UNIT TERMINAL OBJECTIVE

3-1 At the completion of this unit, the EMT-Intermediate 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 EMT-Intermediate student will be able to:

3-1.1 Describe the factors that influence the EMT-Intermediate's ability to collect medical history. (C-1)
3-1.2 Describe the techniques of history taking. (C-1)
3-1.3 Discuss the importance of using open and closed ended questions. (C-1)
3-1.4 Describe the use of facilitation, reflection, clarification, empathetic responses, confrontation, and interpretation. (C-1)
3-1.5 Differentiate between facilitation, reflection, clarification, sympathetic responses, confrontation, and interpretation. (C-3)
3-1.6 Describe the structure and purpose of a health history. (C-1)
3-1.7 Describe how to obtain a health history. (C-1)
3-1.8 List the components of a history of an adult patient. (C-1)
3-1.9 List and describe strategies to overcome situations that represent special challenges in obtaining a medical history. (C-3)

AFFECTIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

3-1.10 Demonstrate the importance of empathy when obtaining a health history. (A-1)
3-1.11 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. Influences on collecting a history
- A. Source of history
  - 1. Patient
  - 2. Family
  - 3. Friends
  - 4. Police
  - 5. Others
- B. Reliability
  - 1. Variable
    - a. Memory
    - b. Trust
    - c. Motivation
  - 2. Made at the end of the evaluation, not the beginning
- C. Contents of history
  - 1. Date
    - a. Always important
    - b. Time may also be a consideration
  - 2. Identifying data
    - a. Age
    - b. Sex
    - c. Race
- D. Chief complaint
  - 1. Main part of the health history
  - 2. The one or more symptoms for which the patient is seeking medical care
- E. History of the present illness
  - 1. Detailed evaluation of the chief complaint
  - 2. Provides a full, clear, chronological account of the symptoms
- F. Past medical history
  - 1. Pertinent information to the current condition
- G. Current health status
  - 1. Focuses on present state of health
  - 2. Environmental conditions
  - 3. Individual factors
    - a. Current medications
    - b. Allergies
    - c. Tobacco use
    - d. Alcohol, drugs, and related substances
    - e. Diet

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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. Patient's outlook

III. Techniques of history taking
- A. Setting the stage
  - 1. Environment
    - a. Proper environment enhances communication
    - b. Be cautious of power relationship
    - c. Personal space
  - 2. Your demeanor and appearance
    - a. Just as you are watching the patient, the patient will be watching you
    - b. Messages of body language
    - c. Clean, neat, professional appearance
  - 3. Note taking
    - a. Difficult to remember all details
    - b. Most patients are comfortable with note taking
      - (1) 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. Refer to the patient by name
  - 2. Avoid the use of unfamiliar or demeaning terms such as "Granny" or "Hon"
- C. Questioning
  - 1. Types of questions
    - a. Open-ended
    - b. Closed (direct)
  - 2. Determine chief complaint
    - a. Use a general, open-ended question
    - b. Follow the patient's lead
      - (1) Facilitation
        - (a) 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) Repeating the patient's words encourages additional responses
        - (b) Typically does not bias the story or interrupt the patient's train of thought
      - (3) Clarification

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(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 responses may require you to confront patients about their feelings
(6) Interpretation
(a) Goes beyond confrontation, requires you to make an inference

3. History of the present illness
   a. Location
      (1) Where is it
      (2) Does it radiate
   b. Quality
      (1) What is it like
   c. Quantity or severity
      (1) How bad is it
      (2) Attempt to quantify the pain
         (a) 1 - 10 scale
         (b) Other scales
   d. Duration/ timing
      (1) When did it start
      (2) How long does it last
   e. Onset/ setting
      (1) Emotional response
      (2) Environmental factors
   f. Aggravation/ alleviation
   g. Associated complaints
4. Assess past medical history
   a. Pre-existing medical problems or surgeries
   b. Medications
   c. Allergies
   d. Physician
   e. Family history
   f. Social history
      (1) Housing environment
      (2) Economic status
      (3) Occupation
      (4) High risk behavior
      (5) Travel history
5. Current health status
   a. Tobacco use
   b. Use of alcohol, drugs, and other related substances
   c. Diet

D. Standardized approach to history taking
   1. SAMPLE
   2. OPQRST

E. Taking a history on sensitive topics

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1. Alcohol and drugs
2. Physical abuse or violence
3. Sexual history

IV. Special challenges
- A. Silent patient
  1. Silence is often uncomfortable
  2. Silence has meaning and many uses
     - a. Patients may use this to collect their thoughts, remember details, or decide whether or not they trust you
     - b. Be alert for nonverbal clues of distress
  3. Silence may be a result of the interviewer's lack of sensitivity
- B. Overly talkative patient
  1. Faced with a limited amount of time, interviewers may become impatient
  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. Patient with multiple symptoms
- D. Anxious patient
  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. Angry and hostile patient
  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. Intoxicated patient
  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 patient
  1. Crying, like anger and hostility, may provide valuable insight
  2. Be sympathetic
- I. Depressed patient
  1. Be alert for signs of depression
  2. Be sure you know how bad it is
- J. Sexually attractive or seductive patient
  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. Patient with confusing behavior or history
  1. Be prepared for the confusion and frustration of varying behaviors and histories
  2. Be alert for mental illness, delirium, or dementia

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L. Patient with 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. EMT-Intermediate-patient language barrier
   1. Take every possible step to find a translator
   2. A few broken words are not an acceptable substitute
N. Patient with a hearing problem
   1. Very similar to patients with a language barrier
   2. If the patient can sign, make every effort to find a translator
O. Blind patient
   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

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UNIT TERMINAL OBJECTIVE

3-2 At the completion of this unit, the EMT-Intermediate student will be able to explain the significance of physical exam findings commonly found in emergency situations.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate 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 Review the procedure for taking and significance of vital signs (pulse, respiration, and blood pressure.) (C-2)
3-2.4 Describe the evaluation of mental status. (C-1)
3-2.5 Evaluate the importance of a general survey. (C-3)
3-2.6 Describe the examination of skin and nails. (C-1)
3-2.7 Differentiate normal and abnormal findings of the assessment of the skin. (C-3)
3-2.8 Distinguish the importance of abnormal findings of the assessment of the skin. (C-3)
3-2.9 Describe the normal and abnormal assessment findings of the head (including the scalp, skull, face and skin). (C-1)
3-2.10 Describe the examination of the head (including the scalp, skull, face, and skin). (C-1)
3-2.11 Describe the examination of the eyes. (C-1)
3-2.12 Distinguish between normal and abnormal assessment findings of the eyes. (C-3)
3-2.13 Describe the examination of the ears. (C-1)
3-2.14 Differentiate normal and abnormal assessment findings of the ears. (C-3)
3-2.15 Describe the examination of the nose. (C-1)
3-2.16 Differentiate normal and abnormal assessment findings of the nose. (C-3)
3-2.17 Describe the examination of the mouth and pharynx. (C-1)
3-2.18 Differentiate normal and abnormal assessment findings of the mouth and pharynx. (C-3)
3-2.19 Describe the examination of the neck and cervical spine. (C-1)
3-2.20 Differentiate normal and abnormal assessment findings the neck and cervical spine. (C-3)
3-2.21 Describe the inspection, palpation, percussion, and auscultation of the chest. (C-1)
3-2.22 Describe the examination of the thorax and ventilation. (C-1)
3-2.23 Describe the examination of the anterior and posterior chest. (C-1)
3-2.24 Differentiate the percussion sounds and their characteristics. (C-3)
3-2.25 Differentiate the characteristics of breath sounds. (C-3)
3-2.26 Differentiate normal and abnormal assessment findings of the chest examination. (C-3)
3-2.27 Describe the examination of the arterial pulse including rate, rhythm, and amplitude. (C-1)
3-2.28 Distinguish normal and abnormal findings of arterial pulse. (C-3)
3-2.29 Describe the assessment of jugular venous pressure and pulsations. (C-1)
3-2.30 Distinguish normal and abnormal examination findings of jugular venous pressure and pulsations. (C-3)
3-2.31 Describe the examination of the heart. (C-1)
3-2.32 Differentiate normal and abnormal assessment findings of the heart. (C-3)
3-2.33 Describe the auscultation of the heart. (C-1)
3-2.34 Differentiate the characteristics of normal and abnormal findings associated with the auscultation of the heart. (C-3)
3-2.35 Describe the examination of the abdomen. (C-1)
3-2.36 Differentiate normal and abnormal assessment findings of the abdomen. (C-3)
3-2.37 Describe the examination of the female external genitalia. (C-1)
3-2.38 Differentiate normal and abnormal assessment findings of the female external genitalia. (C-3)
3-2.39 Describe the examination of the male genitalia. (C-1)
3-2.40 Differentiate normal and abnormal findings of the male genitalia. (C-3)

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3-2.41 Describe the examination of the extremities. (C-1)
3-2.42 Differentiate normal and abnormal findings of the extremities. (C-3)
3-2.43 Describe the examination of the peripheral vascular system. (C-1)
3-2.44 Differentiate normal and abnormal findings of the peripheral vascular system. (C-3)
3-2.45 Describe the examination of the nervous system. (C-1)
3-2.46 Differentiate normal and abnormal findings of the nervous system. (C-3)
3-2.47 Discuss the considerations of examination of an infant or child. (C-1)
3-2.48 Describe the general guidelines of recording examination information. (C-1)

AFFECTIVE OBJECTIVES
At the completion of this unit, the EMT-Intermediate student will be able to:

3-2.49 Demonstrate a caring attitude when performing physical examination skills. (A-3)
3-2.50 Discuss the importance of a professional appearance and demeanor when performing physical examination skills. (A-1)
3-2.51 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 EMT-Intermediate student will be able to:

3-2.52 Demonstrate the examination of skin and nails. (P-2)
3-2.53 Demonstrate the examination of the head and neck. (P-2)
3-2.54 Demonstrate the examination of the eyes. (P-2)
3-2.55 Demonstrate the examination of the ears. (P-2)
3-2.56 Demonstrate the examination of the nose. (P-2)
3-2.57 Demonstrate the examination of the mouth. (P-2)
3-2.58 Demonstrate the examination of the neck. (P-2)
3-2.59 Demonstrate the examination of the thorax and ventilation. (P-2)
3-2.60 Demonstrate the examination of the anterior and posterior chest. (P-2)
3-2.61 Demonstrate auscultation of the chest. (P-2)
3-2.62 Demonstrate percussion of the chest. (P-2)
3-2.63 Demonstrate the examination of the arterial pulse including location, rate, rhythm, and amplitude. (P-2)
3-2.64 Demonstrate the assessment of jugular venous pressure and pulsations. (P-2)
3-2.65 Demonstrate the examination of the heart. (P-2)
3-2.66 Demonstrate the examination of the abdomen. (P-2)
3-2.67 Demonstrate auscultation of the abdomen. (P-2)
3-2.68 Demonstrate the external visual examination of the female external genitalia. (P-2)
3-2.69 Demonstrate the examination of the male genitalia. (P-2)
3-2.70 Demonstrate the examination of the peripheral vascular system. (P-2)
3-2.71 Demonstrate the examination of the extremities. (P-2)
3-2.72 Demonstrate the examination of the nervous system. (P-2)

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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. Blood pressure cuff
    - c. Cardiac monitor
    - d. Pulse oximetry
    - e. Peak flow meter
    - f. Capnometry
- 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 advanced 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. Level of consciousness

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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) Drowsy
(3) Obtunded
(a) Insensitivity to unpleasant or painful stimuli by reduced level of consciousness by an anesthetic or analgesic
(4) Stuporous
(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

2. Posture and motor behavior
a. Abnormal posture
(1) Purposeful
(2) Non purposeful
b. Appropriateness of movement
c. 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. Stability of abnormal mood
b. Risk of suicide
c. Possible findings
(1) Happiness
(2) Elation
(3) Depression
(4) Anxiety
(5) Anger
(6) Indifference

D. Orientation
1. Assess
a. Time
b. Place
c. Person
d. Possible findings
(1) Disorientation
e. Assess remote memory (i.e., birthdays)
f. Assess recent memory (i.e., events of the day)

III. General survey
A. Level of consciousness
1. AVPU
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
c. Anxiety
(1) Anxious face
(2) Fidgety movement
(3) Cold moist palms
C. Apparent state of health
1. Acutely or chronically ill
2. Frail
3. Feeble
4. Robust
5. Vigorous
D. Skin color and obvious lesions
1. Pallor

2. Cyanosis
3. Jaundice
4. Rashes
5. Bruises - ecchymosis
6. Scars
7. Discoloration

E. Weight
1. Emaciated
2. Obese
3. Recent history of weight gain or loss

F. Posture, gait, and motor activity
1. Preferred posture
a. Tripodal
b. Paralysis
c. Limpness
d. Ataxia
e. Restless or quiet
f. Involuntary motor activity
g. Ease of walking
(1) Balance
(2) Limp
(3) Discomfort
(4) Fear of falling
(5) Abnormal motor pattern

G. Dress, grooming, and personal hygiene
1. How is the patient dressed
a. Appropriate for temperature and weather
b. Clean

H. Odors of breath
1. May indicate underlying conditions
a. Alcohol/ alcoholic beverage
b. Acetone
c. Putrid
d. Other

I. Facial expression
1. Observe expression
2. At rest, during conversation, and during the examination

J. Vital signs
1. Blood pressure
2. Respirations
3. Pulse
4. Temperature

K. Additional assessment techniques
1. Pulse oximetry
2. Blood glucose monitor
3. Cardiac monitor

IV. Anatomical regions
A. Skin
1. Techniques of exam

a. 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
b. Inspect the fingernails
(1) Note their color
2. Abnormalities
a. Color
b. Temperature
c. Condition
B. Head, ears, eyes, nose, and throat
1. Techniques of examination
a. Head
(1) The scalp
(a) Inspect and palpate for evidence of trauma
(2) Skull
(a) Inspect and palpate, note any tenderness or deformities
(3) Face
(a) Note the facial expression and contours
(b) Observe for asymmetry, involuntary movements, and edema
(c) Inspect and palpate, note any tenderness or deformities
(4) Skin
(a) Note color, temperature, and condition
b. Eyes
(1) Position and alignment
(a) Stand in front of the patient and survey the patient's eyes
(b) Assess for conjugate gaze
(2) Eyelids
(a) Inspect the eyelids for any evidence of trauma
(3) Conjunctiva and sclera
(a) Inspect for discoloration
(4) Pupils
(a) Inspect the size, shape, and symmetry of the pupils
(b) Test the pupillary reactions to light
i) Look for
a) Direct reaction
b) Consensual reaction
c. Ears
(1) The auricle
(a) Inspect each auricle and surrounding tissue for deformities,

drainage, tenderness, and erythema
(2) Mastoid
(a) Discoloration
(b) Tenderness
d. Nose
(1) Inspect the anterior and inferior surface of the nose
(a) Asymmetry
(b) Deformity
(c) Foreign bodies
(2) Palpate for tenderness
e. Mouth and pharynx
(1) Inspect the lips, observe color, moisture, or cracking
(2) Note the color of the gums
(3) Inspect the teeth
(4) Inspect the tongue
f. Neck
(1) Inspect the neck, noting its symmetry and any masses or scars
(2) Inspect and palpate the trachea for any deviation
(3) Inspect for jugular venous distention
(4) The cervical spine
(a) Inspection
(b) Palpation
i) Tenderness
ii) Deformities
(c) Nuchal rigidity

C. Chest
1. Techniques of examination
a. General approach
(1) Proceed in an orderly fashion
(a) Inspect
(b) Palpate
(c) Percuss
(d) Auscultate
(e) Compare side to side
(2) Try to visualize the underlying lobes of the lungs
b. Examination of the thorax and ventilation
(1) Observe rate, rhythm, depth, and effort of breathing
(2) Check for cyanosis
(3) Listen to the patient's breathing
(4) Observe the shape of the chest
c. Examination of the anterior and posterior chest
(1) Inspect
(a) Any deformities or asymmetry
i) Barrel chest
ii) Traumatic flail chest
iii) Open wounds
iv) Other evidence of trauma
(b) Abnormal retractions
(c) Impairment of respiratory movement
(2) Palpate

(a) Any tenderness
(b) Assessment of observed abnormalities
(c) Further assessment of respiratory expansion
(3) Percuss in symmetrical locations noting
(a) Any area of abnormal percussion
i) Dullness
ii) Resonance
iii) Hyperresonance
(4) Auscultate breath sounds
(a) Normal
i) Vesicular
ii) Bronchiovesicular
iii) Bronchial
iv) Tracheal
(b) Added sounds (adventitious lung sounds)
i) Discontinuous sounds (crackles)
a) Fine crackles
b) Course crackles
ii) Continuous sounds
a) Wheezes
b) Rhonchi
(c) Diminished or absent
i) Effusion
ii) Consolidation

D. Cardiovascular system
1. Techniques of examination
a. Arterial pulse
(1) Heart rate
(2) Rhythm
(3) Amplitude
(4) Abnormal findings
b. Blood pressure
c. Jugular venous pressure and pulsation
(1) Abnormal findings
d. Heart
(1) Inspection and palpation of the chest
(2) Auscultation-Listen for the heart tones
(a) Locate the point of maximum impulse (PMI) and assess apical pulse
(b) Listen for distant or muffled heart tones

E. Abdomen
1. Techniques of examination
a. General approach
(1) Place the patient in a supine position
(2) Before palpation ask the patient to point out any areas of pain - examine these areas last
(3) Approach slowly and avoid quick, unexpected movements
(4) Distract the patient as needed with conversation
(5) Proceed in an orderly manner
(a) Inspection

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(b) Palpation
b. Inspection of the abdomen, including the flanks, noting
(1) Skin
(a) Scars
(b) Rashes and lesions
(c) Discoloration
(d) Ascites
(2) The contour of the abdomen
(a) Bulges
i) Flat
ii) Rounded
iii) Protuberant
iv) Scaphoid
v) Bulges at the flanks
vi) Hernias
(b) Symmetry
(3) Pulsations
(4) Ascites
c. Palpation
(1) Muscle guarding
(2) Rigidity
(3) Large masses
(4) Tenderness

F. Female genitalia
1. 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 and bleeding
(c) Swelling
2. Abnormal findings

G. Male genitalia
1. 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 and bleeding
(c) Swelling
(d) Hematomas
2. Abnormal findings

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(b) Popliteal pulse
(c) Dorsalis pedis pulse
(d) 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
(h) Assess and compare amplitude in all extremities
2. Abnormal findings

J. Spine
1. Techniques of examination
a. Inspection
(1) Evidence of trauma
(a) Obvious deformity
(b) Ecchymosis
b. Palpation
(1) Palpate the spinous process with your thumb
(a) Identify tenderness
(2) Palpate in the area of the costovertebral angle
(a) Identify tenderness
2. Abnormal findings

K. Nervous system
1. 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 three categories
(a) Mental status and speech
(b) Motor system
(c) Sensory system
b. 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 tone
(a) Feel the resistance to passive stretch
(4) 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 the grip
(e) Test finger abduction
(f) Test dorsiflexion
(g) Test plantar flexion
(5) Coordination
(a) Rapid alternating movements
c. 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
(2) Pain
(3) Light touch

V. Physical examination of infants and children
A. Approach to the patient
B. Techniques of examination

VI. Recording examination findings

Patient Assessment: 3
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3-3.44 Discuss medical identification devices/ systems. (C-1)

AFFECTIVE OBJECTIVES
At the completion of this unit, the EMT-Intermediate student will be able to:

3-3.45 Explain the rationale for crew members to evaluate scene safety prior to entering. (A-2)
3-3.46 Serve as a model for others explaining how patient situations affect your evaluation of mechanism of injury or illness. (A-3)
3-3.47 Explain the importance of forming a general impression of the patient. (A-1)
3-3.48 Explain the value of performing an initial assessment. (A-2)
3-3.49 Demonstrate a caring attitude when performing an initial assessment. (A-3)
3-3.50 Attend to the feelings that patients with medical conditions might be experiencing. (A-1)
3-3.51 Value the need for maintaining a professional caring attitude when performing a focused history and physical examination. (A-3)
3-3.52 Explain the rationale for the feelings that these patients might be experiencing. (A-3)
3-3.53 Demonstrate a caring attitude when performing a detailed physical examination. (A-3)
3-3.54 Explain the value of performing an on-going assessment. (A-2)
3-3.55 Recognize and respect the feelings that patients might experience during assessment. (A-1)
3-3.56 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 EMT-Intermediate student will be able to:

3-3.57 Demonstrate the techniques for assessing mental status. (P-2)
3-3.58 Demonstrate the techniques for assessing the airway. (P-2)
3-3.59 Demonstrate the techniques for determining if the patient is breathing. (P-2)
3-3.60 Demonstrate the techniques for determining if the patient has a pulse. (P-2)
3-3.61 Demonstrate the techniques for determining the patient for external bleeding. (P-2)
3-3.62 Demonstrate the techniques for determining the patient's skin color, temperature, and condition. (P-2)
3-3.63 Using the techniques of examination, demonstrate the assessment of a medical patient. (P-2)
3-3.64 Demonstrate the techniques for assessing a patient who is responsive with no known history. (P-2)
3-3.65 Demonstrate the techniques for assessing a patient who has a altered metal status. (P-2)
3-3.66 Perform a rapid medical assessment. (P-2)
3-3.67 Perform a focused history and physical exam of the medical patient. (P-2)
3-3.68 Using the techniques of physical examination, demonstrate the assessment of a trauma patient. (P-2)
3-3.69 Demonstrate the rapid trauma assessment used to assess a patient based on mechanism of injury. (P-2)
3-3.70 Perform a focused history and physical exam on a non-critically injured patient. (P-2)
3-3.71 Perform a focused history and physical exam on a patient with life-threatening injuries. (P-2)
3-3.72 Perform a detailed physical examination. (P-2)
3-3.73 Demonstrate the skills involved in performing the on-going assessment. (P-2)

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Patient Assessment: 3

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 EMT-Intermediate
  - 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 EMT-Intermediate
- D. Mechanism of injury/ nature of illness
  - 1. Medical
    - a. Nature of illness - determine from the patient, family, or bystanders why EMS was activated
    - b. Determine the total number of patients
    - c. If there are more patients than the responding unit can effectively handle, initiate a mass casualty plan
      - (1) EMT-Intermediate is less likely to call for help if involved in patient care
      - (2) Prior to contact with patients, obtain additional help: law enforcement, fire, rescue, ALS, utilities
      - (3) Begin triage
  - 2. Trauma
    - a. Mechanism of injury
      - (1) determine from the patient, family, or bystanders and inspection of the scene
      - (2) Immobilize the cervical spine
    - b. Determine the total number of patients
    - c. If there are more patients than the responding unit can effectively handle, initiate a mass casualty plan
      - (1) EMT-Intermediate is less likely to call for help if involved in patient care
      - (2) Prior to contact with patients, obtain additional help: law enforcement, fire, rescue, ALS, utilities
      - (3) Begin triage
      - (4) If the responding crew can manage the situation, consider spinal precautions and continue care

II. Initial assessment
- A. General impression of the patient
  - 1. Formed to determine priority of care and is based on the EMT-Intermediate's immediate assessment of the environment and the patient's chief complaint
  - 2. Determine if ill, i.e., medical or injured (trauma)

Patient Assessment: 3

a. If injured, identify mechanism of injury
b. If ill, identify nature of illness

B. Assess the patient and determine if the patient has a life-threatening condition
1. If a life threatening condition is found, treat immediately
2. Assess nature of illness or mechanism of injury

C. Assess patient's mental status (maintain spinal immobilization if needed)
1. Levels of mental status (AVPU)
a. Alert
b. Responds to verbal stimuli
c. Responds to painful stimuli
d. Unresponsive - no gag or cough

D. Assess the patient's airway status
1. Patent
2. Obstructed
a. Suction
b. Position
c. Airway adjuncts
d. Invasive techniques
(1) ET intubation
(2) Multi-lumen airways

E. Assess the patient's breathing
1. Adequate
2. Inadequate

F. Assess the patient's circulation
1. Pulse
2. If major bleeding is present - if bleeding is present, control bleeding
3. Perfusion by evaluating skin color, temperature, capillary refill, and condition

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

H. Proceed to the appropriate focused history and physical examination

III. Focused history and physical exam - medical patient

A. Responsive medical patient
1. Assess patient history
a. Chief complaint
b. History of present illness
(1) Attributes of a symptom
(a) Location
i) Where is it
ii) Does it radiate

Patient Assessment: 3

(b) Quality
i) What is it like
(c) Quantity or severity
i) How bad is it
(d) Timing
i) When did it start
ii) How long does it last
(e) Setting in which it occurs
i) Emotional response
ii) Environmental factors
(f) Factors that make it better or worse
(g) Associated manifestations
c. Past medical history
d. Current health status
2. Perform physical examination
a. Utilize the techniques of physical examination to
(1) Assess the head as necessary
(2) Assess the neck as necessary
(3) Assess the chest as necessary
(4) Assess the abdomen as necessary
(5) Assess the pelvis as necessary
(6) Assess the extremities as necessary
(7) Assess the posterior body as necessary
3. Assess baseline vital signs
a. Consider orthostatic vital signs
4. Provide emergency medical care based on signs and symptoms in consultation with medical direction
B. Unresponsive medical patient
1. Perform rapid assessment
2. Utilize the techniques of patient assessment
a. Position patient to protect airway
b. Assess the head
c. Assess the neck
d. Assess the chest
e. Assess the abdomen
f. Assess the pelvis
g. Assess the extremities
h. Assess the posterior aspect of the body
3. Assess baseline vital signs
4. Obtain patient history from bystander, family, friends, and/ or medical identification devices/ services
a. Chief complaint
b. History of present illness
c. Past medical history
d. Current health status

IV. Focused history and physical exam - trauma patient
A. Re-consider mechanism of injury
1. Helps to identify priority patients
2. Helps to guide the assessment
3. Significant mechanism of injury
a. Ejection from vehicle

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

4. Infant and child considerations
a. Falls >10 feet
b. Bicycle collision
c. Vehicle in medium speed collision

B. Perform rapid trauma physical examination on patients with significant mechanism of injury to determine life-threatening injuries
1. In the responsive patient, symptoms should be sought before and during the trauma assessment
2. Continue spinal stabilization
3. Reconsider transport decision
4. Assess mental status
5. As you inspect and palpate, look and feel for injuries or signs of injury
6. Examination
a. Assess the head, inspect and palpate for injuries or signs of injury
b. Assess the neck, inspect and palpate for injuries or signs of injury
c. Apply cervical spinal immobilization collar (CSIC)
d. Assess the chest, inspect and palpate for injuries or signs of injury
e. Assess the abdomen, inspect and palpate for injuries or signs of injury
f. Assess the pelvis, inspect and palpate for injuries or signs of injury
g. Assess all four extremities, inspect and palpate for injuries or signs of injury
h. Roll patient with spinal precautions and assess posterior body, inspect and palpate for injuries or signs of injury
i. Look for medical identification devices
j. Assess baseline vital signs
k. Assess patient history
(1) Chief complaint

Patient Assessment: 3

(2) History of present illness
(3) Past medical history
(4) Current health status

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

V. Detailed physical exam
A. Patient and injury specific, e.g., cut finger would not require the detailed physical exam
B. Perform a detailed physical examination on the patient to gather additional information
C. General approach
1. Assess patient history
a. Chief complaint
b. History of present illness
c. Past medical history
d. Current health status
2. Examine the patient systematically
3. Place special emphasis on areas suggested by the present illness and chief complaint
4. Keep in mind that most patients view a physical exam with apprehension and anxiety - they feel vulnerable and exposed
D. Overview of the detailed physical exam
1. Mental status
a. Appearance and behavior
b. Posture and motor behavior
c. Speech and language
d. Mood
e. Thought and perceptions
f. Thought content
g. Perceptions
h. Insight and judgement
i. Memory and attention
j. Remote memory (i.e., birthdays)
k. Recent memory (i.e., events of the day)
l. New learning ability
2. General survey
a. Level of consciousness
b. Signs of distress
c. Apparent state of health
d. Skin color and obvious lesions
e. Height and build
f. Sexual development
g. Weight
h. Posture, gait, and motor activity
i. Dress, grooming and personal hygiene
j. Odors of breath or body

Patient Assessment: 3

k. Facial expression
3. Skin
4. Head
5. Eyes
6. Ears
7. Nose and sinuses
8. Mouth and pharynx
9. Neck
10. Thorax and lungs
11. Cardiovascular system
12. Abdomen
13. External genitalia
14. Peripheral vascular system
15. Musculoskeletal system
16. Nervous system

E. Recording examination findings
F. Assess baseline vital signs

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

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

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UNIT TERMINAL OBJECTIVE

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

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate 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 EMT-Intermediates. (C-1)
3-4.5 Apply the fundamental elements of critical thinking for EMT-Intermediates. (C-2)
3-4.6 Describe the effects of the “fight or flight” response and the positive and negative effects on a EMT-Intermediate’s decision making. (C-1)
3-4.7 Develop strategies for effective thinking under pressure. (C-3)
3-4.8 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 completion of this unit, the EMT-Intermediate student will be able to:

3-4.9 Defend the position that clinical decision making is the cornerstone of effective EMT-Intermediate practice. (A-3)
3-4.10 Practice facilitating behaviors when thinking under pressure. (A-1)

PSYCHOMOTOR OBJECTIVES

None identified for this unit.

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DECLARATIVE

I. Introduction and key concepts
- A. The cornerstones of effective EMT-Intermediate 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 do not exist in other medical settings
- C. The spectrum of patient 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 EMT-Intermediate 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 address “classic” patient presentations
       - (1) Non-specific patient complaints do not follow model
       - (2) Limited clarity of presenting patient problems
     - b. Do not address multiple disease etiologies
     - c. Do not address multiple treatment modalities
     - d. Promote linear thinking, “cookbook medicine”

II. Components, stages, and sequence of critical thinking process for EMT-Intermediates
- A. Concept formation
  1. MOI/ scene assessment
  2. Initial assessment and physical examination
  3. Chief complaint
  4. Patient history
  5. Patient affect
  6. Technical tools
     - a. Pulse oximetry
     - b. Glucose monitoring
     - c. Et cetera
- B. Data interpretation
  1. Data gathered
  2. EMT-Intermediate knowledge of anatomy and physiology and pathophysiology
  3. EMT-Intermediate attitude
  4. Previous experience base of the EMT-Intermediate
- C. Application of principle

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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 EMT-Intermediate

III. Fundamental elements of critical thinking for EMT-Intermediates
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 assessment based decisions 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 are relatively easy decisions
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 the EMT-Intermediate’s 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 style - reflective versus impulsive
    b. Data processing style - divergent versus convergent
    c. Decision making style - 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 ABC’s - 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

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PSYCHOMOTOR OBJECTIVES

At the end of this unit, the EMT-Intermediate student will be able to:

3-5.27 Demonstrate the ability to use the local dispatch communications system. (P-1)
3-5.28 Demonstrate the ability to use a radio. (P-1)
3-5.29 Demonstrate the ability to use the biotelemetry equipment used locally. (P-1)

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3. Professionalism
4. Other
   a. Medical audit
   b. Quality improvement
   c. Billing
   d. Data collection

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

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

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

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

N. New technology used to collect and exchange patient and/ or scene information electronically
1. Technology-based
2. Real-time capture of events/ information
3. Integrated with diagnostic technology
4. Reduces dependance 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. Legal status of patient medical information collected and exchanged electronically
1. Same status as traditional written documentation
2. May not have a "paper record" of incident

II. Systems

A. Methodology used for EMS communication
1. Simplex
   a. Advantages
      (1) Allows speaker to get message out without interruption
   b. Disadvantages
      (1) Slows process
      (2) More formal
      (3) Takes away ability to discuss case
2. Multiplex
   a. Advantages
      (1) Either party can interrupt as necessary
      (2) Facilitates discussion
   b. Disadvantages
      (1) Each end has tendency to interrupt the other
      (2) Voice interferes with data transmission
3. Duplex

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a. Advantages
(1) Either party can interrupt as necessary
(2) Facilitates discussion
b. Disadvantages
(1) Each end has tendency to interrupt the other
4. Trunked
a. Advantages
b. Disadvantages
5. Digital
a. Advantages
b. Disadvantages
6. Cellular telephone
a. Advantages
(1) Less formal
(2) Promotes discussion
(3) Can reduce on-line times
(4) Physician can speak directly with patient
b. Disadvantages
(1) Geography can interfere with signal
(2) Cell site may be unavailable
(3) External antenna necessary
(4) Problems with denied access to cell (PIN numbers unknown or forgotten)
7. Facsimile
a. Advantages
(1) Provides earlier notification
(2) Produces another piece of medical documentation
b. Disadvantages
(1) Must have access to a fax machine (at each end)
8. Computer
a. Advantages
(1) Potential to save retrospective data entry step
(2) Can document in real-time
(3) Sort on many categories
(4) Create multiple reporting formats
(5) Provide system data quickly
b. Disadvantages
(1) Subject to limitation of the computer and the operator
(2) Lose flexibility

B. Components of the local dispatch communications system and function
1. Define 9-1-1 AND E 9-1-1
2. Public safety access point
a. Types
b. Functions
3. Emergency medical dispatcher
a. Functions
4. Pre-arrival instructions
a. Purpose
b. Types

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5. System dispatcher
    a. Functions

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

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

V. Procedures
- A. Information that should be verbally reported to medical direction
    1. Depends on technology used for transmission
    2. May vary with local protocol
    3. Based on patient priority
    4. Standard format
        a. Efficient use of communications system
        b. Assists medical direction

c. Assures no significant information is omitted

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

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

VI. Procedure for the use of the biotelemetry equipment used locally

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DECLARATIVE

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

II. General considerations
- A. Be familiar with common medical terms, their meaning and correct spelling
- B. Be familiar with commonly-accepted medical abbreviations and their correct spelling
- C. Be familiar with common industry acronyms
- D. Incident times
  1. Understand the legal purposes of accurate recording of the following incident times
     - a. Time of call
     - b. Time of dispatch
     - c. Time of arrival at the scene
     - d. Time(s) of medication administration and certain medical procedures as defined by local protocol
     - e. Time of departure from the scene
     - f. Time of arrival at the medical facility (when transporting a patient)
     - g. Time back in service
- E. Accurately note in the document narrative (and elsewhere, when applicable) medical direction's advice and orders, and the results of implementing that advice and those orders
- F. "Pertinent findings"
  1. Findings that are relevant to the clinical situation
- G. "Pertinent negatives"
  1. Findings that warrant no medical care or intervention, but which, by seeking them, show evidence of the thoroughness of the EMT-Intermediate's examination and history of the event

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2. Record all “pertinent negative” findings

H. Pertinent oral statements made by patients and other on-scene people

3. Record statements made which may have an impact on subsequent patient care or resolution of the situation, including reports of
   a. Mechanism of injury
   b. Patient’s behavior
   c. First aid interventions attempted prior to the arrival of EMS personnel
   d. Safety-related information, including disposition of weapons
   e. Information of interest to crime scene investigators
   f. Disposition of valuable personal property (e.g., watches, wallets)
4. Use of quotations
   a. The EMT-Intermediate should put into quotation marks any statements by patients or others which relate to possible criminal activity or admissions of suicidal intention

I. Record support services used (e.g., helicopter, coroner, rescue/ extrication)

J. Record use of mutual aid services

III. Elements of a properly written EMS document

A. Accurate
   1. Document accuracy depends on all information provided, both narrative and checkbox, being
      a. Precise
      b. Comprehensive
   2. All checkbox sections of a document must show that the EMT-Intermediate attended to them, even if a given section was unused on a call
   3. Medical terms, abbreviations, and acronyms are properly used and correctly spelled

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

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

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

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

IV. Systems of narrative writing

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

B. Body systems approach

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

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

V. Special considerations of documentation
A. Documentation of patient's refusal of care and/ or transport
1. When a patient refuses medical care, the EMT-Intermediate must show in the report the process undergone to reach that conclusion, including
a. The EMT-Intermediate's advice to the patient
b. The advice rendered by medical direction by telephone or radio
c. Signatures of witness(es) to the event, according to local protocol
d. Complete narrative, including quotations or statements by others
B. Document decisions/ events where care and transportation were not needed
1. If canceled en route, note canceling authority and the time
2. If canceled at scene, note canceling authority and special circumstances (e.g., "On scene officer reported no injuries and asked us to leave the scene - no patient contacts made")
C. Documentation in mass casualty situations
1. In unusual circumstances, comprehensive documentation has to wait until after mass casualties are triaged and transported
2. The EMT-Intermediate should know and follow local procedures for documentation of mass casualty situations

VI. Document revision/ correction
A. Procedure
1. Write revisions to documents on separate report forms
2. Note the purpose of the revision, and why the information did not appear on the original document
3. Note the date and time
4. Revisions should be made by the original author of a document
5. When the need for revision is realized, it should be done as soon as possible
B. Acceptable method(s)
1. Corrections
a. Written narrative is appropriate, on a new report form which is then attached to the original
2. Deletions and additions
a. Should only be done on a new report form, not the original
3. Supplemental narratives
a. If more information comes to the EMT-Intermediate's attention, a supplemental narrative can be written on a separate report form and attached to the original

VII. Consequences of errors, omissions, and inappropriate documentation
A. Implications to medical care
1. An incomplete, inaccurate, or illegible report may cause subsequent care givers to provide inappropriate care to a patient
B. Legal implications
1. A lawyer considering the merits of an impending lawsuit can be dissuaded from a case when the documentation is done correctly

2. The converse is true if documentation is anything less

C. Timeliness

VIII. Closing

A. The EMT-Intermediate shall assume responsibility for self-assessment of all documentation

B. Peer advocacy for good documentation

1. Documentation is a maligned task in EMS, but one of utmost importance for a variety of reasons
2. A professional EMS provider appreciates this and strives to set a good example to others regarding the completion of the documentation tasks

C. Respect the confidential nature of an EMS report

D. Principals of documentation are to remain valid regarding computer charting, as that technology becomes available

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