

Biyani's Think Tank  
**Concept based notes**

# **Fundamentals of Nursing**

GNM

Mr. Vishal Tak  
Deptt. of Nursing and Science  
Biyani Girls College, Jaipur



*Published by :*

**Think Tanks**

**Biyani Group of Colleges**

*Concept & Copyright :*

©**Biyani Shikshan Samiti**

Sector-3, Vidhyadhar Nagar,

Jaipur-302 023 (Rajasthan)

Ph : 0141-2338371, 2338591-95 • Fax : 0141-2338007

E-mail : acad@biyanicolleges.org

Website :www.gurukpo.com; www.biyanicolleges.org

**First Edition : 2009**

While every effort is taken to avoid errors or omissions in this Publication, any mistake or omission that may have crept in is not intentional. It may be taken note of that neither the publisher nor the author will be responsible for any damage or loss of any kind arising to anyone in any manner on account of such errors and omissions.

*Leaser Type Setted by :*

**Biyani College Printing Department**

# **Preface**

I am glad to present this book, especially designed to serve the needs of the students. The book has been written keeping in mind the general weakness in understanding the fundamental concepts of the topics. The book is self-explanatory and adopts the “Teach Yourself” style. It is based on question-answer pattern. The language of book is quite easy and understandable based on scientific approach.

This book covers basic concepts related to the microbial understandings about diversity, structure, economic aspects, bacterial and viral reproduction etc.

Any further improvement in the contents of the book by making corrections, omission and inclusion is keen to be achieved based on suggestions from the readers for which the author shall be obliged.

I acknowledge special thanks to Mr. Rajeev Biyani, *Chairman* & Dr. Sanjay Biyani, *Director (Acad.)* Biyani Group of Colleges, who are the backbones and main concept provider and also have been constant source of motivation throughout this Endeavour. They played an active role in coordinating the various stages of this Endeavour and spearheaded the publishing work.

I look forward to receiving valuable suggestions from professors of various educational institutions, other faculty members and students for improvement of the quality of the book. The reader may feel free to send in their comments and suggestions to the under mentioned address.

**Author**

# **Introduction to Nursing**

---

**Q.1 Define Nursing.**

**Ans.:** Nursing is a call (vocation) to service. "NSG" is a service which includes ministrations to the sick, care of the whole patient (his mind as well as body). The care of the patient's environment (physical as well as social), health Education and health services to the individual, family and society for the prevention of disease and promotion of health.

Therefore, 'NSG' includes :

- (i) Helping a patient to carry out the therapeutic plan initiated by the doctors.
- (ii) Providing physical care & emotional support for the sick & disabled.
- (iii) Planning & teaching the patient and his family in relation to the restoration & promotion of health and prevention of disease.
- (iv) Observing & evaluating the patient's response to his illness and his case.
- (v) Participating in research related to health care.

**Q.2 Discuss the functions of a Professional Nurse.**

**Ans.:** A professional nurse has the following functions :

- (i) To provide basic NSG care.
- (ii) To administer the medication & treatment prescribed by the doctors.
- (iii) To observe patient's response & adaptation to illness.
- (iv) To observe patient's response and adaptation to treatment.
- (v) To teach self care.
- (vi) To supervise or guide the patient in rehabilitative activities relating to daily living.
- (vii) To participate in research works related to health care.
- (viii) To plan with the patient in such a manner so as to develop a sense of trust, self worth and self realization.
- (ix) To teach and supervise the NSG students.

- (x) To maintain her own physical and mental health.

**Q.3 What are the qualities of a good Nurse?**

- Ans.:**
- (i) A nurse must be 'no gossip, no vain" talker.
  - (ii) She must be a devoted woman.
  - (iii) She must have respect for her colleagues.
  - (iv) She must be sound, a close and a quick observer.
  - (v) She must be a woman of delicate and decent feeling.
  - (vi) She should be loyal and honest.
  - (vii) She should be disciplined and obedient.
  - (viii) She should have ability to inspire confidence.
  - (ix) She should be intelligent and commonsense.
  - (x) She should have patience and sense of humor.
  - (xi) She should be generous.
  - (xii) She should be gentle and quite.

The liberal meaning of the word "NURSE" :

N – Nobility, knowledge

U – Usefulness, Understanding

R – Righteousness, Responsibility

S – Simplicity, Sympathy

E – Efficiency, Equanimity

**Q.4 Write about the principles of Nursing.**

**Ans.:** The principles of NSG are as follows :

- (i) **Safety** : means prevention of mechanical, thermal, chemical and bacteriological injuries to the patient and the worker and protection from all nuisance.
- (ii) **Therapeutic Effectiveness** : To achieve the purpose for which a procedure is done.

- (iii) **Comfort** : To provide comfort, to give satisfaction to the patient and the worker.
- (iv) **Use of Resource** : It implies the right use of the economy of time, energy and material.
- (v) **Good Workmanship** : It is the art of doing.
- (vi) **Individuality** : To consider the needs and problems of a particular patient when a procedure is done.

**Q.5 Define Code of Ethics.**

**Ans.: Ethics** : “Ethics are the rules or principles that govern right conduct”. They deal with what is good or bad and with moral duty and obligation. Ethics are designed to protect the lights of human beings.

**Code of Ethics** : The fundamental responsibility of the nurse is :

- To promote health.
- To prevent illness.
- To restore health.
- To alleviate sufferings.

Nurses render health services to the individual, the family and the community and co-ordinate their Services with those of related groups.

- i) **Nurse & People** : The primary responsibility of the nurse is for those people who require viz. care.
- ii) The nurse holds in confidence personal information and use judgment in sharing this information.
- iii) **Nurse & Practice** : The nurse carries personal responsibility for NSG practice and for maintaining competence by continued learning.
- iv) The nurse should maintain standard of personal conduct with credit upon the profession.
- v) **Nurses & Society** : The nurses shares with other citizens the responsibility for initiating and supporting action to meet the health and social needs of the public.
- vi) **Nurses & Co-workers** : Makes a cooperative relationship with co-workers in marketing and other fields.



- vii) **Nurses and the profession** : The nurse plays the major role in determining and implementing desirable standards of NSG practice and NSG education.
- viii) The nurse is active in developing a core of professional knowledge.
- ix) The nurse participates in establishing & maintaining equitable social and economic working condition in NSG.

#### Q.6 Define Hospital and their functions.

**Ans.:** Hospitals are organized institutions for the care of the sick and injured. In olden days, the hospitals were guest houses for the shelter of the homeless and for the t/t of travelers but in modern times, they are used as care and treatment of sick.

According to **WHO**, "A hospital is an integrated part of a social and medical organization, the function of which is to provide for the population the complete health care, both curative and preventive and whose act patient services reach act to the family and its home environment. The hospital is also a centre for the training of health workers and for bio-social research."

#### **Functions :**

- i) Care of sick and injured.
- ii) Prevention of disease and promotion of health.
- iii) Diagnosis and t/t of disease.
- iv) Rehabilitation and vocational training.
- v) Medical education.
- vi) Research.

#### Q.7 What is Communication and its importance?

**Ans.:** Communication means the interchange of thought or information conveyed to a person in such a way that the meaning received is equivalent to those which the initiator of the message intended.

Communication may be classified as :

- (i) **Verbal** : Use of spoken words or written words.
- (ii) **Non-verbal** and unspoken events such as facial expression, body posture, touch and eye contact.

### Importance of Communication :

- (i) To understand and to exchange ideas.
- (ii) To reduce the interpersonal tensions and improves the interpersonal relationship.
- (iii) Good communication modifies the behavior.
- (iv) Good communication prevents disorder in the ward and hospital organization.
- (v) Helps the nurse to interpret the hospital policies and patient care.

### Q.8 What are the barriers of Communication?

**Ans. Emotional Factors :** Such as fear, suspicion, jealousy, anger, anxiety, prejudices, lack of interest etc.

**Physical Factors :** Such as fatigue, illness, speech defects, deafness and pain.

**Intellectual Factors :** Such as love, IQ, lack of knowledge etc.

**Social Factors :** Difference in culture, language, race etc.

**Environmental Factors :** Such as noise, lack of privacy, uncomfortable accommodation etc.

□ □ □

## CHAPTER-2

# NSG : Care of Patient / Client

---

### Q.1 What is Admission and Discharge Procedure?

**Ans.: Admission Procedure :** "Admission of a patient means, allowing a patient to stay in the hospital for observation, investigations and treatment of the disease he is suffering from."

There are two types of admission procedure i.e. (i) Emergency (2) Routine

- (1) **Emergency Admission :** The Emergency admission means that the patients are admitted in acute conditions requiring immediate treatment



e.g. patients with heart attack, accidents, acute appendicitis, poisonings, labour pains, diarrheas, dysentery, hypotension, haematemesis, dysphoea, shock etc.

Every moment is precious in emergency procedure, therefore immediate treatment is initiated to save the life of the patient.

- (2) **Routine Admission** : This admission means that the patients are admitted for investigations and planned treatments and surgeries to the patients with hypertension, diabetes, chronic appendicitis, jaundice, hernia, cyanosis of liver, chronic renal failure, nephritis, etc.

**Discharge Procedure**:- Discharge is also a major factor for the total impression made on patient by an Institution. The nurse plays an important role to establish a good relationship with the patient and his relatives from the time of admission till the discharge.

- No patient should be discharged without the doctor's order.
- Instructions regarding further care, medication, treatment, follow up etc. should be clearly written and explained to patient and his family members.
- Patients personal belongings such as clothing, money and other valuables which were entrusted to the hospital personnel at the time of admission, should be checked and returned to him and should get a receipt from the patient at the time of delivery.
- The articles in the patient's unit should be checked and see that they are complete, including the bed linen.
- Before the patient leaves the hospital, the nurse should confirm that he has paid all the hospital bills.
- The nurse should see that the patients are ready to go home, recently bathed, hair combed and dressed in clean clothes.
- The nurse should see that the charts are completed and sent to the office or to the record section to be filed.

## Q.2 What is Discharge Planning?

**Ans.:** A suitable day is fixed for the termination of care in the hospital and the relatives are informed of it, so that they are prepared to take the patient home.

- Some of the NSG procedures with the patient may have to continue at home should be taught to him or to family members.
- The patient should be given the explanation or instructions about his treatment, diets, exercise a medication etc sufficiently early so that he can

make clarifications and be sure that he has understood all the explanations.

- The patient should be demonstrated and made familiar with the type of diet he has to continue at home.
- Watch for the reaction of the patient about his discharge.

The nurse may be of great help if she recognizes these types of fears cut in the patient and give psychological support to these types of fear present in the patient and give psychological support to these patients. The nurse may explain to the relatives about the physical and mental changes of patient due to illness.

### **Q.3 What is 'Bed Making' and its importance in the care of Patient?**

**Ans.:** Bed making is to provide the patient with a safe and comfortable bed to take rest and sleep.

#### **Importance :**

- To give to the unit or ward a neat appearance.
- To adapt to the needs of the patient and to be ready for any emergency or critical condition of illness.
- To economize time, material and effort.
- To prevent bedsore.
- To observe the patient e.g. presence of bedsore, oral hygiene, patient's ability to self care etc can be observed during be making.
- To promote cleanliness.
- To establish an effective nurse-patient relationship.
- To provide active and passive exercise to the patients.
- To help the relatives to learn to care for the sick at home.

### **Q.4 Explain the method for preparing 'Simple Bed'.**

- Ans.**
- Wash hands.
  - Remove the pillow and place it on the seat of the chair with the open end away from the entrance.
  - Remove the top linen.
  - Fold the draw sheet. Bring the opposite end to the middle of the bed and the near end over it and thus fold them into three and place it over the chair.

- v) Roll the mackintosh and place it over the chair.
- vi) Remove the bottom sheet folding it into six.
- vii) Remove the mattress cover if soiled.
- viii) Dust the mattress with a dry duster.
- ix) Clean all the surfaces of the furniture using a damp duster dipped in antiseptic lotion.
- x) Make the base of the bed (bottom linen)
- xi) Then place the top sheet.
- xii) Place the blanket over the top sheet 15 to 20 cm below from the top of the mattress.
- xiii) Put the pillow case on the pillow and place the pillow at the head end, the open end away from the entrance while putting as the pillow case the pillows should not touch the nurse's uniform.

**Q.5 What do you mean by Record and Report and their importance?**

**Ans. Records :** Record is a brief account of the personal and medical history of the patient, results of diagnostic test, findings of medical Examination, treatment and nursing care, daily progress notes and advice on discharge.

**Importance of Records :**

- Provides an accurate and detailed account of treatment and care given to the patient.
- Records are of great value in the diagnosis, treatment and NSG care.
- A record of illness and treatment saves duplication of work in the future care especially when the patient is transferred from one department to another.
- A well written record has a legal value.
- Records are tools of communication among the members of the health team.
- Records help the medical and NSG students in their clinical experience and provide data for care studies.
- Records serve as a reference material for research work.
- Data taken from the patient's record points out the health problem of the country and it also provides a base line in local, state, national and international health services are planned.

**Reports :** Reports are the effective method of communication among the members of the health team. Reports are information about a patient – either oral or written. Like records, the reports also should be truthful, accurate, appropriate, clear, confidential, brief, complete and legible.

**Importance :** Reports are essential tools of communication b/w the members of the health team.

- Good reports will indicate the efficiency of the health team in carrying out their assignments.
- Good report will avoid duplication of work.
- Report will tell us why a particular procedure is done or not done.
- Good report will help the relieving personnel to plan the future care of patients containing wasting time unnecessarily.
- Patient receive better care when the reports are thorough and give all data.
- Good report will tell us about the problems relating to supplies and equipments.

**Q.6 List the types of Records and Reports.**

**Ans.: Types of Records :**

- i) Out-patient and in-patient records.
- ii) Nurse's Recordings.
- iii) Doctor's order sheet.
- iv) Graphic chart of T.P.R.
- v) Report of laboratory examination.
- vi) Diet Sheets.
- vii) Consent form for operation and anesthesia.
- viii) Intake and output chart.
- ix) Report of anesthesia, physiotherapy, occupational therapy and other special treatment.
- x) Registers.

**Types of Reports :**

- i) Reports among the members of the NSG team.

- ii) Reports b/w the head nurse and her assistant.
- iii) Reports b/w the head nurse and the n-NSG. Superintendent.
- iv) Reports to physician.
- v) Reports on mistakes, accidents and complaints.
- vi) Evaluation report.

**Q.7 What do you mean by Nursing Process?**

**Ans.:** The nursing process can be defined as an orderly, systematic way of identifying the clients' (Patients) problems, making plans to solve them, initiating the plans or assigning others to complement it and evaluating the extent to which the plan was effective in resolving the problem identified. The characteristics of a nursing process are :

- i) Planned
- ii) Problem oriented
- iii) Goal directed
- iv) Client centered

Therefore, there are four basic steps in nursing process. They are :

- a) Assessment
- b) Planning
- c) Implementation
- d) Evaluation

Nursing process is described as the sum of all nursing activities which consist of five D's of nursing :

- Discover
- Delve
- Decide
- Do
- Discriminate

Therefore, the nurse must discover the fact that are not known about the patient and must delve into the information obtained. She has to decide (plan) and do what is best for the patient, then discriminate as to the effectiveness of action in solving the problems, or meeting the needs of the patient.

□ □ □

## Basic Nursing Care & Need of the Patient

---

**Q.1 Define Bedsore and its causes and how will you prevent an unconscious patient from Bedsore.**

**Ans.:** Bedsore are also known as **Decubitus** ulcers or pressure sores are ulcerated or sloughed area of tissue subjected to pressure from lying on mattress or sitting on a chair for a prolonged period of time resulting in the slowing of circulation and finally death (necrosis) of tissue.

**Causes :**

- i) Pressure (considered be the primary cause)
- ii) Friction
- iii) Moisture
- iv) Presence of pathogenic organism
- v) Impaired circulation
- vi) Lowered vitality
- vii) Qedema
- viii) Obesity

**Prevention of Pressure Sore :**

- i) Identification of patients who are particularly prone to the development of decubitus ulcers.
- ii) Daily Examination of the decubitus-prone patient for redness, discoloration on the pressure points.
- iii) Change the position of the patient every 2 hours so that another body surface bears the weight.
- iv) Keep the patient's skin well lubricated to prevent cracking by using powder.
- v) Provide the patient with adequate fluids and with a nourishing diet that is high in protein and vitamins.
- vi) Call assistant and lift the patient before giving and taking bedpans.



- vii) Provide a smooth, firm and wrinkle free bed on which the patient can take rest.
- viii) Use special mattresses and beds to reduce the pressure on body parts such as air mattresses, water mattresses etc.
- ix) Change the linen as soon as they become wet. The back and buttocks also must be washed, dried and rubbed with powder. After each urination and defecation, the back must be attended.
- x) Teach the patient's relatives the hygienic care of the skin.

**Q.2 What are the signs and symptoms of Pressure Sore and enlist the common sites of Pressure Sore?**

**Ans.: Signs and Symptoms :** The early symptoms of bed sore are :

- Redness
- Endemics
- Discomfort
- Smarting
- The Area becomes cold to touch and insensitive.
- Local edema
- Due to continued pressure, the circulation is cut off, gangrene develops and the affected area is sloughed off.

**Common Sites :** Bony prominences of the body where there is no rich blood supply.

The common sites depend upon the position of the patient in bed :

- Back of the head (occiput)
- Scapula
- Sacral region
- Elbows
- Heels
- Ears
- Crooning process of the shoulder
- Ribs
- Greater trochanter of the hip
- Medial and lateral condyles of knee

- Ankle joint
- Breast
- Genitalia (in Males)
- Knees & toes

**Q.3 What are the Nurses' responsibilities in attending the mouth of a patient in illness?**

**Ans.: Preliminary Assessment :**

- Check the condition of the oral cavity.
- Check the ability of the patient for self care.
- Check the general condition of the patient.
- The frequency of mouth care needed.
- Doctors orders for specific precautions regarding the movement & positioning of the patient.
- Articles available in patient's unit.

**(A) Mouth care of a patient who is able to care for himself :**

- Wash hands.
- Prepare the mouth wash by adding hot and cold water and drop one crystal of KMNO<sub>4</sub> into it.
- Help the patient to rinse his mouth. Let the patient hold kidney tray according to his convenience for the return flow.
- Pick up the tooth brush, wet it with water, spread a small quantity of tooth paste on it and hand it over to the patient.
- Instruct the patient to brush all sides of the teeth.
- When he finishes his brushing from water on the brush, holding it over the kidney tray and clean the brush thoroughly and put back the brush.
- Help the patient to rinse his mouth thoroughly.
- Ask the patient to manage the gums. Help the patient to wash his face and hands and wipe with towel.

**(B) Mouth care of the patient who is not able to care for himself (an unconscious patient) :**

- Wash hands.

- Prepare the antiseptic solution for the mouth wash.
- Make a paste with Soda bi-carb or salt or use any dentifrice whichever it available
- Place the kidney tray close to the cheek.
- Do not pour water into the mouth if the patient is unconscious.
- Take a gauze or rag piece, wrap it around the forceps covering the aps completely.
- Moister the gauge and dip it in the cleaning agent, swab each teeth gently but firmly, taking care to clean all sides of teeth.
- To clean the inner and chewing surfaces of the teeth, use a mouth gag.
- With mouth gag in position, clean the tongue, using the gauze covered with artery forceps. Wet the gauge only with a small amount of solution.
- When the teeth and tongue are cleaned well, stop the procedure. Wipe the lips and face with the towel.

**Q. 4 Explain the term “Bed-Bath”, types and their purposes.**

**Ans.:** “Bed-bath” means bathing a patient who is confined to bed and who does not have the physical and mental capability of self bathing.

The patients who need bed bath in bed are those who are in plaster casts and traction, on strict bed rest, paralyzed, unconscious and those who have undergone surgery.

**Purpose :**

- To clean the body off dirt and bacteria.
- To remove elimination through the skin.
- To prevent bedsores.
- To stimulate circulation.
- To induce sleep.
- To provide comfort to the patient.
- To relieve fatigue.
- To give the patient a sense of well being.
- To regulate body temperature.

- x) To provide active and passive exercise.
- xi) To observe objective symptoms.
- xii) To give the nurse an opportunity for health teaching.
- xiii) To establish an effective nurse patient relationship.

**Types of Bath :**

- i) Bathing in bed.
- ii) Bathing in the bathroom.
- iii) Back-rib.

**Q.5 Define Pediculosis and its treatment?**

**Ans.:** It is defined as a state of being infected with lice. Lice or pedicute are small wingless blood sucking insects which are parasitic on warm blooded animals. They are found on head (*Pediculus copiris*), the body (*pediculus copiris*), and the perineal area, eye brows, eye lashes and beard (*pediculus copiris*). Pediculosis is associated with poor hygiene, crowded living condition and exposure to other individual with pediculosis.

Nurses responsibilities in the treatment of Pediculosis :

- i) Check the physicians order to see the specific precautions the patient's movements and positioning.
- ii) Assess the general conditions of the patient and the ability to follow directions.
- iii) Assess the condition of the scalp and the hair.
- iv) Check the articles available in the patient's unit.
  - Preparation of the articles.
  - Preparation of the patient and unit.

**Q.6 Describe the Optimum Environment for the Patients?**

**Ans.:** The optimum environment for the patient are :

- i) Adequate lighting during the day and night.
- ii) Provision of an atmospheric temperature and humidity that provides normal body functions.
- iii) Sufficient air movement to evaporate sweat and favour vascular changes within the skin.

- iv) Atmospheric pressure within man's tolerance.
- v) Provision for disposal of refuse and excreta.
- vi) Removal of dust, injurious chemicals and pathogenic bacteria from the atmospheric air.
- vii) Reasonable cleanliness of all surface and furnishing that the individual is likely to handle.
- viii) A dwelling place free from insects, animals, pests, fire hazards, mechanical injuries, electric shock, radiation and poisons.
- ix) Freedom from disagreeable odors and noises, harmony of colour and design in the immediate surrounding, provision of privacy etc.

**Q.7 Describe the positions used in NSG Care according to the needs of the patient.**

- Ans.:** (1) Position used for Comfort  
 (2) Position used for Physical Examination

**(1) Position used for Comfort :**

- (i) **Dorsal or Horizontal Recumbent or Supine Position :** In this position, the patient lies flat on his back with his legs together. His head may be supported with a pillow and his legs either extended or slightly flexed.
- (ii) **Dorsal Elevated or Semi Recumbent Position :** The patient lies in the bed with two or more pillows which may be arranged in a chair fashion to support the shoulder, arms and elbows.  
 This type of position is used in convalescence and to minor respiratory disease.
- (iii) **Prone Position :** In this position, the patient lies flat in bed as the abdomen, face turned sideways, with one small pillow under the ankle. This position is used for patients with burns, injuries or operations on back.
- (iv) **Lateral or Side Lying Positions :-** The patient lies on his side with both the knees slightly flexed towards the abdomen, one knee more acutely than the other. This position is used for giving enemas, inserting suppositories, for taking rectal temperature and for doing rectal examination.

- (v) **Fowler's Position** : This is a more erect position, in which an effort is made to maintain the position of the patient in sitting posture as nearly as upright position.

This position is used whenever the drainage of the abdominal cavity is desired to localize infection, to relieve breathing difficulty (dysphoea), to relieve tension as the abdominal sutures and to relax the large muscles of the back and thighs. This type position also gives the patient a sense of well being and makes it easier for him for self care.

- (vi) **Cardiac Position** : In this type of position, the patient is propped up in a sitting position by means of a backrest and pillows. Place an over bed table in front with a pillow on it, on which the patient can lean forward and take rest. Patient has an air cushion to sit on and a small pillow under the knees.

This is a most comfortable position for patient with cardiac asthma.

(2) **Position used for Physical Examination :**

- (i) **Dorsal or Horizontal Recumbent** : This position is used mostly for the head to foot examination.

- (ii) **Dorsal Recumbent Position** : The position lies on her back with the legs separated and the knees flexed. The patient has one pillow under the head.

This position is used for the vulvae, vaginal and rectal examination and for the operative procedures as the vulvae area and cauterization of bladder.

- (iii) **Erect Position** : This is the normal standing position with both feet on the floor.

This position is used for the orthopedic and neurological.

- (iv) **Sim's Lateral or Left Lacteal Prone Position** : In this position the patient lies on his left side.

This position is also used for vaginal and rectal examination.

- (v) **Lithotomic Position** : The patient lies on his back, the legs are well separated and the thighs are well flexed on the abdomen and the legs on the thighs. The patients buttocks are brought to the extreme edge of the table and the legs are supported on the stirrups.

This position is used for the gynecological examination and treatments and during the surgical procedure involving the genitomunary system.



- (vi) **Knee Chest or Genupectoral Position** : The patient rests on the knees and the chest. The head is turned to one side with the cheek as a pillow. A small pillow is placed under the chest and the arms are above the head. The knees are flexed in a kneeling position the thighs are at right angle to the legs.

This position is used for the examination of the rectum, vagina and as an exercise for post partum patients.

- (vii) **Trendelenburg Position** : The patient lies on his back. The foot of the bed is elevated at a 45° angle. The patient head is low. The body is on an inclined plane and the legs hang downward over the end of the table

This position is used during the Examination and used in wards to treat shock and decrease blood pressure.

#### Q.8 What are the different types of Diets served in Hospitals?

**Ans.:** The diet of a patient during hospitalization depends on his disease. The type and preparation of diet is controlled by the principles and objectives of diet therapy. The diets served during hospitalization are :

- (1) Liquid/Fluid Diets
- (2) Light or Soft Diets
- (3) Full or Normal Diets
- (4) Bland /Nonirritant Diets
- (5) Special Diets

(1) **Liquid / Fluid Diet** : Liquid diets must be used for patients who are unable to take or tolerate solid food. It consists of -

- (i) Clear Fluids (Non-residual Diet)
- (ii) Full Fluid Diets (Residual Fluid Diets)

(2) **Light or Soft Diet** : It is a full diet but consisting of food substances that are easy to chew and digest. A soft diet may include double boiled rice, soft cooked pulses, dals, steamed fish, poached eggs, chopped meat, sliced bread, etc.

(3) **Full or Normal Diet** : It is a regular, well balanced and normal diet. It is either vegetarian or non vegetarian and served for those patients who do not need any modifications.

- (4) **Bland/Nonirritant Diet** : A bland diet is one in which the goods are easily digestible, free from substances which might cause irritation of the gastrointestinal tract, and generally of low roughage content, used mainly for patients with gastro-intestinal condition. The following points should be kept in mind while supplying a bland diet :
- (i) The diet must be free from all mechanical and chemical irritants.
  - (ii) Food should not be fried in deep or shallow fat; therefore, baking, boiling, steaming and grilling are used.
  - (iii) Stimulating food such as soups, meat extracts, strong tea and coffee should be avoided.
  - (iv) Strong sugar solution should be avoided.
  - (v) Avoid fatty food, since it takes a long time to digest.
  - (vi) Milk should be given in plenty.
- (5) **Special Diets** :
- (i) High or low calorie diet.
  - (ii) High protein or low protein diet.
  - (iii) Fat free diet.
  - (iv) Low salt or salt free diet.
  - (v) Sippy's diet, Bulls' diet.

**Q.10 Define Cooking, their principles & different methods of Cooking.**

**Ans.:** Cooking is defined as when the food is prepared scientifically and artistically to make it more palatable, attractive and useful.

**Principles :**

- i) **Conservation of Nutrients** : Means the nutrients should not be destroyed and nutritive value should not be decreased.
- ii) **Duration of Preparation** : Minimum time should be spent during cooking.
- iii) **Use of Resources** : In cooking, available resources should be used in such a way that money energy and labor can be saved without disturbing the aim of preparation of food.
- iv) **Safety from Hazards** : Cooking can cause physical, chemical or electrical injuries; so appropriate safety measures should be applied during cooking.

- v) **Needs of Special Groups** : During preparation of foods, needs of special groups should not be overlooked and value of nutrients should be increased.
- vi) **Dietary Goals** : It should be given top most priority, modification if necessary, should be done in preparation of foods.
- vii) **Protection of Neutrality** : As far as possible, the natural taste and odor of food stuff should be protected during cooking.
- viii) **Food Hygiene** : During food preparation, the steps of “clean food chain” should be followed. Food should not be a threat to the health of the people; it should not be a source of infection as poisoning.
- ix) **Environmental Protections** : Cooking should not create environmental pollution. For that proper fuel and disposal systems should be used in kitchen.

**Method of Cooking** : The various methods of cooking are as follows :

- a) Boiling
- b) Simmering
- c) Stewing
- d) Roasting
- e) Pan Broiling
- f) Baking
- g) Frying
  - Drying Frying
  - Shallow Frying
  - Deep Frying
- h) Steam Cooking
- i) Pressure Cooking
- j) Solar Energy & Electrical Energy is also used for Cooking.

**Q.11 What do you mean by Pasteurization?**

**Ans.:** Pasteurization or partial sterilization is a simple yet excellent method of preservation of milk. This is a widely used method.

Pasteurization means to heat the milk to a certain temperature and over a certain period of time so that the organism present in that milk get destroyed but the colour, the form, the taste and the nutritional value of milk is least affected.

**Technique :**

- i) In one method, milk is heated to 63 to 66°C and then rapidly cooled to 5°C.
- ii) In other method, milk is heated to 72°C and quickly brought down to 5°C. In another method, milk is heated to 12.5 to 15°C for a few seconds and cooled in a fast manner. Pasteurization is tested by phosphate test.

**Merits of Pasteurization :**

- i) Destroys harmful Organisms.
- ii) Preserve vitamins.
- iii) Minimum change in the protein and sugar content of milk.
- iv) Easy method of preservation of milk.

□ □ □

**CHAPTER-4**

## **Assessment of Patient**

---

**Q.1 Define Body Temperature? What are the common sites for taking Body Temperature.**

**Ans.:** "Body temperature may be defined as the degree of heat maintained by the body or it is the balance between the heat produced and the heat lost in the body."

The **regulation of the body temperature** is maintained by two mechanisms :

- (i) **Thermogenesis** : A chemical regulation by the production of heat.
- (ii) **Thermolysis** : A physical regulation by loss of heat. The heat regulating centre is the hypothalamus situated in the brain.

**Common Sites for taking Body Temperature** : To get accurate measurement of the body temperature, the bulb of the thermometer must be placed where it can

be completely surrounded by body tissue and where there are blood vessels situated near the surface. The sites are mouth, axilla, groin, vagina and rectum.

**Q.2 What do you mean by observation and why are observation important in Nevisino?**

**Ans.:** Observation is defined as a act or faculty of taking notice of something. It is based upon one's knowledge interest and attention.

**Importance of Observation in Nursing :**

- (i) It is the chance to know the patient and to understand the condition of his physical, mental and spiritual well being.
- (ii) Through observation, any changes in the condition of the patient, improvement or regression, may be detected.
- (iii) Accurate observation helps the physician to make a correct diagnosis and to prescribe treatments.
- (iv) It helps to determine the cause and extend of disease.
- (v) Accurate observation helps to prevent complications in the patient by detecting the early signs of complications.
- (vi) It helps the nurse to use the safety measures to prevent accidents.
- (vii) It contributes to one's own learning as well as it promotes research studies.
- (viii) Observation is the basis of all scientific works and all intelligent and effective action. A hospital is able to analyze the quality of its service through carefully recorded observations.

**Note :** Method used by the physician and nurses in observing the patient include inspection, pupation, percussions and auscultation.

**Q.3 What is Physical Examination? What are their purposes and methods?**

**Ans.:** Physical examination is a thorough inspection on a detailed study of the entire body or some part of the body to determine the general physical or mental conditions of the body.

**Purposes :**

- (i) To understand the physical and mental well being of the patient.
- (ii) To detect disease in early stage.
- (iii) To determine the cause of the extent of disease.



- (iv) To understand any changes in the condition of disease.
- (v) To determine the nature of the treatment or nursing care needed for the patient.
- (vi) To safeguard the patient and his family by noting the early signs specially in case of a communicable disease.
- (vii) To contribute to the medical research.
- (viii) To find out whether the person is medically fit or not for a particular task.

**Method of Physical Examination :** It is done by four methods :

- (i) Inspection
  - (ii) Palpation
  - (iii) Percussion
  - (iv) Auscultation
- (i) **Inspection :** “Visual Examination of the body is called Inspection.” It is the observation with the naked eyes to determine the structure and functions of the body.
  - (ii) **Palpation :** It is the feeling of the body or a part with the hands to note the size and position of the organs.
  - (iii) **Percussion :** It is the Examination by tapping with fingers on the body to determine the condition of the Internal organs by the sounds that are produced.
  - (iv) **Auscultation :** It is the listening to sounds within the body with the aid of a stethoscope, fort scope or directly with the ear placed on the body.

#### Q.4 What are the Nursing Care in Fever?

**Ans.:** Pyrexia or fever is defined as a rise in the body temperature above 99<sup>0</sup> (37.2°C). The causes of fever are infections, disease of the nervous system, certain malignant neoplasm, blood disease etc.

**NSG Care :**

- (1) **Regulation of the Body Temperature :** Care of the patients in fevers focuses on reducing the elevated body temperature. When a patient’s temperature is moderately elevated, various methods of reducing the temperature may be used for cooling the body are :
  - (i) Exposure to cool air by an electric fan.
  - (ii) Administration of cool drinks.



- (iii) Application of cold compresses and ice bags.
  - (iv) Cold sponging and cold packs.
  - (v) Cold bath
  - (vi) Ice cold lavages & Enemas
  - (vii) Use of hypothermic blankets or mattresses.
- (2) **Meeting the Nutritional Needs :** The cellular metabolism is greatly increased during fever due to  $C O_2$  consumption is also increased in body tissues; therefore, a high caloric diet is indicated in fever. Since the digestive process is slow down, the diet should be easily digestible & palatable and used fluid diet.
- (3) **Providing Rest and Sleep :** The patient should take bed rest. To ensure rest and sleep, provide a unit, which is calm, quiet, without bright lights. Help the patient to change position regularly. The clothing should be light, loose, smooth and non irritating. Cotton garments are helpful, since they absorb the sweat and helps in the evaporation.
- (4) **Maintenance of Personal Hygiene :** Care of the mouth is ;very essential for patients having fever for many days.
- There may be cracked lips and coated tongue. If the oral hygiene is not maintained, then many complications may arise e.g. parotitis, thrush and crusts, herpes etc.
  - Care of skin and pressure points are essential to prevent bed sores. Sponge bath is given daily to keep a patient clean. If the temperature remains high, the cold sponging may be given to bring down the temperature.
- (5) **Safety Factors :** Never leave a patient alone with high fever. Rigors and convulsions may occur at any time. So, therefore, the nurse should keep all the articles ready to act quickly on such occasions. If any type of cold applications are used, the nurse should suspect the skin for discoloration or lesion and apply a cream or oil to the affected area.
- (6) **Observation of the Patient :** Patient with fever need constant intelligent observation by the nurses. The vital signs are to be checked frequently to know the progress or reversion of the disease. Any worsening of the patient's condition should be noted and reported immediately.

**Q.5 Write in short about Clinical Thermometer.**

**Ans.:** A clinical thermometer is a special instrument designed to measure the temperature of the body. It is available in both Fahrenheit and Celsius scales.

- The thermometer has two parts, a bulb containing mercury and a stem in which the mercury can rise.
- On the stem is a graduated scale representing the degree of temperature, the lowest registered being 35°C or 95 °F. The highest being 43.3°C or 110 °F being the body temperature above or below these points are rare.
- There are two types of thermometers i.e. **Rectal** and **Oral** thermometer.

The Rectal thermometer has short and fat bulb whereas the oral thermometer has long and slender bulbs.

The following points are to be kept in mind to prevent them from breaking :

- To shake the mercury down, grasp the thermometer securely by the upper end of the stem and never hold it by the bulb.
- Be careful not to let the thermometer fall or strike against anything.
- The thermometers are never washed with hot water, because the heat expands the mercury beyond the capacity of the stem.
- When storing the thermometers, never store them in disinfectant solution.
- For fear of breaking thermometers, never place the thermometer in the mouth of a person who cannot understand the instructions or who is not able to hold the thermometer in place.
- The thermometer used in common should be washed with soap and water and disinfected with a good disinfectant.

□ □ □

## Therapeutic NRG Care & Asepsis Procedure

---

### Q.1 What do you mean by 'Sterilization'?

**Ans.:** "Sterilization" is the process by which an object becomes free of all the micro-organisms. By sterilization, both the pathogenic and non-pathogenic organisms are destroyed.

There are various methods used in the sterilization of articles and the chosen method must ensure the destruction of all micro-organisms including spores.

- i) Boiling method
- ii) Cold sterilization
- iii) Fumigation or gas sterilization.
- iv) Radiation
- v) Dry heat sterilization
- vi) Steam under pressure or autoclaving

### Q.2 What do you mean by Barrier NSG or Isolation techniques?

**Ans.:** "Separation of infected person from the non-infected person for the period which will prevent the transmission of infection to others."

There are number of isolate technique and precautions used to prevent the spread of infection :

- (i) **Respiratory Isolate :** Indicated in situation when the pathogens are spread through droplets from the respiratory tract.
- (ii) **Enteric Isolation :** It is indicated when the pathogens are transmitted through faeces (stool).
- (iii) **Wound or Skin Isolation :** This type of isolation is for pathogens which are found in wounds.
- (iv) **Blood Isolation :** This type of isolation is used to prevent the transmission of pathogens that are found in blood.

### General Precautions :

- (i) Maintain high degree of cleanliness.
- (ii) Health teachings.
- (iii) Minimize no. of visitors in hospitals.
- (iv) Emphasize on hand-washing.
- (v) Keep toilet articles separate for each person.
- (vi) Person with lowered resistance (e.g. anemia) should be protected.
- (vii) Patient suffering from communicable disease should be kept in separate room.

### Q.3 Write short note on -

**Ans.:** (1) **Autoclaving** : "It is the most widely used, economical and one of the most effective method of destroying of micro-organism."

- In this method, high temperature pressure and humidity is used to destroy the bacterial life.
- In an autoclave steam is +nt under pressure to maintain the high temperature for sterilization and it allows rapid penetration of articles packed in it.
- For effective sterilization, the steam in the autoclave should be at 15lbs/inch<sup>2</sup> (1.05 kg/cm<sup>2</sup>) pressure at 121°C temperature and should be maintained for 30 minutes.
- Autoclaving is used to sterilize all type of articles except those c are destroyed by heat and moisture.

### General Instructions :

- i) The articles being sterilized should withstand high temperature and moisture.
- ii) The wrapper and the container should allow penetration of the steam into the article.
- iii) The inner chamber must not be too full nor the contents arranged too compactly. Bundles and chums must be packed loose. Cans and jars must be opened and turned on their side so that the steam can easily penetrate the contents.
- iv) The temperature and pressure of the steam should be high enough to kill all the micro-organism including spore.

- v) The temperature and pressure should be 121°C and 1.05 kg/cm<sup>2</sup>
  - vi) In operating an autoclave, it is important to remember that the air in the inner chamber must be driven out and entirely replaced by steam.
  - vii) The articles should be left in the autoclave for a short time after the procedure is over in order to dry the materials.
- (2) **Hand washing** : “Hand-washing procedure is used to minimize the number of bacteria or micro-organism.”

- Hand washing involves both mechanical and chemical action.
- The soap will facilitate in removal of dirt and oils.

The points to be kept in mind while washing hands are :

- i) Cut short nails beez long nail will give roof to the dirt and micro-organism.
- ii) Remove the jewelry of any type and wrist watch.
- iv) Open the tap and wet hands and fierce gums.
- v) In medical asepsis always hold the hands below the elbow level, beez hands are considered to be more contaminated than elbow while in surgical asepsis, the hands are held above the level of elbow beez the elbow are considered more contaminated than hands.
- vi) Apply soap and rinse the soap.
- vii) Make sure that the inter-digital species are well cleared by washing each finger separately. Use brush to dislodge the dirt from under the nail beds.
- viii) Rinse the hands thoroughly.
- ix) Repeat the procedure to ensure thorough cleanliness.
- x) Dry the hands and arms, starting at the elbow and working towards hand in medical asepsis and from hands to elbow in surgical asepse and descend the towel.
- xi) Turn off the H<sub>2</sub>O tap using a paper towel beez the handle is contaminated.

#### Q.4 Define Collection of Specimen of Urine.

**Ans.:** “A specimen may be defined as a small quantity of a substance or object which shows the kind and quality of whole (sample).:



### Method of Collecting Urine Specimen :

- Ask the patient to clean the genital area with soap and H<sub>2</sub>O.
- In female, the labia are separated for cleaning and kept apart until the urine had been collected.
- In male patient, the fore skin should be retracted and the gland penis is cleared before the collection of urine.

The patient begins to void into the toilet, Commode or bed pan. Then the patient stops the stream of urine, the sterile container is positioned and continues to void into the container. When enough urine has been voided, for the specimen, the patient stops the stream again, the container is removed and then finishes the voiding in the original receptacle.

By this method, the 1<sup>st</sup> stream of urine flushes out the organism and mucus usually present at the meatus, so that accurate result can be obtained.

Catheter may be used to collect specimen from the unconscious patient or menstruating patients.

### Q.5 What do you mean by Disinfection?

**Ans.** Disinfection means destroying the entire pathogenic micro organism. It can be done by two methods – (1) Concurrent (2) Terminal.

(1) **Concurrent Disinfection** : “It is the immediate disinfection of all contaminated articles and bodily discharges during the course of disease.”

It includes -

- Cleaning to isolate unit daily, including floor, using an effective disinfectant.
- Disinfect all articles including the soiled linen, contaminated articles etc.
- Disposal of all waste by incineration.
- Safe disposal of excreta.

(2) **Terminal Disinfection** : “It means disinfection of the patient's unit with all the articles used on discharge, transfer or death of a patient who had been suffering from an infectious disease.” e.g. fumigation is often used for this purpose. The commonly used agents are surplus and formalin.

### Q.5 Explain in short the Management of Isolation Unit?

**Ans.:** A unit that is set up for isolation of patient needs to have the following equipments :



- i) Hand washing facilities – sink, water tap, soap, brush etc.
- ii) Paper Napkins
- iii) One table to place necessary supplies for the care of the patient.
- iv) Toilet facilities for the patient.
- v) Garbage receptacle with paper lining.
- vi) Personal articles for toilet, food serving etc.
- vii) An area outside the patient's room for keeping clean supplies for the house e.g. gloves, gowns, masks etc.
- viii) Door cards stating 'isolation' to hang on the door.

The nursing, before entering the rooms, washes her hands, put on clean gown and mask to enter the room. She then closes the door and attends to the patient. She makes use of all medical aseptic techniques to prevent the spread of infections.

After attending to the patient's needs, she leaves the room, closes the door, removes the gown and mask and discard them in the container with the disinfectant lotion and washes her hand thoroughly.

**Q.6 How would you sterile the following Articles?**

- a) Rubber Articles
- b) Glass Articles
- c) Permanent Articles
- d) Linen
- e) Blanket
- f) Sharp Instruments

**Ans.: ?**

**Q.7 What do you mean by Cross Infection? How it is prevented?**

**Ans.** "Infection transmitted b/w individuals infected with different pathogenic organism." It usually occurs in the hospital when the patient stays in hospital.

The **method of transmission of cross infection** are :

- (i) **Direct Contact** : E.g. person to person through kissing, sexual contact, choked info and infected hands.

- (ii) **Indirect Contact** : E.g. contact with secretion and excisions of the infected persons.
- (iii) Through fomites e.g. instruments, utensils etc.
- (iv) Through contaminated food and H<sub>2</sub>O.
- (v) Through insects
- (vi) Through dust
- (vii) Through carriers

**Prevention of Cross Information :**

- (i) Hospital be well ventilated.
- (ii) Maintain general cleanliness of the hospital
- (iii) Safe food and water supply
- (iv) Safe disposal of excreta
- (v) Safe disposal of refuse
- (vi) Destruction of rodents and insects.

□ □ □

**CHAPTER-6**

## **Introduction to Pharmacology**

---

**Q.1 Which are the common routes of Drug Administration?**

**Ans.:** Drugs may be defined as a substance used to promote health, to prevent, to diagnose, to alleviate or cure disease.

Drugs are administered according to the preparation of the drug administered and the effect desired; therefore, the labels as the container will give the directions regarding the route of administration.

The different **routes of administration of medications** are :

- (1) **Oral Administration** : It is the most common and convenient route for most patients.

*Disadvantages* : Unpleasant taste, the irritation of the gastric mucosa etc.

- (2) **Sublingual Administration** : Drugs such as Nitroglycerine are given sublingually by placing it under the tongue and letting it slowly dissolve.
- (3) **Inhalation** : The volatile drugs are given in this method. The patient inhales the fumes into the lungs to have a local or systemic effect e.g. inhalation of spirit ammonia to overcome fainting etc.
- (4) **Topical Applications** : The application of the drugs to the skin usually by a friction e.g. ointment. Many drugs are applied topically such as astringents, emollients, antiseptics etc.
- (5) **Instillation** : Instillation is putting a drug in liquid form into a body cavity such as urinary bladder or into a body orifice such as Ears, Eyes etc.
- (6) **Insertion** : Insertion means introducing solid forms of drugs into the body orifices e.g. suppositories are introduced into the rectum and vagina.
- (7) **Insufflations** : It is the administration of drugs in the form of powder, vapor or air into a wound or body cavity by blowing with an insufflators.
- (8) **Implantation** : Implantation means planting or putting in solid drug into the body tissue.
- (9) **Parenteral administration** : Parenteral means giving drugs outside the elementary tract. It is the type of administration accomplished by a needle.
  - (a) **Intramuscular** – Into the muscles.
  - (b) **Subcutaneous** – into subcutaneous tissue
  - (c) **Intra Dermal** – Under the spiderus, into the dermas.
  - (d) **Intra Venous** – Into the vein.
  - (e) **Intra Arterial** – into the artery.
  - (f) **Intra Cardiac** – Into the cardiac muscles.
  - (g) **Intra the Cal or Intra Spiral** – Into the spinal cavity
  - (h) **Intra Osseous** – Into the bone marrow.
  - (i) **Intra Peritoneal** – Into the peritoneal cavity.

**Q.2 Describe the general rule of doing Administration?**

**Ans.: (A) While Preparing the Medicines :**

- a) Read the physician's order before preparing the drugs.
- b) Check the medicine card against the physician's order

- c) Calculate the fractions of dosage accurately.
- d) Give the medication only from a clearly labeled container.
- e) Always use a calibrated measure in order to measure the accurate dose.
- f) Make sure that the medicine glasses are clean and dry before the medicine is taken.
- g) Hold the ounce glass at eye level and place the thumb on the mark on the ounce glass to which the medicine is to be poured.
- h) While taking tablets and capsule do not touch them with hands. Drop the tablets or capsule direct into the medicine cup from the container.
- i) Do not use the medicine that differs in colour, taste, odor and consistency.
- j) Prepare the drug just before the time of administration of medicine.

**(B) Regarding the Administration :**

- i) Observe the five Rights.
- ii) Observe for the symptoms of over dosage of the drugs before it is administered e.g. a Brady cardiac observed in the patient getting dioxins tablets.
- iii) Identify the patient correctly.
- iv) Give the drugs one by one.
- v) Stay with the patient until he has taken the medication completely.
- vi) Observe for any contradiction in oral administration of medicine such as nausea, vomiting etc.
- vii) Always give the medicine you have prepared.
- viii) Always provide a drink of fresh water to the patient after giving an oral medicine.
- ix) The drug that circulate appetite should be given before food. The drugs that are instant to the gastric mucosa should be given only after meal. The drugs given for the local effect in the stomach (e.g. an antacid) should be given after meal to prevent quick absorption of the drug.
- x) Never give water after administering the cough syrups.
- xi) The lozenges are to be sucked and not chewed until it is completely dissolved in the mouth.

(C) **Regarding the Recording of Drugs :**

- i) Record each dose of medicine soon after it is administered.
- ii) Use standard abbreviations in recording the medications.
- iii) Use standard abbreviations in recording the medications.
- iv) Record only that medicines which you have administered.
- v) Record the date, time, name of the drugs administered and dose.
- vi) Record the effect observed.
- vii) Record the medications that are vomited by the patient, refused and those drugs that are not administered to the patient and the reason for not giving the medication.

**Q.3 What are the Safety Measures for Administration of Drugs and Injections?**

**Ans.:** Five 'rights' of medication administration are :

- (1) Right patient
- (2) Right drug
- (3) Right dosage
- (4) Right time
- (5) Right route

**Asepsis :**

- a) Sterile gringos & needles.
- b) Freshly distilled & sterile water for injections
- c) Drug used for injection should be sterile.
- d) Handling the drug and equipment used for injections with aseptic techniques e.g. washing hands before touching the equipment.
- e) Cleaning of the injection site with antiseptics to reduce the number of bacteria present in the skin.
- f) Protecting the injections and the equipment during the transportation of the injections to the patient e.g. the needle is covered with a protector.

**Selection of the Sites for Injection :** The selection of site depends upon :

- i) Route ordered by the physician.
- ii) The quantity of medication to be given.

- iii) The condition and muscular development of the patients.
- iv) The characteristics of medication to be given.
- v) Knowledge of the anatomical location of nerves.
- vi) Expected action of the drugs.

**Note :** In order to prevent tissue trauma, rotation of the site and skillful techniques are necessary.

**Manual & Technical Skills :**

- a) The nurse should select equipments appropriate for therapy.
- b) The nurse should develop skills in giving the injections properly according to the route ordered.
- c) She should select the site quickly and accurately.
- d) She should be able to prepare the medications as desired.

**Q.4 What precautions will you take while giving medicine by oral route?**

- Ans.
- 1) Check diagnosis and age of the patient.
  - 2) Check the purpose of medication.
  - 3) Check the identification of patient – the name, bed
  - 4) Check the nurses record for the time at which the last dose was given.
  - 5) Check the symptoms of overdose of the drug administered due to the cumulative effect of the drug.
  - 6) Check for any contra indications present in the patient for an oral intake of the medicines such as nausea, vomiting, delirium and unconsciousness etc.
  - 7) Check the form of the drug available and the correct method of administration.
  - 8) Check the presence of oral and Esophageal lesions.
  - 9) Check the consciousness of the patient and the ability to follow instructions.
  - 10) Check the abilities and limitations in swallowing the medications.
  - 11) Check the articles available in the patients unit.



### Q.5 What are the different routes of giving Injections?

**Ans.:** Injections are 'Parenteral therapy'. It means giving of elementary tract. In other words, it is the forcing of a fluid into a cavity, a blood vessel or body tissue through a hollow tube or needle.

#### **Routes :**

- 1) **Intra Dermal :** Medicines when introduced into the dermis (Under the epidermis) is called as intra dermal injections.
- 2) **Hypodermal or Subcutaneous Injection :** Medicines when introduced into the subcutaneous tissue (just below the skin) is called hypodermic or subcutaneous injection.
- 3) **Intramuscular Injection :** Medicines when injected into the muscles, it is called Intramuscular injection.
- 4) **Intravenous & Intra Arterial Injection :** Medicines and fluids when introduced into a vein called as intravenous and when introduced into the arteries, called as intra arterial injections.
- 5) **Intra Spinal or Intra Thecal Injections :** Medicines when introduced into the spinal cavity is called as intra spinal or intra thecal injections.
- 6) **Intra Osseous Injection :** When drugs or fluids are introduced into the bone marrow.
- 7) **Intra Peritoneal Injections :** Medicines when introduced into the peritoneal cavity.
- 8) **Infusions :** When a large quantity of medicines or fluids are to be introduced into the body cavity and usually these are given IV or SC.
- 9) **Venesection or Cut Down :** Opening a vein and introducing a tube or wide bore needle and introducing medicines and fluids or taking out blood is called venepuncture or venesection. This is done in emergencies.
- 10) **Transfusion :** It is the introduction of whole blood or plasma into a vein or artery to supply actual volume of blood or to introduce constituents as clotting factor or antibodies which are deficient in the patient.
- 11) **Hypo Spray :** The hypo spray permits drugs to be sprayed through the skin.

### Q.6 Describe in detail the method of giving IM Injections?

- Ans.:**
- 1) Select the medication.
  - 2) Wash hands.
  - 3) Prepare the medication.

- 4) Keep the syringe with medication in the sterile tray and cover it.
- 5) In multi-dose vial, reconstitute the label with identifying data i.e. patient name, dosage, strength, date & time of the signature of the nurse who prepared it.
- 6) Return the medication to its proper place (refrigerator if necessary).
- 7) Carry the medication to the patient.
- 8) Identify the patient.
- 9) Prepare the site for injection i.e.
  - a) Select the site
  - b) Clean the site with spirit swab, using surgical asepsis.
  - c) See that the patient is in a comfortable position and completely relaxed.
- 10) Spread the tissue b/w the thumb and forefinger to make the skin taint. Needle is inserted at a 90° angle, holding the syringe in the right hand, using a steady push on the needle. With the right hand on the syringe as pirate blood by putting back the piston with the left hand. If blood appears in the syringes, quickly withdraw the needle. If no blood comes, give the medication slowly by pushing the piston. Remove the needle quickly and manage the site for the quick absorption of the drug.
- 11) After injection, inspect the area for bleeding. If bleeding takes place, apply pressure but do not manage.
- 12) Help the patient to dress up and take a comfortable position.

□ □ □