CHAPTER 14
Safety

Safe Environment

• This implies freedom from injury with a focus on preventing falls, electrical injuries, fires, burns, and poisoning.
• The PT must be aware of potential safety problems and must know how to report and respond when safety is threatened.
• The responsibility for providing and maintaining a safe environment involves the patient, visitors, and members of the health care team.
• Both protection and education are primary nursing responsibilities.

Safe Environment

• Left-Handed Patient
  • The typical hospital room environment is set up to accommodate the right-handed patient.
  • Left-handed patients may struggle and strain to cope by contorting the body, which creates a "risk for injury" situation.
  • The discerning PT will document in the patient’s record the fact that the patient is left-handed.
Safe Environment

• Safety Features for the Left-Handed Patient
  • Place all bathing articles at the patient’s left.
  • Allow patient to turn to the right during back care.
  • Place the drainage receptacle for the indwelling catheter to patient’s left.
  • Arrange meal trays by placing liquids on the left side.
  • When ambulating, walk to the patient’s left side.
  • Allow more time for the patient to master skills.
  • Adjust the patient’s environment by placing bed stand, table, and call light to the patient’s left.

Safe Environment

• Falls
  • The majority of patient falls occur during transfer either to a bedside commode or to a wheelchair.
  • High risk
    • The very young
    • Older adults
    • Individuals who become ill or who are injured
  • Unfamiliar environment and various symptoms and signs associated with the patient’s diagnosis may also place the individual at risk.

Safe Environment

• Falls (continued)
  • Gait belts
    • This is an added safety feature in ambulating patients.
    • Apply gait belt securely around patient’s waist.
    • Walk to the side of the patient, one arm around waist and hand on the belt. Walk on the weaker side.
    • Patient can support him- or herself by leaning or holding onto PT’s arm.
    • PT should walk with his or her closest leg just behind the patient’s knee.
    • Walk with knees and hips flexed.
Safe Environment

- Older Adults
  - Changes associated with aging significantly affect the ability of older adults to protect themselves from injury.
    - Unsteadiness in gait causes falls.
    - Vision changes may affect the ability to see the height of stairs.
    - Vertigo may occur due to disease and/or medications.

Hospital/Health Care Environment

- The hospital environment is a source of potential safety hazards for health care workers.
  - Biologic, chemical, and physical hazards
  - Laser
  - Blood and body fluids
  - Contaminated needles
  - Radiation
  - Vaccine-preventable diseases

Hospital/Health Care Environment

- National Institute for Occupational Safety and Health (NIOSH)
  - Focuses on safety and issues related to health
- Hazard Communication Act of the Occupational Safety and Health Administration (OSHA)
  - A national organization that provides guidelines to help reduce safety hazards in the workplace
  - Requires hospitals to inform employees about the presence of or potential for harmful exposures and how to reduce the risk of exposure
Hospital/Health Care Environment

- Centers for Disease Control and Prevention (CDC)
  - A federal agency that provides facilities and services for the investigation, identification, prevention, and control of disease
  - Provides guidelines for working with infected patients

Applying Safety Reminder Devices

- Safety reminder device (SRD)
  - Any one of numerous devices used to immobilize a patient or part of the patient's body, such as arms or hands
- Used for various reasons
  - Patient safety
  - Maintain treatment
  - Prevent wandering
  - Prevent or reduce the risk of falls
  - Restrict movement of an aggressive patient to protect other patients and staff

Skill 14-1: Step 6a(3)


Applying safety reminder devices.
Skill 14-1: Step 6a(4)

Applying safety reminder devices.


Skill 14-1: Step 6c(2)

Applying safety reminder devices.


Skill 14-1: Step 6c(4)

Applying safety reminder devices.

Ensuring Fire Safety

- Fires in the health care facilities are often related to smoking in bed or faulty electrical equipment.
- An established fire safety program is mandatory for all health care facilities.
- Fire prevention includes good housekeeping, maintenance, and employee discipline.
- All employees should know the telephone number and procedure for reporting a fire, as well as the location of the nearest firefighting equipment.
- Health care workers must know their roles in the overall evacuation plan.

Ensuring Fire Safety

- Types of Fire Extinguishers
  - Type A
    - For paper, wood, or cloth fires
  - Type B
    - For flammable liquid fires—grease and anesthetics
  - Type C
    - For electrical
  - Type ABC
    - For any type of fire
Ensuring Fire Safety

- Use the mnemonic RACE to set priorities in case of fire
  - R — Rescue and remove all patients in immediate danger.
  - A — Activate the alarm.
  - C — Confine the fire.
  - E — Extinguish the fire using an extinguisher.

Disaster Planning

- Disaster Situation
  - An uncontrolled, unexpected, psychologically shocking event
  - Earthquakes, hurricanes, floods, tornados, bombings, arson, riots, and hostage-taking
  - Health care facilities expected to receive victims and survivors and to assist rescuers

Disaster Planning

- External or Internal Disaster
  - External disaster originates outside the health care facility and results in an influx of casualties brought to the facility.
  - Internal disaster represents an extraordinary situation that is brought about by events within the health care facility.
Disaster Planning

- Disaster planning represents the means by which health care facilities and personnel meet the responsibilities associated with managing the disaster.
- Disaster Manual
  - Specifies departmental responsibilities; chain of command; callback procedures; assignment procedure; patient evacuation procedure and routes; procedures for the receipt and management of casualties; and policies related to the overall management of supplies and equipment.

Accidental Poisoning

- Hospitalized patients and those in other types of health care facilities can be at risk for accidental poisoning because there are many poisonous substances in the environment.
  - Cleaning solutions
  - Disinfectants
  - Drugs

Accidental Poisoning

- Preventing Poisoning
  - Remove toxic agents from areas where poisoning could occur.
  - Toxic or poisonous substances should not be removed from their original containers.
  - Poisonous substances should be labeled conspicuously and stored appropriately.
  - Poison control centers are valuable sources of information when poisoning is suspected or does occur.
Terrorism/Bioterrorism

- Terrorism
  - A new potential environmental health threat is the possibility of a terrorist attack.
    - Biological, chemical, or nuclear weapons
- Bioterrorism
  - This is the use of biological agents to create fear and threat.
  - Health care facilities must be prepared to treat mass casualties from an attack.

Terrorism/Bioterrorism

- Bioterrorism
  - Bioterrorist Attacks
    - If an attack occurs, it will most likely involve the use of biological agents such as anthrax, botulism, smallpox, or bubonic plague.
    - Biological attacks may be either overt (announced) or covert (unannounced).

Terrorism/Bioterrorism

- Terrorism by Nuclear Exposure
  - Attack on a domestic nuclear weapon facility
    - “Dirty bomb”
  - Source of radiation on the contaminated patient: on the body or clothing, ingested, or absorbed through a skin opening
    - Less than 0.75 Gy absorbed: usually no symptoms
    - More than 8 Gy absorbed: fatal
Terrorism/Bioterrorism

- Terrorism by Nuclear Exposure
  - More than 0.75 Gy absorbed: can develop acute radiation syndrome
    - Hematopoietic: deficiency of WBCs and platelets
    - Gastrointestinal: loss of mucosal barrier and cells lining the intestine
    - Cerebrovascular/central nervous system: cerebral edema, hyperpyrexia, hypotension, confusion, and disorientation
    - Skin: loss of epidermis and possibly the dermis