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UNIT TERMINAL OBJECTIVE

7-1 At the end of this unit the EMT-Critical Care Technician student will be able to integrate the principles of assessment based management to perform an appropriate assessment and implement the management plan for patients with common complaints.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Critical Care Technician student will be able to:

7-1.1 Explain how effective assessment is critical to clinical decision making. (C-1)
7-1.2 Explain how the EMT-Critical Care Technician's attitude affects assessment and decision making. (C-1)
7-1.3 Explain how uncooperative patients affect assessment and decision making. (C-1)
7-1.4 Explain strategies to prevent labeling and tunnel vision. (C-1)
7-1.5 Develop strategies to decrease environmental distractions. (C-1)
7-1.6 Describe how manpower considerations and staffing configurations affect assessment and decision making. (C-1)
7-1.7 Synthesize concepts of scene management and choreography to simulated emergency calls. (C-3)
7-1.8 Explain the roles of the team leader and the patient care person. (C-1)
7-1.9 List and explain the rationale for carrying the essential patient care items. (C-3)
7-1.10 When given a simulated call, list the appropriate equipment to be taken to the patient. (C-1)
7-1.11 Explain the general approach to the emergency patient. (C-1)
7-1.12 Describe how to effectively communicate patient information face to face, over the telephone, by radio, and in writing. (C-1)
7-1.13 Explain the general approach, patient assessment, and management priorities for patients who complain of chest pain. (C-3)
7-1.14 Explain the general approach, patient assessment, and management priorities for medical and traumatic cardiac arrest patients. (C-3)
7-1.15 Explain the general approach, patient assessment, and management priorities for patients who complain of acute abdominal pain. (C-3)
7-1.16 Explain the general approach, patient assessment, and management priorities for patients who complain of GI bleeding. (C-3)
7-1.17 Explain the general approach, patient assessment, and management priorities for altered mental status patients. (C-3)
7-1.18 Explain the general approach, patient assessment, and management priorities for patients who complain of dyspnea. (C-3)
7-1.19 Explain the general approach, patient assessment, and management priorities for trauma or multi trauma patients. (C-3)
7-1.20 Explain the general approach, patient assessment, and management priorities for a patient who is having an allergic reaction. (C-3)
7-1.21 Explain the general approach, patient assessment, and management priorities for pediatric patients. (C-3)

AFFECTIVE OBJECTIVES

At the completion of this unit, the EMT-Critical Care Technician student will be able to:

7-1.22 Appreciate the use of scenarios to develop high level clinical decision making skills. (A-2)
7-1.23 Advocate and practice the process of complete patient assessment on all patients. (A-3)
7-1.24 Value the importance of presenting the patient accurately and clearly. (A-2)

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PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Critical Care Technician student will be able to:

7-1.25 While serving as team leader, choreograph the EMS response team, perform a patient assessment, provide local/regionally appropriate treatment, present cases verbally and in writing given a moulaged and programed simulated patient. (P-3)

7-1.26 While serving as team leader, assess a programmed patient or mannequin, make decisions relative to interventions and transportation, provide the interventions, patient packaging and transportation, work as a team and practice various roles for the following common emergencies: (P-3)

a. Chest pain
b. Cardiac Arrest
   -Traumatic arrest
   -Medical arrest
c. Acute abdominal pain
d. GI Bleeding
   -lower GI bleeding
   -upper GI bleeding
e. Altered mental status
f. Dyspnea
g. Syncope
h. Trauma
   -Isolated extremity fracture (tibia/ fibula or radius/ ulna)
   -Femur fracture
   -Spine injury (no neurologic deficit, with neurologic deficit)
   -Multiple trauma-blunt
   -Penetrating trauma
   -Impaled object
   -Elderly fall
   -Athletic injury
   -Head injury (concussion, subdural/ epidural)
i. Allergic reactions/ bites/ envenomation
   -Local allergic reaction
   -Systemic allergic reaction
j. Pediatric
   -Respiratory distress
   -Fever
   -Seizures

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DECLARATIVE

I. Effective assessment
- A. Assessment is the foundation of care
  1. Can't treat or report anything that isn't found
  2. Must gather, evaluate and synthesize the information
  3. Make the right decisions
  4. Take appropriate action
- B. Accurate information is critical to decision making
  1. The history
     - a. Often 80% of a medical diagnosis is based on history
     - b. Knowledge of disease and suspicion affect quality of the history acquired
     - c. Is focused toward the complaint and associated problems
  2. The physical examination
     - a. Often overlooked or done in a cursory manner
     - b. Effectiveness compromised by some field situations
     - c. Focused toward systems associated with complaint
  3. Pattern recognition
     - a. Gathered information compared to knowledge base
     - b. Pattern is or isn't recognized
     - c. Greater the knowledge base and assessment information, better the chances of accurate assessment and decisions
  4. Assessment/field impression
     - a. Field impression
       - (1) Pattern recognition
       - (2) Gut instinct based on experience
     - b. Formulation of plan of action
       - (1) Patient’s condition
       - (2) The environment
  5. BLS/ALS treatment driven by:
     - a. Protocols
       - (1) Must have right impression to know which one to use
     - b. Judgment
       - (1) Know when and how to apply protocols
       - (2) Know when to deviate from protocols
- C. Factors affecting assessment and decision making
  1. EMT-Critical Care Technician attitude - need to be non-judgmental
     - a. May 'short circuit" information gathering
     - b. Lead to insufficient information to recognize patterns
     - c. GIGO = garbage in - garbage out
     - d. Patients depend on us for medical assessment/ management, not determination of social standing or "likability"
  2. Uncooperative patients
     - a. Perception of intoxication
     - b. In all uncooperative, restless, belligerent patients consider the following as possible causes:
       - (1) Hypoxia
       - (2) Hypovolemia

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(3) Hypoglycemia
(4) Head injury/concussion

3. Obvious but distracting injuries
   a. Can divert attention from more serious problems
4. Tunnel vision/ labeling
   a. "Labels" applied by responders sometimes set an inappropriate tone, distract and cause biased assessment
      (1) "Just another drunk"
      (2) "Frequent flyer"
      (3) etcetera
   b. Tunnel vision causes distraction
      (1) Locking on, making a field impression too early
      (2) "Gut instinct" sometimes causes a rush to judgment too early
5. The environment
   a. Scene chaos
   b. Violent/ dangerous situations
   c. Crowds of bystanders
   d. Crowds of responders
   e. Noise levels
6. Patient compliance
   a. Patient confidence in rescuers
   b. Cultural and ethnic barriers
7. Manpower considerations
   a. Single EMT-Critical Care Technician
      (1) Sequential information gathering
      (2) Sequential treatment
   b. Two EMT-Critical Care Technicians
      (1) Simultaneous information gathering
      (2) Simultaneous treatment
   c. Multiple responders
      (1) History by "committee"
         (a) Disorganized acquision of history

D. Assessment/management choreography
1. Number of responders often makes coherent assessment challenging
   a. Multiple tiers responders
   b. Too many people attempting to acquire history
   c. Worse if responders at same level without clear direction
2. Members of the team need to have a preplan for determining roles
   a. Predesignated roles assigned to team members
   b. Roles should be rotated among team members
   c. EMT-Critical Care Technicians working alone must assume all ALS roles
   d. Multiple EMT-Critical Care Technicians need to have a plan
3. One example is a 2 EMT-Critical Care Technician preplan with “team leader” and “patient care” EMT-Critical Care Technician designated
   a. Plan is not cast in concrete as field situations are dynamic
   b. Regular partners may develop their "own plan" and flow
      (1) Having a universally understood plan allows for others to participate
   c. Having a some basic "game plan" is important to prevent chaos

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4. Team leader
    a. Usually who ever will accompany patient through to definitive care
    b. Establishes contact and a dialogue with the patient
    c. Obtains the history
    d. Performs the physical examination
    e. Presents the patient, gives verbal report over the radio or at definitive care
    f. Does the documentation
    g. Tries to maintain the overall patient perspective and provides leadership to the team
        (1) Designating tasks
        (2) Coordinating transportation
    h. During resuscitative phase of initial assessment designates and actively participates in critical interventions
    i. Multiple casualty situations acts as initial EMS command
    j. During ACLS
        (1) Reads ECG
        (2) Talks on radio and gives drug orders
        (3) Controls the drug box
        (4) Keeps notes on drug administrations/ effects
5. Patient care person(s)
    a. Provides scene cover (watches the team leader's back)
    b. Gathers scene information, talks to relatives, bystanders, etc.
    c. Obtains vital signs
    d. Performs skills, interventions as requested by team leader
        (1) Attach monitoring leads
        (2) Oxygen administration
        (3) Venous access
        (4) Medication administration
            (a) Obtains transportation equipment
    e. Multiple casualty situations acts as triage group leader
    f. During ACLS
        (1) Administers drugs
        (2) Monitors tube placement
        (3) Monitors BCLS

II. The right "stuff"
A. The right stuff means carrying the right equipment to the patient’s side
    1. EMT-Critical Care Technicians need to be prepared for the worst
    2. For some patients assessment and management is simultaneous
    3. Not having the right equipment compromises care and causes pandemonium
B. Having the right stuff is like backpacking
    1. Have the essential items
    2. Downsized to facilitate rapid movement
    3. Minimum weight and bulk
C. Essential equipment carried to every patient
    1. EMT-Critical Care Technician management of the ABCDE
    2. Cardiac monitoring and defibrillation
D. Essential items
    1. Airway control
        a. Oral airways

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b. Nasal airways
c. Suction (electric or manual)
d. Rigid Yankauer and flexible suction catheters
e. Laryngoscope and blades
f. Endotracheal tubes, stylettes, syringes, tape

2. Breathing
   a. Mouth powered ventilation devices (pocket mask)
   b. Manual ventilation-bag-valve-mask
   c. Spare masks
   d. Oxygen tank and regulator
   e. Oxygen masks, cannulas and extension tubing
   f. Occlusive dressings
   g. Large bore IV catheter for thoracic decompression
3. Circulation
   a. Dressings
   b. Bandages and tape
   c. Infection control supplies-gloves, eye shields
   d. Sphygmomanometer, stethoscope
4. Disability and dysrhythmia
   a. Rigid collars
   b. Flashlight
   c. Cardiac monitor/defibrillator
5. Exposure
   a. Scissors
   b. Space blanket or something to cover the patient
6. Note pad and pen or pencil
7. The essential items need to be brought to every patient

E. Optional "take in" equipment
1. Drug therapy and venous access supplies need to be portable too
   a. May not need to go in for every patient contact
   b. How supplies are carried often depends on how the system is designed
      (1) EMT-Critical Care Technician ambulances
      (2) EMT-Critical Care Technicians in non-transporting vehicles
2. What is carried to the patient depends on local protocols
   a. Standing order flexibility
   b. Number of EMT-Critical Care Technician responders
   c. Difficulty in accessing patients
3. Venous access is required to administer most emergency drugs
   a. Venous access supplies should be carried with drug box
   b. Drug box should contain drugs allowed in the formulary

III. General approach to the patient
A. Calm orderly demeanor is essential
1. Look the part
2. Act the part
3. "Bedside" manner is important
4. Patients may not be able to rate medical performance
   a. They can rate people skills and service

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B. Have a "preplan" to prevent confusion and improve accuracy of the assessment
   1. One team member does the talking to the patient
      a. Active concerned dialogue
      b. Listen
   2. Take notes when acquiring the history
      a. Helps prevent asking the same question repeatedly
C. Carry in all of the essential equipment
   1. Ready to provide resuscitative care
   2. Minimizes pandemonium
D. Use the initial scene size-up to gather clues and help formulate an impression
   1. Especially useful in trauma situations
      a. Hazards
      b. MOI
      c. Number of patients
   2. Avoid tunnel vision
E. The initial assessment sets the tone for the patient encounter
   1. Resuscitative approach
      a. Immediate intervention is necessary
      b. Patient has a life threatening problem such as
         (1) Cardiac/ respiratory arrest
         (2) Respiratory distress/ failure
         (3) Unstable dysrhythmias
         (4) Seizures
         (5) Coma/ altered mental status
         (6) Shock/ hypotension
         (7) Major trauma
         (8) Possible cervical spine injury
      c. Begin to take resuscitative action
         (1) Acquire more history and details post immediate resuscitation
   2. Contemplative approach
      a. Immediate intervention not necessary
      b. Generally history and physical, then interventions if required
   3. Immediate evacuation to the ambulance may be required if
      a. Patient needs lifesaving interventions that can't be provided by the EMT-Critical Care Technician
      b. Scene is too unstable/ or unsafe
      c. Scene is too chaotic to allow for rational assessment
F. To find something, one must suspect it
   1. During initial assessment one must actively look for life threatening problems
   2. Must be systematic
   3. Rapidly determine the chief complaint
   4. Assess the degree of distress
   5. Obtain baseline vital signs early
   6. Focused on the relevant history and physical findings
G. The greater the knowledge about what is being looked for the more productive the line of questioning will be
H. Experience assists in developing the ability of "multi-tasking" or being able to ask questions and do something while listening to the answer

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1. Until experienced, ask questions and just listen
2. Have partner perform necessary tasks
3. Important clues are lost by not listening

I. The patient's ability to describe symptoms and EMT-Critical Care Technician's ability to listen has a great effect on the assessment
   1. Pain severity does not correlate well with life-threat potential
   2. Location of pain and its source also do not always correlate well; especially if it is visceral

J. EMT-Critical Care Technician's role is to rapidly assess and treat for the worst case scenario

IV. Presenting the patient

A. Effective communication and transfer of patient information is vital to both out-of-hospital and hospital care
   1. Patient presentation is often a weak link in care in spite of the frequency of use
   2. EMT-Critical Care Technicians may actually use BLS/ALS interventions on few patients, but patient presentation and information exchange occurs with every patient encounter
   3. Presentation will routinely be done
      a. Face to face
      b. Over the telephone
      c. Over the radio
      d. In writing

B. Effective presentation and communications skills are essential to establish trust and credibility
   1. Good assessment and presentation go hand in hand
      a. Can't report anything that isn't found
      b. Can't treat things that are not found
   2. Good presentations suggest effective patient assessment and care
      a. Poor presentation suggests poor assessment and care to the listener
   3. Other health care providers are disinterested in listening to rambling, disjointed presentations covering inconsequential information while omitting vital information
      a. Most health care providers are used to listening to either the SOAP format or some close variation of it

C. Poor presentation can also compromise patient care
   1. As physician extenders, EMT-Critical Care Technicians must contact supervising physician for orders at some level
   2. Patient's needs and status must be communicated effectively

D. Effective presentations
   1. Are very concise, usually lasting less than one minute
   2. Are usually free of extensive medical jargon
   3. Follow the same basic information pattern
   4. Generally follow the SOAP format or some close variation of it
   5. Includes pertinent findings and pertinent negatives
      a. Expected findings that are absent (i.e., a patient with dyspnea whose chest is clear to auscultation)

E. Start with the end in mind; know what discrete areas of information will be asked for and be sure to acquire the right information
   1. Until experienced and the format is committed to memory use a pre-printed card or sheet to organize information and take notes during the work-up
   2. Use the form to organize thoughts and assessment findings before making the presentation
   3. With time the flow will become second nature

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F. Discrete areas of an ideal presentation
   1. Patient identification, age, sex and degree of distress
   2. Chief complaint
      a. Why they called
   3. Present illness/ injury
      a. Pertinent details about the present problem
      b. Pertinent negatives
   4. Past medical history
      a. Allergies, medications and pertinent medical history
   5. Physical findings
      a. Vital signs
      b. Pertinent positive findings
      c. Pertinent negative findings
   6. Assessment
      a. EMT-Critical Care Technician impression
   7. Plan
      a. What has been done
      b. Orders requested

G. The key to developing proficiency is repetition and understanding the format
   1. Use a small pre-printed form; eventually you will depend on the form less and less
   2. Practice presenting on simulated and real patients
   3. Listen to other's radio reports

V. Review of common complaints

A. In order to develop as an entry level practitioner at the EMT-Critical Care Technician level, scenario-based practice and review needs to be conducted for complaints commonly encountered in the field

B. The goal of practice sessions should be to
   1. Choreograph the EMS response team
   2. Practice assessment and decision making on cases they are likely to encounter out of hospital
   3. Provide interventions based on their assessment and modalities in local/regional treatment protocols
   4. Practice presenting cases verbally and in writing

C. Laboratory-based simulations should require the EMT-Critical Care Technician student to
   1. Assess a programmed patient or mannequin
   2. Make decisions relative to interventions and transportation
   3. Provide the interventions, patient packaging and transportation
   4. Work as a team and practice various roles

D. Simulations should include the following patient presentations
   1. Chest pain
      a. Scenarios
         (1) Stable no dysrhythmias
         (2) Stable bradycardia
         (3) Unstable bradycardia (hypotension/ chest pain)
         (4) Stable narrow complex tachycardia
         (5) Unstable narrow complex tachycardia
         (6) Stable wide complex tachycardia
         (7) Unstable wide complex tachycardia

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(8) Ventricular ectopy
(9) Cardiogenic shock/ hypotension

2. Cardiac arrest
   a. Scenarios
      (1) Trauma arrest
      (2) Medical arrest
      (3) Ventricular fibrillation
      (4) Ventricular tachycardia
      (5) Asystole
      (6) Pulseless electrical activity
      (7) Termination of resuscitation
      (8) No resuscitation indicated
3. Abdominal pain
   a. Scenarios
      (1) Acute abdominal pain
4. GI bleeding
   a. Scenarios
      (1) Upper GI bleeding
      (2) Lower GI bleeding
5. Altered mental status
   a. Scenarios
      (1) Alcohol overdose
      (2) Drug ingestion/ overdose
      (3) Seizure
      (4) Hypoglycemia
      (5) Stroke
      (6) Head injury
6. Dyspnea
   a. Scenarios
      (1) Asthma/ acute bronchospasm
      (2) Acute pulmonary edema/ left heart failure
      (3) Hyperventilation syndrome/ carpo-pedal spasm
      (4) Smoke/toxic inhalation
7. Syncope
8. Trauma
   a. Scenarios
      (1) Isolated extremity fracture (tibia/ fibula or radius/ ulna)
      (2) Femur fracture (hip, mid-shaft, supra-condylar)
      (3) Spinal injuries
      (4) Multiple trauma-blunt
      (5) Penetrating trauma
      (6) Impaled object
      (7) Elderly fall
      (8) Athletic injury
      (9) Head injury
9. Allergic reactions/ bites/ envenomation
   a. Scenarios
      (1) Medication reactions

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(2) Insect stings
(3) Animal/ human bite

10. Pediatric
    a. Scenarios
        (1) Respiratory distress/ failure/ arrest
        (2) Shock
        (3) Cardiopulmonary failure/ arrest
        (4) Major trauma
        (5) Fever
        (6) Seizures

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