

Emergency

Care and Transportation of the Sick and Injured



Section 1: Preparing to be an EMT-B

2: The Well-Being of the EMT-B

Cognitive Objectives (1 of 3)

- 1-2.1 List possible emotional reactions that an EMT-B may experience.
- 1-2.2 Discuss reactions that family members may experience when confronted with death and dying.
- 1-2.3 State the steps in the EMT-Basic's approach to the family confronted with death and dying.

Cognitive Objectives (2 of 3)

- 1-2.4 State the possible reactions that the family of an EMT-Basic may exhibit due to their outside involvement in EMS.
- 1-2.5 Recognize signs and symptoms of critical incident stress.
- 1-2.6 State possible steps that the EMT-Basic may take to help reduce/alleviate stress.
- 1-2.7 Explain the need to determine scene safety.

Cognitive Objectives (3 of 3)

- 1-2.8 Discuss the importance of body substance isolation (BSI).
- 1-2.9 Describe the steps the EMT-Basic should take for personal protection from airborne and bloodborne pathogens.
- 1-2.10 List the personal protective equipment necessary for each of the following situations:
 - Hazardous materials
 - Rescue operations
 - Violent scenes
 - Crime scenes
 - Exposure to bloodborne pathogens
 - Exposure to airborne pathogens.

Affective Objective

- 1-2.11 Explain the rationale for serving as an advocate for the use of appropriate protective equipment.

Psychomotor Objectives

- 1-2.12 Given a scenario with potential infectious exposure, the EMT-Basic will use appropriate personal protective equipment. At the completion of the scenario, the EMT-Basic will properly remove and discard the protective garments.
- 1-2.13 Given the above scenario, the EMT-Basic will complete disinfection/cleaning and all reporting documentation.

Additional Objectives Cognitive (1 of 3)

1. Describe the various ways by which communicable diseases can be transmitted from one person to another.
2. Define the term “universal precautions” and describe when it is appropriate to use such measures.
3. Identify appropriate task-specific personal protective equipment.

Additional Objectives - Cognitive (2 of 3)

4. Identify possible occupational diseases and methods of risk assessment.
5. Identify the role of a testing and immunization program in protecting the EMT-B from communicable diseases.
6. Identify the benefits of an exposure control plan.
7. Identify how the following diseases are transmitted and discuss the steps to take to prevent and/or deal with an exposure to each: hepatitis, meningitis, tuberculosis, HIV/AIDS.

Additional Objectives - Cognitive (3 of 3)

8. List the mechanisms of disease transmission.
9. List the components of postexposure management and reporting.
10. Discuss importance of obtaining a patient's history and assessment findings to identify possible communicable diseases.

Affective

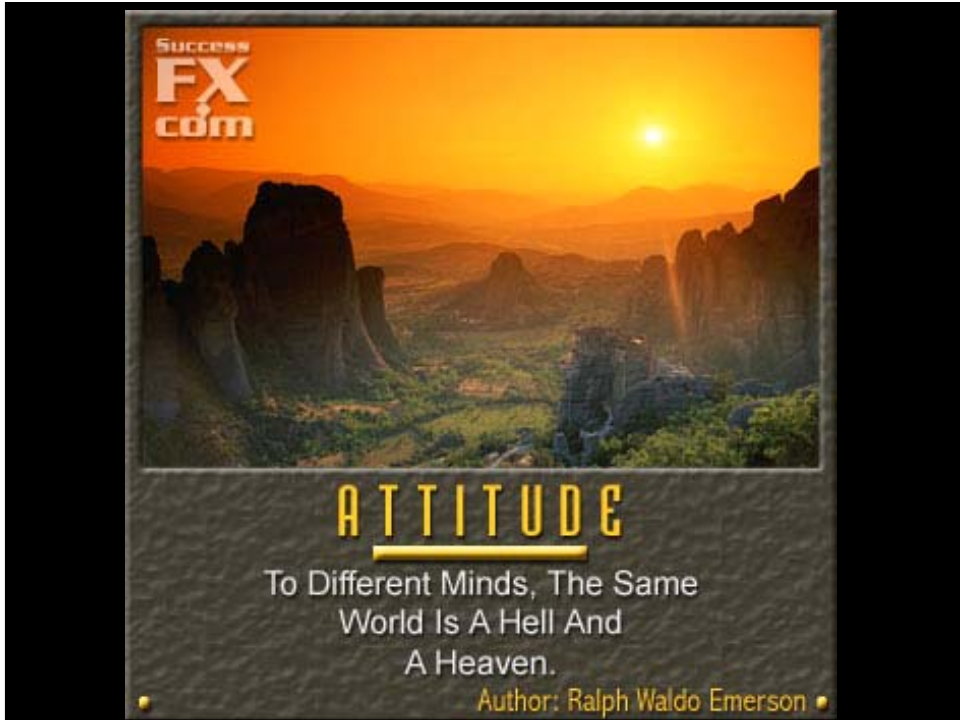
11. Explain the duty to care for patients with communicable diseases.
- These are noncurriculum objectives.

The Well-Being of the EMT-B

- Personal health, safety, and well-being are vital to an EMS operation.
- Hazards vary greatly.
- Mental and physical stresses are part of the job.

Self-Control

- Is achieved through:
 - Proper training
 - Experience
 - Strategies to cope with stress
 - Dedication to serving others



Emotional Aspects of Emergency Care

- Even the most experienced providers have difficulty overcoming personal reactions.
- Emotions must be kept under control at the scene.

Death and Dying (1 of 2)

- Changes in society have altered people's attitudes toward death.
- Few people have actually witnessed a death.
- Life expectancy has increased.

Death and Dying (2 of 2)

- Death is something you will have to face.
- Coming to grips with death is part of delivering care.

The Grieving Process

1. Denial: Refusal to accept
2. Anger: Blaming others
3. Bargaining: Promising to change
4. Depression: Openly expressing grief
5. Acceptance: The simple “yes”

What Can an EMT-B Do?

- Provide gentle, caring support.
- Make helpful statements and comments.
- Be yourself and sincere.
- Understand that grief is a process that must be worked through.

Dealing With Family Members

- Be calm. Family members may express rage, anger, and despair.
- Use a gentle tone of voice and a reassuring touch, if appropriate.
- Respect the family's wishes and privacy.
- Do not create false hope.

Initial Care of the Dying, Critically Ill, or Injured Patient

- Anxiety
- Pain and fear
- Anger and hostility
- Depression
- Dependency
- Guilt
- Mental health problems
- Receiving unrelated bad news

Caring for Critically Ill and Injured Patients (1 of 2)

- Avoid sad and grim comments.
- Orient the patient.
- Be honest.

Caring for Critically Ill and Injured Patients (2 of 2)

- Acknowledge the seriousness of the condition.
- Allow for hope.
- Locate and notify family members.

Injured and Critically Ill Children

- Basic treatments remain the same.
- Consider variations between children and adults.
- Being accompanied by a relative may relieve the child's anxiety.

Dealing With the Death of a Child

- A child's death is a tragic event for both EMT-Bs and the family.
- How the family deals with the death will affect its stability.
- EMT-B is responsible for helping the family.

Helping the Family

- Acknowledge the fact of the child's death in a private place.
- Tell the parents that they may see their child.
- Do not overload the parents with information.
- Parents should be encouraged to talk about their feelings.

Stressful Situations

- Mass-casualty situations
- Infant and child trauma
- Amputations
- Abuse
- Death or injury of a coworker

Factors Affecting Patient Reactions to Stressful Situations

- Fear of medical personnel
- Alcohol/substance abuse
- Chronic diseases
- Mental disorders
- Medication reactions
- Age
- Nutritional status
- Guilt feelings
- Past experience

Uncertain Situations

- When uncertain if the patient's condition is an emergency, contact medical control.
- Minor symptoms may be early signs of severe illness or injury.
- When in doubt, err on the side of caution.

Stress Warning Signs and the Work Environment

- EMS is a high-stress job.
 - Understand the causes of stress.
 - Prevent stress from negatively affecting you.

Physiological Manifestations of the Fight-or-Flight Response (1 of 2)

- Rise in respirations and pulse
- Increase in blood pressure
- Cool, clammy skin
- Dilated pupils

Physiological Manifestations of the Fight-or-Flight Response (2 of 2)

- Tensed muscles
- Increase blood glucose levels
- Perspiration
- Decreased circulation to GI tract

Physical Symptoms of Stress

- Fatigue
- Changes in appetite
- Headaches
- Insomnia/hypersomnia
- Irritability

Psychological Reactions to Stress

- Fear
- Depression
- Anger
- Frustration



Critical Incidents

- Mass-casualty incidents
- Traumatic injury or death of child
- Automobile crash caused by EMS personnel
- Serious injury or death of coworker



Signs & Symptoms of Posttraumatic Stress Disorder

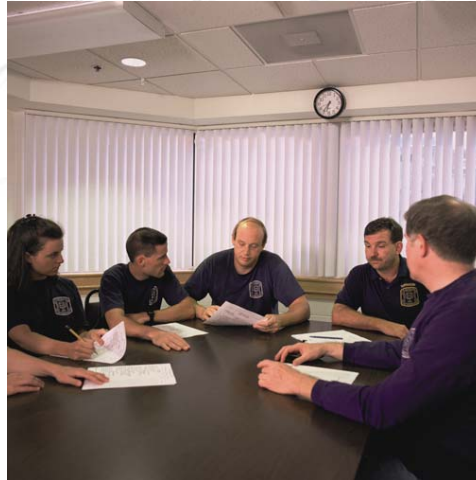
- Depression
- Startle reactions
- Flashback phenomena
- Amnesia of event

Critical Incident Stress Management

- Confronts responses to critical incidents and defuses them
- Process designed to help EMS personnel deal with responses to critical incidents
- Composed of trained peers and mental health professionals

Components of CISM System (1 of 2)

- Preincident stress education
- On-scene peer support
- Disaster support services
- Defusings



Components of CISM System (2 of 2)

- CISD
- Follow-up services
- Spouse and family support
- Community outreach programs
- Other wellness programs

Critical Incident Stress Debriefing (CISD)

- Held within 24 to 72 hours of a major incident
- All information is confidential.
- CISD leaders and mental health personnel offer suggestions for overcoming the stress.

Stress Management

- There are positive and negative ways of handling stress.
- Stress is unavoidable.
- Understand the effects of stress.
- Find balance in life.

Strategies to Manage Stress (1 of 2)

- Change or eliminate stressors.
- Change partners to avoid negative or hostile personality.
- Stop complaining or worrying about things you cannot change.
- Expand your social support system.

Strategies to Manage Stress (2 of 2)

- Minimize the physical response by:
 - Taking a deep breath
 - Stretching
 - Regular physical exercise
 - Progressive muscle relaxation

Stress and Nutrition (1 of 3)

- Prolonged stress drains the body's reserves.
- Under stress, body's fuel sources are consumed in large quantities.



Stress and Nutrition (2 of 3)

- Glucose
 - Quickest source of energy
 - Taken from glycogen stored in liver
- Proteins
 - Drawn from muscles
 - Long-term source of glucose

Stress and Nutrition (3 of 3)

- Fats
 - Used by tissues for energy
- Water
 - Conserved by retaining sodium
- Vitamins and minerals
 - Depletes vitamins B, C, and most minerals that are not stored in large amounts by the body

Benefits of Exercise & Proper Nutrition

- Muscles will grow and retain protein.
- Bones store calcium and become stronger.
- Well-balanced meals provide necessary nutrients to body.



Workplace Issues

- Cultural diversity
- Your effectiveness as an EMT-B
- Avoiding sexual harassment
- Substance abuse

Scene Safety and Personal Protection

- Prepare yourself when dispatched.
- Wear seat belts and shoulder harnesses.
- Ensure scene is well marked.
- Check vehicle stability.



Communicable Diseases

- A disease transmitted from one person to another
- Minimize risk of contracting disease with proper protection

Routes of Transmission

- Direct
 - Being sneezed on
- Vehicle (indirect)
 - Touching contaminated linen
- Vector-borne
 - Bitten by a tick
- Airborne
 - Inhaling contaminated droplets

Common Terms (1 of 2)

- Exposure
 - Contact with blood, bodily fluids, tissues, or airborne droplets directly or indirectly
- Universal precautions
 - Protective measures developed by the CDC to prevent workers from direct or indirect contact with germs

Common Terms (2 of 2)

- Body substance isolation (BSI)
 - Infection control techniques based on the assumption that all bodily fluids are infectious
- Exposure control plan
 - Comprehensive plan to reduce the risk of exposure

Body Substance Isolation (BSI)

- Handwashing
- Gloves and eye protection
- Mask and gowns
- Proper disposal of sharps

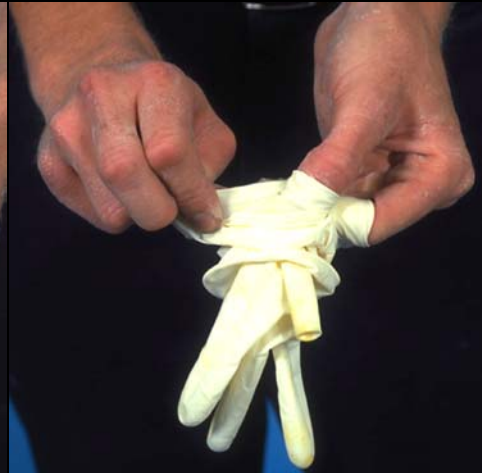


Partially remove
the first glove

Remove the
second glove



Pull the second glove inside out toward the fingertips



Grasp both gloves with your free hand, touching only the interior surfaces

Reducing Risk of Infection

- Follow the exposure control plan.
- Always follow BSI precautions.
- Always use a barrier between you and the patient.
- Be careful when handling needles.
- Always wash your hands.
- Make sure all immunizations are current.

Immunizations

- Recommended:
 - Tetanus-diphtheria boosters (every 10 years)
 - Measles, mumps, rubella (MMR)
 - Influenza vaccine (yearly)
 - Hepatitis B vaccine

Duty to Act

- The EMT-B cannot deny act to a patient with a suspected communicable disease, even if the patient poses a risk to safety.
- To deny care is considered abandonment or breach of duty; the EMT-B may also be considered negligent.

Diseases of Special Concern (1 of 4)

- HIV infection
 - Infection that causes AIDS
 - Currently has no vaccine
 - Not easily transmitted in work setting
 - Can be transmitted to a rescuer from a contaminated needle

Diseases of Special Concern (2 of 4)

- Hepatitis
 - Hepatitis results in inflammation of the liver.
 - Hepatitis B and C are transmitted through blood contact.
 - A person that carries the disease can appear healthy.
 - Vaccinations are available and recommended for EMS providers.

Diseases of Special Concern (3 of 4)

- Meningitis
 - Inflammation to the lining of the brain
 - Can be caused by viruses or bacteria
 - Usually not contagious except for *Meningococcus meningitidis*
 - Wear gloves and masks.
 - Notify a physician, if exposure suspected.

Diseases of Special Concern (4 of 4)

- Tuberculosis
 - Bacterial disease affecting the lungs
 - Detected by screening
 - Recovery 100% if identified and treated early
 - Notify supervisor of suspected exposure.

Other Diseases Causing Concern (1 of 2)

- Syphilis
 - Can be a bloodborne disease
 - May result from needle stick
- Whooping Cough
 - Airborne disease caused by bacteria
 - Usually occurs in children
 - Wear a mask to avoid exposure

Other Diseases Causing Concern (2 of 2)

- Newly recognized diseases
 - *Escherichia coli*
 - Hantavirus
 - Severe acute respiratory syndrome (SARS)

General Post Exposure Management

- Ryan White Law requires notification of exposure.
- You should be screened immediately after any exposure.
- All exposures need to be reported to company's designated officer.

Establishing an Infection Control Routine

- Make infection control procedures a part of your daily routine.
- Routinely clean the ambulance after each run.
- Properly dispose of medical waste.
- Remove contaminated linen.

Scene Hazards

- Hazardous materials
 - Never approach an object marked with placards.
- Electricity
 - Do not touch downed power lines.
 - Recognize the signs before a lightning strike.
- Fire
 - Do not approach unless trained and protected.

Hazardous Materials Safety Placards



Protective Clothing (1 of 3)

- Cold weather clothing
 - Should have three layers
- Turnout gear
 - Provides head-to-toe protection
- Gloves
 - Type depends on job being performed



Protective Clothing (2 of 3)

- Helmets
 - Must be worn in any fall zone
- Boots
 - Should protect the feet, fit well, and be flexible



Protective Clothing (3 of 3)

- Eye and ear protection
 - Should be used on rescue operations
- Skin protection
 - Use sun block when working outdoors.
- Body Armor
 - Worn by EMS responders in some areas for personal protection

Violent Situations

- Civil disturbances
- Domestic disputes
- Crime scenes
- Large gatherings

Safety

- If personal safety is in doubt, do not place yourself at risk.



Behavioral Emergencies

- Determinants of violence
 - Past history
 - Posture
 - Vocal activity
 - Physical activity