.**
♦ **Determine:** · **Chief complaint/problem** · **Specific focused history and physical examination** · **Transport decision**	· **Determine which specific focused history and physical examination is indicated:** **- responsive medical/minor trauma patient** **- unresponsive medical/major trauma patient.**
♦ **Expose specific body area for detailed examination - *if pertinent***	· **Maintain patient modesty and dignity as much as possible.**

Skill Component	Teaching Points
FOCUSED HISTORY AND PHYSICAL EXAMINATION ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ **"RESPONSIVE MEDICAL / MINOR TRAUMA PATIENT"**	
♦ **Assess current problem:** · **Signs and symptoms** · **Assess pain - *if pertinent:*** - **onset** - **provoking/relieving factor** - **quality** - **region/radiation/recurrence** - **severity (mild-severe or 1-10 scale)** - **time**	· **Current problem reflects the chief complaint.** · **Assess pediatric patients from feet to head.** · **Current pain history:** - **Severity of pain is the patient's perception.** - **Quality refers to the type of pain such as: burning, squeezing, ache, sharp, stabbing, etc.**
♦ **Assess current problem (continued):** · **Assess difficulty breathing - *if pertinent:*** - **onset** - **provoking factor** - **quality** - **recurrence and what treatment provides relief** - **severity** - **time** · **Events leading to illness/mechanism of injury**	· **Current respiratory history:** - **Severity is the EMS provider's perception and is rated as mild, moderate or severe - this is obtained from a complete respiratory assessment.** - **Quality assesses if the patient is having difficulty getting air in or out, use of accessory muscles, tripod position, speaking in one word sentences, etc.** - **Recurrence helps determine severity as to frequency of problem and treatment needed to obtain relief.**

Skill Component	Teaching Points
♦ **Obtain personal and past medical history:** · **Age** · **Weight** · **Under physician's care/private medical doctor** · **Pertinent history** · **Allergies** · **Medications** · **Last oral intake - *if pertinent***	· **Use the pediatric emergency resuscitation tape to obtain an infant's or small child's weight.** · **Obtain information: under physician care, name of PMD, or health plan - assists in eliciting medical history and transport destination.** · **Pertinent history refers to past medical history that is pertinent to the chief complaint/problem such as: a heart condition and pulmonary problems, hypertension, diabetes, CVA, or recent surgery.** · **Last oral intake is important when there is a possibility the patient may require surgery or if there is a potential for aspiration.**
♦ **Assess vital signs:** · **Cardiac status** - **pulse - rate, rhythm, quality** - **ECG reading - *if indicated and available*** · **Respiratory status** - **respirations - rate, effort, tidal volume** - **breath sounds** · **Blood pressure** · **Temperature - *if indicated***	▪ **Pulse and respirations are actually counted at this time.** ▪ **Both systolic and diastolic B/P should be auscultated. Palpate B/P only if unable to hear when auscultated.** ▪ **Palpating blood pressure for convenience or saving time does NOT provide needed cardiovascular information or evaluate changes in patients with cerebral edema, CHF or other serious conditions.** ▪ **Temperature reading is important in suspected febrile seizures or environmental emergencies.**
Examine neurological status · **Comprehensive orientation level** · **Glasgow Coma Scale (GCS) - eyes, motor, verbal** · **Pupils - size, equality, reactivity, movement - *if indicated*** · **Extremities-circulation, movement, strength, sensation**	▪ **Comprehensive orientation level involves 4 parameters of person, place, time, purpose/event.** ▪ **Assess each extremity individually then compare findings.** ▪ **Determine from patient's family what is the patient's normal status**
♦ **Examine injured or affected area**	▪ **Maintain patient modesty and dignity as much as possible.**

Skill Component	Teaching Points
FOCUSED HISTORY AND PHYSICAL EXAMINATION ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ **"UNRESPONSIVE MEDICAL / MAJOR TRAUMA PATIENT"**	
♦ **Perform detailed physical examination** ** ***Manage specific problem or injury***	· **A detailed physical examination entails a complete body check on scene if patient is stable or if possible during transport if the patient is critical (priority patient).** · **A rapid trauma examination reveals life-threatening injuries which must be treated immediately and require rapid transport.** **A rapid trauma assessment consists of a brief inspection and palpation of the:** **- head - abdomen** **- neck - pelvis** **- chest - extremities**
♦ **Assess:** · **Current medical history** · **Past medical history** · **OPQRST for pain/respiratory - *<u>if indicated</u>*** · **Personal history** · **Vital signs** · **Neurological status**	· **Obtain information from patient, family, or bystanders if patient is unable to provide.** · **Medical history includes: signs/symptoms, medications, medical problems, last seen by PMD, name of PMD, health plan, etc.** · **Personal history includes: age, sex, weight, etc.**
ONGOING ASSESSMENT ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ **"STABLE PATIENTS / PRIORITY (CRITICAL) PATIENTS"**	
♦ **Repeat (every 5 minutes for priority patients and every 15 minutes for stable patients):** · **Initial assessment** · **Relevant portion of the focused examination**	· **Repeat initial and focused examination every 15 minutes for stable patients and every 5 minutes for priority patients.** · **Priority patients are patients who have abnormal vital signs, S/S of poor perfusion or if there is a suspicion that the patient's condition may deteriorate.**

Skill Component	Teaching Points
♦ **Evaluate response to treatment**	· **Every patient must be re-evaluated at least every 5 minutes, if any treatment was initiated or medication administered, unless changes in the patient's condition are anticipated sooner.**
♦ **Compare results to baseline condition and vital signs**	
ELEMENTS FOR A DETAILED PHYSICAL EXAMINATION OR EXAMINATION OF A SPECIFIC BODY PART ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ **MANAGEMENT OF SPECIFIC PROBLEM OR INJURY**	
<u>HEAD</u> - Skull, Eyes, Ears, Nose, Mouth, Face ♦ **<u>Examine for:</u>** - **drainage** - **deformity** - **contusion (raccoon eyes, Battle's sign)** - **punctures/penetrations** - **burns/soot** - **lacerations** - **swelling** - **scars** ♦ **<u>Palpate for:</u>** - **tenderness** - **instability** - **crepitus** ** ***Maintain patent airway***	· **<u>Adults</u> – head-to-toe examination works best.** · **<u>Children</u> – toe-to-head examination works best to gain the child's confidence.** · **<u>Battle's sign</u> – bruising over the mastoid process indicates a basilar skull fracture or fracture of the temporal bone.** · **<u>Racoon eyes</u> – bruising of one or both orbits indicates fracture of the sphenoid sinus.** · **Battle's sign and racoon's eyes develop some time after the injury and generally are not seen upon EMS arrival, if noted, this may be due to a previous injury.** · **Fluid from the ear or nose also may indicate leakage of spinal fluid resulting from a basilar skull fracture.**

Skill Component	Teaching Points
NECK/CERVICAL SPINE ♦ **Examine for:** - **deformity** - **contusions** - **abrasions** - **punctures/penetrations** - **burns** - **lacerations** - **swelling** - **scars** - **jugular vein distention (JVD)** - **tracheal deviation** - **accessory muscle use** - **medical alert tags** ♦ **Palpate for:** - **tenderness** - **instability** - **crepitus** - **subcutaneous emphysema** - **carotid pulses** ** ***Maintain spinal immobilization - if indicated*** ** ***Apply occlusive dressing - if puncture wound to neck***	· **DO NOT simultaneously press on both carotid arteries.** · **Paramedics should consider spinal immobilization indications and EMTs shall perform spinal immobilization based on mechanism of injury.** · **Full face helmets should be removed to allow access to the patient's airway and provide in-line immobilization of the head and neck.** · **Custom fitted helmets such as football or hockey helmets SHOULD NOT BE REMOVED unless respiratory distress is coupled with inability to access the airway. Remove face guard with rescue scissors or a screwdriver.** · **An athlete wearing shoulder pads who has a helmet on - will maintain his neck in a neutral position when placed on a backboard.** · **Pad patients to maintain a neutral position on backboard:** - **Adults – head and neck for comfort and to prevent hyper-extension** - **Infant or child – immobilize in child safety seat, if possible, or pad neck and shoulder area to maintain alignment** - **Elderly – head and neck to maintain comfort and prevent hyper-extension, airway obstruction, and skin breakdown** - **Athletes – head and neck to prevent hyper-extension, if shoulder pads are in place, and helmet removed**

Skill Component	Teaching Points
CHEST - Clavicles Sternum, Ribs ♦ **Examine for:** - **deformity** - **contusions** - **abrasions** - **punctures/penetrations** - **paradoxical movement** - **burns** - **lacerations** - **swelling** - **scars** - **accessory muscle use** - **sucking chest wound** ♦ **Palpate for:** - **tenderness** - **instability** - **crepitus** - **subcutaneous emphysema** ♦ **Auscultate:** - **breath sounds** ♦ **Percuss - if breath sounds unequal** ** ***Apply occlusive dressing to sucking chest wound - if indicated*** ** ***Splint flail segment - if paradoxical motion*** ** ***Decompress chest - if tension pneumothorax***	· **Maintain patient modesty and perform chest palpation in a manner as to avoid any inference of impropriety.** · **Complete either anterior or posterior auscultation for 2 breaths in all 3 fields.** · **Chest percussion assists in providing information if there is a hemothorax or a pneumothorax. Percussion on scene may be difficult due to environmental noise and patient condition – transport should not be delayed for this assessment element.** - **Hemothorax – dull sound** - **Pneumothorax – hyperresonant sound** · **Paramedics must perform chest decompression once tension pneumothorax is confirmed to prevent irreversible shock.** · **Percussion is a paramedic skill and not an EMT-I skill.**

Skill Component	Teaching Points
ABDOMEN/PELVIS ♦ **Examine for:** - **deformity** - **contusions** - **abrasions** - **punctures/penetrations** - **burns** - **lacerations** - **swelling** - **scars** - **distention** - **pulsating mass** - **incontinence** - **priapism** ♦ **Palpate for:** - **rigidity/guarding** - **tenderness** - **femoral pulses** - **crepitus**	· **EMS providers should palpate each of the 4 quadrants one time only to assess for rigidity and guarding. Further palpation does not add to examination findings and results in unnecessary pain.** · **Rebound tenderness is a diagnostic test for peritoneal irritation and causes severe pain and SHOULD NOT be evaluated in the field by EMS providers.** · **Guarding is a reflexive tightening of abdominal muscles as depth of palpation is increased.** · **Palpating femoral pulses is useful in the elderly if circulation to extremities is diminished. Maintain modesty and dignity and palpate in a manner as to avoid inference of impropriety.** · **DO NOT palpate pulsating masses -- this may rupture an aneurysm.** · **Use finger pads of the first 3 fingers to palpate, DO NOT use finger tips to palpate.**

Skill Component	Teaching Points
LOWER EXTREMITIES ♦ **Examine for:** - **deformity** - **contusions** - **abrasions** - **punctures/penetrations** - **burns** - **lacerations** - **swelling** - **scars** - **medical alert tags** ♦ **Palpate for:** - **pedal pulses** - **tenderness** - **instability** - **crepitus**	· **Compare bilateral pulses, motor movement and sensation.** · **Midline calf tenderness may indicate deep vein thrombosis and should be assessed for in patients complaining of shortness of breath, chest pain, or signs of a stroke. Deep vein thrombosis may indicate migration of a clot to the lungs, coronary arteries or brain.**

Skill Component	Teaching Points
UPPER EXTREMITIES ♦ **Examine for:** - **deformity** - **contusions** - **abrasions** - **punctures/penetrations** - **burns** - **lacerations** - **swelling** - **scars** - **medical alert tags** ♦ **Palpate for:** - **brachial/radial pulses** - **tenderness** - **instability** - **crepitus**	· **Compare bilateral pulses, motor movement and sensation.**

Skill Component	Teaching Points
BACK - Posterior Thorax, Lumbar, Buttocks ♦ **Examine for:** - **deformity** - **contusions** - **abrasions** - **punctures/penetrations** - **burns** - **lacerations** - **swelling** - **scars** ♦ **Palpate for:** - **tenderness** - **instability** - **crepitus** - **sacral edema**	· **Log roll patient if suspected spinal injury.** · **Roll patient directly onto backboard once examination is complete.**

INSTRUCTOR NOTES:

Assessment should be guided by mechanism of injury or complaint. DO NOT reinforce mindless recitation of assessment elements that are not appropriate for given scenario. Physical examination CANNOT be performed without visualization. Examination through clothing represents an incomplete examination. Actual palpation of body parts must be done with appropriate findings provided to the student.

PATIENT ASSESSMENT & MANAGEMENT

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in performing a complete medical or trauma assessment involving scene size-up, initial assessment, focused history, physical examination, ongoing assessment, and perform initial interventions as necessary.

CONDITION
The examinee will be requested to perform a complete medical or trauma assessment on a simulated patient and perform initial interventions as necessary. Required equipment will be either next to the patient or brought to the scene by the prehospital provider.

EQUIPMENT
Live model or manikin, oxygen tank with flow meter, oxygen tubing, BVM device, oxygen mask, nasal cannula, stethoscope, blood pressure cuff, pen light, timing device, clipboard, pen, long sleeves, goggles, masks, gown, gloves.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**).
Appropriate body substance isolation precautions must be instituted as required for scenario given.

NAME_____ **DATE** _____/_____/_____ **EXAMINER(S)**_____

PASS FAIL **1st 2nd 3rd (Final)**

Skill Component	Yes	No	Comments
PREPARATION			
♦ **Take body substance isolation precautions**			
SCENE SIZE-UP			
CRITICAL DECISIONS			
♦ **Assess:** · **Personnel/patient safety** · **Environmental hazards** · **Number of patients** · **Mechanism of injury**			
♦ **Determine:** · **Additional resources** · **Specialized equipment** · **Need for extrication/spinal immobilization**			

Skill Component	Yes	No	Comments
INITIAL ASSESSMENT **CRITICAL MANAGEMENT AND TRANSPORT DECISIONS**			
♦ **Consider:** · **General impression** · **Life-threatening condition**			
♦ **Establish patient rapport:** · **Ask the right questions** · **Respond with empathy**			
♦ **Assess mental status/stimulus response (AVPU):** · **Awake/not awake and orientation to environment** · **Verbal stimulus response** · **Painful stimulus response** · **Unresponsive** ** ***Consider blood glucose level - if unresponsive***			
♦ **Assess/Manage airway:** · **Patent** · **Obstructed** ** ***Open and clear/suction airway - if indicated*** ** ***Consider basic airway adjuncts - if indicated***			
♦ **Assess/Manage breathing:** · **Rate** · **Effort** · **Tidal volume** · **Breath sounds (rapid chest auscultation) *if difficulty breathing/shortness of breath*** ** ***Consider O_2 therapy*** ** ***Consider BVM - if inadequate ventilation***			

Skill Component	Yes	No	Comments
♦ **Assess/Manage circulation:** · **Pulse - rate, rhythm, quality** · **Skin - color, temperature, moisture** · **Bleeding** · **Capillary refill - *if appropriate*** ** ***Control severe bleeding*** ** ***Consider shock position - if hypotensive*** ** ***Consider monitor/AED - if indicated*** ** ***Consider venous access - if indicated***			
♦ **Assess major disability & deformities:** · **Altered mental status** · **Neurological deficits** · **Abnormal body presentation (posture)**			
♦ **Determine:** · **Chief complaint/problem** · **Focused history and physical examination** · **Transport decision**			
♦ **Expose specific body area for detailed examination - *if pertinent***			

Skill Component	Yes	No	Comments
FOCUSED HISTORY AND PHYSICAL EXAMINATION ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ **"RESPONSIVE MEDICAL / MINOR TRAUMA PATIENT"**			
♦ **Assess current problem:** · **Signs and symptoms** · **Assess pain - *if pertinent*:** - **onset** - **provoking factor/relieving factor** - **quality** - **region/r/radiation/recurrence** - **severity (mild-severe or 1-10 scale)** - **time**			
♦ **Assess current problem (Continued)** · **Assess difficulty breathing - *if pertinent*:** - **onset** - **provoking factor** - **quality** - **recurrence and what treatment provides relief** - **severity** - **time** · **Events leading to illness/mechanism of injury**			

Skill Component	Yes	No	Comments
♦ **Obtain personal and past medical history:** · **Age** · **Weight** · **Under physician's care/Private medical doctor** · **Pertinent history** · **Allergies** · **Medications** · **Last oral intake - *if pertinent***			
♦ **Assess vital signs:** · **Cardiac status** - **Pulse - rate, rhythm, quality** - **ECG reading - *if indicated and available*** · **Respiratory status** - **Respirations - rate, effort, tidal volume** - **Breath sounds** · **Blood pressure** · **Temperature - *if indicated***			
♦ **Assess neurological status:** · **Comprehensive orientation level** · **Glasgow Coma Scale (GCS) - eyes, motor, verbal** · **Pupils - size, equality, reactivity, movement - *if indicated*** · **Extremities-circulation, movement, strength, sensation**			
♦ **Examine injured or affected area**			

Skill Component	Yes	No	Comments
FOCUSED HISTORY AND PHYSICAL EXAMINATION ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ **"UNRESPONSIVE MEDICAL / MAJOR TRAUMA PATIENT"**			
♦ **Perform detailed physical examination** ** ***Manage specific problem or injury***			
♦ **Assess:** · **Current medical history** · **Past medical history** · **OPQRST for pain/respiratory - *if indicated*** · **Personal history** · **Vital signs** · **Neurological status**			
ONGOING ASSESSMENT ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ **STABLE PATIENTS AND PRIORITY (CRITICAL) PATIENTS**			
♦ **Repeat (every 5 minutes for priority patients and every 15 minutes for stable patients):** · **Initial assessment** · **Relevant portion of the focused examination**			
♦ **Evaluate response to treatment**			
♦ **Compare results to baseline condition and vital signs**			

Skill Component	Yes	No	Comments
ELEMENTS FOR A DETAILED PHYSICAL EXAMINATION OR EXAMINATION OF A SPECIFIC BODY PART ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ **MANAGEMENT OF SPECIFIC PROBLEM OR INJURY**			
HEAD - Skull, Eyes, Ears, Nose, Mouth, Face ♦ **Examine for:** - **drainage** - **deformity** - **contusions (raccoon eyes, Battle's sign)** - **abrasions** - **punctures/penetrations** - **burns/soot** - **lacerations** - **swelling** - **scars** - **eye movement** ♦ **Palpate for:** - **tenderness** - **instability** - **crepitus** ** ***Maintain patent airway***			

Skill Component	Yes	No	Comments
NECK/CERVICAL SPINE ♦ **Examine for:** - **deformity** - **contusions** - **abrasions** - **punctures/penetrations** - **burns** - **lacerations** - **swelling** - **scars** - **jugular vein distention (JVD)** - **tracheal deviation** - **accessory muscle use** - **medical alert tags** ♦ **Palpate for:** - **tenderness** - **instability** - **crepitus** - **subcutaneous emphysema** - **carotid pulses** ** ***Maintain spinal immobilization - if indicated*** ** ***Apply occlusive dressing - if puncture wound to neck***			

Skill Component	Yes	No	Comments
CHEST - Clavicles Sternum, Ribs ♦ **Examine for:** - **deformity** - **contusions** - **abrasions** - **punctures/penetrations** - **paradoxical movement** - **burns** - **lacerations** - **swelling** - **scars** - **accessory muscle use** - **sucking chest wound** ♦ **Palpate for:** - **tenderness** - **instability** - **crepitus** - **subcutaneous emphysema** ♦ **Auscultate:** - **breath sounds** ♦ **Percuss** - ***if breath sounds unequal*** ** ***Apply occlusive dressing to sucking chest wound - if indicated*** ** ***Splint flail segment - if paradoxical motion***			

Skill Component	Yes	No	Comments
ABDOMEN/PELVIS			
♦ **Examine for:**			
- **deformity**			
- **contusions**			
- **abrasions**			
- **punctures/penetrations**			
- **burns**			
- **lacerations**			
- **swelling**			
- **scars**			
- **distention**			
- **pulsating mass**			
- **incontinence**			
- **priapism**			
♦ **Palpate for:**			
- **rigidity/guarding**			
- **tenderness**			
- **femoral pulses**			
- **crepitus**			

Skill Component	Yes	No	Comments
LOWER EXTREMITIES ♦ **Examine for:** - **deformity** - **contusions** - **abrasions** - **punctures/penetrations** - **burns** - **lacerations** - **swelling** - **scars** - **medical alert tags** ♦ **Palpate for:** - **pedal pulses** - **tenderness** - **instability** - **crepitus**			

Skill Component	Yes	No	Comments
UPPER EXTREMITIES ♦ **Examine for:** - **deformity** - **contusions** - **abrasions** - **punctures/penetrations** - **burns** - **lacerations** - **swelling** - **medical alert tags** ♦ **Palpate for:** - **brachial/radial pulses** - **tenderness** - **instability** - **crepitus**			

Skill Component	Yes	No	Comments
<u>BACK</u> - posterior thorax, lumbar, buttocks ♦ **<u>Examine for:</u>** **- deformity** **- contusions** **- abrasions** **- punctures/penetrations** **- burns** **- lacerations** **- swelling** **- scars** ♦ **<u>Palpate for:</u>** **- tenderness** **- instability** **- crepitus** **- sacral edema**			

Module 4

MODULE 4:
TRAUMA

Number of Lecture Hours: 2 Hours

Topics:

1. Trauma — 1 Hour
2. Hemorrhage and Shock — 1 Hour

Labs/Workshops: Number of Hours: 2 Hours

1. Assessment and management of the trauma patient

Testing Number of Hours: 2 Hours

MODULE 4:
TRAUMA

MODULE TERMINAL OBJECTIVES:

At the completion of this module the Advanced EMT student will be able to successfully:

1. Apply the principals of kinematics to enhance the patient assessment and predict the likelihood of injuries based on the patient's mechanism of injury.

2. Interpret assessment findings to formulate a field impression and implement the treatment plan for the patient with hemorrhage or shock.

3. Demonstrate the practical skills of managing trauma patients.

MODULE 4: **TRAUMA**

Topic: **TRAUMA**

Purpose:

This topic will give the Advanced EMT student an understanding of the principals of kinematics to enhance patient assessment.

Suggested Time Frame: 1 Hour

Objectives:

At the conclusion of this topic, the Advanced EMT student will be able to successfully:

1. List and describe the components of a comprehensive trauma system.
2. Describe the role and differences between levels of trauma centers.
3. Discuss the criteria for transport to the trauma center per local protocol.
4. Describe the kinematics of blunt, penetrating, and blast injuries.

DECLARATIVE
MODULE 4: TRAUMA
TRAUMA

I. Introduction
- A. Epidemiology of Trauma
  1. A leading cause of death for people 1 - 44 years of age
  2. 140,000 unexpected deaths per year
  3. Automobile related deaths are greater than 40,000

II. Trauma Systems
- A. Components
  1. Injury prevention
  2. Prehospital Care
     - a. Treatment
     - b. Transport
     - c. Trauma triage guidelines
  3. Emergency Department care
  4. Interfacility transportation as necessary
  5. Definitive care
  6. Rehabilitation
  7. Data collection / trauma registry
- B. Trauma Centers
  1. Levels
  2. Qualifications
  3. Roles
- C. Transport Considerations
  1. Level of receiving facility
  2. Mode of transport
     - a. Ground transport
       - (1) If appropriate facility can be reached within reasonable time
       - (2) To a more accessible landing zone for air medical transport
     - b. Air medical transport
       - (1) Indications
       - (2) Contraindications
       - (3) Procedure (refer to local protocol)

III. Blunt Trauma
- A. Mechanism
  1. Vehicle crashes
  2. Vehicle vs pedestrian
  3. Falls
  4. Other

TRAUMA
continued

IV. Penetrating Trauma
- A. Mechanism
  1. Stab wounds
  2. Gun shot wounds
  3. Other

V. Blast Injuries
- A. Three phases
  1. Primary
     - a. Pressure wave (ruptured organs)
     - b. Heat wave (burns)
  2. Secondary
     - a. Flying debris / shrapnel
     - b. Compression / lacerations
  3. Tertiary
     - a. Patient becomes flying object
       - (1) Impact on other objects
       - (2) Similar to falls

MODULE 4: TRAUMA

Topic: HEMORRHAGE AND SHOCK

Purpose:

This topic will give the Advanced EMT student an opportunity to utilize their assessment findings to formulate a field impression and implement the treatment plan for the patient with hemorrhage shock.

Suggested Time Frame: 2 Hours

Objectives:

At the conclusion of this topic, the Advanced EMT student will be able to successfully:

1. Discuss the various types and degrees of hemorrhage and shock.
2. Discuss the assessment findings associated with hemorrhage and shock.
3. Describe the body's physiological response to changes in perfusion.
4. Discuss the indications, contraindications, complications, and techniques of intervention for shock.
5. Discuss fluid resuscitation for the trauma patient.
6. Discuss local protocols for the management of shock in trauma patients.
7. Demonstrate the assessment of a patient with signs and symptoms of shock.
8. Demonstrate the management of a patient with signs and symptoms of shock.

DECLARATIVE
MODULE 4: TRAUMA
HEMORRHAGE AND SHOCK

I. Pathophysiology, assessment, and management of hemorrhage
- A. Hemorrhage
  - 1. Pathophysiology
    - a. Location
      - (1) External
        - (a) Controlled
        - (b) Uncontrolled
      - (2) Internal
        - (a) Trauma
        - (b) Non-trauma
        - (c) Controlled
        - (d) Uncontrolled
    - b. Anatomical type
      - (1) Arterial
      - (2) Venous
      - (3) Capillary
  - 2. Assessment
    - a. Bright red blood from wound, mouth, rectum, or other orifice
    - b. Coffee ground appearance of vomitus
    - c. Dizziness or syncope on sitting or standing
    - d. Signs and symptoms of hypovolemic shock
  - 3. Management
    - a. Airway and ventilatory support
    - b. Circulatory support
      - (1) Bleeding from nose or ears after head trauma
        - (a) Refrain from applying pressure
        - (b) Apply loose sterile dressing to protect from infection
      - (2) Bleeding from other areas
        - (a) Control bleeding
          - i) Direct pressure
          - ii) Elevation if appropriate
          - iii) Pressure points
          - iv) Apply sterile dressing and pressure bandage
          - v) Tourniquet

HEMORRHAGE AND SHOCK
continued

II. Pathophysiology, assessment, and management of shock
- A. Shock
  - 1. Pathophysiology
    - a. Perfusion depends on cardiac output (CO), systemic vascular resistance (SVR), and transport of oxygen
      - (1) CO = HR X SV
        - (a) HR -heart rate
        - (b) SV -stroke volume
      - (2) BP = CO X SVR
      - (3) Shock (hypoperfusion) can result from
        - (a) Inadequate cardiac output (↓ HR and/or ↓ SV)
        - (b) Inadequate systemic vascular resistance (peripheral vasodilation)
        - (c) Inability of red blood cells to deliver oxygen to tissues
    - b. Compensation for decreased perfusion
      - (1) Sympathetic nervous system stimulated
        - (a) Decrease in systolic pressure less than 80 mmHg stimulates vasomotor center to increase arterial pressure
        - (b) Adrenal medulla glands secrete epinephrine and norepinephrine
          - i) Vasoconstriction
          - ii) Increase in peripheral vascular resistance
          - iii) Bronchodilation
    - c. Stages of shock
      - (1) Compensated
        - (a) Characterized by signs and symptoms of early shock
        - (b) Arterial blood pressure is normal or high
        - (c) Treatment at this stage will typically result in recovery
      - (2) Decompensated
        - (a) Characterized by signs and symptoms of late shock
        - (b) Arterial blood pressure is abnormally low
        - (c) Treatment at this stage will sometimes result in recovery
      - (3) Irreversible
        - (a) Characterized by signs and symptoms of late shock
        - (b) Arterial blood pressure is abnormally low
        - (c) Even aggressive treatment at this stage does not result in recovery
  - 2. Assessment
    - a. Early or compensated
      - (1) Tachycardia
      - (2) Pale, cool skin

HEMORRHAGE AND SHOCK
continued

(3) Diaphoresis
(4) Level of consciousness
(a) Normal
(b) Anxious or apprehensive
(5) Blood pressure maintained
(6) Complaints of thirst
(7) Weakness
b. Late or progressive
(1) Extreme tachycardia
(2) Extreme pale, cool skin
(3) Diaphoresis
(4) Significant decrease in level of consciousness
(5) Hypotension
3. Management
a. Airway and ventilatory support
(1) Ventilate and suction as necessary
(2) Administer high concentration oxygen
b. Circulatory support
(1) Hemorrhage control
(2) Intravenous fluids (refer to local protocol)
(a) Hypotension in the non-traumatic patient
(b) Trauma (other than head trauma)
(c) Head trauma
c. Transport considerations
(1) Indications for rapid transport
(2) Indications for transport to a trauma center
(3) Considerations for air medical transportation

MODULE 4: TRAUMA

Topic: TRAUMA ASSESSMENT LAB

Purpose:

This lab will give the Advanced EMT student an opportunity to demonstrate assessment skills to formulate treatment and transport plans for trauma emergencies.

Suggested Time Frame: 2 Hours

Objectives:

At the conclusion of this lab, the Advanced EMT student will be able to successfully:

1. Demonstrate the assessment and management of a patient with signs and symptoms of shock.

2. Demonstrate the appropriate assessment, treatment, and transport of a patient with non life-threatening injuries and a patient with life-threatening injuries.

MODULE 4: TRAUMA
TRAUMA ASSESSMENT LAB

The Advanced EMT student in a lab setting with an instructor will demonstrate the appropriateassessment and management of various trauma scenarios to include life-threatening and non-life threatening trauma patients. These scenarios will include review of the basic skills for splinting, bandaging, and immobilization.

I. Demonstrate the appropriate patient assessment with a trauma patient without life-threatening injuries or without significant mechanism of injuries.
   A. Proper BSI
   B. Scene size up
      1. Use clues on scene to determine mechanism of injury
      2. Determine scene is safe
   C. Manual C-spine stabilization until chief complaint is established
   D. General impression of patient
   E. Determine level of consciousness
      1. AVPU
   F. Ensure airway patency
      1. Open airway if needed
   G. Determine chief complaint or any apparent life threats
   H. Assess rate and quality of breathing
      1. Apply oxygen
   I. Assess pulses and skin color
      1. Control external bleeding
      2. Initiate management of shock
   J. Determine patient priority and transport decision
   K. Perform a focused trauma assessment
   L. Obtain baseline vital signs
   M. Obtain a past medical history
      1. SAMPLE
   N. Treat patient for injuries per local protocol
   O. Prepare patient for transport
   P. Detailed physical examination
   Q. Ongoing assessment
   R. Documentation

II. Demonstrate the appropriate patient assessment with a trauma patient with life-threatening injuries or with significant mechanism of injuries.
   A. Proper BSI
   B. Scene size up
      1. Use clues on scene to determine mechanism of injury
      2. Determine scene is safe

TRAUMA ASSESSMENT LAB
continued

C. Manual C-spine stabilization until chief complaint is established
D. General impression of patient
E. Determine level of consciousness
   1. AVPU
F. Ensure airway patency
   1. Open airway if needed
   2. Airway adjuncts , suction if needed
G. Determine chief complaint or any apparent life threats
H. Assess rate and quality of breathing
   1. Apply oxygen
I. Assess pulses and skin color
   1. Control external bleeding
   2. Initiate management of shock
J. Determine patient priority and transport decision
K. Reassess mechanism of injury
L. Continue spinal immobilization. Apply cervical collar after assessing neck.
M. Reassess mental status
N. Perform a rapid trauma assessment
O. Provide treatment for injuries per local protocol
P. Obtain baseline vital signs
Q. Obtain a past medical history
   1. SAMPLE
R. Transport if transport wasn't started earlier
S. Perform a detail examination if time permits
T. Ongoing Assessment
U. Documentation

III. Demonstrate the appropriate management and treatment of trauma patients per local protocols.
   A. Extremity trauma
      1. Bandaging and splinting
      2. Hemorrhage control
      3. HARE or Sager
   B. Head and spinal trauma
      1. Spinal immobilization
      2. Long board
      3. KED
      4. Helmet removal

TRAUMA ASSESSMENT LAB
continued

C. Burns
D. Thoracic Trauma and abdominal trauma
E. Management of shock
    1. IV Management
D. Transport priorities and destinations per local protocol

Module 5

MODULE 5:
MEDICAL

Number of Lecture Hours: 13 Hours

Topics:

1.	Respiratory Emergencies	4 Hours
2.	Cardiovascular Emergencies	3 Hours
3.	Diabetic Emergencies	2 Hours
4.	Allergic Reactions	1 Hour
5.	Poisoning / Overdose Emergencies	1 Hour
6.	Environmental Emergencies	2 Hours

Labs/Workshops: Number of Hours: 6 Hours

Assessment and treatment scenarios for medical emergencies:

1. Respiratory Emergencies
2. Cardiovascular Emergencies
3. Diabetic Emergencies
4. Allergic Reactions
5. Poisoning / Overdose Emergencies
6. Environmental Emergencies

Testing: Number of Hours: 2 Hours

MODULE 5:
MEDICAL

MODULE TERMINAL OBJECTIVES:

At the completion of this module the Advanced EMT student as an active participant will be able to successfully:

1. Interpret assessment findings to formulate a field impression and implement the treatment plan for the patient with respiratory emergencies.

2. Interpret assessment findings to formulate a field impression and implement the treatment plan for the patient experiencing a cardiac emergency.

3. Interpret assessment findings to formulate a field impression and implement the treatment plan for the patient with a diabetic emergency.

4. Interpret assessment findings to formulate a field impression and implement the treatment plan for the patient with an allergic or anaphylactic reaction.

5. Interpret assessment findings to formulate a field impression and implement the treatment plan for the patient with a poisoning or overdose respiratory emergency.

6. Interpret assessment findings to formulate a field impression and implement the treatment plan for the patient with an environmentally-induced or exacerbated emergency.

MODULE 5: MEDICAL

Topic: RESPIRATORY EMERGENCIES

Purpose:

This topic will give the Advanced EMT student an understanding of respiratory emergencies and to utilize assessment findings to formulate a treatment plan.

Suggested Time Frame: 4 Hours

Objectives:

At the conclusion of this topic, the Advanced EMT student as an active participant will be able to successfully:

1. Review the structures of the upper and lower airway.

2. Identify common pathological events that affect the pulmonary system.

3. Discuss abnormal assessment findings associated with pulmonary diseases and conditions.

4. Discuss the pharmacological characteristics for inhaled beta-2 agonists and epinephrine.

5. Describe the causes, pathophysiology, assessment findings, and management of the following respiratory conditions:

    a. Bronchial asthma
    b. Chronic bronchitis
    c. Emphysema / COPD
    d. Pneumonia
    e. Pulmonary edema
    f. Spontaneous pneumothorax
    g. Hyperventilation syndrome

6. Appreciate the importance of the accurate field impressions of patients with respiratory diseases and conditions.

7. Demonstrate an appropriate assessment and field management of a patient with respiratory diseases and conditions.

DECLARATIVE
MODULE 5: MEDICAL
RESPIRTORY EMERGENCIES

I. Introduction

II. General system pathophysiology, assessment, and management
- A. Pathophysiology
  - 1. A variety of problems can impact the pulmonary system's ability to achieve its goal of gas exchange to provide for cellular needs and excretion of wastes
  - 2. Specific pathophysiologies
    - a. Ventilation
      - (1) Foreign body obstruction
        - (a) Trauma
        - (b) Epiglottitis
      - (2) Lower airway obstruction
        - (a) Trauma
        - (b) Obstructive lung disease
        - (c) Mucous accumulation
        - (d) Smooth muscle spasm
        - (e) Airway edema
- B. Assessment Findings
  - 1. Scene size up - a safe environment for all EMS personnel before initiating patient contact
  - 2. Initial assessment
    - a. A major focus of the initial assessment is the recognition of life-threat;
      - (1) Alterations in mental status
      - (2) Severe cyanosis
      - (3) Absent breath sounds
      - (4) Audible stridor
      - (5) 1-2 word dyspnea
      - (6) Tachycardia>130 beats / minute
      - (7) Pallor and diaphoresis
      - (8) The presence of retractions / use of the accessory muscles
    - b. Recognition of life-threat and the initiation of resuscitation take priority over detailed assessment
  - 3. Focused history and physical examination
    - a. Chief complaint
      - (1) Dyspnea
      - (2) Chest pain

(3) Cough
(a) Productive
(b) Non-productive
(c) Hemoptysis
(4) Wheezing
(5) Signs of infection
(a) Fever / chills
(b) Increased sputum production
b. History
(1) Known pulmonary disease
(2) Medication history
(a) Current medications
(b) Medication allergies
(c) Pulmonary medications
(d) Cardiac-related drugs
(3) History of the present episode
(4) Exposure / smoking history
c. Physical exam
(1) General impression
(a) Position
i) Sitting
ii) "Tripod" position
(b) Mentation
i) Confusion is a sign of hypoxemia
ii) Restlessness and irritability may be signs of fear and hypoxemia
iii) Severe lethargy or coma
(c) Ability to speak
i) 1-2 word dyspnea versus ability to speak freely
ii) Rapid, rambling speech is a sign of anxiety and fear
(d) Respiratory effort
i) Hard work indicates obstruction
ii) Retractions
iii) Use of accessory muscles
(e) Color
i) Pallor
ii) Diaphoresis
iii) Cyanosis

a) Central
b) Peripheral

(2) Vital signs
(a) Pulse
i) Tachycardia is a sign of hypoxemia and the use of sympathomimetic medications
(b) Blood pressure
i) Hypertension may be associated with sympathomimetic medication use
(c) Respiratory rate

(3) Head / neck
(a) Pursed lip breathing
(b) Use of accessory muscles
(c) Sputum
i) Increasing amounts suggest infection and/or pneumonia
ii) Pink, frothy sputum is associated with severe, late stages of pulmonary edema
(d) Jugular venous distention may accompany right-sided heart failure, which may be caused by severe pulmonary obstruction

(4) Chest
(a) Signs of trauma
(b) Barrel chest demonstrates the presence of long-standing chronic " obstructive lung disease
(c) Retractions
(d) Symmetry
(e) Breath sounds
i) Normal
ii) Abnormal
a) Stridor
b) Wheezing
c) Rhonchi (low wheezes)
d) Rales (crackles)

(5) Extremities
(a) Peripheral cyanosis
(b) Carpopedal spasm may be associated with hypocapnia resulting from periods of rapid, deep respiration

C. Management

RESPIRATORY EMERGENCIES
continued

1. Airway and ventilatory support
    a. Manual airway opening maneuvers
    b. Oropharyngeal airway
    c. Nasopharyngeal airway
    d. Nasal cannula
    e. Simple oxygen mask
    f. Non-rebreather mask
    g. Multi-lumen airway
    h. Bag-valve-mask
    i. Suctioning
2. Circulatory support
3. Pharmacological interventions
    a. Oxygen
    b. Sympathomimetic
        (1) Beta 2 agonists (e.g., albuterol- Proventil, Ventolin)
        (2) Epinephrine
4. Non-pharmacological interventions
    a. Positioning -sitting up
5. Transport considerations
    a. Appropriate mode
    b. Appropriate facility

IV. Specific illness
A. Obstructive airway disease
1. A spectrum of diseases which affect a substantial number of individuals worldwide
2. Diseases include asthma, COPD (which includes emphysema and chronic bronchitis)
3. Epidemiology
    a. Morbidity / mortality
        (1) Overall
        (2) Asthma -4-5% of US population
        (3) 20% of adult males have chronic bronchitis
    b. Causative factors
        (1) Cigarette smoking
        (2) Exposure to environmental toxins
        (3) Genetic predisposition

c. Factors which may exacerbate underlying conditions
    (1) Intrinsic
        (a) Stress is a significant exacerbating factor, particularly in adults
        (b) Upper respiratory infection
        (c) Exercise
    (2) Extrinsic
        (a) Tobacco smoke
        (b) Allergens (including foods, animal danders, dusts, molds, pollens)
        (c) Drugs
        (d) Occupational hazards

4. Pathophysiology overview
    a. Obstruction occurs in the bronchioles, and may be the result of
        (1) Smooth muscle spasm
        (2) Mucous
        (3) Inflammation
    b. Obstruction may be reversible or irreversible
    c. Obstruction causes air trapping through the following mechanism
        (1) Bronchioles dilate naturally on inspiration
        (2) Dilation enables air to enter the alveoli despite the presence of obstruction
        (3) Bronchioles naturally constrict on expiration
        (4) Air becomes trapped distal to obstruction on exhalation
5. Specific pathophysiology
    a. Asthma
        (1) Reversible obstruction
        (2) Obstruction caused by a combination of smooth muscle spasm, mucous, and edema
        (3) Exacerbating factors tend to be extrinsic in children, intrinsic in adults
        (4) Status asthmaticus - prolonged exacerbation which does not respond to therapy
    b. Chronic bronchitis
        (1) Reversible and irreversible obstruction
        (2) Characterized by hyperplasia and hypertrophy of mucous-producing glands
        (3) Clinical definition - productive cough for at least 3 months per year for 2 or more consecutive years

(4) Typically associated with cigarette smoking, but may also occur in non-smokers

c. Emphysema

(1) Irreversible airway obstruction
(2) Diffusion defect also exists because of the presence of blebs
(3) Because blebs have extremely thin walls, they are prone to collapse
(4) To prevent collapse, the patient often exhales through pursed lips, effectively maintaining a positive airway pressure
(5) Almost always associated with cigarette smoking or significant exposure to environmental toxins

6. Assessment findings

a. Signs of severe respiratory impairment

(1) Altered mentation
(2) 1-2 word dyspnea
(3) Absent breath sounds

b. Chief complaint

(1) Dyspnea
(2) Cough
(3) Nocturnal awakening with dyspnea and wheezing

c. History

(1) Personal or family history of asthma and/ or allergies
(2) History of acute exposure to pulmonary irritant
(3) History of prior similar episodes

d. Physical findings

(1) Wheezing may be present in **ALL** types of obstructive lung disease
(2) Retractions and/or use of accessory muscles

7. Management

a. Airway and ventilatory support

(1) Intubation as required
(2) Assisted ventilation may be necessary
(3) High flow oxygen

b. Pharmacological interventions

(1) Beta 2 agonists

c. Transport considerations

(1) Appropriate mode
(2) Appropriate facility
(3) Continue monitoring

(4) Contact medical direction
d. Psychological support / communication strategies
B. Pneumonia
1. Epidemiology
a. Incidence
(1) Fifth leading cause of death in the US
(2) Not a single disease, but a group of specific infections
b. Risk factors
(1) Cigarette smoking
(2) Alcoholism
(3) Exposure to cold
(4) Extremes of age (old or young)
2. Anatomy and physiology review
a. Cilia
b. Causes and process of mucous production
3. Pathophysiology
a. Ventilation disorder
b. Infection of lung parenchyma
c. May cause alveolar collapse (atelectasis)
d. Localized inflammation / infection may become systemic, leading to sepsis and septic shock
4. Assessment findings
a. Typical pneumonia
(1) Acute onset of fever and chills
(2) Cough productive of purulent sputum
(3) Location of bronchial breath sounds
(4) Rales
5. Management
a. Airway and ventilatory support
(1) Intubation may be required
(2) Assisted ventilation as necessary
(3) High flow oxygen
b. Pharmacological interventions
(1) Beta 2 agonists may be required if airway obstruction is severe or if the patient has accompanying obstructive lung disease
c. Non-pharmacological interventions
(1) Cool if high fever

d. Transport considerations
(1) Appropriate mode
(2) Appropriate facility
e. Psychological support / communication strategies

C. Pulmonary edema
1. Not a disease, but a pathophysiological condition
2. Epidemiology
a. Risk factors vary based on type
(1) High pressure (cardiogenic)
(a) Acute myocardial infarction
(b) Chronic hypertension
(c) Myocarditis
(2) High permeability (non-cardiogenic)
(a) Acute hypoxemia
(b) Near-drowning
(c) Post cardiac arrest
(d) Post shock
(e) High altitude exposure
(f) Inhalation of pulmonary irritants
(g) Adult Respiratory Distress Syndrome (ARDS)
3. Anatomy and physiology review
4. Pathophysiology
a. High pressure (cardiogenic)
(1) Left-sided heart failure
(2) Increase pulmonary venous pressure
(3) In severe cases, fluid may accumulate in the alveoli
b. High permeability (non-cardiogenic)
(1) Disruption of the alveolar-capillary membranes caused by
(a) Severe hypotension
(b) Severe hypoxemia (post drowning, post cardiac arrest, severe seizure, prolonged hypoventilation)
(c) High altitude
(d) Environmental toxins
(e) Septic shock
5. Assessment findings
a. High pressure (cardiogenic)
(1) Refer to Cardiac Emergencies unit

b. High permeability (non-cardiogenic)
    (1) History of associated factors
        (a) Hypoxic episode
        (b) Shock (hypovolemic, septic, or neurogenic)
        (c) Chest trauma
        (d) Recent acute inhalation of toxic gases or particles
        (e) Recent ascent to high altitude without acclimatizing
    (2) Dyspnea
    (3) Orthopnea
    (4) Fatigue
    (5) Pulmonary rales, particularly in severe cases
c. Diagnostic testing

6. Management
a. High pressure (cardiogenic)
    (1) Airway and ventilatory support
        (a) Intubation as necessary
        (b) Assisted ventilation as necessary
        (c) High flow oxygen
    (2) Circulatory support
        (a) Avoid fluid excess; monitor IV flow rates carefully
    (3) Pharmacological interventions
        (a) Nitroglycerine
    (4) Non-pharmacological interventions
        (a) Position the patient in an upright position with legs dangling
    (5) Transport decisions
        (a) Appropriate mode
        (b) Appropriate facility
    (6) Psychological support / communication strategies
b. High permeability (non-cardiogenic)
    (1) Airway and ventilatory support
        (a) Intubation as necessary
        (b) Assisted ventilation as necessary
        (c) High flow oxygen
    (2) Circulatory support
        (a) Avoid fluid excess; monitor IV flow rates carefully
    (3) Non-pharmacological interventions
        (a) Position the patient in an upright position with legs dangling

(b) Rapid removal from any environmental toxins
(c) Rapid descent in altitude if high altitude pulmonary edema (HAPE) is suspected
(4) Transport considerations
(a) Appropriate mode
(b) Appropriate facility
(5) Psychological support / communication strategies

E. Hyperventilation syndrome
1. Epidemiology
a. Incidence is unknown
2. Pathophysiology
a. Tachypnea without physiologic demand for increased oxygen causes respiratory alkalosis
b. Tachypnea caused by anxiety resulting in respiratory alkalosis
3. Assessment findings
a. Chief complaint
(1) Dyspnea
(2) Chest pain
b. Physical findings
(1) Rapid breathing with high minute volume
(2) Carpopedal spasms
c. Caution there are multiple causes of tachypnea that are not hyperventilation syndrome but cause increased oxygen demand
(1) Hypoxia
(2) High altitude
(3) Pulmonary disorders
(4) Pneumonia
(5) Pulmonary emboli, vascular disease
(6) Bronchial asthma
(7) Cardiovascular disorders
(8) Congestive heart failure
(9) Hypotension/ shock
(10) Metabolic disorders
(11) Acidosis
(12) Hepatic failure
(13) Neurologic disorders
(14) Central nervous system infection, tumors

(15) Drugs
(16) Fever, sepsis
(17) Pain
(18) Pregnancy

4. Management
   a. Depends on cause of syndrome
   b. Airway and ventilatory support
      (1) Oxygen, rate of administration based on symptoms
      (2) If anxiety hyperventilation is confirmed (especially based on patient's prior history) coached ventilation / rebreathing techniques might be considered
   c. Circulatory support
      (1) Intervention rarely required
   d. Pharmacological interventions
      (1) Intervention rarely required
   e. Non-pharmacological interventions
      (1) Intervention rarely required
      (2) Patients with anxiety hyperventilation will require psychological approaches to calm them
      (3) Have them mimic your respiratory rate and volume
      (4) Do not place bag over mouth and nose
   f. Transport considerations
      (1) Appropriate mode
      (2) Appropriate facility
   g. Psychological support / communication strategies
      (1) Depend on cause of hyperventilation

MODULE 5: MEDICAL

Topic: CARDIOVASCULAR EMERGENCIES

Purpose:

This topic will give the Advanced EMT student an understanding of cardiovascular emergencies and to utilize assessment findings to formulate a treatment plan.

Suggested Time Frame: 3 Hours

Objectives:

At the conclusion of this topic, the Advanced EMT student as an active participant will be able to successfully:

1. Review cardiovascular anatomy and physiology.

2. Identify and describe the components of the patient assessment as it relates to the cardiovascular patient.

3. Discuss the pathophysiology of angina pectoris and acute myocardial infarction.

4. List the pertinent special questions (OPQRST) and physical exam for a chief complaint of chest pain.

5. List the clinical presentation of a patient with angina and acute myocardial infarction.

6. Describe the initial assessment parameters to be evaluated in a patient with angina pectoris and myocardial infarction.

7. Describe the pharmacological characteristics and actions of nitroglycerin and aspirin.

8. Develop a treatment plan for a patient with chest pain that may be angina pectoris or myocardial infarction.

9. Discuss the pathophysiology of congestive heart failure / pulmonary edema.

10. List the clinical presentation of a patient with pulmonary edema.

CARDIOVASCULAR EMERGENCIES
continued

11. Identify the general drug actions for nitroglycerine as they apply to pulmonary edema.

12. Develop a treatment plan for a patient with pulmonary edema.

13. Discuss the assessment and field management of a patient in cardiac arrest.

14. Identify other non-cardiac causes of chest pain:

    a. Cholecystitis
    b. Aneurysm
    c. Hiatal hernia
    d. Pleurisy
    e. Esophageal and gastrointestinal diseases
    f. Pulmonary embolism
    g. Pancreatitis
    h. Respiratory infections
    i. Aortic dissection
    j. Pneumothorax
    k. Herpes zoster
    l. Chest wall tumors
    m. Blunt trauma

15. Value the sense of urgency for initial assessment and intervention as it contributes to the treatment plan for the patient with a cardiac emergency.

16. Demonstrate an appropriate patient assessment and field management of a patient with a cardiac emergency.

DECLARATIVE
MODULE 5: MEDICAL
CARDIOIVASCULAR EMERGENCIES

I. Initial cardiovascular assessment
  A. Level of consciousness
    1. Alert and responsive
    2. Dizziness
    3. Unresponsive
  B. Airway
    1. Patent
    2. Debris, blood
    3. Frothy sputum
  C. Breathing
    1. Absent
    2. Present
      a. Rate and depth
        (1) Effort
        (2) Breath sounds
          (a) Characteristics
          (b) Significance
  D. Circulation
    1. Pulse
      a. Absent
      b. Present
        (1) Rate and quality
        (2) Pulse deficit
        (3) Apical
        (4) Peripheral
    2. Skin
      a. Color
      b. Temperature
      c. Moisture
      d. Edema
    3. Blood pressure

II. Focused history
  A. SAMPLE format
  B. Chief complaint
    1. Pain

CARDIOVASCULAR EMERGENCIES
continued

a. OPQRST
(1) Onset / origin
(a) Pertinent past history
(b) Time of onset
(2) Provocation
(a) Exertional
(b) Non-exertional
(3) Quality
(a) Patient's narrative description
i) For example -sharp, tearing, pressure, heaviness
(4) Region / radiation
(a) For example: substernal, radiates to arms, neck, back
(5) Severity
(a) "1-10" scale
(6) Timing
(a) Duration
(b) Worsening or improving
(c) Continuous or intermittent
(d) At rest or with activity

2. Dyspnea
a. Continuous or intermittent
b. Exertional
c. Non-exertional
d. Orthopneic
e. Paroxysmal Nocturnal Dyspnea (PND)
f. Cough
(1) Dry
(2) Productive
(3) Frothy
(4) Bloody

3. Related signs and symptoms
a. Level of consciousness (LOC)
b. Diaphoresis
c. Restlessness, anxiety
d. Feeling of impending doom
e. Nausea / vomiting
f. Fatigue

- g. Palpitations
- h. Edema
  - (1) Extremities
  - (2) Sacral
- i. Headache
- j. Syncope
- k. Behavioral change
- l. Anguished facial expression
- m. Activity limitations
- n. Trauma

C. Past medical history

1. Coronary artery disease (CAD)
2. Atherosclerotic heart disease
   - a. Angina
   - b. Previous MI
   - c. Hypertension
   - d. Congestive heart failure (CHF)
3. Valvular disease
4. Aneurysm
5. Pulmonary disease
6. Diabetes
7. Renal disease
8. Vascular disease
9. Inflammatory cardiac disease
10. Previous cardiac surgery
11. Congenital anomalies
12. Current / past medications
    - a. Prescribed
      - (1) Compliance
      - (2) Non-compliance
    - b. Borrowed
    - c. Over-the-counter
    - d. Recreational
      - (1) Cocaine
13. Allergies
14. Family history
    - a. Stroke, heart disease, diabetes, hypertension

CARDIOVASCULAR EMERGENCIES
continued

III. Physical examination
- A. Inspection
  - 1. Neck veins
    - a. Appearance
    - b. Clinical significance
  - 2. Chest
    - a. Surgical scars
    - b. Clinical significance
- B. Auscultation
  - 1. Breath sounds
    - a. Depth
    - b. Equality
    - c. Adventitious sounds
      - (1) Crackles
      - (2) Wheezes
        - (a) Gurgling
        - (b) Frothing (mouth and nose)
          - i) Blood tinged
          - ii) Foamy
- C. Palpation
  - 1. Areas of crepitus or tenderness
  - 2. Thorax
  - 3. Epigastrium
    - a. Pulsation
    - b. Distention

IV. Chest pain that may be myocardial in origin
- A. Define angina pectoris and myocardial infarction
  - 1. Epidemiology
  - 2. Precipitating causes
- B. Morbidity/ mortality
  - 1. Not a self-limiting disease
  - 2. Chest pain may dissipate, but myocardial ischemia and injury can continue
  - 3. A single anginal episode may be a precursor to myocardial infarction
  - 4. May not be cardiac in origin

5. Must be diagnosed by a physician
6. Related terminology
    a. Defined as a brief discomfort, has predictable characteristics, and is relieved promptly - no change in this pattern
    b. Stable
        (1) Occurs at a relative fixed frequency
        (2) Usually relieved by rest and/ or medication
    c. Unstable
        (1) Occurs without fixed frequency
        (2) Mayor may not be relieved by rest and/ or medication
    d. Initial -first episode
    e. Progressive -accelerating in frequency and duration
    f. Preinfarction angina
        (1) Pain at rest
        (2) Sitting or lying down
7. Other possible causes of chest pain
    a. Cholecystitis
    b. Aneurysm
    c. Hiatal hernia
    d. Pleurisy
    e. Esophageal and gastrointestinal diseases
    f. Pulmonary embolism
    g. Pancreatitis
    h. Respiratory infections
    i. Aortic dissection
    j. Pneumothorax
    k. Herpes zoster (shingles)
    l. Chest wall tumors
    m. Blunt trauma

C. Initial assessment findings
1. Level of consciousness
    a. Anxiety and restlessness
    b. Near syncopal episodes
2. Airway/ breathing
    a. labored breathing may or may not be present
3. Circulation
    a. Peripheral pulses

(1) Quality
(2) Rhythm
b. Changes in skin
(1) Color
(2) Temperature
(3) Moisture

D. Focused history
1. Chief complaint
a. Angina -typically sudden onset of discomfort, usually of brief duration, lasting three to five minutes, maybe five to 15 minutes; usually relieved by rest and/ or medication
b. Myocardial infarction -may be sudden onset, lasting more than five minutes, unrelieved by rest and/ or medications
c. May be referred to as chest pressure
d. Epigastric pain or discomfort
e. Atypical
2. Denial
3. Contributing history
a. Onset
(1) Exertional
(2) Non-exertional
b. Initial recognized event
c. Recurrent event
d. Increasing frequency and/ or duration of event
e. Prior use of nitroglycerin
f. Prior use of aspirin
g. Other medications
(1) Prescribed
(2) Borrowed
(3) Over-the-counter
h. Allergy to medications

E. Detailed physical exam
1. Airway
2. Breathing
a. May or may not be labored
(1) Sounds
(a) May be clear to auscultation

(b) May be congested in the bases
3. Circulation
a. Alterations in heart rate and rhythm may occur
b. Peripheral pulses are usually not affected
c. Blood pressure may be elevated during the episode and normalize afterwards
F. Management
1. Position of comfort
2. Pharmacological interventions (for example)
a. Oxygen
b. Aspirin
c. Nitroglycerin
G. Transport considerations
1. Sense of urgency for reperfusion
a. No relief with medications
b. Hypotension / hypoperfusion
H. Psychological support / communications strategies
1. Explanation for patient, family, significant others
2. Communication and transfer of data to the physician

V. Complications of cardiovascular compromise
A. Define pulmonary edema
B. Epidemiology
1. Precipitating causes
a. Left-sided failure
b. Right-sided failure
c. Myocardial infarction
d. Pulmonary embolism
e. Hypertension
f. Cardiomegaly
2. Related terminology
a. Preload
b. Afterload
c. Congestive heart failure
(1) Loss of contractile ability which results in fluid overload
d. Chronic versus acute
(1) First time event
(2) Multiple events

CARDIOVASCULAR EMERGENCIES
continued

C. Morbidity/ mortality
   1. Pulmonary edema
   2. Respiratory failure
   3. Death
D. Initial assessment
   1. Airway / breathing
      a. Labored breathing mayor may not be present
   2. Circulation
      a. Peripheral pulses
         (1) Quality
         (2) Rhythm
      b. Changes in skin
         (1) Color
         (2) Temperature
         (3) Moisture
E. Focused history
   1. Chief complaint
      a. Progressive or acute SOB
      b. Progressive accumulation of edema
      c. Weight gain over short period of time
      d. Episodes of paroxysmal nocturnal dyspnea
      e. Medication history
         (1) Prescribed
            (a) Compliance
            (b) Non-compliance
         (2) Borrowed
         (3) Over-the-counter
      f. Home oxygen use
F. Detailed physical exam
   1. Level of consciousness
      a. Unconscious
      b. Altered level of consciousness
   2. Airway / breathing
      a. Dyspnea
      b. Productive cough
      c. Labored breathing
         (1) Most common, often with activity

(2) Paroxysmal nocturnal dyspnea (PND)
(3) Tripod position
(4) Adventitious sounds
(a) Wheezing
(b) Rales
(5) Frothy sputum
(6) Retraction
(7) Cyanosis in advanced stages
3. Circulation
a. Peripheral pulses
(1) Quality
(2) Rhythm
b. Changes in skin
(1) Color
(2) Temperature
(3) Moisture
c. Edema
(1) Pitting versus non-pitting
(2) Extremities
(3) Ascites
(4) Sacral
G. Management
1. Position of comfort
2. Pharmacological interventions (for example)
a. Oxygen
b. Nitroglycerin
H. Transport considerations
I. Psychological support / communications strategies
1. Explanation for patient, family, significant others
2. Communication and transfer of data to the physician

VI. Cardiac arrest
A. Precipitating causes
1. Trauma
2. Medical conditions (for example)
a. End stage renal disease
b. Hyperkalemia with renal disease

CARDIOVASCULAR EMERGENCIES
continued

- c. Hypothermia
  - 3. Pediatric / neonatal
  - 4. Geriatric
- B. Morbidity and mortality
- C. Initial assessment
  - 1. Critical findings
    - a. Unresponsive
    - b. Apneic
    - c. Pulseless
- D. Focused history
  - 1 .Witnessed event
  - 2. Witnessed by EMS personnel
  - 3. Bystander cardiopulmonary resuscitation (CPR)
  - 4. Time from discovery to activation of CPR
  - 5. Time from discovery to activation of EMS
  - 6. Past medical history
- E. Management
  - 1. Resuscitative measures (refer to local protocol)
  - 2. Indications for NOT initiating or terminating resuscitative techniques
    - a. Signs of obvious death
      - (1) Rigor, fixed lividity, decapitation
    - b. Refer to local protocol
      - (1) Out-of-hospital advance directives
  - 3. Airway and ventilatory support
    - a. High flow oxygen
      - (1) Bag-valve system
      - (2) Intubation (Combitube)
  - 4. Circulatory support
    - a. CPR in conjunction with defibrillation (AED)
    - b. IV therapy
  - 5. Pharmacological interventions (for example)
    - a. Oxygen
  - 6. Transport considerations
  - 7. Psychological support / communications strategies
    - a. Explanation for patient, family, significant others
    - b. Communication and transfer of data to the physician

MODULE 5: **MEDICAL**

Topic: **DIABETIC EMERGENCIES**

Purpose:

This topic will give the Advanced EMT student an understanding of diabetic emergencies and to utilize assessment findings to formulate a treatment plan.

Suggested Time Frame: 2 Hours

Objectives:

At the conclusion of this topic, the Advanced EMT student as an active participant will be able to successfully:

1. Discuss the pathophysiology of diabetes mellitus.

2. Describe the assessment findings and the management of a patient with diabetic emergency.

3. Discuss the pathophysiology, signs and symptoms, field assessment, and management for a patient with hypoglycemia.

4. Discuss the pathophysiology, signs and symptoms, field assessment, and management for a patient with hyperglycemia.

5. Differentiate between diabetic emergencies based on assessment and history.

6. Describe the pharmacological characteristics and actions of 50% Dextrose and Glucagon.

7. Demonstrate an appropriate patient assessment and field management of a patient with a diabetic emergency.

DECLARATIVE
MODULE 5: MEDICAL
DIABETIC EMERGENCIES

I. Introduction
  A. Define
    1. Diabetes mellitus
    2. Hypoglycemia
    3. Hyperglycemia

II. Specific illnesses
  A. Diabetes mellitus
    1. Epidemiology
      a. Incidence
      b. Morbidity / mortality
      c. Long term complications
      d. Risk factors
    2. Pathophysiology
      a. Types
        (1) Type I-insulin dependent
        (2) Type II-non insulin dependent
      b. A chronic system syndrome characterized by hyperglycemia caused by a decrease in the secretion or activity of insulin
      c. Normal insulin metabolism
      d. Abnormal metabolism / ketone formation
        (1) When insulin supply is insufficient, glucose cannot be used for cellular energy
        (2) Response to cellular starvation
        (3) Body releases and breaks down stored fats and protein to provide energy
        (4) Fatty acids produce ketones
        (5) Excess ketones upset pH balance and acidosis develops (DKA)
    3. Assessment findings
      a. History
        (1) Has insulin dosage changed recently?
        (2) Has the patient had a recent infection?
        (3) Has the patient suffered any psychologic stress?
      b. Signs and symptoms
        (1) Altered mental status
        (2) Abnormal respiratory pattern (Kussmaul's breathing)
        (3) Tachycardia
        (4) Hypotension

(5) Breath has a distinct fruity odor
(6) Abnormal increase in urination
(7) Warm dry skin
(8) Weight loss
(9) Weakness
(10) Dehydration
c. Blood glucose analysis
4. Management
a. Airway and ventilation
b. Circulation
c. Pharmacological interventions
d. Non-pharmacological interventions
e. Transport considerations
(1) Appropriate mode
(2) Appropriate facility
f. Psychological support / communication strategies
B. Hypoglycemia
1. Epidemiology
a. Morbidity / mortality
b. Risk factors
2. Pathophysiology
a. Blood glucose levels fall below that required for normal body functioning
b. Cellular/ organ death can occur
3. Assessment
a. History
(1) Diabetes
(2) Prolonged fasting
(3) Alcoholism
(4) Activity
b. Signs and symptoms
(1) Weakness
(2) Irritability
(3) Hunger
(4) Confusion
(5) Anxiety
(6) Bizarre behavior
(7) Tachycardia

(8) Normal respiratory pattern
(9) Cool, pale skin
(10) Diaphoresis
c. Blood glucose analysis
4. Management
a. Airway and ventilation
b. Circulation
c. Pharmacological interventions
(1) Oral glucose
(2) D50
(3) Glucagon
d. Non-pharmacological interventions
e. Transport considerations
(1) Appropriate mode
(2) Appropriate facility
f. Psychological support, communication strategies
C. Hyperglycemia / DKA
1. Epidemiology
a. Mortality / morbidity
b. Risk factors
2. Pathophysiology
a. Hyperglycemia
b. Ketonemia
c. Relative insulin insufficiency
3. Assessment
a. History
(1) General health
(2) Previous medical conditions
(3) Medications
(4) Previous experience with complaint
(5) Time of onset
b. Signs and symptoms
(1) Neurologic abnormalities
(a) Altered level of consciousness
(b) Coma
(c) Seizures
(d) Hemiparesis

DIABETIC EMERGENCIES
continued

(e) Aphasia
(2) Dehydration
(3) Hypotension
(4) Acetone (fruity) odor on breath
(5) Nausea/vomiting
(6) Abdominal pain
(7) Kussmall's respiration

4. Management
   a. Airway and ventilation
      (1) Oxygen
      (2) Positioning
      (3) Suction
      (4) Assisted ventilation
      (5) Advanced airway devices
   b. Circulation
   c. Pharmacological interventions
   d. Non-pharmacological interventions
   e. Transport considerations
      (1) Appropriate mode
      (2) Appropriate facility
   f. Psychological support / communication strategies

MODULE 5: MEDICAL

Topic: ALLERGIC REACTIONS

Purpose:

This topic will give the Advanced EMT student an understanding of allergic reactions and to utilize assessment findings to formulate a treatment plan.

Suggested Time Frame: 1 Hour

Objectives:

At the conclusion of this topic, the Advanced EMT student as an active participant will be able to successfully:

1. Discuss the pathophysiology of allergic reactions and anaphylaxis.
2. Describe the common methods of entry of substances into the body.
3. List common antigens associated with anaphylaxis.
4. List the signs and symptoms of an allergic reaction, including localized and systemic.
5. Discuss the signs and symptoms of anaphylaxis.
6. Discuss the drug characteristics and actions of epinephrine and inhaled beta-2 agonists.
7. List the pertinent history and physical exam to be elicited from a patient with an allergic reaction / anaphylaxis.
8. Explain the importance of prompt treatment in anaphylaxis.
9. Develop a treatment plan for a patient with an allergic reaction and anaphylaxis.
10. Given a scenario, demonstrate an appropriate patient history and assessment and implement a treatment plan for a patient with an allergic reaction and anaphylaxis.

DECLARATIVE
MODULE 5: MEDICAL
ALLERIC REACTIONS/ANAPHYLAXIS

I. Introduction
  A. Anatomy
    1. Review of cardiovascular system
    2. Review of respiratory system
  B. Terminology
    1. Allergic reaction
    2. Anaphylaxis
    3. Allergen

II. Pathophysiology
  A. Routes of entry
    1. Oral ingestion
    2. Injected / envenomation
    3. Inhaled
    4. Topical
  B. Common allergens
    1. Drugs
    2. Insects
    3. Foods
    4. Animals
    5. Other
  C. Allergic response
    1. Histamine or histamine-like substance release
    2. Biphasic response
      a. Acute reaction
      b. Delayed reaction
    3. Immunity
    4. Sensitivity
    5. Hypersensitivity
    6. Redness of skin
    7. Swelling / edema of the skin
    8. Anaphylactic shock
      a. Cardiovascular system
      b. Respiratory system

III. Assessment findings

ALLERIC REACTIONS/ANAPHYLAXIS
continued

A. Not all signs and symptoms are present in every case
B. History
  1. Previous exposure
  2. Previous experience to exposure
  3. Onset of symptoms
  4. Dyspnea
C. Level of consciousness
  1. Unable to speak
  2. Restless
  3. Decreased level of consciousness
  4. Unresponsive
D. Upper airway
  1. Hoarseness
  2. Stridor
  3. Pharyngeal edema / spasm
E. Lower airway
  1. Tachypnea
  2. Hypoventilation
  3. Labored -accessory muscle use
  4. Abnormal retractions
  5. Prolonged expirations
  6. Wheezes
  7. Diminished lung sounds
F. Skin
  1. Redness
  2. Rashes
  3. Edema
  4. Moisture
  5. Itching
  6. Pallor
  7. Cyanotic
G. Vital signs
  1. Tachycardia
  2. Hypotension
  3. Assessment tools

IV. Management of anaphylaxis

ALLERIC REACTIONS/ANAPHYLAXIS
continued

A. Remove offending agent (i.e., stinger)
B. Airway and ventilation
  1. Positioning
  2. Oxygen
  3. Assist ventilation
  4. Advanced airway
C. Circulation
  1. Venous access
  2. Fluid resuscitation
D. Pharmacological interventions
  1. Oxygen
  2. Epinephrine - mainstay of treatment
    a. Bronchodilator
    b. Decreases vascular permeability
    c. Vasoconstriction
  3. Bronchodilator
E. Transport considerations
F. Psychological support / communications strategies

V. Management of acute allergic reaction without dyspnea or hypotension
A. Remove offending agent (i.e., stinger)
B. Airway and ventilation
C. Circulation
D. Transport considerations

MODULE 5: MEDICAL

Topic: POISONING/OVERDOSE EMERGENCIES

Purpose:

This topic will give the Advanced EMT student an understanding of poisoning/overdose emergencies and to utilize assessment findings to formulate a treatment plan.

Suggested Time Frame: 1 Hour

Objectives:

At the conclusion of this topic, the Advanced EMT student as an active participant will be able to successfully:

1. Identify appropriate personal protective equipment and scene safety awareness in dealing with toxicology emergencies.

2. Discuss the different types of toxicological emergencies.

3. List four methods by which poisons can enter the body.

4. Discuss the pathophysiology, sign and symptoms, and field treatment for a toxic ingestion.

5. Discuss the pathophysiology, sign and symptoms, and field treatment for a narcotic overdose.

6. Discuss the drug characteristics and actions of activated charcoal and naloxone.

7. Utilize assessment findings to formulate a field impression and implement a treatment plan for a patient with the most common types of poisonings/overdoses.

8. Appreciate the psychological needs of victims of drug abuse or overdose.

9. Demonstrate an appropriate patient assessment and field management of a patient with a toxic ingestion or overdose.

DECLARATIVE
MODULE 5: MEDICAL
POISONING/OVERDOSE EMERGENCIES

I. General toxicology, assessment and management
  A. Types of toxicological emergencies
    1. Unintentional poisoning
      a. Dosage errors
      b. Childhood poisoning
      c. Environmental exposure
      d. Occupational exposures
      e. Neglect / abuse
    2. Drug/ alcohol abuse
    3. Intentional poisoning / overdose
      a. Chemical warfare
      b. Assault / homicide
      c. Suicide attempts
  B. Provider safety and resources identification
    1. Need for appropriate personal protective equipment and scene safety awareness
      a. Airway protection
      b. Body surface absorption isolation
      c. Specialized equipment
    2. Need for additional resources
      a. Hazardous Materials Teams
      b. Police
      c. Fire
      d. Rescue
    3. Equipment and environmental decontamination
  C. Use of Poison Control Centers
  D. Routes of absorption
    1. Ingestion
    2. Inhalation
    3. Injection
    4. Absorption
  E. Poisoning by ingestion, inhalation, injection, and absorption
    1. Examples
    2. Anatomy and physiology review
      a. Absorption
      b. Distribution

POISONING/OVERDOSE EMERGENCIES
continued

3. General management considerations – Narcotics / opiates
   a. Common causative agents -heroin, morphine, codeine, meperidine, propoxyphene, fentanyl
   b. Assessment findings
      (1) Euphoria
      (2) Hypotension
      (3) Respiratory depression/ arrest
      (4) Nausea
      (5) Pinpoint pupils
      (6) Seizures
      (7) Coma
   c. Management
      (1) Airway and ventilation
      (2) Circulation
      (3) Pharmacological
         (a) Naloxone - opiate specific antidotal therapy
      (4) Non-pharmacological
      (5) Transport considerations
         (a) Appropriate mode
         (b) Appropriate facility
      (6) Psychological support / communication strategies

MODULE 5: MEDICAL

Topic: ENVIRONMENTAL EMERGENCIES

Purpose:

This topic will give the Advanced EMT student an understanding of environmental emergencies and to utilize assessment findings to formulate a treatment plan.

Suggested Time Frame: 2 Hours

Objectives:

At the conclusion of this topic, the Advanced EMT student as an active participant will be able to successfully:

1. Define "environmental emergency."

2. Identify risk factors predisposing to environmental emergencies.

3. Discuss the pathophysiology, predisposing factors, causes, and sign and symptoms of heat illness.

4. Define and discuss how to differentiate between heat cramps, heat exhaustion, and heat stroke.

5. Differentiate between the various treatments and interventions of heat disorders, develop a treatment plan based on assessment findings.

6. Discuss the pathophysiology, predisposing factors, causes, and sign and symptoms of hypothermia.

7. List measures to prevent hypothermia.

8. Identify differences between mild and severe hypothermia.

9. Discuss the differences between chronic and acute hypothermia.

10. Utilize assessment findings to formulate a field impression and implement a treatment plan for a patient with mild or severe hypothermia.

ENVIRONMENTAL EMERGENCIES
continued

11. Discuss the pathophysiology, signs and symptoms, and the field treatment for near drowning.

12. Discuss trauma considerations to be taken with a near-drowning episode.

13. Describe post-resuscitation complications associated with a near-drowning episode.

14. Demonstrate an appropriate patient assessment and treatment plan for a patient with a heat-related illness, a hypothermia patient, and a near-drowning patient.

DECLARATIVE
MODULE 5: MEDICAL
ENVIRONMENTAL EMERGENCIES

I. Environmental emergency
  A. A medical condition caused or exacerbated by the weather, terrain, atmospheric pressure, or other local factors
    1. Instances of environmental emergencies
    2. Environmental impact on morbidity and mortality
      a. Environmental stressors that induce or exacerbate other medical or traumatic conditions
  B. Risk factors
    1. Age
    2. General health
    3. Fatigue
    4. Predisposing medical conditions
    5. Medications
      a. Prescription
      b. Over the counter (OTC)
  C. Environmental factors
    1. Climate
    2. Season
    3. Weather
  D. Types of environmental emergencies
    1. Heat illness
    2. Near Drowning
  E. Thermolysis (Methods of heat loss)
    1 .Conduction
    2. Convection
    3. Radiation
    4. Evaporation
    5. Respiration

II. Specific pathology, assessment, and management -heat disorders
  A. Heat illness
    1. Definition
      a. Increased core body temperature (CBT) due to inadequate thermolysis
    2. General signs and symptoms
      a. Signs of thermolysis
        (1) Diaphoresis

(2) Posture
(3) Increased skin temperature
(4) Flushing
b. Signs of thermolytic inadequacy
(1) Altered mentation
(2) Altered level of consciousness
3. Predisposing factors
a. Age
(1) Pediatric
(2) Geriatric
b. General health and medications
(1) Diabetes
(a) Autonomic neuropathy interferes with vasodilation and perspiration
(b) Autonomic neuropathy may interfere with thermoregulatory input
(2) Various medications
(3) Acclimatization
c. Length of exposure
d. Intensity of exposure
e. Environmental
(1) Humidity
(2) Wind
4. Preventative measures
a. Maintain adequate fluid intake
(1) Thirst is an inadequate indicator of dehydration
b. Acclimatize
(1) Acclimatization results in more perspiration with lower salt concentration
(2) Increases fluid volume in body
c. Limit exposure
5. Heat cramps
a. Muscle cramps due to dehydration and overexertion
b. Not specifically related to heat illness
6. Heat exhaustion (mild heat illness)
a. Ill-defined term referring to milder forms of heat illness
b. Increased CBT with some neurologic deficit
c. Signs of active thermolysis usually present
d. Symptoms may be due solely to simple dehydration, combined with overexertion
(1) Result is orthostatic hypotension

(2) Symptoms resolve with rest and supine positioning
(a) Fluids and elevation of knees beneficial
e. Symptoms that do not resolve with rest and supine positioning may be due to increased CBT, are predictive of impending heat stroke and must be treated aggressively
7. Heat stroke
a. Increased CBT with significant neurologic deficit
b. Organ damage
(1) Brain
(2) Liver
(3) Kidneys
c. Signs of active thermolysis may be present or absent
(1) Classic
(a) Commonly presents in those with chronic illnesses
(b) Increased CBT due to deficient thermoregulatory function
(c) Predisposing conditions include age, diabetes, and other medical conditions
(d) "Hot, red, dry" skin is common
(2) Exertional
(a) Commonly presents in those who are in good general health
(b) Increased CBT due to overwhelming heat stress
(c) Excessive ambient temperature
(d) Excessive exertion
(e) Prolonged exposure
(f) Poor acclimatization
(g) "Moist, pale" skin is common
B. Treatment
1. Remove from environment
2. Active cooling
a. Misting and fanning
b. Moist wraps
c. Risks of over-cooling
(1) Reflex hypothermia
d. Use of tepid water for cooling
(1) Ice packs and cold water immersion may produce reflex vasoconstriction and shivering due to effect on peripheral thermoreceptors
3. Fluid therapy

a. Oral
   (1) Some salt additive is beneficial
   (2) Limited need for other electrolytes in oral rehydration
   (3) Salt tablets
      (a) May cause GI irritation and ulceration
      (b) May cause hypernatremia
      (c) Should be avoided
b. Intravenous
   (1) Normal saline solution preferred

III. Specific pathology, assessment, and management – cold disorders
A. Hypothermia
   1. Definition
      a. Decreased CBT due to
         (1) Inadequate thermogensis
         (2) Excess cold stress
         (3) A combination of both
B. Mechanisms of heat loss
   1. Physiological
   2. Environmental
C. Predisposing factors
   1. Age
      a. Pediatric
      b. Geriatric
   2. General health and medications
      a. Hypothyroidism
      b. Malnutrition
      c. Hypoglycemia
      d. Medication may interfere with thermogenesis
   3. Fatigue and exhaustion
   4. Length of exposure
   5. Intensity of exposure
   6. Environmental
      a. Humidity
      b. Wind
      c. Temperature
B. Preventive measures

1. Dress
2. Rest
3. Food
4. Limit exposure

C. Categories of hypothermia
   1. Severity
      a. Mild
         (1) Presence of signs and symptoms with a CBT that is greater than 90 degrees F
      b. Severe
         (1) Presence of signs and symptoms with a CBT that is less than 90 degrees F
      c. Compensated
         (1) Presence of signs and symptoms with a normal CBT
         (2) CBT being maintained by thermogenesis
         (3) As energy stores (liver and muscle glycogen) are exhausted, CBT will drop
   2. Onset
      a. Acute (immersion)
      b. Subacute (exposure)
      c. Chronic (urban)
   3. Primacy
      a. Primary cause of symptoms
      b. Secondary presentation of other etiology

D. Principal signs and symptoms
   1. No reliable correlation between signs or symptoms and specific CBT
   2. Signs of thermogenesis
   3. Diminished coordination and psychomotor function
   4. Altered mutation
   5. Altered level of consiousnsess
   6. Cardiac irritability

E. Specific treatment
   1. Stop heat loss
      a. Remove from environment
      b. Dry
      c. Wind/vapor/moisture barrier
      d. Insulate
   2. Rewarming
      a. Passive external

(1) Insulation
(2) Wind/vapor/moisture barrier

b. Active external
(1) Heat packs
(a) Placed over areas of high heat transfer with core
(i) Base of neck
(ii) Axilla
(iii) Groin
(2) Heat guns
(3) Lights
(4) Warm water immersion
(a) 102 degrees F to 104 degrees F
(b) Can induce rewarming shock
(c) Little application in out-of-hospital setting

c. Active internal
(1) Warmed (102 degrees F to 104 degrees F) humidified oxygen
(2) Warmed (102 degrees F to 104 degrees F) intravenous administration
(3) Role of warmed administration
(a) Crucial, to prevent further heat loss
(b) Limited contribution to rewarming

3. Rewarming shock
a. Active external rewarming causes reflex vasodilation
b. Requires more heat transference than is possible with methods available in out-of –hospital setting
c. Easily prevented by IV fluid administration during rewarming

4. Cold diuresis and the need for fluid resuscitation
a. Oral
b. Intravenous

5. Resuscitation considerations
a. BCLS considerations
(1) Increased time to evaluate vital signs
(2) Use of normal chest compression and ventilation rates
(3) Use of oxygen
(4) AED recommendations

b. ACLS considerations
(1) Effects of cold on cardiac medications
(2) Considerations for airway management

(a) No increased risk of inducing ventricular fibrillation (V-fib) from orotradcheal intrubation
(3) AHA recommendations
(4) Risks and management of V-fib
(a) Risk of V-fib related both to depth and duration of hypothermia
(b) Rough handling can induce V-fib
(c) It is generally impossible to electrically defibrillate a hypothermic heart that is colder than 86 degrees F

6. Transportation considerations
   a. Gentle transportation necessary due to myocardial irritability
   b. Transport with patient level or head slightly down
   c. General rewarming options of destination
   d. Availability of cardiac bypass rewarming preferable in destination consideration

IV. Specific pathology, assessment, and management of near-drowning
A. Definition
1. Drowning
   a. Suffocation due to submersion in water or other fluids
2. Near-drowning
   a. Near suffocation due to submersion in water or other fluids with a recovery event that last at least 24 hours

B. Pathophysiology
1. Hypothermic considerations in near-drownings
   a. Common concomitant syndrome
   b. May be organ protective in cold water near-drownings
   c. Always treat hypoxia first
   d. Treat all near-drowning patients for hypothermia

C. Treatment
1. Establish airway
   a. Conflicting recommendations regarding prophylactic abdominal thrusts
   b. Questionable scientific data to support prophylactic abdominal thrusts
   c. Combitube
2. Ventilation
3. Oxygen

D. Trauma considerations
1. Immersion episode of unknown etiology warrants trauma management

E. Post-resuscitation complications

1. Adult respiratory distress syndrome (ARDS) or renal failure otten occur post-resuscitation
2. Symptoms may not appear for 24 hours or more, post-resuscitation
3. All near-drowning patients should be transported for evaluation

MODULE 5: MEDICAL

Topic: MEDICAL EMERGENCIES LAB

Purpose:

This lab will give the Advanced EMT student an opportunity to demonstrate assessment skills to formulate treatment and transport plans for medical emergencies.

Suggested Time Frame: 6 Hours

Objectives:

At the conclusion of this lab, the Advanced EMT student as an active participant will be able to successfully:

1. Given scenarios, demonstrate an appropriate assessment and field management and transport of a patient with respiratory diseases and conditions.

2. Demonstrate the proper technique of the application and operation of an automatic external defibrillator.

3. Given scenarios, demonstrate an appropriate patient assessment and field management of a patient with a cardiac emergency, including cardiac arrest and use of an automatic defibrillator.

4. Given scenarios, demonstrate an appropriate patient assessment and field management of a patient with a diabetic emergency.

5. Given a scenario, demonstrate an appropriate patient history and assessment and implement a treatment plan for a patient with an allergic reaction and anaphylaxis.

6. Demonstrate an appropriate patient assessment and field management of a patient with a toxic ingestion or overdose.

7. Demonstrate an appropriate patient assessment and treatment plan for a patient with a heat-related illness, a hypothermia patient, and a near-drowning patient.

MODULE 5: MEDICAL
MEDICAL ASSESSMENT LAB

The Advanced EMT student in a lab setting with an instructor will demonstrate the appropriate assessment and management of various medical scenarios to include life-threatening and non-life threatening medical patients. The students will be given scenarios to include skills and medications to allow the student to apply the knowledge and skills taught in earlier modules.

I. Demonstrate the appropriate patient assessment with a responsive medical patient.
   A. Proper BSI
   B. Scene size up
      1. Determine scene is safe
      2. Nature of illness
   C. General impression of patient
   D. Determine level of consciousness
      1. AVPU
   E. Determine chief complaint or any apparent life threats
   F. Ensure airway patency
      1. Open airway if needed
      2. Airway adjuncts if needed
   G. Assess rate and quality of breathing
      1. Apply oxygen
   H. Assess pulses and skin color
      1. Control external bleeding
      2. Initiate management of shock
   I. Determine patient priority and transport decision per local protocol
   J. Perform a focused history
      1. OPQRST
      2. SAMPLE
   K. Focused physical examination
   L. Obtain baseline vital signs, any diagnostic test
   M. Determine field impression
   N. Treat patient per local protocol
   O. Re-evaluate transport decision prepare patient for transport if not transported earlier
   P. Detailed physical examination
   Q. Ongoing assessment
   R. Documentation

MEDICAL ASSESSMENT LAB
continued

II. Demonstrate the appropriate patient assessment of an unresponsive medical patient.

A. Proper BSI
B. Scene size up
   1. Determine scene is safe
   2. Nature of illness
C. General impression of patient
D. Determine level of consciousness
   1. AVPU
E. Determine chief complaint or any apparent life threats
F. Ensure airway patency
   1. Open airway if needed
   2. Airway adjuncts if needed
G. Assess rate and quality of breathing
   1. Apply oxygen
H. Assess pulses and skin color
   1. Control external bleeding
   2. Initiate management of shock
I. Determine patient priority and transport decision per local protocol
J. Perform a rapid assessment
K. Obtain baseline vital signs
L. Obtain history from family or bystanders if possible
   1. SAMPLE
M. Determine field impression
N. Treat patient per local protocol
O. Detailed physical examination if time permits
P. Ongoing assessment
Q. Documentation

III. Given various scenarios, demonstrate the appropriate assessment, management and treatment of medical patients per local protocols.
A. Respiratory emergencies
   1. Asthma
   2. COPD
   3. Pulmonary edema
   4. Pnemonia
   5. Hyperventilation syndrome

MEDICAL ASSESSMENT LAB
continued

B. Cardiovascular emergencies
    1. Chest pain
    2. Congestive heart failure / pulmonary edema
    3. Non-cardiac chest pain
    4. Cardiac arrest
        a. Application and use of the AED
        b. Insertion of a dual lumen airway
        c. IV / medication therapy
C. Diabetic emergencies
    1. IV and medication therapy
D. Allergic Reactions
    1. IV and medication therapy
E. Poisoning / overdose emergencies
    1. IV and medication therapy
F. Environmental emergencies
    1. Treatment for heat-related, hypothermia, and near-drowning emergencies

ADVANCED EMT SKILL

INSTRUCTOR RESOURCE

CARDIAC ARREST MANAGEMENT
AUTOMATED EXTERNAL DEFIBRILLATION (AED)

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in performing external defibrillation using a semi-automated external defibrillator.

CONDITION
The examinee will be requested to manage an adult patient who is found unresponsive, pulseless, apneic with no signs of trauma. CPR may or may not be in progress. The manikin will be placed supine on the floor. The examinee will be required to bring the necessary equipment to the scene.

EQUIPMENT
Adult CPR manikin, AED trainer, defibrillator pads, cables, towel, safety razor, bag-valve-mask device, O_2 connecting tubing, oxygen source with flow regulator, 1-2 assistants (optional), goggles, masks, gown, gloves, timing device.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

Skill Component	Teaching Points
PREPARATION	
♦ Take body substance isolation precautions	· Only gloves are required.
♦ Perform BLS assessment: · <u>CPR in progress</u> - stop CPR - establish unresponsiveness - verify apnea - verify pulselessness - ** *apply AED – if <u>indicated</u>* · <u>No CPR in progress</u> - establish unresponsiveness - open the airway - assess breathing - ** *give 2 breaths - <u>if indicated</u>* - assess pulse – provide 5 cycles of CPR (2 minutes - ** *apply AED - <u>if indicated</u>*	· Immediate Defibrillation for sudden witnessed collapse with an AED immediately available. · Provide 5 cycles of CPR (2 minutes) before attempting AED if arrival is > 4-5 minutes · Defibrillation stops all chaotic electrical impulses in the heart and allows for the normal pacemaker to re-establish a viable heart beat. · Follow local policies and procedures for use of the AED. · The AED should not be applied to any patient who has a pulse or is breathing, meets obviously dead criteria, or is in traumatic full arrest unless the arrest is due to a medical problem.
PROCEDURE	
♦ Position AED next to patient	· The AED should be placed near the patient's left side if possible to allow for easier control by the provider due to cable length and pad placement.
♦ Turn on AED	
♦ Bare chest ** *Prepare pad sites for secure pad contact*	· Metal surfaces do not pose a hazard to either the patient or the provider. · Water conducts electricity and may provide a pathway for energy from the AED to the provider or bystanders or from

Skill Component	Teaching Points
	one electrode pad to another. · Medication patches may block energy delivery to the heart and cause minor burns due to arcing. Gloves should be worn to protect provider from exposure to medications which may be absorbed through the skin. · Pacemakers and ICDs may reduce energy delivery to the heart if pads are placed over them. · Excessive chest hair may interfere with electrode pad placement. Use safety razor or apply initial pads and remove to epilate hair, then reapply a second set of pads. · Electrical devices may create wave forms that could be misinterpreted by the AED (electric blanket, TV, radio, wireless phones, pagers, etc.).
♦ Apply defibrillator pads: · Upper - right sternal border directly below the clavicle · Lower - left midaxillary line, 5th - 6th intercostal space with top margin below the axilla	· Some manufactures recommend that pads are placed on specific sides. Always follow manufacturer's directions. ▪ Place pads at least 2 inches apart. For patients with smaller chest diameter and pads are too large, may apply pads anterior and posterior
♦ Analyze rhythm ** *Insure no one touches patient*	· The AED is unable to analyze the rhythm when there is artifact from chest compressions
♦ Follow AED voice prompt, deliver 1 shock if indicated ** *Insure no one touches patient- if shocks are to be delivered*	· Touching the patient during defibrillation may also shock the provider. Therefore, it is the responsibility of the AED operator to make sure everyone is clear.
♦ Immediately resume CPR ♦ Reassess patient for: · Unresponsiveness · Breathing · Pulse ** *Start/Resume CPR - if indicated* ** *Provide rescue breathing at 10-12 breaths/min - if indicated* ** *Place in recovery position - if indicated*	· If no pulse and AED indicates "shock", stand clear and follow voice prompt. · If no pulse and AED indicates "no shock", start CPR and ready for transport. · If a pulse is present and not breathing, start BVM ventilations. · If a pulse is present and the patient is breathing, place in recovery position.
♦ Reassess patient after 1 minute/follow AED voice prompt	· The 3 main considerations post-resuscitation are: - Perform pulse check every 30-60 seconds - Perform a focused assessment and reassessment every 5 minutes. - Keep AED on patient enroute
ONGOING ASSESSMENT	
§ Repeat an ongoing assessment every 5 minutes: · Initial assessment · Relevant portion of the focused assessment	· The initial and focused examination is repeated every 15 minutes for stable patients and every 5 minutes for priority patients.

Skill Component	Teaching Points
· **Evaluate response to treatment** · **Compare results to baseline condition and vital signs**	· **Every patient must be re-evaluated at least every 5 minutes, if any treatment was initiated or medication administered, unless changes in the patient's condition are anticipated sooner.** · **Priority patients are patients who have abnormal vital signs, signs/symptoms of poor perfusion or if there is a suspicion that the patient's condition may deteriorate.**
DOCUMENTATION	
§ **Verbalize/Document:** · **Patient assessment** · **Analysis result - shock vs no shock advised** · **Time and number of shocks - *if applicable*** · **Patient response to shocks - *if applicable***	· **Documentation must be on an approved prehospital care report form**

ADVANCED EMT SKILL

CARDIAC ARREST MANAGEMENT
AUTOMATED EXTERNAL DEFIBRILLATION (AED)

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in performing external defibrillation using a semi-automated external defibrillator.

CONDITION
The examinee will be requested to manage an adult patient who is found unresponsive, pulseless, apneic with no signs of trauma. CPR may or may not be in progress. The manikin will be placed supine on the floor. The examinee will be required to bring the necessary equipment to the scene.

EQUIPMENT
Adult CPR manikin, AED trainer, defibrillator pads, cables, towel, safety razor, bag-valve-mask device, O_2 connecting tubing, oxygen source with flow regulator, 1-2 assistants (optional), goggles, masks, gown, gloves, timing device.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item. Assessment, analysis and first shock must be completed within 90 seconds.
Appropriate body substance isolation precautions must be instituted.

NAME_____ **EXAMINER(S)**_____ **DATE** _____/_____/_____

PASS FAIL

Skill Component	Yes (1st)	No (2nd)	Comments (3rd (final))
PREPARATION			
♦ **Take body substance isolation precautions**			
♦ **Perform BLS assessment:** · **CPR in progress** - **stop CPR** - **establish unresponsiveness** - **verify apnea** - **verify pulselessness - ** *apply AED - if indicated*** · **No CPR in progress** - **establish unresponsiveness** - **open the airway** - **assess breathing - ** *give 2 breaths - if indicated***			

Skill Component	Yes	No	Comments
- assess pulse - provide 5 cycles of CPR (2 minutes) ** *apply AED - if indicated*			
PROCEDURE			
♦ Position AED next to patient			
♦ Turn on AED			
♦ Bare chest ** *Prepare pad sites for secure pad contact*			
♦ Apply defibrillator pads: · Upper - right sternal border directly below the clavicle · Lower - left midaxillary line, 5th - 6th intercostal space with top margin below the axilla			
♦ Analyze rhythm ** *Insure no one touches patient*			
♦ Follow AED voice prompt until "no shock advised" is given ** *Insure no one touches patient- if shocks are to be delivered*			
♦ Reassess patient for: · Unresponsiveness · Breathing · Pulse ** *Start/Resume CPR - if indicated* ** *Provide rescue breathing at 10-12 breaths/min - if indicated* ** *Place in recovery position - if indicated*			
♦ Reassess patient after 1 minute/follow AED voice prompt			
ONGOING ASSESSMENT			
§ Repeat an ongoing assessment every 5 minutes: · Initial assessment			

Skill Component	Yes	No	Comments
· **Relevant portion of the focused assessment** · **Evaluate response to treatment** · **Compare results to baseline condition and vital signs**			
DOCUMENTATION			
§ **Verbalize/Document:** · **Patient assessment** · **Analysis result - shock vs no shock advised** · **Time and number of shocks - *if applicable*** · **Patient response to shocks - *if applicable***			

ADVANCED EMT SKILL

INSTRUCTOR RESOURCE

BLOOD GLUCOSE TEST (CHEMSTRIP)

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in performing a blood glucose test with a Chemstrip.

CONDITION
The examinee will be requested to appropriately perform a blood glucose test with a Chemstrip.

EQUIPMENT
Gloves, glucose testing chemstrips, syringes (various sizes), sterile gauze, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

Skill Component	Teaching Points
PREPARATION	
♦ Take body substance isolation precautions	
♦ Assemble equipment (color chart, test strip, gauze)	
♦ Explain procedure to patient	Reassure patient and explain the reason for the procedure. This will help calm the patient and improve cooperation.
PROCEDURE	
♦ Obtain blood sample.	
♦ Place large drop of blood on test pads, covering both test zones completely.	
♦ Wait 60 seconds and wipe off all blood with dry gauze. Wait an additional 60 seconds.	
♦ Compare test zone colors with the vial color chart (2 minute value) · Report results if color chart reads 10-180mg/dl · Wait an additional 60 seconds if color chart reads 240 mg/dl. Report results on color chart (3 minute value)	
♦ Dispose of equipment using approved techniques.	

Skill Component	Teaching Points
DOCUMENTATION	
§ **Document:** · **Time and date** · **Record results**	**Documentation must be on an approved prehospital care report form. Follow local policies and protocols.**

ADVANCED EMT SKILL

BLOOD GLUCOSE TEST (CHEMSTRIP)

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in performing a blood glucose test with a Chemstrip.

CONDITION
The examinee will be requested to appropriately perform a blood glucose test with a Chemstrip.

EQUIPMENT
Gloves, glucose testing chemstrips, syringes (various sizes), sterile gauze, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

NAME_____ **DATE** _____/_____/_____**EXAMINER(S)**_____

PASS FAIL **1st 2nd 3rd (final)**

Skill Component	Yes	No	Comments
PREPARATION			
♦ Take body substance isolation precautions			
♦ Assemble equipment (color chart, test strip, gauze)			
♦ Explain procedure to patient			
PROCEDURE			
♦ Obtain blood sample.			
♦ Place large drop of blood on test pads, covering both test zones completely.			
♦ Wait 60-seconds and wipe off all blood with dry gauze. Wait an additional 60-seconds			
♦ Compare test zone colors with the vial color chart (2 minute value) · Report results if color chart reads 10-180mg/dl · Wait an additional 60 seconds if color chart reads 240 mg/dl. Report results on color chart (3 minute value)			
♦ Dispose of equipment using approved techniques			

Skill Component	Yes	No	Comments
DOCUMENTATION			
§ **Document:** · **Time and date** . **Record results**			

ADVANCED EMT SKILL

INSTRUCTOR RESOURCE

BLOOD SAMPLE FROM CAPILLARY FINGER STICK

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in obtaining a blood sample from a capillary finger stick.

CONDITION
The examinee will be requested to appropriately perform a finger stick to obtain a blood sample from a finger stick.

EQUIPMENT
Gloves, lancets, chemstrips, sterile gauze, alcohol wipes, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

Skill Component	Teaching Points
PREPARATION	
♦ Take body substance isolation precautions	
♦ Explain procedure to patient	· Reassure patient and explain the reason for the procedure. This will help calm the patient and improve cooperation.
♦ Prepare site: ▪ Middle or ring finger of non-dominant hand ▪ Place hand in dependent position for 10-15 seconds ▪ Cleanse site with alcohol wipe ▪ Dry site with sterile dry wipe	
PROCEDURE	
♦ Puncture site with retractable lancet (side or tip of finger). Squeeze finger for approximately 3 seconds. ♦ Wipe first drop of blood with sterile dry wipe.	
♦ Maintain firm pressure on surrounding tissue. Lightly touch 2nd drop of blood to reagent test pad, completely covering test zones.	
♦ Wipe blood from finger with sterile dry wipe.	

Skill Component	Teaching Points
Apply pressure until bleeding stops. Apply sterile adhesive dressing.	
♦ **Dispose of equipment using approved techniques.**	
DOCUMENTATION	
§ **Document:** · **Time and date** · **Procedure** · **Record results**	· **Documentation must be on an approved prehospital care report form. Follow local policies and protocols.**

ADVANCED EMT SKILL

BLOOD SAMPLE FROM CAPILLARY FINGER STICK

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in obtaining a blood sample from a capillary finger stick.

CONDITION
The examinee will be requested to appropriately perform a finger stick to obtain a blood sample from a finger stick.

EQUIPMENT
Gloves, lancets, chemstrips, sterile gauze, alcohol wipes, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

NAME_____ **DATE** _____/_____/_____ **EXAMINER(S)**_____

1st 2nd 3rd (final)

PASS FAIL

Skill Component	Yes	No	Comments
PREPARATION			
♦ Take body substance isolation precautions			
♦ Explain procedure to patient			
♦ Prepare site: ▪ Middle or ring finger of non-dominant hand ▪ Place hand in dependent position for 10-15 seconds ▪ Cleanse site with alcohol wipe ▪ Dry site with sterile dry wipe			
PROCEDURE			
♦ Puncture site with retractable lancet (side or tip of finger). Squeeze finger for approximately 3 seconds. ♦ Wipe first drop of blood with sterile dry wipe.			
♦ Maintain firm pressure on surrounding tissue. Lightly touch 2nd drop of blood to reagent test pad, completely covering test zones.			

Skill Component	Yes	No	Comments
♦ **Wipe blood from finger with sterile dry wipe.** ♦ **Apply pressure until bleeding stops. Apply sterile adhesive dressing.**			
♦ **Dispose of equipment using approved techniques.**			
DOCUMENTATION			
§ **Document:** · **Time and date** · **Procedure** . **Record results**			

ADVANCED EMT SKILL

INSTRUCTOR RESOURCE

VENOUS BLOOD DRAW FROM IV ANGIOCATH

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in obtaining a venous blood draw from an IV angiocath.

CONDITION
The examinee will be requested to appropriately obtain a venous blood draw from an IV angiocath once an IV has been established.

EQUIPMENT
Gloves, goggles, blood collection tubes, vacutainer device, IV infusion arm, a selection of IV solutions, Administration sets, and IV catheters, tape, gauze pads, syringes (various sizes), tourniquet, alcohol preps, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

Skill Component	Teaching Points
PREPARATION	
♦ Take body substance isolation precautions	· Mandatory personal protective equipment.
♦ Assemble and prepare all equipment. Inspect the blood tubes for damage or expiration. If using a vacutainer, insert the Luer-Lok into vacutainer	· The assembly of the equipment should be done prior to starting the IV. · Do not put the blood tubes into the assembled vacutainer and Luer-Lok until you are ready to draw the blood. This will destroy the vacuum and the blood tubes will be useless.
♦ Once the IV has been established, do not connect the IV tubing.	· If drawing blood leave the tourniquet on until the blood is drawn.
PROCEDURE	
♦ Attach the end of the Luer-Lok adapter or a syringe to the hub of the cannula, while applying pressure with finger to the vein beyond the catheter tip.	· Prevent blood from leaking out while attaching the vacutainer or syringe to hub of catheter. · Stabilize the catheter with one hand while attaching the vacutainer. · Be careful not to dislodge the catheter placement. · Once the device is connected to the catheter hub, release the finger pressure at distal tip of catheter.
VACUTAINER DEVICE	
♦ If using a vacutainer device, insert the blood tubes so the rubber covered needle punctures the blood tube. Blood should be pulled into the blood tube.	· Rotating the tubes mixes the anticoagulant evenly.

Skill Component	Teaching Points
♦ Fill the blood tubes completely, gently rotate the tubes.	
♦ Release the tourniquet once the tubes are full.	
♦ Reapply pressure with little finger to the vein beyond the catheter tip to prevent blood from leaking out of catheter hub.	
♦ Disconnect the vacutainer device from hub of catheter. ♦ Connect the IV tubing to catheter hub.	· Do not contaminate the hub or the connector before insertion.
♦ Open the IV flow to ensure patency, then adjust the flow rate of IV appropriately.	
♦ Cover the IV site with appropriate dressing.	
♦ Properly dispose of all sharps.	
♦ Properly label all blood tubes	
BLOOD DRAWN WITH SYRINGE	
♦ If using a syringe, slowly withdraw the plunger to fill the syringe with blood.	· If the blood flow into the syringe stops, it may mean the pressure from pulling back on the plunger is collapsing the vein. Slow the rate the plunger is being pulled back.
♦ Release the tourniquet once the tubes are full.	
♦ Reapply pressure with little finger to the vein beyond the catheter tip to prevent blood from leaking out of catheter hub.	
♦ Remove syringe from catheter hub and connect IV line to catheter hub. ♦ Ensure the IV line is patent by opening the flow of IV, then adjust the flow rate to appropriate rate.	· Do not contaminate the hub or the connector before insertion.
♦ Carefully attach a transfer needle to the syringe to puncture the top of the blood tubes. Fill the blood tubes and gently rotate the tubes.	
♦ Cover the IV site with appropriate dressing.	
♦ Properly dispose of all sharps.	
♦ Properly label all blood tubes	
ONGOING ASSESSMENT	

Skill Component	Teaching Points
§ Repeat an ongoing assessment every 5 minutes: · Initial assessment · Relevant portion of the focused assessment · Evaluate response to treatment · Compare results to baseline condition and vital signs	· The initial and focused examination is repeated every 15 minutes for stable patients and every 5 minutes for priority patients. · Every patient must be re-evaluated at least every 5 minutes, if any treatment was initiated or medication administered, unless changes in the patient's condition are anticipated sooner. · Priority patients are patients who have abnormal vital signs, signs/symptoms of poor perfusion or if there is a suspicion that the patient's condition may deteriorate.
DOCUMENTATION	
§ Document: · Time and date . Number and type of tubes drawn	· Documentation must be on an approved prehospital care report form. Follow local policies and protocols.

ADVANCED EMT SKILL

VENOUS BLOOD DRAW FROM IV ANGIOCATH

PERFORMANCE OBJECTIVES
The examinee will demonstrate proficiency in obtaining a venous blood draw from an IV angiocath once the IV has been established.

CONDITION
The examinee will be requested to appropriately obtain a venous blood draw from an IV angiocath once an IV has been established.

EQUIPMENT
Gloves, goggles, blood collection tubes, vacutainer device, IV infusion arm, a selection of IV solutions, Administration sets, and IV catheters, tape, gauze pads, syringes (various sizes), tourniquet, alcohol preps, approved sharps container.

PERFORMANCE CRITERIA
100% accuracy required on all items designated by a diamond (♦) for skills testing and must manage successfully all items indicated by double asterisks (**). Documentation, identified by the symbol (§), must be practiced but is not a required test item.

Appropriate body substance isolation precautions must be instituted.

NAME_____ **DATE** _____/_____/_____ **EXAMINER(S)**_____

PASS FAIL **1st 2nd 3rd (final)**

Skill Component	Yes	No	Comments
PREPARATION			
♦ **Take body substance isolation precautions**			
♦ **Assemble and prepare all equipment. Inspect the blood tubes for damage or expiration.** **If using a vacutainer, insert the Luer-Lok into vacutainer**			
♦ **Once the IV has been established, do not connect the IV tubing.**			
PROCEDURE			
♦ **Attach the end of the Luer-Lok adapter or a syringe to the hub of the cannula, while applying pressure with finger to the vein beyond the catheter tip.**			
VACUTAINER DEVICE			
♦ **If using a vacutainer device, insert the blood tubes so the rubber covered needle punctures the blood tube. Blood should be pulled into the blood tube.**			

Skill Component	Yes	No	Comments
♦ Fill the blood tubes completely, gently rotate the tubes.			
♦ Release the tourniquet once the tubes are full			
♦ Reapply pressure with little finger to the vein beyond the catheter tip to prevent blood from leaking out of catheter hub.			
♦ Disconnect the vacutainer device from hub of catheter. ♦ Connect the IV tubing to catheter hub.			
♦ Open the IV flow to ensure patency, then adjust the flow rate of IV appropriately.			
♦ Cover the IV site with appropriate dressing.			
♦ Properly dispose of all sharps.			
♦ Properly label all blood tubes			
BLOOD DRAWN WITH SYRINGE			
♦ If using a syringe, slowly withdraw the plunger to fill the syringe with blood.			
♦ Release the tourniquet once the tubes are full.			
♦ Reapply pressure with little finger to the vein beyond the catheter tip to prevent blood from leaking out of catheter hub.			
♦ Remove syringe from catheter hub and connect IV line to catheter hub. ♦ Ensure the IV line is patent by opening the flow of IV, then adjust the flow rate to appropriate rate.			
♦ Carefully attach a transfer needle to the syringe to puncture the top of the blood tubes. Fill the blood tubes and gently rotate the tubes.			
♦ Cover the IV site with appropriate dressing.			
♦ Properly dispose of all sharps.			
♦ Properly label all blood tubes			

Skill Component	Yes	No	Comments
ONGOING ASSESSMENT			
§ **Repeat an ongoing assessment every 5 minutes:** · **Initial assessment** · **Relevant portion of the focused assessment** · **Evaluate response to treatment** · **Compare results to baseline condition and vital signs**			
DOCUMENTATION			
§ **Document:** · **Time and date** . **Number and types of tubes drawn**			

Clinical

Clinical Objectives

The following goals must be successfully accomplished within the context of the learning environment. Clinical experiences should occur after the student has demonstrated competence in skills and knowledge in the didactic and laboratory components of the course. Items in **bold** are essentials and must be completed. Items in *italics* are recommendations to achieve the essential and should be performed on actual patients in a clinical setting. Recommendations are not the only way to achieve the essential. If the program is unable to achieve the recommendations on live patients, alternative learning experiences (simulations, programmed patient scenarios, etc.) can be developed. If alternatives to live patient contact are used, the program should increases in the number of times the skill must be performed to demonstrate competence.

These recommendations are based on information from the U.S. Department of Transportation's EMT-Intermediate National Standard Curriculum. Programs are encouraged to adjust these recommendations based on thorough program evaluation. For example, if the program finds that graduates perform poorly in airway management skills, they should increase the number of intubations and ventilations required for graduation and monitor the results.

PSYCHOMOTOR SKILLS

The student must demonstrate the ability to safely administer medications.

The student should safely, and while performing all steps of each procedure, properly administer medications at least 10 times to live patients.

The student must demonstrate the ability to safely perform esophageal- tracheal intubation.

The student should safely, and while performing all steps of each procedure, successfully intubate at least 5 live patients or manikins in the laboratory setting.

The student must demonstrate the ability to safely gain venous access in all age group patients.

The student should safely, and while performing all steps of each procedure, successfully access the venous circulation at least 10 times on live patients of various age groups.

The student must demonstrate the ability to effectively ventilate unintubated patients of all age groups.

The student should effectively, and while performing all steps of each procedure, ventilate at least 5 live patients of various age groups.

AGES

The student must demonstrate the ability to perform an advanced assessment on pediatric patients.

The student should perform an advanced patient assessment on at least 5 (including newborns, infants, toddlers, and school age) pediatric patients.

The student must demonstrate the ability to perform a compressive assessment on adult patients.

The student should perform an advanced patient assessment on at least 10 adult patients.

The student must demonstrate the ability to perform an advanced assessment on geriatric patients.

The student should perform an advanced patient assessment on at least 5 geriatric patients.

PATHOLOGIES

The student must demonstrate the ability to perform an advanced assessment on trauma patients.

The student should perform an advanced patient assessment on at least 20 trauma patients.

COMPLAINTS

The student must demonstrate the ability to perform an advanced assessment, formulate and implement a treatment plan for patients with chest pain.

The student should perform an advanced patient assessment, formulate and implement a treatment plan on at least 5 patients with chest pain.

The student must demonstrate the ability to perform an advanced assessment, formulate and implement a treatment plan for patients with dyspnea/respiratory distress.

The student should perform an advanced patient assessment, formulate and implement a treatment plan on at least 5 adult patients with dyspnea/respiratory distress.

The student should perform an advanced patient assessment, formulate and implement a treatment plan on at least 4 pediatric patients (including infants, toddlers, and school age) with dyspnea/respiratory distress.

The student must demonstrate the ability to perform an advanced assessment, formulate and implement a treatment plan for patients with abdominal complaints.

The student should perform an advanced patient assessment, formulate and implement a treatment plan on at least 5 patients with abdominal complains (for example: abdominal pain, nausea/vomiting, GI bleeding, gynecological complaint, etc.)

The student must demonstrate the ability to perform an advanced assessment, formulate and implement a treatment plan for patients with altered mental status.

The student should perform an advanced patient assessment, formulate and implement a treatment plan on at least 5 patients with altered mental status.

TEAM LEADER SKILLS

The student must demonstrate the ability to serve as a team leader in variety of prehospital emergency situations.

The student should serve as the team leader for at least 5 prehospital emergency responses.

California Advanced EMT Clinical Performance Standards

_____Training Program

The following performance evaluation standards have been developed as an objective measurement of the intern's performance. These standards are to be utilized when completing the intern's evaluations. Interns are expected to achieve a "3" rating in every rating factor on the final major evaluation in order to be eligible for internship.

EVALUATION FACTOR	RATING 1	RATING 2	RATING 3
ASSESSMENT/PATHOLOGIES			
Assessment and Interventions			
Performs a initial assessment and intervenes as necessary	Unable to perform a complete or organized initial assessment without prompting. Omits portions of the assessment and/or fails to recognize findings or intervene appropriately.	Performs a complete initial assessment, but is either slow or disorganized and inconsistent in recognizing findings or intervening appropriately.	Independently performs a complete and organized assessment in a timely manner, recognizes findings and intervenes appropriately in a timely manner.
Asks appropriate questions, specific to patient chief complaint	Fails to ask details specific to chief complaint; rambles or does not appear to have a focus to the questions.	Asks questions specific to the chief complaint but is either slow or disorganized.	Asks questions pertinent to the chief complaint; deliberate and timely.
Obtains patient history, medications and allergies	Does not obtain pertinent information; is incomplete or inaccurate.	Obtains an adequate patient assessment but is either slow in assessing and/or disorganized.	Obtains an adequate patient history, medications and allergies in a fairly organized and timely manner.
Performs pertinent physical exam	Fails to perform an appropriate physical exam and/or findings are incomplete and/or inaccurate.	Inconsistent or slow in performing a pertinent physical exam. Findings are accurate.	In a timely manner performs an appropriate physical exam pertinent to the patient's chief complaint. Findings are accurate.
Assessment Interpretation			
Accurately identifies chief complaint	Unable to identify the patient's chief complaint without prompting.	Slow to identify chief complaint	Identifies chief complaint correctly and in a timely manner
Identifies level of distress	Fails to correctly or incorrectly identifies level of distress.	Slow to identify level of distress correctly.	Identifies level of distress correctly and in a timely manner.
Interprets assessment information, correlates with pathophysiology	Unable to interpret assessment information correctly or demonstrates a weak knowledge base.	Interprets assessment information correctly but has difficulty associating S/S with pathophysiology.	Correlates information obtained in didactic; able to associate S/S with related pathophysiology.

EVALUATION FACTOR	RATING 1	RATING 2	RATING 3
Verbalizes knowledge of pharmacology	Unfamiliar with drug therapy; lacks basic pharmacology knowledge.	Has knowledge but needs prompting to convey information.	Adequate knowledge of clinical pharmocology.
PSYCHOMOTOR SKILLS			
Patient Management			
Verbalizes appropriate treatment plan and intervenes as necessary	Fails to anticipate appropriate orders or intervene as needed.	Slow to anticipate appropriate orders or intervene when necessary.	Anticipates appropriate orders and intervenes as needed in a timely manner.
Obtains vital signs and interprets results	Does not take vital signs at the appropriate time or has a problem with procedure or has problem with interpretation.	Obtains vital signs correctly but takes too long to perform procedure or interpret the information. Does not put in proper priority.	Obtains accurate and pertinent vital signs at the appropriate time. Interprets results correctly.
Skills Performance			
Airway Control and Adjuncts (02 application, basic airway, BVM)	Frequently fails to assure adequate delivery of oxygen to patient. Fails to utilize appropriate airway adjuncts and/or maintain patency of airway in a timely manner.	Inconsistently assures adequate delivery of oxygen to the patient and/or appropriate airway adjunct. Does not maintain airway patency in a timely manner.	Consistently assures adequate delivery of oxygen to patient. Uses appropriate airway adjunct. Achieves or maintains patency of airway in a timely manner.
Advanced airway (esophageal-tracheal airway device)	Frequently fails to demonstrate correct use of an advanced airway.	Inconsistently demonstrates or recognizes need for use of an advanced airway. Needs some guidance to complete the procedure.	Consistently demonstrates correct use of an advanced airway in a timely and appropriate manner.
Suctioning	Fails to recognize need for suctioning or performs procedure incorrectly.	Slow to recognize need for suctioning or needs minimal instruction to perform procedure correctly.	Recognizes need for suctioning and is able to perform skill without instruction or prompting.
IV Access	Frequently fails to establish IV access due to improper technique.	Inconsistently establishes IV access. Needs some direction to complete the procedure.	Consistently uses proper techniques. Completes procedure in a timely manner.
CPR	Requires instruction and prompting when performing skill.	Able to perform skill with minimal instruction.	Able to perform skill without instruction or prompting (competent).
Medication Administration	Unfamiliar with drug administration procedures. Unable to calculate correct drug dosages.	Inconsistent knowledge of drug administration procedure. Unable to administer drugs in a timely manner.	Consistently administers drugs correctly and in a timely manner.

EVALUATION FACTOR	RATING 1	RATING 2	RATING 3
Equipment Operation	Frequently fails to use equipment in a safe manner.	Inconsistently demonstrates proper use of equipment. Frequently needs direction.	Consistently demonstrates the ability to use all equipment correctly.
Bandaging/ Splinting/ Spinal Immobilization	Ineffective technique or treatment causing potential harm to patient. Sometimes fails to initiate any treatment when indicated.	Recognizes need for intervention. Needs direction to complete tasks appropriately.	Recognizes need for intervention. Completes task appropriately.
COMMUNICATION			
Professionalism and Attitude	Frequently exhibits unprofessional conduct. Is rude, abrupt, out of uniform and or uses inappropriate language.	Professional demeanor is appropriate but is sometimes unprepared for clinical.	Consistently exhibits a professional demeanor and is well prepared.
Rapport with Patient, Family, Staff			
Working Relationships with Team Members	Frequently fails to function as a member of the patient care learn.	Inconsistently functions as a member of the patient care team.	Consistently functions as a member of the patient care team.
Working Relationship with Patient/Family	Demonstrates an abrupt rude or judgmental attitude in dealing with patients.	Demonstrates a caring attitude but appears unsure of effective communication techniques.	Demonstrates a caring attitude and utilizes effective verbal and nonverbal communication.
Documentation	Frequently fails to complete patient care reports in an accurate, thorough and/or legible manner.	Inconsistently completes patient care, reports in an accurate, thorough and/or legible manner.	Consistently completes patient care reports in an accurate, thorough and legible manner.
LEADERSHIP			
Initiative, Participation	Frequently needs to be coaxed into participating. Uses clinical time poorly.	Hesitates to initate experiences but when prompted participates fully.	Actively seeks out learning experiences. Consistently participates in appropriate learning situations when asked.

EVALUATION FACTOR	RATING 1	RATING 2	RATING 3
Feedback and Guidance	Frequently fails to accept feedback. Argues with others. Uses excuses to justify mistakes.	Inconsistently accepts feedback. Does not take necessary steps to change performance.	Consistently participates in evaluation of self. Accepts feedback and suggestions. Takes necessary steps to correct performance weaknesses.
Attendance and Appearance	Frequently is either late or does not follow policy in regards to appearance/dress code.	Sometimes arrives late but is dressed and groomed appropriately.	Consistently on time. Dressed and groomed appropriately.

Vocabulary List: The following definitions for terms used in these performance standards are provided for clarification.

Consistently - Always following the same principles or course of action

Frequently - Occurring often; many times

Inconsistent - Lacking agreement, as one thing having to do with another

Sometimes - On some occasions; at times; now and then more things in relation to each other

California Daily Advance EMT Clinical Experience Log/Evaluation
_____Training Program

Intern: _____ Date: _____ Shift # _____ Hours: _____

RATING CRITERIA: Refer to Performance Standards below. An intern should progress from a rating of 1 or 2 to a minimum of 3 in each category on the final evaluation form.

Performance Standards:

1 – Requires instruction and prompting when performing assessment/skill.
2 – Able to perform assessment/skill with minimal instruction.
3 – Able to perform assessment/skill without instruction or prompting (competent).
N/A – Not applicable (Did not perform skill).

Evaluation Factors:	Rating:	Comments
ASSESSMENT/PATHOLOGIES		
Assessment and Interventions	_____	_____
Assessment Interpretation	_____	_____
PSYCHOMOTOR SKILLS		
Patient Management	_____	_____
Skills (IV, Meds, PTL) Performance	_____	_____
Equipment Operation	_____	_____
Bandaging/Splinting/C-Spine	_____	_____
COMMUNICATION		
Professionalism/Attitude	_____	_____
Rapport with Patient, Family, Staff	_____	_____
Documentation	_____	_____
LEADERSHIP		
Initiative, Participation	_____	_____
Feedback and Guidance	_____	_____
Attendance and Appearance	_____	_____

SUMMARY OF PERFORMANCE

Written summary of intern's performance to date: _____

_____

_____

Plan for improvement:

_____

_____

_____

Preceptor Signature: _____ Intern Signature: _____

Time in: _____ Preceptor/Charge Nurse Name: _____ Signature: _____

Time out: _____ Preceptor/Charge Nurse Name: _____ Signature: _____

CALIFORNIA ADVANCED EMT CLINICAL
Major Evaluation
♦ Program Name

Intern: _____ **Date:** _____ **Total Clinical Hours:** _____

RATING CRITERIA: Refer to Performance Standards below. An intern should progress from a rating of 1 or 2 to a minimum of 3 in each category on the final evaluation form.

Performance Standards:
- **1 – Requires instruction and prompting when performing skill/assessment.**
- **2 – Able to perform skill/assessment with minimal instructions.**
- **3 – Able to perform skill/assessment without instruction or prompting (competent).**
- **N/A – Not applicable (Did not perform skill/assessment).**

Evaluation Factors:	Rating:	Comments
ASSESSMENT/PATHOLOGIES		
Assessment and Interventions	_____	_____
Assessment Interpretation	_____	_____
PSYCHOMOTOR SKILLS		
Patient Management	_____	_____
Skills (IV, Meds, PTL) Performance	_____	_____
Equipment Operation	_____	_____
Bandaging/Splinting/C-Spine	_____	_____
COMMUNICATION		
Professionalism/Attitude	_____	_____
Rapport with Patient, Family, Staff	_____	_____
Documentation	_____	_____
LEADERSHIP		
Initiative, Participation	_____	_____
Feedback and Guidance	_____	_____
Attendance and Appearance	_____	_____

SUMMARY OF PERFORMANCE

_____

_____

_____

Recommend: _____Field Internship _____ Clinical Extension

Clinical Coordinator Signature: _____ **Intern Signature:** _____

Reviewed By:
Program Director:_____

Medical Director: _____

Field

California Advanced EMT Field Internship Performance Standards

_____ Training Program

The following performance evaluation standards have been developed to help preceptors determine the most appropriate rating to be given in each evaluation category. Preceptors are ***expected to utilize these standards*** when completing the trainee's field internship evaluations. Trainees are expected to achieve a "3" rating in every rating factor on the final evaluation in order to be eligible for certification.

EVALUATION FACTOR	RATING 1	RATING 2	RATING 3
SCENE MANAGEMENT			
Safety & Work Environment	Frequently fails to provide a safe and adequate work environment.	Inconsistently determines or provides a safe and adequate work environment or slowly initiates appropriate measures.	Consistently determines safety for patient, self and team members and ensures and adequate work environment in a timely manner.
Universal Precautions	Frequently fails to use appropriate universal precautions, personal protective equipment or care for equipment appropriately.	Inconsistently uses universal precautions and personal protective equipment or cleans equipment inappropriately.	Consistently uses universal precautions and wears appropriate personal protective equipment specific for patient condition. Cleans equipment in accordance with provider policy/procedures.
Crowd Control	Frequently fails to take steps to control crowd or deal effectively with family and bystanders.	Inconsistently initiates or delegates crowd control. Deals ineffectively with family and bystanders.	Consistently initiates or delegates appropriate crowd control and deals effectively with family and bystanders.
Additional Assistance & Equipment	Frequently fails to recognize the need for additional assistance and/or equipment.	Inconsistently or slowly recognizes the need for additional assistance or equipment.	Consistently recognizes the need for and requests additional assistance or equipment in a timely manner.
PATIENT ASSESSMENT			
Initial Assessment & Intervention	Frequently fails to perform an organized and complete initial assessment with 60 seconds or fails to intervene appropriately.	Inconsistently or slowly performs a complete and/or organized initial assessment. Does not intervene appropriately in a timely manner.	Consistently performs a complete and organized initial assessment with 60 seconds and intervenes appropriately in a timely manner.
Patient Information	Frequently fails to obtain pertinent information. Fails to ask details specific to chief complaint; rambles or does not appear to have a focus to the questions.	Inconsistently obtains adequate patient information. Is slow in assessing and/or disorganized in obtaining chief complaint, and patient history.	Consistently asks questions pertinent to the chief complaint; deliberate and timely. Obtains an adequate patient history, medications, and allergies in a fairly organized and timely manner.
Physical Examination	Frequently fails to perform a thorough exam with appropriate inquiry and/or inspection findings are inaccurate.	Inconsistently or slowly performs an exam. Needs assistance in being through and systematic.	Consistently performs a thorough exam with appropriate inquiry and inspection pertinent to the patient's chief complaint. Findings are accurate.

EVALUATION FACTOR	RATING 1	RATING 2	RATING 3
Assessment Interpretation	Frequently fails to determine a working diagnosis, or substantially misinterprets the patient's problem. Cannot formulate a working diagnosis for treatment.	Inconsistently or slowly determines a working diagnosis or substantially misinterprets the patient's problem.	Consistently interprets and correlates assessment information correctly.
Chest Auscultation	Frequently fails to demonstrate adequate assessment and identification of basic breath sounds.	Inconsistent knowledge of chest auscultation and breath sounds.	Consistently identifies breath sounds accurately. Adequate knowledge of chest auscultation.
Patient Management	Frequently fails to develop and implement an appropriate plan of action.	Inconsistently or slowly develops or implements an appropriate plan of action.	Consistently develops and implements an appropriate plan of action.
Patient Response to Therapy	Frequently fails to assess patient response to therapy/interventions.	Inconsistently assesses patient response to therapy/interventions.	Consistently assesses patient response to therapy/interventions.
INTERPERSONAL SKILLS			
Rapport with Patient, Family & Bystanders	Frequently fails /does not attempt to establish rapport with patient, family and/or bystanders. Is inconsiderate and disrespectful of others.	Inconsistently builds rapport with patient, family and/or bystanders. Inconsistently shows consideration and respect for others. Does not instill confidence in patients.	Consistently builds rapport with patient, family and bystanders. Show consideration and respect for others. Instills confidence in patients.
Communication with Team Members	Frequently fails to report pertinent information to team members.	Inconsistently reports pertinent information to team members.	Consistently communicates all pertinent information to team members.
Radio Reports	Frequently fails to recognize the need to utilize medical control.	Inconsistently utilizes and recognizes medical control. Reports are disorganized and incomplete.	Consistently utilizes medical control appropriately. Reports are organized and complete.
Documentation	Frequently fails to complete patient care reports in an accurate, thorough and/or legible manner.	Inconsistently completes patient care, reports in an accurate, thorough and/or legible manner.	Consistently completes patient care reports in an accurate, thorough and legible manner.
Working Relationships with Team Members	Frequently fails to function as a member of the patient care learn.	Inconsistently functions as a member of the patient care team.	Consistently functions as a member of the patient care team.
Leadership	Frequently fails to assume leadership role. Does not direct team members appropriately.	Inconsistently assumes leadership role and direction of team members.	Consistently assumes leadership role and directs team members appropriately.
Professionalism	Frequently exhibits unprofessional conduct. Is rude, abrupt, out of uniform and or uses inappropriate language.	Inconsistently exhibits a professional demeanor.	Consistently exhibits a professional demeanor.

EVALUATION FACTOR	RATING 1	RATING 2	RATING 3
Openness to Feedback and Guidance	Frequently fails to accept feedback. Argues with others. Uses excuses to justify mistakes.	Inconsistently accepts feedback. Does not take necessary steps to change performance.	Consistently participates in evaluation of self. Accepts feedback and suggestions. Takes necessary steps to correct performance weaknesses.
TREATMENT SKILLS			
Inventory Maintenance	Frequently fails to perform equipment inventory at the start of shift and does not resupply inventory.	Inconsistent in performing equipment inventory or resupplying per provider agency policy.	Consistently performs equipment inventory and resupplies all inventory per provider policy.
Equipment Operation	Frequently fails to use equipment in a safe manner.	Inconsistently demonstrates proper use of equipment. Frequently needs direction.	Consistently demonstrates the ability to use all equipment correctly.
Airway Management/Oxygen Therapy	Frequently fails to assure adequate delivery of oxygen to patient. Fails to utilize appropriate airway adjuncts and/or maintain patency of airway in a timely manner.	Inconsistently assures adequate of oxygen to patient and/or appropriate airway adjunct. Does not maintain airway patency in a timely manner.	Consistently assures adequacy delivery of oxygen to patient. Uses appropriate airway adjunct. Achieves or maintains patency of airway in a timely manner.
Advanced Airway (Esophageal-tracheal airway device)	Frequently fails to demonstrate correct use of an advanced airway.	Inconsistently demonstrates or recognizes need for use of an advanced airway. Needs some guidance to complete the procedure.	Consistently demonstrates correct use of an advanced airway in a timely and appropriate manner.
AED Operation	Frequently fails to demonstrate correct procedure and indications for use.	Aware of indications for use but needs some direction to perform procedure.	Consistently performs procedure correctly. Aware of indications for appropriate use.
Intravenous Access	Frequently fails to establish IV access due to improper technique.	Inconsistently establishes IV access. Needs some direction to complete the procedure.	Consistently uses proper techniques. Completes procedure in a timely manner.
CPR	Frequently fails to demonstrate correct procedure. Requires instruction and prompting when performing skill.	Inconsistently performs correct procedure. Able to perform skill with minimal instruction.	Consistently performs correct procedure without instruction or prompting.

EVALUATION FACTOR	RATING 1	RATING 2	RATING 3
Bandaging/Splinting	Frequently fails to apply appropriate and adequate bandages/splints in a systematic and timely manner. 'Ineffective technique or treatment causing potential harm to patient. Sometimes fails to initiate any treatment when indicated.	Inconsistently applies appropriate and adequate bandages/splints in a systematic and timely manner. Sometimes needs direction to complete tasks appropriately.	Consistently applies appropriate and adequate bandages/splints in a systematic, timely, and appropriate manner.
Extrication/Patient Positioning	Frequently fails to initiate adequate extrication/patient positioning. Does not have sufficient control to protect the patient from injury.	Inconsistently initiates adequate extrication/patient positioning. Sometimes does not have sufficient control to protect patient from injury.	Consistently initiates and directs extrication/patient positioning in a manner that protects the patient from injury.
Spinal Immobilization	Frequently fails to initiate spinal immobilization when indicated. Does not know complete or correct procedure.	Inconsistently initiates spinal immobilization when indicated. Knows complete and correct procedure but sometimes needs direction.	Consistently uses spinal immobilization when indicated and appropriate. Uses complete and correct procedure.
Drug Administration	Unfamiliar with drug administration procedures. Unable to calculate correct drug dosages.	Inconsistent knowledge of drug administration procedure. Unable to administer drugs in a timely manner.	Consistently administers drugs correctly and in a timely manner.
Drug Knowledge	Inadequate knowledge of indications, contraindications, adverse effects and dosages of drug therapy.	Inconsistent knowledge of indications, contraindications, adverse effects and dosages of drug therapy.	Consistent knowledge of indications. Contraindication, adverse effects and dosages of drug therapy.

Vocabulary List: The following definitions for terms used in these performance standards are provided for clarification.

Consistently - Always following the same principles or course of action

Frequently - Occurring often; many times

Inconsistent - Lacking agreement, as one thing having to do with another

Sometimes - On some occasions; at times; now and then more things in relation to each other

CALIFORNIA ADVANCED EMT FIELD INTERNSHIP DAILY PERFORMANCE RECORD

INTERN: DATE: TRAINING PROGRAM: INTERNING AGENCY/STATION:

SHIFT # TIME IN: OUT: PRECEPTOR: PRECEPTOR:

DIRECTIONS: Sections are to be completed by the intern. Each run must be rated by the intern and preceptors in each applicable category. Comments regarding runs should be made in comments area provided.

RATING: 1- Fails to Perform 2 – Borderline-inconsistent 3 - Competent

Patient Information and Chief Complaint (Age, Gender, Sequence #)	Treatment Rendered	ALS Patient Contact (Y/N)		Scene Management	Assessment/Tx	Communication	Leadership	Treatment Skills	COMMENTS
1.			I						
			P						
2.			I						
			P						
3.			I						
			P						
4.			I						
			P						
5.			I						
			P						
6.			I						
			P						
7.			I						
			P						
OVERALL DAILY PERFORMANCE									(# OF PATIENT CONTACTS ON PAGE 2 OF 2 _____)

SUMMARY OF

Preceptor must provide a written summary of today's performance

Drills/Demonstrations

PLAN FOR IMPROVEMENT:

PRECEPTOR'S ACTION FOR IMPROVEMENT:

PRECEPTOR SIGNATURE	CERT. #	PRECEPTOR SIGNATURE	CERT. #
INTERN SIGNATURE		SCHOOL REP. SIGNATURE	

CALIFORNIA ADVANCED EMT FIELD INTERNSHIP DAILY PERFORMANCE RECORD

INTERN: DATE: TRAINING PROGRAM: INTERNING AGENCY/STATION:

SHIFT # TIME IN: OUT: PRECEPTOR: PRECEPTOR:

DIRECTIONS: Sections are to be completed by the intern. Each run must be rated by the intern and preceptors in each applicable category. Comments regarding runs should be made in comments area provided.

RATING: 1- Fails to Perform 2 – Borderline-inconsistent 3 - Competent

Patient Information and Chief Complaint (Age, Gender, Sequence #)	Treatment Rendered	ALS Patient Contact (Y/N)		Scene Management	Assessment/Tx	Communication	Leadership	Treatment Skills	COMMENTS
8.			I						
			P						
9.			I						
			P						
10.			I						
			P						
11.			I						
			P						
12.			I						
			P						
13.			I						
			P						
14.			I						
			P						
15.			I						
			P						
16.			I						
			P						
17.			I						
			P						
18.			I						
			P						
19.			I						
			P						
20.			I						
			P						
21.			I						

CALIFORNIA ADVANCED EMT FIELD INTERNSHIP - MAJOR EVALUATION

INTERN	TRAINING PROGRAM	
INTERNING AGENCY	STATION & SHIFT	TODAY'S DATE
PRECEPTOR (1)	PRECEPTOR (2)	
RATING PERIOD FROM: TO:	# HOURS:	#ALS CALLS TO DATE

RATING CRITERIA: Refer to Performance Evaluation Standards in the Internship Manual. An intern must attain a "3" in each category on the final evaluation to successfully complete field internship.

1. Frequently fails to perform procedure in a competent manner
2. Inconsistent in performing procedures in a competent manner
3. Consistently performs procedure in a competent manner

N/A Not applicable. Did not perform skill.

(Skills not observed in the field shall be evaluated in a drill situation prior to the completion of internship)

EVALUATION FACTORS	RATING	COMMENTS: are required in each major category
SCENE MANAGEMENT		
1. Safety and work environment		
2. Universal precautions		
3. Crowd control		
4. Additional assistance and equipment		
ASSESSMENT/TREATMENT		
5. Initial assessment and intervention		
6. Patient information		
7. Physical examination		
8. Assessment interpretation		
9. Chest auscultation		
10. Patient management		
11. Patient response to therapy		
COMMUNICATION		
12. Rapport with patient, family and bystanders		
13. Team members		
14. Radio Report		
15. Documentation		
16. Working relationship with team		
LEADERSHIP		
17. Leadership		
18. Professionalism		
19. Feedback and guidance		
EQUIPMENT		
20. Inventory maintenance		
21. Equipment operation		

MAJOR EVALUATION
TREATMENT SKILLS

EVALUATION FACTORS	RATING	COMMENTS: are required in each major category
AIRWAY		
22. Airway management/Oxygen therapy		
23. Advanced airway (Esophageal-tracheal airway device)		
CIRCULATION		
24. AED Operation		
25. Intravenous access		
26. CPR		
MUSCULOSKELETAL SKILLS		
27. Bandaging/splinting		
28. Extrication/patient positioning		
29. Spinal immobilization		
PHARMACOLOGY		
30. Drug administration technique		
31. Drug knowledge		
EXPANDED SCOPE		
OTHER SKILLS		

SUMMARY OF PERFORMANCE

Preceptors must provide a written summary of the intern's performance to date:
Plan for improvement:

Preceptor signature:	Cert #	Preceptor signature:	Cert. #
Intern signature:		School Rep signature:	

CALIFORNIA ADVANCED EMT CLINICAL / FIELD
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Intern: _____ **Class:** _____ **Clinical/Field Site:** _____

RATING CRITERIA: Refer to Performance Standards below. An intern should progress from a rating of 1 or 2 to a minimum of 3 prior to end of clinical rotations and field internship.

Performance Standards:

1 – Requires instruction and prompting when performing skill/assessment.
2 – Able to perform skill/assessment with minimal instruction.
3 – Able to perform skill/assessment without instruction or prompting (competent).
N/A – Not applicable (Did not perform skill/assessment).

Evaluation Factors:	Rating:	Comments	Preceptor Signature
Patient Assessment			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
13. _____	_____	_____	_____
14. _____	_____	_____	_____
15. _____	_____	_____	_____
16. _____	_____	_____	_____
17. _____	_____	_____	_____
18. _____	_____	_____	_____
19. _____	_____	_____	_____
20. _____	_____	_____	_____

Evaluation Factors:	Rating:	Comments	Preceptor Signature
Pharyngo-tracheal lumen airway (PTL)			
Date			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

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5.	_____	_____	_____	_____

Evaluation Factors:			Rating:	Comments	Preceptor Signature
MEDICATION ADMINISTRATION					
	Date	Route			
1.	_____	_____	_____	_____	_____
2.	_____	_____	_____	_____	_____
3.	_____	_____	_____	_____	_____
4.	_____	_____	_____	_____	_____
5.	_____	_____	_____	_____	_____
6.	_____	_____	_____	_____	_____
7.	_____	_____	_____	_____	_____
8.	_____	_____	_____	_____	_____
9.	_____	_____	_____	_____	_____
10.	_____	_____	_____	_____	_____
11.	_____	_____	_____	_____	_____
12.	_____	_____	_____	_____	_____
13.	_____	_____	_____	_____	_____
14.	_____	_____	_____	_____	_____
15.	_____	_____	_____	_____	_____
16.	_____	_____	_____	_____	_____
17.	_____	_____	_____	_____	_____
18.	_____	_____	_____	_____	_____
19.	_____	_____	_____	_____	_____
20.	_____	_____	_____	_____	_____

Evaluation Factors:		Rating:	Comments	Preceptor Signature
INITIATE IV				
	Date			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

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20.				

Evaluation Factors:			Rating:	Comments	Preceptor Signature
AED APPLICATION AND USE					
	Date				
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

Evaluation Factors:		Rating:	Comments	Preceptor Signature
APPLY ELECTRODES & RHYTHM RECOGNITION				
	Date			
1.				
2.				

3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____

Evaluation Factors: **Rating:** **Comments** **Preceptor Signature**
DEFIBRILLATION UNDER DIRECT SUPERVISION OF PARAMEDIC, RN, MD

1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

Evaluation Factors: **Rating:** **Comments** **Preceptor Signature**
CARDIAC PATIENT ASSESSMENT/TREATMENT PLAN

	Date			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

Evaluation Factors: **Rating:** **Comments** **Preceptor Signature**
RESPIRATORY PATIENT ASSESSMENT/BREATH SOUNDS/TREATMENT PLAN

	Date			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

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Evaluation Factors:	Date	Rating:	Comments	Preceptor Signature
NEUROLOGICAL ASSESSMENT				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

Evaluation Factors:	Date	Rating:	Comments	Preceptor Signature
PEDIATRIC AGE AND WEIGHT ASSESSMENT				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____