

# UNIT X

## PROMOTING SAFETY IN HEALTH CARE ENVIRONMENT



# INTRODUCTION

- Environment is the total of all elements and conditions that surround us and influence our development.
- Caring for the patient's environment is important in providing holistic care.
- The goal is to provide safety while making patient as comfortable as possible.



# PHYSICAL ENVIRONMENT

- Temperature
- Humidity
- Noise
- Ventilation
- Light
- Odor
- Pest control



# Temperature

- Infants and older adults may need their room warmer than usual due to their poor temperature regulation.
- For every individual, the most suitable indoor temperature is that which is warm enough to prevent feeling chilly, yet not warm enough to cause perspiration.
- Keep the temperature between 68°F and 74 °F or 20°C and 23°C.



# Humidity

- Humidity is the amount of moisture in the air.
- A range from 30% to 50% is normally comfortable.
- Very low humidity will dry respiratory passages and a person's skin.
- Most hospitals maintain a low humidity setting to discourage the growth of microorganisms.





# Lighting

- The amount of light is an important factor in comfort and is provided by natural or artificial light.
- A cheerful and sunny room can improve patient's spirits.
- Areas must have adequate lights for tasks and to prevent accidents and injury.
- The light should be bright enough to see without glare, to avoid strain and be soft and diffuse, to prevent sharp shadows.



# Odor

- Odors that ordinarily are present may make the patient feel nauseated. Good ventilation and cleanliness will effectively control odors. Various odor control measures can be taken such as:
- By emptying and rinsing bedpan, bedside commode, urinal and emesis basin promptly.
- Change soiled linen.
- Dispose off used dressings, catheters, urine bags etc.



- Avoid being the source of odors yourself.
- Removing old flowers from the unit.
- Use room deodorizer or spray after consulting with your patient as he/ she may be allergic to it.





# Noise

- Noise is inevitable in health care facilities.
- Moving equipment's, visitors and health care personnel are the source of noise.
- To avoid noise, use sound absorbing flooring and ceiling materials carpeting and plastic materials to reduce the noise.
- Encourage staff to limit conversations in the hospital unit and to speak in low volume.



# Ventilation



- Ventilation is a process or act of supplying a building or room continuously with fresh air.
- Most health care facilities have air-conditioning units that regulate temperature, humidity and air exchange.
- Fans are discouraged because air in currents spread microorganisms.

# PEST CONTROL

- Hospital unit should be free from vermin, rodents and other vectors of disease.
- Keep food well covered or in a fly proof net cupboard.
- Remove soiled dishes immediately after the patient has eaten.
- Cover and remove bedpans at once after use.
- Encourage the use of mosquito nets.
- Cleaning beds with a disinfectant can prevent the bed bugs.



# Reduction of physical hazard



- **Accidents:**

The most common accidents among patients are falls, burns, cut and bruises.

- i) Falls:**

The three most common factors that predispose a person to falls are impaired physical mobility, altered mental status and sensory or motor deficits.





## **ii) Burns:**

Prevention of burns include protecting of patient from accidental thermal injury and the threat of fire.

To prevent this injuries, use a barrier between the patient's skin and the thermal application.

Check the temperature of the liquids before giving them to the patient.

All electrical appliances brought into the hospital must be checked to ensure safety.





- **Fire:**

Fire is a possibility in any setting.

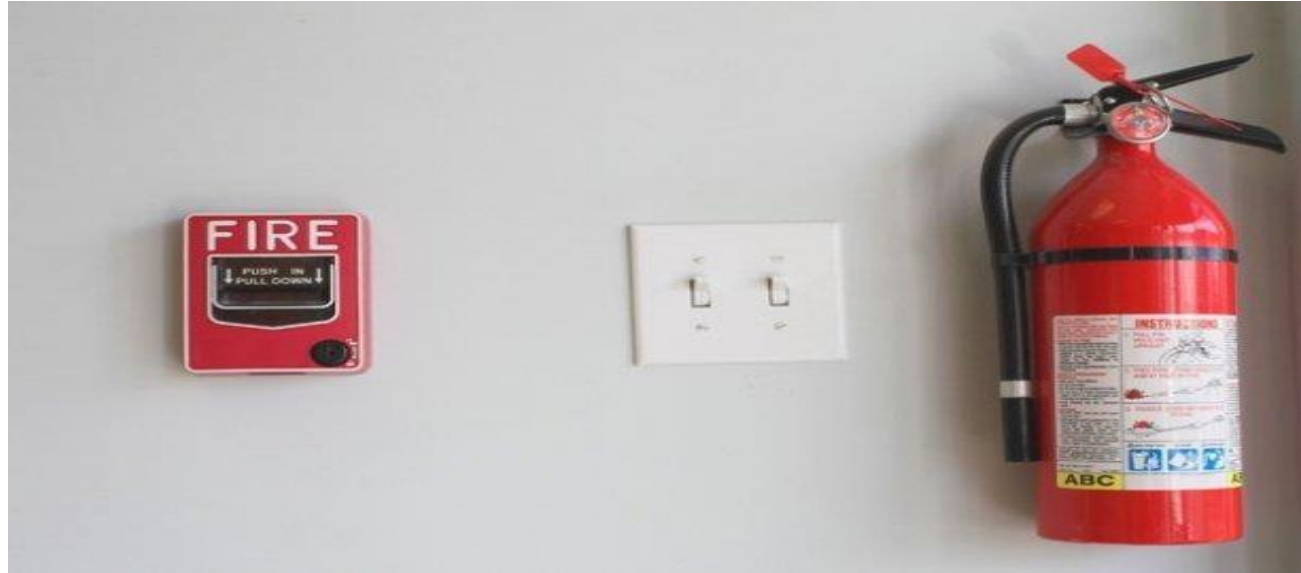
You must know and be familiar with your institution's fire regulations.

Most of the health care agencies use the **RACE** acronym to respond to fire.

**R-** Rescue any patient in immediate danger by removing them from the area.

**A-** Activate the fire alarm system.





**C-** Contain the fire alarm system.

**E-** Extinguish the flame with an appropriate extinguisher.

Protect against possible smoke inhalation by placing wet towels across the bottom of closed doors and have people hold wet washcloths over their nose and mouth.



## **Fire safety measures:**

- Install smoke detectors on each level.
- Make sure there are two exits to escape in case of fire.
- Never smoke in bed and where the oxygen is administered to patient.
- Keep cooking areas free from combustible materials.
- Never overload electrical circuits.

# **Role of nurse in providing safe and clean environment**

1. Orient the patient and family when admitted to health care facility regarding call bell system. Check that the patient can operate the controls.
2. Assess the patient's gait and risk for falling.
3. Evaluate the patient's drug regimen for side effects that may increase the risk of falling.
4. Keep the bed in a low position.



5. Lock the bed wheels to prevent the bed from rolling when the patient attempts to get in or out.

6. Provide a night light to aid patients while going to the bathroom at night.

.7. Place the high risk or restless patient in a room close to the nurses station for easy observation.



# SAFETY DEVICES

- **Restraints:**

Protective devices, formally called restraints, are used to restrict movement.

The order must be written before applying a device.

When the protective device is no longer needed, obtain an order to discontinue it.

The usual time limit is 24-48 hours.

# Types of restraints

- 1. Physical
- 2. Environmental
- 3. Chemical

# Physical restraints

Physical restraint is anything near or on the body which limit a client's movement.

This may be attached to the person's body or create physical barriers.

E.g: A bed railing which cannot be opened by the client.

# Types of Physical restraints:

- The most common restraints for adults are,

i) Wrist restraint

ii) Vest restraint

iii) Mitts

iv) Belt restraints.

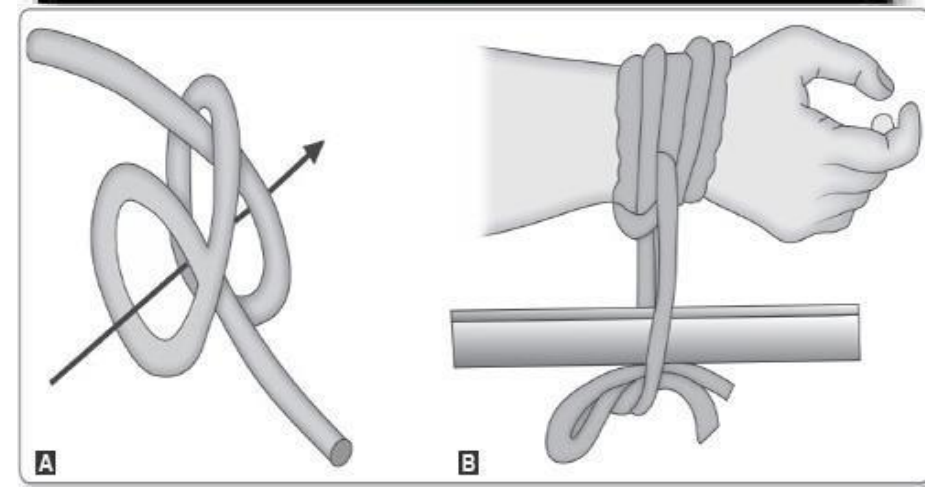


- Restraints for infants and children include,

- i) Mummy restraint

- ii) Elbow restraint

- iii) Crib knot





# Environmental restraints

- Environmental restraints that change or modify a person's surroundings to restrict or control a client's mobility.
- E.g: A secure unit, seclusion.

# Chemical restraints

- Chemical restraints are any form of psychoactive medication used not to treat illness, but to intentionally inhibit a particular behavior or movement.

# Guidelines

- Doctor's order
- Informed consent
- Follow proper technique
- Least restrictive
- Pad bony prominence
- Maintain good body alignment.

# Purpose:

- To carry out physical examination
- To provide the safety to child.
- To protect the child from injury.
- To complete the diagnostic and therapeutic procedures.
- To main the child in prescribed position.
- To reduce the discomfort of child during some tests and procedures like specimen collection.

# Indications

- Displaying behavior that is putting themselves at risk of harm.
- Displaying behavior that is putting others at risk of harm.
- Requiring treatment by a legal order, e.g, under the Mental Health Act 2007.
- Requiring urgent life saving treatment.
- Needing to be maintained in secure setting.



# Other safety devices

## 1. Side rails:

A side rail is a barrier attached to the side of a bed.

### Use:

- Reduce the risk of falls when getting into and out of bed.
- Prevent patients from rolling out of bed while asleep
- Provide Support While Changing Position
- Equipment Storage



## 2. Grab bars:

### Grab

**bars** are safety devices designed to enable a person to maintain balance, lessen fatigue while standing, hold some of their weight while maneuvering, or have something to grab onto in case of a slip or fall.



# Non skid slippers

Non skid slippers are an important part of fall protection that helps in protecting a patient from injuries one can sustain from falling, tripping, or slipping.



# REFERENCES

1. Potter PA, Perry AG, Stockert PA, Hall AM. *Fundamentals of Nursing*. 10th ed. St. Louis: Elsevier; 2021. p. 623–672.
2. Taylor C, Lillis C, Lynn P, LeMone P. *Fundamentals of Nursing: The Art and Science of Person-Centered Care*. 9th ed. Philadelphia: Wolters Kluwer; 2019. p. 701–745.
3. Kozier B, Erb G, Berman A, Snyder S. *Fundamentals of Nursing: Concepts, Process and Practice*. 10th ed. New York: Pearson Education; 2018. p. 515–560.
4. Basavanthappa BT. *Fundamentals of Nursing*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2015. p. 402–445.
5. World Health Organization. *Patient Safety: Making Health Care Safer*. Geneva: WHO; 2017. p. 1–28.

**THANK  
YOU**