

**UNIT TERMINAL OBJECTIVE**

- 3-1 At the completion of this unit, the paramedic student will be able to use the appropriate techniques to obtain a medical history from a patient.

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-1.1 Describe the techniques of history taking. (C-1)
- 3-1.2 Discuss the importance of using open ended questions. (C-1)
- 3-1.3 Describe the use of facilitation, reflection, clarification, empathetic responses, confrontation, and interpretation. (C-1)
- 3-1.4 Differentiate between facilitation, reflection, clarification, sympathetic responses, confrontation, and interpretation. (C-3)
- 3-1.5 Describe the structure and purpose of a health history. (C-1)
- 3-1.6 Describe how to obtain a comprehensive health history. (C-1)
- 3-1.7 List the components of a comprehensive history of an adult patient. (C-1)

**AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-1.8 Demonstrate the importance of empathy when obtaining a health history. (A-1)
- 3-1.9 Demonstrate the importance of confidentiality when obtaining a health history. (A-1)

**PSYCHOMOTOR OBJECTIVES**

None identified for this unit.

## DECLARATIVE

- I. Overview
  - A. Purpose
    - 1. This information is gathered on a patient by patient, case by case basis
  - B. Several parts
    - 1. Specific purpose
    - 2. Together they give structure
  - C. Does not dictate sequence
- II. Content of the patient history
  - A. Date
    - 1. Always important
    - 2. Time may also be a consideration
  - B. Identifying data
    - 1. Age
    - 2. Sex
    - 3. Race
    - 4. Birthplace
    - 5. Occupation
  - C. Source of referral
    - 1. Patient referral
    - 2. Referral by others
  - D. Source of history
    - 1. Patient
    - 2. Family
    - 3. Friends
    - 4. Police
    - 5. Others
  - E. Reliability
    - 1. Variable
      - a. Memory
      - b. Trust
      - c. Motivation
    - 2. Made at the end of the evaluation, not the beginning
  - F. Chief complaint
    - 1. Main part of the health history
    - 2. The one or more symptoms for which the patient is seeking medical care for
  - G. Present illness
    - 1. Identifies chief complaint
    - 2. Provides a full, clear, chronological account of the symptoms
  - H. Past history
    - 1. General state of health
    - 2. Childhood illnesses
    - 3. Adult illnesses
    - 4. Psychiatric illnesses
    - 5. Accidents and injuries
    - 6. Operations
    - 7. Hospitalizations

- I. Current health status
    - 1. Focuses on present state of health
    - 2. Environmental conditions
    - 3. Personal habits
      - a. Current medications
      - b. Allergies
      - c. Tobacco use
      - d. Alcohol, drugs and related substances
      - e. Diet
      - f. Screening tests
      - g. Immunizations
      - h. Sleep patterns
      - i. Exercise and leisure activities
      - j. Environmental hazards
      - k. Use of safety measures
      - l. Family history
      - m. Home situation and significant other
      - n. Daily life
      - o. Important experiences
      - p. Religious beliefs
      - q. Patients outlook
  - J. Review of body systems
- III. Techniques of history taking
- A. Setting the stage
    - 1. Reviewing the medical history
      - a. Briefly review any previous medical records available
      - b. Important insight
        - (1) Referral
        - (2) Life experience
        - (3) Past diagnosis and treatment
    - 2. The environment
      - a. Proper environment enhances communication
      - b. Place for you and the patient to sit
      - c. Be cautious of power relationship
      - d. Personal space
    - 3. Your demeanor and appearance
      - a. Just as you are watching the patient, the patient will be watching you
      - b. Messages of body language
      - c. Clean, neat, professional appearance
    - 4. Note taking
      - a. Difficult to remember all details
      - b. Most patients are comfortable with note taking
        - (1) If concerns arise, explain your purpose
        - (2) Do not divert your attention from the patient to take notes
  - B. Learning about the present illness
    - 1. Greeting the patient
      - a. Greet by name
      - b. Shake hands
      - c. Avoid the use of unfamiliar or demeaning terms such as Granny or Hon, etc.

2. The patient's comfort
  - a. Be alert to patient comfort levels
  - b. Inquire about the patient's feelings
  - c. Watch for signs of uneasiness
3. Opening questions
  - a. Find out why the patient is seeking medical care or advice
  - b. Use a general, open-ended question
  - c. Follow the patient's leads
    - (1) Facilitation
      - (a) Your posture, actions or words should encourage the patient to say more
      - (b) Making eye contact or saying phrases such as "Go-on" or "I'm listening" may help the patient to continue
    - (2) Reflection
      - (a) Repetition of the patient's words that encourage additional responses
      - (b) Typically does not bias the story or interrupt the patient's train of thought
    - (3) Clarification
      - (a) Used to clarify ambiguous statements or words
    - (4) Empathetic responses
      - (a) Use techniques of therapeutic communication to interpret feelings and your response
    - (5) Confrontation
      - (a) Some issues or response may require you to confront patients about their feelings
    - (6) Interpretation
      - (a) Goes beyond confrontation, requires you to make an inference
    - (7) Asking about feelings
4. Getting more information
  - a. Attributes of a symptom
    - (1) Location
      - (a) Where is it
      - (b) Does it radiate
    - (2) Quality
      - (a) What is it like
    - (3) Quantity or severity
      - (a) How bad is it
      - (b) Attempt to quantify the pain
        - i) 1 - 10 scale
        - ii) Other scales
    - (4) Timing
      - (a) When did it start
      - (b) How long does it last
    - (5) The setting in which it occurs
      - (a) Emotional response
      - (b) Environmental factors
    - (6) Factors that make it better or worse
    - (7) Associated manifestations

- C. Clinical reasoning
  - 1. Results of questioning may allow you to think about associated problems and body systems
- D. Direct questions
  - 1. To gather additional information, direct questions may be required
  - 2. Should not be leading questions
  - 3. Ask one question at a time
  - 4. Use language that is appropriate
- E. Taking a history on sensitive topics
  - 1. Alcohol and drugs
  - 2. Physical abuse or violence
  - 3. Sexual history
- IV. Special challenges
  - A. Silence
    - 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 nonverbal clues of distress
    - 3. Silence may be a result of the interviewer's lack of sensitivity
  - B. Overly talkative patients
    - 1. Faced with a limited amount of time interviewers may become impatient
    - 2. Although there are no perfect solutions, several techniques may be helpful
      - a. Lower your goals, accept a less comprehensive history
      - b. Give the patient free reign for the first several minutes
      - c. Summarize frequently
  - C. Patients with multiple symptoms
  - D. Anxious patients
    - 1. Anxiety is natural
    - 2. Be sensitive to nonverbal clues
  - E. Reassurance
    - 1. It is tempting to be overly reassuring
    - 2. Premature reassurance blocks communication
  - F. Anger and hostility
    - 1. Understand that anger and hostility are natural
    - 2. Often the anger is displaced toward the clinician
    - 3. Do not get angry in return
  - G. Intoxication
    - 1. Be accepting not challenging
    - 2. Do not attempt to have the patient lower their voice or stop cursing; this may aggravate them
    - 3. Avoid trapping them in small areas
  - H. Crying
    - 1. Crying, like anger and hostility may provide valuable insight
    - 2. Be sympathetic
  - I. Depression
    - 1. Be alert for signs of depression
    - 2. Be sure you know how bad it is

- J. Sexually attractive or seductive patients
  1. Clinicians and patients may be sexually attracted to each other
  2. Accept these as normal feelings, but prevent them from affecting your behavior
  3. If a patient becomes seductive or makes sexual advances, frankly but firmly make clear that your relationship is professional not personal
- K. Confusing behaviors or histories
  1. Be prepared for the confusion and frustration of varying behaviors and histories
  2. Be alert for mental illness, delirium or dementia
- L. Limited intelligence
  1. Do not overlook the ability of these patients to provide you with adequate information
  2. Be alert for omissions
  3. Severe mental retardation may require you to get information from family or friends
- M. Language barriers
  1. Take every possible step to find a translator
  2. A few broken words are not an acceptable substitute
- N. Hearing problems
  1. Very similar to patients with a language barrier
  2. If the patient can sign, make every effort to find a translator
- O. Blind patients
  1. Be careful to announce yourself and to explain who you are and why you are there
- P. Talking with family and friends
  1. Some patients may not be able to provide you with all information
  2. Try to find a third party who can help you get the whole story

**UNIT TERMINAL OBJECTIVE**

3-2 At the completion end of this unit, the paramedic student will be able to explain the pathophysiological significance of physical exam findings.

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-2.1 Define the terms inspection, palpation, percussion, auscultation. (C-1)
- 3-2.2 Describe the techniques of inspection, palpation, percussion, and auscultation. (C-1)
- 3-2.3 Describe the evaluation of mental status. (C-1)
- 3-2.4 Evaluate the importance of a general survey. (C-3)
- 3-2.5 Describe the examination of skin, hair and nails. (C-1)
- 3-2.6 Differentiate normal and abnormal findings of the assessment of the skin. (C-3)
- 3-2.7 Distinguish the importance of abnormal findings of the assessment of the skin. (C-3)
- 3-2.8 Describe the examination of the head and neck. (C-1)
- 3-2.9 Differentiate normal and abnormal findings of the scalp examination. (C-3)
- 3-2.10 Describe the normal and abnormal assessment findings of the skull. (C-1)
- 3-2.11 Describe the assessment of visual acuity. (C-1)
- 3-2.12 Explain the rationale for the use of an ophthalmoscope. (C-1)
- 3-2.13 Describe the examination of the eyes. (C-1)
- 3-2.14 Distinguish between normal and abnormal assessment findings of the eyes. (C-3)
- 3-2.15 Explain the rationale for the use of an otoscope. (C-1)
- 3-2.16 Describe the examination of the ears. (C-1)
- 3-2.17 Differentiate normal and abnormal assessment findings of the ears. (C-3)
- 3-2.18 Describe the examination of the nose. (C-1)
- 3-2.19 Differentiate normal and abnormal assessment findings of the nose. (C-3)
- 3-2.20 Describe the examination of the mouth and pharynx. (C-1)
- 3-2.21 Differentiate normal and abnormal assessment findings of the mouth and pharynx. (C-3)
- 3-2.22 Describe the examination of the neck. (C-1)
- 3-2.23 Differentiate normal and abnormal assessment findings the neck. (C-3)
- 3-2.24 Describe the survey of the thorax and respiration. (C-1)
- 3-2.25 Describe the examination of the posterior chest. (C-1)
- 3-2.26 Describe percussion of the chest. (C-1)
- 3-2.27 Differentiate the percussion notes and their characteristics. (C-3)
- 3-2.28 Differentiate the characteristics of breath sounds. (C-3)
- 3-2.29 Describe the examination of the anterior chest. (C-1)
- 3-2.30 Differentiate normal and abnormal assessment findings of the chest examination. (C-3)
- 3-2.31 Describe special examination techniques related to the assessment of the chest. (C-1)
- 3-2.32 Describe the examination of the arterial pulse including rate, rhythm, and amplitude. (C-1)
- 3-2.33 Distinguish normal and abnormal findings of arterial pulse. (C-3)
- 3-2.34 Describe the assessment of jugular venous pressure and pulsations. (C-1)
- 3-2.35 Distinguish normal and abnormal examination findings of jugular venous pressure and pulsations. (C-3)
- 3-2.36 Describe the examination of the heart and blood vessels. (C-1)
- 3-2.37 Differentiate normal and abnormal assessment findings of the heart and blood vessels. (C-3)
- 3-2.38 Describe the auscultation of the heart. (C-1)
- 3-2.39 Differentiate the characteristics of normal and abnormal findings associated with the auscultation of the heart. (C-3)
- 3-2.40 Describe special examination techniques of the cardiovascular examination. (C-1)
- 3-2.41 Describe the examination of the abdomen. (C-1)
- 3-2.42 Differentiate normal and abnormal assessment findings of the abdomen. (C-3)
- 3-2.43 Describe auscultation of the abdomen. (C-1)

- 3-2.44 Distinguish normal and abnormal findings of the auscultation of the abdomen. (C-3)
- 3-2.45 Describe the examination of the female genitalia. (C-1)
- 3-2.46 Differentiate normal and abnormal assessment findings of the female genitalia. (C-3)
- 3-2.47 Describe the examination of the male genitalia. (C-1)
- 3-2.48 Differentiate normal and abnormal findings of the male genitalia. (C-3)
- 3-2.49 Describe the examination of the anus and rectum. (C-3)
- 3-2.50 Distinguish between normal and abnormal findings of the anus and rectum. (C-3)
- 3-2.51 Describe the examination of the peripheral vascular system. (C-1)
- 3-2.52 Differentiate normal and abnormal findings of the peripheral vascular system. (C-3)
- 3-2.53 Describe the examination of the musculoskeletal system. (C-1)
- 3-2.54 Differentiate normal and abnormal findings of the musculoskeletal system. (C-3)
- 3-2.55 Describe the examination of the nervous system. (C-1)
- 3-2.56 Differentiate normal and abnormal findings of the nervous system. (C-3)
- 3-2.57 Describe the assessment of the cranial nerves. (C-1)
- 3-2.58 Differentiate normal and abnormal findings of the cranial nerves. (C-3)
- 3-2.59 Describe the general guidelines of recording examination information. (C-1)
- 3-2.60 Discuss the considerations of examination of an infant or child. (C-1)

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-2.61 Demonstrate a caring attitude when performing physical examination skills. (A-3)
- 3-2.62 Discuss the importance of a professional appearance and demeanor when performing physical examination skills. (A-1)
- 3-2.63 Appreciate the limitations of conducting a physical exam in the out-of-hospital environment. (A-2)

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-2.64 Demonstrate the examination of skin, hair and nails. (P-2)
- 3-2.65 Demonstrate the examination of the head and neck. (P-2)
- 3-2.66 Demonstrate the examination of the eyes. (P-2)
- 3-2.67 Demonstrate the examination of the ears. (P-2)
- 3-2.68 Demonstrate the assessment of visual acuity. (P-2)
- 3-2.69 Demonstrate the examination of the nose. (P-2)
- 3-2.70 Demonstrate the examination of the mouth and pharynx. (P-2)
- 3-2.71 Demonstrate the examination of the neck. (P-2)
- 3-2.72 Demonstrate the examination of the thorax and ventilation. (P-2)
- 3-2.73 Demonstrate the examination of the posterior chest. (P-2)
- 3-2.74 Demonstrate auscultation of the chest. (P-2)
- 3-2.75 Demonstrate percussion of the chest. (P-2)
- 3-2.76 Demonstrate the examination of the anterior chest. (P-2)
- 3-2.77 Demonstrate special examination techniques related to the assessment of the chest. (P-2)
- 3-2.78 Demonstrate the examination of the arterial pulse including location, rate, rhythm, and amplitude. (P-2)
- 3-2.79 Demonstrate the assessment of jugular venous pressure and pulsations. (P-2)
- 3-2.80 Demonstrate the examination of the heart and blood vessels. (P-2)
- 3-2.81 Demonstrate special examination techniques of the cardiovascular examination. (P-2)
- 3-2.82 Demonstrate the examination of the abdomen. (P-2)
- 3-2.83 Demonstrate auscultation of the abdomen. (P-2)
- 3-2.84 Demonstrate the external visual examination of the female genitalia. (P-2)
- 3-2.85 Demonstrate the examination of the male genitalia. (P-2)



- 3-2.86 Demonstrate the examination of the peripheral vascular system. (P-2)
- 3-2.87 Demonstrate the examination of the musculoskeletal system. (P-2)
- 3-2.88 Demonstrate the examination of the nervous system. (P-2)

## DECLARATIVE

- I. Physical examination - approach and overview
    - A. Examination techniques and equipment
      - 1. Examination techniques
        - a. Inspection
        - b. Palpation
        - c. Percussion
        - d. Auscultation
      - 2. Measurement of vitals
        - a. Pulse
        - b. Respirations
        - c. Blood pressure
      - 3. Height and weight
      - 4. Equipment
        - a. Stethoscope
        - b. Ophthalmoscope
        - c. Otoscope
        - d. Blood pressure cuff
    - B. General approach
      - 1. Examine the patient systematically
      - 2. Place special emphasis on areas suggested by the present illness and chief complaint
      - 3. Keep in mind that most patients view a physical exam with apprehension and anxiety - they feel vulnerable and exposed
    - C. Overview of a comprehensive examination
      - 1. The categories of a physical exam should include
        - a. Mental status
        - b. General survey
        - c. Vital signs
        - d. Skin
        - e. HEENT
          - (1) Head
          - (2) Eyes
          - (3) Ears
          - (4) Nose
          - (5) Throat
        - f. Neck
        - g. Chest
        - h. Abdomen
        - i. Posterior body
        - j. Extremities
          - (1) Peripheral vascular
          - (2) Musculoskeletal
        - k. Neurologic exam
- II. Mental status
  - A. Appearance and behavior
    - 1. Assess for level of consciousness
      - a. Alertness
      - b. Response to verbal stimuli
      - c. Response to touch or shake of shoulder (tactile)

- d. Response to painful stimuli
- e. Unresponsive
- f. Possible findings
  - (1) Normal
  - (2) Drowsiness
  - (3) Obtundation
    - (a) Insensitive to unpleasant or painful stimuli by reducing level of consciousness by an anesthetic or analgesic
  - (4) Stupor
    - (a) State of lethargy and unresponsiveness
    - (b) Person seems unaware of surroundings
- g. Coma
  - (1) State of profound unconsciousness
  - (2) Absence of spontaneous eye movements
  - (3) No response to verbal or painful stimuli
  - (4) Patient can not be aroused by any stimuli
- h. Posture and motor behavior
- 2. Observe posture and motor behavior
  - a. Pace
  - b. Range
  - c. Character
  - d. Appropriateness of movement
  - e. Possible findings
    - (1) Normal
    - (2) Restlessness
    - (3) Agitation
    - (4) Bizarre postures
    - (5) Immobility
    - (6) Involuntary movements
- 3. Dress, grooming, and personal hygiene
  - a. Fastidiousness
  - b. Neglect
- 4. Facial expression
  - a. Anxiety
  - b. Depression
  - c. Elation
  - d. Anger
  - e. Response to imaginary people or objects
  - f. Withdrawal
- 5. Manner, affect, and relation to person and things
- B. Speech and language
  - 1. Assess
    - a. Quantity
    - b. Rate
    - c. Loudness
    - d. Fluency
    - e. Possible findings
      - (1) Aphasia
      - (2) Dysphonia
      - (3) Dysarthria
      - (4) Changes with mood disorders

- C. Mood
  - 1. Assess
    - a. Nature
    - b. Intensity
    - c. Duration
    - d. Stability of abnormal mood
    - e. Risk of suicide
    - f. Possible findings
      - (1) Happiness
      - (2) Elation
      - (3) Depression
      - (4) Anxiety
      - (5) Anger
      - (6) Indifference
- D. Thought and perceptions
  - 1. Assess thought processes
    - a. Logic
    - b. Relevance
    - c. Organization
    - d. Coherence of thought
    - e. Possible findings
      - (1) Loosening of associations
      - (2) Flight of ideas
      - (3) Incoherence
      - (4) Confabulation
      - (5) Blocking
  - 2. Assess thought content
    - a. Unusual thoughts
    - b. Unpleasant thoughts
    - c. Possible findings
      - (1) Obsessions
      - (2) Compulsions
      - (3) Delusions
      - (4) Feelings of unreality
  - 3. Assess perceptions
    - a. Unusual
    - b. Hearing things
    - c. Seeing things
    - d. Possible findings
    - e. Illusions
    - f. Hallucinations
- E. Assess insight and judgement
  - 1. Insight into illness
  - 2. Level of judgement in making decisions or plans
  - 3. Possible findings
    - a. Recognition or denial of mental cause of symptoms
    - b. Bizarre, impulsive, or unrealistic judgement
- F. Memory and attention
  - 1. Assess orientation
    - a. Time
    - b. Place

- c. Person
    - d. Possible findings
      - (1) Disorientation
  - 2. Assess attention
    - a. Digit span
    - b. Serial sevens
    - c. Spelling backwards
  - 3. Assess remote memory (i.e. birthdays)
  - 4. Assess recent memory (i.e. events of the day)
  - 5. Assess new learning ability
- III. General survey
  - A. Level of consciousness
    - 1. Awake
    - 2. Alert
    - 3. Responsive
  - B. Signs of distress
    - 1. Assess for signs of distress
    - 2. Examples (not inclusive)
      - a. Cardiorespiratory insufficiency
        - (1) Labored breathing
        - (2) Wheezing
        - (3) Cough
      - b. Pain
        - (1) Wincing
        - (2) Sweating
        - (3) Protectiveness of a painful part
      - c0 Anxiety
        - (1) Anxious face
        - (2) Fidgety movement
        - (3) Cold moist palms
  - C0 Apparent state of health
    - 1 Acutely or chronically ill
    - 2 Frail
    - 3. Feeble
    - 4 Robust
    - 5 Vigorous
  - D0 Skin color and obvious lesions
    - 1 Pallor
    - 2 Cyanosis
    - 3 Jaundice
    - 4 Rashes
    - 5 Bruises - ecchymosis
    - 6 Scars
    - 7 Discoloration
  - E0 Height and build
    - 1 Unusually tall or short
    - 2 Slender, lanky, muscular or stocky build

- F0 Sexual development
  - 1 Are the following appropriate for the patient's age and gender
    - a0 Voice
    - b0 Hair
      - (1) Facial
      - (2) Axillary
      - (3) Groin
    - c0 Breast size
- G0 Weight
  - 1 Emaciated
  - 2 Slender
  - 3 Plump
  - 4 Obese
    - a0 Concentrated
    - b0 Distributed evenly
  - 5 Recent history of weight gain or loss
- H0 Posture, gait and motor activity
  - 1 Preferred posture
    - a0 Tripodal
    - b0 Paralysis
    - c0 Limpness
    - d0 Ataxia
    - e0 Restless or quiet
    - f0 Involuntary motor activity
    - g0 Ease of walking
      - (1) Balance
      - (2) Limp
      - (3) Discomfort
      - (4) Fear of falling
      - (5) Abnormal motor pattern
- I0 Dress, grooming and personal hygiene
  - 1 How is the patient dressed
    - a0 Appropriate for temperature and weather
    - b0 Clean
    - c0 Properly buttoned and zipped
    - d0 Compare with clothing worn by people of similar age and social group
    - e0 Shoes
      - (1) Clean
      - (2) Holes cut in them
      - (3) Laces tied
      - (4) Slippers
    - f0 Unusual jewelry
      - (1) Copper bracelet for arthritis
      - (2) Medical identification insignia
    - g0 Hair, fingernails and use of cosmetics
      - (1) Reflect lifestyle, mood, and personality
      - (2) Grown out hair or nail polish may indicate decreased interest in appearance or help to estimate length of illness
    - h0 Is grooming and hygiene appropriate for the patient's age, lifestyle, occupation and socioeconomic group?

- J0 Odors of breath or body
    - 1 Breath odors may indicate underlying conditions
      - a0 Alcohol/ alcoholic beverage
      - b0 Acetone
      - c0 Infections
      - d0 Liver failure
  - K0 Facial expression
    - 1 Observe expression
    - 2 At rest, during conversation and during the examination
  - L0 Vital signs
    - 1 Blood pressure
    - 2 Respirations
    - 3 Pulse
    - 4 Temperature
  - M0 Additional assessment techniques
    - 1 Pulse oximetry
    - 2 Others
- IV Anatomical regions
- A0 The skin
    - 1 Anatomy and physiology review
    - 2 Changes with age
    - 3 Techniques of exam
      - a0 Inspect and palpate the skin
        - (1) Note the following characteristics
          - (a) Color
            - i The red color of oxyhemoglobin and pallor due to lack of oxygen are best seen where the epidermis is thinnest
            - ii The fingernails and lips and the mucous membranes of the mouth and palpebral conjunctiva
            - iii In dark skinned persons, the palms and the soles may also be useful
          - (b) Moisture
          - (c) Temperature
          - (d) Texture
          - (e) Mobility and turgor
          - (f) Lesions
      - b0 Inspect and palpate the fingernails and toenails
        - (1) Note their color and shape
        - (2) Note if there are any lesions present
      - c0 Inspect and palpate the hair
        - (1) Note its quantity, distribution and texture
    - 4 Abnormalities
      - a0 Basic types of skin lesions
      - b0 Skin colors
      - c0 Skin tumors
      - d0 Findings in or near the nails
        - (1) Clubbing
        - (2) Paronychia
        - (3) Onycholysis
        - (4) Terry's nails

- (5) White spots
  - (6) Transverse white lines
  - (7) Psoriasis
  - (8) Beau's lines
- B0 Head, ears, eyes, nose, and throat
- 1 Anatomy and physiology review
    - a0 The head
    - b0 The neck
    - c0 The ears
    - d0 The nose
    - e0 The mouth and pharynx
    - f0 The neck
    - g0 Changes with age
  - 2 Techniques of examination
    - a0 The head
      - (1) The scalp
        - (a) Part the hair in several places
        - (b) Look for scaliness, lumps or other lesions
      - (2) The skull
        - (a) Observe the general size and contour of the skull
        - (b) Palpate and inspect note any tenderness, deformities or lumps
      - (3) The face
        - (a) Note the facial expression and contours
        - (b) Observe for asymmetry, involuntary movements, masses and edema
      - (4) The skin
        - (a) Observe the skin
        - (b) Note color, pigmentation, texture, thickness, hair distribution and any lesions
    - b0 The eyes
      - (1) Methods to assess visual acuity
        - (a) Print
        - (b) Finger count at a distance
        - (c) Distinguish light and dark
        - (d) Snellen chart
      - (2) Visual fields by confrontation
        - (a) Ask the patient to look at your nose
        - (b) With both arms extended and elbows at right angles, the examiner wiggles both index fingers at the same time
        - (c) The patient is asked which finger moved
        - (d) If patient states both, the visual fields are grossly normal
        - (e) Should be performed in all four quadrants
          - i Left - right
          - ii Up - down
      - (3) Position and alignment of the eyes
        - (a) Stand in front of the patient and survey the eyes
        - (b) Assess for position and alignment
      - (4) Eyebrows
        - (a) Inspect the eyebrows
        - (b) Note the quantity and distribution and scaliness of the underlying skin



- (5) Eyelids
  - (a) Note the position of the eyelids in relation to the eyeballs
  - (b) Inspect for the following
    - i Width of palpebral fissures
    - ii Edema of the lids
    - iii Color of the lids
    - iv Lesions
    - v Condition and direction of the eyelashes
    - vi Adequacy with which the eyelids close
    - vii Drainage
- (6) Lacrimal apparatus
  - (a) Briefly inspect the regions of the lacrimal gland and lacrimal sac for swelling
  - (b) Look for excessive tearing or dryness of the eyes
- (7) Conjunctiva and sclera
  - (a) Ask the patient to look up as you depress both lower lids with your thumbs, exposing the sclera and conjunctiva
  - (b) Inspect the sclera and palpebral conjunctiva for color, note the vascular pattern
  - (c) Look for nodules, swelling, or discharge
- (8) Cornea and lens
  - (a) With oblique lighting, inspect the cornea of each eye for opacities
- (9) Iris
  - (a) As you inspect the cornea and lens, inspect the iris
    - i The markings should be clearly defined
- (10) Pupils
  - (a) Inspect the size, shape and symmetry of the pupils
  - (b) Test the pupillary reactions to light
    - i Look for
      - a65535 Direct reaction
      - b65535 Consensual reaction
- (11) Extraocular muscles
  - (a) From about 2 feet in front of the patient, shine a light into the patient's eyes and ask the patient to look at it
- (12) Accommodation
  - (a) Ask the patient to focus on a distant object
  - (b) Then have the person shift the gaze to a near object
    - i Normal response
      - a65535 Pupil constriction
      - b65535 Convergence of the axes of the light

c0 Ophthalmoscope

- (1) Tool used by allied health personnel to perform a detailed exam of the eye that requires skill and practice
- (2) Used to evaluate the following
  - (a) Cornea
    - i Foreign bodies
    - ii Lacerations
    - iii Abrasions
    - iv Infection

- (b) Anterior chamber
            - i Cells
            - ii Hyphema - blood
            - iii Hypopyon - pus
          - (c) Fundus
            - i Retinal vessels
            - ii Optic nerve
            - iii Retina
          - (d) Vitreous
          - (e) Foreign bodies under eyelid
- d0 The ears
  - (1) The auricle
    - (a) Inspect each auricle and surrounding tissue for deformities, lumps and skin lesions, drainage, tenderness, erythema
  - (2) Mastoid
    - (a) Discoloration
    - (b) Tenderness
  - (3) Otoloscope
    - (a) Tool used by allied health personnel to perform a detailed exam of the ear
    - (b) Used to evaluate the following
      - i Any discharges
      - ii Foreign bodies
      - iii Redness or swelling
      - iv Eardrum
        - a65535 Color
        - b65535 Contour
        - c65535 Fluid or infection behind the drum
        - d65535 Perforation
  - (4) Assess gross auditory acuity
- e0 The nose
  - (1) Inspect the anterior and inferior surface of the nose
    - (a) Asymmetry
    - (b) Deformity
    - (c) Foreign bodies
  - (2) Palpate for tenderness
- f0 The mouth and pharynx
  - (1) Inspect the lips, observe color, moisture, note any lumps, ulcers, cracking or scaliness
  - (2) Look into the patient's mouth with a good light and a tongue blade, inspect the oral mucosa
  - (3) Note the color of the gums and teeth
  - (4) Inspect the teeth
  - (5) Inspect the color and architecture of the hard palate
  - (6) Inspect the tongue
  - (7) Inspect the tonsils
- g0 The neck
  - (1) Inspect the neck, noting its symmetry and any masses or scars
  - (2) Palpate the lymph nodes
  - (3) Inspect and palpate the trachea for any deviation
  - (4) Inspect for jugular venous distention

- (5) Inspect the neck for the thyroid gland
- (6) Palpate the thyroid gland from behind
- h0 Head and cervical spine
  - (a) The temporomandibular joint
  - (b) The cervical spine
    - i Inspection
    - ii Palpation
      - a65535 Tenderness
      - b65535 Deformities
    - iii Range of motion
      - a65535 Flexion - touch the chin to the chest
      - b65535 Rotation - touch chin to each shoulder
      - c65535 Lateral bending - touch each ear to each shoulder
      - d65535 Extension - put the head back
- C0 Chest
  - 1 Anatomy and physiology
  - 2 Techniques of examination
    - a0 General approach
      - (1) Have the patient expose their chest so that you can see the entire chest
      - (2) Proceed in an orderly fashion
        - (a) Inspect
        - (b) Palpate
        - (c) Percuss
        - (d) Auscultate
        - (e) Compare side to side
      - (3) Try to visualize the underlying lobes of the lungs
    - b0 Examination of the thorax and ventilation
      - (1) Observe rate, rhythm, depth and effort of breathing
      - (2) Check the patient for cyanosis
      - (3) Listen to the patient's breathing
      - (4) Observe the shape of the chest
    - c0 Examination of the posterior chest
      - (1) Inspect noting
        - (a) Any deformities or asymmetry
          - i Barrel chest
          - ii Traumatic flail chest
          - iii Funnel chest
          - iv Pigeon chest
          - v Thoracic kyphoscoliosis
        - (b) Abnormal retractions
        - (c) Impairment of respiratory movement
      - (2) Palpate noting
        - (a) Any tender areas
        - (b) Assessment of observed abnormalities
        - (c) Further assessment of respiratory expansion

- (3) Percuss in symmetrical locations noting
    - (a) Any area of abnormal percussion note
      - i Percussion notes
        - a65535 Dullness
        - b65535 Resonance
        - c65535 Hyperresonance
      - (b) The level of the diaphragm
      - (c) Estimate of diaphragmatic excursion
  - (4) Auscultate breath sounds
    - (a) Normal
      - i Vesicular
      - ii Bronchovesicular
      - iii Bronchial
      - iv Tracheal
    - (b) Added sounds (adventitious lung sounds)
      - i Discontinuous sounds (crackles)
        - a65535 Fine crackles
        - b65535 Course crackles
      - ii Continuous sounds
        - a65535 Wheezes
        - b65535 Rhonchi
      - iii Pleural friction rub
    - (c) Diminished or absent
      - i Effusion
      - ii Consolidation
- d0 Examination of the anterior chest
- (1) Inspect noting
    - (a) Any deformities or asymmetry
    - (b) Abnormal retractions
    - (c) Impairment of respiratory movement
  - (2) Palpate noting
    - (a) Any tender areas
    - (b) Assessment of observed abnormalities
    - (c) Further assessment of respiratory expansion
  - (3) Percuss in symmetrical locations noting
    - (a) Any area of abnormal percussion note
    - (b) The level of the diaphragm
  - (4) Auscultate
    - (a) Breath sounds
    - (b) Added sounds
- D0 The cardiovascular system
- 1 Anatomy and physiology
    - a0 Surface projections of the heart great vessels
    - b0 Events in the cardiac cycle
    - c0 Heart murmurs
    - d0 Relation of auscultatory findings to the chest wall
    - e0 The heart as a pump
    - f0 Arterial pulses and blood pressure
    - g0 Jugular vein pressure and pulses
    - h0 Changes with age

- 2 Techniques of examination
  - a0 The arterial pulse
    - (1) Heart rate
    - (2) Rhythm
    - (3) Amplitude
    - (4) Bruits and thrills
  - b0 Blood pressure
  - c0 Jugular venous pressure and pulsation
  - d. The heart
    - (1) Inspection and palpation of the chest
    - (2) Auscultation
      - (a) Listen for the heart tones
        - i) Locate the point of maximum impulse (PMI)
        - ii) Listen in the following locations
          - a) Aortic - second intercostal space to the right of the sternum
          - b) Pulmonic - second intercostal space to the left of the sternum
          - c) Third intercostal space
          - d) Fourth intercostal space
          - e) Tricuspid - lower left sternal border
          - f) Mitral - apex of the heart
        - iii) Listen for the heart tones - note their intensity
          - a) Listen for the first tone - S<sub>1</sub>
          - b) Listen for the second tone - S<sub>2</sub>
          - c) Listen for extra sounds - murmurs
- E. Abdomen
  - 1. Anatomy and physiology review
  - 2. Changes with age
  - 3. Techniques of examination
    - a. General approach
      - (1) Ideally, the patient should not have a full bladder
      - (2) Make the patient comfortable in a supine position
      - (3) Before palpation ask the patient to point out any areas of pain - examine these areas last
      - (4) Have warm hands, a warm stethoscope and short nails
      - (5) Approach slowly and avoid quick, unexpected movements
      - (6) Distract the patient as needed with conversation
      - (7) Visualize each organ as in the region as you are examining
      - (8) Proceed in an orderly manner
        - (a) Inspection
        - (b) Auscultation
        - (c) Percussion
        - (d) Palpation
    - b. Inspection of the abdomen, including the flanks, noting
      - (1) Skin
        - (a) Scars
        - (b) Striae
        - (c) Dilated veins
        - (d) Rashes and lesions
        - (e) Discoloration

- (f) Ascites
      - (g) Herniation
    - (2) The umbilicus
      - (a) Contour
      - (b) Location
      - (c) Signs of inflammation or hernia
    - (3) The contour of the abdomen
      - (a) Bulges
        - i) Flat
        - ii) Rounded
        - iii) Protuberant
        - iv) Scaphoid
        - v) Bulges at the flanks
        - vi) Hernias
      - (b) Symmetry
    - (4) Peristalsis
    - (5) Pulsations
    - (6) Ascites
  - c. Auscultate
    - (1) Listen for bowel sounds
      - (a) Note frequency and character
        - i) Increased
        - ii) Decreased
        - iii) Absent
      - (2) Bruits
    - d. Palpation
      - (1) Muscle guarding
      - (2) Rigidity
      - (3) Large masses
      - (4) Tenderness
- F. The female genitalia
  - 1. Anatomy and physiology review
  - 2. Changes with age
  - 3. Techniques of examination
    - a. General approach
      - (1) This may be awkward or uncomfortable for the patient and the provider
      - (2) Male examiners are customarily attended by female assistants
      - (3) Female examiners may choose to work alone
    - b. Examination
      - (1) Inspect the external genitalia
      - (2) Note any
        - (a) Inflammation
        - (b) Discharge
        - (c) Swelling
        - (d) Lesions
  - 4. Abnormal findings
- G. The male genitalia
  - 1. Anatomy and physiology
  - 2. Changes with age
  - 3. Techniques of examination
    - a. General approach

- (1 This may be awkward or uncomfortable for the patient and the provider
        - (2 Female examiners are customarily attended by male assistants
        - (3 Male examiners may choose to work alone
      - b. Examination
        - (1 Inspect the external genitalia
        - (2 Note any
          - (a Inflammation
          - (b Discharge
          - (c Swelling
          - (d Lesions
    - 4. Abnormal findings
- H. Anus
  - 1. Anatomy and physiology
    - a. Changes with age
  - 2. Techniques of examination
    - a. General techniques
    - b. Can be accomplished with the patient in one of several positions
      - (1 For most patients, the side-lying position is satisfactory
      - (2 Drape the patient appropriately
      - (3 Inspect the sacrococcygeal and perineal areas
        - (a Look for and note
          - i) Lumps
          - ii) Ulcers
          - iii) Inflammations
          - iv) Rashes
          - v) Excoriations
          - vi) Tenderness
      - (4 Methods for testing for occult blood
- I. Extremities
  - 1. Anatomy and physiology
    - a. Structure and function of joints
    - b. Specific joints
    - c. Changes with age
  - 2. Techniques of examination
    - a. General approach
      - (1 Direct your attention to function as well as structure
      - (2 Assess general appearance, bodily proportions and ease of movement
      - (3 Note particularly
        - (a Limitation in the range of motion
        - (b Unusual Increase in the mobility of a joint
      - (4 In general note
        - (a Signs of inflammation
          - i) Swelling
          - ii) Tenderness
          - iii) Increased heat
          - iv) Redness
          - v) Decreased function
        - (b Crepitus
        - (c Deformities
        - (d Muscular strength

- (e) Symmetry
- (f) Atrophy
- b. Patient sitting up
  - (1) Hands and wrist
    - (a) Range of motion
      - i) Make a fist with each hand
      - ii) Extend and spread the fingers
      - iii) Flex and extend the wrists
      - iv) With palms down move the hands lateral and medially
    - (b) Inspection
      - i) Swelling
      - ii) Redness
      - iii) Nodules
      - iv) Deformities
      - v) Muscular atrophy
    - (c) Palpation
      - i) Feel
        - a) Medial and lateral aspect of each distal interphalangeal joint (DIP)
        - b) Proximal interphalangeal joint (PIP)
        - c) Squeeze the hand from each side between your thumb and fingers compressing the metacarpophalangeal joints (MAPS)
        - d) Each wrist joint
        - e) Any area of abnormality
      - ii) Note
        - a) Swelling
        - b) Tenderness
        - c) Bogginess
  - (2) Elbows
    - (a) Range of motion
      - i) Ask the patient to bend and straighten the elbows
      - ii) Keep the arms at the sides with elbows flexed
      - iii) Supination - turn palms up
      - iv) Pronation - turn palms down
    - (b) Inspection
      - i) Support the patient's forearms with your opposite hand so that the elbow is flexed to about 70 degrees
      - ii) Examine the elbow
    - (c) Palpation
      - i) Palpate the grooves between the epicondyle and the olecranon
      - ii) Press on the lateral and medial epicondyle
      - iii) Note
        - a) Tenderness
        - b) Swelling
        - c) Thickening



- (3) Shoulders and related structures
  - (a) Range of motion
    - i) Ask the patient to
      - a) Raise both arms to a vertical position at the sides of the head
      - b) External rotation and abduction - place both hands behind the neck with elbows to the side
      - c) Internal rotation - place both hands behind the small of the back
    - ii) Cup your hands over the shoulders and note any crepitus
  - (b) Palpation
    - i) Palpate the following regions
      - a) The sternoclavicular joint
      - b) The acromioclavicular joint
      - c) The subacromial area
      - d) The bicipital groove
    - ii) Note
      - a) Tenderness
      - b) Swelling
- c. Ankles and feet
  - (a) Inspection
    - i) Observe all surfaces of the ankle and feet
    - ii) Note
      - a) Deformities
      - b) Nodules
      - c) Swelling
      - d) Calluses
      - e) Corns
  - (b) Palpation
    - i) The anterior aspects of each ankle joint
    - ii) The Achilles tendon
    - iii) Metatarsophalangeal joints
    - iv) Note
      - a) Tenderness
      - b) Boggiess
      - c) Swelling
  - (c) Range of motion
    - i) The ankle joint
      - a) Dorsiflex
      - b) Plantar flex
    - ii) The traverse tarsal joint
      - a) Inversion
      - b) Eversion
    - iii) The metatarsophalangeal joints
    - iv) Flexion of the toes
- (1) Knees and hips
  - (a) Inspection of the knees
    - i) Note alignment and deformity
    - ii) Observe atrophy of the quadriceps

- (b) Palpation of the knees
    - i) Palpate note
      - a) Thickening
      - b) Swelling
  - (c) Range of motion
    - i) Ask the patient to bend each knee in turn up to the chest
    - ii) Note the flexion of the hip and knee
    - iii) Assess for rotation of the hips
    - iv) Assess abduction of the hips
  - (d) Palpation of the hips
    - i) Palpate the hip joint
- J. Peripheral vascular system
- 1. Anatomy and physiology
    - a. Arteries
    - b. Veins
    - c. The lymphatic system and lymph nodes
    - d. Fluid exchange and the capillary bed
    - e. Changes with age
  - 2. Techniques of examination
    - a. The arms
      - (1) Inspection from fingertips to shoulders noting
        - (a) Size
        - (b) Symmetry
        - (c) Swelling
        - (d) Venous pattern
        - (e) The color of the skin and nail beds
        - (f) Texture of the skin
      - (2) Palpation
        - (a) The radial pulse
        - (b) If you suspect arterial insufficiency, feel for the brachial pulse
        - (c) Feel for epitrochlear nodes
    - b. Legs
      - (1) Patient should be lying down, appropriately draped
      - (2) Successful examination cannot be completed with socks or stockings on
      - (3) Inspect from the groin and buttocks to the feet, noting
        - (a) Size
        - (b) Symmetry
        - (c) Swelling
        - (d) The venous pattern and any venous enlargement
        - (e) Pigmentation
        - (f) Rashes
        - (g) Scars
        - (h) Ulcers
        - (i) Color and texture of the skin
      - (4) Palpate the superficial inguinal nodes
      - (5) Palpate the pulses in order to assess arterial circulation
        - (a) The femoral pulse
        - (b) The popliteal pulse
        - (c) The dorsalis pedis pulse
        - (d) The posterior tibial pulse
        - (e) Note the temperature of the feet and legs

- (f) Look for edema
- (g) Check for pitting edema
  - i) Press firmly but gently with your thumb for at least 5 seconds
    - a) Over the dorsum of each foot
    - b) Behind each medial malleolus
    - c) Over the shins
- c. Special techniques
- 3. Abnormal finding
- K. The spine
  - 1. Inspection
    - a. From the side note the cervical, thoracic and lumbar curves
    - b. Note curvatures
      - (1 Lordosis
      - (2 Kyphosis
      - (3 Scoliosis
    - c. Look for differences in the height of the shoulders
    - d. Look for differences in the height of the iliac crest
  - 2. Range of motion
    - a. Flexion - ask the patient to bend forward and touch the toes
      - (1 Note
        - (a Smoothness of movement
        - (b Symmetry of movement
        - (c Range of motion
        - (d Curve in the lumbar area
    - b. Lateral bending - bend sideways
    - c. Extension - back backwards toward you
    - d. Rotation - twist the shoulders one way and then the other
  - 3. Palpation
    - a. Palpate the spinous process with your thumb
      - (1 Identify tenderness
    - b. Palpate in the area of the costovertebral angle
      - (1 Identify tenderness
  - 4. Abnormal findings
- L. The nervous system
  - 1. Anatomy and physiology
    - a. Central nervous system
    - b. Peripheral nervous system
    - c. Spinal reflexes - deep tendon response
    - d. Motor pathways
    - e. Sensory pathways
    - f. Changes with age
  - 2. Techniques of examination
    - a. General approach
      - (1 Are right and left sided findings symmetrical
      - (2 Is this a peripheral or central nervous system problem
      - (3 Detail of an appropriate neurological exam varies greatly
      - (4 Components of the neurological exam may be completed during other assessments
      - (5 It may be best to organize your findings into five categories
        - (a Mental status and speech

- (b) Cranial nerves
  - (c) Motor system
  - (d) Sensory system
  - (e) Reflexes
- b. The cranial nerves
- (1) Cranial nerve I - olfactory (sense of smell)
  - (2) Cranial nerve II - optic
    - (a) Test visual acuity
  - (3) Cranial nerves II and III - optic and oculomotor
    - (a) Inspect the size and shape of the pupils
    - (b) Test the pupil response to light
  - (4) Cranial nerves III, IV, and VI
    - (a) Test the extra-ocular movements in the six cardinal directions of gaze
  - (5) Cranial nerve V - trigeminal
    - (a) Motor
      - i) Ask the patient to clench their teeth while palpating the temporal and masseter muscles
      - ii) Note the strength of muscle contraction
    - (b) Sensory
      - i) Explain to the patient what you will do
      - ii) Touch the forehead, cheeks and jaw on each side for pain sensation
  - (6) Cranial nerve VII - facial
    - (a) Inspect the face at rest and during conversation
      - i) Note symmetry and observe for tics or abnormal movement
    - (b) Ask the patient to
      - i) Raise the eyebrows
      - ii) Frown
      - iii) Close both eyes tightly so that you cannot open them; test muscular strength by trying to open them
      - iv) Show both upper and lower teeth
      - v) Smile
      - vi) Puff out both cheeks
      - vii) Note any weakness or asymmetry
  - (7) Cranial nerve VIII - acoustic
    - (a) Assess hearing
  - (8) Cranial nerves IX and X - glossopharyngeal and vagus
  - (9) Cranial nerve XI - spinal accessory
  - (10) Cranial nerve XII - hypoglossal
- c. The motor system
- (1) Body position
    - (a) Observe the position during movement and at rest
  - (2) Involuntary movements
    - (a) Watch for involuntary movements
    - (b) Note
      - i) Quality
      - ii) Rate
      - iii) Rhythm
      - iv) Amplitude

- (c) Note relation to
  - i) Posture
  - ii) Activity
  - iii) Fatigue
  - iv) Emotion
- (3) Muscle bulk
  - (a) Compare the size and contour of the muscles
- (4) Muscle tone
  - (a) Feel the resistance to passive stretch
- (5) Muscle strength
  - (a) Ask the patient to move actively against your resistance
    - i) No muscular contraction detected
    - ii) A barely detectable flicker or trace of contraction
    - iii) Active movement of the body part with gravity eliminated
    - iv) Active movement against gravity
    - v) Active movement against gravity and some resistance
    - vi) Active movement against full resistance without evident fatigue - this is normal muscle tone
  - (b) Test flexion
  - (c) Test extension
  - (d) Test extension at the wrist
  - (e) Test the grip
  - (f) Test finger abduction
  - (g) Test the opposition of the thumb
  - (h) Test flexion at the hip
  - (i) Test adduction at the hips
  - (j) Test abduction at the hips
  - (k) Test extension at the hips
  - (l) Test extension at the knee
  - (m) Test flexion at the knee
  - (n) Test dorsi-flexion
- (6) Coordination
  - (a) Rapid alternating movements
  - (b) Point to point movements
    - i) Finger-to-nose
    - ii) Heel-to-shin
  - (c) Gait
    - i) Walk heel to toe
    - ii) Walk on the toes
    - iii) Walk on the heels
    - iv) Hop in place
    - v) Do a shallow knee bend
    - vi) Rise from a sitting position
  - (d) Stance
    - i) The Romberg test
    - ii) Test for pronator drift
- d. The sensory system
  - (1) General approach
    - (a) Compare symmetrical areas on the two sides of the body
    - (b) When testing pain, temperature and touch, compare distal and proximal areas

- (c) Assess sensation in relation to dermatomes
    - (2) Pain
    - (3) Light touch
  - 3. Abnormal findings
- . The physical examination of infants and children
  - A. Approach to the patient
  - B. Techniques of examination
- I. Recording examination findings

### **UNIT TERMINAL OBJECTIVE**

- 3-3 At the end of this unit, the paramedic student will be able to integrate the principles of history taking and techniques of physical exam to perform a patient assessment.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-3.1 Recognize hazards/ potential hazards. (C-1)
- 3-3.2 Describe common hazards found at the scene of a trauma and a medical patient. (C-1)
- 3-3.3 Determine hazards found at the scene of a medical or trauma patient. (C-2)
- 3-3.4 Differentiate safe from unsafe scenes. (C-3)
- 3-3.5 Describe methods to making an unsafe scene safe. (C-1)
- 3-3.6 Discuss common mechanisms of injury/ nature of illness. (C-1)
- 3-3.7 Predict patterns of injury based on mechanism of injury. (C-2)
- 3-3.8 Discuss the reason for identifying the total number of patients at the scene. (C-1)
- 3-3.9 Organize the management of a scene following size-up. (C-3)
- 3-3.10 Explain the reasons for identifying the need for additional help or assistance. (C-1)
- 3-3.11 Summarize the reasons for forming a general impression of the patient. (C-1)
- 3-3.12 Discuss methods of assessing mental status. (C-1)
- 3-3.13 Categorize levels of consciousness in the adult, infant and child. (C-3)
- 3-3.14 Differentiate between assessing the altered mental status in the adult, child and infant patient. (C-3)
- 3-3.15 Discuss methods of assessing the airway in the adult, child and infant patient. (C-1)
- 3-3.16 State reasons for management of the cervical spine once the patient has been determined to be a trauma patient. (C-1)
- 3-3.17 Analyze a scene to determine if spinal precautions are required. (C-3)
- 3-3.18 Describe methods used for assessing if a patient is breathing. (C-1)
- 3-3.19 Differentiate between a patient with adequate and inadequate minute ventilation. (C-3)
- 3-3.20 Distinguish between methods of assessing breathing in the adult, child and infant patient. (C-3)
- 3-3.21 Compare the methods of providing airway care to the adult, child and infant patient. (C-3)
- 3-3.22 Describe the methods used to locate and assess a pulse. (C-1)
- 3-3.23 Differentiate between locating and assessing a pulse in an adult, child and infant patient. (C-3)
- 3-3.24 Discuss the need for assessing the patient for external bleeding. (C-1)
- 3-3.25 Describe normal and abnormal findings when assessing skin color. (C-1)
- 3-3.26 Describe normal and abnormal findings when assessing skin temperature. (C-1)
- 3-3.27 Describe normal and abnormal findings when assessing skin condition. (C-1)
- 3-3.28 Explain the reason for prioritizing a patient for care and transport. (C-1)
- 3-3.29 Identify patients who require expeditious transport. (C-3)
- 3-3.30 Describe the evaluation of patient's perfusion status based on findings in the initial assessment. (C-1)
- 3-3.31 Describe orthostatic vital signs and evaluate their usefulness in assessing a patient in shock. (C-1)
- 3-3.32 Apply the techniques of physical examination to the medical patient. (C-1)
- 3-3.33 Differentiate between the assessment that is performed for a patient who is unresponsive or has an altered mental status and other medical patients requiring assessment. (C-3)
- 3-3.34 Discuss the reasons for reconsidering the mechanism of injury. (C-1)
- 3-3.35 State the reasons for performing a rapid trauma assessment. (C-1)
- 3-3.36 Recite examples and explain why patients should receive a rapid trauma assessment. (C-1)
- 3-3.37 Apply the techniques of physical examination to the trauma patient. (C-1)
- 3-3.38 Describe the areas included in the rapid trauma assessment and discuss what should be evaluated. (C-1)
- 3-3.39 Differentiate cases when the rapid assessment may be altered in order to provide patient care. (C-3)
- 3-3.40 Discuss the reason for performing a focused history and physical exam. (C-1)
- 3-3.41 Describe when and why a detailed physical examination is necessary. (C-1)
- 3-3.42 Discuss the components of the detailed physical exam in relation to the techniques of examination. (C-1)
- 3-3.43 State the areas of the body that are evaluated during the detailed physical exam. (C-1)

- 3-3.44 Explain what additional care should be provided while performing the detailed physical exam. (C-1)
- 3-3.45 Distinguish between the detailed physical exam that is performed on a trauma patient and that of the medical patient. (C-3)
- 3-3.46 Differentiate patients requiring a detailed physical exam from those who do not. (C-3)
- 3-3.47 Discuss the reasons for repeating the initial assessment as part of the on-going assessment. (C-1)
- 3-3.48 Describe the components of the on-going assessment. (C-1)
- 3-3.49 Describe trending of assessment components. (C-1)
- 3-3.50 Discuss medical identification devices/ systems. (C-1)

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-3.51 Explain the rationale for crew members to evaluate scene safety prior to entering. (A-2)
- 3-3.52 Serve as a model for others explaining how patient situations affect your evaluation of mechanism of injury or illness. (A-3)
- 3-3.53 Explain the importance of forming a general impression of the patient. (A-1)
- 3-3.54 Explain the value of performing an initial assessment. (A-2)
- 3-3.55 Demonstrate a caring attitude when performing an initial assessment. (A-3)
- 3-3.56 Attend to the feelings that patients with medical conditions might be experiencing. (A-1)
- 3-3.57 Value the need for maintaining a professional caring attitude when performing a focused history and physical examination. (A-3)
- 3-3.58 Explain the rationale for the feelings that these patients might be experiencing. (A-3)
- 3-3.59 Demonstrate a caring attitude when performing a detailed physical examination. (A-3)
- 3-3.60 Explain the value of performing an on-going assessment. (A-2)
- 3-3.61 Recognize and respect the feelings that patients might experience during assessment. (A-1)
- 3-3.62 Explain the value of trending assessment components to other health professionals who assume care of the patient. (A-2)

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-3.63 Observe various scenarios and identify potential hazards. (P-1)
- 3-3.64 Demonstrate the scene-size-up. (P-2)
- 3-3.65 Demonstrate the techniques for assessing mental status. (P-2)
- 3-3.66 Demonstrate the techniques for assessing the airway. (P-2)
- 3-3.67 Demonstrate the techniques for assessing if the patient is breathing. (P-2)
- 3-3.68 Demonstrate the techniques for assessing if the patient has a pulse. (P-2)
- 3-3.69 Demonstrate the techniques for assessing the patient for external bleeding. (P-2)
- 3-3.70 Demonstrate the techniques for assessing the patient's skin color, temperature, and condition. (P-2)
- 3-3.71 Demonstrate the ability to prioritize patients. (P-2)
- 3-3.72 Using the techniques of examination, demonstrate the assessment of a medical patient. (P-2)
- 3-3.73 Demonstrate the patient care skills that should be used to assist with a patient who is responsive with no known history. (P-2)
- 3-3.74 Demonstrate the patient care skills that should be used to assist with a patient who is unresponsive or has an altered mental status. (P-2)
- 3-3.75 Perform a rapid medical assessment. (P-2)
- 3-3.76 Perform a focused history and physical exam of the medical patient. (P-2)
- 3-3.77 Using the techniques of physical examination, demonstrate the assessment of a trauma patient. (P-2)
- 3-3.78 Demonstrate the rapid trauma assessment used to assess a patient based on mechanism of injury. (P-2)
- 3-3.79 Perform a focused history and physical exam on a non-critically injured patient. (P-2)
- 3-3.80 Perform a focused history and physical exam on a patient with life-threatening injuries. (P-2)
- 3-3.81 Perform a detailed physical examination. (P-2)



3-3.82 Demonstrate the skills involved in performing the on-going assessment. (P-2)

## DECLARATIVE

- 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 paramedic
    - 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 paramedic
  - 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) Obtain additional help prior to contact with patients: law enforcement, fire, rescue, ALS, utilities
        - (2) Paramedic is less likely to call for help if involved in patient care
        - (3) Begin triage
    - 2. Trauma
      - a. Mechanism of injury - determine from the patient, family or bystanders and inspection of the scene the mechanism of injury
      - 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) Obtain additional help prior to contact with patients
        - (2) Paramedic is less likely to call for help when involved in patient care
        - (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. The general impression is formed to determine priority of care and is based on the paramedic'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
    - 3. Age

4. Sex
  5. Race
  - 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) ETI
        - (2) Multi-lumen airways
        - (3) Trans tracheal
  - E. Assess the patient's breathing
    1. Adequate
    2. Inadequate
  - F. Assess the patient's circulation
    1. Assess the patient's pulse
    2. Assess if major bleeding is present - if bleeding is present, control bleeding
    3. Assess the patient's perfusion by evaluating skin color, temperature and condition
  - G. Identify priority patients
    1. Consider
      - a. Poor general impression
      - b. Unresponsive patients - no gag or cough
      - c. Responsive, not following commands
      - d. Difficulty breathing
      - e. Shock (hypoperfusion)
      - f. Complicated childbirth
      - g. Chest pain with BP <100 systolic
      - h. Uncontrolled bleeding
      - i. Severe pain anywhere
      - j. 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 patients
- A. Responsive medical patients
    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) The 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
    - (1) Consider orthostatic vital signs
  - 4. Provide emergency medical care based on signs and symptoms in consultation with medical direction
- B. Unresponsive medical patients
    - 1 Perform rapid assessment
    - 2 Utilize the techniques of patient assessment
      - a0 Position patient to protect airway
      - b0 Assess the head
      - c0 Assess the neck
      - d0 Assess the chest
      - e0 Assess the abdomen
      - f0 Assess the pelvis
      - g0 Assess the extremities
      - h0 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
      - a0 Chief complaint
      - b0 History of present illness
      - c0 Past medical history
      - d0 Current health status
- IV Focused history and physical exam - trauma patients
    - A0 Re-consider mechanism of injury
      - 1 Helps to identify priority patients
      - 2 Helps to guide the assessment
      - 3 Significant mechanism of injury
        - a0 Ejection from vehicle

- b0 Death in same passenger compartment
- c0 Falls > 20 feet
- d0 Roll-over of vehicle
- e0 High-speed vehicle collision
- f0 Vehicle-pedestrian collision
- g0 Motorcycle crash
- h0 Unresponsive or altered mental status
- i0 Penetrations of the head, chest, or abdomen
- j0 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 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
        - a65535 Injury patterns with airbags
        - b65535 Proper use in vehicles with airbags
- 4 Additional infant and child considerations
  - a0 Falls >10 feet
  - b0 Bicycle collision
  - c0 Vehicle in medium speed collision
- B0 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
    - a0 Assess the head, inspect and palpate for injuries or signs of injury
    - b0 Assess the neck, inspect and palpate for injuries or signs of injury
    - c0 Apply cervical spinal immobilization collar (CSIC) (may use information from the head injury unit at this time)
    - d0 Assess the chest
    - e0 Assess the abdomen, inspect and palpate for injuries or signs of injury
    - f0 Assess the pelvis, inspect and palpate for injuries or signs of injury
    - g0 Assess all four extremities, inspect and palpate for injuries or signs of injury
    - h0 Roll patient with spinal precautions and assess posterior body, inspect and palpate, examining for injuries or signs of injury
    - i0 Look for medical identification devices
    - j0 Assess baseline vital signs
    - k0 Assess patient history

- (1) Chief complaint
  - (2) History of present illness
  - (3) Past medical history
  - (4) Current health status
- C0 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
    - a0 Chief complaint
    - b0 History of present illness
    - c0 Past medical history
    - d0 Current health status
- Detailed physical exam
- A0 Patient and injury specific, e.g., cut finger would not require the detailed physical exam
- B0 Perform a detailed physical examination on the patient to gather additional information
- C0 General approach
- 1 Assess patient history
    - a0 Chief complaint
    - b0 History of present illness
    - c0 Past medical history
    - d0 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
- D0 Overview of the detailed physical exam
- 1 Mental status
    - a0 Appearance and behavior
    - b0 Posture and motor behavior
    - c0 Speech and language
    - d0 Mood
    - e0 Thought and perceptions
    - f0 Assess thought content
    - g0 Assess perceptions
    - h0 Assess insight and judgement
    - i0 Memory and attention
    - j0 Assess remote memory (i.e. birthdays)
    - k0 Assess recent memory (i.e. events of the day)
    - l0 Assess new learning ability
  - 2 General survey
    - 1. Level of consciousness
    - 2. Signs of distress
    - 3. Apparent state of health
    - 4. Skin color and obvious lesions
    - 5. Height and build
    - 6. Sexual development
    - 7. Weight

8. Posture, gait and motor activity
  9. Dress, grooming and personal hygiene
  10. Odors of breath or body
  11. Facial expression
1. Skin
  2. Head
  3. Eyes
  4. Ears
  5. Nose and sinuses
  6. Mouth and pharynx
  7. Neck
  8. Thorax and lungs
  9. Cardiovascular system
  10. Abdomen
  11. Genitalia
  12. Anus and rectum
  13. Peripheral vascular system
  14. Musculoskeletal system
  15. Nervous system
- E0 Recording examination findings  
F0 Assess baseline vital signs
- I On-going assessment
- A0 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 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
- B0 Reassess and record vital signs  
C0 Repeat focused assessment regarding patient complaint or injuries  
D0 Assess interventions
- 1 Assess response to management
  - 2 Maintain or modify management plan

**UNIT TERMINAL OBJECTIVE**

3-4 At the end of this unit, the paramedic student will be able to apply a process of clinical decision making to use the assessment findings to help form a field impression.

**COGNITIVE OBJECTIVES**

At the end of this unit, the paramedic student will be able to:

- 3-4.1 Compare the factors influencing medical care in the out-of-hospital environment to other medical settings. (C-2)
- 3-4.2 Differentiate between critical life-threatening, potentially life-threatening, and non life-threatening patient presentations. (C-3)
- 3-4.3 Evaluate the benefits and shortfalls of protocols, standing orders and patient care algorithms. (C-3)
- 3-4.4 Define the components, stages and sequences of the critical thinking process for paramedics. (C-1)
- 3-4.5 Apply the fundamental elements of critical thinking for paramedics. (C-2)
- 3-4.6 Describe the effects of the “fight or flight” response and the positive and negative effects on a paramedic’s decision making. (C-1)
- 3-4.7 Summarize the “six Rs” of putting it all together: Read the patient, Read the scene, React, Reevaluate, Revise the management plan, Review performance. (C-1)

**AFFECTIVE OBJECTIVES**

At the end of this unit, the paramedic student will be able to:

- 3-4.8 Defend the position that clinical decision making is the cornerstone of effective paramedic practice. (A-3)
- 3-4.9 Practice facilitating behaviors when thinking under pressure. (A-1)

**PSYCHOMOTOR OBJECTIVES**

None identified for this unit.



## DECLARATIVE

- I. Introduction and key concepts
  - A. The cornerstones of effective paramedic practice
    - 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. The out-of-hospital environment
    - 1. Unlike other environments where medical care is traditionally rendered
    - 2. Unique, heavily influenced by factors that don't exist in other medical settings
  - C. The spectrum of patient care in out-of-hospital care in the out-of-hospital setting
    - 1. Obvious, 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
  - D. Providing guidance and authority for paramedic action and treatments
    - 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 addresses "classic" patient presentations
        - (1) Non-specific patient complaints don't follow model
        - (2) Limited clarity of presenting patient problems
      - b. Don't speak to multiple disease etiologies
      - c. Don't speak to multiple treatment modalities
      - d. Promotes linear thinking, "cookbook medicine"
- II. Components, stages, and sequence of critical thinking process for paramedics
  - A. Concept formation
    - 1. MOI/ scene assessment
    - 2. Initial assessment and physical examination
    - 3. Chief complaint
    - 4. Patient history
    - 5. Patient affect
    - 6. Diagnostic tests
  - B. Data interpretation
    - 1. Data gathered
    - 2. Paramedic knowledge of anatomy and physiology, and pathophysiology
    - 3. Paramedic attitude
    - 4. Previous experience base of the paramedic
  - C. Application of principle
    - 1. Field impression/ working diagnosis
    - 2. Protocols/ standing orders
    - 3. Treatment/ intervention

- D. Evaluation
    - 1. Reassessment of patient
    - 2. Reflection in action
    - 3. Revision of impression
    - 4. Protocol/ standing orders
    - 5. Revision of treatment/ intervention
  - E. Reflection on action
    - 1. Run critique
    - 2. Addition to/ modification of experience base of the paramedic
- III. Fundamental elements of critical thinking for paramedics
- A. Adequate fund of knowledge
  - B. Ability to focus on specific and multiple elements of data
  - C. Ability to gather and organize data and form concepts
  - D. Ability to identify and deal with medical ambiguity
  - E. Ability to differentiate between relevant and irrelevant data
  - F. Ability to analyze and compare similar situations
  - G. Ability to recall contrary situations
  - H. Ability to articulate decision making reasoning and construct arguments
- IV. Considerations with field application of assessment based patient management
- A. The patient acuity spectrum
    - 1. EMS is activated for countless reasons
    - 2. Few out-of-hospital calls constitute true life-threatening emergencies
      - a. Minor medical and traumatic events require little critical thinking and have relatively easy decision making
      - b. Patients with obvious life-threats pose limited critical thinking challenges
      - c. Patients who fall on the acuity spectrum between minor and life-threatening pose the greatest critical thinking challenge
  - B. Thinking under pressure
    - 1. Hormonal influence i.e. “fight or flight” response impacts paramedic decision making 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
  - C. 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
  - D. Facilitating behaviors
    - 1. Stay calm, don't panic
    - 2. Assume and plan for the worst; err on the side of the patient
    - 3. Maintain a systematic assessment pattern

4. Balance analysis, data processing and decision making styles
  - a. Situation analysis styles - reflective versus impulsive
  - b. Data processing styles - divergent versus convergent
  - c. Decision making styles - anticipatory versus reactive
- E. Situation awareness
  1. Reading the scene
  2. Reading the patient
- F. Putting it all together - "the six Rs"
  1. Read the patient
    - a. Observe the patient
      - (1) Level of responsiveness/ consciousness
      - (2) Skin color
      - (3) Position and location of patient - obvious deformity or asymmetry
    - b. Talk to the patient
      - (1) Determine the chief complaint
      - (2) New problem or worsening of preexisting condition?
    - c. Touch the patient
      - (1) Skin temperature and moisture
      - (2) Pulse rate, strength, and regularity
    - d. Auscultate the patient
      - (1) Identify problems with the lower airway
      - (2) Identify problems with the upper airway
    - e. Status of ABCs - identifying life-threats
    - f. Complete and accurate set of vital signs
      - (1) Use as triage tool to estimate severity
      - (2) Can assist in identifying the majority of life threatening conditions
      - (3) Influenced by patient age, underlying physical and medical conditions, and current medications
  2. Read the scene
    - a. General environmental 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. If a clear medical problem is elusive, 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 management plan
  6. Review performance at run critique

### **UNIT TERMINAL OBJECTIVE**

3-5 At the completion of this unit, the paramedic student will be able to follow an accepted format for dissemination of patient information in verbal form, either in person or over the radio.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-5.1 Identify the importance of communications when providing EMS. (C-1)
- 3-5.2 Identify the role of verbal, written, and electronic communications in the provision of EMS. (C-1)
- 3-5.3 Describe the phases of communications necessary to complete a typical EMS event. (C-1)
- 3-5.4 Identify the importance of proper terminology when communicating during an EMS event. (C-1)
- 3-5.5 Identify the importance of proper verbal communications during an EMS event. (C-1)
- 3-5.6 List factors that impede effective verbal communications. (C-1)
- 3-5.7 List factors which enhance verbal communications. (C-1)
- 3-5.8 Identify the importance of proper written communications during an EMS event. (C-1)
- 3-5.9 List factors which impede effective written communications. (C-1)
- 3-5.10 List factors which enhance written communications. (C-1)
- 3-5.11 Recognize the legal status of written communications related to an EMS event. (C-1)
- 3-5.12 State the importance of data collection during an EMS event. (C-1)
- 3-5.13 Identify technology used to collect and exchange patient and/ or scene information electronically. (C-1)
- 3-5.14 Recognize the legal status of patient medical information exchanged electronically. (C-1)
- 3-5.15 Identify the components of the local EMS communications system and describe their function and use. (C-1)
- 3-5.16 Identify and differentiate among the following communications systems: (C-3)
  - a. Simplex
  - b. Multiplex
  - c. Duplex
  - d. Trunked
  - e. Digital communications
  - f. Cellular telephone
  - g. Facsimile
  - h. Computer
- 3-5.17 Identify the components of the local dispatch communications system and describe their function and use. (C-1)
- 3-5.18 Describe the functions and responsibilities of the Federal Communications Commission. (C-1)
- 3-5.19 Describe how an EMS dispatcher functions as an integral part of the EMS team. (C-1)
- 3-5.20 List appropriate information to be gathered by the Emergency Medical Dispatcher. (C-1)
- 3-5.21 Identify the role of Emergency Medical Dispatch in a typical EMS event. (C-1)
- 3-5.22 Identify the importance of pre-arrival instructions in a typical EMS event. (C-1)
- 3-5.23 Describe the purpose of verbal communication of patient information to the hospital. (C-1)
- 3-5.24 Describe information that should be included in patient assessment information verbally reported to medical direction. (C-1)
- 3-5.25 Diagram a basic model of communications. (C-3)
- 3-5.26 Organize a list of patient assessment information in the correct order for electronic transmission to medical direction according to the format used locally. (C-3)

**AFFECTIVE OBJECTIVES**

At the end of this unit, the paramedic student will be able to:

3-5.27 Show appreciation for proper terminology when describing a patient or patient condition. (A-2)

**PSYCHOMOTOR OBJECTIVES**

At the end of this unit, the paramedic student will be able to:

3-5.28 Demonstrate the ability to use the local dispatch communications system. (P-1)

3-5.29 Demonstrate the ability to use a radio. (P-1)

3-5.30 Demonstrate the ability to use the biotelemetry equipment used locally. (P-1)

## DECLARATIVE

- I. General
  - A. The importance of communications when providing EMS
    - 1. Paramedic 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. The 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 paramedic
    - 3. Communications between paramedic in the field and receiving hospital and/ or medical direction physician (on-line)
    - 4. Communication with receiving hospital personnel (on-arrival)
  - C. The 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. The 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. The role of proper verbal communications during an EMS event
    - 1. Exchange of system information
    - 2. Exchange of patient information
    - 3. Medical control
    - 4. Professionalism
  - G. Factors that impede effective verbal communications
    - 1. Semantic
    - 2. Technical
  - H. Factors which enhance verbal communications
    - 1. Semantic
    - 2. Technical
  - I. The 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. The 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
      - b. Potential for reduced time to in-hospital diagnosis and therapy
  - O. The legal status of patient medical information 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 - 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 - 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 - 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 machine and man
      - (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
    - a. Types
    - b. Functions
  3. Emergency medical dispatcher
    - a. Functions
  4. Pre-arrival instructions
    - a. Purpose
    - b. Types
  5. System dispatcher



- III. Regulation
  - a. Functions
  - A. Functions and responsibilities of the Federal Communications Commission
    - 1. Federal agency established to regulate telecommunications in the U.S.
    - 2. Functions
      - a. Licensing
      - b. Frequency allocation
      - c. Technical standards
      - d. Rule making and enforcement
- IV. Dispatch
  - A. The functions of an EMS 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. The 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. The 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 of 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
  - 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

**UNIT TERMINAL OBJECTIVE**

3-6 At the completion of this unit, the paramedic student will be able to effectively document the essential elements of patient assessment, care and transport.

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-6.1 Identify the general principles regarding the importance of EMS documentation and ways in which documents are used. (C-1)
- 3-6.2 Identify and use medical terminology correctly. (C-1)
- 3-6.3 Recite appropriate and accurate medical abbreviations and acronyms. (C-1)
- 3-6.4 Record all pertinent administrative information. (C-1)
- 3-6.5 Explain the role of documentation in agency reimbursement. (C-1)
- 3-6.6 Analyze the documentation for accuracy and completeness, including spelling. (C-3)
- 3-6.7 Identify and eliminate extraneous or nonprofessional information. (C-1)
- 3-6.8 Describe the differences between subjective and objective elements of documentation. (C-1)
- 3-6.9 Evaluate a finished document for errors and omissions. (C-3)
- 3-6.10 Evaluate a finished document for proper use and spelling of abbreviations and acronyms. (C-3)
- 3-6.11 Evaluate the confidential nature of an EMS report. (C-3)
- 3-6.12 Describe the potential consequences of illegible, incomplete, or inaccurate documentation. (C-1)
- 3-6.13 Describe the special considerations concerning patient refusal of transport. (C-3)
- 3-6.14 Record pertinent information using a consistent narrative format. (C-3)
- 3-6.15 Explain how to properly record direct patient or bystander comments. (C-1)
- 3-6.16 Describe the special considerations concerning mass casualty incident documentation. (C-1)
- 3-6.17 Apply the principles of documentation to computer charting, as access to this technology becomes available. (C-2)
- 3-6.18 Identify and record the pertinent, reportable clinical data of each patient interaction. (C-1)
- 3-6.19 Note and record "pertinent negative" clinical findings. (C-1)
- 3-6.20 Correct errors and omissions, using proper procedures as defined under local protocol. (C-1)
- 3-6.21 Revise documents, when necessary, using locally-approved procedures. (C-1)
- 3-6.22 Assume responsibility for self-assessment of all documentation. (C-3)
- 3-6.23 Demonstrate proper completion of an EMS event record used locally. (C-3)

**AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-6.24 Advocate among peers the relevance and importance of properly completed documentation. (A-3)
- 3-6.25 Resolve the common negative attitudes toward the task of documentation. (A-3)

**PSYCHOMOTOR OBJECTIVES**

None identified for this unit.

## DECLARATIVE

- I Introduction
  - A0 Importance of documentation
  - B0 Written record of incident
    - 1 May be the only source of information for persons subsequently interested in the event
      - a0 Provides a source for identifying pertinent reportable clinical data from each patient interaction
    - 2 Legal record of incident
      - a0 May be used in court proceedings
      - b0 May be the paramedic's sole source of reference to a case
    - 3 Professionalism
      - a0 As a link to subsequent care, documentation may be the only means for paramedics to represent themselves as professionals to certain other health professionals
  - C0 Other uses of documentation
    - 1 Medical audit
      - a0 May be used in run review conferences
      - b0 Other educational forums
    - 2 Quality improvement
      - a0 May be used to tally the individual's performance of patient care procedures and to review individual performance
      - b0 May be used to identify systems issues regarding quality improvement
    - 3 Billing and administration
      - a0 May be used for acquiring the billing and administrative data necessary for economic survival of many EMS agencies
    - 4 Data collection
      - a0 May be used for research purposes
- II General considerations
  - A0 Be familiar with common medical terms, their meaning and their correct spelling
  - B0 Be familiar with commonly-accepted medical abbreviations and their correct spelling
  - C0 Be familiar with common industry acronyms
  - D0 Incident times
    - 1 Understand the legal purposes of accurate recording of the following incident times
      - a0 Time of call
      - b0 Time of dispatch
      - c0 Time of arrival at the scene
      - d0 Time(s) of medication administration and certain medical procedures as defined by local protocol
      - e0 Time of departure from the scene
      - f0 Time of arrival at the medical facility (when transporting a patient)
      - g0 Time back in service
  - E0 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
  - F0 "Pertinent negatives"
    - 1 Record "pertinent negative" findings, that is, findings that warrant no medical care or intervention, but which, by seeking them, show evidence of the thoroughness of the paramedic's examination and history of the event
  - G0 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
    - a0 Mechanism of injury
    - b0 Patient's behavior
    - c0 First aid interventions attempted prior to the arrival of EMS personnel
    - d0 Safety-related information, including disposition of weapons
    - e0 Information of interest to crime scene investigators
    - f0 Disposition of valuable personal property (e.g. watches, wallets)
  - 2 Use of quotations
    - a0 The paramedic should put into quotation marks any statements by patients or others which relate to possible criminal activity or admissions of suicidal intention
  - H0 Record support services used (e.g. helicopter, coroner, rescue/ extrication, etc.)
  - I0 Record use of mutual aid services
- III Elements of a properly written EMS document
- A0 Accurate
    - 1 Document accuracy depends on all information provided, both narrative and checkbox, being
      - a0 Precise
      - b0 Comprehensive
    - 2 All checkbox sections of a document must show that the paramedic 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
  - B0 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
  - C0 Timely - documentation should be completed ideally before the paramedic handles tasks subsequent to the patient interaction
  - D0 Unaltered
    - 1 While writing the document, should the paramedic make an error, a single line should be drawn through the error, and the area initialed and dated
    - 2 Should alterations to a document be required after the document has been submitted, see "document revision/ correction" (below)
  - E0 Free of non-professional/ extraneous information
    - 1 Jargon
    - 2 Slang
    - 3 Bias
    - 4 Libel/ slander
    - 5 Irrelevant opinion/ impression
- IV Systems of narrative writing
- A0 Head to toe approach
    - 1 The narrative uses a comprehensive, consistent physical approach from head to toe
  - B0 Body systems approach
    - 1 The narrative uses a comprehensive review of the primary body systems
  - C0 Call incident approach
  - D0 Patient management approach
  - E0 Other formats
  - F0 Know how to differentiate subjective from objective elements of documentation

- V Special considerations of documentation
  - A0 Documentation of patient's refusal of care and/ or transport
    - 1 When a patient refuses medical care, the paramedic must show in the report the process undergone to come to that conclusion, including
      - a0 The paramedic's advice to the patient
      - b0 The advice rendered by medical direction by telephone or radio
      - c0 Signatures of witness(es) to the event, according to local protocol
      - d0 Complete narrative, including quotations or statements by others
  - B0 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")
  - C0 Documentation in mass casualty situations
    - 1 In unusual circumstances, comprehensive documentation has to wait until after mass casualties are triaged and transported
    - 2 The paramedic should know and follow local procedures for documentation of mass casualty situations
- VI Document revision/ correction
  - A0 How done
    - 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
  - B0 Acceptable method(s)
    - 1 Corrections
      - a0 Written narrative is appropriate, on a new report form which is then attached to the original
    - 2 Deletions and additions
      - a0 Should not be done on the original report form
      - b0 These should only be done on a new report form
    - 3 Supplemental narratives
      - a0 If more information comes to the paramedic's attention, a supplemental narrative can be written on a separate report form and attached to the original
- VII Consequences of inappropriate documentation
  - A0 Implications to medical care
    - 1 An incomplete, inaccurate, or illegible report may cause subsequent care givers to provide inappropriate care to a patient
  - B0 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
  - C0 Timeliness

- VIII Closing
  - A0 The paramedic shall assume responsibility for self-assessment of all documentation
  - B0P Peer advocacy of proper appreciation for the importance of 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
  - C0 Respect the confidential nature of an EMS report
  - D0 Principles of documentation are to remain valid regarding computer charting, as that technology becomes available