CH 21: PATIENT ENVIORNMENT AND SAFETY

OBEJECTIVE: THEORY

1. Discuss nursing responsibilities for environmental management
2. Identify common noises In health care facilities and ways to minimize their effects on patients and staff
3. Explain the relevance of neatness and order in the patients environment to safety and the healing process
4. Describe methods to prevent mechanical and thermal accidents and injury in health care facilities and the home.
5. Discuss the various forms of bioterrorism, safety measures to be taken, signs and symptoms of agents used, and measures to treat or contain the threat
6. Explain how to safely use a restraint or supportive device
7. Demonstrate knowledge of the legal implications of using restraints or supportive devices.

CLINICAL PRACTICE

1. DISCUSS HOW THE HEALTH CARE FACILITY'S ENVIRONMENT AFFECTS YOUR PATIENT

2. USING EVIDENCE-BASED TECHNIQUE, MAKE AN UNOCCUPIED AND AN OCCUPIED BED

3. EXPLAIN, ACCORDING TO THE FACILITY'S PROCEDURE, HOW TO CLEAN UP A BIOHAZARD SPILL

4. DISCUSS THE CLINICAL FACILITY'S RESPONSE PLAN TO A BIOTERRORISM THREAT

5. PRACTICE TRIAGING VICTIMS OF AN EMERGENCY SCENARIO

6. APPLY A SUPPORTIVE DEVICE CORRECTLY

SKILLS:

Skill 21.1-making an unoccupied bed

Skill 21.2-making an occupied bed

Skill 21.3- applying a restraint or supportive device

- THE ENVIRONMENT IS THE TOTAL OF ALL ELEMENTS AND CONDITIONS THAT SURROUNDS US AND INFLUENCE OUR DEVELOPMENT

THE GOAL IS TO ENSURE SAFETY WHILE MAKING THE PATIENT AS COMFORTABLE AS POSSIBLE

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FACTORS AFFECTING THE ENVIRONMENT PAGE 336

Temperature: Infants and older adults may need their rooms warmer than other patients due to thermoregulation.

Keep room temp between 68 F and 74 F

VENTILATION PAGE 336

- Ventilation is the process or act of supplying a building or room continuously with fresh air.
- Fans are discouraged because air currents spread microorganisms
- For some patients (those with transmissible respiratory diseases or burns) a negative airflow (maintain airflow into the room) room might be indicated.
- For other patients a positive airflow room might be needed. (operating room)

HUMIDITY PAGE 336

Humidity is the amount of moisture in the air. A range from 30% to 50% is normally comfortable.

Very low humidity dries skin and respiratory passages

Facilities maintain low humidity settings to discourage the growth of microorganisms.

LIGHTING

PAGE 336

A sunny, cheerful room can improve a patients sprits. Areas must have adequate lighting for tasks and to prevent accidents and injury. The light should be bright enough to see without glare and to avoid eyestrain and be soft to diffuse to prevent sharp shadows.

Clinical goldmine box page 336

ODOR CONTROL PAGE 336

Illness changes sensory perceptions. Odors that ordinarily are pleasant may make the patient feel nauseated. Good ventilation and cleanliness will effectively control odors.

BOX 21.1 odor control page 336

NOISE CONTROL PAGE 336

Noise is inevitable in health care facilities. Noise disturbs patient sleep, may increase blood pressure, and may interfere with healing.

Noise is a top complaint reported in patient satisfaction surveys, and Medicare bases reimbursement partially on patients satisfaction survey results. The main cause of noise is people! Direct staff to limit conversations in the hallway to speak in lowered voices.

Clinical goldmine box 336

Think critically box page 336

INTERIOR DESIGN

PAGE 337

THE GOAL IS TO PROVIDE A HOMELIKE ENVIORNMENT FOR THE PATIENT.

NEATNESS PAGE 337

It is important to provide a neat, tidy atmosphere for your patient. Keep the unit in enough order to be safe but not so rigid that the patient may not have possessions from home.

Straighten the patients room after making the bed. Remove old dishes and unused equipment promptly.

PRIVACY PAGE 337

Privacy is essential for a patients well-being.

ALWAYS knock gently and identify yourself before entering the room.

PATIENT UNIT

PAGE 337

BEDS:

A healthcare facility mattress is usually firm and has a covering that can be cleansed easily between patients.

The patient may use the rails to change position or to get out of bed.

You need to make certain that the mattress fits snugly to the rails and that the rails are close enough together so that the patients head is not able to fit through them.

Always check to be certain that the bed wheels are locked unless you are moving the bed.

Quality and safety box pg 337

Home care consideration box pg 337

BED MAKING:

An u**noccupied** bed is made when the patient is out of bed in the chair or out of the room for a walk, diagnostic procedure, or therapy.

An **occupied** bed is made only if the patient absolutely cannot be out of bed.

Bed linens should be taut and wrinkle-free. Linens that are rumpled may interfere with movement, place pressure on vulnerable skin areas, or cause the patient to fall when getting out of bed.

Box 21.2 Guidelines for bed making pg 344

SAFETY

PAGE 344

Hospital

- Identify patients correctly
- Improve staff communication
- Use medicines safely
- Use alarms safely
- Prevent infections
- Identify patient safety risks
- Improve health care equity
- Prevent mistakes in surgery

Nursing care center

- Identify patients correctly
- Use medicines safely
- Prevent infection
- Prevent patients from falling
- Prevent bed sores

SAFETY

PAGE 345

- The most common accidents among patients are falls, burns, cuts, and bruises. Fights with others, loss of personal possessions, choking, and electrical shock may also occur.

- BOX 21.3 Page 345

HAZARDS

PAGE 345

FALLS:

Falls are a safety hazard. The three most common factors that predispose a person to falls are impaired physical mobility, altered mental status, and sensory (poor hearing, poor vision) and/or motor deficits.

All patients and their environment must be assessed and periodically reassessed for the risk for falling.

An evaluation of the patients medications should be included in this assessment, as they are correlated with increased risk for falls.

Patients rooms should be clear of floor clutter, including spills, clutter and area rugs.

Fig 21.3 page 346

Lifespan consideration box pg 346

HAZARDS PAGE 345

Falls:

A patient at risk for falls is given a color-coded arm band to alert the staff of this increased risk.

Pressure alarms sense a change in position or pressure and sound an alarm to alert caregivers that patients are attempting to get out of bed or a chair. (fig 21.5)

Personal, cardiac, and oxygen sensor alarms are included as part of the national patient safety goal of improving the safety of clinical alarm systems.

Alarm fatigue occurs when nurses and other health care personnel become desensitized to patient care alarms and then miss or delay the response to this type of notification. These absent or delayed responses have resulted in adverse patient outcomes, including death!

Box 21.4 page 346

BURNS

PAGE 346

Thermal injuries may be caused by hot or cold materials. A person who has diabetes, impaired circulation, or paralysis, or who is taking medications that alter mental awareness, is at a higher risk for a burn injury than a person without pre-existing conditions. Why?

Check the temperature of oral liquids before giving them to the patient. Warn the patient if a food or drink is hot.

Inspect electrical cords for frayed or broken areas that may cause sparks or fires.

SMOKING

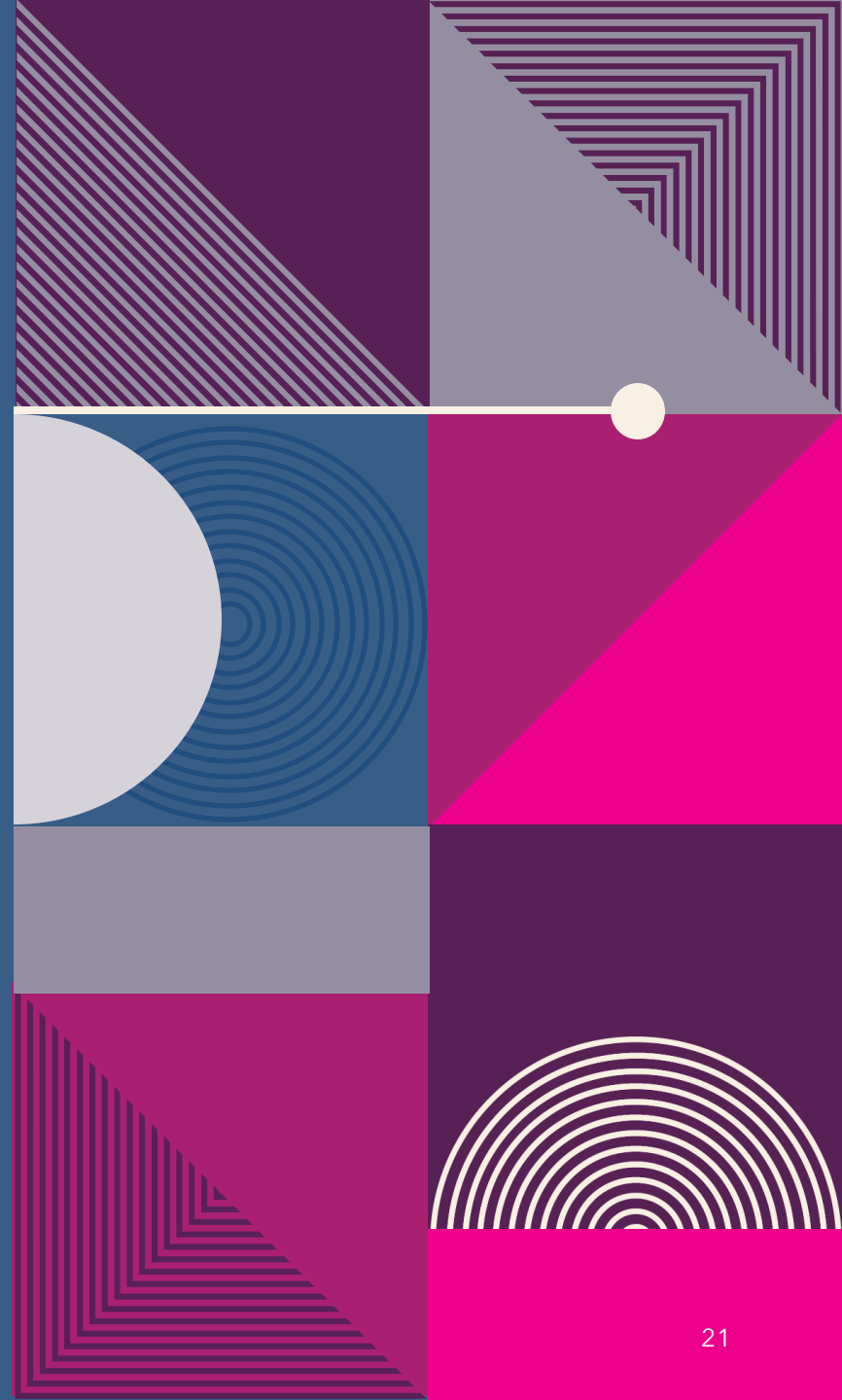
PAGE 347

Smoking is banned in health care facilities; however, some agencies allow smoking in designated areas.

Carefully supervise the patient who wants to smoke.

Smoking is never allowed when oxygen is in use because a spark could cause a fire.

Health promotion box page 347



FIRE

PAGE 347

You must know and be familiar with your institutions fire regulations. This includes knowing the location of the fire extinguishers, fire alarms, and escape routes, as well as notifying the telephone operator of a fire in your area.

There are five basic types of fire extinguishers: A, B,C ,D, K.

Type A- used for caused by cloth, wood, and paper

Type B- used for fires caused by combustible liquids (gasoline, grease, oil)

Type C- used for fires caused by electrical equipment (appliances, tools)

Type D- used for fires caused by flammable metals (usually found in factories)

Type K- used for fires associated with cooking with vegetable and animal oils, or fats (commercial kitchens)

FIRE

PAGE 347

- Type A is a water-under-pressure extinguisher. Type B contains carbon dioxide. Type C also contains carbon dioxide but is used specifically for electrical fires. An ABC combination extinguisher can be used on any kind of fire.
- **Quality and safety box page 347 (PASS)**
- **Most agencies use the RACE. What is RACE?**

FIRE

R: Rescue any patients in immediate danger by removing them from the area.

A: Activate the fire alarm system

C: Contain the fire by closing all doors and windows

E: Extinguish the flames with a appropriate extinguisher OR Evacuate

Think critically box pg 347

Protect against possible smoke inhalation by placing wet towels along the bottom of closed doors, and have people hold wet washcloths over their noses and mouths.

HAZARDOUS MATERIAL

PAGE 347

Biohazard:

A biohazard is defined as a **biologic agent, chemical**, or **condition** that can be harmful to a person's health.

The Occupational Safety and Health Administration (OSHA) classifies materials in the work environment according to the degree of hazard to health that they impose.

OSHA publishes specific guidelines for labeling, handling, cleaning spills, and disposing of these materials.

Mercury is an example of a biohazard, as are blood and most body fluids.

A Safety Data Sheet (SDS) must be available for each biohazard substance stored or used on the nursing unit. KNOW where the SDS are on the unit!

Table 21.1 page 348

BIOTERRORISM AND OTHER TERRORISM AGENTS

PAGE 348

Bioterrorism is the release of pathogenic microorganisms into a community to achieve political and/or military goals.

Table 21.1

Chemical terrorism is the use of certain compounds to cause destruction to achieve political and/or military goals.

Table 21.2

Acute radiation sickness (ARS) develops when most or all of the body is exposed to a high dose of radiation, usually over a short period. Symptoms are nausea, vomiting, and diarrhea. Loss of appetite, fatigue, fever, skin damage, hair loss, and potentially seizures, coma and death are possible later effects.

POISON

PAGE 350

Poison is a substance that, when ingested, inhaled, absorbed, applied, injected, or developed within the body, may cause functional or structural disturbances.

Some poisons DO NOT have antidotes or treatments.

Report the following:

-Name of the product

-Patients age, weight, and pertinent medical history

-Amount of timing of product involved

-Exposure route of product

-Any symptoms and/or complaints.

Patient education box page 350

RESTRAINTS AND SUPPORTIVE DEVICES

PAGE 351

Restrictive devices are often used to address behaviors or prevent risks to self or others by limiting movement, while safety or supportive devices are used to enhance safety and provide support.

Restrictive devices include belts, vests, mitts, jackets, and soft or leather limb restraints. Medications and enclosed beds can also be considered restraints.

They currently may not be allowed (depending on state law) in long term care facilities. If they are allowed in a setting, strict rules apply regarding orders, length and type of restraint, and frequency of patient assessment.

Restricting movement on a long-term basis can lead to problems such as muscle weakness, atrophy, loss of bone mass, joint contractures, constipation, incontinence, pressure injuries, depression, and cognitive impairment.

In the past, some staff used these devices to punish or discipline a patient. This is an illegal, unethical, and unacceptable practice that constitutes malpractice.

RESTRAINTS AND SUPPORTIVE DEVICES

PAGE 351

Restraints and supportive devices are used in two types of situations: **For behavioral or nonbehavioral indications**

- A restraint or supportive device is used for a behavioral health reason if the patient has demonstrated a sudden change in mental status or behavior.
- Nonbehavioral use is for continuation of medical treatments. Ex. An older adult with a history of dementia who needs to have their IV site protected from attempts to dislodge the catheter. Also t

It is your responsibility to be aware of and follow the regulation in your facility and area.

LEGAL IMPLICATIONS OF USING RESTRAINTS AND SUPPORTIVE DEVICES

PAGE 351

Federal and local laws protect the patient from physical and mental abuse and from physical and chemical restraints except those that are authorized by licensed health care provider, in writing, for a specified and limited time or that are needed in an emergency.

The devices must be applied by licensed, qualified personnel.

In some situations and facilities, full side rails are considered restraints because they limit a patient's ability to move, whereas half-rails do not and are not considered restraints.

Physical Restraint Reduction | Texas Health and Human Services

ALTERNATIVE TO RESTRAINTS AND SUPPORTIVE DEVICES

PAGE 351

The standard of practice is to consider alternatives to restraints and supportive devices before using them.

Frequent observations of the patient, which help prevent patient injury and decrease the use of the devices.

PRINCIPLES RELATED TO THE USE OF RESTRAINTS AND SUPPORTIVE DEVICES

PAGE 351

- BOX 21.6 page 351
- Lifespan consideration box page 351
- If an assessment shows cause, the order must be obtained and in effect before applying a device. When the restraint or supportive device is no longer needed, obtain an order to discontinue.
- Communication box page 352
- When applying the restraint or supportive device, make certain that the patients movements will not impair circulation or nerve function.
- The device should fit snugly when applied but should not compromise the patients neurovascular status.
- **You should be able to fit your index and middle fingers between the patient and the device easily.**
- **7 Rs- release, restroom, refreshment, ROM, Reasses, reposition, reapply**

PRINCIPLES RELATED TO THE USE OF RESTRAINTS AND SUPPORTIVE DEVICES

PAGE 351

- **Secure the ties of a supportive device to an immovable able part of the bed frame.**
- DO NOT tie it to the side rails because lowering the rails may cause the device to be pulled too tightly around the patient or cause strain on a joint of an immobilized extremity.
- Use a half-bow knot to secure the device to the bed frame or chair. The half-bow knot is a secure knot that will not slip, even if tugged on, yet can easily be undone by health care workers.
- **Remove the device at least every 2 hours and offer food and toileting.**
- **Check circulation and pulses distal to the device every 15-30 minutes. Signs that the circulation or nerve function has been impaired include skin coolness, change in color (pallor or a bluish hue in light skin, or grayish or white color in dark skin), numbness, pain, edema, and loss of sensation or movement. (neurovascular assessment)**
- Think critically box page 352

DOCUMENTATION

PAGE 352

- Document every alternative action and method that was tried, and their effectiveness, before placing the device.
- Document the time and from whom the order for the device was obtained, the type of device applied, the time of application, the name of the person applying the device, and the location of the device on the patient's body.
- Obtain an informed consent as necessary.
- Record the time when the device was discontinued and your name or the name of the person removing the device

KEY POINTS

PAGE 357

- Bright light is needed for performing procedures
- Adequate nighttime lighting is needed to prevent injury when going to the bathroom
- The most common cause of noise pollution in a health care agency is people
- Keep rooms neat and clean while allowing patients to have personal items close to them
- Privacy is important to a patients well being
- Safety is a primary concern when caring for patients
- Falls are one of the most frequent causes of injury for the older adult patient in an acute care facility.
- PASS is the acronym for how to use a fire extinguisher
- RACE is the acronym for how to proceed in case of a fire.
- Restraints and supportive devices are used only as a last resort.
- Use the least restrictive immobilizing device for the situation and monitor the patient frequently
- A restraint or supportive device should be applied snugly but should not impair neurovascular status.

RESOURCEFUL VIDEOS

Applying restraints in nursing #nurse #healthcare #restraints

How to Apply Restraints for Nurses - YouTube

How to Use a Fire Extinguisher