### 7.9.9 Pressure Ulcer/Bed Sores

**Definition:** Pressure ulcer is localized injury to the skin and underlying tissue as a result of pressure or pressure in combination with shear.

### Causes

- Excessive moisture
- Obesity
- Diabetes mellitus
- Occur due to ischemia, necrosis and ultimate ulceration of the tissue due to constant pressure at sites with are pressure prove.
- Immobile following surgery or a spinal cord injury can lead to bed sore

### Management

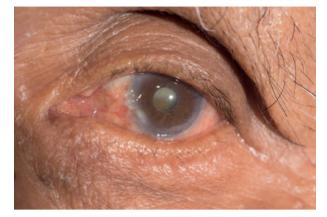
- Optimal nutrition can aid in the healing process –food rich in zinc and vitamin c (green, red and orange vegetables)
- keeping the wounds clean to prevent infection
- speed the healing process by keeping the wound moist and the surrounding skin dry
- pain management with more serious ulcer

### 7.9.10 Eye Diseases

### Definition

A cataract is an opacity within the lens. Cataract is the commonest cause of Visual impairment in old age. Cataract is characterized by painless burning gradual loss of vision increased sensitivity to glare under general darkening of vision.

### Cataract



### Causes

- Maternal rubella
- Radiation or ultraviolet exposure
- Long term topical corticosteroids
- Diabetes mellitus

### Management

 Surgery after the removal of the lens, which has now been replaced by the implantation of an inter ocular lens which restore hear normal focusing ability.

### 7.9.11 Glaucoma

### Definition

Glaucoma is a group of disorders characterized by increased IOP and the consequences of elevated pressure, optic nerve atrophy, and peripheral visual field loss.



7 Geriatric Care

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### Causes

- Lens bulging due to aging
- Damage to the optic nerve.
- Reduction in the outflow of aqueous humor

### 7.9.12 Cancer

### Definition

Cancer is a group of diseases characterized by uncontrolled and unregulated growth of cells. Among elderly men concern of the prostrate and colon are the most common while for women it is a breast cancer. Other concern found in geriatric patients are skin, lung and pancreas, bladder, rectum and stomach.

### Causes

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- Smoking and tobacco
- Diet and physical activity
- Sun and other type of radiation
- Viruses and other infection

### Management

- Quit smoking
- Moderate your diet, diets high in fruits and vegetables may have a protective effect against many cancers.



• Aged people are unhappy

- Avoid excessive exposure to ionizing radiations.
- Regular physical activity and maintain a healthy body weight.

### 7.9.13 Drug Reactions

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- Older patients are two of three times more vulnerable to drug reaction.
- Drug clearance is markedly reduced due to reaction in Renal blood flow and glomerular filtration rate.
- Distribution of the drug is also affected in old age due to reduction in total body weight content and their relative increases in body fat.
- Protein binding of the drug is decreased due to fall in serum albumin in old age.

### **CONCLUSION**

The ageing process is a profound and life - changing experience. The body slowly begins to weaken, resistance to disease is decreased and recovery time in prolonged. Acute and chronic medical conditions become more common and life - disrupting condition such as incontinence and falls can severely affect independence and quality of life. Many people age 65 or older self – report some sort of disability. These may be minor or they may be significant requiring the older person to need skilled assistance. The ageing process is experienced differently by each of us. But age – related changes are inevitable. Apart from this the types of elderly care services and common disorders of elderly has been included.

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2.2.4

A-Z GLOSSARY		
Geriatrics (முதியோர்கள் பற்றிய மருத்துவத் துறை)		A branch of medicine that deals with the problem of diseases of old age and aging
Old age (முதுமை)	_	people. Period of life when impairment of physical and mental functions become increasingly manifested in comparison to the previous years of life.
Primary Prevention (முதன்மை தடுப்பு)	-	Refers to prevention of diseases.
Delirium (சித்தப்பிரமை)	-	Called acute confusional state and progresses to disorientation.
Dementia (ஞாபகமறதி)	-	Dementia and acute confusional state usually are the result of organic disease characterised by impairment of intellectual functions.
Arthritis (கீல்வாதம்)	-	Arthritis simply means inflammation of the joints.

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### I Choose the correct answer:

- which information obtained by the home health nurse when making a visit to an 88 years old with mild forgetfulness is of the most concern
  - a) The patients son uses a marked pillbox to set up the patients medications weekly
  - b) The patient has lost 10 pounds (4.5kg) during the last month
  - c) The patient is cared for by a daughter during the day and stays with a son at night
  - d) The patient tells the nurse that a close friend recently died
- A 70 years old client asks the nurse to explain to her about hypertension an appropriate response by nurse as to why older clients often have hypertension is due to
  - a) Myocardial muscle damage
  - b) Reduction in physical activity
  - c) Ingestion of foods high in sodium
  - d) Accumulation of plaque on arterial walls
- Which of the following interventions should be taken to help an older client to prevent osteoporosis
  - a) Decreased dietary calcium intake
  - b) Increase sedentary lifestyles
  - c) Increase dietary protein intake
  - d) Encourage regular exercise

 The nurse is performing an assessment on an adult client which



assessment data would indicate a potential complication associated with the skin

- a) Crusting
- b) Wrinkling
- c) Deepening of expression lines
- d) Thinning and loss of elasticity in the skin
- 5) An effective way to adequately provide nourishment to a patient with moderate dementia is
  - a) allowing the patient to choose foods from a varied menu
  - b) hand feeding the patients favourite foods
  - c) routinely reminding the patient about the need for adequate nutrition
  - d) serving soup in a mug and offering finger foods

# II. Write short answer for the following questions:

- 1) Define ageing.
- 2) What is delirium.
- 3) Describe the primary prevention.
- 4) What is the four rules for elderly diet.
- 5) Define osteoporosis.
- 6) What are the services at sub-centre for elderly.
- 7) What are the common diseased conditions in elderly.

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<sup>7</sup> Geriatric Care

- 8) Define cataract.
- 9) What is macular degeneration.
- 10) Write down the sensory problems in old age.

# III Write short notes for the following questions:

- 1) Explain the process of ageing.
- 2) What are the sensory problems in old age.
- 3) Write about the acute confusional state in ageing.
- 4) What are the characteristic changes take place in cardiovascular system.
- 5) What are the skin changes that occur in old age.
- 6) How do you assess the pulmonary changes in old age.
- 7) Explain the mechanism of ageing.
- 8) List out the old age pension schemes.
- 9) Write the evolutionary basis of ageing.
- 10) List out the common disorders in old age.

# IV Answer the following questions in detail:

- 1) Explain in detail regarding stroke in old age and its management.
- 2) Describe the role of nurse in elderly care services.

- 3) Write in detail about home care management in old age.
- 4) What are all the preventive care services in old age.
- 5) Explain about the types of elderly care services.

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## DISASTER MANAGEMENT

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# **O** LEARNING OBJECTIVES

At the end of this chapter, the student should be able to

- define disaster
- list out the types of disaster
- explain the phases of disaster management
- enumerate the natural calamities.
- describe about disaster nursing
- analyse the epidemiologic surveillance and disease control
- discuss the role of nurses in disaster preparedness
- brief legal implication in disaster management.

### திருக்குறள்:

வெள்ளத் தனைய இடும்பை அறிவுடையான் உள்ளத்தின் உள்ளக் கெடும்.

### விளக்கம்:

வெள்ளம் போல் அளவற்றதாய் வரும் துன்பமும், அறிவுடையவன் தன் உள்ளத்தினால் அத் துன்பத்தின் இயல்பை நினைத்த அளவில் கெடும்.

### **EXPLANATION:**

A flood of troubles will be overcome by the (courageous) thought which the minds of the wise will entertain, even in sorrow.

### 8.1 INTRODUCTION

Disaster is any occurrence that causes ecology disruption, loss of human life, and deterioration of health services on a scale sufficient to warrant an extraordinary response from outside the community area.

Disaster occurs suddenly and unexpectedly, disrupting the normal life and infrastructure of social services including health care system.

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### 8.1.1 Definition

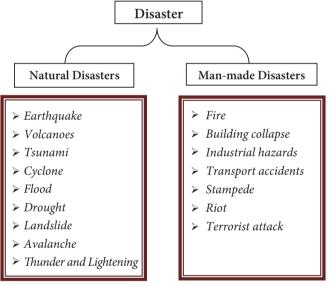
A disaster is a serious disruption of the function of a community or a society involving widespread human, material, economic or environmental loss and impacts, which exceeds the ability of the affected community or society to cope using its own resources.

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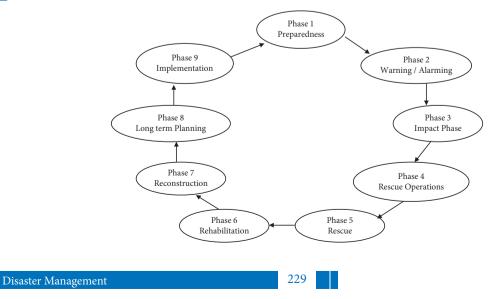
Disaster Alphabetically means		
D- destruction		
I-incident		
S-suffering		
A-administrative and financial failure		
S-sentiments		
T-tragedies		
E-eruption of communicable diseases		
R-research programme and implementation.		

### 8.1.2 Types of Disasters

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## 8.2 PHASES OF DISASTER MANAGEMENT



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# 8.2.1 Natural Calamities

### Flood

When excess of water over flows, it submerges land and destroys everything that get in its way. This is called flood. Flood usually caused when the volume of water with in a lake, river, or other body of water exceeds the total capacity of the body. Sometimes level rise and causes it overflow its channel.



natural disaster in India

### What to do before hand

While town planning it is the government's responsibility, individuals should find about risks in the area where they are living e.g. people who live in areas down stream from a dam should know the special signals when a dam threatens to break. Forecasting of floods or tidal waves is very difficult, but hurricanes and cyclones often occur at the same time of the year when particular vigilance must be exercised. They are often announced several hours or days before they arrive.

### 8.2.2 During Flood

- Turn off the electricity to reduce the risk of electrocution.
- Protect people and property (as soon as the flood begins, take the vulnerable group,

children, the old, sick and the disabled to an upper floor)

- Whenever possible, move personal belonging upstairs or go to raised shelters provided for use in floods.
- Beware of water contamination if the taste, colour or smell of the water is suspicious. It is vital to use some means of purification.
- Evacuate denser zones as ordered by the local authorities.

### After a flood

When a flood is over, it is important, people do not return home until that told by local authorities, who will have ensured that buildings have not been undermined by water. From then on it is essential to;

- Wait until the water is declared safe before drinking.
- Clean and disinfect any room that has been flooded.
- Sterilize or wash with boiling water all dishes and kitchen utensils.
- Get rid of any food that has been in or near the water including canned foods and any food kept in refrigerators and freezers.
- Get rid of all consumables (drinks, medicines, cosmetics, etc.,)

### 8.2.3 Earthquakes



8 Disaster Management

Earthquake are one of those type of natural disaster that strike without an early warning signal. An earthquake is the result of the sudden break within the uppercrest of the earth, which may also break the surface and lead to the vibration of the ground.



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The world's largest earthquake with an instrumentally documented magnitude occurred on May

22<sup>nd</sup> 1960 near Valdivia in Southern Chile. It was assigned a magnitude of 9.5

### What to do before hand

- Build in accordance with urban planning the regulations for risk areas.
- Ensure that all electrical and gas appliance in the house together with all pipes connected to them are firmly fixed.
- Avoid storing heavy objects and materials in high altitude.
- Hold family evacuation drills and ensure that the whole family knows what to do in case of an earthquake.
- Prepare a family emergency kit.

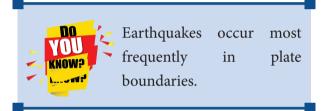
### During an Earthquake

- Keep people calm do not get panic.
- People who are indoors should stay there but move to the central part of the building.
- Keep away from the stairs, which might collapse suddenly.
- People who are outside should be away from buildings and collapsing walls and away from electric cables.
- Anyone in a vehicle should park it, away from bridges and buildings.

### After an Earthquake

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- Check if you or anyone else is hurt. Use first-aid for cuts and bruises.
- Keep the streets clear for emergency services.
- Switch off all appliances like the refrigerator, Television or Radio
- ➤ Turn off the gas (LPG).
- Wear shoes to protect your feet from debris.
- A battery-operated radio will help you to get important messages.
- Be prepared for more shocks.



### 8.2.4 Fire Accident

A fire is defined as undesirable event which emits heat, smoke and or flame, which has the potential to cause damage either mechanical or manmade.

Some of the causes are:

- 1. Cooking equipment
- 2. Heating
- 3. Smoking in bedrooms
- 4. Candles
- 5. Curious Children
- 6. Faulty wiring
- 7. Flammable liquids
- 8. Ignorance, carelessness, faulty handling, indifference and recklessness of people

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### Effects of Fire Accidents

- Destroying houses, wildlife habitat and timber
- Polluting the air
- Permanently damages the human or animal's respiratory system and cause death

### Precautions

- Keep all fires and heaters well guarded. Especially open fires.
- Keep open fires away from furniture's and curtains
- Do not smoke in the bedroom
- Never leave a pan unattended when deep frying because many fire starts in the kitchen
- If there are children around keep matches and lighters out of reach
- Fit approved smoke detectors and smoke alarm on each floor
- Plan an escape route
- If you suspect a gas leak, open the windows and turn off the supply

### During

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- React as soon as you hear the smoke alarm
- Safely exit through doors
- Protect yourself from smoke inhalation
- Stop, drop and roll if your clothes catch fire
- Call for help
- Use fire extinguishers to control the fire
- Don't stay and search for pets and belongings
- Never use an elevator to exit a building during the fire

### After

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- Cool off as soon as possible with water for first and second degree burns
- Don't break the blisters. Don't try to remove the adhere clothes from the burnt area
- Visit the nearby hospital

### 8.2.5 Clouds of Toxic Flames



### What to do before hand

People in risk area should

- Find out the evacuation plans and facilities
- Familiarize themselves with the alarm signals used in case of an emergency
- Equip doors and windows with the tightest possible fastenings
- Prepare family emergency kit

### **During an Emergency**

- Do not use the telephone, leave lines free for rescue services
- Listen to the messages given by radio and other media
- Carry out the instructions transmitted by radio or loudspeaker
- Close doors and windows
- Stop up air intakes
- Seal any cracks or gaps around windows and doors with adhesive tape
- Organize a reserve of water
- Turn off ventilators and air conditioners

B Disaster Management

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### After an Emergency

DO

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KNOW?

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- Comply with the authorities' instructions and do not let go out until there is no longer any risk
- Carry out necessary decontamination

The Bhopal disaster also referred to as Bhopal gas tragedy was a gas leak incident on early morning of 2<sup>nd</sup> December 1984 at the

Union Carbide India Limited (UCIL) pesticide plant in Bhopal, Madhya Pradesh, India. It was the world's worst industrial disaster.

> Deaths – 3,787 Non fatal injuries – 5,58,125

### 8.3 DISASTER NURSING

It is the adaptation of professional nursing knowledge, skills and attitude in recognising and meeting the nursing and medical needs of disaster victims.

# 8.3.1 Basic Principles in Planning for Disaster Nursing

- N Nursing plan should be integrated and coordinated
- U Update physical and psychological preparedness
- R Responsible for organising, teaching and supervision
- S Stimulate community participation
- E Exercise competence

### 8.3.2 START- Simple Triage Rabid treatment

- Those who are beyond help
- The injured who can be helped by

The injured whose transport can be

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Those with injuries who ned helps less urgently

# 8.3.3 Epidemiologic Surveillance and disease control

- Implement as soon as possible all public health measures
- Organise a reliable disease reporting system
- To identify out breaks and promptly initiate control measures
- Investigate all reports of disease outbreak rapidly

**Vaccination** - Health authorities are often under considerable public and political pressure to begin mass vaccination program usually against typhoid, cholera and tetanus.

### Nutrition

- Assessing the food supplies after the disaster
- Assessing the nutritional needs of the affected population
- Calculating daily food rations and need for the larger population group
- Maintaining the nutritional status of the affected population

### Protection Measures

- Water supply, priority of ensuring water availability in emergency situation, chlorination it is the best way of disinfecting water.
- Restrict access to people and animal if possible erect fence and appoint a guard
- Ensure adequate excreta disposal at a safer distance from water source
- Prohibit bathing, washing and animal

Priority	Colour of the tag	Condition
First (Immediate)	Red	Life threatened. have a high probability of survival
Second (Intermediate)	Yellow	Seriously injured Can delay treatment and transport for 2 hours
Third (waiting)	Green	Walking wounded Can delay transport 3 hours
Low priority	Black	Expectant, died victims, severely injured 100%

husbandry up-stream of intake points in rivers and streams

- Upgrade wells to ensure that they are protected from contamination
- Estimate the maximum yield of wells and if necessary ration the water supply
- All water tankers should be cleaned and disinfected before transporting water

### Basic Sanitation and personnel hygiene

Many communicable diseases are spread through faecal contamination of drinking water and food. Hence every effort should be made to ensure the sanitary disposal of excreta. Emergency latrines should be made available to the displaced, where toilet facility have been destroyed, washing, cleaning and bathing facility should be provided to the displaced persons.

### Vector Control

Vector borne diseases should be intensified in the emergency and rehabilitation period, especially in areas where such disease are known to be endemic. Special concerns are Dengue fever and Malaria, Leptospirosis and rat bite fever, typhoid and plaque. Flood water provides chance for breeding opportunities for mosquitos.

# 8.3.4 Role in disaster preparedness

- Facilitate preparedness
- Initiate and update disaster plan
- Provide educational programme in specific area
- Organize disaster drills (mass drills)
- Provide updated record
- Educate the vulnerable population
- Nurse should seek safe environment
- Assess the environmental hazard
- Understand the community resources
- Physical readiness
- Professional readiness
- Community readiness.

### 8.4 CORE EMERGENCY PREPAREDNESS

The term emergency refers to any extraordinary event or situation that requires



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an intense, rapid response and that can be addressed with existing community. Effective emergency response refers well-orchestrated team work in which each member knows what the lines of authority and communication are. ۲

### Required Elimination

- Includes preparedness and response plans for relevant emergencies and threats (Natural, mechanical, biological and human)
- 2. Address the needs of visitors, structures and staff.
- 3. How to protect, evacuate and recover collection is the event of a disaster.
- 4. Assign individual responsibilities for implementation during the emergencies.
- 5. Include flood plan.

### 8.5 REHABILITATION

Rehabilitation, reconstruction and sustainable recovery refer to measures that help restore the livelihood assets and production levels of emergency-affected communities. These measures rebuild essential infrastructure, institutions, services and restore the means of production destroyed or made non-operational by a disaster.

Post disaster response has been typically at three (now four) levels.

**Relief**: Immediately after the calamity, lasting from the first 24 hours to about two to three months and catering to immediate shelter, food, water and medical assistance.

**Reconstruction:** Following relief and extending to a period of approximately two years, aimed at rebuilding the basic physical infrastructure and shelter to enable people to begin fresh start.

**Rehabilitation:** That looks at more long-term inputs of reinstating lost livelihoods, introducing new economic opportunities and improving land and water management processes so as to reduce people's vulnerability and enhance capacities to handle future calamities.

**Readiness:** A response which should ideally have been a proactive measure, it should enhance preparedness in identified vulnerable regions by introducing mechanisms and methods of construction that mitigate impacts of future disasters. Reconstruction and rehabilitation need to be in a seamless continuum with restoration efforts.

### 8.6 LEGAL IMPLICATION

Ethical and Legal Aspects of Disaster Response. Incorporation of ethical principles and legal standards into all phases of the disaster cycle is fundamental to effective and fair disaster response, but the complex information landscape makes meeting this goal challenging

### 8.6.1 Acts and Laws

The **Disaster Management Act,** 2005, was passed by the Rajya Sabha on 28 November, and by the Lok Sabha on 12 December 2005. It received the assent of The President of India on 9 January 2006. The Disaster Management Act, 2005 has 79 sections in set of 11 chapters. The Act extends to the whole of India. The Act provides for the effective management of disasters and for matters related with it.

The act provides formation of the following to combat disaster:

National Disaster Management Authority

- State Disaster Management Authority
- District Disaster Management Authority

### 8.6.2 National Policy on Disaster Management (NPDM), 2009

Came into force October 22, 2009. The policy aims to have a safe and disaster resilient India. It provides for developing a proactive, holistic, multi-disaster facet and technology driven strategy through a culture of

- Preparedness
- Prevention
- Mitigation
- ➢ Response

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As in National Policy on Disaster Management (NPDM), 2009, Central response follows two types of reliefs to Disaster Management. They are:

The primary relief functions of the Central Government are concerned with:

- Forecasting and operation of warning system
- Maintenance of uninterrupted communication
- wide publicity to warnings of impending calamity, disaster preparedness and measures through TV, AIR and Newspapers
- Transport with particular reference to evacuation and movement of essential commodities and petroleum products etc.

The secondary relief functions of the Central Government would relate to:

- flood inflow forecasts from the Central water Commission
- Relief, rehabilitation and restoration through military aid to civil authorities

- Contingency plans for crops, cattle preservation nutrition and health measures
- Technical and technological inputs for provision, drinking water etc.

### 8.6.3 Disaster Emergency Kit

When a natural disaster occurs, we can't always rely on police or government to provide help. The grocery stores might be so badly damaged that you can't go into it. The supplies in the store might be quickly depleted or you may not be able to get to the store.

The six basic supplies you need in a disaster kit are:

- Water, Food, First aid supplies
- Clothing, bedding and sanitation supplies, tools and special items

### Water

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- You should have a three-day supply of water on hand, or about one gallon per day per person
- If your water is not already treated with chlorine, add some household bleach to the bottles. It should be stored in a cool, dark place for no longer than six months

### Food

- Put aside atleast three-days worth of food in your disaster kit that is non-perishable and don't need refrigeration
- Also, choose foods that don't need heating. Avoid foods with a high salt content as they will make you thirsty
- Foods that are recommended are Candy, chocolate, tea, coffee, Sugar, salt, pepper,

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canned juice, milk, soup, canned fruits, meat, vegetables, Peanutbutter, jelly, food for babies and food for pets.



Prepare the "Disaster management kit"

# STUDENT'S ACTIVITY

### Match the following:

A	В
1. Any extraordinary event or situation	a) Manmade disasters
that requires an intense, rapid response	
2. A proactive measure to enhance	b) Forecasting and operation of warning
preparedness in vulnerable region	signs
3. Building collapse and terrorist activity	c) Emergency
4. Primary relief function	d) Natural disasters
5. Earthquake and Tsunami	e) Readiness

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### CONCLUSION

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Disaster is a serious disruption of the function of a community or a society involving widespread human, material and economical loss. There are various natural calamities like flood, earthquake, fire accident, cloud of toxic flames and Disaster Management can be defined as the organization and management of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in particular preparedness, response and recovery in order to lessen the impact of disasters. Disaster nursing is the professional knowledge, skill and attitude in meeting the nursing medical needs of disaster victims. Epidemiological surveillance comprised vaccination of disaster victim, nutrition supplies after disaster, provide basic sanitation and vector control. Rehabilitation measures included relief, reconstruction, readiness after the disaster devastation. Disaster management ensure disaster prevention, risk and vulnerability reduction, as a means of reducing the impact of disasters on society.

A-Z GLOSSARY			
	Earthquake (நிலநடுக்கம்)	-	An earthquake is the result of the sudden break within the upper crest of the earth, which may also break the surface and lead to the vibration of the ground.
	Disaster Nursing (பேரிடர் செவிலியம்)	-	It is the adaptation of professional nursing knowledge, skills and attitude in recognizing and meeting the nursing and medical needs of disaster victims.
	Relief (நிவாரணம்)	-	It is the measure taken immediately after the calamity, lasting from the first 24 hours to about two to three months and catering to immediate shelter, food, water and medical assistance.
	Reconstruction (மறுசீரமைப்பு)	-	It is a period of approximately two years, aimed at rebuilding the basic physical infrastructure and shelter to enable people to begin afresh.
	Rehabilitation (மறுவாழ்வு)	-	It is the long-term inputs of reinstating lost livelihoods, introducing new economic opportunities and improving land and water management processes.
	Readiness (தயார்நிலை)	-	It is a proactive measure to enhance preparedness in identified vulnerable regions by introducing mechanisms and methods of construction that mitigate impacts of future disasters.

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- 1. Which of the following is **not** the natural disaster?
  - a. Tsunami
  - b. Deforestation
  - c. Cyclone
  - d. Lightening
- 2. The trembling of the earth's crust is known as
  - a. volcano
  - b. earthquake
  - c. Flood
  - d. cyclone
- 3. Which of the following is a man-made disaster
  - a. Volcano
  - b. Land slide
  - c. Flood
  - d. Terrorist attack
- 4. The first phase of disaster management is
  - a. Long term planning
  - b. Preparedness
  - c. Impact Phase
  - d. Warning Phase
- 5. Which of the following activities is covered by Disaster Management before, during or after a disaster?
  - a. Reconstruction and Rehabilitation
  - b. Mitigation
  - c. Emergency response
  - d. All the above

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- 6. In the future, which of the following is expected to increase the risk of flooding?
  - a. population growth
  - b. urbanisation
  - c. climate change
  - d. all of the above.

# II. Write short answer for the following questions:

- 1. What is disaster?
- 2. What is natural disaster?
- 3. What is manmade disaster?
- 4. What are the phases of disaster management?
- 5. What is Flood?
- 6. Define Disaster management.
- 7. What is mean by earthquake?
- 8. What are all the management to be taken for fire accident?
- 9. What is expansion for START?
- 10. Mention phases of rehabilitation in disaster management.

# III. Write short notes for the following questions:

- 1. Write brief note on disaster management kit.
- 2. Legal implication in disaster management.

- IV. Answer the following questions in detail:
- 1. Explain about the phases of disaster management.
- 2. Write the management for flood.

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# ADMINISTRATION OF MEDICINE

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# **S** LEARNING OBJECTIVES

At the end of this chapter, the students will be able to

- ✤ define the terminologies used in pharmacology
- gain basic knowledge regarding drugs, forms and prescription of medication
- understand the effects of drugs on body
- compare and contrast the routes of administration of drugs
- discuss how the medicines are stored and safety measures to be followed
- extrapolates the rights for administration of drugs
- identify the ethical and legal aspects involved in administration of medicines

### <u>திருக்குற</u>ள்:

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உற்றவன் தீர்ப்பான் மருந்துழைச் செல்வானென்று அப்பால் நாற்கூற்றே மருந்து.

### விளக்கம்:

நோயுற்றவன், நோய் தீர்க்கும் மருத்துவன், மருந்து, மருந்தை அங்கிருந்து கொடுப்பவன் என்று மருத்துவ முறை நான்குவகைப் பாகுபாடு உடையது.

### **Explanation:**

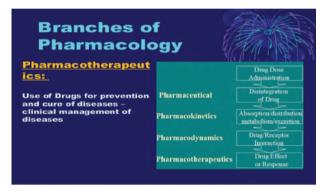
For patient, leech, and remedies, and him who waits by patient's side, The art of medicine must fourfold code of laws provide.

Administration of Medicine



### 9.1 INTRODUCTION

The science of man is also changing and human physiology has changed a lot since the time, the branch of pharmacology began. Science in general changed completely as far back as 1925 with Werner Heisenberg's uncertainty principle. Drug administration is the major responsibility of the nurses. To handle the drugs, nurses should have the basic knowledge of action, adverse effects, indication and contraindication of commonly used drugs and nursing responsibilities while administering the drug.



### 9.2 **DEFINITIONS**

**Pharmacology** is the study of the interaction of chemicals with living systems. The term pharmacology is obtained from the Greek word "pharmakon" which means as drug and "logos" means the study of science.

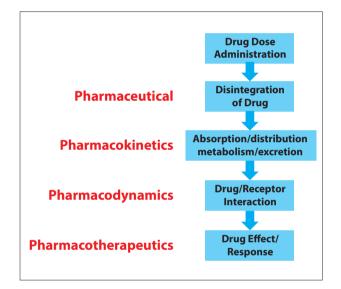
**Drugs** are chemicals that act on living systems at the chemical (molecular) level. The term drug is derived from the French word "drogue" which means "dry herb".

**Medical pharmacology** is the study of drugs used for the diagnosis, prevention, and treatment of disease.

**Toxicology** is the study of the untoward effects of chemical agents on living systems. It is usually considered an area of pharmacology. **Pharmacodynamic** properties of a drug describe the action of the drug on the body, including receptor interactions, dose-response phenomena, and mechanisms of therapeutic and toxic action.

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**Pharmacokinetic** properties describe the action of the body on the drug, including absorption, distribution, metabolism, and excretion. Elimination of a drug may be achieved by metabolism or by excretion



## 9.3 BASIC KNOWLEDGE REGARDING DRUG The Nature of a Drug

The drug molecule interacts as an agonist (activator) or antagonist (inhibitor) with a specific molecule in the biologic system that plays a regulatory role. This molecule is called a receptor. Drugs may be synthesized within the body like hormones or may be chemicals not synthesized in the body like xenobiotics.

Poisons are also drugs that have exclusively harmful effects. Toxins are usually defined as poisons of biologic origin, i.e., synthesized by plants or animals. A drug is

often administered at a location distant from its intended site of action. Therefore, a useful drug must have necessary properties to be transported from its site of administration to its site of action.

### The Physical Nature of a Drug

Drugs may be solid at room temperature (e.g, aspirin, atropine), liquid (e.g, nicotine, ethanol), or gaseous (e.g, nitrous oxide). These factors often determine the best route of administration.

### Drug Size

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The molecular size of the drug varies from very small to larger one. If the molecular size of the drug is very small it easily diffuses the cellular compartments, in case of larger, the drug is administered directly into the vascular compartment by intravenous or intra-arterial infusion.

# Drug reactivity and Drug-receptor bonds

Drugs interact with receptors by means of chemical forces or bonds. There are three major types like Covalent, Electrostatic, and Hydrophobic.

### Drug Shape

The Shape of a drug molecule must be such as to permit binding to its receptor site via the bonds.

### 9.4 SOURCES OF DRUGS

Drugs are obtained from various sources like plants, animals, microbial, mineral, synthetic and semi synthetic after repeated extraction and purification.

### Plant Sources

Most of the drugs are obtained from the plant sources.

E.g. Morphine extracted from the plant OPIUM through the principle of ALKALOID.

### **Opium Alkaloid Extraction**



### Animal Sources

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Microbial Source: Example: Penicillin

Mineral Source: *Example:* **Aluminium Hydroxide**.

Synthetic Source: *Example:* **Analgesics** Semi Synthetic Source: *Example:* **Atropine** 

Animals			
Animal	Part	Drug	Use
Cow	Pancreas	Insulin	Antidiabetic hormaone
Fish	Sperms	Protamine sulphate	Antidote of heparin
Pig 25	Intestine	Heparin	Anticoagulants
Ox	Lungs	Heparin	Anticoagulants
Way back when plants were the primary source of drugs used on the human body. Plants such as: • Berries			

- BarkLeaves
- Resin from trees
- Roots

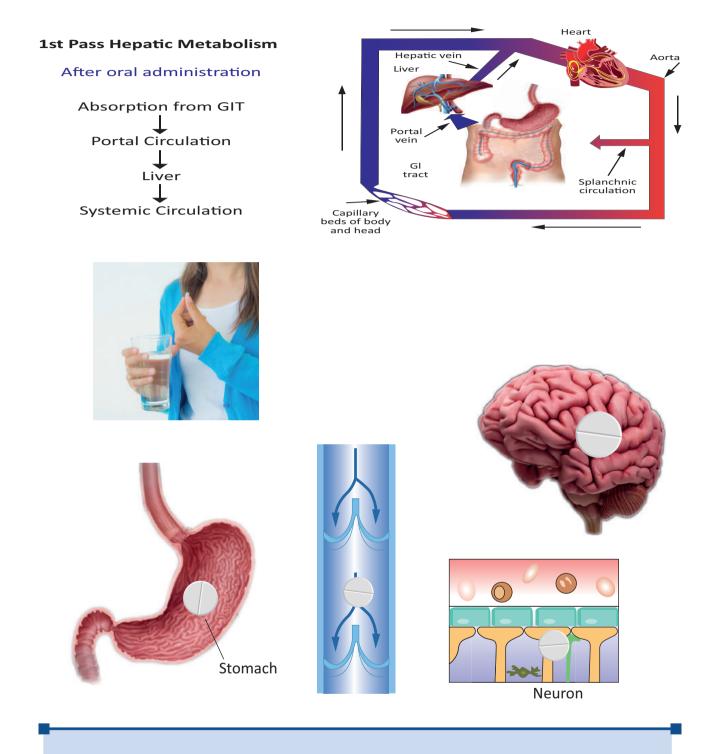
These all aid the body and are still used today Aloe vera

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## 9.5 PICTORIAL REPRESENTATIONS OF ABSORPTION OF DRUGS

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Most drugs are absorbed primarily in the small intestine. In general takes approximately 30 minutes for most medication to dissolve. Special coated medicine may take longer time for the therapeutic to reach the bloodstream.

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### 9.6 DRUG FORMS

We take medications to diagnose, treat, or prevent illness. They come in lots of different forms and we take them in many different ways. You may take a drug yourself, or a healthcare provider may give it to you.

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Drugs can be dangerous, though, even when they're meant to improve our health. Taking them correctly and understanding the right way to administer them can reduce the risks. A dosage form of a drug is a product designed for administration to the body in the diagnosis or treatment of disease. The most important dosage forms of drug are as follows:



## **DIFFERENT FORMS OF DRUGS**

SL. NO.	FORMS	DESCRIPTION
1	Tablet	Tablets coated with gelatin that gets dissolved in stomach
2	Capsule	Powder or gel form of drug encased in a hard or soft outer casing that gets dissolved in a stomach
3	Liniments	Mixture of drugs with oil, soap, water , alcohol that is applied on the skin
4	Ointment	Semisolid preparation of a drug in petrolium form

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5	Paste	Semisolid form of a drug , thick and stiff than the ointment, that is applied to and observed by the skin
6	Patch(transdermal)	Drugs encased in a manufactured material that allows continuous drug absorption through the skin at a steady manner
7	Plaster	Solid preparation used as a counter irritant or as an adhesive externally
8	Suppository	A several drugs mixed in a firm base such as glycerinated gelatin and shaped for insertion into the body cavity.
9	Syrup	Drugs dissolved in a solution containing water and sugar
10	Lotion	Drugs in liquid suspension intended for external use

### 9.7 PRESCRIPTION OF MEDICATION

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The prescription is a written order by a physician to the pharmacist to prepare, dispense specific medication for a specific patient. A specific pattern should be followed in writing prescriptions in order to safe guard the patient. The following points should be remembered in writing a prescription.

- 1. The writing should be legible. The name of the drugs to be in capital letters
- 2. Indelible ink should be used for writing
- 3. Abbreviations should be avoided.
- 4. Generic names of the drug should be written below the brand names
- 5. In writing quantities, decimals should be avoided
- 6. Less than 1gm should be written as milligrams. Eg. 200mg and not 0.2g

7. Blank spaces should be avoided between direction and the signature of the doctor.

### 9.7.1 Parts of a Prescription

Date, address of the prescriberpreferably, the orders should be in the letter pad., name, age ,sex of the patient, IP or OP number, superscription(Rx) drug name and strength, directions to the patient and signature of the prescriber.

Model prescription

1.	Name:	Mr. A
2.	Date:	13.10.2018
3.	Age:	70 years
4.	Sex:	Male
5.	Address:	Chennai
6.	IP No:	XXX
7.	Diagnosis:	Idiopathic parkinsonism

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8. Rx

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9. Tab.	Levodopa 100mg
Tab.	Carbidopa 25mg

- 10. Take 2 tablets by mouth 3 times daily with breakfast, lunch and dinner. Take with food.
- 11. Dr. уу
- 12. Assistant prof. Neurology
- 13. MMC, Chennai.
- 14. Phone no: XXX
- 15. Reg.no: уу

#### **CLASSIFICATION OF DRUGS BASED ON THEIR ACTION** 9.8

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Sl. No	Classification	Action
1	Analgesics	Drugs used to relieve pain. E.g. diclofenac
2	Anaesthetics	Drugs which cause loss of sensation. E.g. Nitrous oxide
3	Antipyretics	Drugs which reduce fever. E.g. dolo
4	Antidotes	Substances used to counteract the effect of poison. E.g. charcoal
5	Antacids	Substances which counteracts acidity or neutralizes acid. E.g. gelucil
6	Antiemetics	Drugs that prevent or relieve nausea and vomiting. E.g. emeset
7	Anti coagulant	Drugs used to prevent or inhibit coagulation. E.g. heparin
8	Anti histamine	Drugs used to treat allergies. E.g. avil
9	Diuretics	Drugs which increases the secretion of urine. E.g. lasix
10	Emetics	Drugs which produce vomiting. E.g. apomorphine
11	Hypnotics	Drugs which induce sleep. E.g. diazepam
12	Expectorants	Drugs which increases the expulsion of the bronchial mucus secretion. E.g. mucinex
13	Sedatives	Drugs which exerts a smoothening or tranquilizing effect. They may be general or local. E.g. benzodiazepine
14	Narcotics	Drugs which produce sleep and relieve pain. E.g. morphine
15	Antibiotics	Drugs that have the ability to destroy the growth of microorganisms. E.g. penicilin

Administration of Medicine

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16	Vasodilators	Drugs which dilate the blood vessels. E.g. nitroglycerine
17	Vasoconstrictors	Drugs that cause constriction of blood vessels. E.g. amphetamines
18	Hypoglycemic	Drugs that lower the blood glucose level. E.g. insulin
19	Mydriatics	Drugs that dilate the pupils of the eyes. E.g. cyclogyl
20	Myotics	Drugs that contract the pupils of the eye. E.g. pilocarpine

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### **STUDENT'S ACTIVITY:**

### UNSCRAMBLE THE FOLLOWING LETTERS FOR A WORD

Drugs prescribed for allergy	-	tina histamnei
Drugs to treat hypertension	-	tina perhysivesten
Drugs to combact infections	-	tina ticsiob
Drugs as analgesics	-	sadins
Drugs to relieve constipation	-	xalaivest
Drugs for mentally ill clients	-	tina sypohctics
Drugs to dissolve the clot	-	ticslyromboth

### 9.9 EFFECTS OF DRUG ON BODY

Here we come across with Pharmacokinetics and Pharmacodynamics of the drug.

Pharmacokinetics – It describes the movement of the drug in our body, about its absorption, distribution, metabolism and excretion.

Pharmacodynamics – It describes about the mechanism of action of a drug at cellular, subcellular, and at molecular levels. The important principles of mechanism of action are stimulation, depression, replacement, irritation and cytotoxic action.

### 9.9.1 Adverse Drug Effects

**Side effects:** are the unwanted but often unavoidable consequences of administered drug. E.g., aspirin produces gastric ulcer.

**Toxic effects:** they are due to over dosage or prolonged use. e.g., paracetamol causes hepatotoxicity..

**Teratogenicity:** it refers to the capacity of a drug to cause foetal abnormalities when administered to a pregnant mother. E.g., Tetracycline

**Idiosyncrasy:** it is a genetically determined abnormal reaction to a drug in an unusual manner. E.g., barbiturates.



TAB. PARACETAMOL is dangerous to take more than eight 500 mg or six 650 mg

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tablets in 24 hours as you may damage your liver, which may be irreversible and fatal.

**Drug dependence:** drugs capable of altering mood and feelings on repeated use of such drugs. E.g., morphine

**Iatrogenic disease:** this a physician induced or drug induced disease. E.g., peptic ulcer by salicylates.

**Drug allergy:** it is an immunologically mediated unpredictable reactions which are not related to the therapeutic effects.

**Carcinogenicity and Mutagenicity:** it is the capacity of a drug to cause cancer. e.g., anabolic steroids.

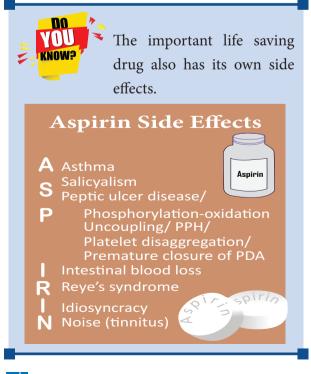
## 9.10 STORING OF MEDICINE AND SAFETY MEASURES

- 1. Most medications should be stored in a dry place away from heat and humidity.
- 2. If the medication needs to be protected from light, it should be stored in a container that keeps out light.
- 3. If the medication needs to be refrigerated, and you do not have a fridge available, use a cooler with an ice pack.
- Keep track of the expiry dates of the medications by asking the pharmacy team to put this information on your medication vial.
- 5. Don't store multiple medications in the same vial, as this makes it hard to keep tracing of which medications are which, which doses have been taken, and what are the expiry dates.

- 6. Put all medicine up and away, out of children's reach and sight.
- 7. Close your medicine caps tightly after every use.
- Choose child-resistant caps for medicine bottles. If pill boxes or non-child resistant caps are the only option, it's even more important to store these containers up high and out of sight when caring for kids.

### 9.10.1 How to administer medicine Safely

- 1. Use the dosing device that comes with the medicine. Proper dosing is important, particularly for young children.
- Kitchen spoons aren't all the same, and a teaspoon or tablespoon used for cooking won't measure the same amount as the dosing device.
- 3. Keep all medicine in their original packages and containers.
- 4. Take the time to read the label and follow the directions. Even if you have used the medicine before, sometimes the directions change about how much medicine to give.



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- 5. Even if your child seems really sick, don't give more medicine than the label says. It won't help your child feel better faster, and it may cause harm.
- Read the label and know what's in the medicine. Check the active ingredients listed on the label.
- 7. Make sure you don't give your child more than one medicine with the same active ingredient, because it puts your child at risk for an overdose.

### 9.10.2 Get Rid of Medicine Safely

- 1. Clean out your medicine cabinet. Reduce the risk of kids getting into medicine by getting rid of unused or expired medicine.
- 2. Many communities have a medicine takeback program. This is an easy way to get rid of your unused or expired medicine.
- 3. To dispose of it yourself, pour the medicine into a sealable plastic bag. If the medicine is a pill, add water to dissolve it. Then add kitty litter, sawdust or coffee grounds to the plastic bag.

 The Food and Drug Administration (FDA) says that the drugs which are so dangerous, should be flushed down the toilet.

### 9.11 ROUTES OF ADMINISTRATION

A route of administration is the path by which a drug, fluid, poison or other substance is brought into contact with the body. For instance,



some drugs are destroyed by stomach acid if they are taken by mouth. So, they may have to be given by injection. The principle method of giving drugs is by mouth, and the doses which are not otherwise specified are assumed to be oral doses.

# The route used to give a drug depends on three main factors:

- The part of the body being treated
- > The way the drug works within the body
- $\succ$  The formula of the drug

# Guidelines for administering medication

Full name, address, license number, phone number of prescribing physician

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### Name of medication

### Date of order

### Strength and dosage of drug

Frequency

### Indication

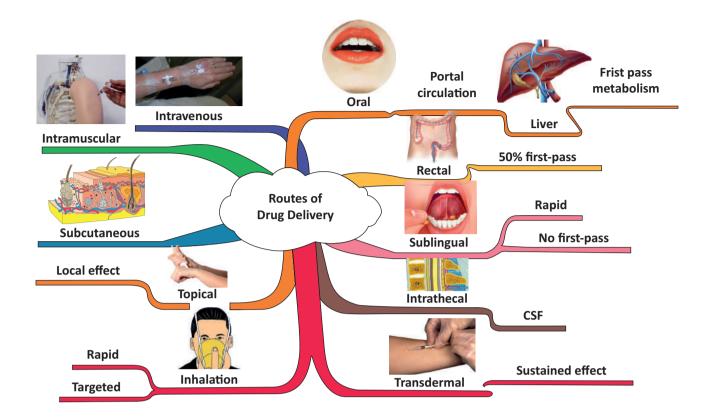
### Stop dates if applicable

### Physician signature

Verbal orders should be written correctly in a separate Paper and signed.

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9 Administration of Medicine



Doctors, nurses, and other healthcare providers are trained, how to administer medication safely. Administration of medication requires thorough understanding of the drug including,

- how it moves through the body
- when it needs to be administered
- possible side effects and dangerous reactions
- proper storage, handling, and disposal

Sl. No.	Route	Explanation
1	Buccal	Held inside the cheek
2	Enteral	Delivered directly into the stomach or intestine
3	Inhalable	Breathed in through a tube or mask
4	Infused	Injected into a vein with an IV line and slowly dripped in over time
5	Intramuscular	Injected into muscle with a syringe
6	Intrathecal	Injected into your spine
7	Intravenous	Injected into a vein or into an IV line
8	Nasal	Given into the nose by spray or pump

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9	Ophthalmic	Given into the eye by drops, gel, or ointment
10	Oral	Swallowed by mouth as a tablet, capsule, lozenge, or liquid
11	Otic	Given by drops into the ear
12	Rectal	Inserted into the rectum
13	Subcutaneous	Injected just under the skin
14	Sublingual	Held under the tongue
15	Topical	Applied to the skin
16	Transdermal	Given through a patch placed on the skin

## 9.11.1 Pros and Cons of different routes of Administration of Drugs

Sl. No.	Route	Advantage	Disadvantage
1	Oral	<ul> <li>Easy</li> <li>Preferred by patients</li> <li>Slow-release preparations may be available to extend duration of action</li> <li>Drugs can be formulated in such a way as to protect them from digestive enzymes, acid, etc.</li> </ul>	<ul> <li>Unsuitable in patients who are uncooperative, strictly "nil by mouth", are vomiting profusely or have ileus</li> <li>Most orally administered drugs are absorbed slowly</li> <li>Unpredictable absorption due to degradation by stomach acid and enzymes</li> </ul>
2	Rectal	Good absorption – the haemorrhoidal veins drain directly into the inferior vena cava, avoiding hepatic first pass metabolism	surgery
3	Subcutaneous or Intramuscular	<ul> <li>Good absorption, especially for drugs with a low oral bioavailability</li> <li>Onset is more rapid than the above routes</li> <li>Depending on formulation can have very long duration of action, e.g. depot antipsychotics and contraceptives</li> </ul>	

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4	Intravenous	<ul> <li>Dependable and reproducible effects</li> <li>Entire administered dose reaches the systemic circulation immediately</li> <li>The dose can be accurately titrated against response</li> </ul>	<ul> <li>More expensive and labour intensive than other routes.</li> <li>Cannulation is distressing to some patients, especially children</li> </ul>
5	Topical	<ul> <li>Easy</li> <li>Non-invasive</li> <li>High levels of patient satisfaction</li> </ul>	<ul> <li>Most drugs have a high molecular weight and are poorly lipid soluble, so are not absorbed via skin or mucous membranes</li> <li>Very slow absorption</li> </ul>
6	Inhaled	<ul> <li>Very rapid absorption due to the huge surface area of the respiratory endothelium</li> <li>Bronchodilators and inhaled steroids can be targeted to lungs with low levels of systemic absorption</li> </ul>	Bioavailability depends on patient's inhaler technique and the size of drug particles generated by the delivery technique

### 9.12 RIGHTS OF DRUG ADMINISTRATION

It is the responsibility of the nurse to understand the basic concept of safe, therapeutic and rational use of drugs. Healthcare providers are trained in all of these issues. In fact, many healthcare providers keep in mind the "Eight rights" when they administer drugs. But the recent advancements says depending upon the institutional policies these may vary in number.

Right drug

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- Right patient
- Right route
- Right dose
- Right frequency/time
- Right response
- Right reason
- Right evaluation
- Right education
- Right documentation
- Right to refuse

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- Right principle of care
- Right prescription
- Right nurse clinician



# STUDENT'S ACTIVITY

Visit a pharmaceutical company and Visit a medical shop and prepare a report.

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COMMON CONVERSION FACTORS		
1 kilogram (kg)	2.2 pounds (lb)	
1 pound (lb)	454 grams (g or gm)	
1 kilogram (kg)	1000 grams (g or gm)	
1 gram (g or gm)	1000 milligrams (mg)	
1 milligram (mg)	1000 micrograms (mcg)	
1 cc (cubic centimetre)	1 ml millilitre (ml)	
1 inch (in)	2.54 centimetres (cm)	
1 grain (gr)	60 milligrams (ml)	
1 cup	240 millilitre (ml)	
8 ounces (oz)	1 cup	
16 ounces (oz)	1 pint (pt)	
1 ounce (oz)	30 millilitre (ml)	
1 teaspoon (tsp)	5 millilitre (ml)	
1 dram	4 millilitre (ml)	
1 tablespoon ( T or tbs)	15 millilitre (ml)	
2 tablespoons (T or tbs)	1 Ounce	
3 teaspoons (tsp)	1 tablespoon ( T or tbs)	
1 teaspoon (tsp)	75 gtt (drops)	
1 millilitre (ml)	16 minims	
1 millilitre (ml)	15 drops (gtt)	
1 litre (L)	1000 millilitre (ml)	
37.0 ° C (Centigrade degrees)	98.6° F (Fahrenheit degrees)	



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The Nursing Students and the Nurses should be familiar with commonly used conversion tables and commonly used abbreviations. Below are few important list.

COMMON ABBREVATION		
O.S.	LEFT EYE	
O.U.	BOTH EYES	
<i>P.C.</i>	AFTER MEALS	
Р.М.	EVENING; AFTER NOON	
<i>P.O.</i>	BY MOUTH; ORALLY	

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P.R.	RECTALLY
P.R.N.	AS NEEDED (FOR)
<i>P.V.</i>	VAGINALLY
Q	EVERY; PER
Q12; Q. 12 H.; Q12°	EVERY 12 HOURS
Q1-2; Q. 1-2 H.; Q1-2°	EVERY 1 TO 2 HOURS
Q.A.D.; Q.O.D.	EVERY OTHER DAY
Q.A.M.	EVERY MORNING; EVERY DAY BEFORE NOON
Q.D.	EVERY DAY
Q.H.S.	EVERY DAY AT BEDTIME
Q.I.D.	4 TIMES A DAY
RX	PRESCRIPTION
<i>SL</i> ; <i>S.L</i> .	SUBLINGUALLY; UNDER THE TONGUE
T.I.D.	3 TIMES A DAY
BD	2 TIMES A DAY
OD	ONCE A DAY

### 9.13 LEGAL AND ETHICAL ASPECTS

Indian pharmacopoeia: drug complying with standards are prescribed in the Drugs and Cosmetics Act Standards include standards for identity, purity and potency. The government of most of the countries have established the drug standards which are published in the pharmacopoeia. In our country, the ministry of health and family welfare of Indian government, published third edition by the year 2000.

The drug and cosmetic act provides for the establishment of three control agencies to regulate, manufacture, sale, distribute, import and export of drugs.

- 1. Advisory agencies
- 2. Analytical agencies
- 3. Executive agencies

### 9.13.1 Drug Laws

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- 1. The pharmacy act 1948
- 2. Dangerous drug act 1930
- 3. Drug and cosmetic act 1940
- 4. Medicinal and toilet preparation act 1956
- 5. Poisons act 1919

### 9.13.2 National Patient Safety Goals

These safety goals are based upon needs that are identified in the healthcare through research, patient reports, and clinician input.

- 1. To improve accuracy and identification of patient
- 2. Report critical lab tests that could affect medication administration
- 3. Improve the safety of using medication

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# **PATIENT SAFETY GOALS**

GOAL

Ensure

Correct-Site,

Correct-Procedure,

**Corre ct-Patient** 

Surgery

GOAL

Improve

the Safety of High-Alert

Medication

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GOAL

## 9.13.3 General Instruction for Legal Consideration

- Always check patient's identification tag
- Ask patient to state their name and birth date.
- Compare medication order to identification tag and patient's stated name and birth date.
- Verify patient's allergies with chart and with patient.
- Perform a triple check of the medication's label
  - When retrieving the medication.
  - When preparing the medication.
  - Before administering medication to patient.
- Always check the medication label with the physician's orders.
- Never administer medication prepared by another person
- Never administer medication that is not labeled
- Check label for medication concentration.

Compare prepared dose with medication order.

Reduce the Risk of Health Care-Associated Infections GOAL

Harm Resulting form Falls

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Triple all medication calculations.

GOAL

- Check all medication calculations with another nurse.
- Verify that dosage is within appropriate dose range for patient and medication.
- Verify schedule of medication with order.
  - Date
  - Time
  - Specified period of time
- Check last dose of medication given to patient.
- Administer medication within 30 minutes of schedule.
- Verify medication route with medication order before administering.
- Medication may only be administered via route specified in order
- Inform patient of medication being administered.

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- Inform patient of desired effects of medication.
- > Inform patient of side effects of medication.
- Ask patient if they have any known allergies to medication
- The legally responsible party (patient, parent, family member, guardian, etc.) for patient's care has the right to refuse any medication.
- Inform responsible party of consequences of refusing medication.
- Verify that responsible party understands all of these consequences.
- Notify physician that ordered medication and document notification.
- Document refusal of medication and that responsible party understands consequences.
- Properly assess patient and tests to determine if medication is safe and appropriate.
- If deemed unsafe or inappropriate, notify ordering physician and document notification.
- Document that medication was not administered and the reason that dose was skipped.
- After medication has been administered
- Assess patient for any adverse side effects.
- Assess patient for effectiveness of medication.
- Compare patient's prior status with post medication status.
- Document patient's response to medication.
- Never document before administration of medicine.

## Do's and Don'ts

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- Do not give out dated or expired medication
- Do not give medication beyond stop date
- Do not administer medication that have changed colour or consistency
- Administer medication that are taken only from properly labeled or prescribed container

### CONCLUSION

Considering the needs of the nursing students, the subject matter is prescribed very briefly to understand the essence pharmacology and of know their responsibilities while practicing as a nurse at all settings. Drugs may be prescribed to promote healing, cure disease control or slow progression of disease, prevent disease, decrease risk of complications, increase comfort level, reduce excessive activity in the body. Therefore it's the duty of the nurses to flourish with adequate knowledge, skill and attitude among the health care professionals to make our profession in flying colours.

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<sup>9</sup> Administration of Medicine

# A-Z GLOSSARY

Pharmacology (மருந்தியல்)	-	The branch of medicine concerned with the uses, effects, and modes of action of drugs.
Principle (கொள்கை)	-	A fundamental truth that serves as the foundation for a system of belief or behaviour or for a chain of reasoning.
Contraindication (தேவைப்படாதவர்கள்)	-	A particular technique or drug should not be used in that case
Opioids (அபின்)	-	A compound resembling opium in addictive properties or physiological effects.
Toxicology (நச்சியல்)	-	The branch of science concerned with the nature, effects, and detection of poisons.
Sources (ஆதாரங்கள்)	-	A place, person, or thing from which something originates or can be obtained.
Antihistamines (ஒவ்வாமை முறி)	-	A drug or other compound that inhibits the physiological effects of histamine, used especially in the treatment of allergies.
Antipsychotic (மனநோய் எதிர்ப்பு)	-	A drug used to treat psychotic disorders.
Analgesics (வலி நிவாரணி)	-	Painkilling drug, pain reliever, palliative.
Pharmacopoeia (மருந்தின் குணங்கள்)	-	An official publication containing a list of medicinal drugs with their effects and directions for their use. A stock of medicinal drugs.

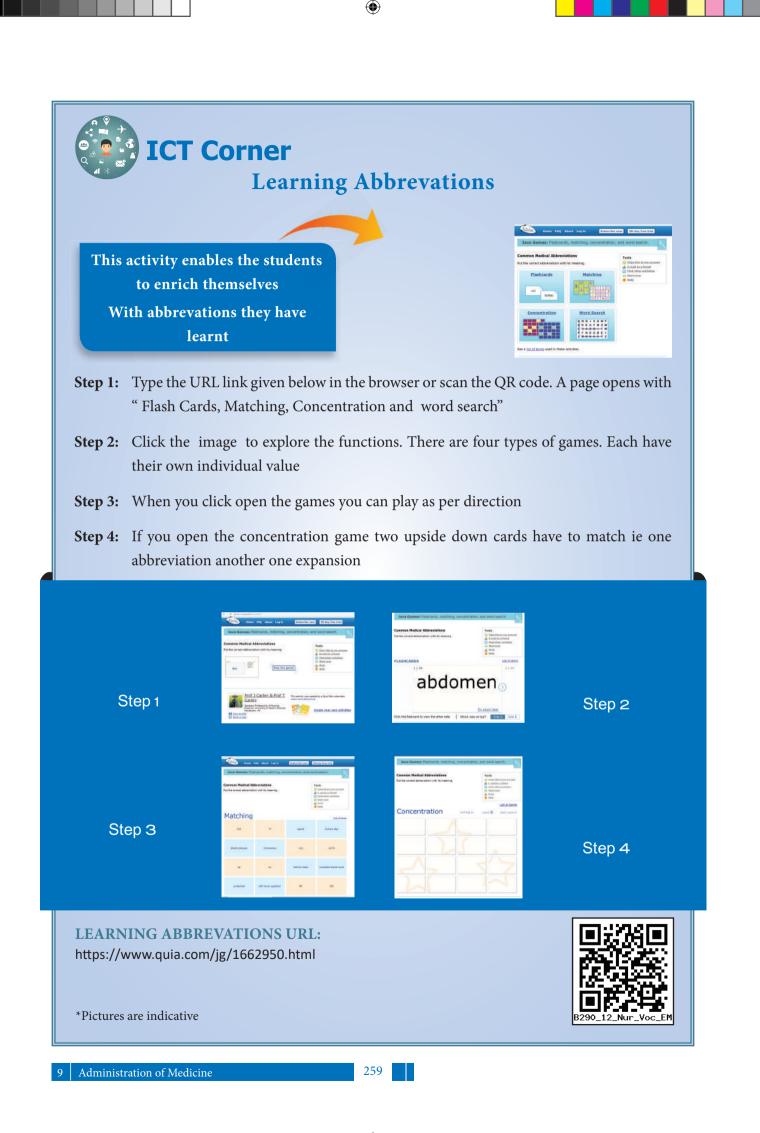
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### I. Choose the correct answer:

- 1. The study of dose, distribution, metabolism and excretion of drugs in the body is known as
  - b. Dose effective body
  - c. Pharmacodynamics
  - d. Pharmacotherapy
  - e. Pharmacokinetics
- 2. Morphine is extracted from the plant opium through the principle of
  - a. alkaloid b. alkaline
  - c. crystalloid d. acidic
- 3. The pharmacy act was formulated in the year

a. 1943	c. 1945
b. 1948	d. 1949

- 4. A type of iatrogenic disease
  - a. peptic ulcerb. heart attackc. cancerd. head ache
- 5. T.I.D stands for

- a. 2 times a dayc. 3 times a dayb. one time a dayd. all the above
- 6. Analgesics are used to

a. relieve pain	c. relieve tension
b. both a & b	d. none of the above

7. The following is the drug prepared from animals except

a. Tab. Para	c. Tab. Taxim
b. Inj. Insulin	d. all the above

- 8. To administer a drug 4 time a day, the abbreviation to be used
  - a. Q.I.D c. OD
  - b. TDS d. BD

- 9. One pint is equal to
  - a. 350 ml c. 500ml
  - b. 510ml d. 450ml
- 10. The abbreviation PO stands for
  - a. by rectal c. by vaginal
  - b. by intrathecal d. none of the above
- II. Write short answer for the following questions:
- 1. List the sources of drugs
- 2. Name any four forms of drugs available
- 3. State the effects of drugs on body
- 4. Mention routes of administration of drugs pertaining to sense organs
- 5. Different forms of drugs are available. Each drug has its own nature. Explain the physical nature of a drug.

# III. Write short notes for the following questions:

- 1. Write the advantages and disadvantages of oral route of drug administration.
- 2. Illustrate the absorption of drugs.
- 3. What do you mean by shape and size of a drug?
- 4. Describe the parts of a prescription of a drug.
- 5. State any five general instructions for administering medicines safely.
- IV. Answer the following questions in detail:
- 1. Classification of drugs.
- 2. Explain the routes of administration of drugs.

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- 3. Describe the rights of administration of drugs.
- 4. Discuss the ethical and legal aspects in administration of medicines.
- 5. Each drug has to be stored in a different manner. Now explain the storage of medication and the safety measures to be followed generally for the drugs.

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# **O** LEARNING OBJECTIVES

At the end of this chapter, the students will be able to

- ✤ define Communication
- process of Communication
- elements of Communication
- why Communication is important in nursing?
- types and Levels of Communication
- list out the Barriers of Communication
- ✤ effective communication

### திருக்குறள்:

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சொல்லுக சொல்லைப் பிறிதோர்சொல் அச்சொல்லை வெல்லுஞ்சொல் இன்மை அறிந்து.

### விளக்கம்:

வேறோரு சொல் அந்தச் சொல்லை வெல்லும் சொல்லாக இல்லாதிருந்தால் அறிந்த பிறகே சொல்லக்கருதியதைச் சொல்லவேண்டும்.

### **Explanation:**

"The words used should be carefully selected so that no other words can effectively replace them." Which means, there should not be any ambiguity in the words used.

10 Communication Skills



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### **10.1 INTRODUCTION**

Communication is the exchange of information, thoughts and emotions among people using speech or other means. Therapeutic practice involves the oral communication of public health officials and nurses on the one hand and the patient or his relatives on the other. It is a two way process.

Communication is a vital element in Nursing in all areas of activity and in all its interventions such as prevention, treatment, therapy, rehabilitation, education and health promotion.



Communication leads to community, that is, to understanding, intimacy and mutual valuing.

- Rollo May

### **10.2 DEFINITION**

Communication can be defined as a transaction and message creation. The entire process occurs in a context consisting of physical space, cultural and social values and psychological conditions

A process by which information is exchanged between individuals through a common system of symbols, signs, or behaviour also exchange of information Communication is a skill that you can learn. It's like riding a bicycle or typing. It you're willing to work at it, you can rapidly improve the quality of every part of your life.

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- Brian Tracy Communication is the art of being understood.

- Peter Ustinov

### **10.3 COMMUNICATION PROCESS**

Communication is a process of exchanging information, ideas, thoughts, and emotions through speech, signals, writing, and behaviour.

### Let's put all these components together to build a model of the communication process:

- 1. A sender encodes information
- 2. The sender selects a channel of communication by which to send the message
- 3. The receiver receives the message
- 4. The receiver decodes the message
- 5. The receiver may provide feedback to the sender

### 10.3.1 Elements of Communication-

- Source of communication
- Receiver
- Sensory receptor
- Message carriers
- Messages
- Responses
- Feedback
- Situation or context

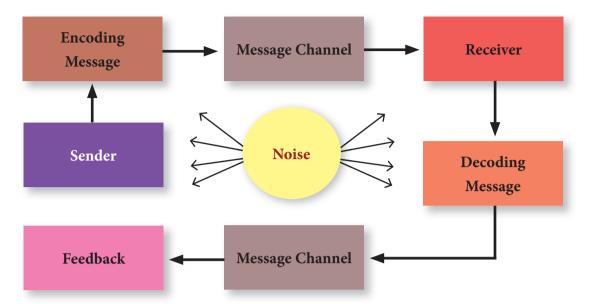
10 Communication Skills

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# **THE COMMUNICATION PROCESS**

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# **10.4** WHY COMMUNICATION IS IMPORTANT IN NURSING

Communication in nursing is essential in patient safety, health and well-being, because nurses are at the centre of patient care, it is their responsibility to facilitate dialog. As nurses assume more complex roles and care for all age group and different culture people, they will need to strengthen their communication skills.

- 1. Helps to understand and to exchange ideas to the patient, relatives, doctors and other health care team members.
- 2. Generate trust between nurse and patients.
- 3. Reduces the interpersonal tensions and improves interpersonal relationship.
- 4. Helps to modify the nurses behaviour

When you can present your own ideas dearly, specifically, visually, and most important, contextually – in the context of a deep understanding of another's paradigms and concerns – you significantly increase the credibility of your ideas.

- Stephen R.Covey

- 5. Helps to influence others behaviour
- 6. Prevent disorder in the ward
- 7. Provides effective leadership

## 10.4.1 The following are Simple Guidelines Nurses can follow to improve their Communications Skills.

### Be Flexible

Every person has a preferred method of communicating, whether in-person, by phone or via the internet.

### Learn to Listen

Speaking and writing are only part of communicating — listening is equally essential. With improper listening properly, they will miss important information of the patient. Listening errors are often the results of multitasking.

### **Do not make Assumptions**

Assuming a patient knows what you mean can result in costly errors. Nurses can ask patients to repeat instructions, which can reveal any misunderstandings or gaps in information.

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### **Read Body Language**

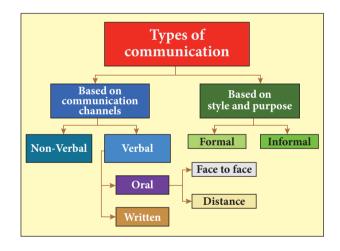
Your behaviour, attitude and posture can affect a patient's perception.

### Strengthen Writing Skills

Communication includes writing as well as speaking. Depending on the role or speciality, you may be responsible for a lot of writing.

#### 10.5 **TYPES OF COMMUNICATION**

People communicate with each other in a number of ways that depend upon the message and its context in which it is being sent. Choice of communication channel and your style of communicating also effects communication. So, there are variety of types of communication.



### 10.5.1 Verbal Communication

Verbal communication refers to the the form of communication in which message is transmitted verbally; communication is done by word of mouth and a piece of writing. Usually people bring their own attitude, perception, emotions and thoughts about the topic and hence creates barrier in delivering the right meaning.



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A professional is expected to be clean, neat, well groomed, professionally dressed, and



free. Professional odour behaviour reflects warmth, friendliness, confidence and competence. Professional speak in a clear, well modulated voice, listen to others, help and support colleagues, and communicate effectively. Being on time, well organized, well prepared, and equipped for the responsibilities of the nursing role also communicate professionals. Also the common elements of professional communication is "Courtesy, Use of names, Trustworthiness, Autonomy and responsibility, Assertiveness".

### Verbal Communication is further divided into

- 1. Oral Communication
- 2. Written Communication

#### 1. Oral Communication

In oral communication, colloquial words face-to-face used. It includes are conversations, speech, telephonic conversation, video, radio, television, voice over internet. In oral communication, communication is influenced by pitch, volume, speed and clarity of speaking.



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### Advantages of Oral communication

It brings quick feedback. In a faceto-face conversation, by reading facial expression and body language one can know it is understand.

#### Disadvantage of oral communication

In face-to-face communication, user is unable to deeply think about the message delivered.

### 2. Written Communication

In written communication, written signs or symbols are used to communicate. A written message may be printed or hand written. In written communication message can be transmitted via email, letter, report, memo etc.



#### Advantages of written communication

Messages can be edited and revised many times before it is actually sent. A written message enables receiver to fully understand it and send appropriate feedback.

#### Disadvantages of written communication

Unlike oral communication, written communication doesn't bring instant feedback.

### 10.5.2 Non-Verbal Communication

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Non-verbal communication is the sending or receiving of wordless messages. We can say that communication other than oral and written, such as appearance of the speaker, clothing, hairstyle, use of cosmetics Surrounding: gestures, body language, posture, tone of voice or facial expressions, is called nonverbal communication. Non-verbal communication is all about the body language of the speaker.



### 10.6 LEVELS OF COMMUNICATION

- 1. Intra-personal communication
- 2. Inter-personal communication
- 3. Public communication
- 4. Mass communication
- 5. Small Group communication

Now, let us learn about the types of communication in detail.

### 1. Intra-personal Communication

Intra-personal communication means communicating to myself, hearing myself talk, feeling about myself more and thinking are examples of intra-personal communication.



10 Communication Skills

### 2. Inter-personal Communication

Inter-personal communication happens when you communicate directly with other people in a one to one or in a small group. The



words 'inter' and personal suggest that 'Interpersonal' means communication between to different individuals.

### 3. Public Communication

Public communication takes place in a situation where many people receive messages largely from one source. For example, it can be a movie, television show, a speech, advertisement, political lecture, committee report etc.



### 4. Mass Communication

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Mass communication is public communication transmitted through electronically or mechanical means. Books, magazines are all examples of mass communication.



### 5. Small Group Communication

Communication is within formal or informal groups or teams. It is group interaction that results in decision making, problem solving and discussion within an organization.



Do a role play in a group, discussing in handling person/patient of different language not known to the group.

### 10.7 BARRIERS OF COMMUNICATION

Barriers to effective communication can retard or distort the message or intention of the message being conveyed. This may result in failure of the communication process or cause an effect that is undesirable.



### Types of Barriers

- Physical Barriers: Physical Barriers are often due to the nature of the environment like noise, invisibility, etc.
- Organisational Barriers: It refers to the problem with the structures or systems in

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the place in an organization. E.g., a lack of supervision or training or policy.

- Personal Barriers: It is due to psychological problems of individuals. E.g., lack of motivation or dissatisfaction in work.
- Ambiguity of words/Phrases: Words sounding the same but having different meaning can convey a different meaning altogether. Hence the communicator must ensure that the receiver receives the same meaning.
- Individual linguistic ability: The use of jargon, difficult or inappropriate words in communication can prevent the recipients from understanding the message.
- Physiological Barriers: These may result from individual's personal discomfort, caused by ill health, poor eyesight or hearing difficulties.

- Bypassing: These happens when the communicators (sender and the receiver) do not attach the same symbolic meanings to their words.
- Cultural Barriers: Strong beliefs, customs, attitudes, religious, sentiments, illiteracy may influence communication.
- Fear of being criticized: This is a major factor that prevents good communication.
- Gender Barriers: Most communicators show a difference in thought, often have a set of agenda. This is noticeable among the different genders.

# How to Overcome the Barriers of Communication





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- Clarify the idea The communicator must be clear about what he wants to communicate.
- Completeness of the message: The message should be relevant to the nature and purpose of communication.
- Understand the receiver: The communicator should be aware of the total physical and human setting.
- Use appropriate channels: The channels should be appropriate to the message.
- Consistency in communication: The message should be consistent with objective.
- Feedback: It involves effective participation and improves mutual understanding.
- Simplified structure: The communication can be strengthened by simple procedure and regulating the information flow.
- Improve listening: The sender and receiver must listen with attention, patience and empathy.
- Mutual trust and confidence: It improves the effectiveness of communication.

# STUDENT'S ACTIVITY

Identify your communication barrier and what effort you are going to take to overcome from your communication barriers.

# 10.8EFFECTIVECOMMUNICATION

When the nurse communicates well, patient/other people will understand what the nurse is trying to convey and will accept it. Let's begin with a clear understanding of what communication is, effective communication

- Achieves shared understanding
- Stimulates others to take actions to achieve goals/ideas.
- Directs the flow of information to help people overcome barriers to open up in discussion.
- Channels information to encourage people/ patient to think in new ways and to act more effectively.

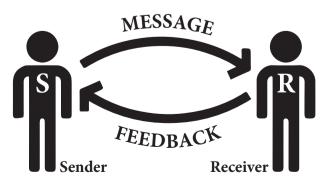


### Skills for Effective Communication

- Express your feelings
- Present yourself well
- Give and receive compliments
- Learn to say "no" when it's necessary
- To solve problems effectively
- Effective communication is a key to getting along with others.

# 10.8.1 Methods of Effective Communication

The important strategies to enhance the communication are described in the following sections.



10 Communication Skills

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### Attention Skills

The sender needs to pay attention to what he or she is trying to communicate, and choose the best words and body language to communicate with. The receiver needs to pay attention to what is being communicated by listening and watching. Attention is primarily governed by the type of attitude sender or receiver has towards each other during communication.



Effective communication

problems,

decisions, co-ordinate, work flow, supervise others, develop relationship and promote products a services.

### **Rapport Building**

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Rapport building is important in both our professional and personal lives

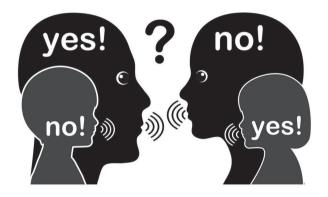
- Use nonthreatening and 'safe topics' for initial small talk.
- \* Listen to what the other person is saying and look for shared experiences or circumstances this will give you more to talk about in the initial stages of communication.
- Try to inject an element of humour. \*
- Be conscious of your body language and other nonverbal signals you are sending.
- Show some empathy.

### Empathy Skills

Empathy skills are very important in good communication. Empathy is the ability to see the world as another person, and to share and understand another person's feeling, need, concern, and/or emotional state.

### 10.8.2 Guidelines for Effective Communication

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### 1. Clarity of purpose

- ✤ In the first place we must make a careful analysis of what exactly we wish to communicate.
- But any effort made in this direction proves to be fruitful.
- ✤ As George Berneard shaw says, "The major mistake in communication is to believe that it happens."

### 2. Shared activity

- ✤ Let us forget that effective communication is the responsibility of all persons in the organisations.
- They may be at any level managerial or nonmanagerial. They are all working towards a common goal.

### 3. Common set of Symbols

The encoding and decoding of the message should be done with symbols that are familiar to the sender and the receiver.

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It is an immutable condition of communication that the code or set of symbols be mutually understood.

### 4. Focus the needs of the receiver

- Whenever we communicate we must keep in mind the needs of the receivers and the message / information.
- It should be our endeavour to see that whatever we communicate should be of value to the receiver, both in the short run and in the distant future.
- Our awareness of the needs of the receiver will make him more receptive.

### 5. Use Feedback

- Use Feedback, exhorts Stephen Robbins, a renowned authority on organisational behaviour. As the model of the communication process given in the preceding chapter shows, communication is complete only when the message is understood by the receiver.
- We can never know whether communication
   / message is understood unless the sender gets feedback.
- Many communication problems arise because of misunderstandings and inaccuracies.

### 6. Active Listening

- Active or 'participative' listening is as important as any other element in the process of communication.
- It shows, again, that communication is a joint responsibility of both the sender and the receiver.

### 7. Controlling Emotions

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- Emotions play an important role in interpersonal relationships between superiors, subordinates and colleagues in an organisation.
- It should therefore, be an important aim of communication to create an environment in which people are motivated to work toward the desired goals of the enterprise while they achieve their personal goals.

### 8. Politeness

- This leads us to the tone of voice aspect of communication.
- Everybody knows that politeness pays and it is reflected so very 'loudly' both in words and actions.

### 9. Eliminate noise

- Every possible effort must be made to eliminate the element of noise that distorts communication at the transmission stage.
- It becomes especially important in the wake of modern technological advancement.
- Anything going wrong with the equipment or any disturbance in the transmission line is bound to defeat the very purpose of communication.

### **10. Clarify Assumptions**

- No effective communication can be based on assumptions.
- The sender of the message must first clarify his assumptions and then go ahead with proper encoding of the message.

# 11. Avoiding Connotations and Ambiguities

- Semantic problems can be solved by using simple language and avoiding connotations.
- Care must be taken to see that the receiver of the message does not have to go beyond the text of the message.
- A sender should, therefore use denotative words and expressions in preference to connotative ones.
- It is also necessary to avoid all ambiguity that means using words with double meaning.

### 12. Socio-psychological aspect

As communication is a two-way process involving both the sender and the receiver, both should make conscious efforts to understand each other's cultural and socio-psychological background.

- As a golden rule for effective communication one must remember, "First understand, then be understood."
- An effective communication is an informed communicator.

### 13. Completeness

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- One must also endeavour to send a complete message, furnishing all necessary facts and figures.
- Incomplete communication annoys the receiver, as a result they do not get proper feedback.
- The message should be so organised that the receiver is not left in doubt about any aspect of the message.

### 14. Conciseness

- Completeness does not mean inclusion of unnecessary details or diversions.
- An effective communication is concise and crisp.

The sender should be clear headed and properly focused in her/his vision.

### 15. Proper use of body language

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- Proper use of body language is of paramount important, especially in oral communication.
- No oral communication can be successful or effective if we do not take care of our body language.
- In the first place there must be good eye contact with the person to whom we are communicating.
- The movement or our hands and feet must be graceful.
- Every listener observes carefully how we walk and how we talk.
- Our gait says a lot about us.
- ✤ A warm handshake can do wonders.
- Holding our head straight on our shoulders shows confidence.



When we use speech to communicate ideas and opinions as well as our emotions and innermost

feelings, We communicate each of these by using a variety of elements, which includes:

- > The tone of voice
- The emphasis used in speech
- > The content of the speech
- > The use of figurative language
- > The use of humour in speech
- ▶ The pace of delivery
- The pronunciation used
- > The pitch of our voice
- ▶ The use of inferred speech

### 10.8.3 Some tips for Effective Communication



### 1. Learn to express yourself

Help others to get to know you better, so they will know what to expect from you. They will also help you to get knowledge because they will give information about themselves.

#### 2. Learn good listening skills

Careful listening avoids misunderstanding. Give your undivided attention to the patient/ speaker. If you need more information ask questions. Be informative by trying to say something positive even if you don't like it.

### 3. Learn to be assertive

Express what you have to say with frankness without being aggressive. To be assertive means not to say 'Yes' when you want to say 'No'.

### **CONCLUSION**

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Communication is a powerful therapeutic tool and an essential nursing skill that influences others and achieves positive health outcomes. Communication is an exchange of a facts, ideas, views, opinions, emotions, informations etc. The basic elements of communication are the referent the sender, the message, the channels, the receiver, the feedback and the environment Nurses use interpersonal, intrapersonal, public and mass interaction to achieve positive change and health goals.

Effective communication helps us to anticipate problems, decisions, co-ordinate workflow, develop relationship and promote services. Barriers of communication may result in failure of the communication process or cause an effect that is undesirable. Communication refers to verbal and non verbal behaviour within a social context. It includes all symbols and clues to give and receive meaning.

10 Communication Skills

Communication (தகவல் தொடர்பு)	-	It means of sending or receiving information.	
Verbal Communication (வாய்மொழி தகவல் தொடர்பு)	-	Relating to (or) in the form of words.	
Non-Verbal Communication (சொற்களற்ற சைகை வழி தகவல் தொடர்பு)	-	Communication in a form other than written or spoken words, such as gestures, facial expressions or body language.	
Intra personal (தனிப்பட்ட)	-	A communicators internal use of language or thought.	
Barriers (தடைகள்)	-	A fence or other obstacle that prevents movement or acess.	
Empathy Skills (பரிபூரண திறமைகள்)	-	It is understanding someones thoughts and emotions.	
Body Language (உடல்மொழி தகவல் தொடர்பு)	-	The conscious and unconscious movements and postures by which attitudes and feelings are communicated.	
Completeness (முழுமையான)	-	The state or condition of having al necessary or appropriate parts.	
Conciseness (உணர்வு)	-	Effective words is concise, with no unnecessary words while communicating.	
Feedback (பின்னூட்டம்)	-	Information about reactions to a product, a persons performance of a task.	

10 Communication Skills





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### I. Choose the correct answer:

- 1. Communication refers to, behaviour within a social context.
  - a. verbal
  - b. non-verbal
  - c. verbal and non verbal
  - d. none of the above
- 2. Which is the process of exchanging information, ideas, feelings etc.
  - a. communication
  - b. information
  - c. conversation

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- d. all of the above
- 3. Interpersonal communication is:a. interaction between twob. internal thoughtsc. interaction with small group of people
  - d. all of above
- 4. Non-Verbal communication includes;a. Smileb. Smellc. Laughd. Staring
- 5. This barrier may result from individual's personal discomfort caused by ill health.
  - a. physical b. Environment
  - c. Physilogical d. Organisational
- 6. Which does involve effective participation and improves mutual understanding.
  - a. Feed back b. Sender
  - c. Receiver d. Noise
- 7. As a golden rule for effective communication one must remember. "First understand, then be understood".
  - a. Psychologial
  - b. Social
  - c. Socio-psychological
  - d. Cultural

- 8. What can be defined as a transaction and message creation?
  - a. Communication
  - b. Verbal Communication
  - c. Mass communication
  - d. information
- 9. Which refers to the non verbal signals that you use to communicate your feelings and intention?
  - a. Communication
  - b. Body language`
  - c. Verbal communication
  - d. None of the above
- 10. Barriers of effective communication are
  - a. Being defensive
  - b. Summarising
  - c. Perceptions of individuals
  - d. All the above

# II. Write short answer for the following questions:

- 1. Define communication
- 2. What are the elements of communication?
- 3. What is effective communication?

# III. Write short notes for the following questions:

- 1. Why communication skill is important to nurses?
- 2. Explain communication process.
- 3. What are the simple guidelines Nurses can follow to improve their communication skills?
- 4. Write short notes about Verbal and non verbal communication.

10 Communication Skills

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# IV. Answer the following questions in detail:

- 1. Explain levels of communication.
- 2. What are the barriers of communication and how to overcome from the barriers?
- 3. Write about any 10 guidelines for effective communication.

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10 Communication Skills

# **S** LEARNING OBJECTIVES

At the end of this chapter, the students will be able to

✤ define guidance.

Unit

- explain the purpose of guidance.
- enumerate the objectives of guidance.
- explain types of guidance.
- describe the importance and scope of guidance.
- enlist the functions of guidance.
- discuss the principles of guidance.
- list the roles of the advisor in guidance.
- difference between guidance and counselling.
- ✤ define counselling.
- enumerate the objectives of counselling.
- explain the need for counselling.

explain the scope for counselling.

**GUIDANCE AND COUNSELLING** 

- list the principles for counselling.
- ✤ discuss the various types of counselling.
- explain the steps in the counselling process.
- enlist the counselling skills.
- enlist the roles of a counselor.
- enlist the attributes of a counselor.
- examples of issues in Counselling.
- method of Teaching: Lecture, power point presentation, demonstration, role play, field visit.

### திருக்குறள்:

அகன்அமர்ந்து ஈதலின் நன்றே முகனமர்ந்து இன்சொலன் ஆகப் பெறின்.

### விளக்கம்:

முகம் மலர்ந்து இன்சொல் உடையவனாக இருக்கப்பெற்றால், மனம் மகிழ்ந்து பொருள் கொடுக்கும் ஈகையைவிட நல்லதாகும்

### **EXPLANATION:**

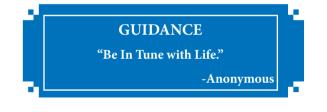
Sweet speech, with a cheerful countenance is better than a gift made with a joyous mind.

11 Guidance and Counselling



### INTRODUCTION

In today's fast moving world, each and everyone needs help. From a small child to the elderly, the need for help is inevitable in every phase of life. For example, when children finish their schooling, they need help in choosing what course they have to study, after which they need help in choosing their career pathway, adults need help in choosing a good job, a suitable life partner, then in reaching the children, getting them a suitable life partner, then managing the difficulties of life and it goes on till the end of life. Every human being needs help from each other to go on in life as we are a social being.



### 11.1 GUIDANCE

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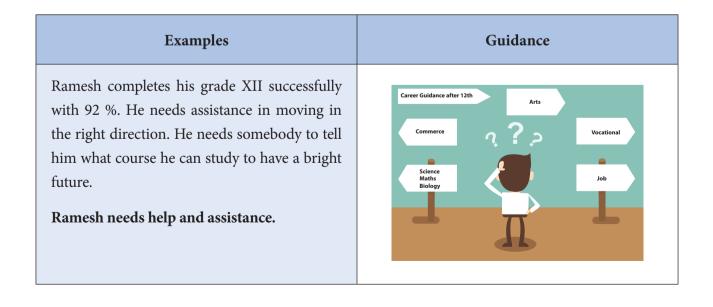
Guidance means to "direct", "to point out", and "to show the path".



Guidance is providing some help or assistance to an individual by another expert individual.

Guidance is designed to assist a person to decide where he wants to go, what he wants to do, or how he can best accomplish his purpose; it assists him to solve problems that arise in his life. It does not solve his problems, but empowers him to solve them.

The focus of guidance is the individual, not the problem; its purpose is to promote the growth of the individual in self-direction. This guidance can be given to groups or to individuals, but it is always designed to help each individual even though they may be in a group.



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### Define Guidance

"Guidance is the assistance provided to individuals to be able to choose, prepare and assume a position and making progress in his/ her chosen position" (Frank Parson, 1951).

Guidance is concerned with the maximum development of the individuals to make his/ her own decisions, recognizing his abilities and potentialities.

"Guidance is a process of helping young people to learn to adjust to self, to others and to circumstances'. (Skinner.)

### Other statements related to guidance are:

- Guidance is a personal assistance.
- Guidance is a process by which individual solves his problems by his own efforts.
- Guidance focuses on the attention of the welfare of the individual.

### Purpose of Guidance

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- To bring confidence in selecting appropriate course of action for adjustment in various walks of life.
- Helping in a balanced development.
- To help to determine the courses most appropriate to their needs and abilities.
- To plan the future in the individual's line of interest, abilities and social needs.

### **Objectives of Guidance**

- Explore self
- Determine values
- Set individual goals/objectives
- Explore the world
- Improve the efficiency
- Build relationship
- Accept responsibility for the future

### Types of Guidance

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Types	Examples
1. Personal	Mr.Lucas, has 3 adolescent children who are all
<ul> <li>It is needed to develop all personal and social</li> </ul>	boys. They are Sam, Sham and Saul.
qualities that would enable the individuals in	
solving personal problems and seeking better adjustments.	
<ul> <li>It is meant for deciding what habits, attitudes and values we should develop.</li> </ul>	
<ul> <li>It is concerned with the total person.</li> </ul>	They are in the stage of <b>attitude formation</b>
✤ This guidance points out the strengths and	and are at a risk to go into any habits. Mr.Lucas
weaknesses of every individual or child.	monitors them closely to see that they
	develop a favorable attitude and abstain from
	uncompartable habits. He sometimes seeks
	guidance in growing up the three children.

1 Guidance and Counselling

### 2. Vocational

- Relating to choosing and adjusting in an occupation or employment.
- Process of assisting the individual to choose an occupation, prepare for it, enter it and progress on it.

Sangeetha, a 22 yr old girl, has completed her B.Sc. Nursing course and has got 3 good jobs in reputed hospitals which are equally good.

She needs to choose among the 3 options. She has to decide what is best for her future.

#### Sangeetha needs help and assistance.

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### 3. Educational

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- Is a process of assisting the individual student to reach optimum educational development. It is a sort of guidance that is only rendered to the student community of any age.
- Helps the students to make right choices, as well as make adjustments in relation to schools, curriculum, courses and school life which contributes to the all-round development.

### **Describe the Scope of Guidance**

Implies to the extent, length, breadth, range, comprehensiveness and variety of helping the individual to solve his problems, covering all the aspects of life.

#### Scope of Guidance service in schools.

- Helps to make a satisfactory transition from home to the school.
- In diagnosing the difficulties in the learning of basic skills.
- To help in avoiding potential dropouts in schools.



- To help in understanding the purpose and meaning of life.
- > To plan for further education.

### 11.1.1 Enlist the Functions of Guidance

- Encouraging and supporting
- Informing
- Advising
- Assessing
- Liaising and representing
- Monitoring and coaching
- Providing feedback
- Counselling

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### 11.1.2 Discuss the Principles of Guidance

Guidance is based on the following principles. (Gordon et al, 2008)

1. Guidance involves holistic development of the individual.

It should be given in the context of total development of the personality.

- 2. Guidance recognizes individual differences. Each individual is different with specific needs, interests, and values. Students come from diverse cultural background. Therefore, it is necessary for teachers to be sensitive to these differences.
- 3. Dignity, respect and freedom should remain integral to the guidance process. Accept individuals with respect, dignity and freedom.
- 4. The guidance should be a continuous process. Continued interactions are helpful.
- 5. Guidance uses good communication skills. Communication is an important skill needed in guidance. It includes both verbal and nonverbal communication.
- 6. *Guidance is a team activity.*

Besides giving personal tutoring time, incorporating more people, expertise and multiple perspectives is highly effective.

7. Every contact is a precious opportunity for meaningful interaction.

Every individual is unique and have their own different style of interaction.

8. The frequency and quality of interaction with the advisor is critical in helping students adjust to college life.

9. Students are expected to map out a path for success.

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10. The core task is working with students to plot a course of action for their educational success.

### 11.1.3 Roles of the Advisor in Guidance



"You just have to have the guidance to lead you in the direction until you can do it yourself."

- Tina Yothers

### **11.2 COUNSELLING**

Counselling is as old as society. In everyday life we find counselling goes on at many levels in a family set-up, parents counsel their children, in society doctors counsel patients, lawyers counsel clients and teachers counsel students.

# **STUDENT'S ACTIVITY**

Can practice the types of guidance by doing a Role play.

Counselling is a process of assistance extended by an expert in an individual situation

to needy person. According to *Carl Rogers*, Counselling is a series of direct contact with the individual which aims to offer him assistance in changing the attitudes and behavior. Counselling involves two individuals one seeking help and other a professionally trained person helped solved problems to orient and direct him to words a goals.



### Define Counselling

Counselling is a personal and dynamic relationship between two individuals-an older, more experienced and wiser (counselor) and a younger, less wise (counselee). The latter has a problem for which he seeks the help of the former. They two work together so that the problem may be more clearly defined and the counselee may be helped to a self-determined solution. (Wren)

Counselling is an accepting, trusting and safe relationship in which clients learn to discuss openly what worries and upsets they have, to define precise behaviour goals, to acquire the essential social skills and to develop the courage and self confidence to implement desired new behavior. (Merle M. Ohlsen)

### **Enumerate the Objectives of Counselling**

- 1. Achievement of positive mental health.
- 2. Resolutions of problems.
- 3. Improving personal effectiveness.

4. Maximizing change of behavior.

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- 5. Decision making as a goal of nursing.
- 6. Modification of behavior as a goal.

#### **Explain the Need for Counselling**

To help individuals become self-sufficient, self-dependent, and self-directed and to adjust themselves efficiently to the demands of a better meaningful life.

### 11.2.1 List the Principles for Counselling

Siddiqui (2013) has listed 10 principles of Counselling which are the following:

- 1. Communicate personal warmth and make the client feel welcome and valued as individuals.
- 2. Act with care and respect considering the individual and cultural differences and diversity of human experience.
- 3. Be honest and trustworthy in all of the individual's professional relationships, being open, friendly and not defensive.
- 4. Respect the confidence with which the individual is entrusted.
- 5. Be empathetic and sense the feelings and experience of another person.
- 6. Promote the safety and wellbeing of individuals, families, and communities.
- 7. Seek to increase the range of choices and opportunities for the clients.
- 8. Practice within the scope of the individual competence.
- 9. Treat colleagues and other professionals with respect.
- 10. Focus on finding solutions to the existing problems and future decisions of the individual.

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## **Explain the Scope for Counselling**

Counselling has a lot of scope in this complex world. The scope covers the various services: (Technical and Vocational Training Corporation, 2016.)

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S.No.	Services	Explanation
1.	Religious counselling	• It is done through religious activities such as retreats, lectures, or religious book studies.
2.	Preventive counselling	• It is used to prevent occurrence of social, psychological, and health problems through awareness program.
3.	Educational counselling	• It is done for assisting students in studies and development of their talents and capabilities.
4.	Vocational and educational counselling	• Educating students about the various types of vocation and university education, types of jobs, and conditions of employment.
5.	Social and ethical counselling	• Is helpful in identifying suitable environment for students to acquire skills and expertise to interact with others in accordance with the institution and spiritual or ethical values.
6.	Student counselling	• Done for helping students with personal and behavioral problems, and it also includes employment and career counselling.

### **Discuss the various types of Counselling**

Siddiqui (2013) has classified the types of Counselling

S.No.	Types of Counselling	Explanation and examples
1.	Individual counselling	It aims to explore and facilitate solving of personal problems and issues. It is a <i>one to one</i> basis. It helps in developing coping strategies.
2.	Group counselling	It provides <i>members of the group</i> to explore and develop personal goals and to promote positive changes in an atmosphere of honest sharing and listening.
3.	Career counselling	Explores <i>individual capabilities and job opportunities</i> .
4.	Marriage counselling	It is done to <i>prepare individuals for marriage</i> to enhance adjustment and acceptance between partners.

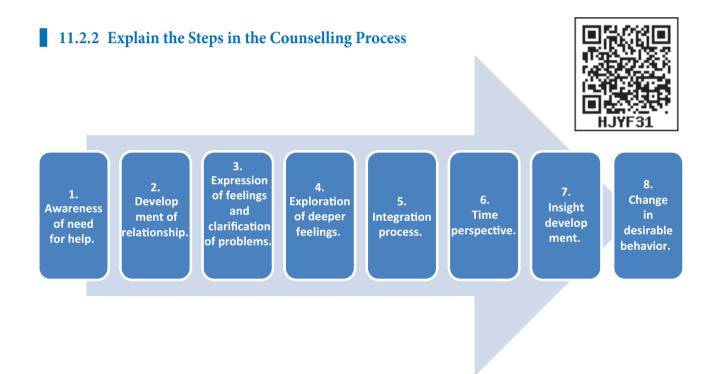
11 Guidance and Counselling

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S.No.	Types of Counselling	Explanation and examples
5.	Student/Academic counselling	It is done among students to enable them to <i>solve academic and personal problems</i> . It also assists students to make career choices.
6.	Family counselling	This is used when their is critical situations and adjustment problems among the family members.
7.	Geriatric counselling	Is done <i>among the elderly</i> in times of behavioral problems. For example <i>depression</i> .
8.	Genetic counselling	Involves counselling of <i>parents about genetic problems</i> and treatment options in children.
9.	Online counselling	Offered via <i>email</i> and online applications.



### 11.2.3 Enlist the Counselling Skills

- 1. Attending
- 2. Observing
- 3. Active listening
- 4. Reflecting
- 5. Questioning
- 6. Summarizing

- 7. Silence
- 8. Independence
- 9. Concreting
- 10. Empathy and acceptance
- 11. Cultural sensitivity

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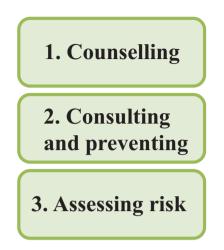
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### 11.2.5 Differentiate between Guidance

### and Counselling

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Basis for Comparison	Guidance	COUNSELLING
Meaning	Guidance refers to an advice or	Counselling refers to a
	a relevant piece of information	professional advice given by
	provided by a superior, to	a counselor to an individual
	resolve a problem or overcome	to help him in overcoming
	from difficulty.	from personal or psychological
		problems.
Nature	Preventive	Remedial and Curative
Approach	Comprehensive and Extroverted	In-depth and Introverted
What it does?	It assists the person in choosing	It tends to change the
	the best alternative.	perspective, to help him get the
		solution by himself or herself.
Deals with	Education and career related	Personal and socio-
	issues.	psychological issues.
Provided by	Any person superior or expert	A person who possesses high
		level of skill and professional
		training.
Privacy	Open and less private.	Confidential
Mode	One to one or one to many	One to one
Decision making	By guide.	By the client.

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### **11.3 ENLIST THE ATTRIBUTES OF A COUNSELOR**

- 1. Empathy
- 2. Understanding
- 3. Respect

11 Guidance and Counselling

- 4. Positive acceptance
- 5. Commitment to values
- 6. Personal skills
- 7. Personal knowledge
- 8. Personal development

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S.No.	Issues	Explanation	Characters.
1.	Love affairs	Attraction towards opposite sex that is a natural phenomenon.	Lack of interest in studies, bunking classes, running away from home or hostel, and chances of getting infected by sexually transmitted diseases.
2.	Stress management	Stress is your body's way of responding to any kind of demand or threat.	Examination fear, inability to get admission in desired colleges, job stress, peer pressure, extreme anxiety, leading to suicide, hurting others, and psychiatric illnesses.
3.	Depression and self-harm	Adolescent find it difficult to balance between independence and dependence, which can lead to depression.	Depression, suicide, physical and sexual abuse, drug abuse, alcoholism, loss of family members, single parent, poor parent child relationships.
4.	Anger management	Anger or wrath is an intense negative emotion. Emotions have to be controlled and energies directed towards positive ways.	Anger towards family, friends and relatives.
5.	Child abuse/harassment	Child abuse is when a parent or caregiver, whether through action or failing to act, causes injury, death, emotional harm or risk of serious harm to a child.	Forms of child maltreatment, including neglect, physical abuse, sexual abuse, exploitation and emotional abuse.

# 11.3.1 Examples of Issues for Counselling

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S.No.	Issues	Explanation	Characters.
6.	Memory and concentration	Problems in academic due to lack of memory and concentration.	Watching TV, playing computer games, and unhealthy friendship.
7.	Adjustment with parents	Children are unable to live up to the parents expectations and consider their advice as interference can lead to maladjustments.	Irresponsible, aggressive, less competitive, and uncooperative.
8.	Adjustment in school/ college	Students have difficulties to make adjustments in relationship with friends, teachers, course of study and career.	Impulsive decisions, failures, disappointments, and coping problems.
9.	Career guidance	Deals with enhancing the student's knowledge about the capabilities, interests, intelligence, job opportunities and competitive examinations.	Awareness of their weaknesses and strength.
10.	Domestic violence	Domestic violence is one person against another in a domestic setting such as a home.	Family problems and behaviors problems among children.

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S.No.	Issues	Explanation	Characters.
11.	Gambling	Gambling is the betting of money or something of value on an event with an uncertain outcome with the primary intent of winning money or material goods.	Loneliness, stress, depression and other problems,
12.	Substance abuse	Substance abuse, also known as drug abuse, is a patterned use of a drug in which the user consumes the substance in amounts or with methods which are harmful to themselves or others, and is a form of substance related disorder.	Habit formation, failure in examinations, accidents, violence, and unplanned unsafe sex.
13.	Truancy	Truancy means running away from home, school or hostel.	Unhealthy friendship or relationships.

A recent official note tabled in Parliament by Union home ministry has confirmed that Tamilnadu continues to be one of the leading states in suicide rate, particularly the student community. (April 4, 2018, Deccan Chronicle.)



- Can practice Counselling by doing a Role play.
- Visiting guidance and counselling centre.



Carl Rogers, (1902 – 1987), an American psychologist, emphasized on the personto-person relationship between the therapist and the client.

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### **CONCLUSION**

Guidance is a psychological field that deals with assisting clients in their need to choose the right course of action, while Counselling is a psychological field that deals with research and applied work to provide training and supervision. While both are being used in organizations and by individuals, Counselling has a broader reach, while guidance is usually being used in schools to guide students towards proper actions. Counselling encompasses several other fields of psychology, while guidance tends to be more specific.

## A-Z GLOSSARY

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Retreats (புத்துணர்சி முகாம்)	-	Time spend away from one's normal life for the purpose of reconnecting usually in prayer with God.
Professional (தொழிலர் தொகுதி மனப்பான்மை)	-	Exhibiting a courteous, conscientious, and generally businesslike manner in the workplace.
Perspective (தோற்றம்)	-	The capacity to view things in their true relations or relative importance.
Introverted (உள் தோற்றம்)	-	Possessing a reserved or shy nature.
Extroverted (வெளித் தோற்றம்)	-	possessing or arising from an outgoing and social nature.face.
Socio-psychological (சமூக மனநிலை)	-	Relating to, or involving a combination of social and psychological factors.
Confidential (நம்பிக்கைக்குரிய)	-	Secret or private.
Ethical (ஒழுங்குநெறி)	-	Involving or expressing moral approval or disapproval.
Depression (மனச்சோர்வு)	-	A state of feeling sad.
Insight (உள்ளுணர்வு)	-	The power or act of seeing into a situation.
Concreting (திட நிலை)	-	Naming a real thing or class of things.
Attributes (பண்பு)	-	A quality, character, or characteristic ascribed to someone or something
Bunking (விடுபடுதல்)	-	A hurried departure or escape from class.
Habit formation (பழக்க நிலை)	-	The process by which new behaviors become automatic.

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11 Guidance and Counselling

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- 1. The word guidance means:
  - a. To talk to.
  - b. To direct.
  - c. To observe.
  - d. To listen.

- 2. Guidance is a process of helping young people to:
  - a. Learn to complete their studies.
  - b. Communicate well with others.
  - c. To adjust to self, to others and to circumstances.
  - d. To walk away from situation.
- 3. The purpose of guidance is to:
  - a. Helping in a balanced development.
  - b. Talk to others.
  - c. Help to communicate to friends.
  - d. Separate from group.
- 4. Which one of the following is a objective of guidance?
  - a. Build relationship.
  - b. Enhance communication.
  - c. Develop patience.
  - d. Develop anger.
- 5. Taanika, a 22 yr old girl, has completed her Engineering studies and has got 3 good jobs

in reputed companies which are equally good. Which guidance should be taken

- a. Personal.
- b. Vocational.
- c. Educational.
- d. None of the above.
- 6. Counselling for helping students with personal and behavioral problems, and it also includes employment and career counselling. Which scope of counselling is it classified under?
  - a. Preventive counselling.
  - b. Student counselling.
  - c. Religious counselling.
  - d. Genetic counselling.
- 7. Which type of counselling is offered via email, real time chat, and video conferencing?
  - a. Genetic counselling.
  - b. Student/Academic counselling.
  - c. Online counselling.
  - d. Preventive counselling.
- 8. Watching TV, playing computer games, and unhealthy friendship is classified under what issues which needs counselling?
  - a. Memory and concentration.
  - b. Adjustment in school/college.
  - c. Gambling.
  - d. All the above.

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# II. Write short answer for the following questions:

- 1. Define guidance.
- 2. Write any 3 purposes of guidance.
- 3. Write any 3 objectives of guidance.
- 4. Write any 3 roles of the advisor of guidance.
- 5. Define counselling.
- 6. List any 3 skills of the counselor.

# III. Write short notes for the following questions:

- 1. Explain any 2 types of guidance.
- 2. Describe the scope of guidance service in schools.
- 3. Enlist the functions of guidance.
- 4. Explain the need for counselling.

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5. Explain the steps in the counselling process.

# IV. Answer the following questions in detail:

- 1. Discuss the principles of guidance.
- 2. Differentiate between guidance and counselling.
- 3. Explain the scope for counselling.
- 4. List the principles for counselling.
- 5. Discuss the various types of counselling.
- 6. Discuss any 5 issues which need counselling.

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### **CASE STUDY**

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### **CASE STUDY: 1**

- 1. Mrs. Kamala, 25 years female has 22 weeks of pregnancy admitted in Antenatal ward with Haemoglobin level of 7.2 gm and complaints of loss of appetite. She is taking prescribed iron tablets daily.
  - (a) As a nurse what type of health education you will give?
  - (b) Prepare a flash cards with iron containing food which is available in the market.

### CASE STUDY: 2

- 1. Mrs. Usha 23 years primi mother who delivered a female baby with 2.7 kg through normal delivery. She is in the postnatal ward.
  - (a) What are the postnatal observations as a nurse you must do?
  - (b) List the nursing interventions for a primi mother in the immediate postnatal period.

### CASE STUDY: 3

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- 1. The mother delivered her first baby and getting discharged today.
  - (a) What are the family palnning advices you will give?
  - (b) What are the discharge instructions you will give?

### CASE STUDY: 4

- 1. Mrs. Sita 48 years old female admitted in a hospital for angina pectoris. She has recovered slowly from the condition. She was adviced to get discharge home with mitroglycerine tablets and the nurse should give her the discharge advice.
  - a. What are the general instructions does the nurse include in the teaching?
  - b. What should he insisted for Mrs. Sita to resume her normal routine activities?
  - c. When to approach doctors?

### CASE STUDY: 5

1. Mr. Lee and her 8 months old Lavanya visited the paediatric clinic with the

history of recurring attacks of diarrhoea. The baby is on bottle feed only.

- 1. What are the reasons for diarrheoa?
- 2. What are the foods can be given to him?
- 3. How do you advise on bottle feed?

### CASE STUDY: 6

- Mrs. Vasantha and her 12 months old baby Dhinesh came to the hospital at the first time for vaccination. The baby looks very thin. On examination his weight only 6.2 kgs., sitting without any support on enquiry his birth weight was 2.9 kgs. Not yet received a single vaccination.
  - 1. Is that baby's weight is upto the expectation?
  - 2. What are the expected milestones in 12 months?
  - 3. List down the immunization schedule for this baby.

### CASE STUDY: 7

- 1. Meena is a 29 year old female approached to the Emergency Department with dyspnea, myalgia, and rhinorrhea. Her symptoms began approximately 1 day ago and are continuous, steadily getting worse. She is having significant nasal discharge but minimal cough. Her 4 year – old son has experienced rhinorrhea as well over the past 3 days, but is not as ill as she is. She has no significant past medical history, and takes no routine medications. She reports receiving the flu vaccine when her child first fell ill, 3 days ago. Meena was diagnosed with influenza via swab test, she was admitted to the hospital for respiratory problem and started on the antiviral tamiflu (oseltamivir). She was discharged after five days of hospitalization with good improvement in oxygenation.
  - 1. What health education you will give her to keep other family members safe from flu?

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NURSING - THEORY (VOCATIONAL) MODEL QUESTION PAPER – XII STD

### Part-III – VOCATIONAL SUBJECTS

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(Health Area)

Time: 2hrs-30 minutes

Maximum Marks: 90

### Instructions:-

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- i. Check the question paper for fairness of printing. If there is any lack of fairness, inform the Hall supervisor immediately.
- ii. Use Blue or Black Ink to write and underline and pencil to draw diagrams.

### <u>I - CHOOSE THE CORRECT ANSWER $(15 \times 1 = 15)$ </u>

- 1. Paterson filter is an example of
  - a. Slow sand filter
  - b. Rapid sand filter
  - c. Household filter
  - d. Candy's filter
- 2. The infection spread to the blood stream will lead to
  - a. Lung Abscesses
  - b. Pleural Effusion
  - c. Septic Shock
  - d. All the above
- 3. Mr. Raju, his BP is 180/100 mmHg his condition can be termed as
  - a. Hypotension
  - b. Hypertension
  - c. Myocardial infarction
  - d. Angina Pectoris
- 4. Signs and symptoms of diabetes mellitusi) Polyuria
  - ii) Polydipsia

- iii) Polyphagia
- iv) Hypoglycaemia

a. i, ii, iii b. i, ii, iv c. i, iii, iv d. ii, iii, iv

- 5. Which of the following group of vitamins are fat soluble
  - a. A, B, C, D
  - b. A, D, C, B
  - c. A, D, E, K
  - d. B, C, D, K
- 6.  $G_2P_2$  could mean
  - a. A woman has had 2 children and is excepting twins.
  - b. A woman has been pregnant 2 times and has 2 children.
  - c. A woman has already had one child and has just had an abortion.
  - d. A woman has been pregnant 2 times and miscarried once (before 24 weeks).

Model Question Paper

- 7. Most of the infant double their birth weight by
  - a. 4 to 5 months
  - b. 3 to 4 months
  - c. 6 to 8 months
  - d. 8 to 10 months.
- 8. Which of the following interventions should be taken to help an older client to prevent osteoporosis
  - a. Decreased dietary calcium intake.
  - b. Increase sedentary lifestyles.
  - c. Increase dietary protein intake.
  - d. Encourage regular exercise.
- 9. The first phase of disaster management is
  - a. Long term planning
  - b. Preparedness
  - c. Impact phase
  - d.Warning phase
- 10. Analgesics are used to
  - a. Relieve pain

- b. Relieve tension
- c. Both a & b
- d. None of the above.
- 11 Barriers of effective communication are
  - a. Being defensive
  - b. summarising

c. Perceptions

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- d. All the above
- 12. Which of the following is the objective of guidance?
  - a. Build relationship
  - b. Enhance communication
  - c. Develop Patience
  - d. Personal
- 13. Thyroid storm is the complication of
  - a. Hyperthyroidism
  - b. Hypothyroidism
  - c. Hypotension
  - d. Hypertension
- 14. The amniotic cavity develops
  - a. On the tenth day.
  - b. Within the outer cell mass.
  - c. Within the inner cell mass near the cytotrophoblast.
  - d. In extra embryonic mesoderm.
- 15. Non-Verbal communication includes;
  - a. Smile
  - b. Smell
  - c. Laugh
  - d. Sharing

### **II - ANSWER ANY 10 QUESTIONS IN BRIEF (10 x 3 = 30)**

- 16. List down the precautions taken for safe water supply in tanks.
- 17. Write any 3 complications of Pneumonia.
- 18. Write the diagnostic investigation for cholecystitis.
- 19. Write the nursing management of Renal Calculi.
- 20. Differentiate between balanced diet and malnutrition.
- 21. What is meant by post natal period?
- 22. What is meant by Growth and development of a child?
- 23. What is macular degeneration?
- 24. Write an expansion for START in disaster management.
- 25. Define Toxicology.

| Model Question Paper

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- 26. What is meant by epilepsy?
- 27. Write the elements of communication.
- 28. Write any three roles of the advisor of guidance.

#### <u>III - WRITE SHORT NOTES ON ANY 5 QUESTIONS ONLY $(5 \times 5 = 25)$ </u>

- 29. Discuss in detail the home care management of diarrhoea.
- 30. Differentiate endemic, epidemic and pandemic.
- 31. Write the causes of computer vision syndrome.
- 32. Write diet schedule for your grandmother 75 years old who is a case of Diabetes mellitus.

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- 33. How do you assess the Homan's sign?
- 34. Write brief note on disaster management kit.
- 35. How do you plan a balanced diet?

#### IV - ANSWER IN DETAIL $(10 \times 2 = 20)$

36. Write an essay about Myocardial Infarction.

or

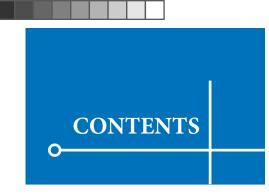
Write in detail about the responsibilities of Home health nurse.

37. Weather forecast announce about heavy and continuous rain for 3 days. What is your role before during & after rain?

or

For an effective communication with your class teacher, what are all the guidelines you will follow?

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## NURSING VOCATIONAL - PRACTICAL

UNIT 1	OXYGEN ADMINISTRATION	297
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## **OXYGEN ADMINISTRATION**

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## **Definition:**

Oxygen therapy is the administration of oxygen to patients those who are suffering with respiratory dysfunction and low level of  $O_2$  in blood.

#### **Oxygen cylinder:**

- 1. Oxygen is a gas, which has no smell or colour and is heavier than air
- 2. It is stored at high pressure in black and white colour cylinders
- 3. With oxygen there is always a serious fire risk
- 4. Smoking is not allowed anywhere nearby oxygen cylinder
- 5. No open fire or any inflammable material should be kept near the oxygen cylinder
- 6. Oil, grease or alcohol should never be used on the connections of the cylinder
- The cylinder is mounted on a stand for easy access and should be tested before taking it to the bedside
- To test it, open the cylinder with the key and then open the valve very little and test the flow of oxygen from the cylinder into a bottle half filled with water. (humidifier)
- 9. The humidifier bottle is connected with flow meter to know the amount of  $O_2$  being delivered.

 Oxygen flows into the humidifier and then oxygen is given to the patient



#### **Indications for oxygen Administration:**

- Cyanosis (bluish colour of the skin, nail beds and mucus membranes)
- Breathlessness or labored breathing
- An environment low in oxygen content. e.g. High altitudes
- Anaemia
- Diseases or conditions in the oxygen across the capillary membrane
- Shock and circulatory failure
- Haemorrhage and asphyxia
- Critically ill patients

Oxygen Administration

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#### Methods of oxygen administration:

The manner in which oxygen is administered depends upon the condition of the patient.

Oxygen can be delivered

1. Nasal cannula



- 2. Oxygen by nasal catheter
- 3. Oxygen by mask

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4. Oxygen tent



5. Trans tracheal oxygen.



#### Hazards of oxygen inhalation:

- ✤ Infection
- Combustion (Fire)
- Dryness of the mucus membranes of the respiratory tract
- Oxygen toxicity
- Atlectasis
- Retro lental fibro plasia
- Asphyxia

## Administration of oxygen by nasal catheter method:

#### Oxygen cylinder

Stand and accessories. (the regulator, flow meter, humidifier, connecting tube etc)

#### **Articles required:**

- Nasal catheter of appropriate size, clean, sterile or disposable type
- Water soluble lubricating jelly
- Bowl of water
- Mackintosh and towel
- Flow light and tongue depressor
- Cotton applicators and normal saline in a container
- Gauze pieces in a container

1 Oxygen Administration

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- Kidney tray and paper bag
- Adhesive tapes

## Procedure:

1. Wash hands.

- 2. Measure the length of the catheter from the tip of the nose to ear lobe. Mark the length with ink.
- Check the cylinder for the working condition. Open the main valve in an anti clock wise direction. Look for the pressure reading on the gauge. Adjust the flow of oxygen to 2-4 Litres/min for adults.



- 4. When the wheel valve is opened the oxygen will start bubbling through the water in the humidifier.
- 5. Lubricate the tip of the catheter sparingly with water soluble jelly and check the flow by immersing it in water.
- Introduce catheter slowly into one of the nostrils of the previously marked distance. Never use force.

- 7. Check the position of the catheter in the oropharynx at the level of the uvula.
- 8. It can be checked by asking the patient to open his mouth widely.
- 9. Depressing the tongue with tongue depressor and use the flash light to see the throat
- 10. Fix the catheter over the forehead or at the cheek of the patient with adhesive tapes
- 11. Save the connecting tube to the bed clothes or patient gown with safety pin

#### After care of the patient and articles:

- Stay with the patient till he is at ease
- ✤ Keep the patient warmth and comfortable
- ✤ Assess the vital signs frequently
- Record the procedure with date and time in the nurses record
- Check the cylinder for its good working condition
- Change the nasal catheter by every 8 hours
- When the oxygen is to be stopped, do it gradually
- Watch the patient for any deteriorating symptoms after the removal of oxygen



Oxygen Administration



## **STEAM INHALATION**

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## **Definition:**

Breathing warm and moist air produced by a vaporizer is called steam and moist inhalation.

## Purpose:

- To relieve the symptoms of cold and sinusitis caused by inflammation and congestion of mucous membrane
- 2. To loosen mucus secretion and bring out from the respiratory tract
- 3. To provide heat and moisture to prevent dryness of mucous membranes of lung
- 4. To aid in absorption of oxygen.

#### Drugs used:

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- Tincture benzoin 5ml per 500ml of boiling water
- Eucalyptus 2ml per 500ml of boiling water
- Camper few crystals per 500ml of boiling water

#### Methods of steam inhalation:

Jug Method



2 Steam Inhalation



Nelson's inhaler

✤ Electric steam inhaler



Steam tent



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#### Articles required:

- Nelson's inhaler with a mouth piece is placed in the neck of inhaler
- Bowl or basin large enough to hold the inhaler
- ✤ A flannel piece or towel
- ✤ Face towel
- Bath towel
- Tincture benzoin or any other inhalant ordered
- Teaspoon or a measurement glass
- Gauze piece in a container
- Cotton swabs
- Kidney tray and paper bag
- Back rest or cardiac table

#### **Procedure:**

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- The inhaler has a glass mouth piece passing through the cork of the inhaler and an air inlet spout at the side
- Prepare the patient and get his co-operation Protect him from cold air. Make him comfortably seated on the bed and table in front
- 3. Warm the inhaler with a little hot water and pour the water out
- 4. Pour the boiled water below the air inlet
- 5. Add the drug ordered
- 6. Cork the inhaler
- 7. Turn the mouthpiece away from the air inlet.
- 8. Wrap the inhaler with flannel or a towel and place it in a small tray or basin.

- 9. Take it to the bedside together with a towel and gauze piece
- 10. Wrap the piece of gauze around the mouthpiece of the inhaler
- 11. Place the inhaler infront of the patient and ask him to keep his mouth in the mouth piece and breathe in to receive the steam and breath out removing his lips from the mouthpiece
- 12. Continue the treatment for 15 to 20 minutes
- 13. Wipe the patient's face and keep him warm and in the same room for atleast an hour
- 14. Wash the mouthpiece and boil it. Wash the inhaler and replace all the articles
- 15. Record the procedure and effect on the patient

#### After care of patient and articles:

- Continue treatment for 15 to 20 minutes
- ✤ Wipe off the perspiration from the face
- Remove the back rest and cardiac table
- Adjust position of patient in bed. Make him comfortable
- Instruct him to remain in bed for 1 to 2 hours to prevent draught
- Record the procedure on the nurse's record with date and time

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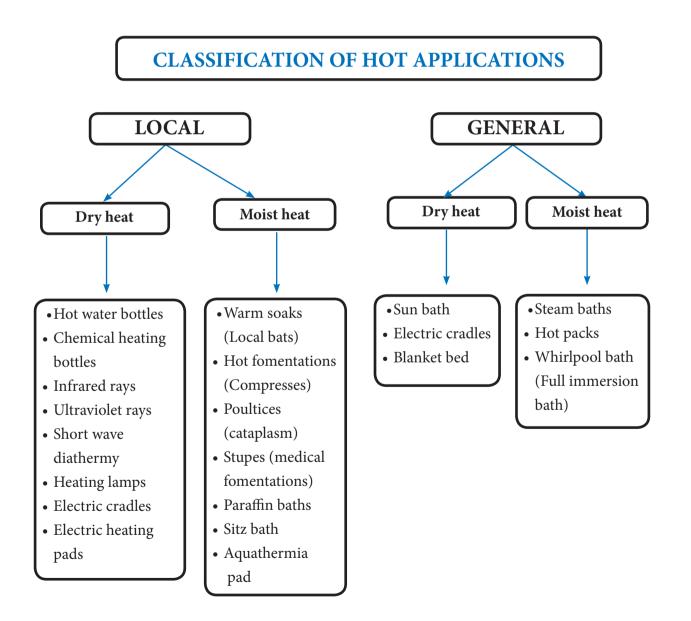
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## **Definition:**

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Hot application defines as stimulation of the skin and underlying tissues with heat for the purpose of decreasing pain, muscle spasms, or inflammation.

## **Classification of Hot Application:**



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#### Purpose:

- ✤ To relieve pain and congestion
- ✤ To promote suppuration
- To provide warmth and comfort
- To promote healing
- To decrease muscle tone and to soften the exudates
- To relieve retention of urine



#### **Articles required:**

- Hot water bag with cover
- Boiled water in a jug and cold water in another jug
- Duster

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- Lotion Thermometer
- Towel
- Vaseline (or) moisturizing lotion

#### **Indications:**

- Local congestion
- Muscle spasm
- Fatigue
- Pain
- 3 Hot Application

#### **Contra Indications:**

- Heat is not used in malignancies, because heat increases, the metabolism of both the normal and abnormal cells
- Heat is not used for client with impaired kidney, heart and lung functions
- Heat should not be applied to actually inflamed areas. E.g. Acute tooth abscess. the heat may cause them to rupture the surrounding tissues
- Heat should not be applied on the clients with paralysis, weakness and debilitated clients, because they have impaired perceptions and they may not be responding to hot application resulting in burns
- Heat should not be applied, when there is oedema, associated with venous or lymphatic disease
- Heat should not be applied on clients with metabolic disorders. It may increase the hazards of tissues damage
- Heat should not be applied on clients with high temperature
- Heat should not be applied to very young and very old people because of the risk of tissue burns



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## Procedure:

- 1. Wash hands to prevent cross infection
- Fill the hot water bag with boiled water half or one - third. Place the hot water bag over a flat surface like table and expel all the air by forcing the water up to the neck of the bag
- Cork it tightly, dry the outside of the bag and check it for leakage by turning the bag upside down
- 4. Put on the cover and take it to the bedside
- 5. Apply to the area as ordered with the towel or sheet
- 6. Keep the bag for 20-30 minutes intermittently

#### After care of the patient and articles:

- Remove the hot water bag after completion of the treatment
- Observe the area for any redness
- Provide comfortable position to the patient
- Take all equipments to utility room
- Empty the hot water bag and hang it upside down to dry it
- Clean all articles with soap and water and replace it in the usual place
- When the bag is dry, fill it with air, cork it and keep it in its proper place

#### **Recording and Reporting:**

- Record the procedure with date, time, effect of application and complication due to procedure etc in nurses record
- Report to the ward sister about the treatment

#### **Examples of hot applications**

#### Sun Bath



Heating pads



Short wave diathermy





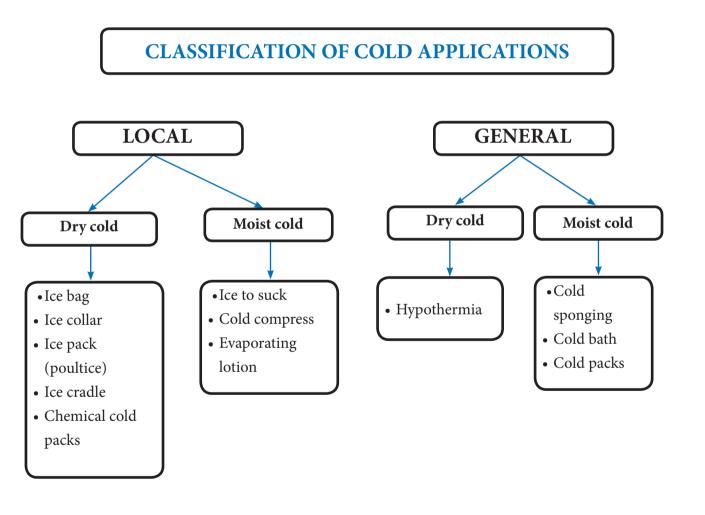
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## **Definition:**

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Cold application is defined as stimulation of the skin and underlying tissues with cold for the purpose of decreasing pain, muscle spasms, or inflammation.

## **Classification of cold application:**



## Purpose :

- ✤ To reduce pain and body temperature
- To anaesthetize an area
- To control hemorrhage

- ✤ To control the growth of bacteria
- ✤ To prevent gangrene
- To prevent edema
- $\clubsuit$  To reduce inflammation

4 Cold Application

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## Local cold application

#### Ice cap (Dry cold)



#### Indications

- Fever
- ✤ Bleeding
- Allergy

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To reduce edema

#### Articles required:

- Ice cap with cover
- Ice in bowl
- ✤ Salt
- Teaspoon
- Duster to wipe ice cap
- Treatment mackintosh

### Procedure:

- 1. Explain the procedure to the patient
- 2. Fill the ice bag with water, put in the stopper turn the bag, upside down to check for any leakage
- 3. Fill the bag half to two third with crushed ice
- 4 Cold Application

4. Sprinkle salt (NaCl)

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- Keep the bag on a flat surface and squeeze out the air, presence of air will interfere with the thermal conductivity
- 6. Screw the cap tightly
- 7. Wipe outside of the bag and put on the cover



- 8. Apply the ice bag over the area.
- 9. Clean the area with a bath towel
- 10. Make client comfortable

#### After care of the patient and articles:

- Clean the equipment and replace it in the proper place
- Discard the crushed ice cubes
- Wash hands
- Document the care with date, time, site and duration of the application

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## MINOR WOUND DRESSING

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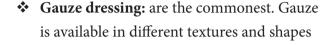
## **Definition:**

Wound is a cut or break in the continuity of the skin. Cotton or gauze pieces are used to clean the wound. The dressing of the wound with dressing materials is called wound dressing.

#### **Types of dressing:**



Dressings may vary by type of material and mode of application. They should be easy to apply comfortably and made up of materials that promote wound healing.



e.g. square, rectangle and rolls of various lengths

- Non antiseptic dressings: are sterile unmedicated dressings applied to a fresh wound to protect it from infection
- Antiseptic dressings: are impregnated with some medication and is applied to wounds already infected to limit the septic process
- Wet dressings: are used in infected wounds to soften the discharge, promote drainage and also in wounds that require debridement. It is also used to supply heat to the tissues. Moist heat is more penetrating then dry heat. Therefore moist heat is more beneficial in localizing the infection in an area. For applying wet dressing the contact dressing layer is moistened to increase the gauze ability to collect exudates and wound debris and then apply a dry second layer



5 Minor Wound Dressing



of absorbent dressing. This method of application will effectively clean the infected and necrotic wounds

- Pressure dressings: When there is danger of bleeding or when there is oozing from the wound, a pressure dressing may be applied. It is a thick sterile pad made up of gauze or gauze cellulose applied with a firm bandage, Elasto plasts or binder can be used
- Non-adherent gauze dressing: such as TELFA are used to cover clean wounds. Telfa gauze has a shiny, non adherent surface that does not stick on incisions or wound opening but allows drainage to pass through the softened gauze above
- Self adhesive transparent film: it acts as a temporary second skin. It is ideal for small superficial wounds which do not require debridement

#### Purposes:

- 1. Protect the wounds from contamination with micro-organism
- 2. Promote healing by absorbing drainage and debriding a wound
- 3. Support the wound site as a splint
- 4. Prevents the client from visualizing the wound
- 5. Promotes thermal insulation to the wound surface
- 6. Maintenances of high humidity between the wound and dressing
- 7. Provides mental and physical comfort for the patient

#### **Articles required:**

#### A sterile tray containing

- 1. Artery forcep 1
- 2. Dissecting forcep 2
- 3. Scissors 1
- 4. Sinus forcep 1
- 5. Probe 1
- 6. Small bowl 1
- 7. Safety pin 1
- 8. Gloves, masks and gowns
- 9. Cotton balls, gauze pieces, cotton pads etc as needed



10. Slit or dressing towels

#### **Unsterile tray containing:**

- 1. Cleaning solutions if needed
- 2. Ointment and powders as ordered
- 3. Vaseline gauze in sterile container
- 4. Ribbon gauze in sterile container
- 5. Swab sticks in sterile container
- 6. Transfer forceps in a sterile container
- 7. Bandages, binders, pins adhesive plaster and scissors

5 Minor Wound Dressing

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- 8. A large bowl with disinfect solution
- 9. Kidney tray and paper bag
- 10. Mackintosh and towel

#### Procedure:

- 1. Wear face mask
- 2. Wash hands thoroughly
- 3. Wear the gown and gloves
- 4. Open the sterile tray spread the sterile towel around the wound
- 5. Use a clean forcep and remove the dressing and discard it in the paper bag
- 6. Disinfect the forcep in the bowl of lotion
- 7. Note the type and the amount of drainage present
- 8. Ask the assistant to pour small amount of cleaning solution into the bowl
- 9. Clean the wound from the centre to the periphery and discard the used swabs after each stroke
- 10. Follow precautions, while drying the wound with dry cotton
- 11. Disinfect the used forceps in the bowl of lotion



- 12. Apply medications if ordered
- Apply sterile dressing, place the gauze pieces first then cotton on the dependent parts. Where the drainage may collect
- 14. Remove the gloves and put them into the bowl with lotion
- 15. Secure the dressing with bandages or adhesive tapes

#### After care of the patient:

- Help the patient to dress up and to take a comfortable position in the bed. Change the bed garments if soiled with drainage
- 2. Replace the bed linens after dressing
- 3. Remove the mackintosh and towel
- 4. Take all articles to the utility room. Discard the soiled dressing into a closed bin and send it for incineration. Remove the instruments and other articles from the disinfectant solution and clean them thoroughly. Dry them, reset the tray and send for autoclaving. Replace all other articles in the proper place. Send the soiled linen to the laundry for washing
- 5. Wash hands
- Record the procedure on the nurses record with date and time. Recording includes the condition of the wound and amount of drainage, condition of the sutures etc on the nurses record. Report to the surgeon any abnormalities found
- Return to the bedside to assess the comfort of the patient and instruct the condition of the wound to the patient
- 8. Ensure the cleanliness of the patient and surrounding

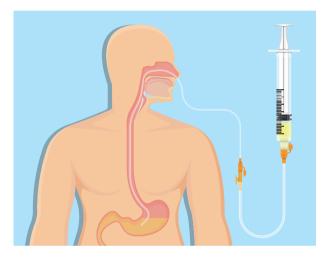
5 Minor Wound Dressing

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## **Definition:**

Naso-gastric tube or Ryle's Tube insertion of the plastic tube through the nose via the oesophagus into the stomach for administration of liquid foods is called Ryle's tube Feeding.



## Purposes:

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- Patient who refuses to eat incase of mental conditions like psychosis
- If patient has cleft palate, swelling in the throat and those who cannot swallow
- Oral infection or oral surgery
- Unconscious patient
- Pre-mature baby

## Articles required:

- ✤ Naso-gastric Tube 14 to 16 fr
- Syringe 10ml or 20 ml and 50 ml

Lubricating Jelly (or) paraffin

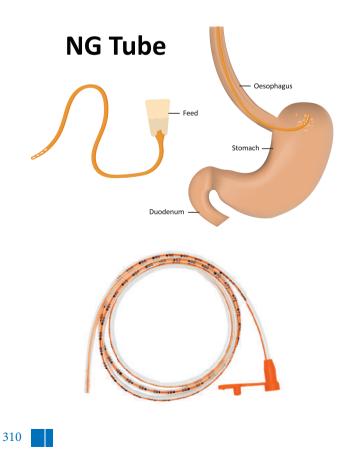
NASOGASTRIC TUBE

**FEEDING** 

Stethoscope

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- Adhesive tape
- Kidney tray
- Tongue depressor
- Bowl of water
- Artery Forcep
- Towel
- ✤ Gauze pieces
- Flash light



6 Nasogastric Tube Feeding

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## Procedure:

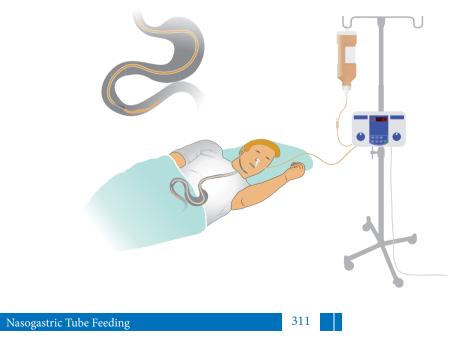
- 1. Wash hands
- 2. Explain the procedure to the patient, if patient is conscious
- 3. Provide privacy to the patient
- 4. Position the patient in cardiac position
- 5. Place the mackintosh and towel across the chest
- 6. Measure the length of the Ryle's tube from tip of the nose to ear lobe to xiphoid process (sternum) and mark with tape
- 7. Lubricate the Ryle's tube and insert through any nostril posteriorly to the throat
- Encourage the patient to swallow by giving small sips of water if patient is conscious. For unconscious patient, nurse has to insert tube at the back of throat using tongue depressor
- 9. Keep the tip of the tube inside the bowl of water and watch for any air bubbles

- 10. Attach 10/20ml syringe to end of the tube and aspirate back on the syringe gently to obtain gastric juice
- 11. Push 5-10 ml of air while auscultating the stomach
- 12. Clean the Ryle's tube after confirming placement
- 13. Fix the tube with adhesive tape
- 14. Administer tube feeding, pinch the proximal end of the tube. Attach syringe to the end of the tube and elevate 45cms above head. Fill the syringe with liquid diet, allow to empty gradually
- 15. And pour water to wash off feed particles

#### After care of the patient and articles:

- Remove the mackintosh and towel and disinfect it with antiseptic solution
- Give comfortable position to the patient
- Replace the articles
- Wash hands
- Record the procedure with date and time
- Inform any reaction to the incharge sister

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The feeding tube controlled by electronic pump passes through the nose, throat and oesophagus, continues through the stomach, and ends in the first section of the small intestine.



## NUTRITION - THERAPEUTIC DIET

## Introduction :

According to WHO, Health is a state of complete physical, mental, social well being and not merely an absence of disease or infirmity. To maintain good health ingesting a diet containing the essential nutrients in correct amount is very important.

Balanced diet is one, which contains the different types of foods in such quantities and proportion so that the need for calories, proteins, minerals, vitamins and other nutrients are adequately met in small proportion is made for extra nutrients to withstand duration of illness.

#### **Factors:**

- 1. Age
- 2. Sex
- 3. Physical work
- 4. Physiological stress
- 5. Pregnancy
- 6. Lactation

#### **Five groups:**

- Cereals, grains & products
- Pulses and legumes
- Milk and milk products
- Fruits and vegetables
- Fats and sugar

7 Nutrition - Therapeutic Diet



## Points to keep in the mind while planning menu:

- Energy derived from cereals should not be more than 75%
- 2. Whole grain cereals, parboiled grains or malted grains give higher nutritive value.
- 3. It is better to include 2 cereals like rice and wheat
- 4. Flour should not be sieved for chapatti as it will reduce bran content
- 5. One serving of cereal is 25g. A day's menu may require 2-4 servings
- Minimum ratio of cereals, proteins should be 4% in terms of the grains it will be 8 parts of cereals and one part of pulses
- 7. One serving of pulse is 25g. 2 to 3 servings should be taken
- 8. One serving of vegetables is 75g Green leafy vegetables can be taken more than one serving, if fruit is not included in the diet

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- It is better to serve the fruit raw without much cooking or taking juice out of it. Everyday diet should contain at least one medium size fruit
- There should be a minimum of milk 100ml/ day, one to 2 glasses of milk or curd should be included in balanced diet
- 11. Energy derived from oils or fats is 15-20% of total calories and 5% from sugar and jaggery
- 12. One egg weighs around 40g of protein. This can be served along with cereal or pulses to improve the quality of protein. Instead of one serving of poultry/fish, one egg can also be included in the diet
- 13. Inclusion of salads not only help in meeting the vitamin requirements but the meals would be attractive and have high satiety value, due to the fiber content
- 14. Fried foods cannot be planned if oil allowance is less or in low caloric diets
- One third of nutritional requirement atleast calories, protein should be met by lunch and dinner
- 16. If possible meals should be planned for seven days
- 17. Usually the number of meals would be four and for every young children and sick persons, the number of meals can be more
- 18. Ideally each meal should consist of all the 5 food groups
- For quick calculations average value of calories and proteins from the same group can be taken

#### Principles of planning a meal:

- Meeting nutritional requirement: a good menu is one which will not only provide adequate calories, fat and protein but also minerals, vitamins essential for the physical wellbeing of each member of a family
- Meal pattern must fulfill family needs: a family meal should cater to the needs of the different members
- Meal planning should save time and energy: planning of meals should be done in such a way, that the recipes should be simple nutrition. By using pressure cooker, time and energy can be saved
- Economic consideration: any meals that do not satisfy the budget of the family, cannot be put into practice. The cost may be reduced by using the 1. Seasonal foods 2. Bulk purchasing 3. Substituting greens for fruits 4. Combinations of foods
- Meal plan should give maximum nutrients: loss of nutrients delivering, procuring, cooking should be minimized. Sprouted grains, malted cereals, fermented foods enhanced nutritive value



Consideration for individual likes and dislikes: meal should be planned according to the individual preferences likes vegetarian

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or non-vegetarian. If a person does not like particular greens, it can be tried in a different form or substituted by equally nourishing food

- Planned meals should provide variety: if the meals are monotonous it is not consumed. Variety can be introduced in colour, texture and taste
- Meals should give satiety: each meal should have some amount of fat, protein and fiber to get satiety. Meals should be planned in such a way that intervals between the meals is also considered

The word 'nutrition' comes from the word 'nourish' and it includes all the ways in which the foodstuffs we eat are absorbed by the body for the growth and development, energy and good health.

When a person does not eat the right nutrients in right quantity he or she is malnourished and we call this condition as malnutritions.

Here is comparison of the effects on the people of good nutrition and malnutrition.

Good nutrition	Malnutrition
1. Correct weight for height and age	1. Increased /decreased weight and height not
2. Strong muscles and straight limbs	appropriate to age
3. Smooth, clear skin and mucous membranes	2. Weak muscles and bowlegs or knock-knees
4. Healthy, bright eyes, clear sight	3. Dry skin
5. Hearing well	4. Dull eyes, night blindness, poor sight
6. Breathing unobstructed	5. Poor hearing capacity
7. Teeth well formed and free from dental	6. Mouth breathing and adenoids will be
caries	present
8. Tonsils are normal and free from infection	7. Malocclusion of teeth, dental caries, spongy
9. Erect posture in sitting, standing and	gums
walking	8. Tonsils are enlarged, often infected
10. Nerves steady, expression calm and	9. Abnormal gait, twisted spine, protruding
cheerful, quick to learn	abdomen
11. They are energetic	10. Nervous, anxious, irritable, slow to learn
12. Good resistance to infections	11. Tired and restlessness
	12. Poor resistance to infections

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#### Meal planning

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- Meal planning can be defined as taking the time to plan nutritious meals for a specified time. To
  plan therapeutic meals, the groups and classes of foods must be put into consideration
- Meal planning is also the implementation of the principle of nutrition in one day diet in an appetizing manner

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7 Nutrition - Therapeutic Diet

TIME	FOOD ITEMS	QUANTITY
6 am	Milk or coffee or tea without sugar	50ml
8 am	Idli/idiyappam or	3 no
	Dosai/chappathi or	2 no
	Wheat Bread or	4 slices
	Uppuma/pongal (with Sambar)	1 cup
11am	Butter milk/vegetable soup/lime juice (or) Fruit (small)	200ml ( 1cup)
	(or) Veg salad	½ plate
Lunch	Rice	1cup
	Chappathi	2
	Dhal	1 cup
	Rasam with vegetable a group	2 cups
	Butter milk	1/2 cup
4pm	Tea (or) coffee (or) milk	100ml
	Chundal	<sup>1</sup> / <sub>4</sub> cup
	Arraroot biscuit	2 No
	Bread	2 slices
	Fruit	(Small) -1
Dinner	Lunch menu or breakfast menu	
Before bed	Milk	100ml
Oil for 1 day	Sunola/Suffola/Gingelly oil/refined oil	10-15 g (21/2 – 3 tsp)
Non	Egg 1 or 2 (white)	50g (without fat)
vegetarian	Chicken/fish/mutton	

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## Vegetable

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Group A vegetables – 3-4 cups/day

Except root all vegetables.

Group B :- Beet root, carrot, drumstick leaves, beans, turnip, mango ginger, onion (small) Raddish (red) beans lady's finger etc.

#### Fruits (1 day)

- Pooran banana ½ small
- Orange / apple / guava 1 small
- ✤ Grape 10 20 nos
- ✤ Lemon /sweet orange 1-2 No
- Pappaya 4.5 small pieces

7 Nutrition - Therapeutic Diet

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#### Foods to be excluded from diet:

- Sugar, honey, jaggery, sweet syrup and fried foods
- All roots
- Cool drinks
- Horlicks, Bournvita etc
- Coconut, coconut oil, palm oil
- Ground nut and all nuts
- Tinned food
- Alcohol
- Butter, ghee, cheese

#### Snacks to be eaten in between meals:

Butter milk

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- ✤ Vegetable soup
- ✤ Vegetable salad
- Lime/tomato juice without sugar

#### Hypertension: (High blood pressure)

This is a common condition in middle age. Especially in obese people. It can lead to complications such as heart disease, kidney disease and stroke.

#### To prevent and treat hypertension:

- 1. Over weight people should lose weight
- 2. Low fat, salt free diet is needed.
- 3. Coffee and other stimulants should be avoided.
- 4. Tell the person to relax and avoid tension.

## A dietary menu for hypertensive patients is as follows:

Morning	Weak Tea one Cup	
Break fast	Bread or idli with sugar, or jam	
	fruit one cup, skimmed milk	
	one cup. Nuts one table spoon.	
Mid	Fruit juice 200 ml	
morning		
Lunch	Rice or chappati / one serving	
	dhal or meat or fish, one	
	cup vegetable, one serving	
	skimmed butter milk or	
	pudding one cup	
Evening	Biscuits two and fruit juice one	
	glass and roasted nuts two table	
	spoons	
Dinner	Similar to lunch	

#### Diet

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**Definition:** Diet is an important as medicine in the treatment of diseases. A modification in the diet or in the nutrients can cure certain diseases. E.g a patient suffering from peptic ulcer needs a bland diet for this recovery. A salt free diet can reduce the blood pressure in a patient with hypertension.

#### **Types of Diet:**

- Full diet
- Liquid diet
- Soft diet
- Semi solid diet
- Bland diet
- High protein diet
- Low protein diet
- Salt free diet or salt low diet

7 Nutrition - Therapeutic Diet

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Low fat diet

✤ Low residual diet

Low calorie diet

(i) Full diet: For the patients who are well, a well – balanced full diet should be served, either vegetarian or non vegetarian as desired (e.g for tuberculosis patients)

(ii) Liquid diet: When no solid food is taken, a total of atleast 2000 ml per day. Milk is the basis of a good liquid diet. (e.g Fever patients)

(iii) Soft and semi – solid diets: The diet should be equally nutritious and balanced as a full diet. Foods may be mined or masked to make them soft. (e.g patients in post – operative period)

(iv) Bland diet: This is a soft and easily digestive diet without spices and condiments.(e.g. Patients with gastro intestinal disorders)

(v) High protein diet: Mixed protein – rich foods like ground nut, grams and dhal may be ground and cooked with the stable cereal. About one litre of milk should be taken each day. (e.g. Burns and protein deficiency diseases).

(vi) Low protein diet: Carbohydrate foods with a little ghee or butter may be allowed and boiled sweets. (e.g. Patients with acute nephritis)

(vii) Salt free diet or low salt diet: For a salt free diet no salt is allowed in the preparation of foods. Sugar, lime juice may be added for giving taste. (e.g patients with oedema)

(viii) Low fat diet: Carbohydrates, vegetables and fruits are allowed no fat is used in cooking. (e.g. Patients with liver and gall bladder diseases)

(ix) Low residual diet: This is a diet without roughage or anything that stimulates the bowel.

(e.g. Patients with colitis and colostomy)

(x) Low calorie diet: Carbohydrates and fat are minimised to reduce the body weight.(e.g. Patients with obesity or heart diseases).

#### Special food preparations:

#### 1. Vegetable soup:

In this recipe variety of vegetables are used to make it more healthy and tasty.

#### **Ingredients**:

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ITEMS	AMOUNT
Chopped onion	2 table spoon
Minced garlic	2 table spoon
Chopped carrots	1/3 cup
Chopped cabbage	1/3 cup
Chopped beans	1/3 cup
Ground black pepper	¼ tea spoon
White corn flour	2 table spoon
Butter or oil	½ table spoon
Water	2 ½ cups
Salt	to taste

#### **Preparation:**

- 1. Chop all the vegetables in to small pieces
- 2. Add 2 table spoons of corn flour in a small bowl
- 3. Add 2 table spoons water and mix well
- Heat ½ table spoon oil or butter in a large, heavy bottomed stock pot over medium flame. Add chopped onion and garlic
- 5. Sauté for 1-2 minutes
- 6. Add all vegetables
- 7. Stir and cook for 3-4 minutes

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- Add 2 <sup>1</sup>/<sub>2</sub> cups water, stir well and bring the mixture to boil and add salt
- 9. Add black pepper powder
- Add corn starch water mixture and stir continuously for a minute to prevent lump formation
- 11. Stir and cook until mixture turns thick and no raw smell of cornstarch. It will take around 7-8 minutes
- 12. Turn off the flame. Transfer hot soup of vegetables into individual serving bowls and serve

#### **Purpose:**

Get plenty of nutrients (vitamins and minerals) with low calories

#### 2. Lemon whey water:

Whey is the liquid remaining after milk has been curdled and strained.

#### **Purpose:**

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- 1. It provides more vitamins, minerals and proteins
- 2. It is beneficial for weight loss and lower cholesterol

#### **Ingredients:**

ITEMS	AMOUNT
Milk	1 litre
Lemon juice	25 ml
sugar	2 table spoon

#### Preparation:

- 1. Pour the milk into a large pot
- 2. Heat the milk to boil

- 3. Stir in 25ml of lemon juice
- 4. Let the solution rest in heat for 20 minutes
- 5. Transfer the curds and whey into a bowl topped with a lined strainer
- 6. Add sugar

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- 7. Cool and serve
- 3. Tomato juice:

Tomato juice is a juice made from tomatoes, usually used as a beverage.

#### **Purposes:**

- 1. It has an anti oxidant property
- 2. It helps to regularise digestion
- 3. It helps to prevent blood clotting
- 4. Lowers cholesterol

#### **Ingredience:**

ITEMS	AMOUNT
Tomatoes	900 grams
Sugar	3 table spoon
Salt	to taste
Pepper	to taste

#### **Preparation:**

- 1. Rinse the tomatoes under running water
- 2. Slice the tomatoes
- 3. Use a stainless steel or porcelain pot rather than an aluminium one, aluminium will likely react with the acid in the tomatoes. Causing discolouring and possibly loses flavour
- 4. Use a potato masher or a wooden spoon to press the tomatoes releasing some of the juice

7 Nutrition - Therapeutic Diet

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- If the mixture seems too dry to boil, add a few cups of water until you have enough liquid in the pot to boil
- 6. Keep cooking until the mixture is ready
- Add sugar and salt or other seasonings to flavour the tomato juice. The sweetness of the sugar helps cut back the acidity of the tomatoes
- 8. Remove the tomatoes from the stove and allow them to cool for a few minutes
- 9. Strain the solids from the juice using a strainer
- 10. Cover and chill the juice

#### 4. Ragi porridge:

Ragi is an absolutely perfect supplement for any other grain because of its nutritional value.

It has high dietary fibre content a perfect choice for diabetic patients.

#### **Purposes:**

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- 1. Provides high amount of dietary fibre
- 2. Ragi flour reduce the blood sugar level by activating insulin
- 3. Minimises appetite and induce weight loss

#### **Ingredients**:

ITEMS	AMOUNT
Ragi flour	1 cup
Finelly chopped cashews	1 teaspoon
Milk	2 cups
Cardamom	2 (powdered)
Water	2 cups
Sugar	1 table spoon

#### **Preparation:**

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- Take a medium sized bowl and mix the ragi flour with milk and water. Make sure that there are no lumps in the mixture
- 2. Heat a pan over medium flame and pour the mixture in it. Keep stirring it continuously and cook until it gets a thick consistency
- 3. After the mixture turns thick, lower the flame and add sugar in it. Mix once and turn off the stove. Garnish with chopped cashews and serve hot. If the porridge has turned too thick you can add some more milk and cook for 2-3 minutes

#### 5. Dhal rice:

Dhal and rice together are a complete vegetarian protein. The ghee not only enhances the flavour but also helps us absorb the nutrients from the dhal, rice, turmeric and cumin

- 1. Building muscle
- 2. Anti inflammatory and healing
- 3. Rich in antioxidants
- 4. Boosts metabolisms
- 5. Rich in nutrients & also helps absorb nutrients

#### Ingredients:

ITEMS	AMOUNT
Rice	1 cup
Toor dhal	¼ cup
Oil	1 tsp
Mustard	½ tsp
Cumin	½ tsp

Nutrition - Therapeutic Diet

Red chilli	5 nos
Curry leaves	Few
Asafoetida	1 pinch
Onion	1 no
Tomato	1 no
Water	2 ½ cups
Salt	to taste

#### **Preparation:**

#### **Instructions:**

- 1. Sock rice and dhal together for 30 min wash and keep it aside
- 2. Chop the onion, tomatoes and slit the red chillies

#### **Cooking:**

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- In a pressure cooker heat oil. When hot add mustard. When the mustard crackles add curry leaves, asafoetida, red chilli and chopped onion. Fry till onion turns golden brown
- 2. Add the tomato and cook till they are done
- 3. Add the rice, salt, water and allow it cook for 3 whistles

#### 6. Vegetable sandwich:

Two slices of bread with a filling vegetable between them is called vegetable sandwich.

#### **Purpose:**

- 1. Rich in vitamins and minerals
- 2. A good energy yielding food
- 3. It is a nutritious and healthy food

#### **Ingredients**:

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ITEMS	AMOUNT
Brown bread	10 slices
Tomato	1
Onion	1
Cucumber	1
Boiled beet root	1
Boiled potato	2
Butter	2 tsp
Chat masala	½ tsp
Salt	to taste

#### **Preparation:**

- 1. Peel and cut the vegetables into thin slices
- 2. Apply butter on the bread slices
- 3. Place 5 slices of all the veggies alternately
- 4. Sprinkle chat masala and salt on the veggies
- 5. Cover these with the remaining bread slices. Now toast the sandwiches
- 6. Remove when done and apply some butter on the top of the hot toast sandwiches

7 Nutrition - Therapeutic Diet

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## **RESTRAINT:**

Restraint is defined as 'the intentional restriction of a person's voluntary movement or behavior.

Restraints are physical, chemical or environmental measures used to control the physical or behavioral activity of a person or a portion of his/her body.



## General Principles for Use of Restraints

- Should be selected to reduce clients movement only as much as necessary
- Nurse should carefully explain type of restraint and reason for its use
- Should not interfere with treatment
- Bony prominences should be padded before applying it
- Should be changed when they become soiled or damp
- Should be secured away from a clients reach

Should be able to quickly release the device

RESTRAINTS

- Should be attached to bed frame not to side rails
- Should be removed a minimum of every 2 hrs
- Frequent circulations checks should be performed when extremity is used



#### **Indications:**

- Displaying behavior that is putting themselves at risk of harm
- Requiring treatment by a legal order, for example, under the Mental Health Act 2007
- Requiring urgent life-saving treatment
- Needs to be maintained in secure settings
- All alternatives must be tried before restraining
- Offer bedpan or bathroom every 2 hours
- Offer fluids and nourishment frequently, keep water within reach
- Provide directional activity
- Decrease stimuli and noise
- Provide change of position, up to chair, ambulation

8 Restraints

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- ✤ Have patient wear glasses and/or hearing aides
- ✤ Activate bed alarm



#### **Alternatives :**

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✤ Increase observation

## **TYPES OF RESTRAINTS:**

- ✤ Ask family to sit with patient
- Alert other staff to be observant
- ✤ Move patient to a room near the nurse's station
- If the patient is interfering with his medical equipment
- Educate the patient not to touch the treatment device
- Place the device out of site if possible
- Cover the device (i.e. wrap I.V. site with Coban or Kerlex)

**Definition:** Physically that restrict a client's movement. E.g. table fixed to a chair or a bed rail that cannot be opened by the client.

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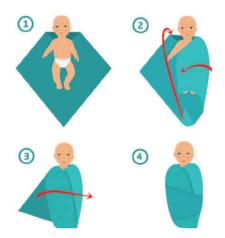
## **TYPES OF PHYSICAL RESTRAINTS**

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- 1. Mummy restraint
- 2. Elbow restraint
- 3. Extremity restraint
- 4. Abdominal restraint
- 5. Jacket restraint
- 6. Mitten or finger restraint

#### **Mummy restraint**

It is a short-term type of restraint used on infants and small children during examinations and treatment of head and neck. It is used to immobilize the arms and legs of the child for a brief period of time



#### **Elbow restraint**

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- This restraint is used to prevent flexion of the elbow and to hold the elbow in an extended position so that the infant cannot reach the face
- plastic elbow restraint ,elbow cuff and well padded wooden splint can also be used

#### **Extremity restraint**

It is used to immobilize one or more extremities. One type of extremity restraint is clove-hitch restraint which is done with



gauze bandage strip (2 inches wide) making figure-of-eight and knot it

- The end of the gauze to be tied to the frame of the crib/bed
- This restraint should be used with padding of wrist or ankle
- Precautions to be taken to prevent tightening of the bandage



#### Abdominal restraint

This restraint helps to hold the infant in a supine position on the Bed



Restraints

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#### Mitten or finger restraint

- Mitts are used for infants to prevent self-injury by hands in case of burns, facial injury or operations, eczema of the face or body
- Mitten can be made wrapping the child's hands in gauze or with a little bag putting over the baby's hand and tie it on at the wrist



#### Disadvantages;

#### **Psychological/Emotional:**

- Increased agitation & hostility
- Feelings of humiliation, loss of dignity
- Increased confusion
- Fear

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#### **Physical:**

- Pressure ulcers, skin trauma
- Decreased muscle mass, tone, strength, endurance contractures, loss of balance, increased risk of falls
- Reduced heart and lung capacity
- Physical discomfort, increased pain
- Increased constipation, increased risk of fecal impaction
- Increased incontinence and urinary stasis
- Obstructed and restricted circulation

- Reduced appetite, Dehydration
- Death

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#### **Restraint guidelines:**

- Doctors order
- Informed consent
- Follow proper technique
- Least restrictive



- Pad boney prominence
- Maintain Good body alignment

#### **Restraint Orders**

#### Situational

- Initiation of Restraints
- (ALWAYS after alternatives tried)
- Renewing Order

#### Medical

- Obtain written or verbal order within 12 hours of initiation, physician assessment within 24 hours.
- Every 24 hours to be changed.

8 Restraints

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#### Behavioral

May apply in emergency, but get Doctor order with in 1 hour.

Doctor must do face-toface assessment within 1 hour of restraint initiation.

 4 hrs for adults 18 yrs and above, 2 hrs for children 9-17 yrs of age, 1 hr for children below nine yrs

## NURSES ROLE

Monitor a patient in restraint every 15 minutes for:

- Signs of injury
- Circulation and range of motion
- ✤ Comfort

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Readiness for discontinuation of restraint

#### Documentation in every 2 hours for:

- Release the patient, turn and position
- Institute a trial of restraint release
- Hydration and nutrition needs
- Elimination needs
- Comfort and repositioning needs

#### **RESPONSIBILITIES OF THE NURSE**

- Assess the patient's behaviour and the need for restraint & applies as a last resort
- Get written order and obtain consent as per hospital policy
- Must communicate with the client and family members
- Complies with institutional policies and guidelines for restraint

 Explain the client the reason for the restraint and cooperation

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- Arrange adequate assistance from competent staffbefore carrying out the restraint procedure
- Apply the least restrictive, reasonable and appropriate devices
- Arrange the client under restraint in a place for easy, close and regular observation particular attention to his/her safety, comfort, dignity, privacy, physical and mental conditions
- Attend the client's biological and psychosocial needs during restraint at regular intervals
- Reviews the restraint regularly, or according to institutional policies
- Consider the earliest possible discontinuation of restraint
- Document the use of restraint for record and inspection purposes
- Explore interventions, practices and alternatives to minimize the use of restraint
- Nurse must maintain his/her competence in the appropriate and effective use of restraint through continuous education

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<sup>8</sup> Restraints

## Unit 9

## HOME CARE MANAGEMENT

Home nursing is that component of continuum of comprehensive health care, where by health services are provided to individuals and familiar in their places of resistance for the purpose of maintaining, promoting, restoring health to the maximum level of independence with minimal illness.



#### **Concepts:**

**Client:** is being a Rational, biological, emotional, social desiring to the use of home care services.

**Family:** The loved one and any other individuals present in the home, who is willing to participate in care providing to the client to maintain self **care at home**.

**Professional nurse:** Individual with license to practice professional nursing at state.

**Quality of care:** Care means standards for home health practice, certification, accreditative standards.

**Self care capability:** Ability to perform activities of daily living that permit the individual to live independent tautly at home.

#### **Guidelines**:

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As much as possible you learn the culture of the patients with whom you work, so you will understand the cultural practices and values that influence their health care practices.

Provide culturally and linguistically competent assessment by understanding the meaning of language and non verbal behaviour of a patient's culture.

Be sensitive to the fact that the individual or family you are assessing has other priorities that are more important to them. These may include financial or legal problems. Do not provide financial or legal advice. But make sure to connect the patient to someone who will help them.

#### **Purposes:**

- To prevent disease
- To treat the patient
- To relief their suffering and make them comfort
- To support the patient, family
- To utilize and to adapt the home equipment
- To respect the families beliefs and ways of doing things as far as possible

Home Care Management

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#### **Principles:**

- Build a good rapport to family
- Collect information about the family size, occupation, education, religion, customs etc
- Identify the problems.
- Discuss the problems with the family members
- Guide them to carry out problems
  - Fever: When a person body temperature is too warm, he may have fever. Fever itself is not a sickness. However high fever can be dangerous, especially in a small child. The normal body temperature is 98.4° F or 37°C. More than 100°F is consider as fever.



#### Home management:

- Uncloth the patient, if it is an infant uncover the entire body
- Ventilate them with fresh air
- Apply cold compress wet sponge
- Provide lot of water or juices
- Administer tablet paracetamol according to the weight of the person

- Check temperature every half an hour
- If not reduced refer the child to health centre
  - Diarrhoea: When a person has loose or watery stools, it's known as diarrhoea. Lack of water is the body due to diarrhoea is called dehydration.

#### Signs of dehydration:

Thirst is often a first signs of dehydration

- Diminished urination
- Dark yellow urine
- Sudden weight loss
- Dry mouth
- Sunken eyes
- Loss of elasticity of the skin

#### Home management:

- Give lots of liquids to drink and give rice porridge
- Food intake as soon as the sick child or adult will accept food. Give frequent feeding of food what he/she likes and accepts
- For babies feed breast milk often
- 6 Level Tea Spoons of Sugar

Half Level Tea Spoon of Salt



1 Litre of Water- 5 Cups (each cup about 200 ml)

- Give sips of ORS every 5 minutes
- Fluid requirements For adults 3 litres of water per day, For child 1 litre per day

9 Home Care Management

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- Give boiled smashed potato and oatsmeal or well cooked food
  - 3. Tooth ache:
- Remove the food particle and clean the teeth
- Rinse the mouth with warm salt water
- ✤ Garlic, clove oil, or Guava leaves can be used
- If the tooth infection (swelling, pus, large tender lymph nodes) is severe get dentist opinion

#### 4. Constipation:

 A person who has hand stools and has not have a bowel movement for three or more days is said to be constipated causes

#### **Causes:**

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- Poor fluid intake
- Poor fibre intake
- Less intake of fruits, green vegetables and green leaves.
- Lack of physical activity

#### **Home Management:**

- Drink more than 3 litres/day
- Eat more fruits and vegetables rich in natural fibre (whole grain, bread, carrots, raisin, nuts, pumpkin, wheat bran)
- Exercise
- Regularise bowel pattern
  - **5. Fits:-** A sudden violent jerking marked with loss consciousness is known as fits or convulsions

#### **Causes:**

- High fever
- Severe dehydration
- Meningitis
- Cerebral malaria

- Poisoning
- Epilepsy

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#### **Home Management:**

- Try to keep the person from hurting himself
- Move away all hard or sharp objects
- Don't put any object in person's mouth while he is having fits (no food, drink, medicine or any object)
- After the fits the person may be dull or sleepy
- Loosen the garments around the neck
- ✤ Make sure he/she is well ventilated.
  - **6. Conjunctivitis:** Inflammation of the membrane covering the surface of the eye ball. It can be a result of infection or irritation of the eye. It also known as pink eye.

#### Home management:

- To relieve the discomfort give warm or cold compress. Apply moist wash cloth or hand towel on the closed eye lids three or four times a day
- Avoid contact lenses
- Rinse the eye with warm salt water
- Avoid rubbing the eye
- Avoid touching the uninfected eye
  - 7. Wheezing: Breathe with a whistling or rattling sound in the chest as a result of obstruction is the air passages.

#### **Causes:**

- Allergies
- Infection
- Medications
- Asthma

9 Home Care Management

- COPD
- Upper and lower respiratory diseases.

#### Home management:

- Drink enough fluids or coffee
- ✤ Get plenty of rest.
- Quit smoking
- Inhale moister/steam inhalation
- Try pursed lip breathing
- Don't exercise in cold and dry weather
- Eat fruits and vegetable rich in vitamin A and vitamin C
- Keep them in fowlers' position (sitting forward supported by a table)
- Standing with supported bed
- Sleeping in a relaxed position
- Age 1 year and older use ½ -1 teaspoon honey as headed. Call the doctor if the patients is cyanosed or asphyxiated
  - 8. Muscular cramps: A muscle cramp is an involuntarily and forcibly contracted muscle that does not relax

#### Causes:

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- Injury
- Vigorous activity
- Rest cramps
- Dehydration
- Body fluid shift
- Low blood calcium or magnesium
- Low potassium

#### **Home Management:**

Dry heat over the area - E.g. Hot water bottle, heated bran (or) application sand

- Food rich in minerals like calcium, potassium and magnesium
- Stop the activity and relax the muscle
- Massage the area gently
- Drink adequate fluid

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#### Advantages of Home health care:

- Home health care offers many advantages to patients, particularly older adults.
- Patients recuperating from acute illness
   / accident recover faster in a home environment.
- Home can gives an older adult a some of independence by offering an important measure of control over day to day events.
- Home care improves quality of care provided and increased patient satisfaction.
- Home care is of low cost.

#### Disadvantages of home health care:

- The person who is simply too ill or complex to be cased at hospitals.
- Home environment may be unsafe.
- There is shortage of home can provides (especially nurses).

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# Prepare a diet chart for your father who has been recently diagnosed as Diabetes mellitus.

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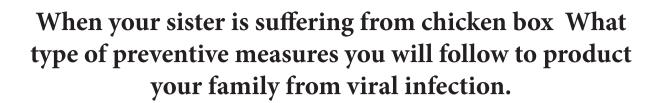
## Prepare a flip chart on antenatal care for a primi Gravid woman.

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