Chapter 2

Well-Being of the EMT

Learning Objectives

- Explain need to maintain personal wellness
- Explain need to determine scene safety
- Discuss how to reduce chance of occupational injury

Learning Objectives

- Discuss importance of BSI
- Describe steps EMT should take for personal protection, airborne, bloodborne pathogens
Learning Objectives

- List PPE necessary for:
  - Exposure to airborne pathogens
  - Exposure to bloodborne pathogens
  - Hazardous materials
  - Rescue operations
  - Violent scenes
  - Crime scenes

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Learning Objectives

- Recognize signs, symptoms of critical incident stress

- List possible emotional reactions EMTs may experience when faced with trauma, illness, death, dying

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Learning Objectives

- State possible emotional reactions EMTs may exhibit as result of outside involvement in EMS

- State possible reactions that family of EMTs may take to help reduce/alleviate stress

- Describe steps in the EMT’s approach to family confronted with death, dying
Introduction

- Stress
- Physical hazards
  - Communicable disease
  - Hazardous materials
  - Threats of violence
  - Lifting, moving
- Physical risks

Wellness

- Positive being, health, enjoyment of life
- Mental, physical, spiritual health, leads to positive interactions

Scene Safety

- Must be first concern
- Assistance from other agency & PPE required:
  - Hazmat incidents
  - Rescue operations
  - Violent scenes
  - Exposure to contagious diseases
Scene Safety
- Ambulance safety
  - Most common EMT cause of death – motor vehicle collision (MVC)
- Most common injuries
  - Sprains
  - Strains
  - Tears
- Most commonly injured body part - back

Understanding Communicable Diseases
- Contagious diseases
  - Need 3 elements to spread
    - Source
    - Host
    - Transmission

Understanding Communicable Diseases
- Infection control
  - Precautions taken to prevent spread of infectious diseases
  - CDC guidelines
  - OSHA guidelines
Understanding Communicable Diseases

- Infectious agents
  - Toxic microorganisms
    - Bacteria
    - Viruses
    - Fungi
    - Parasites
  - Pathogens

Understanding Communicable Diseases

- Spread of communicable diseases
  - Reservoir
  - Infection
    - Incubation period
    - Communicable period
    - Carrier
    - Exposure
  - Mode of transmission
    - Contact
    - Droplet
    - Airborne
    - Vehicle
    - Vector
  - Type, duration of contact are factors

Common Modes of Transmission
Understanding Communicable Diseases

Transmission & infection control

- Practice objective
  - Body fluid, secretions, excretions importance in transmission
  - Airborne, droplet, contact prevention precautions
- Standard precautions
  - Universal precautions
  - BSI

Transmission-based precautions

- Additional precaution for documented/suspected highly-transmittable disease

Factors affecting precautions

- Resistance, immunity lessen chance of infections
- Vaccination against immunity
- Passive immunity

High-risk individuals

- Poor health status
- Compromised immune system
- Damaged natural barriers
- Had significant exposure
- EMTs can infect patients
Understanding Communicable Diseases

- Transmission & infection control
- Specific communicable diseases
  - Infection, infectious disease
  - Bacterial pneumonia, upper respiratory infection
  - Tuberculosis
  - Kidney infection
  - Meningitis

Understanding Communicable Diseases

- Transmission & infection control
- Bloodborne diseases
  - Transmitted by contact with blood carrying infectious agents
  - Always use standard precautions

Understanding Communicable Diseases

- Transmission & infection control
- Bloodborne diseases
  - AIDS
    - Defect of cell-mediated immunity
    - Susceptible to unusual infections
    - HIV virus causes AIDS
    - Use standard precautions for all patients
    - Modes of transmission
Understanding Communicable Diseases

- Transmission & infection control
  - Bloodborne diseases
    - Hepatitis
      - Infection of the liver caused by different types of viruses
      - Hepatitis A
      - Hepatitis B
      - Hepatitis C

- Transmission & infection control
  - Respiratory secretions, airborne exposures
    - Meningitis
      - Infection of meninges
      - Can occur with/after respiratory infection
      - Fever, headache, stiff neck, AMS
      - Postexposure antibiotics after unprotected contact

- Transmission & infection control
  - Respiratory secretions, airborne exposures
    - Chickenpox
      - Caused by varicella virus
      - Highly contagious
      - Spread through air
Understanding Communicable Diseases

Chickenpox

- Transmission & infection control
  - Respiratory secretions, airborne exposures
    - “Shingles”/Zoster
      - Caused by varicella virus
      - Previously had chickenpox
      - Distribution of pain, along solitary nerve route
      - Flat, red lesions, quickly become fluid-filled, scab

Measles

- Transmission & infection control
  - Respiratory secretions, airborne exposures
    - Measles
      - Spread
      - Prevent spread
Understanding Communicable Diseases

Transmission & infection control
  - Respiratory secretions, airborne exposures
    - Rubella "German measles"
      - Spread
      - Immunization
  - Tuberculosis
    - Great concern - AIDS
    - Spread by droplet/airborne transmission
    - Give patient mask
    - Wear high efficiency particulate air (HEPA) mask
Understanding Communicable Diseases

Transmission & infection control

- Close contact
  - Lice & scabies, same treatment

Multidrug-resistant infections

- Use standard precautions, contact precautions before entering environment
  - Hospitalized, nursing home patients
  - Pathogen resistant to multiple antibiotics
Understanding Communicable Diseases

- Infection control
  - Personal health status
    - Physical examination
    - Up-to-date immunizations
    - Do not work with contagious illness
  - Personal health & safety education
    - Ongoing personal health, safety program

Understanding Communicable Disease

- Infection control
  - Blocking spread of infection
    - Most important
      - Hand washing

Understanding Communicable Disease

- Infection control
  - Blocking spread of infection
    - Aseptic technique
    - Universal precautions
    - Personal Protective Equipment
    - Masks, eye protection, gowns
    - Needles, sharps
    - Isolation, patient placement
Understanding Communicable Disease

● Infection control
  ➢ Blocking spread of infection
    • Decontamination, cleaning
      ➢ Blood spills cleaned ASAP
      ➢ Gloves, boots over shoes, PPE
      ➢ Red plastic bag, dispose of soiled disposable towels
      ➢ Clean surface (1:100 to 1:10 solution)
        bleach/germicide, air-dry area
      ➢ After cleaning, remove coverings, gloves, place in plastic bag

Understanding Communicable Disease

● Infection control
  ➢ Blocking spread of infection
    • Decontamination, cleaning (continued)
      ➢ Fold/roll linen, place in plastic/cloth bag for laundering
      ➢ Wash with detergent, bleach using laundering recommendations
      ➢ Dry-cleaning also effective
      ➢ Waste material disposed of according to regulations
      ➢ Wash hands

Understanding Communicable Diseases

● Infection control
  ➢ Blocking spread of infection
    • Standard precautions
      ➢ Incorporate universal precautions
      ➢ Apply to all patients
    • Transmission-based precautions
      ➢ In addition to standard precautions for patients who have or are suspected to have highly transmissible disease
Understanding Communicable Disease

- Infection control
  - Blocking spread of infection
    - Contact precautions
      - Use when known, suspected infection/items carrying microorganisms transmitted
      - Gloves before entering environment
      - Gown if clothing may come in contact
      - Use single-use equipment

- Infection control
  - Droplet precautions
    - In addition to standard precautions
    - Mask, protective eyewear when working within 3 feet of patient
    - Use single-use equipment

- Infection control
  - Airborne precautions
    - Use when suspected TB, varicella, rubeola
    - Wear HEPA respirator when entering room/transporting
    - Surgical mask on patient
    - Alert ED for airborne precautions before arrival
Understanding Communicable Disease

- Infection control
  - Blocking spread of infection
    - Post-exposure follow-up
    - File report with agency
    - Inform infection control officer

Understanding Communicable Disease

- Pandemic flu
  - Widespread epidemic
    - Little preexisting immunity
    - Causes illness, potential for sustained transmission, person-to-person

Hazardous Situations

- Personal safety threatened
  - Heavy rescue, hazmat, fire, threat of explosion, electrical hazard, threat of violence
  - Alerted by dispatch of potential threats
  - Provide care after scene safe, patient removed
  - Primary role - to know when, how to use appropriate PPE to allow safe access/treatment to patient
  - Ensure safety of self, rescuers, bystanders, then patient
Hazardous Situations

- Identification of potentially life-threatening situations
  - Rescue scene risks
    - Falling debris
    - Unstable structures
    - Vehicles likely to roll over
    - Sharp objects
  - Potential threats
    - Electricity
    - Fire
    - Explosion
    - Hazmat

Hazardous Situations

- Protective clothing
  - Rescue scenes
    - Prevent injury
      - Turnout gear
      - Puncture-proof gloves
      - Helmets
      - Protective eyewear

Hazardous Situations

- Protective clothing
  - Rescue scenes
    - Hazardous materials
      - Personal safety, 1st concern
      - Position yourself uphill from incident
      - Stay safe distance away
      - Identify hazard from safe distance
      - Mark off area
      - Call for help
      - Wear full turnout gear
      - May need self-contained breathing apparatus (SCBA), /chemical protective clothing
Hazardous Situations

- Protective clothing
  - Rescue scenes
    - Scene safety at hazmat incident
    - Observe from distance
    - Look for smoke
    - Listen for noises indicating leak
    - Odor - relocate upwind
    - Look for placard

- Violent scenes
  - 1st concern - personal safety
  - Ensure scene controlled by law enforcement before providing patient care
  - Restrain violent patients who are threat to themselves/others

- Crime scenes
  - Do not disturb evidence more than necessary
  - Maintain, document chain of evidence
Stress Management

- Stressful situations
  - Critical incidents
    - Debriefing recommended, participate in disaster rescues
    - Abuse cases - allow patient to regain control

Stress Management

- Stressful situations
  - Critical incidents

Stress Management

- Warning signs of stress
  - Helplessness, sadness
  - Inadequacy
  - Embarrassment/guilt
  - Failure
  - Overly clinical
  - Make inappropriate remarks
  - Relieve tension with humor
  - Misuse drugs, alcohol
Stress Management
- Balancing work, personal life
  - Mental, physical, spiritual needs
  - Necessary lifestyle changes
  - Diet low in fat, high in complex carbohydrates
  - Decrease tension
  - Maintain other interests, hobbies
  - Family
  - Professional counseling may help

Critical Incident Stress Management
- Critical incident stress
  - Acknowledge danger as hazard you face in field
  - Denial of needs causes unintended consequences that affect health, family, career
  - Take advantage of comprehensive critical incident stress management in region

Critical Incident Stress Management
- Preincident stress education
  - Nature of emergency stress
    - Learn signs/symptoms of cumulative stress, critical incident stress
    - Home, family life stress
    - Physical, emotional, cognitive symptoms awareness
Critical Incident Stress Management

- Preincident stress education teaches:
  - Awareness of physical, emotional, cognitive symptoms that can occur
  - Importance of recognizing, talking about feelings, specific action steps to lesson symptoms
  - How to develop positive attitude toward managing stress symptoms
  - Action steps for immediate, long-term stress management

Critical Incident Stress Management

- On-scene support
  - To identify, assist distress workers with stress reaction
  - Mental health professionals with specialized training provide support
  - Peer support, trained in critical incident stress management

Critical Incident Stress Management

- One-on-one support
  - Identify, assist workers with stress reaction
  - Mental health professionals
  - Peer support
Critical Incident Stress Management

- **Defusing**
  - Early intervention at scene/shortly after
  - Stops negative stress process
  - Defusing process – approximately 30 minutes

Critical Incident Stress Management

- **Critical Incident Stress Debriefing (CISD)**
  - Immediately deals with feelings that cause long-term emotional harm
  - Intervention immediate
  - Confidential
  - Know local CISD resources

Critical Incident Stress Management

- **Follow-up services**
  - Keep close watch on all concerned personnel following incident
  - Referral
    - Additional counseling may be necessary for some responders
Critical Incident Stress Management

- Follow-up services
  - Disaster support services
    - Resources needed to maintain disaster scene activity, long-term recovery
    - Federal, local agencies supply
    - Spouse, family support

Critical Incident Stress Management

- Follow-up services
  - Disaster support services
    - Community outreach programs
    - Other health, welfare programs

Terminal Illness & Death

- Allow patient to express feelings
- Do not contradict if patient indicates death imminent
- Do not offer false assurance
Terminal Illness & Death

- Listen empathetically
- Provide patient with respect, privacy, dignity, sense of control

Terminal Illness & Death

- Five stages of grief
  - Denial
  - Anger
  - Bargaining
  - Depression
  - Acceptance

Terminal Illness & Death

- Assess patient, family’s knowledge of condition
- Allow family to travel with patient
- If family refuses treatment, contact medical direction for guidance
- Patient can revoke executed DNR orders, change living will when faced with death
Terminal Illness & Death
- In unexpected deaths, suicides, family reaction strong
  - Disbelief
  - Guilt
  - Be supportive, not judgmental

Summary
- 1st priority - scene safety; anticipate need for assistance with hazmat incidents, rescue, violent/crime scene
- Ambulance fatalities mostly occur in patient compartment
- Use BSI & PPE appropriately

Summary
- Wear HEPA respirator for protection from airborne-transmitted pathogens
- Droplet-spread protection - face mask & face shield, eyewear
- Infection spread by contact - gloves, eye protection, masks, gowns
Summary

- Contact transmission precautions used for other nonbloodborne infections
- Standard precautions used for every patient
- Use turnout gear, hazmat suits as needed

Summary

- Stress warning signs include:
  - Irritability
  - Sleep difficulty
  - Anxiety
  - Guilt
  - Indecisiveness
  - Appetite loss
  - Sex disinterest
  - Isolation
  - Alcohol/drug misuse

Summary

- Family may lack understanding for EMT stress
- Manage stress by recognizing signs, making lifestyle changes, balancing work & life, seeking support as needed
- After trauma, illness, death, EMT might experience guilt, helplessness, inadequacy, target of patient’s/family’s anger/blame
Summary

- When confronted with death/dying, family member may exhibit disbelief, guilt, grief, blame, anger, denial, withdrawal, physical reactions
- EMT must respect need for dignity, communication, privacy of family

Questions?