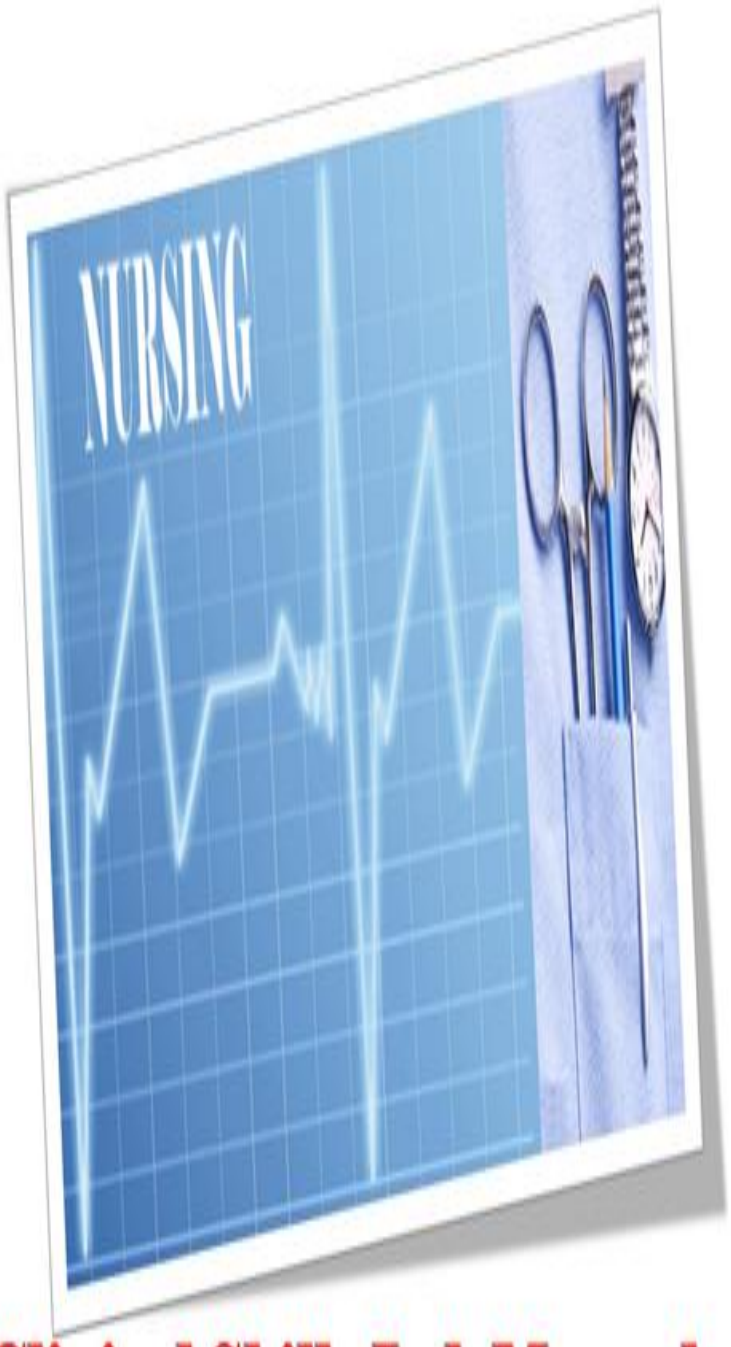


Clinical Skills Lab Manual

(NRS 234)

Patient Care Clinical Skills Laboratory manual

(NRS 234)

Index

Unit one Medical Asepsis	**Procedure 1: Hand Washing.** **Procedure 2: Donning a face mask.** **Procedure 3: Donning caps and shoes cover.** **Procedure 4: Donning a clean gown.** **Procedure 5: Donning clean disposable gloves.** **Procedure 6: Removing protective equipment's**
Unit two : Bed Making	**Procedure 1: Making an unoccupied bed.** **Procedure 2: Making Surgical bed.** **Procedure 3: Making an occupied bed.**
Unit Three : Surgical Asepsis (Sterile Technique)	**Procedure 1: Establishing and maintaining a sterile field.** **Procedure 2: Surgical Hand Washing.** **Procedure 3: Applying a sterile gown.** **Procedure 4: Donning sterile gloves.** **Procedure 5 : Removing of gloves.** **Procedure 6: Removing of gown.**
Unit Four : Vital Signs	**Procedure 1: Assessing body temperature.** **Procedure 2: Assessing peripheral pulse.** **Procedure 3: Assessing an apical pulse.** **Procedure 4: Assessing an apical-radial pulse.** **Procedure 5: Assessing respiration.**

	Procedure 6: Assessing blood pressure.
<u>Unit Five</u> : Hygiene	**Procedure 1: Bathing an adult or pediatric patient.** **Procedure 2: Providing foot care.** **Procedure 3: Brushing and flossing the teeth.** **Procedure 4: Providing a special oral care.** **Procedure 5: Providing hair care for the client.** **Procedure 6: Shampooing the hair of a client confined to bed.**
<u>Unit Six :</u> **Basic Body Positions**	**Procedure 1: Fowler's position.** **Procedure 2: Orthopneic position** **Procedure 3: Dorsal recumbent position.** **Procedure 4: Prone position.** **Procedure 5: Lateral position.** **Procedure 6: Sims' position.**
Unit Seven: **Moving and Turning Clients in Bed**	**Procedure 1: Moving a client up in bed.** **Procedure 2: Turning a client to the lateral or prone position in bed.** **Procedure 3: Logrolling a client.** **Procedure 4: Assisting the client to sit on the side of the bed.** **Procedure 5: Transferring between bed and chair.** **Procedure 6: Transferring between bed and stretcher.** **Procedure 7: Assisting the client to ambulate.**
<u>Unit Eight :</u>	**Procedure 1: Administering Oral Medications.**

Medications	**Procedure 2: Administration of medication through the enteral tube.** **Parenteral medications.** **Procedure 3: Preparing Medications from Ampoules.** **Procedure 4: Preparing Medications from Vials.** **Procedure 5: Administering an Intradermal Injection.** **Procedure 6: Administering a Subcutaneous Injection.** **Procedure 7: Administering an Intramuscular (IM) Injection.** **Procedure 8: Adding Medications to Intravenous Fluid Containers** **Procedure 9: Administering Intravenous Injection through Cannula (push).** **Procedure 10: Administering Intravenous Injection through Direct method.** **Procedure 11: Instilling Ear Drops.** **Procedure 12: Administration of rectal medication.** **Procedure 13: Performing a sensitivity test.**
Unit Nine **Parenteral Fluid and Electrolyte Replacement**	**Procedure 1: Starting an Intravenous Infusion.** **Regulating and monitoring intravenous infusions.** **Procedure 2: Monitoring an Intravenous Infusion.** **Procedure 3: Changing an IV dressing.** **Procedure 4: Administration of Blood.**
Unit Ten	**Procedure 1: Taking a venous blood sample.**

Diagnostic tests	**Procedure 2: Measuring Blood Glucose.** **Procedure 3: Stool sample collection.** **Procedure 4: Collecting Random Urine Specimen** **Procedure 5: Obtaining a Clean-catch midstream specimen (uncontaminated).** **Procedure 6: Obtaining urine Sample from Indwelling Catheter.** **Procedure 7: Obtaining a Timed urine collection.** **Procedure 8: Sputum Sample Collection.**
Unit Eleven **Enteral Nutrition**	**Procedure 1: Inserting a Nasogastric Tube.** **Procedure 2: Removing a Nasogastric Tube.** **Procedure 3: Administering a Tube Feeding.**
Unit Twelve **Fecal Elimination**	**Procedure 1: Administering an Enema.**
Unit Thirteen **Urinary Elimination**	**Procedure 1: Applying an External Catheter (Condom).** **Procedure 2: Performing Urinary Catheterization.** **Procedure 3: Removing folly's catheter.**
Unit Fourteen **Wound Care**	**Procedure 1: Cleaning a wound and applying a sterile dressing.** **Procedure 2: Irrigate (washing) and packing wound.** **Procedure 3: Collecting a Wound Culture.**

Unit One

Medical Asepsis

Content:

- **Introduction.**
- **Procedure 1: Hand Washing.**
- **Procedure 2: Donning a facemask.**
- **Procedure 3: Donning caps and shoes cover.**
- **Procedure 4: Donning a clean gown.**
- **Procedure 5: Donning clean disposable gloves.**
- **Procedure 6: Removing protective equipments.**

Introduction:

- **Asepsis**: Is the absence of germs, or is the freedom from infection or infectious material.

- **Medical Asepsis**: All practices intended to reduce the number of microorganisms present, or reduce the risk of transmission from one person to another. It is also known as clean technique.

- In medical asepsis, objects are often referred as clean or dirty.

  Clean: denotes the absence of almost all microorganisms.

  Dirty: soiled, contaminated denotes the likely presence of microorganisms.

Some practices of medical asepsis are:

1. Hand washing.
2. Donning and removing protective equipments
   a. Gown
   b. Head cover
   c. Mask
   d. Overshoes

e. Clean gloves

Procedure 1: Hand Washing:

Hand washing is the single most important means of infection agent, and the most effective infection control measures. It is important in every setting.

Purposes of hand washing:

1. To reduce the number of microorganisms on the hands.
2. To reduce the risk of cross-contamination among clients.
3. To reduce the risk of transmission of microorganisms to clients.
4. To reduce the risk of transmission of infectious organisms to oneself.

Important points:

1. Nails should be short.
2. Remove all jewellery
3. Check hands for breaks in skin.

Equipments:

1. Soap
2. Warm running water
3. Towel

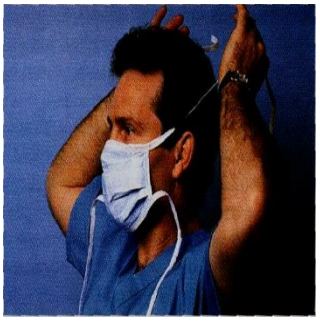
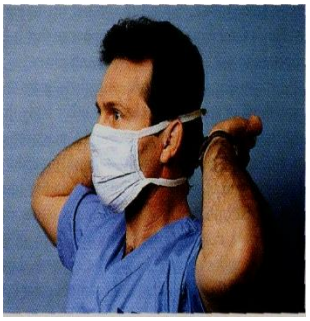
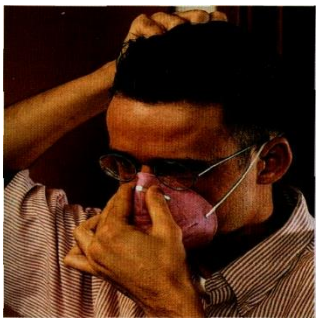
Procedure steps:

1. Turn on water.
2. Adjust the flow, water should be warm.
3. Wet hands and lower arm thoroughly (Hold hands under running water, lower than the elbow)
4. Apply soap to the hands.
5. Use firm, rubbing and circular movements to wash the palm, back, and wrist of each hand.
6. Interlace the fingers and thumbs and move the hands back and forth.
7. Rub the fingertips against the palm of the other hand.
8. Rinse the hands.

9. Dry the hands and arms using a towel.

Procedure 2: Donning a face mask:

1. Locate the top edge of the mask. The mask has a narrow metal strip at the edge.
2. Place the upper edge of the mask over the bridge of the nose.
3. Tie the upper ties at the back of the head.
4. Secure the lower edge of the mask under the chin, and tie the lower ties at the nap of the neck.
5. Adjust the metal strip firmly over the nose bridge

Procedure 3: Donning caps and shoes cover:

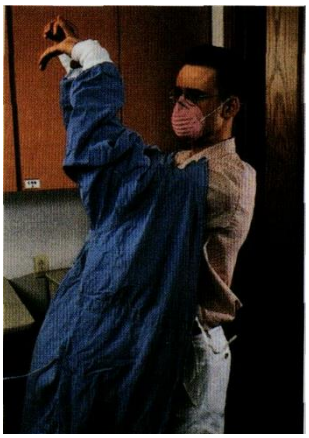
Caps and shoes covers are used in high-risk areas (e.g., labour and delivery, operation room, and emergency room) to shield body parts from accidental exposure to contaminated body secretions and to protect patient as in operation room.

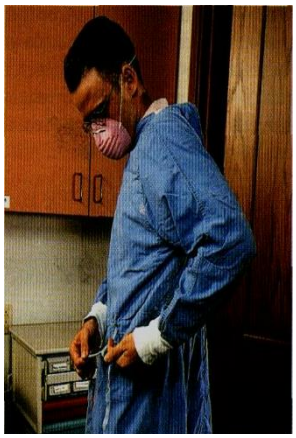
Procedure 4: Donning a clean gown:

Clean, disposable, or plastic gowns are worn during procedures when nurse's uniform is likely to become soiled. Single-use gown technique is the usual practice in hospitals.

Procedure steps:

1. Reach the gown to the inside at the shoulder.
2. Slide the arms inside the sleeves.
3. Pull the hand through the cuff.
4. Tie the gown at the neck.
5. Fasten the gown at the back.





Procedure 5: Donning clean disposable gloves:

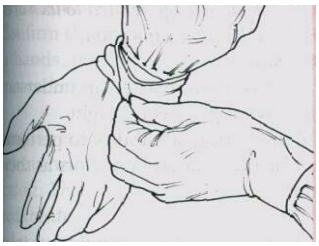
Pull the gloves up to cover the cuffs of the gown.

Procedure 6: Removing protective equipments:

- **Removing gloves:** remove the gloves first, since they are the most soiled.

Procedure steps:

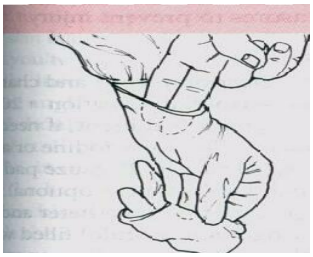
1. Remove the first glove by grasping its palmer surface just below the cuff.



2. Pull the first glove completely off by inverting or rolling the glove inside out.

3. Continue to hold the inverted removed glove by the fingers of the remaining gloved hand.

4. Place the first two fingers of the bare hand inside the cuff of the second hand.
5. Pull the second glove off to the fingers by turning it inside out. This pulls the first glove inside the second glove.
6. Wash hands.



Remove the mask:

Procedure steps:

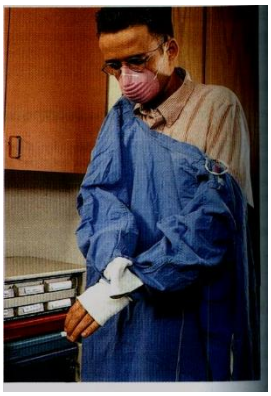
1. Untie the lower strings.
2. Untie the top strings.
3. Holding the top strings, remove the mask.
4. Discard the disposable mask in the waste container.
5. Wash hands if they become contaminated

Removing the gown:

Procedure steps:

1. Untie the waist tie.
2. Wash hands if become contaminated.
3. Untie the neck tie.

4. Remove arms from the sleeves by touching the inside of the sleeves.



5. Hang the gown on the rack or discard it holding it inside out and place the gown in receptable provided

Unit Two

Bed Making

Content:

- **Introduction.**
- **Procedure 1: Making an unoccupied bed.**
- **Procedure 2: Making Surgical bed.**
- **Procedure 3: Making an occupied bed.**

Introduction:

- Bed making is part of maintaining hygiene.

Guidelines:

1. Wash hands thoroughly after handling a client's bed linen. Linens and equipment's that have been soiled with secretions and excretions harbour microorganisms that can transmitted to other directly or by the nurse's hands or uniform.
2. Hold soiled linen away from uniform.
3. Linen for one client is never placed on another client's bed.
4. Soiled linen is placed directly in a portable linen hamper.
5. Soiled linen is never shaken in the air, because shaking can disseminate secretions and excretions and the microorganisms they contain.

Hospital Beds

- The frame of a hospital bed is divided into three sections. This permits the head and the foot to be elevated separately.
- Most hospital beds have electric motors to operate the movable joints.
- The motor is activated by pressing a button or moving a small lever, located either at the Most hospital beds have "high" and "low" positions that can be adjusted either mechanically or electrically by a button or lever.

Mattresses

- Mattresses are usually covered with a water-repellent material that resists soiling and can be cleaned easily.

Side Rails

- Side rails, or safety sides, are used on both hospital beds and stretchers.

Intravenous Rods

- Intravenous rods (poles, stands, standards) usually made of metal, support intravenous (IV) infusion containers while fluid is being administered to a client. These rods can be freestanding on the floor beside the bed or attached to the hospital bed.

Postion	Description	Indications for Use
Flat 	Mattress is completely horizontal.	Client sleeping in a variety of bed positions, such as back-lying, side-lying, and prone (face down) To maintain spinal alignment for clients with spinal injuries To assist clients to move and turn in bed Bedmaking by nurse
Fowler's position 	Semisitting position in which head of bed is raised to angle of at least 45°. Knees may be flexed or horizontal.	Convenient for eating, reading, visiting, watching TV Relief from lying positions To promote lung expansion for client with respiratory problem To assist a client to a sitting position on the edge of the bed
Semi-Fowler's position 	Head of bed is raised only to 30° angle.	Relief from lying position To promote lung expansion
Trendelenburg's position 	Head of bed is lowered and the foot raised in a straight incline.	To promote venous circulation in certain clients To provide postural drainage of basal lung lobes
Reverse Trendelenburg's position 	Head of bed raised and the foot lowered. Straight tilt in direction opposite to Trendelenburg's position.	To promote stomach emptying and prevent esophageal reflex in client with hiatal hernia

From Fundamentals of nursing: Concepts, process, and practice, 6th ed., by B. Kozier, G. Erb, A. Berman, & K. Burke, 2000, Upper Saddle River, NJ: Prentice Hall Health.

Types of bed making:

1. Unoccupied bed: can be either:
    a. Closed.
    b. Open.

Open and closed beds are made the same way, except that the top sheet, blanket, and bed spread of a closed bed are drawn up to the top of the bed and under the pillow.

2. Occupied bed.
3. Surgical bed.

Purposes of bed making:

1. To promote the client's comfort.
2. To provide a clean, neat environment for the client.
3. To provide a smooth, wrinkle-free bed foundation, thus minimizing sources of skin irritations.

Procedure 1: Making an unoccupied bed:

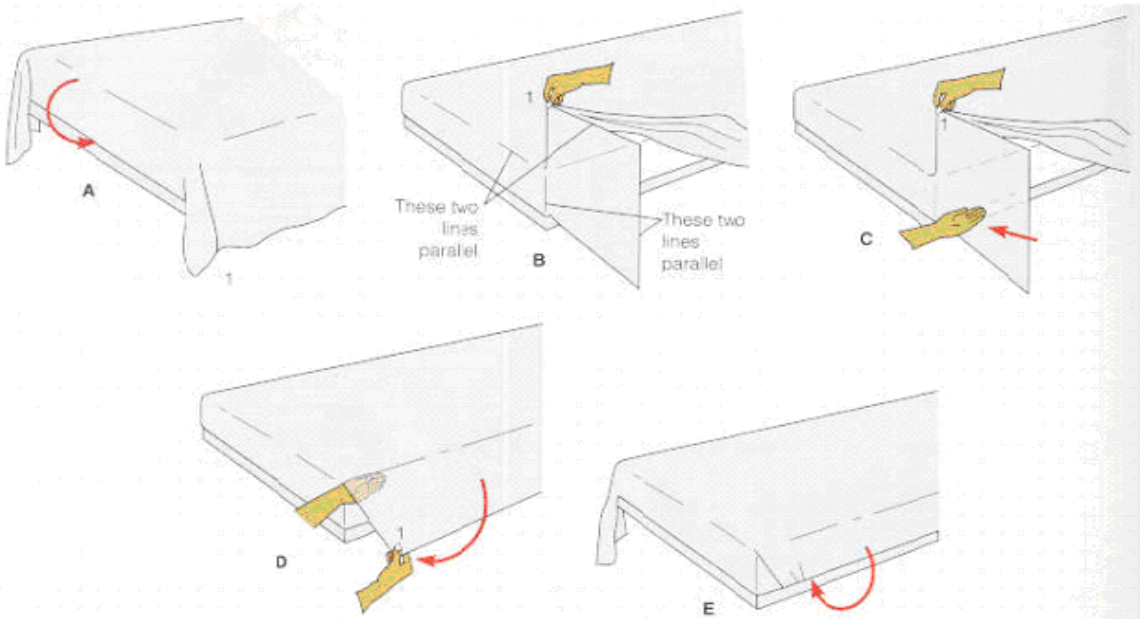
Equipment:

1. 2 Large sheets.
2. A plastic draw sheet.
3. A cloth draw sheet.
4. 1 Blanket.
5. 1 Bed spread.
6. Pillow case.
7. Hamper.

Procedure steps:

1. Wash your hands.
2. Prepare linins needed.
3. Explain the procedure for the patient.
4. Bring clean linen to the chair.
5. Loosen the linen all around the bed.
6. Fold the spread, and the blanket in order to remove them and place them over the back of the chair.
7. Collect the sheets, pillow cases and put them in the hamper.
8. Place the clean large sheet at foot of bed, and unfold toward the head. Place the centrefold at the centre of the bed.

9. Tuck an excess sheet at the head of the bed under the mattress.
10. Make the corner at the head of the bed.
11. Tuck in excess sheet at the foot of the bed under the mattress, and make the corner.
12. Tuck the sheet under the mattress along the sides of the bed.
13. Place the plastic draw sheet over middle section of the bed and unfold it.
14. Place the cloth draw sheet over the plastic draw sheet then tuck them.
15. Place large top sheet at head of the bed with the edge of the sheet even with the mattress and unfold toward the foot.
16. Place the blanket about 10-15cm from the top of the mattress and unfold toward the foot.
17. Tuck in the excess sheet and blanket and make corners.
18. Place the spread about 10-15cm from the top of the mattress.
19. Tuck in the excess and make corners.
20. Dress the pillows.
21. Place the dressed pillows at the centre of the head of the bed.
22. Open the bed by folding the top covers back for east entering.
23. Returned everything used to its place.
24. Wash hands.



Mitering the corner of a bed: (A) Tuck in the bedcover (sheet, blanket, and/or spread) firmly under the mattress at the bottom or top of the bed. (B) Lift the bedcover at point 1 so that it forms a triangle with the side edge of the bed and the edge of the bedcover is parallel to the end of the bed. (C) Tuck the part of the cover that hangs below the mattress under the mattress while holding the cover at point 1 against the mattress. (D) Bring point 1 down toward the floor while the other hand holds the fold of the cover against the side of the mattress. (E) Remove the hand and tuck the remainder of the cover under the mattress, if appropriate. The sides of the top sheet blanket, and bedspread may be left hanging freely rather than tucked in. The bedspread is mitered separately and left hanging freely if the top sheet and blanket are tucked in.

Making a closed bed:

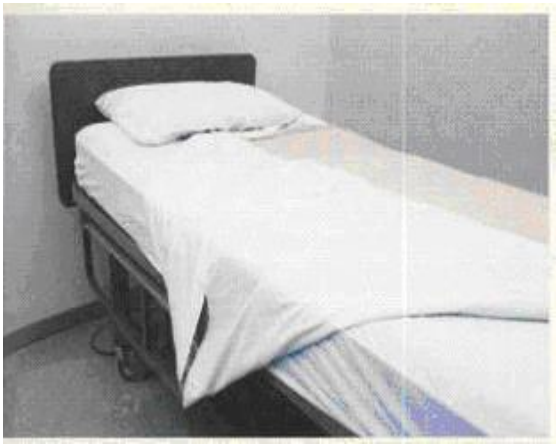
The procedure for making the closed bed is identical to that followed in making the unoccupied bed except for the spread. In the closed bed, the bed spread is put on as follows:

Procedure steps:

18. Place the top edge of the spread with the edge of the mattress at the head of the bed.
19. Unfold the spread over the other half of the bed.
20. Tuck the spread under the bottom edge of the mattress.
21. Make the corners at the foot of the bed.
22. Place the dressed pillows in the correct position.

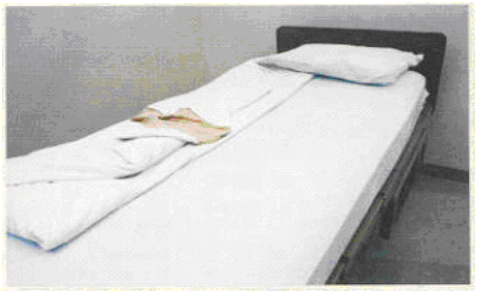
Procedure 2: Making Surgical bed:

The foundation is made in the same way as in unoccupied bed with the following exceptions:



Procedure steps

17. The top sheet, blanket, and spread are not tucked under the mattress at the foot of the bed.
18. Fold the top sheet, blanket, and the spread back toward the head of the bed to make a cuff, that is with the edge of the mattress at the foot of the bed.
19. Fold the overhang of the covers up onto the bed making 2 similar triangles.
20. Lift the cover with both hands and make a 15-20cm fold, repeats once more so that all covers are folded lengthwise on the side of the bed.
21. Put pillow at the top of the bed.



Procedure 3: Making an occupied bed:

Procedure steps

1. Wash your hands.
2. Prepare the equipment.
3. Explain the procedure for the patient.
4. Provide privacy for the patient.
5. Flatten the bed.
6. Lock the breaks of the bed.
7. Remove side rails of the bed.
8. Loosen the linen all around the bed.
9. Fold back and remove the spread and blanket, and put them on a chair.
10. Leave the top sheet over the patient.
11. Move the patient to the opposite side of the bed.
12. Fold the cloth draw sheet toward the patient, then the plastic draw sheet, then the bottom sheet, tuck the solid linen as close to the patients back as possible.

13. Straighten the mattress pad to remove wrinkles.
14. Place a clean large sheet.
15. Gather the further half of the sheet into roll and push it against the patient and under the soiled bottom sheet.
16. Tuck in excess sheet at the head of the bed under the mattress and make the corner.
17. Tuck in excess sheet at the bottom of the bed and make the corner.
18. Tuck the sheet under the mattress along the side of the bed.
19. Place and tuck the nearest half of the draw sheet under the mattress.

20. Turn the patient back toward you.
21. Straighten the mattress cover on the other side.
22. Pull and straighten the bottom sheet and tuck it under the head of the bed, make the corner, and pull the sheet tightly along the side of bed to remove wrinkles as you tuck it under the mattress.
23. Bring the plastic draw sheet toward you, pull it tightly and tuck it under the mattress.
24. Bring the cloth draw sheet over the plastic draw sheet, pull it tightly and tuck it under the mattress.
25. Reposition the client in the centre of the bed.
26. Reposition the pillows at the centre of the bed.
27. Apply or complete the top bedding.
    a) Spread the top sheet over the client and either ask the client to hold the top edge of the sheet or tuck it under the shoulders. The sheet should remain over the client when the bath blanket or used sheet is removed.
    b) Complete the top of the bed.
28. Ensure continued safety of the client.
29. Raise the side rails. Place the bed in the low position before leaving the bedside.
30. Bed making is not normally recorded.

Unit Three

Surgical Asepsis (Sterile Technique)

Content:

- **Introduction.**
- **Procedure 1: Establishing and maintaining a sterile field.**
- **Procedure 2: Surgical Hand Washing.**
- **Procedure 3: Applying a sterile gown.**
- **Procedure 4: Donning a sterile gloves.**
- **Procedure 5 : Removing of gloves.**
- **Procedure 6: Removing of gown.**

Introduction:

- Surgical aseptic practices keep an area or objects free of all microorganisms.

Procedure 1: Establishing and maintaining a sterile field:

- **Sterile filed** is an area free of microorganisms on which sterile equipment can be placed. A piece of clothes can be used for this purpose which call drape.

Purposes of establishing and maintaining a sterile field:

- To ensure that sterile items remain sterile.

Sterile filed procedures include:

1. Prepare sterile felid.
2. Adding sterile items onto a sterile filed.
3. Open sterile equipment and supplies.

Equipment's:

1. Package containing a sterile drape.
2. Sterile equipment as needed (e.g. wrapped sterile gauze, wrapped sterile bowl, antiseptic solution, sterile forceps)

Preparation:

1. Ensure that the package is clean and dry.
2. Check the sterilization expiration dates on the package.
3. Look for any indications that it has been previously opened.

Procedure steps:

1. Explain the procedure for the client.
2. Gather equipment.
3. Wash your hands.
4. Select a work area that is waist level or higher.
5. Open sterile wrapped drape or commercially prepared sterile package.

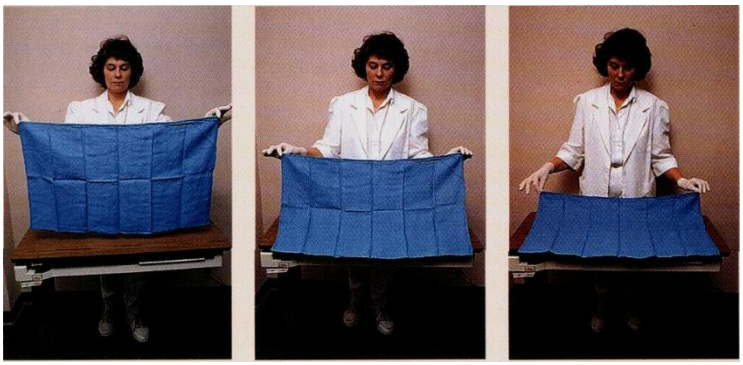
I. For sterile drape:

-Open outer covering.

-Remove sterile drape, lifting it carefully by its corner.

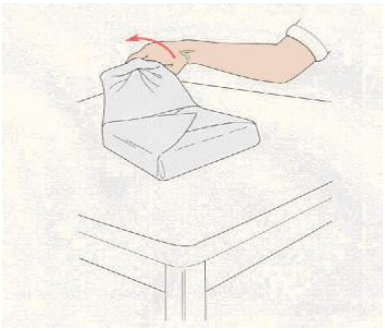
-Shake open, hold away from your body.

-Lay drape on selected work area.



II. For sterile equipment and supplies:

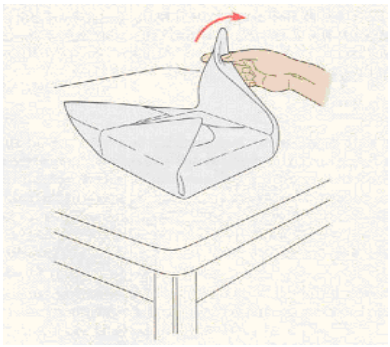
-Place the prepared package in centre of work area.

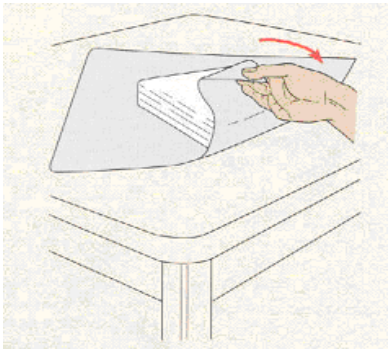


-Touching outer surface only, carefully reach around item and fold topmost flap of wrapper away from you.

-Open right and left flap before.

-Grasp the nearest flap and open it toward you.





6. Place additional sterile items on field as needed.
7. Drop sterile item onto sterile field from a 6-inch (15cm) high or add item to field from the side. Be careful to avoid 1-inch (2.5cm) border.
8. Obtain appropriate solution and check expiration date.
9. Open solution container and place cap on table with edges up.
10. If bottle has been previously opened, “lip” it by pouring a small amount of solution into waste container.
11. Hold bottle outside the edge of the sterile field with the label side uppermost. Prepare to pour from a height of 4-6 inches (10-15 cm). Bottle tip should never touch a sterile container or dressing.
12. Pour required amount of solution steadily into a sterile container positioned at side of the sterile field. Avoid splashing any liquid.
13. Touch only the outside of the lid when recapping.

Procedure 2: Surgical Hand Washing:

Preparations:

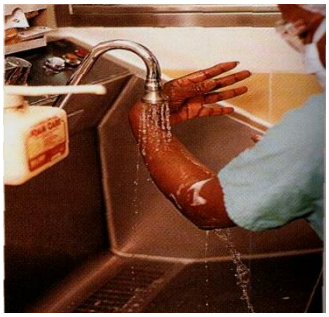
1. Fingernails must be short, clean, & healthy (no artificial nails or polish).
2. Inspect hands for presence of cuts or open wounds.
3. Remove all jewellery.

Equipment's:

1. Deep sink with foot or knee controls.
2. Soap.
3. Antiseptic detergent.
4. Surgical scrub brush.
5. Sterile towel.

Procedure steps :

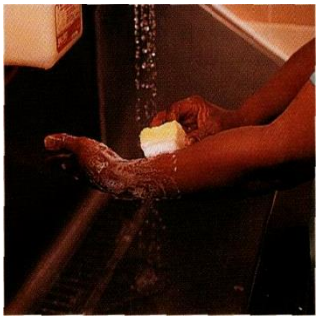
1. Turn on water using knee or foot controls.



2. Wash hands, for nails mainly you should use the nail cleaner.
3. Wet hands and arms under running lukewarm water and later with detergent to 5 cm above elbows. Hold the hands higher than the elbows during this hand wash.
4. Start rubbing the nails first. Then use firm, rubbing, and circular movement to wash the palm, back, and wrist of each hand. Interlace the fingers and thumbs, and move the hands back and forth.

5. Use a circular movement to wash the forearm moving from hands the elbow.

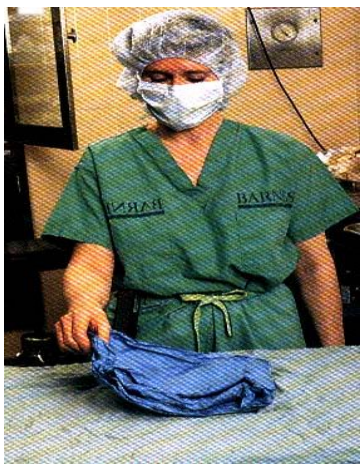
6. Rinse hands and arms thoroughly under running water.



7. Wet clean brush and apply antimicrobial detergent. Scrub of one hand with 15 strokes. Entire scrub last 5 minutes. Rinse brush and repeat sequence for other.
8. Discard brush and rinse hands and arms thoroughly.
9. Turn off water with foot or knee control and back into room entrance with hands elevated in front of and away from the body.
10. Use sterile towels to dry one hand thoroughly, moving from fingers to elbow. Dry in a rotating motion. Dry from cleanest to least clean area.
11. Repeat drying method for other hand by using a new sterile towel.

Procedure 3: Applying a sterile Gown:

1. Opening sterile pack containing sterile gown (folded inside out).
2. Wash hands surgically.
3. Reach the sterile gown package; lift folded gown directly upward and step back away from table.



4. With both hands, grasp inside front of gown just below neckband.
5. Allow gown to unfold, keeping inside of gown toward body (do not touch outside of gown with hands).

6. With hands at shoulder level, slip both arms into armholes.
7. Ask the circulating nurse to bring gown over shoulders by reaching inside to arm seams.
8. Gown is pulled on, leaving sleeves covering hands.
9. Have circulating nurse securely tie back of gown at neck and waist.


Procedure 4: Donning a sterile Gloves:

Purpose of wearing of gloves:

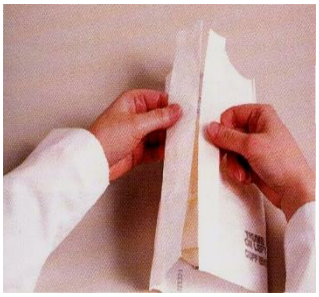
1. Protect personnel from acquiring infective organisms on their hands.
2. Reduce the likelihood that personnel will transmit their own or other patients' microbial flora from their hands to patients.

Types of gloves:

1. Clean (nonsterile) gloves.
2. Sterile gloves (Surgical)

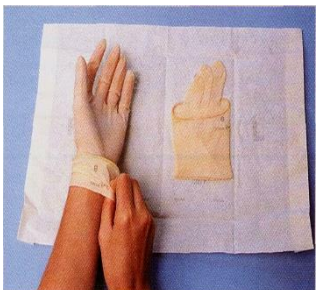
Procedure steps :

1. Perform hand washing.

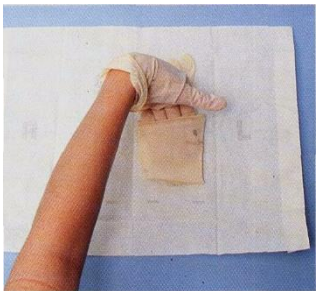


2. Remove outer glove package.

3. Grasp inner package and lay it on clean, flat surface just above waist level. Open package, keeping gloves on wrapper's inside surface.
4. Identify right and left glove.
5. With thumb and first two fingers of nondominant hand, grasp edge of cuff of glove for dominant hand. Touch only glove's inside surface.
6. Carefully pull glove over dominant hand, leaving cuff and being sure cuff does not roll up wrist. Be sure thumb and fingers are in proper spaces.



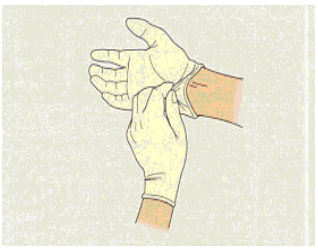
7. With gloved dominant hand, slip fingers underneath second glove's cuff.
8. Carefully pull second glove over nondominant hand. Do not allow fingers and thumb of gloved dominant hand to touch any part of exposed nondominant hand. Keep thumb of dominant hand abducted back.
9. After second glove is on, interlock hands. The cuffs usually fall down after application. Be sure to touch only sterile sides

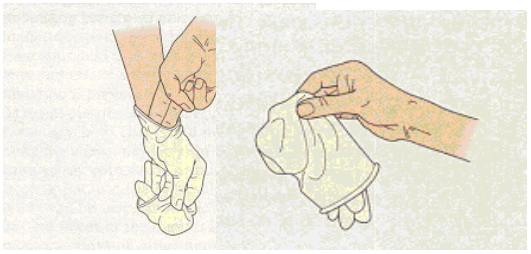


Procedure 5: Removing of gloves:

Procedure steps

1. Grasp outside of one cuff with other gloved hand.
2. Pull glove off, turning it inside out.
3. Take fingers of bare hand and tuck inside remaining glove cuff.
4. Peel glove off, inside out. Discard in receptacle.





Note:

1. Hands are washed and dried before and after gloving.
2. Gloves should be changed and discarded between patients or when they become excessively soiled.

Procedure 6: Removing a gown:

Procedure steps

1. Ask other nurse to remove tie from back of gown at neck and waist.
2. Let gown fall from your shoulder.
3. Slide arms out of gown, working from the inside.
4. Hold gown away from your body and fold the contaminated part.
5. Discard it properly and wash hand.

Unit Four

Vital Signs

Content:

- **Introduction.**

Body Temperature

- **Procedure 1: Assessing body temperature.**

Pulse.

- **Procedure 2: Assessing peripheral pulse.**
- **Procedure 3: Assessing an apical pulse.**
- **Procedure 4: Assessing an apical-radial pulse.**

Respiration.

- **Procedure 5: Assessing respiration.**

Blood pressure.

- **Procedure 6: Assessing blood pressure.**

Introduction:

- The four **vital signs** or **cardinal signs** are:
    1. Body temperature.
    2. Pulse.
    3. Respirations.
    4. Blood pressure.

- Pain may be described as the fifth vital sign.
- These signs enable nurses to monitor the functions of the body.
- The signs reflect changes that otherwise might not be observed.
- Vital signs vary with the client's age.
- Times to assess vital signs:
    1. On admission to a health care agency, to obtain baseline data.
    2. According to a nursing or medical order.
    3. When a client has a change in health status or reports symptoms such as chest pain or feeling hot or faint.

4. Before and after surgery or an invasive diagnostic procedure.
5. Before and after the administration of a medication that could affect the respiratory or cardiovascular systems (e.g. before giving a digitalis preparation).
6. Before and after any nursing intervention that could affect the vital signs (e.g. ambulating a client who has been on bed rest).

Body temperature:

- Body temperature is the balance between the heat produced by the body and the heat lost from the body.

- There are two kinds of body temperature: core temperature and surface temperature. **Core temperature** is the temperature of the deep tissues of the body (e.g. abdominal cavity and pelvic cavity).

- The surface temperature is the temperature of the skin, the subcutaneous tissue and fat. Surface temperature, by contrast, rises and falls in response to the environment.

- The normal range of body temperature is:

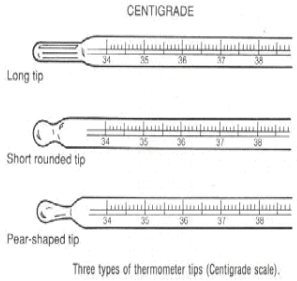
  98.6 ºF / 37.0 ºC
- Abnormalities are:
- Febrile – body temperature above patient's normal range
- Hyperpyrexia – extremely high temperature
- Hypothermia- body temperature blow patient's normal range

- **Body Temperature Assessment Sites:**
  - There are a number of body sites for measuring body temperature. The most common are oral, rectal, tympanic and axillary.
  - When possible, the body temperature is usually measured orally (by mouth).
  - Rectal temperature readings are considered the most accurate.

- The tympanic membrane, or nearby tissue in the ear canal, is another core body temperature site.
- The oral route is most common.
- Axillary temperatures are the least accurate but the most safe.
- Tympanic (ear) thermometers are non-invasive and quick (2 to 3 seconds). They may not always return consistent temperatures.

❖ **Types of Thermometers:**

1. M**ercury thermometers:**
   - Most hospitals no longer use mercury thermometers.
   - Oral glass thermometers may have long, slender tips; short, rounded tips; or pear-shaped tips.



Three types of thermometer tips (Centigrade scale).

   - The rounded thermometer can be used at the rectal as well as other sites.

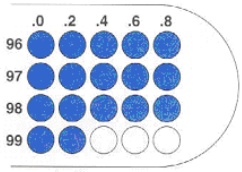
2. **Electronic thermometers:**
   - They can provide a reading in only 2 to 60 seconds, depending on the model.

3. **Chemical disposable thermometers:**
   - Disposable thermometers may be particularly useful if the client has a communicable disease. One type has small chemical dots at one end that respond to body heat by changing colour, thereby providing a reading of the body temperature.
4. **Temperature-sensitive tape:**
   - Temperature-sensitive tape may also be used to obtain a general indication of body surface temperature. When applied to the skin, usually of the forehead or abdomen, the tape responds by changing color.

5. **Infrared thermometers:**

- Infrared thermometers sense body heat in the form of infrared energy given off by a heat source, which in the ear canal is primarily the tympanic membrane.

Electronic Thermometer



Chemical disposable Thermometer

Temperature sensitive Thermometer

Procedure 1: Assessing Body Temperature:

Equipment:

1. Thermometer.
2. Thermometer sheath or cover.
3. Lubricant for a rectal temperature.
4. Disposable gloves.
5. Towel for axillary temperature.
6. Tissues/wipes.
7. Soapy water.
8. Lukewarm water.

Procedure steps

1. Identify patient.
2. Explain procedure to patient.
3. Gather equipment.
4. Wash your hands and don gloves if indicated.
5. Select appropriate site.
6. Follow steps as outlined below for appropriate type of thermometer.

7. Wash your hands. If wearing gloves, discard them in proper receptacle.
8. Record the temperature.

➢ **Assessing oral temperature with glass thermometer:**

1. If stored in a chemical solution, wipe thermometer dry with a soft tissue, using a firm twisting motion. Wipe from bulb toward fingers.
2. Grasp thermometer firmly with the thumb and forefinger. Keep it at the eye level. Using strong wrist movement, shake it until the mercury line reaches at least 36°C (96.8°F).
3. Read thermometer by holding it horizontally at eye level and rotating it between the fingers until the mercury line is clearly visible.
4. Apply protective sheet if available.
5. Place thermometer's mercury bulb within the back of the right or left pocket under patient's tongue. Tell patient to close lips around thermometer.

6. Leave thermometer in place for 3 minutes.
7. Remove the thermometer. Wipe the thermometer once from fingers down to mercury bulb using a firm, twisting motion.
8. Read the thermometer to nearest tenth.
9. Wash the thermometer in lukewarm soapy water. Rinse in cool water. Put it in the disinfectant solution. Dry and replace it in its container.

➢ **Assessing rectal temperature using glass thermometer:**

1. Don gloves.
2. Wipe, shake, and read rectal thermometer.
3. Lubricate mercury bulb to about 2.5cm (1 inch) up the stem.
4. Provide privacy. With patient lying on side and buttocks exposed, separate buttocks so anal sphincter is seen clearly.

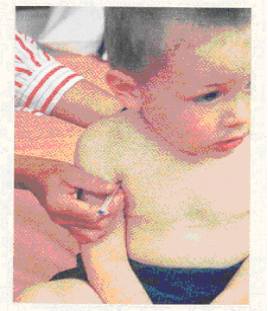
5. Insert thermometer for approximately 3.5 cm in an adult, 2.5cm in child, and 1.25cm in an infant. Instruct patient to take deep breath while inserting.

6. Holding thermometer in place, let buttocks fall into place. Continue holding thermometer for 2-3 minutes.
7. Remove thermometer. Wipe it with soft tissue from fingers to mercury bulb using firm twisting motion.
8. Wipe anus of any feces and remaining lubricant.
9. Read thermometer and dispose tissue and gloves in proper receptacle.
10. Wash thermometer in lukewarm soapy water. Rinse in cool water. Disinfect the thermometer using a disinfectant solution. Dry and replace thermometer in a container labelled "rectal thermometer".

- **Assessing axillary temperature using glass thermometer:**

1. Don gloves, if needed.

2. Wipe, shake, and read rectal thermometer.
3. Provide privacy.
4. Move clothing to expose axillae.
5. Place thermometer bulb in the centre of axillae and bring patient's arm close to the body.
6. Remain with patient and leave thermometer in place for 6-9 minutes.
7. Remove thermometer. Wipe it with soft tissue from fingers to mercury bulb using firm twisting motion.



8. Read thermometer and dispose tissue and gloves in proper receptacle.
9. Wash thermometer in lukewarm soapy water. Rinse in cool water. Dry and replace thermometer in its container.

➢ **Assessing tympanic membrane temperature:**

1. If necessary, push the "On" button and wait for the "Ready" signal on unit.
2. Attach tympanic probe cover.
3. Using gentle but firm pressure, insert probe snugly into external ear. Pull the pinna of the ear upward and backward for adults, backward for children over 3 years of age and downward and backward for children under 3 years of age while inserting the tympanic thermometer.
4. Activating unit by pushing trigger button. Reading is immediate, usually within 2 seconds.
5. Note temperature reading. Discard probe cover and replace thermometer in its charger or holder.

➢ **Assessing temperature with electronic thermometer:**

1. Release electronic unit from charging unit and remove probe from within recording unit.
2. Cover thermometer probe with disposable probe cover and slide until it snaps into place.
3. For rectal readings, lubricate probe.
4. Place probe in posterior sublingual pocket and ask patient to close lips around probe (oral). Or insert in rectum as described when using a glass thermometer (rectal). Or place in centre of axillae with arm against chest wall (axillary).
5. Hold probe in place until an audible signal sounds.

6. Note temperature reading and dispose of probe cover by pressing probe release button while holding probe over a receptacle.
7. Replace thermometer in its charger/holder.

Pulse:

- Pulse is the term used to describe the rate, rhythm and volume of the heartbeat as it is assessed at either central or peripheral locations.

- The pulse is a wave of blood created by contraction of the left ventricle of the heart.

- The rate of the pulse is expressed in beats per minute (BPM).

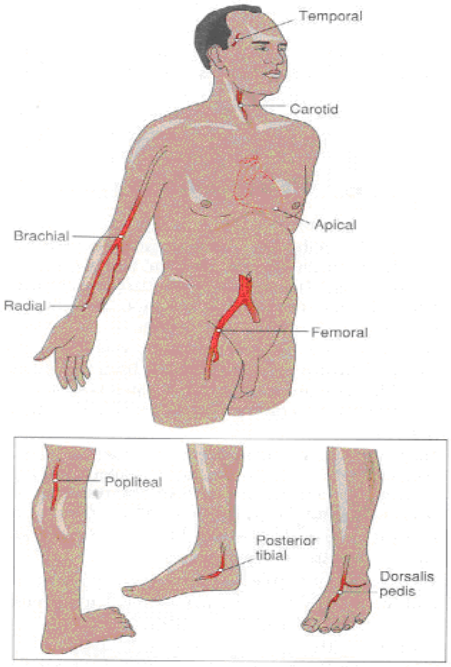
- A **peripheral pulse** is a pulse located in the periphery of the body (e.g. in the foot, hand, or neck).
- The **apical pulse** is a central pulse located at the apex of the heart.

- The normal heart rate ranges from

Normal pulse rate /minute	
Adult	60 to 100
Adolescent(11 -14 years)	60 to 106
School age (6-10 years)	70 to 110
Preschool age (3-5 years)	80 to 120
Toddler (1-3 years)	80 to 130
Infant (6-12 month)	80 to 140
Infant (0-5 month)	90 to 140

- Abnormalities are:
- Tachycardia: is an abnormally elevated heart rate above100 beats / minute
- Bradycardia: is a rate below 60 beats / minutes

❖ **Pulse Assessment Sites:**

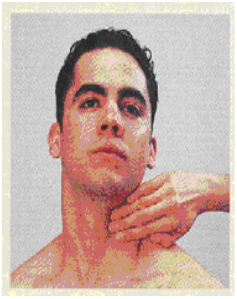


1. **Temporal,** where the temporal artery passes over the temporal bone of the head. The site is superior (above) and lateral to (away from the midline of) the eye.

2. **Carotid,** at the side of the neck below the lobe of the ear, where the carotid artery runs between the trachea and the sternocleidomastoid muscle.

3. **Apical,** at the apex of the heart. In an adult this is located in the left chest, about 8 cm (3 in) left of the sternum (breastbone) at the fifth intercostal space.

4. **Brachial,** at the inner aspect of the biceps muscle of the arm.



5. **Radial,** where the radial artery runs along the radial bone, on the thumb side of the inner aspect of the wrist.

6. **Femoral,** where the femoral artery passes alongside the inguinal ligament.

7. **Popliteal,** where the popliteal artery passes behind the knee.

Carotid

8. **Posterior tibial,** on the medial surface of the ankle where the posterior tibial artery passes behind the medial malleolus.

9. **Pedal (dorsalis pedis),** where the dorsalis pedis artery passes over the bones of the foot. This artery can be palpated by feeling the

dorsum of the foot on an imaginary line from the middle of the ankle to the space between the big toe and second toe. Brachial

Radial

Femoral

Popliteal

Dorsal pedias

Posterior tibial

Procedure 2: Assessing Peripheral Pulse:

Equipment:

1. Watch with a second hand or indicator.

Procedure steps :

1. Explain to the client what you are going to do.
2. Wash hands.
3. Provide for client privacy.

4. Select the pulse point. Normally, the radial pulse is taken, unless it cannot be exposed or circulation to another body area is to be assessed.
5. Assist the client to a comfortable resting position.
6. Place two or three middle fingertips lightly and squarely over the pulse point. Using the thumb is contraindicated because the thumb has a pulse that the nurse could mistake for the client's pulse.
7. Palpate and count the pulse for one minute.
8. Assess the pulse rhythm and volume:
    a. Assess the pulse rhythm by noting the pattern of the intervals between the beats. A normal pulse has equal time periods between beats.
    b. Assess the pulse volume. A normal pulse can be felt with moderate pressure and the pressure is equal with each beat.
9. **Document** the pulse rate, rhythm and volume and your actions in the client record.
10. **Report any abnormalities.**

Procedure 3: Assessing an Apical Pulse:

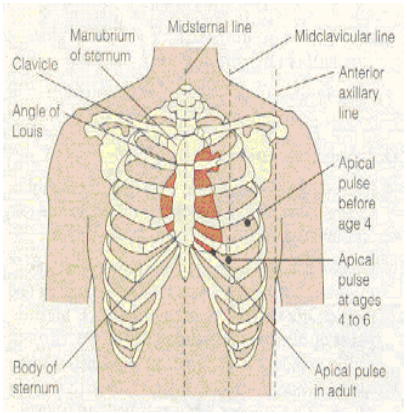
Equipment:

1. Watch with a second hand or indicator.
2. Stethoscope.
3. Antiseptic swaps.

Procedure steps:

1. Explain to the client what you are going to do.
2. Wash hands.
3. Provide for client privacy.

4. Use alcohol swap to clean stethoscope earpieces and diaphragm.



5. Position the client appropriately in a comfortable supine position or to a sitting position. Expose the area of the chest over the apex of the heart.
6. Hold stethoscope diaphragm against palm of your hand for a few seconds.
7. Palpate 5th intercostal space and move to left midclavicular line. Place diaphragm over apex of heart.
8. Listen for heart sounds identified as a "lub-dub" sound.
9. Using watch with a second hand, count heartbeat for 1 minute.

10. **Document** the pulse site, rate, rhythm and volume and your actions in the client record.
11. **Report any abnormalities.**

Procedure 4: Assessing an apical-radial pulse:

- Measurement of the apical and radial pulse simultaneously is done to determine adequacy of peripheral circulation or presence of **pulse deficit.**

Equipment:

1. Watch with a second hand or indicator.
2. Stethoscope.
3. Antiseptic swaps.

Procedure steps:

1. Explain to the client what you are going to do.

2. Wash hands.
3. Provide for client privacy.
4. Position the client appropriately.
5. Locate the apical and radial pulse sites.

- **In the two-nurse technique, one nurse locates the apical impulse by palpation or with the stethoscope while the other nurse palpates the radial pulse site.**

6. Count the apical and radial pulse rates:
    - ***a.*** **Two-Nurse Technique:**
        i. Place the watch where both nurses can see it. The nurse who is taking the radial pulse may hold the watch.
        ii. Decide on a time to begin counting. A time when the second hand or indicator is on 12, 3, 6, or 9 is usually selected. The nurse taking the radial pulse says "Start" at the same time.
        iii. Each nurse counts the pulse rate for 60 seconds. Both nurses end the count when the nurse taking the radial pulse says, "Stop".
    - ***b.*** **One-Nurse Technique:**
        i. Assess the apical pulse for 60 seconds.
        ii. Assess the radial pulse for 60 seconds.
7. **Document** the apical and radial (AR) pulse rates, rhythm, volume and any pulse deficit in the client record.

Respiration:

- **Respiration** is the act of breathing. It includes the intake of oxygen and the output of carbon dioxide.

- **Inhalation or inspiration :** intake of air into the lungs.

- **Exhalation or expiration :** breathing out or the movement of gases from the lungs to the atmosphere.

- The rate, depth, rhythm and special characteristics of respirations should be assessed.
- Respiratory rate is described in breaths per minute. A healthy adult normally takes between 12 and 20 breaths per minute.

- The depth of a person's respirations can be established by watching the movement of the chest. Respiratory depth is generally described as normal, deep, or shallow.

- During a normal inspiration and expiration, an adult takes about 500 mL of air.

- Respiratory rhythm or pattern refers to the regularity of the expirations and the inspirations. Respiratory rhythm can be described as regular or irregular.

- The normal respiratory rate ranges from

Normal respiratory rate /minute	
Adult	12 to 20 above 24 serious &below10 also serious
Adolescent(11 -14 years)	12 to 20
School age (6-10 years)	15 to 30
Preschool age (3-5 years)	20 to 30
Toddler (1-3 years)	20 to 30
Infant (6-12 month)	20 to 30
Infant (0-5 month)	20 to 30
Newborn	30 to 50

- Abnormalities are:
- Bradypnea: Slow respiratory rate <12 bpm.
- Tachypnea: Increased respiratory rate >20 bpm, regular rhythm
- Hypopnea: decreased depth with normal rate and rhythm
- Hyperpnea: increased depth, normal rate and rhythm

Procedure 5: Assessing Respirations:

Equipment:

1. Watch with a second hand or indicator.

Preparation:

1. A client who has been exercising will need to rest for a few minutes to permit the accelerated respiratory rate to return to normal.

Procedure steps:

1. While your fingers are still in place after counting pulse rate, place the client's arm across the chest and observe the chest movements while supposedly taking the radial pulse.
2. Count the respiratory rate for one minute. An inhalation and an exhalation count as one respiration.
3. Observe the depth, rhythm and character of respirations.
    a. Observe the respirations for depth by watching the movement of the chest.
    b. Observe the respirations for regular or irregular rhythm.
    c. Observe the character of respirations-the sound they produce and the effort they require.
4. **Document** the respiratory rate, depth, rhythm and character on the appropriate observation sheet.

Blood Pressure:

- Arterial blood pressure is a measure of the pressure exerted by blood as it pulsates through the arteries.

- Because blood moves in waves, there are two blood pressure measures:
    1. The **systolic pressure**, the pressure of the blood as a result of contraction of the ventricles (i.e. the pressure of the height of the blood wave).

- The normal range is: 120/80 mm of Hg
    - The **diastolic pressure**, the pressure when the ventricles are at rest. Diastolic pressure, then, is the lower pressure, present at all times within the arteries.
    - **Systolic pressure**

- Abnormalities are:

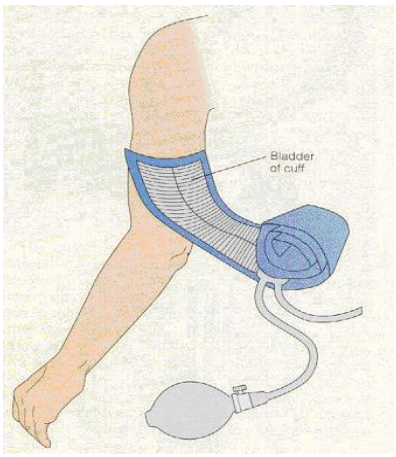
☐ Hypertension: High blood pressure

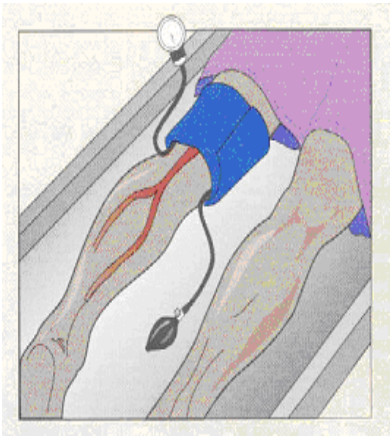
☐ Hypotension : Low blood pressure

The difference between the diastolic and systolic pressures is called the **pulse pressure.** The normal is 40mm of Hg. Widening pulse pressure refers to…..

❖ **Blood Pressure Assessment Sites:**

1. Blood pressure is usually assessed in the client's arm using the brachial artery and a standard stethoscope.
2. Assessing the blood pressure on a client's thigh using the popliteal artery is usually indicated in these situations:
    a. The blood pressure cannot be measured on either arm (e.g. because of burns, trauma, or bilateral mastectomy).
    b. The blood pressure in one thigh is to be compared with the blood pressure in the other thigh.





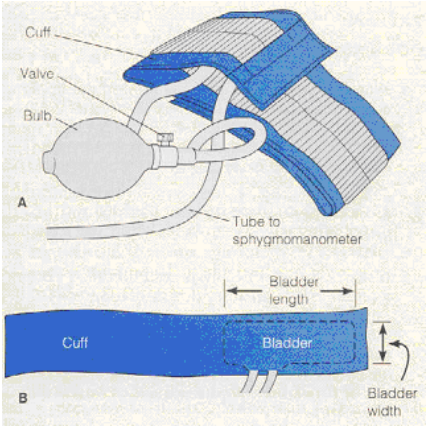
❖ Blood pressure is not measured on a client's arm or thigh in the following situations:

1. The client has had breast or axilla (or hip) surgery on that side.
2. The client has an intravenous infusion or a blood transfusion in that limb.

3. The client has an arteriovenous fistula (e.g. for renal dialysis) in that limb.

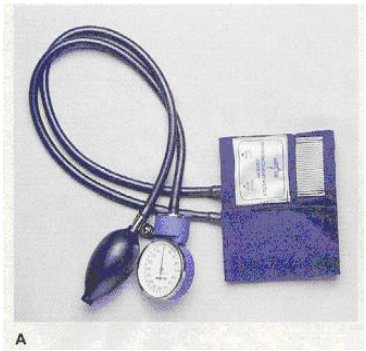
❖ Parts of blood pressure measurement machine:

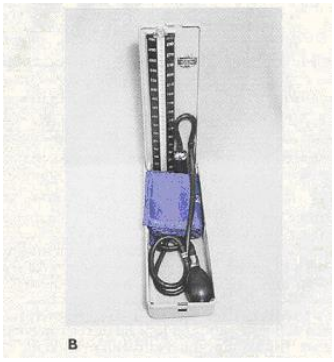
1. Sphygmomanometer.
2. Blood pressure cuff. The blood pressure cuff consists of a rubber bag that can be inflated with air called bladder.
3. Bulb.
4. Valve.

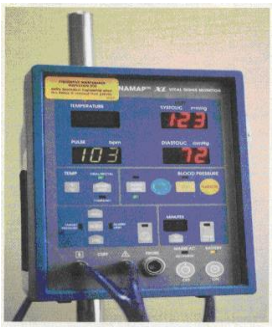


❖ Blood pressure cuffs come in various sizes. The bladder should be sufficiently long almost to encircle the limb and to cover at least two-thirds of its circumference.

❖ The **sphygmomanometer** indicates the pressure of the air within the bladder. There are two types of sphygmomanometers: aneroid and mercury. Some agencies use electronic sphygmomanometers.







Aneroid Mercury Electronic

Procedure 6 : Assessing Blood Pressure

Equipment:

1. Stethoscope.
2. Blood pressure cuff of the appropriate size.
3. Sphygmomanometer.

4. Alcohol swap.

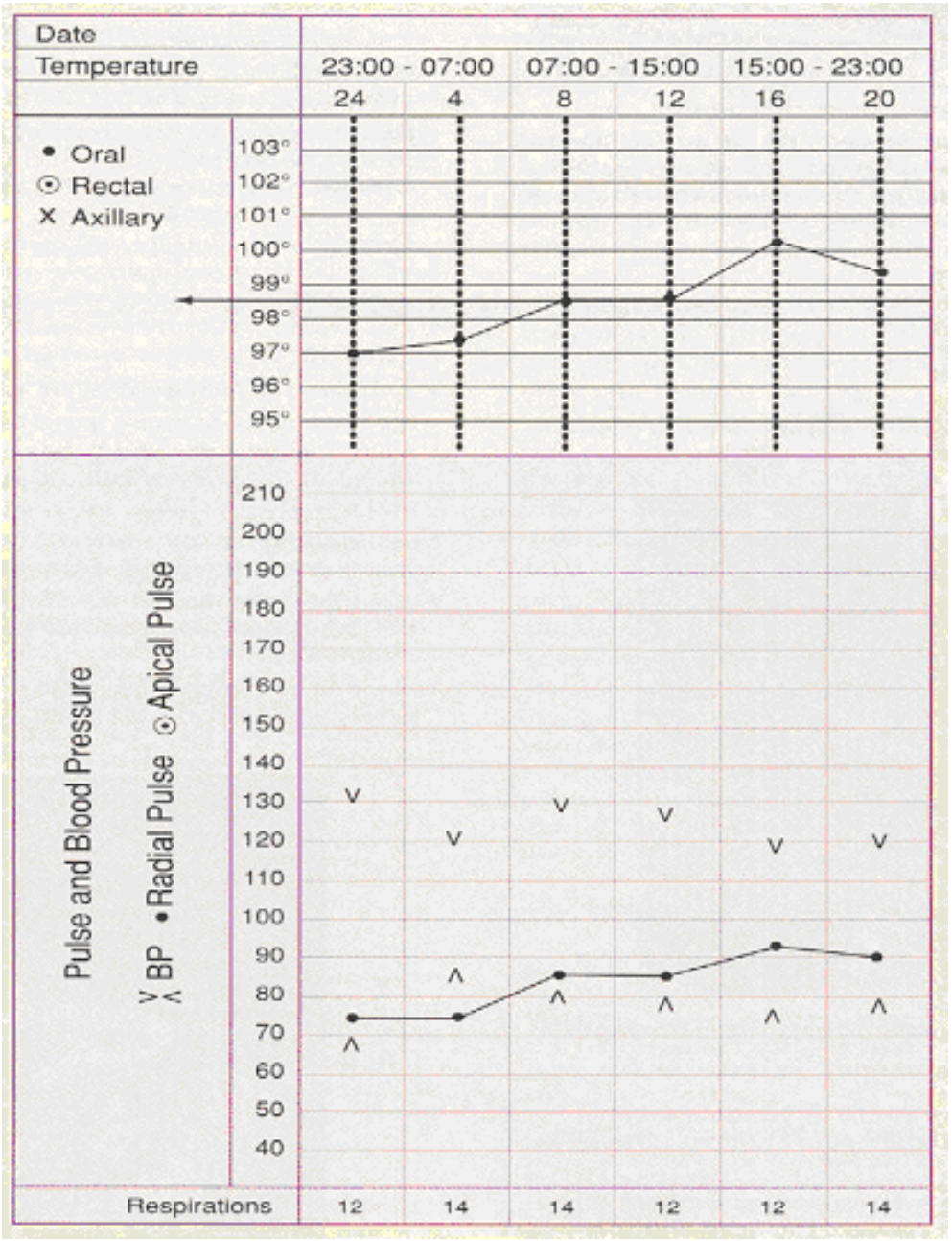
Preparation:

1. Ensure that the equipment is intact and functioning properly. Check for leaks in the rubber tubing of the sphygmomanometer.
2. Make sure that the client has not smoked or ingested caffeine within 30 minutes prior to measurement.
3. Delay obtaining blood pressure if patient is emotionally upset, in pain, or has just exercised, unless it is urgent to obtain blood pressure.

Procedure steps:

1. Identify the patient.
2. Explain to the client what you are going to do.
3. Wash hands.
4. Provide for client privacy.
5. Select appropriate arm for application of cuff.
6. Have patient assume a comfortable lying or sitting position with forearm supported at the level of the heart and with palm upward.
7. Expose area of brachial artery by removing garments or moving sleeve, if it is not too tight, above area where cuff will be placed.
8. Centre bladder cuff over brachial artery approximately midway on arm, so lower edge of cuff is 2.5-5cm above inner aspect of elbow. Tubing should extend from edge nearest patient's elbow.
9. Wrap cuff smoothly and snugly around arm. Fasten it securely or tuck end of cuff well under preceding wrapping. Do not allow any clothing to interfere with proper placement of cuff.
10. Check that mercury manometer is in vertical position. Mercury must be within the zero area with gauge at eye level. If using aneroid gauge, needle should be within the zero mark.
11. Palpate pulse at brachial or radial artery by pressing gently with fingertips.
12. Tighten screw valve on air pump.

13. Inflate cuff while continuing to palpate artery. Note point on gauge where pulse disappears.
14. Deflate cuff and wait 15 seconds.
15. Place stethoscope earpieces in ears. Direct ear tips forward into the canal and not against ear itself.
16. Place stethoscope bell or diaphragm firmly but with as little pressure as possible over brachial artery. Do not allow stethoscope to touch clothing or cuff.
17. Pump the pressure 30mmHg above point at which systolic pressure was palpated and estimated. Open manometer valve and allow air to escape slowly (allowing gauge to drop 2-3 mm per heartbeat)
18. Note point on gauge at which the first faint, but clear, sound appears and slowly increases in intensity. Note this number as the systolic pressure.
19. Read pressure to the closest even number.
20. Do not reinflate cuff once air is being released to recheck the systolic pressure reading.
21. Note the pressure at which the sound first becomes muffed. Also observe point at which sound completely disappears. These may occur separately or at the same time.
22. Allow remaining air to escape quickly. Repeat any suspicious reading, but wait 30-60 seconds between readings to allow normal circulation to return to limb. Be sure to deflate cuff completely between attempts to check blood pressure.
23. Remove cuff. Clean and store equipment's.
24. Wash your hands. If wearing gloves, discard them in proper receptacle.
25. Document blood pressure readings.



Recording Sheet Vital Signs

Unit Five

Hygiene

Content:

- **Introduction.**
- **Procedure 1: Bathing an adult or pediatric patient.**
- **Procedure 2: Providing foot care.**
- **Procedure 3: Brushing and flossing the teeth.**
- **Procedure 4 : Providing a special oral care.**
- **Procedure 5: Providing hair care for the client.**
- **Procedure 6: Shampooing the hair of a client confined to bed.**

Introduction:

- Hygiene: is the science of health and its maintenance.

- Personal hygiene is the self-care by which people attend to such functions as bathing, toileting, general body hygiene and grooming. It involves care of the skin, hair, nails, teeth, oral and nasal cavities, eyes, ears, and perineal-genital areas.

- Types of hygienic care:
  1. Early morning care: is provided to clients as they awaken in the morning. It consists of providing a urinal or bedpan to a client confined to bed, washing the face and hands, and giving oral care.
  2. Morning care: is often provided after clients have breakfast. It includes providing for elimination needs, a bath or a shower, perineal care, back massage, bed making, and oral, nail, and hair care.
  3. Afternoon care: is often includes providing a bedpan or urinal, washing the hands and face, oral care if needed.
  4. Hour of sleep care: it usually involves providing for elimination needs, washing face and hands, giving oral care, and giving a back massage.
  5. As-needed (PRN) care.

Procedure 1: Bathing an adult or pediatric patient:

Purposes:

1. To remove microorganisms, body secretions and excretions, and dead skin cells.
2. To stimulate circulation to skin.
3. To promote relaxation and comfort.
4. **To prevent or eliminate unpleasant body odors.**

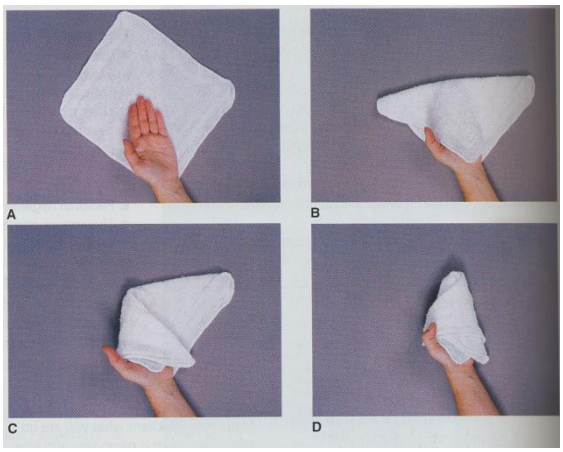
Equipment's:

1. Basin with warm water (43-46°C).
2. Soap and soap dish.
3. Linens: bath blanket, two bath towels, washcloth, clean gown or pajamas.
4. Gloves.
5. Hamper.

Procedure steps :

1. Explain the procedure for the client.
2. Wash hands.
3. Provide privacy for the client.
4. Offer a client a bedpan or urinal.
5. Position the bed at a comfortable working height.
6. Lower the side rail on the side close to you, keep the other side rail up.
7. Place bath blanket over the top sheet. Remove the top sheet from under the bath blanket.
8. Remove client's gown while keeping the client covered with the bath blanket.

9. Make a bath mitt with the washcloth (see the figure).



10. Wash a face:
    a. Place a towel under client's head.
    b. Wash client's eyes and dry them. Wipe from the inner to the outer canthus.
    c. Wash, rinse, and dry the client's face, ears, and neck.
    d. Remove the towel from under the client's head.
11. Wash the arms and hands:
    a. Place a towel lengthwise under the arm away from you.
    b. Wash, rinse, and dry the arm by elevating the client's arm and supporting the client's wrist and elbow.
    c. Repeat for hand and arm nearest you.
12. Wash the chest and abdomen:
    a. Place bath towel lengthwise over chest. Fold blanket down to the client's pubic area.
    b. Lift the bath towel off the chest, and bathe the chest and abdomen with your mitted hand using long, firm strokes. Rinse and dry well.
    c. Replace the bath blanket.
13. Wash the legs and feet:
    a. Expose the leg farthest from you by folding the bath blanket toward the other leg. Keep the perineum covered.
    b. Lift leg and place the bath towel lengthwise under the leg. Wash, rinse, and dry the leg using long, smooth, firm strokes from the ankle to the knee to the thigh.
    c. Reverse the covering and repeat for the other leg.

d. Wash the feet by placing them in the basin of water.
e. Dry each feet.

14. Wash the back and the perineum:
    a. Place the client in a prone or side-lying position facing away from you.
    b. Place the bath towel lengthwise alongside the back and buttocks while keeping the client covered with the bath blanket as much as possible.
    c. Wash and dry the client's back, moving from the shoulders to the buttocks, and upper thighs.
    d. Assist the client to the supine position and determine whether the client can wash the perineal area independently. If cannot, assist him in washing it.
15. Help the client to put on a clean gown or pyjamas.
16. Assist the client to care for hair, mouth and nails.
17. Document the care given for the patient.

Procedure 2 : Providing foot care:

Purposes:

1. To maintain the skin integrity of the feet.
2. To prevent foot infections.
3. To prevent foot odors.
4. To assess or monitor foot problems.

Equipment:

1. Wash basin containing warm water.
2. Pillow.
3. Towels.
4. Soap.
5. Toe nail cleaning and trimming equipment.

Procedure steps:

1. Explain the procedure for the client.
2. Wash hands.
3. Provide privacy.
4. Prepare equipment and client:
    a. Fill the washbasin with warm water (40-43°C).
    b. Assist the ambulatory client to a sitting position in a chair, or the bed client to a supine or semi-Fowler's position.
    c. Place a pillow under the client's knees.
5. Wash the foot and soak it:
    a. Place the client's feet in the basin and wash it with soap. Prolonged soaking is not recommended for diabetic or vascular diseases clients.
    b. Rinse the foot well to remove soap.
    c. Clean nails.
    d. Remove the foot from the basin and put it on the towel.
6. Dry the foot thoroughly.
7. Document the procedure

Procedure 3: Brushing and flossing the teeth:

Purposes:

1. To remove food particles from around and between the teeth.
2. To remove dental plaque.
3. To prevent sores and infection of the oral tissues.

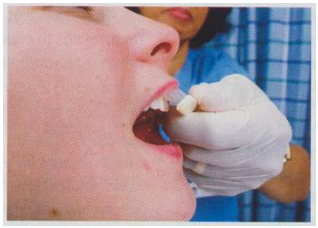
Equipment's:

1. Towel.
2. Disposable gloves.
3. Curved basin.
4. Tooth-brush.
5. Cup of tepid water.
6. Dentifrice.
7. Mouth wash.
8. Dental floss.

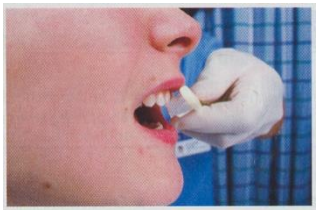
9. Floss holder (optional).

Procedure steps :

1. Explain the procedure.
2. Wash hands.
3. Provide privacy.
4. Assist the client to a sitting position on bed, if health permits. If not, assist the client to side-lying position with the head turned.
5. Put the towel under the client's chin.
6. Put on a disposable gloves.
7. Moisten the bristles of the tooth brush with tepid water and apply the dentifrice to the tooth brush.
8. For the client who must remain in bed, place or hold the curved basin under the client's chin.
9. Brush the teeth:
    a. Hold the brush against the teeth with the bristles at a 45-degree angle. The tip of the outer bristles should rest against and penetrate under the gingival sulcus.



    b. Move the bristles up and down using a vibrating or jiggling movements from the sulcus to the crown.



    c. Repeat until all outer and inner surfaces of the teeth and sulci of the gums are cleaned.
    d. Clean the biting surfaces by moving the brush back and forth over them in short strokes.

e. Hand the client the water cup or mouthwash to rinse the mouth vigorously. Then ask the patient to spit the water and excess dentifrice into the basin.

f. Repeat the preceding steps until the mouth is free of dentifrice and food particles.
g. Remove the curved basin and help the client wipe the mouth.

10. Floss the teeth:
    a. Wrap one end of the floss around the third finger of each hand.
    b. To floss the upper teeth, use your thumb and index finger to stretch the floss. Move the floss up and down between the teeth from the tops of the crown to the gum and along the gum lines as far as possible. Start at the back on the right side and work around to the back of the left side, or work from the centre teeth to the back of the jaw on either side.
    c. To floss the lower teeth, use your index fingers to stretch the floss.
    d. Give the client tepid water or mouthwash to rinse the mouth and a curved basin in which to spit the water.'
11. Remove and clean the equipment's.
12. Document the procedure.

Procedure 4: Providing a special oral care:

Purposes:

1. To maintain the intactness and health of the lips, tongue, and mucous membrane of the mouth.
2. To prevent oral infections.
3. To clean and moisten the membranes of the mouth and lips.

Equipment's:

1. Towel.
2. Curved basin.
3. Disposable gloves.
4. Bite-block to hold the mouth open and teeth apart (optional)

5. Tooth brush.
6. Cup of tepid water.
7. Dentifrice or denture cleaner.
8. Tissues or piece of gauze to remove dentures (optional)
9. Denture container as needed.
10. Mouthwash.
11. Rubber-tipped bulb syringe.
12. Suction catheter with suction apparatus.
13. Foam swabs and cleaning solution for cleaning the mucous membranes.
14. Petroleum jell (Vaseline)

Procedure steps :

1. Explain the procedure.
2. Wash hands.
3. Provide privacy.
4. Position the client:
    - **a.** Position the unconscious patient in a side-lying position, with the head of the bed lowered.
    - **b.** Place the towel under the client's chin.
    - **c.** Place the curved basin against the client's chin.
    - **d.** Put on gloves.
5. Clean the teeth and rinse the mouth:
    - **a.** Brush the teeth.

    - **b.** Rinse the client's mouth by drawing about 10ml of water or mouthwash into the syringe and injecting it gently into each side of the mouth.
    - **c.** Make sure that all the rinsing solution has run out of the mouth into the basin. If not suction the fluids from the mouth.
    - **d.** Repeat rinsing as needed.

6. Inspect and clean the oral tissues:
    a. If the tissues appears dry or unclean, clean them with foam swabs or gauze and cleaning solution.
    b. Picking up a moistened foam, wipe the mucous membrane of one cheek. If no foam swabs are available, wrap a small gauze square around a tongue blade and moisten it.
    c. Clean all mouth tissues: the cheeks, roof of the mouth, base of the mouth, and tongue.,
    d. Rinse the client's mouth as described in step 5.
7. Ensure client comfort:
    a. Remove the basin, and dry the client's mouth with the towel.
    b. Lubricates the client's lips with petroleum jelly. If the client is on oxygen therapy, do not use petroleum jelly, it can cause burns to the skin and mouth.
8. Document the procedure.

Procedure 5: Providing hair care for clients:

Purposes:

1. To stimulate the blood circulation to the scalp.
2. To distribute hair oils and provide a healthy sheen.
3. To assess or monitor hair or scalp problems.

Equipment's:

1. Clean brush and comb.
2. Towel.
3. Hair oil preparations if appropriate.

Procedure steps :

1. Explain the procedure for the client.
2. Wash hands.

3. Provide privacy.
4. Position and prepare the client:
    a. Put a client on sitting position on a chair, or sitting position by raising the head of the bed, or side-lying position according to client's condition.
    b. If the client remains in bed, place a clean towel over the pillow and the client's shoulders.
5. Brush and comb the hair.
6. Document the procedure.

Procedure 6: Shampooing the hair of a client confined to bed:

Purposes:

1. To stimulate blood circulation to the scalp through massage.
2. To clean the hair and to increase the client's sense of well-being.

Equipment's:

1. Comb and brush.
2. Plastic sheet or pad.
3. Two bath towels.
4. Shampoo basin.
5. Wash cloth or pad.
6. Bath blanket.
7. Receptacle for the shampoo water.
8. Cotton balls (optional).
9. Pitcher of water.
10. Liquid or cream shampoo.
11. Hair dryer.

Procedure steps :

1. Explain the procedure.
2. Wash hands.
3. Provide privacy.
4. Assist the client to the side of the bed from which you will work.

5. Arrange the equipment:
    a. Place the plastic sheet or pad on the bed under the head.
    b. Remove the pillow from under the client's head, and place it under the shoulders unless there is some underlying condition.
    c. Tuck a bath towel around the client's shoulders.
    d. Place the shampoo basin under the head, putting a folded washcloth or pad where the client's neck rests on the edge of the basin.

    e. Fanfold the top bedding down to the waist, and cover the upper part of the client with the bath blanket.
    f. Place the receiving receptacle on a table or chair at the bedside. Put the spout of the shampoo basin over the receptacle.
6. Protect the client's eyes and ears:
    a. Place a damp wash cloth over the client's eyes.
    b. Place cotton balls in the client's ears if indicated.
7. Shampoo the hair:
    a. Wet hair with water.
    b. Apply shampoo to the scalp, and massage all areas of the scalp systematically.
    c. Rinse the hair briefly, and apply shampoo again, and massage the scalp.
    d. Rinse the hair thoroughly to remove all shampoo.
    e. Squeeze as much water as possible out of the hair with your hands.
8. Dry the hair thoroughly using a heavy towel and a dryer.
9. Ensure client comfort.
10. Document the procedure.

Unit Six

Basic Body Positions

Content:

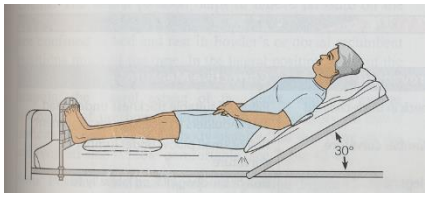
- **Introduction.**
- **Fowler's position.**
- **Orthopneic position**
- **Dorsal recumbent position.**
- **Prone position.**
- **Lateral position.**
- **Sims' position.**

Introduction:

1. Positioning a client in good body alignment and changing the position regularly and systematically are essential aspects on nursing practice.
2. Frequent change of position helps to prevent muscle discomfort, pressure ulcers, damage to superficial nerves and blood vessels, and contractors.

Fowler's Position:

1. Fowler's position, or semi sitting position, is a bed position in which the head and trunk are raised 45-90 degrees. In this position, the knee may or may not be flexed.
2. In low-Fowler's or semi-Fowler's position, the head and trunk are raised 15-45 degrees.
3. In high-Fowler's position, the head and trunk are raised 90 degree.
4. Fowler's position is the position of choice for people who have difficulty breathing and for some people with heart problems.



Semi Fowler Position

Orthopneic Position:

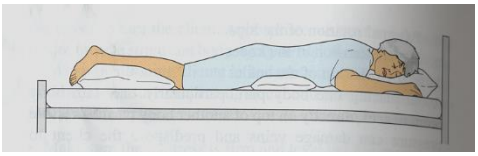
1. In the Orthopneic position, the client sits either in bed or on the side of the bed with an overbed table across the lap.
2. This position facilitates respiration by allowing maximum chest expansion.

Dorsal Recumbent Positions:

Position of patient on the back, with lower limbs flexed and rotated outward; used in vaginal examination, application of obstetrical forceps, urinary catheterization of female patients and other procedures.

Prone Position:

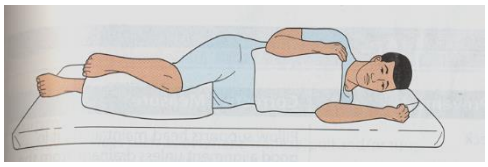
1. In the prone position, the client lies on the abdomen with the head turned to one side.
2. The hips are not flexed. One or both arms may be flexed over the head.



3. It promotes drainage from the mouth and is especially useful for unconscious clients or those clients recovering from surgery of the mouth or throat.

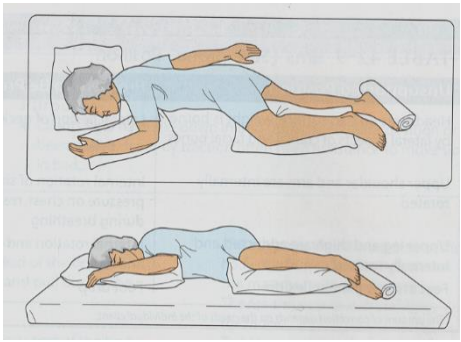
Lateral Position:

1. In the lateral position (side-lying), the person lies on one side of the body. The top hip and knee are flexed and placed in front of the body.



2. Both arms are in front of the body. Pillow is put under head and neck, other one under upper arm, and a third one under the top leg and thigh to place them in good alignment.

Sims' Position:



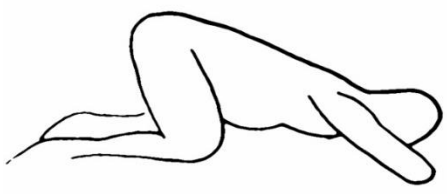
1. In Sims' position (semiprone), the client assumes a posture halfway between lateral and prone positions.
2. The lower arm is positioned behind the client, and the upper arm is flexed at the shoulder and the elbow.
3. Both legs are flexed in front of the client. The upper leg is more acutely flexed at both the hip and the knee than is the lower one.
4. Sims' position may be used for unconscious clients because it facilitates drainage from the mouth and prevent aspiration of fluids.

Lithotomy position:

1. The patient in the supine position, the legs are raised and abducted to expose the perineal region
2. The arms are placed on padded arm boards, tucked at the sides, or placed across the abdomen
3. The legs and feet are placed in stirrups that support the lower extremities
4. Stirrups should be placed at an even height
5. Used in vaginal procedures and conducted normal delivery.

Knee chest position:

1. The knee-chest position is a variation of the hands and knees position in which the hips are higher than the shoulders.
2. This position is helpful if a mother is feeling pressure on her back. It may also help the baby move into a better position if the mother is experiencing a long labor.



Unit Seven

Moving and Turning Clients in Bed

Content:

- **Introduction.**
- **Procedure 1: Moving a client up in bed.**
- **Procedure 2: Turning a client to the lateral or prone position in bed.**
- **Procedure 3: Logrolling a client.**
- **Procedure 4: Assisting the client to sit on the side of the bed.**
- **Procedure 5: Transferring between bed and chair.**
- **Procedure 6: Transferring between bed and stretcher.**
- **Procedure 7: Assisting the client to ambulate.**

Introduction:

- When a nurse assists a person to move, correct body mechanics need to be employed so that the nurse is not injured.

Procedure 1: Moving a client up in bed:

Purposes:

1. Clients who have slid down from the Fowler's position or been pulled down by traction often need assistance to move up in bed.

Procedure steps:

1. Explain the procedure.
2. Wash hands.
3. Provide privacy.
4. Adjust the bed and the client's position:
    a. Adjust the head of the bed to a flat position or lower as the client can tolerate.

b. Raise the bed to a height of your centre of gravity.
c. Lock the wheels on the bed and raise the rail on the side of the bed opposite you.
d. Remove all pillows, then place one against the head of the bed.

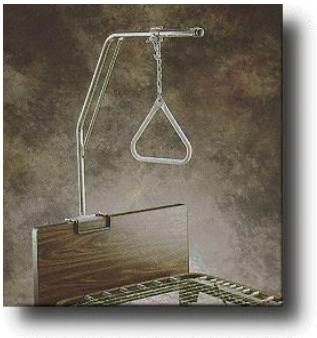
5. Ask the client to help as the following:
    a. Ask him to flex the hips and knees and position the feet so that they can be used effectively for pushing.
    b. Ask him to grasp the head of the bed with both hands and pull during the move.

Or

Raise the upper part of the body on the elbows and push with the hands and forearms during the move.

Or

Grasp the overhead trapeze with both hands and lift and pull during the move.



6. Position your self appropriately, and move the client:
    a. Face the direction of movement, place the foot nearest to bed behind the forward foot and weight on the forward foot. Lean your trunk forward from the hips. Flex hips, knees, and ankles.
    b. Place your near arm under the client's thighs.
    c. Shift your weight to the front leg as the client pushes with the heels and pulls with the arms so that the client moves toward the head of the bed.
7. Ensure client comfort and elevate the head of the bed needed.
8. Document the procedure.

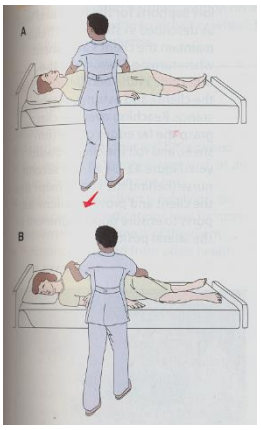
Procedure 2: Turning a client to the lateral or prone position in bed:

Purposes:

Movement to a lateral (side-lying) position may be necessary when placing a bedpan beneath the client, when changing the client's bed linen, or when repositioning the client.

Procedure steps:

1. Explain the procedure.
2. Wash hands.
3. Provide privacy.
4. Position yourself and the client appropriately:
    a. Move the client closer to the side of the bed opposite the side the client will face when turned. Use a pull sheet beneath the client's trunk and thighs and roll up the sheet as close as possible to the client's body and pull the client to the side of the bed. Adjust the client's head and legs.
    b. Place the client's near arm across the chest, abduct the client's far arm slightly, and rotate the far shoulder externally.
    c. Place the client's near ankle and foot across the far ankle and foot.
    d. Raise the side rail close to client and go to the other side of the bed. Stand close to bed as much as possible.



    e. Lean your trunk forward flexing your hips, knees, and ankle. Place one foot forward where weight is put on this foot.
5. Pull or roll the client toward you to the lateral position:
    a. Place one hand on the client's far hip, and the other on the client's far shoulder.

b. Rock backward shifting your weight from the forward to the backward foot, and roll the client onto the side of body to face you.

****To turn a client to the prone position, follow the preceding steps, with two exceptions:

a. Instead of abducting the far arm, keep the client's arm alongside the body for the client to roll over.
b. Roll the client completely onto the abdomen.

6. Document the procedure.

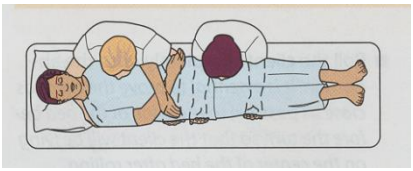
Procedure 3: Logrolling a client:

Purposes:

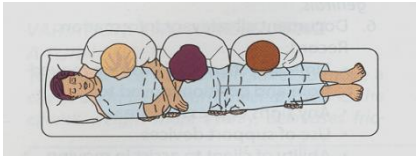
Logrolling is a technique used to turn a client whose body must at all times be kept in straight alignment. An example is the client with a spinal injury. This technique requires two nurses or, if the client is large, three nurses. For the client who has a cervical injury, one nurse must maintain the client's head and neck alignment.

Procedure steps

1. Explain the procedure.
2. Wash hands.
3. Provide privacy.
4. Position yourselves and the client:



a. Stand on the same side of the bed assuming a broad stand with one foot ahead of the other.
b. Place the client's arms across the chest.
c. Lean your trunk, and flex your hips, knees, and ankles.



d. Place your arms under the client, depending on the client's size.

5. Pull the client to the side of the bed:
    a. One nurse count: 1,2,3, go. Then at the same time, all staff members pull the client to the side of the bed by shifting their weight to the back foot.

b. Elevate the side rail on this side of the bed.

6. Move to the other side of the bed, and place supportive devices for the client when turned:
    a. Place a pillow where it will support the client's head after the turn.
    b. Place one or two pillows between the client's legs to support the upper leg when the client is turned.
7. Roll and position the client in proper alignment:
    a. All nurses flex their hips, knees, and ankles and assume a broad stance with one foot forward.

    b. All nurses reach over the client and place hands as in the figure.
    c. One nurse counts: 1, 2, 3, go. At the same time, all nurses roll the client to a lateral position.
    d. Support the client's head, back, and upper and lower extremities with pillows.
    e. Raise side rails.
8. Document the procedure

Procedure 4: Assisting the client to sit on the side of the bed:

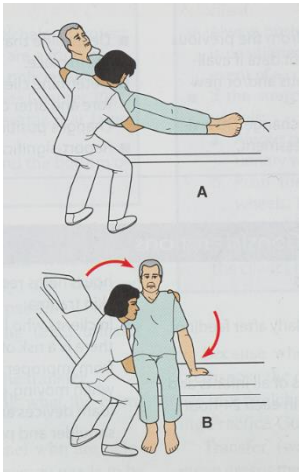
Purposes:

The client assumes a sitting position on the edge of the bed before walking, moving to a chair or wheelchair, eating, or performing other activities.

Procedure steps:

1. Explain the procedure.
2. Wash hands.
3. Provide privacy.
4. Position yourself and the client appropriately:
    a. Assist the client to a lateral position facing you.

b. Raise the head of the bed slowly to its highest position.



c. Position the client's feet and lower legs at the edge of the bed.
d. Stand beside the client's hip and face the far corner of the bottom of the bed. Assume a broad stance, placing the foot nearest the client forward. Flex your hips, knees, and ankles.

5. Move the client to a sitting position:
    a. Place one arm around the client's shoulders and the other arm beneath the client's thighs near the knees.
    b. Lift the client's thighs slightly.
    c. Pull the client's feet and legs off the bed.
    d. Keep supporting the client until the client is well balanced and comfortable.
6. Document the procedure.

Procedure 5: Transferring between bed and chair:

Purposes:

A client may need to be transferred between the bed and a wheelchair or chair, the bed and the commode, or a wheelchair and the toilet.

Procedure steps :

1. Explain the procedure.
2. Wash hands.
3. Provide privacy.
4. Position the equipment appropriately:
    a. Lower the bed to its lowest position. Lock the wheels of the bed.

    b. Place the wheelchair parallel to the bed as possible.
5. Prepare and assess the client:
    a. Assist the client to a sitting position on the side of the bed.
    b. Assess the client for orthostatic hypotension before moving the client from the bed.
    c. Assist the client in putting on a bathrobe and non-skid slippers or shoes.
    d. Place a transfer belt snugly around the client's waist.
6. Ask the client to:
    a. Move forward and sit on the edge of the bed.
    b. Lean forward slightly from the hips.
    c. Place the foot of the stronger leg beneath the edge of the bed and put the other foot forward.
    d. Place the client's hands on the bed surface or on your shoulders so that the client can push while standing. The client should not grasp your neck for support.
7. Position yourself correctly:
    a. Stand directly in front of the client. Lean the trunk forward from the hips. Flex the hips, knees, and ankles. Assume a broad stance, placing one foot forward and one back.
    b. Encircle the client's waist with your arms, and grasp the transfer belt at the client's back with thumbs pointing downward.
8. Assist the client to stand, and then move together toward the wheelchair:
    a. On the count of three, ask the client to push with the back foot, rock to the forward foot, and extend the joints of the lower extremities. Push or pull up with the hands, while pushing with the forward foot, rock to the back foot, extend the joints of the lower extremities, and pull the client into a standing position.
    b. Support the client in an upright standing position for a few moments.
    c. Together, take a few steps toward the wheelchair.
9. Assist the client to sit:
    a. Ask the client to back up to the wheelchair and place the legs against the seat.

b. Ask the client to place the foot of the stronger leg slightly behind the other. Keep the other foot forward.
c. Ask the client to place both hands on the wheelchair arms or on your shoulders.
d. Stand directly in front of the client, place one foot forward and one back.
e. On the count of three, have the client shift the body weight by rocking to the back foot, lower the body onto the edge of the wheelchair seat by flexing the joints of legs and arms. Place some weight on the arms, while shifting body weight by stepping back with the forward foot and pivoting toward the chair while lowering the client onto the wheelchair seat.

10. Ensure client safety:
    a. Ask the client to push back into the wheelchair seat.
    b. Lower the footplates, and place the client's feet on them.
11. Document the procedure.

Procedure 6: Transferring between bed and stretcher:

Purposes:

1. The stretcher is used to transfer supine clients from one location to another. Whenever the client is capable of accomplishing the transfer from bed to stretcher independently, either by lifting onto it or by rolling onto it, the client should be encouraged to do so. If the client cannot move onto the stretcher independently, at least two nurses are needed to assist with the transfer; more are needed if the client is totally helpless or is heavy.

Procedure steps:

1. Explain the procedure.
2. Wash hands.
3. Provide privacy.
4. Prepare client for transfer:
    a. Lower the head of the bed.
    b. Raise the bed so that it is slightly higher than the stretcher.

c. Lock the wheels of the bed.

5. Move the client to the edge of the bed and position the stretcher:
    a. Pull the client to the edge of the bed keeping the client covered.
    b. Place the stretcher parallel to the bed next to the client and lock the stretcher's wheels.
6. Transfer the client to the stretcher:
    a. All staff members press their bodies tightly against the stretcher.
    b. Pull the client in union directly toward you and onto the stretcher.
    c. Ask the client to flex the neck during the move, if possible, and to place the arms across the chest.
7. Ensure client comfort and safety:
    a. Unlock the stretcher wheels, and move the stretcher away from the bed.
    b. Raise the stretcher side rails and/or fasten the safety straps across the client.
8. Document the procedure.

Procedure 7: Assisting the client to ambulate:

Purposes:

To provide a safe condition for the client to walk with needed support.

Procedure steps:

1. Explain the procedure.
2. Wash hands.
3. Ensure that the client is appropriately dressed and has shoes or slipper with non-skid soles.
4. Prepare the client for ambulation:
    a. Assist the client to sit on the edge of the bed.
    b. Assess the client for signs and symptoms of orthostatic hypotension (dizziness, light-headedness, or a sudden increase in heart rate).
    c. Assist the client to stand by the side of the bed until he feels secure.
5. Ensure client safety while assisting the client to ambulate:

a. Encourage the client to ambulate independently if he is able, but walk beside and close to him.
b. Use a transfer or walking belt if the client is slightly weak and unstable. Grasp the belt at the client's back, and walk behind and slightly to one side of the client.
c. If the client is moderately weak and unstable, interlock your forearm with the client's closest forearm.
d. If the client is very weak and unstable, place your near arm around the client's waist, and with your other arm support the client is near arm at the elbow.

6. Protect the client who begins to fall while ambulating:
    a. If the client begins to experience the signs and symptoms of orthostatic hypotension or extreme weakness, quickly assist the client into a nearby wheelchair or other chair, and help the client to lower the head between the knees.
    b. When the weakness subsides, assist the client back to bed.
    c. If a chair is not close by, assist the client to a horizontal position on the floor before fainting occurs, making sure the client's head does not hit any object.
7. Document the procedure.

Unit Eight

Medications

Content:

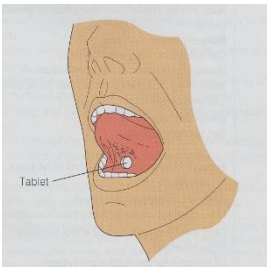
- **Introduction.**
- **Routes of administration.**
- **Types of medication orders.**
- **Parts of a drug order.**
- **Rights for drug administration.**
- **Common abbreviations used in medication orders.**
- **Converting weights.**
- **Calculating Dosages.**
- **Procedure 1: Administering Oral Medications.**
- **Procedure 2: Administration of medication through the enteral tube.**
- **Parenteral medications.**
- **Procedure 3: Preparing Medications from Ampoules.**
- **Procedure 4: Preparing Medications from Vials.**
- **Procedure 5: Administering an Intradermal Injection.**
- **Procedure 6: Administering a Subcutaneous Injection.**
- **Procedure 7: Administering an Intramuscular (IM) Injection.**
- **Procedure 8: Adding Medications to Intravenous Fluid Containers**
- **Procedure 9: Administering Intravenous Injection through Cannula (push).**
- **Procedure 10: Administering Intravenous Injection through Direct method.**
- **Procedure 11: Instilling Ear Drops.**
- **Procedure 12: Administration of rectal medication.**
- **Procedure 13: Performing a sensitivity test.**

Introduction:

- **Medications:** is a substance administered for the diagnosis, care, treatment, mitigation (relief), or prevention of disease.
- In the health care context, the words medication and drug are generally used interchangeably.

Routes of administration:

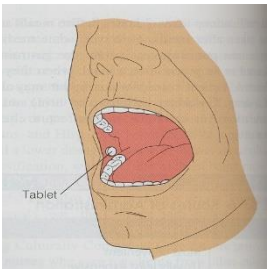
1. **Oral**: is the most common, least expensive and most convenient route for most clients.



2. **Sublingual**: A drug is placed under the tongue, where it dissolves.
3. **Buccal**: means "pertaining to the cheek." In buccal administration, a medication (e.g. tablet) is held in the mouth against the mucous membranes of the cheek until the drug dissolves.

Sublingual

4. **Parenteral:** is defined as other than through the alimentary or respiratory tract; that is by needle. Common routes for parenteral administration inclu,de:
    a. Subcutaneous – into the subcutaneous tissue, just below the skin.
    b. Intramuscular – into a muscle.
    c. Intradermal – under the epidermis (into the dermis).
    d. Intravenous – into a vein.



Buccal

5. **Topical**: are those applied to a circumscribed surface area of the body. They affect only the area to which they applied. They include:
    a. Dermatological preparations-applied to the skin.
    b. Instillations and irrigations-applied into body cavities or orifices, such as urinary bladder, eyes, ears, nose, or rectum.

c. Inhalations-administered into the respiratory tract by a nebulizer or with breathing.

Types of medication orders:

1. **Stat order**: the medication is to be given immediately and only once. For example:

Demerol 100ng IM stat.

2. **Single order**: one-time order, the medication to be given once at a specified time. For example**:**

Atropine 1mg IM before surgery.

3. **Standing order**: a regular order, may or may not have a termination date. When there is no termination date, another order must be written to cancel it. For example:

Ampicillin 1gm IV q4h or Ampicillin 1gm q6h × 5days.

4. **PRN order**: as needed order, permits the nurse to give a medication when, in the nurse's judgment, the client require it. For example:

Paracetamol 2tab prn (PRN)

Parts of a drug order:

1. Full name of the client.
2. Date and time the order is written.
3. Name of the drug.
4. Dosage of the drug.
5. Frequency of administration.
6. Route of administration.
7. Signature of the person writing the order.

Five rights for drug administration:

1. Right Medication
2. Right Patient
3. Right Time
4. Right Route
5. Right Dose
6. Right Response

7. Right Reason
8. Right Documentation
9. Right Assessment & Evaluation
10. Right Client Education
11. Right to Refuse Medication
12. Right Expiration Date.

Common abbreviations used in medication orders:

Abbreviation	Explanation
• Bid	Twice a day
• Cap	Capsule
• comp	Compound
• g, or gm	Gram
• h	An hour
• hs	Hour of sleep
• ID	Intradermal
• IM	Intramuscular
• IV	Intravenous
• Kg, kg	Kilogram
• L, l	Liter
• Mcg, or µg	Microgram
• Mg, or mgm	Milligram
• No.	Number
• Po	By mouth
• Prn	When needed

Abbreviation	Explanation
• Q	Every
• Qam	Every morning
• qh (q1h)	Every hour
• q2h	Every two hours
• q3h	Every three hours
• q4h	Every four hours
• q6h	Every six hours
• Qid	Four times a day
• Qod	Every other day
• SC	Subcutaneous
• SOS	It it is needed
• Stat	At once
• Sup, supp	Suppository
• Susp	Suspension
• Tab	Tablet
• Tid	Three times a day

Converting weights:

- Only three units of weight are used for drug dosage:
  1. The gram (g)
  2. The milligram (mg)
  3. The microgram (µg or mcg)

***1g = 1000mg

***1mg = 1000µg

- **Exercise:**
  1. Convert 500mg into grams?
  2. Convert 0.006g into mg?
  3. Convert 2500µg into mg?
  4. Convert 0.5mg into micrograms?
  5. Convert 0.1gm into microgram?
  6. Convert 250,000µg into grams?

Calculating Dosages:

- Several formulas can be used to calculate drug dosages. One formula uses ratio:

$$\frac{\text{Dose on hand}}{\text{Quantity on hand}} = \frac{\text{desired dose}}{\text{quantity desired (x)}}.$$

For example: erythromycin 500mg is ordered. It is supplied in a liquid form containing 250mg in 5ml. To calculate the dosage, the nurse uses the formula:

$$\frac{\text{Dose on hand (250mg)}}{\text{Quantity on hand (5ml)}} = \frac{\text{desired dose (500mg)}}{\text{quantity desired (x)}}.$$

Then, the nurse cross-multiply:

$$250x = 5\text{ml} \times 500\text{mg}$$

$$x = \frac{5\text{ml} \times 500\text{mg}}{250\text{ mg}}$$

$$x = 10\text{ml}.$$

Therefore, the dose ordered is 10ml.

- The previous formula can be written in another way:

$$\text{Amount to be administered (x)} = \frac{\text{desired dose}}{\text{Dose on hand}} \times \text{quantity on hand}$$

For example: heparin is often distributed in large vials and prepared dilutions of 10,000 units per 1ml. If the order calls for 5000 units, the nurse can calculate using the formula above:

$$x = \frac{5000 \text{ units}}{10{,}000} \times 1\text{ml}$$

$$x = \frac{1}{2}\text{ml}$$

Therefore, the nurse injects 0.5ml heparin for a 5000-unit dose.

❖ Exercise:

1. An ampoule of digoxin contains 0.5mg in 2ml. An infant need 50microgram. Calculate the amount to be drawn?
2. A client needs 50mg hydrocortisone IV. You have vial contains 100mg/2ml. Calculate the amount to be given?

Procedure 1: Administering Oral Medications:

Purposes:

To provide a medication that has systemic effects or local effects on the gastrointestinal tract or both.

Preparation:

1. Assess:
    a. Allergies to medication(s).
    b. Client's ability to swallow the medication.
2. Equipment :
    a. Disposable medication cups.
    b. Medication administration record (MAR).
    c. Drinking glass and water or juice.

3. Check the MAR for the drug name, dosage, frequency, and route of administration
4. Verify the client's ability to take medication orally.

Procedure steps :

1. Wash hands.
2. Read the MAR and take the appropriate medication from the shelf, drawer, or refrigerator and check the expiration date of the medication.
3. Prepare the correct dosage of medication without contaminating the medication:
    a. Tablets or Capsules:
        i. Place packaged unit–dose capsules or tablets directly into the medicine cup. Do not remove the medication from the wrapper until at the bedside.
        ii. If using a stock container, pour the required number into the bottle cap, and then transfer the medication to the disposable cup without touching the tablets.
        iii. Break scored tablets only, if necessary to obtain the correct dosage.
    b. Liquid Medication:
        i. Thoroughly mix the medication before pouring.
        ii. Remove the cap and place it upside down on the countertop.

        iii. Hold the bottle so the label is next to your palm, and pour the medication away from the label.
        iv. Hold the medication cup at eye level and fill it to the desired level.
4. Provide for client privacy.
5. Prepare the client:
    a. Confirm the patient's identity.

b. Assist the client to a sitting position or, if not possible, to a side-lying position.

6. Administer the medication at the correct time:
    a. Take the medication to the client within 30 minutes before or after the scheduled time.
    b. Give the client sufficient water or preferred juice to swallow the medication.
    c. Give only one tablet or capsule at a time.
    d. If an older child or adult has difficulty swallowing, ask the client to place the medication on the back of the tongue before taking the water.
    e. Stay with the client until all medications have been swallowed.
7. Record the medication given, dosage, time, and your signature.

Procedure 2 : Administration of medication through the Enteral tube:

(Nasogastric tube or gastric tube)

Preparation:

1. Assess allergies to medication(s).
2. Equipment's:
    a. Disposable medication cups.
    b. Medication administration record (MAR).
    c. Drinking glass and water or juice.
    d. Pill crusher.
    e. Syringe 50-60 cc.
3. Check the MAR for the drug name, dosage, frequency, and route of administration.

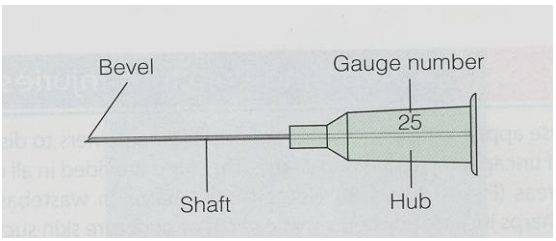
Procedure steps :

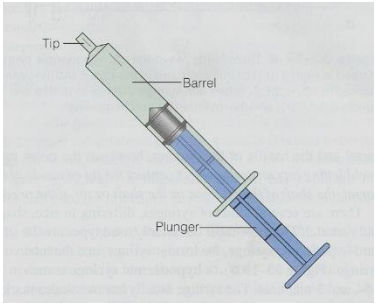
1. Wash hands.
2. Read the MAR and take the appropriate medication from the shelf, drawer, or refrigerator.
3. Check the expiration date of the medication. Return expired medications to the pharmacy.
4. Prepare the correct dose of medication without contaminating the medication.
5. Crush the tablet and dissolve it in a suitable solvent.

6. Provide for client privacy.
7. Prepare the client:
    a. Confirm the patient's identity.
    b. Check the place of the tube by:
        i. Aspirate gastric content: normally yellow to green and examine PH.
        ii. Auscultate over the epigastric area while you insert 10-20 ml of air into N.G.T: normally bubbling heard in the stomach.
    c. Put patient in a suitable position(semi-fowler or fowler during and after 30 mint of administration) to prevent aspiration.
8. Wash the tube with warm water (10-20 cc).
9. Administer medication by N.G.T (using the syringe).
10. Wash the syringe and the tube with warm water (10-20 cc)
11. Record the medication given, dosage, time, and your signature.

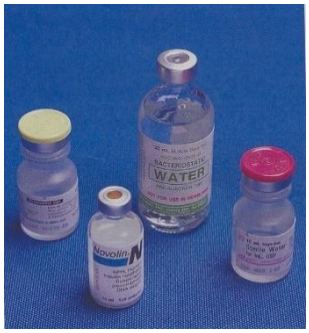
Parenteral medications:

- To administer parenteral medications, nurses use injectable equipment which include:
    1. Syringes: syringes have three parts, the tip, the barrel and the plunger.
    2. Needles: needle has three parts, bevel, shaft and hub.





    3. Vials and Ampoules:
        - A vial is a small glass bottle with a sealed rubber cap.
        - Ampoule is a glass container usually designed to hold a single dose of a drug



Vials .

Ampoules

- Ampoule file is used when ampoule is not scored.

Procedure 3: Preparing Medications from Ampoules:

Preparation:

1. Equipment's:
    a. MAR.
    b. Ampoule of sterile medication.
    c. File (if ampoule is not scored).
    d. Small gauze square.
    e. Antiseptic swabs.
    f. Needle and syringe.
2. Check the label on the ampoule carefully against the MAR to make sure that the correct medication is being prepared.
3. Read the label on the medication:
    a. When it is taken from the medication cart.
    b. Before withdrawing the medication.
    c. After withdrawing the medication.

Procedure steps:

1. Wash hands.
2. Prepare the medication ampoule for drug withdrawal:
    a. Flick the upper stem of the ampoule several times with a fingernail.
    b. Partially file the neck of the ampoule, if necessary, to start a clean break.
    c. Place a piece of sterile gauze between your thumb and the ampoule neck, or around the ampoule neck, and break off the top by bending it toward you.
    d. Dispose of the top of the ampoule in the sharps container.

3. Withdraw the medication:

a. Remove the cap from the needle, and insert the needle into the centre of the ampoule. Do not touch the rim of the ampoule with the needle tip or shaft.
b. Withdraw the amount of drug required for the dosage.

c. Tighten the cap at the hub of the needle before injecting the client

Procedure 4: Preparing Medications from Vials:

Preparation:

1. Equipment's:

a. MAR.
b. Vial of sterile medication.
c. Antiseptic swabs.
d. Needle and syringe.
e. Sterile water or normal saline, if drug is in powdered form.

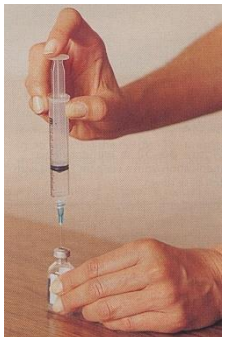
2. Check the label on the ampoule carefully against the MAR to make sure that the correct medication is being prepared.
3. Read the label on the medication:
    a. When it is taken from the medication cart.
    b. Before withdrawing the medication.
    c. After withdrawing the medication.

Procedure steps:

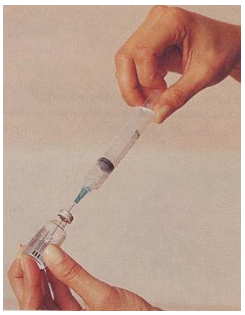
1. Wash hands.
2. Prepare the medication vial for drug withdrawal:
    a. Mix the solution, if necessary, by rotating the vial between the palms of the hands, not by shaking.
    b. Remove the protective cap, or clean the rubber cap of a previously opened vial with an antiseptic wipe by rubbing in a circular motion.
    c. Add normal saline or distilled water if the vial contains powder.

d. Mix the content thoroughly.

3. Attach the needle to the syringe.
4. Remove the cap from the needle, then draw up into the syringe the amount of air equal to the volume of the medication to be withdrawn.



5. Carefully insert the needle into the upright vial through the center of the rubber cap, maintaining the sterility of the needle.
6. Inject the air into the vial, keeping the bevel of the needle above the surface of the medication.
7. Withdraw the prescribed amount of medication.

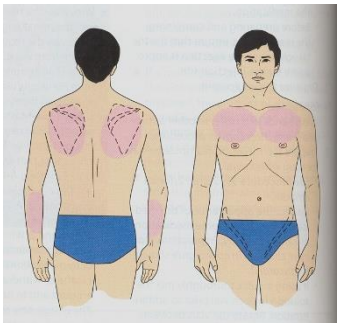


Procedure 5: Administering an Intradermal Injection:

- Is the administration of a drug into the dermal layer of the skin just beneath the epidermis.

- This type of injection is indicated for:

1. Allergy test.
2. Tuberculin test.
3. Some vaccinations.



Sites:

- Common sites for intradermal injections are:
  1. The inner lower arms.
  2. The upper chest.
  3. The back beneath the scapula.

- Usually only a small amount of liquid is used, for example, 0.1ml.

- Avoid using sites that are tender, inflamed, swollen, or those that have lesions.

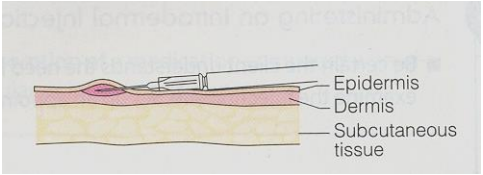
Equipment:

1. Vial or ampoule of the correct medication.
2. Sterile 1-mL syringe calibrated into hundredths of a millilitre (insulin syringe).
3. 25- to 27-gauge needle.
4. Alcohol swabs.
5. Non-sterile gloves.

Procedure steps:

1. Wash hands.
2. Prepare the medication from the vial or ampoule for drug withdrawal.
3. Identify the client.
4. Explain the procedure for the client.
5. Provide privacy.
6. Put on gloves.
7. Cleanse the skin at the site using a firm circular motion, starting at the centre and widening the circle outward.
8. Allow the area to dry thoroughly.
9. Remove the needle cap with your non-dominant hand by pulling it straight off.
10. Expel any air bubbles from the syringe.

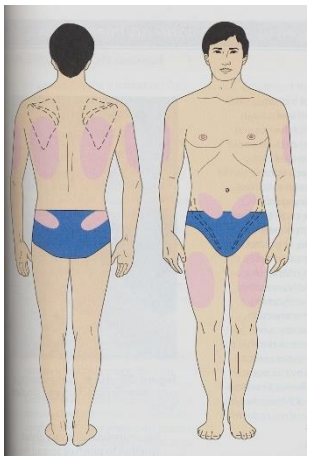
11. Grasp the syringe in your dominant hand, holding it between thumb and forefinger
12. Use your non-dominant hand to spread the skin.
13. Place the needle flat against the patient's skin, opening side up, and insert the needle beneath the skin only about 0.3 cm inch.
14. Slowly inject the agent so that it produces a small wheal on the skin.



15. Withdraw the needle quickly at the same angle that it was inserted.
16. Do not massage the area.
17. Dispose of the syringe and needle safely.
18. Remove gloves.
19. Make circle with pen and write the time, date, medication and signature.
20. Observe the site after 15 minutes.
21. Document the administration of the medication.

Procedure 6 : Administering a Subcutaneous Injection:

- Many kinds of drugs are administered subcutaneously, but the most common are:
  1. Insulin.
  2. Heparin.
  3. Vaccines.



- Common sites for subcutaneous administration are:
  1. Outer aspect of upper arm.
  2. Anterior thigh.
  3. Abdomen.
  4. Scapular area.

- Only small doses (0.5 to 1 ml) of medication are usually injected via the subcutaneous route. Generally a 2-ml syringe is used for most SC injections.

Purposes:

1. To provide a medication the client required.
2. To allow slower absorption of a medication compared with either the intramuscular or intravenous routes.

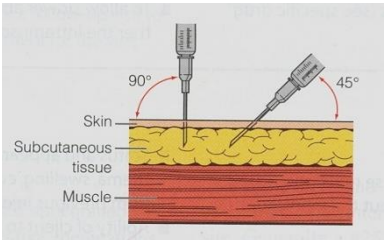
Preparation:

1. Assess Allergies to medication.
2. Equipment:
    a. MAR.
    b. Vial or ampoule of the correct sterile medication.
    c. Syringe and needle.
    d. Antiseptic swabs.
    e. Disposable gloves.

Procedure steps:

1. Wash hands.
2. Withdraw the medication from an ampoule or vial.
3. Identify the client.
4. Explain the procedure for the client.
5. Provide privacy.
6. Have the patient assume a position appropriate for the site selected:
    a. Outer aspect of upper arm—the patient's arm should be relaxed at this side.
    b. Anterior thigh—the patient may sit or lie with the leg relaxed.
    c. Abdomen—the patient may lie in a semi-recumbent position.
    d. Scapular area—the patient may be prone, on the side, or assume a sitting position.
7. Locate the site of choice and ensure that the area is not tender and is free of lumps or nodules.
8. Clean the area of the skin with an alcohol swab.

9. Remove the needle cap with the non-dominant hand, pulling it straight off.



10. Grasp and bunch the area surrounding the injection site. Hold the syringe in the dominant hand between the thumb and the forefinger. Insert the needle quickly an angle of 45 -90 degrees.
11. After the needle is in place, release the grasp the tissue and immediately move your non-dominant hand to steady the lower end of the syringe.
12. Aspirate by pulling back gently on the plunger of the syringe to determine whether the needle is in a blood vessel.
13. If no blood appears, inject the solution slowly.
14. Withdraw the needle quickly at the same angle it was inserted.
15. Massage the area gently with the alcohol swab.
16. Don't recap the used needle and discard it and syringe in a appropriate way.
17. Put patient in comfortable position.
18. Document medication administration.

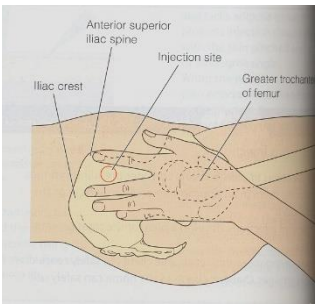
Procedure 7: Administering an Intramuscular (IM) Injection:

- Injections into muscle tissue are absorbed more quickly than subcutaneous injection because of greater blood supply to muscles.

- Muscles can take a larger volume of fluid without discomfort than subcutaneous tissue can.
  - ☒ An adult with well-developed muscles can usually safely tolerate up to 4ml of medication in the gluteus medius and gluteus maximus muscles.
  - ☒ A volume of 1-2 ml is usually recommended for adults with less developed muscles.
  - ☒ In the deltoid muscle, volumes of 0.5 to 1ml are recommended.

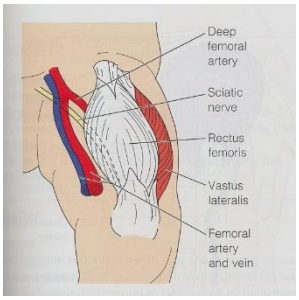
- Several sites can be used for intramuscular injections, theses sites include:
  1. Ventrogluteal site:
     - ☒ The ventrogluteal site is in the gluteus medius muscle.

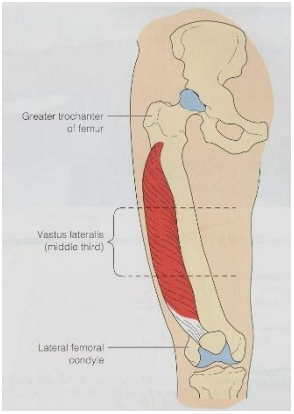
- ☒ This site is suitable for children over 7 months and adults.



- ☒ To establish the exact site, the nurse places the heel of the hand on the client's greater trochanter, with the fingers pointing toward the client's head. The right hand is used for the left hip, and the left hand is used for the right hip. With the index finger on the client's anterior superior iliac spine, the nurse stretches the middle finger dorsally (toward the buttocks), palpating the crest of the ileum and the pressing below it. The triangle formed by the index finger, the third finger, and the crest of the ileum is the injection site.

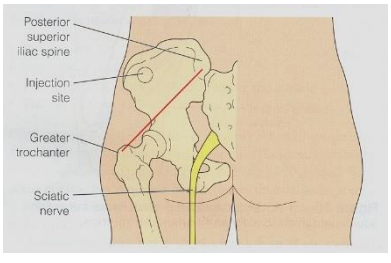
2. Vastus lateralis site:
   - ☒ The vastus lateralis muscle is usually thick and well developed in both adults and children.





   - ☒ It is recommended as the site of choice for infants 7 months and younger.
   - ☒ It is situated on the anterior lateral aspect of the infant's thigh. The middle third of the muscle is suggested as the site.

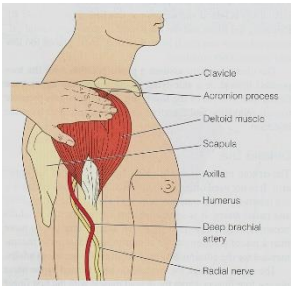
3. Dorsogluteal site:
   - ☒ The dorspgluteal site is composed of the thick gluteal muscles of the buttocks.
   - ☒ This site can be used for adults and for children with well-developed gluteal muscles. Because these muscles are developed by walking, this site should not be used for children under 3 years unless the child has been walking for at least 1 year.



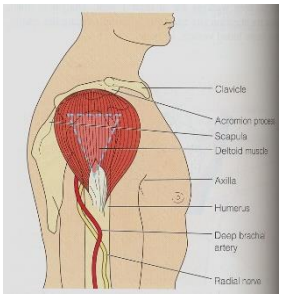
   - ☒ The nurse palpates the posterior superior iliac spine, then draws an imaginary line to

the greater trochanter of the femur. The injection site is lateral and superior to this line.

4. Deltoid site:



- ☒ The deltoid muscle is found on the lateral aspect of the upper arm.
- ☒ It is not used often for intramuscular injections because it is relatively small muscle and is very close to the radial nerve and radial artery.
- ☒ No more than 1ml can be administered.
- ☒ This site is recommended for the administration of hepatitis B vaccine in adults.



- ☒ The upper landmark for the deltoid site is located by the nurse placing four fingers across the deltoid muscle with the first finger on the acromion process. The top of the axilla is the line that marks the lower border landmark.
- ☒ The use of a pinch-grasp technique can reduce the discomfort of an IM injection into the deltoid muscle.

5. Rectus femoris site:
   - ☒ This site is used occasionally for IM injections.
   - ☒ It is situated on the anterior aspect of the thigh.

Purposes:

To provide a medication the client requires.

Preparation:

1. Assess Allergies to medication.
2. Determine whether the size of the muscle is appropriate to the amount of medication to be injected.
3. Equipment's:
   a. MAR.

b. Correct sterile medication (usually provided in an ampoule or vial).
c. Syringe and needle of a size appropriate for the amount of solution to be administered.
d. Antiseptic swabs.
e. Disposable gloves.

Procedure steps:

1. Wash hands.
2. Withdraw the medication from an ampoule or vial.
3. Identify the client.
4. Explain the procedure for the client.
5. Provide privacy.
6. Put patient in a position appropriate for the selected site:
    a. Gluteus: the patient may lie on his side with the hip and knee flexed.
    b. Deltoid: the arm relaxed.
7. Locate the site of choice and ensure that the area is not tender and is free of lumps or nodules.
8. Clean the area with an alcohol swab.
9. Remove the needle cap.
10. Spread the skin at the site using your non-dominant hand.
11. Hold the syringe in your dominant hand between thumb and forefinger. Quickly insert the needle into tissue at a 90-degree angle.
12. Move your non-dominant hand to hold the lower end of the syringe and the dominant the top of the syringe.
13. Aspirate by slowly pulling back on the plunger to determine whether the needle is in a blood vessel. (If blood is aspirated, discard needle, syringe, and medication; prepare a new and inject in another site).
14. If no blood is aspirated, inject the solution slowly.
15. Remove the needle quickly.
16. Massage the injection site with the alcohol swab using gentile pressure.
17. Do not recap the used needle. Discard the needle and syringe appropriately.
18. Assist the patient to a position of comfort.
19. Document medication administration.

Procedure 8: Adding Medications to Intravenous Fluid Containers

Purposes:

1. To provide and maintain a constant level of a medication in the blood.
2. To administer well-diluted medications as a continuous and slow rate.

Preparation:

1. Assess Allergies to medication.
2. Equipment:
    a. MAR.
    b. Correct sterile medication.
    c. Correct solution container, if a new one is to be attached.
    d. Antiseptic or alcohol swabs.
    e. Sterile syringe and needle.
    f. IV additive label.

Procedure steps:

1. Wash hands.
2. Withdraw the medication from an ampoule or vial.
3. Identify the client.
4. Explain the procedure for the client.
5. Provide privacy.
6. Add the medication:
    a. To New IV Container:
        i. Locate the injection port, and carefully remove its cover.
        ii. Clean the port with the antiseptic or alcohol swab.
        iii. Remove the needle cap from the syringe, insert the needle through the center of the injection port, and inject the medication into the bag or bottle.

iv. Mix the medication and solution by gently rotating the bag or bottle.
v. Complete the IV additive label with name and dose of medication, date, time, and nurse's initials.
vi. Attach it upside down on the bag or bottle.
vii. Clamp the IV tubing. Spike the bag or bottle with IV tubing and hang the IV.
viii. Regulate infusion rate as ordered.

b. To An Existing Infusion:
i. Determine that the IV solution in the container is sufficient for adding the medication.
ii. Close the infusion clamp.
iii. Wipe the medication port with the alcohol or disinfectant swab.
iv. Remove the needle cover from the medication syringe.
v. Carefully insert the syringe needle through the port, and inject the medication.
vi. Remove the bag or bottle from the pole, and gently rotate the bottle or bag.
vii. Rehang the container and regulate the flow rate.
viii. Complete the medication label and apply to the IV container.

7. Dispose of the equipment and supplies.
8. Document the medication(s) administration.

Procedure 9: Administering Intravenous (IV) Injection through Cannula (push):

Purposes:

1. To achieve immediate and maximum effects of a medication.

Preparation:

1. Assess Allergies to medication.
2. Equipment's:
    a. MAR.

b. Correct sterile medication-ampoule or vial.
c. Syringe and needle.
d. Alcohol swab.
e. Disposable gloves.

Procedure steps:

1. Wash hands, don clean gloves.
2. Withdraw the medication from an ampoule or vial.
3. Identify the client.
4. Explain the procedure for the client.
5. Provide privacy.
6. Assess the IV site for the presence of inflammation or infiltration.
7. Select the injection port on vein puncture site.
8. Clean the port with an alcohol swab.
9. Close the clamp on the giving set.
10. Uncap the syringe. Insert the needleless device into the center of the port.
11. Pull back slightly on the plunger just until blood appears in the tubing.

12. Inject the medication at the prescribed rate.
13. Remove the syringe.
14. Open the clamp on the IV infusion set and regulate the rate.
15. Dispose of the syringe in the proper receptacle (don't recap needle).
16. Remove gloves and wash your hands.
17. Chart the administration of the medication.

Procedure 10: Administering Intravenous (IV) Injection through Direct method:

Preparation:

1. Assess Allergies to medication.
2. Equipment:
    a. MAR.
    b. Correct sterile medication.
    c. Syringe and needle.
    d. Alcohol swab.
    e. Tourniquet.
    f. Disposable gloves.

Procedure steps:

1. Wash hands, don clean gloves.
2. Withdraw the medication from an ampoule or vial.
3. Identify the client.
4. Explain the procedure for the client.
5. Provide privacy.
6. Select appropriate place for vein puncture.
7. Apply the tourniquet above the site with 15 cm.
8. Ask patient to open and close his hand and wait for 30 second until the vein filled with blood.
9. Clean the skin with an alcohol swab in circular motion.
10. Make sure that the opening of the needle is upward.
11. Insert needle by 15-30 angle and draw blood.
12. Remove the tourniquet.
13. Give medication as ordered.
14. Remove needle and apply pressure on site of injection for 1-2 minutes.
15. Dispose of the syringe in the proper receptacle (don't recap needle).
16. Remove gloves and wash your hands.
17. Chart the administration of the medication

Procedure 11: Instilling Ear Drops:

Preparation:

Be sure that the instilled medication temperature is acceptable.

Equipment's:

a. MAR.
b. Cotton balls.
c. Disposable gloves.
d. Paper tissues

Procedure steps:

1. Wash hands, don clean gloves.
2. Identify the client.
3. Explain the procedure for the client.
4. Provide privacy.
5. Clean the external ear of drainage with cotton balls moistened with normal saline solution, as necessary.
6. Place the patient on the unaffected side in bed, or if ambulatory, have the patient sit with the head well tilted to the side so that the affected ear is uppermost.
7. Draw up the amount of solution needed in the dropper.
8. Straighten the auditory canal by pulling the cartilaginous portion of the pinna up and back in an adult and down and back in child under age 3 years, and straight back for a school-aged child.

9. Hold the dropper in the ear with its tip above the auditory canal.
10. Allow the drops to fall on the side of the ear.

11. Release the pinna after instilling the drops, and have the patient maintain the position.
12. Gently press on the tragus a few times to help move the medication from the canal toward the tympanic membrane.

13. Wait 5 minutes before instilling drops in the second ear, if ordered.
14. Document medication's administration.

Procedure 11: Instilling Eye drops:

Preparation:

1. Be sure that the instilled medication temperature is acceptable.
2. Equipment's:
    a. MAR.
    b. Correct medication.
    c. Paper tissues.
    d. Gloves.
    e. Cotton.

Procedure steps:

1. Wash hands, don clean gloves.
2. Identify the client.
3. Explain the procedure for the client.
4. Provide privacy.
5. Clean the eyelids and eyelashes of any drainage with cotton balls (moving from the inner toward the outer canthus).
6. Tilt the patient's head back slightly if sitting, or place the patient's head over a pillow if lying down.
7. Invert the monodrip plastic container.
8. Have the patient look up while focusing on something on the ceiling.
9. Place the thumb or two fingers near the margin of the lower eyelid immediately below the eyelashes, and exert pressure downward over the bony prominence of the cheek.

10. Hold the dropper close to the eye (avoid touching the eyelids or lashes, eyeball)
11. Squeeze the container and allow the prescribed number of drops to fall in the lower conjunctival sac. (Do not allow drops to fall onto the cornea)
12. Release the lower lid after the eye drops are instilled.

13. Ask the patient to close the eyes gently.
14. Apply gentle pressure over the inner canthus to prevent the eye drops from flowing into the tear duct.
15. Instruct patient not to rub the affected eye.
16. Document medication administration.

Procedure 12: Administration of rectal medication:

Purposes:

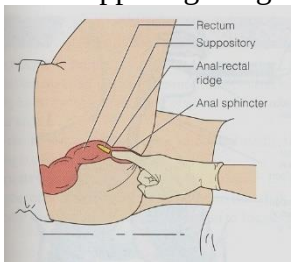
1. To avoid irritation of the upper gastrointestinal tract in clients who encounter this problem.
2. To release the drug at a slow but steady rate.

Equipment:

1. MAR.
2. Correct suppository.
3. Disposable gloves.

Procedure steps:

1. Check doctor order.
2. Prepare equipment's.
3. Wash hands.
4. Explain the procedure for the client.
5. Provide privacy.
6. Place the client on his left side, extend his left leg and flex his upper right leg.



7. Wear disposable gloves.
8. Open the suppository.
9. Insert it inside the anus, through the external and internal sphincters.

10. Remove the gloves and discard them.
11. Check patient comfort.
12. Document the medication's administration

Procedure 13: Performing a sensitivity test:

Preparation:

1. **Equipment:**
    a. Insulin syringe.
    b. Diluted medication.
    c. Distilled water.
    d. Blue pen.

Procedure steps:

1. Wash hands.
2. Explain the procedure for the patient.
3. Provide privacy.
4. Get 0.1 cc of the medication (dilute the medication if it not diluted) with a small needle syringe.
5. Add 0.9 cc Distilled water to the medication.
6. Inject 0.1 cc intradermal in the forearm (avoid blood vessels).
7. Make mark (circle distal about3 cm from the injection site) to help you in identifying of the place of injection (don't use red pen)
8. Write around the cycle: medication name, time and date of injection, and your name.
9. Wait for 15-30 minute then assess the site of injection (sings of sensitivity include wheal formation, pruritus, and redness).
10. If you see that one of these signs occurs or if you confused with the result don't give medication and notify physician.
11. Document the procedure and its results.

Unit Nine

Parenteral Fluid and Electrolyte Replacement

Content:

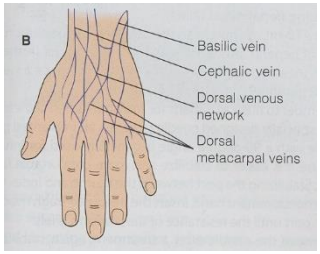
- **Introduction.**
- **Procedure 1: Starting an Intravenous Infusion.**
- **Regulating and monitoring intravenous infusions.**
- **Procedure 2: Monitoring an Intravenous Infusion.**
- **Procedure 3: Changing an IV dressing.**
- **Blood Transfusion.**
- **Procedure 4: Administration of Blood.**

Introduction:

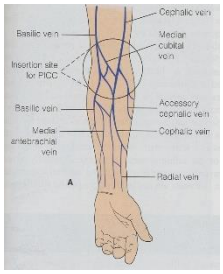
1. Intravenous (IV) fluid therapy is essential when clients are unable to take food and fluids orally.

2. IV fluid therapy is usually ordered by the physician. The nurse is responsible for administering and maintaining the therapy.

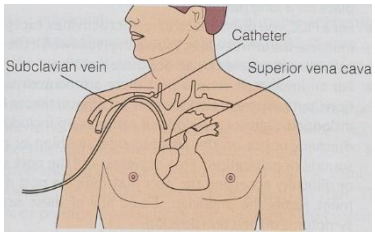
Venipuncture Sites:

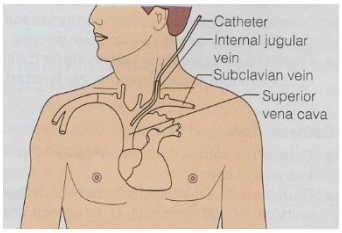


1. For adults, veins in the hand and arm are commonly used. The metacarpal, basilica, and cephalic veins are commonly used.
2. For infants, veins in the scalp and dorsal foot veins are often used.
3. When long-term IV therapy or parenteral nutrition is anticipated or the client is receiving IV medication that are damaging vessels
   (e.g. chemotherapy), a central nervous catheter may be used.



4. Central venous catheters usually are inserted into the subclavian or jugular vein, with the distal tip of the catheter resting in the superior vena cava just above the right atrium.



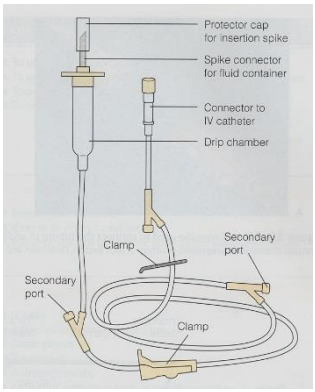


Subclavian vein insertion **Left jugular insertion**

❖ Intravenous Equipment's:

1. Solution containers:
   - ☒ Solution containers are available in various sizes (50, 100, 250, 500, or 1000ml).
   - ☒ Most solutions are currently dispensed in plastic bags. Glass containers require an air vent so that air can enter the bottle and replace the fluid that enters the client's vein.

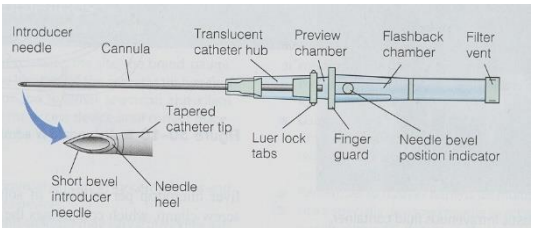
2. Infusion sets:

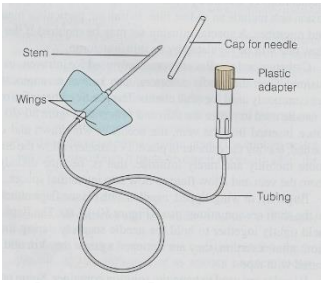


   - ☒ Infusion sets usually include:
     i. Insertion spike.
     ii. A drip chamber.
     iii. A roller valve.
     iv. Tubing with secondary ports.
     v. A protective cap over the needle adapter.
   - ☒ A special infusion set may be required if the IV flow rate will be regulated by an infusion pump.

3. Catheters and Needles (cannulas):
   - ☒ The plastic catheter fits over a needle used to pierce the skin and vein wall. Once inserted into the vein, the needle is withdrawn and discarded, leaving the catheter in place.

☒ Butterfly needles with plastic flaps attached to the shaft are sometimes used.





4. IV poles (stands):

☒ IV poles are used to hang the solution container.

☒ Some poles are attached to hospital beds; others stand on the floor or hang from the ceiling.

Procedure 1: Starting an Intravenous Infusion:

☒ Before starting an infusion, the nurse determines the following:

1. The type and amount of solution to be infused.
2. The exact amount (dose) of any medications to be added to a compatible solution.
3. The rate of flow or the time over which the infusion is to be completed.

Purposes:

1. To supply fluid when clients are unable to take in an adequate volume of fluids by mouth.
2. To provide salts needed to maintain electrolyte balance.
3. To provide glucose (dextrose), the main fuel for metabolism.
4. To provide water-soluble vitamins and medications.
5. To establish a lifeline for rapidly needed medications.

Equipment:

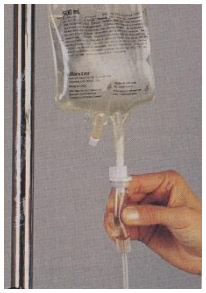
1. IV solution.
2. IV tubing.
3. IV stand.
4. IV catheter (cannula or butterfly needle).
5. Tourniquet.
6. Cleansing swabs (alcohol, povidine-iodine).

7. Towel or disposable pad.
8. Gauze.
9. Time tape or label (for IV container).
10. Non-allergenic tape.
11. Electronic infusion device (if ordered).
12. Disposable gloves.
13. Watch or o'clock and pen and paper.

Procedure steps:

1. Gather all equipment and bring to bedside. Check IV solution and medication additives with physician's order.
2. Explain procedure to patient
3. Wash your hands.
4. Prepare IV solution and tubing:

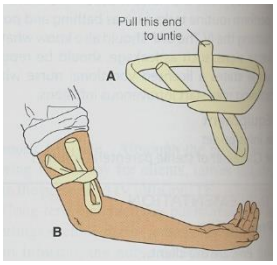
   a. Maintain aseptic technique when opening sterile packages and IV solution.
   b. Clamp tubing, uncap spike, and insert into entry site on bag as manufacturer directs.
   c. Squeeze drip chamber and allow it to fill at least half way.
   d. Remove cap at end of tubing, release clamp, and allow fluid to move through tubing. Allow fluid to flow until all air bubbles have disappeared. Close clamp and recap end of tubing, maintaining sterility of setup.



   e. Calculate the drop/minute or the rate.

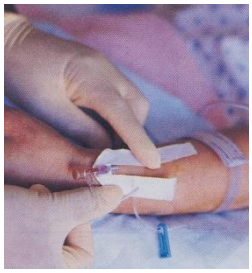
f. Apply label contain patient name, type and amount of solution, frequency of dose, rate(drop/minute), start and end time, and any additives(name, amount)

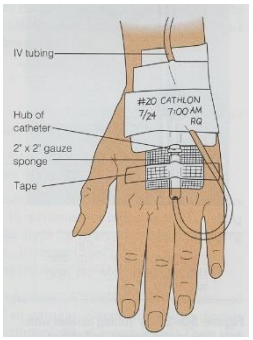
5. Put the patient in a low Fowler's position.
6. Place protective towel (pad) under the arm.
7. Select an appropriate site and palpate accessible veins.
8. If the site is hairy and agency policy permits, clip a 5 cm area around the intended site of entry.



9. Apply a tourniquet 10- 15 cm above the veinpuncture site.
10. Ask the patient to open and close his/her fist. Observe and palpate for a suitable vein. Try the following techniques if a vein cannot be felt:
    a. Release the tourniquet and have the patient lower his or her arm below the level of the heart to fill the veins or :
    b. Gently taps over the intended vein to help distend it or:
    c. Remove tourniquet and place warm moist compresses over the intended vein for 10 to15 minutes.
11. Cleanse the entry site with an antiseptic solution using a circular motion to move from the center to outward.
12. Use the non-dominant hand to hold the skin against the vein. Avoid touching the prepared site.
13. Enter the skin gently with the catheter held by the center in the dominant hand, bevel (the opening of the needle) side up, at a 10- to 30 degree angle. While following the course of the vein, advance the needle or catheter into the vein.
14. When blood returns through the lumen of the needle or the chamber of the catheter, advance farther into the vein while withdrawing the needle from the plastic sheet.
15. Release the tourniquet. Quickly remove protective cap from the IV tubing and attach the tubing to the catheter or needle. Stabilize the catheter or needle with non-dominant hand.

16. Start the flow of solution by releasing the clamp on the tubing. Examine the tissue around the entry site for signs of infiltration (infusion of fluid in the skin).
17. Secure the catheter with non-allergenic tape (side up and crossed over the device).





18. Place sterile dressing over veinpuncture site.
19. Mark the date, time, and type of the catheter used.
20. Fixing the tube with tape if needed.
21. Adjust the rate of solution flow.
22. Remove all equipment and wash hands.
23. Document the procedure.

Regulating and monitoring intravenous infusions:

- Unless an infusion control device is used, the nurse manually regulates the drops per minute of flow using the roller clamp.

- The number of drops delivered per millilitre of solution varies with different brands and types of infusion sets. This rate is called the **drip factor** or **drop factor**. Macrodrops commonly have drop factors of 10, 12, 15, or 20drops/ml; the drop factor for microdrip is always 60drops/ml.

Macrodrop

Macrodrop

Microdrop

- To calculate flow rates, the nurse must know the volume of fluid to be infused in a specific time, for example, drops per minute.

❖ Drops per minute are calculated by the following formula:

$$\text{Drops per minute} = \frac{\text{total infusion volume} \times \text{drop factor}}{\text{total time of infusion in minutes}}$$

- If the requirements are 1000ml in 8 hours and the drip factor is 20 drops/ml, the drops per minute should be:

$$\text{Drop per minute} = \frac{1000\text{ml} \times 20}{8 \times 60\ (480)} = 41 \text{ drops/minute}$$

❖ Hourly rates of infusion can be calculated by dividing the total infusion volume by the total infusion time in hours. For example, if 3000 ml is infused in 24 hours, the number of milliliters per hour is:

$$\frac{3000\text{ml}}{24\text{ h}} = 125 \text{ ml/h}$$

- Nurses needed to check infusions at least every hour to ensure that the indicated milliliters per hour have infused.

Procedure 2: Monitoring an Intravenous Infusion:

Purposes:

1. To maintain the prescribed flow rate.
2. To prevent complications associated with IV therapy.

Procedure steps:

1. Ensure that the correct solution is being infused.
2. Observe the rate of flow every hour.
3. Inspect the patency of the IV tubing and needle.
    a. The position of the solution container should be 1 m above the IV site.
    b. The drip chamber should be at least half full.

c. Open the drip regulator, rapid flow of fluid into the drip chamber indicates patency of the IV line.
d. Inspect the tubing for pinches or kinks or obstruction to flow.
e. If there is leakage, locate the source.

4. Inspect the insertion site for fluid infiltration.
    a. If an infiltration is present, stop the infusion and remove the catheter. Restart the infusion at another site.
    b. Apply a warm compress to the infiltration site.
5. Inspect the insertion site for phlebitis (inflammation of a vein)
    a. Clinical signs are: redness, warmth, pain, and swelling at the intravenous site.
    b. If phlebitis is detected, discontinue the infusion, and apply warm compresses. Restart the infusion at another site.
6. Inspect the intravenous site for bleeding.
7. Document all relevant information.

Procedure 3: Changing an IV dressing:

Equipment:

1. Towel.
2. Tape.
3. Clean gloves for peripheral & sterile gloves for central venous.
4. Sterile gauze or occlusive dressing**.**
5. Alcohol swabs or Povidine-iodine swabs.

Procedure (Peripheral IV) steps :

1. Explain the procedure for the patient.
2. Collect equipment and put them on bedside.
3. Provide privacy.
4. Place towel or disposable pad under extremity.
5. Wash your hands.
6. Wear clean gloves.

7. Carefully remove old dressing and leave tape that fix IV catheter in place.
8. Assess IV site for presence of inflammation or infiltration.
9. Loosen tape and gently remove it, steady catheter with one hand.
10. Cleanse the entry site with an alcohol swab using a circular motion moving from the center outward. Allow to dry. Follow with povidine-iodine swab.
11. Reapply tape strip to needle or catheter at entry site.
12. Apply sterile gauze or dressing over entry site.
13. Remove gloves.
14. Secure IV tubing with additional tape if necessary.
15. Label dressing with date, time of change, and initials.
16. Check that IV flow is accurate

Procedure (Central Venous Access Device) steps

1. Explain the procedure.
2. Collect equipment and put them on bedside.
3. Provide privacy.
4. Wash hands.
5. Place towel or disposable pad under patient.
6. Loosen tape and gently remove dressing.
7. Open dressing kit using sterile technique.
8. Put on sterile gloves.
9. Using the alcohol swabs, move in a circular motion from the insertion site outward (2.5 cm- to 5cm). Allow to dry.
10. Cleanse with povidine-iodine swabs using the same above technique.
11. Reapply sterile dressing. Secure tubing or lumens to pre-insertion site.
12. Documents date, time of dressing change, size of catheter.
13. Label dressing with date, time of change, and initials.
14. Discard equipment and wash hands.
15. Record patient's response to dressing change and observation of site.

Blood Transfusion:

- ❖ When a transfusion is ordered, obtain the blood from the blood bank just before starting the transfusion.

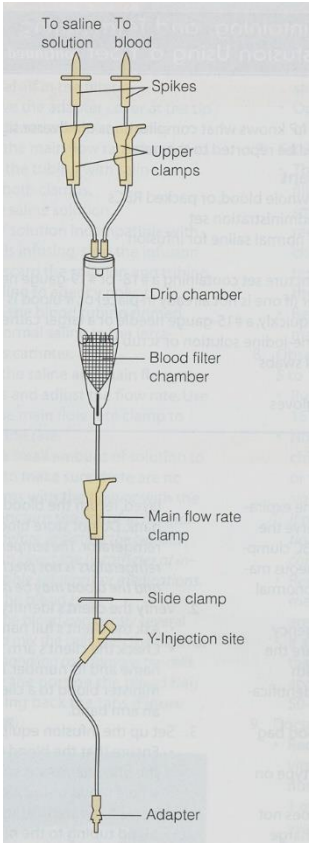
- ❖ Blood is administered through a 18-19 gauge intravenous needle or catheter.
- ❖ A Y-type blood administration set with an in line filter is used. One arm of the administration set connects to blood; normal saline is attached to the other arm of the Y-type set.

- ❖ A transfusion should be completed within 4 hours of initiation.

Procedure 4: Administration of Blood:

Equipment:

1. Blood product.
2. Blood administration set (tubing with in-line filter & Y for saline administration).
3. IV stand.
4. 0.9% N/S (Dextrose may lead to clumping of red blood cells & hemolysis).
5. IV cannula (large).
6. Disposable gloves.
7. Tape.



Procedure steps

1. Ask if the patient has had a transfusion or a transfusion reaction in the past.
2. Explain procedure to patient. Advise patient to report any chills, itching, rash, or unusual symptoms.
3. Obtain blood product from blood bank (according to agency policy).
4. Complete identification and checks as required by agency:
    a. Identification number.
    b. Blood group and type.
    c. Expiration date.
    d. Patient's name.
    e. Inspect blood for clots.
5. Check for order and signed consent for transfusion (according to the policy).
6. Warm the blood (covering the blood unite with blanket).
7. Wash your hands and put on clean gloves.
8. Hang container of 0.9% normal saline with blood administration set to initiate IV infusion and follow administration of blood. Start flow of normal saline.
9. Take baseline vital signs before beginning transfusion (notify Dr If abnormal).
10. Start infusion of the blood product:
    a. Fill in-line filter with blood.
    b. Start administration slowly (no more than 25- 50 ml for the first 15 minutes). Stay with the patient for the first 5-15 minutes of transfusion.
    c. Check vital signs /5 minutes for the first half hour after the start of the transfusion and then / 1/2 hour or hour after the transfusion depending on agency policy. Any change in vital signs during the transfusion may indicate a reaction.
    d. Increased infusion rate (If no adverse effects during the first half hour).
    e. Observe patient for flushing, dyspnea, itching, rash.
11. Maintain the prescribed flow rate as ordered.

12. Stop blood transfusion and allow saline (prevents hemolysis of red blood cells and wash the blood in IV line) to flow if you suspect a reaction. Notify physician and blood bank.
13. When transfusion is complete, infuse 0.9% normal saline.
14. Record administration of blood and patient's reaction.
15. Return blood transfusion bag to blood bank (according to agency policy).

Unit Ten

Diagnostic tests

Content:

- **Introduction.**
- **Blood Studies.**
- **Procedure 1: Taking a venous blood sample.**
- **Procedure 2: Measuring Blood Glucose.**
- **Specimen Collections.**
- **Procedure 3: Stool sample collection.**
- **Procedure 4: Collecting Random Urine Specimen**
- **Procedure 5: Obtaining a Clean-catch midstream specimen (uncontaminated).**
- **Procedure 6: Obtaining urine Sample from Indwelling Catheter.**
- **Procedure 7: Obtaining a Timed urine collection.**
- **Procedure 8: Sputum Sample Collection.**
- **Procedure 9: Collecting a Throat specimen.**

Introduction:

- **Types of Diagnostic Tests:**
  1. Blood studies.
     - **a.** Serum studies.
     - **b.** Chemistry studies.
     - **c.** Coagulant studies.
     - **d.** Arterial blood sample.
  2. Specimens collections.
     - **a.** Stool specimens.

b. Urine specimens.

c. Sputum specimens.

d. Throat culture.

Blood Studies:

❖ Types of Blood Studies:

A. Serum studies: Hematology (Complete blood count (CBC) with differentials), it includes:

1. Hematocrit (Hct): is the % of total blood volume composed of cell (N= 45%).
2. Hemoglobin (Hb) found in RBC and carrying O2 (N=Men: 13-15g/100mL, women 12 to 14 g/100 mL).
3. Red blood cells or erythrocytes (RBC): normal 5 milion/mm3.
4. Leukocytes or White Blood Cells (WBC):4.500-11000/ mm3.
5. Thrombocytes or Platelets: it's important in blood clotting (N=150.000-400.000).

B. Chemistry studies:

1. Blood urea nitrogen (BUN): indicate kidney function (not specific for kidney). BUN increased in dehydration. Decreased in malnutrition and hepatic damaged.
2. Ceratinine: useful in measuring kidney function.
3. Sugar: is amount of glucose in the blood (N for fasting = 80-120).
4. Serum electrolytes, as sodium, potassium, ……

C. Coagulants studies:

1. Prothrombin time (PT): test liver and coagulation factors (extrinsic). N= 11-15 second.
2. Partial thromboplastin time (PTT): monitor heparin therapy and coagulation factors. N= 20-45 second.

D. Arterial Blood Sample:

Arterial Blood Sample (sample taken from artery usually radial artery) is used to examine the arterial blood gases (ABG) to determine the adequacy of oxygenation and ventilation and to assess acid-base status.

Procedure 1: Taking a venous blood sample:

- It involves entering a vein (mainly in the antecubital fossa, wrist, and the dorsum of the hand) with a needle and collecting blood in a syringe or tube.

- Notes:
  - Never collect a venous sample from an arm or a leg that already being used for I.V. therapy or blood administration.
  - Don't collect a venous sample from an infection site, oedematous areas, and arteriovenous shunts.
  - If the patient has a clotting disorder or is receiving anticoagulant therapy, maintain firm pressure on the venipuncture site for at least 5 min.
  - Complications of venipuncture: Haematoma and infection.

Equipment:

1. Tourniquet.
2. Gloves.
3. Syringe or evacuated tubes.
4. Antiseptic swap.
5. Color-coded collection tube containing appropriate additives:
   - Three types of tubes:
     1. Haematology tube: containing heparin (lithium or sodium).
     2. Chemistry tube: containing no materials.
     3. Coagulation tube: containing sodium citrate or oxalate and citric acid.
6. Labels.
7. Laboratory request form.
8. 2" X 2" gauze pads.
9. Adhesive bandage

Procedure steps:

1. Explain the procedure for the client.
2. Wash hands and put on gloves.
3. Provide privacy for the client.
4. Help patient to lie supine, with his arms at his sides. He can be in a chair and support his arm securely on an armrest or a table.
5. Assess the patient's vein (Vein's blue in color or identify it by palpation)
6. Put tourniquet just 10cm above the puncture site.
7. Clean the vein puncture site with antiseptic swap (in a circular motion) and allow the skin to dry.
8. Immobilize the vein by pressing with your hand.
9. Position the needle holder or syringe bevel up and the shaft parallel to the patient a 30-degree angle to the arm.
10. Insert needle to the vein.
11. Withdraw the blood slowly.
12. Remove the tourniquet.
13. Place a gauze pad over the puncture site and slowly and gently remove the needle from the vein.
14. Apply gentle pressure to the puncture site for 2 to 3 minutes or until bleeding stops and apply adhesive bandage.
15. Detach the needle from the syringe, open the collection tube, and gently empty the sample into the tube.
16. Gently rotate the tube to help mix the additive with the sample.
17. Discard syringes, needles, and used gloves in the appropriate containers.
18. Record the date, time, name of the test.

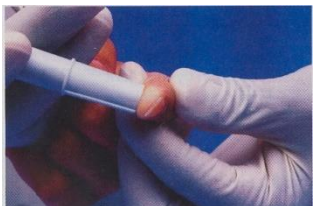
Procedure 2: Measuring Blood Glucose:

Equipment:

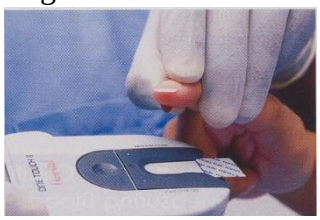
1. Blood glucose meter.
2. Blood glucose reagent strip compatible with the meter.
3. Paper towel.
4. Antiseptic swab.
5. Disposable gloves.
6. Sterile lancet, or #19 or #21- gauge needle.
7. Lancet injector (optional).

Procedure steps

1. Explain the procedure for the client.
2. Wash hands.
3. Provide privacy for the client.
4. Put on gloves.
5. Place a new sterile lancet in the injector and prepare the injector for injection.
6. Obtain a reagent strip from the container and place it into the mete.
7. Choose a vascular puncture site.
8. Clean the site with the antiseptic swab and allow it to dry completely.



9. Place the injector, if used, against the site, and release the needle. Or: Prick the site with a lancet or needle, using a darting motion.



10. Gently squeeze (but do not touch) the puncture site until a large drop of blood forms.
11. Hold the reagent strip under the puncture site until enough blood covers the indicator square. The pad will absorb the blood.

12. Ask the client to apply pressure to the skin puncture site with a cotton ball.

13. Most glucose meters will display the glucose reading automatically.
14. Discard the test strip and cotton balls.
15. Document the method of testing and results on the client's record.
16. Check for orders for sliding scale insulin based on capillary blood glucose results. Administer insulin as indicated.

Specimen Collections:

- **Types of Specimen Collections:**

A. Stool Specimens:

- ☒ Reasons for testing feces include:
  - **i.** To determine the presence of **occult** (hidden) **blood.**
  - **ii.** To analyze for dietary products and digestive secretions.
  - **iii.** To detect the presence of ova and parasites.
  - **iv.** To detect the presence of bacteria or viruses.

B. Urine Specimens:

- ☒ Types of urine tests**:**
  - **i.** Clean voided specimens for routine analysis.
  - **ii.** Clean-catch or midstream urine specimens for urine cultures.
  - **iii.** Timed urine specimens.

C. Sputum Specimens:

- ☒ Sputum is the mucous secretion from the lungs, bronchi, and trachea.
- ☒ Clients need to cough to bring sputum up from the lungs, bronchi, and trachea unto the mouth in order to expectorate it into a collection container.
- ☒ Reasons for sputum specimens:
  - i. For culture and sensitivity.
  - ii. For cytology.

iii. For acid-fast bacillus.

- ☒ Sputum specimens are often collected in the morning.

D. Throat culture:

- ☒ A throat culture sample is collected from the mucosa of the oropharynx and tonsillar region using a culture swab.
- ☒ The sample is then cultured and examined for the presence of disease-producing microorganisms.

Procedure 3: Stool sample collection:

Equipment:

1. Specimen container with lid.
2. Gloves.
3. Two tongue blades.
4. Paper towel or paper bag.
5. Bedpan.
6. Lab request form.

Procedure steps

1. Explain the procedure to the patient.
2. Tell the patient to notify you when he has to defecate. Have him defecate into the specimen container.
3. If the patient is bed-ridden:
    a. Ask him to defecate into a clean, dry bedpan.
    b. Put on gloves.
    c. Using a tongue blade, transfer the most representative stool specimen from the bedpan to the container. If the patient passes blood, mucus, or pus with the stool, be sure to include this with the specimen.
    d. Wrap the tongue blade in a paper towel and discard it. Remove and discard your gloves, and wash your hands.

4. Record the time of specimen collection and transport to the laboratory. Note stool characteristics

Procedure 4: Collecting Random Urine Specimen:

Equipment's:

1. Bedpan or urinal with cover.
2. Gloves.
3. Specimen container.
4. Label.
5. Laboratory request form (LRF).

Procedure steps

1. Provide privacy.
2. Instruct the patient on bed rest to void into a clean bedpan or urinal (or ask the ambulatory patient to void into container in the bathroom).
3. Put on gloves. Then pour at least 120 ml of urine into the specimen container, and cap the container securely.
4. Label the specimen container with the patient's name and the date and time of collection.
5. Attach the request form and send it the laboratory immediately.
6. Clean the urinal or bedpan, and return them to their proper storage. Discard disposable items.
7. Wash your hands thoroughly and offer the patient a washcloth and soap and water to wash his hands.

Procedure 5: Obtaining a Clean-catch midstream specimen(uncontaminated):

Equipment:

1. Basin.
2. Soap and water.
3. Towel.
4. Gloves.
5. "2 X 2" gauze pads.
6. Iodine solution.
7. Sterile specimen container.
8. Label.
9. Bedpan or urinal.
10. LRF.

Procedure steps

1. Explain the procedure for the client.
2. Wash hands.
3. Provide privacy for the client.
4. Tell the patient to remove all clothing from the waist down and to clean the periurethral area (tip of the penis, and urinary meatus) with soap and water and wipe with a fresh 2" X 2" gauze pad soaked in iodine in circular motion.
5. Instruct the patient to begin voiding into the bedpan, urinal, or toilet. Then, without stopping the urine stream, the patient should move the collection container into the stream, collecting 30 to 50 ml at the midstream portion of the voiding. He can then finish voiding into the bedpan.
6. Put on disposable gloves.
7. Take the sterile container from the patient, and cap it securely. Remove gloves and discard them.
8. Wash your hands and tell the patient to wash his hands.
9. Label the container with name of test, type of specimen, collection time, and suspected diagnosis.
10. Attach request form and send the container to the lab.
11. Document the procedure.

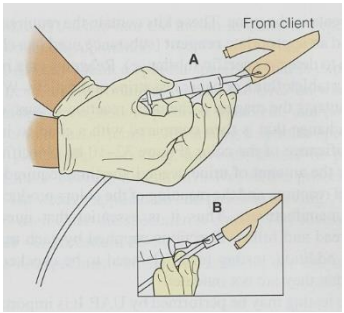
Procedure 6: Obtaining urine Sample from Indwelling Catheter:

Equipment's:

1. Gloves.
2. Alcohol.
3. 10-ml syringe.
4. Needle.
5. Tube clamp.
6. Sterile specimen container.
7. Label.

Procedure steps

1. Explain the procedure for the patient.
2. Provide privacy.
3. Wash hands.
4. About 30 minutes before collecting the specimen, clamp the drainage tube to allow urine to accumulate.
5. Put on gloves.
6. Collect the specimen:
    a. If the drainage tube has a built-in sampling port, wipe the port with an alcohol swap. Insert the needle on the sampling port and aspirate the specimen into the syringe.



    b. If the catheter has no sampling port, wipe the area where the catheter joins the drainage tube with an alcohol sponge. Disconnect the catheter allow urine to drain into the sterile specimen container. Wipe both connection sites with alcohols and join them.
7. Remove clamp after collecting the specimen.

8. Transfer the specimen to a sterile container, label it and send it to the laboratory immediately.
9. Document the procedure.

Procedure 7: Obtaining a Timed urine collection

Equipment's:

1. Large collection container with a cap.
2. Gloves.
3. Bedpan or urinal if patient doesn't have an indwelling catheter.
4. Graduated container if patient is on intake and output measurement.
5. Ice filled container if a refrigerator isn't available
6. Label.
7. Laboratory request form.

Procedure steps

1. Explain the procedure for the patient.
2. Provide privacy.
3. Wash hands.
4. **For 12- and 24-hour collection:**
    a. Put on gloves and ask the patient to void then Discard this urine (empty bladder) and record the time.
    b. After putting first urine specimen into the collection container, keep the container into ice until the next voiding.
    c. Collect all urine voided during the prescribed period.
    d. Before the collection period ends, ask the patient to void again.
5. Label the collection container and send it to the laboratory with laboratory request.
6. Documentation: record date and interval of specimen collection and time of container sending to the laboratory

Procedure 8: Sputum Sample Collection:

Equipment's:

1. Sterile specimen container with tighter cap.
2. Gloves (if necessary).
3. Laboratory request.
4. Distilled water.
5. Facial tissues.

Procedure steps

1. Explain the procedure.
2. Position the patient (sit in a chair or at the edge of the bed or high Fowler's position).
3. Ask the patient to rinse his mouth with water only to reduce contamination.
4. Tell him to cough deeply and expectorate directly into the specimen container.
5. Ask him to produce at least 15 ml of sputum, if possible.
6. Done gloves.
7. Close the container and, if necessary, clean it's from the outside.
8. Remove and discard your gloves, and wash your hands.
9. Label the container with the patient's name and number, doctor's name, date and time of collection, initial diagnosis, febrile or taking antibiotics.
10. Record the time and date of collection

Notes: Before sending the specimen to the lab, examine it to be sure it is actually sputum (not saliva).

Procedure 9: Collecting a Throat specimen:

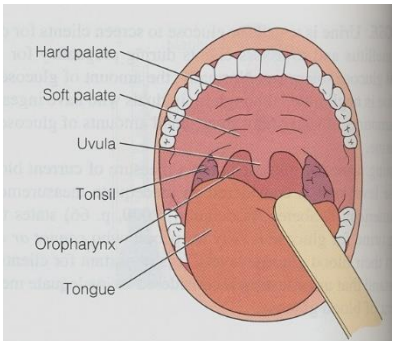
Equipment's:

1. Gloves.
2. Tongue blade.
3. Penlight.
4. Sterile cotton-tipped swab
5. Sterile culture tube.

6. Label.
7. Laboratory request form.

Procedure steps

1. Explain the procedure to the patient.
2. Instruct the patient to sit erect at the edge of the bed or in a chair, facing you.
3. Wash your hands and put on gloves.
4. Ask the patient to tilt his head back.



5. Depress his tongue with the tongue blade, and examine his throat with the penlight to check for inflamed areas.
6. If the patient starts to gag, withdraw the tongue blade and tell him to breathe deeply. When he's relaxed, reinsert the tongue blade but not as deeply as before.
7. Using the cotton-tipped swab, wipe the tonsillar areas from side to side, including any inflamed sites.
8. Make sure you don't touch the tongue, cheeks, or teeth with the swab to avoid contaminating it with oral bacteria.
9. Withdraw the swab and immediately place it in the culture tube.
10. Remove and discard your gloves and wash your hands.
11. Label the specimen with the patient's name and room number, the doctor's name, and the date, time, and site of collection.
12. Complete a laboratory request form, and send the specimen to the lab.
13. Document the care and the assessment result.

Unit Eleven

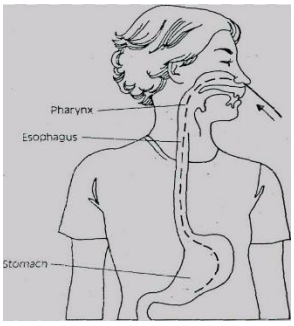
Enteral Nutrition

Content:

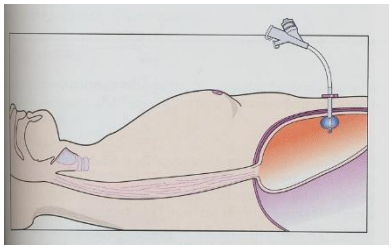
- **Introduction.**
- **Procedure 1: Inserting a Nasogastric Tube.**
- **Procedure 2: Removing a Nasogastric Tube.**
- **Procedure 3: Administering a Tube Feeding.**

Introduction:

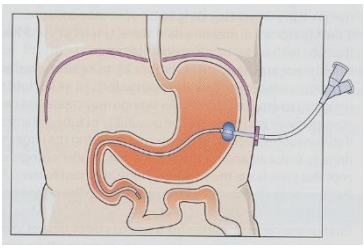
- Enteral means through the gastrointestinal system.
- Enteral nutrition is provided when the client is unable to ingest foods or the upper gastrointestinal tract is impaired and the transport of food to the small intestine is interrupted.
- Enteral feedings are administered through:
    1. Nasogastric tubes.
    2. Gastrostomy tubes.
    3. Jejunostomy tubes.



Nasogastric Tube



Gastrostomy Tube



Jejunostomy Tube

Procedure 1: Inserting a Nasogastric Tube:

Reasons for inserting a nasogastric tube:

1. To administer tube feeding and medications.
2. To suction stomach contents to prevent gastric distension, nausea, and vomiting.
3. To remove stomach content for laboratory analysis.
4. To lavage the stomach in case of poisoning or drug overdoses.

Determine:

1. The size of tube to be inserted.
2. Whether the tube is to be attached to suction.

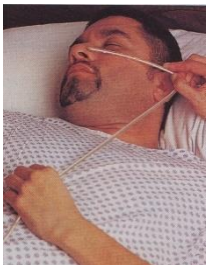
Equipment:

1. Nasogastric tube (appropriate size).
2. Water-soluble lubricant.
3. Tongue blade.
4. **Torch** Light.
5. Stethoscope.
6. Syringe 20- 50 ml with an adapter.
7. Tape.
8. Facial tissues.
9. Glass of water.
10. Suction apparatus.
11. Bath towel or disposable pad.
12. Safety pin and rubber band.
13. Clamp.
14. Emesis basin.

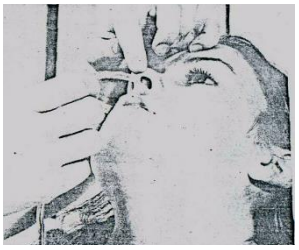
Procedure steps

1. Check the physician's order for inserting a nasogastric tube.
2. Explain the procedure.
3. If the NGT is rubber, place it in a basin with ice for 5 to 10 min (optional).

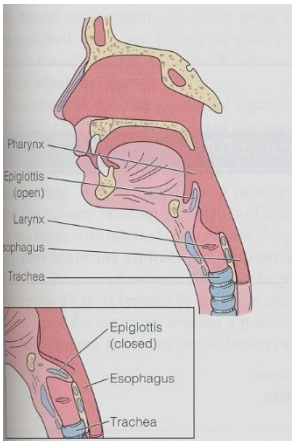
4. Wash your hands.
5. Provide privacy for the patient.
6. Assist the client to a high Fowler's position and drape his chest with a bath towel or disposable pad.



7. Check the nares for patency by asking the client to occlude one nostril and breathe normally through the other. Select the nostril through which air passes more easily.
8. Measure the distance to insert the tube by placing the tip of the tube at the client's nostril and extending it to the tip of the earlobe and the length of tubing needed to reach the client's stomach (xiphoid process).



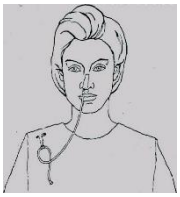
9. Lubricate the first 10 - 20 cm of the tube with water-soluble lubricant.
10. Ask the client to lift his head, and insert the tube into the nostril while directing the tube downward and backward.
11. Instruct the client to bring his head forward. Advance the tube in a downward and backward direction. Swallowing or drinking water through a insertion may be helpful.



12. Check placement of the tube with a tongue blade and flashlight.
13. Keep advancing the tube until the tape marking is reached. Do not use force. Rotate the tube if it meets resistance.

14. Remove the tube if patient develop coughing, cyanosis, & inability to speak.
15. Determine that the tube is in the client's stomach:
    a. Aspirate 10-20 cc by the syringe (green to yellow materials)
    b. Inserts **10-20 cc** of air in the tube and listens to the sound in the stomach area. If sounds not heard in epigastria area so the tube is out.

16. Secure the tube to the client's face with tape:
    a. Cut a piece of tape and split the bottom 2 inches.
    b. Place the unsplit end over the bridge of the nose.
    c. Wrap the split ends around the tubing.
17. Attach the tube to suction or clamp the tube (according to the purpose).
18. Secure the tube to the client's gown by using a rubber band or tape and a safety pin.



19. Wash hands.
20. Remove all equipment, and make the client comfortable.
21. Record the insertion procedure, type and size of tube, description of gastric contents, and the client's response.

Procedure 2: Removing a Nasogastric Tube:

Equipment:

1. Disposable pad.
2. Tissues.
3. Disposable gloves.
4. 50-mL syringe (optional).
5. Plastic disposable bag.

Procedure steps:

1. Confirm the physician's order to remove the tube.
2. Explain the procedure.

3. Wash your hands.
4. Provide privacy for the patient.
5. Assist the client to a sitting position, if health permits.
6. Detach the tube:
    a. Disconnect the nasogastric tube from the suction apparatus, if present.
    b. Unpin the tube from the client's gown.
    c. Remove the adhesive tape securing the tube to the nose.
7. Remove the nasogastric tube:
    a. Put on disposable gloves.
    b. Ask the client to take a deep breath and to hold it.
    c. Quickly and smoothly, withdraw the tube.
    d. Place the tube in the plastic bag.
8. Documentation.

Procedure 3: Administering a Tube Feeding:

Equipment:

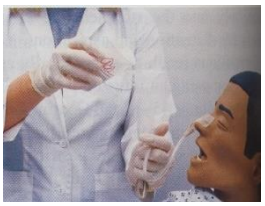
1. Formula.
2. Stethoscope.
3. 50 cc syringe or **Tomy's feeding syringe**
4. Feeding bag, or pre-filled tube feeding set.
5. Clamp.
6. Disposable pad or towel.
7. Water.
8. Gauze square.
9. Rubber band.

Procedure steps

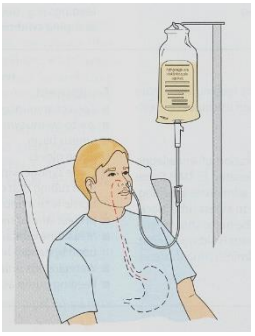
1. Check the physician's order for removing a nasogastric tube.
2. Explain the procedure.
3. Position the client with the head of the bed elevated at least 30 degrees or normal position for eating as possible.
4. Check to see that the gastric tube is properly located in the stomach:
    a. Aspirate 10-20 cc by the syringe (green to yellow materials).

b. Inserts **10-20 cc** of air in the tube and listens to the sound in the stomach area. If sounds not heard in epigastria area so the tube is out.

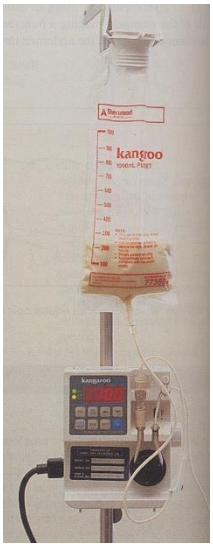
5. When syringe is used:



a. Remove the bulb from the syringe and attach the syringe to the nasogastric tube which is closed by fingers or clamp. Fill the syringe, release the tubing, and introduce the prescribed amount slowly (by gravity).
b. Hold the syringe approximately 12 inches above the stomach level.
c. Do not let the syringe empty while introducing the formula.
d. Introduce 30 ml to 60 ml of water into the tube after the formula is completely introduced.
e. Clamp the gastric tube when water fills the tubing. Disconnect the syringe and cover the end of the tubing with gauze secured with a rubber band.



6. When using a feeding bag:
   a. Hang the bag on an IV stand and adjust to about 12 inches above the stomach. Clamp the tubing, and pour the formula into the bag. Release the clamp enough to allow the formula to run through the tubing.
   b. Attach the tubing to the nasogastric tube, open the clamp, and regulate the drip according to the physician's order.



Feeding Pump Machine

c. Add 30 ml to 60 ml of water to the feeding bag when the feeding is almost completed, and allow it to run through the tube.
d. Clamp the tubing immediately after the water has been completed.
e. Disconnect the feeding bag from the nasogastric tube. Clamp the nasogastric tube and cover the end with gauze secured with a rubber band.

7. Wash and clean equipment and your hands.
8. Record the type and amount of feeding and the client's response.

Unit Twelve

Fecal Elimination

Content:

- **Procedure 1: Administering an Enema.**

Procedure 1: Administering an Enema:

- An **enema** is a solution introduced into the rectum and large intestine.

- The action of an enema is to distend the intestine and sometimes to irritate the intestinal mucosa, thereby increasing peristalsis and the excretion of feces and flatus.

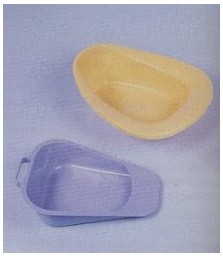
- Enemas are chiefly given for:
    1. Prepare the intestine for certain diagnostic tests (colonoscopy).
    2. In case of constipations.
    3. To expel gases.

- A variety of solutions are used for enema. Commonly used solutions are:
    1. Hypertonic: e.g. sodium phosphate, 90-120ml of solution is used.
    2. Hypotonic: 500-1000ml tap water.
    3. Isotonic: 500-1000ml of normal saline (0.9% sodium chloride).
    4. Soapsuds: 500-1000ml (3-5ml soap to 1000ml water.
    5. Oil: 90-120ml.

Equipment:

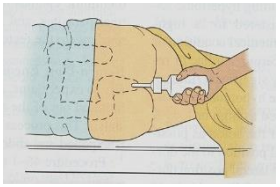
1. Enema set (bag and rectal tube).
2. Water-soluble lubricant.
3. Additives (soap, salt if ordered).
4. Solution as ordered by physician.
5. Draw sheet.

6. Bedpan and toilet tissue.
7. IV pole.
8. Disposable gloves.
9. Paper towel.
10. Washcloth.
11. Soap.
12. Towel.

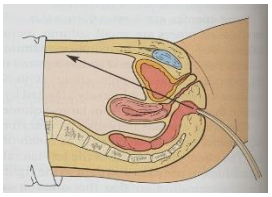


Procedure steps:

1. Assemble the necessary equipment.
2. Warm solutions in amount ordered. (for adult 40°-43°C, for children 37.7°C).
3. Explain the procedure to the patient and plan where he or she will defecate.
4. Have a bedpan or nearby bathroom ready for use.
5. Wash your hands.
6. Add enema solution to container. Release the clamp and allow fluid to progress through tube before reclamping.
7. Position draw sheet under the patient.
8. Provide for patient's privacy.
9. Position the patient on the left side (Sims' position) , extend his left leg and flex his upper leg.



10. Put on disposable gloves.
11. Hang the container on an IV pole.
12. Elevate the solution so that it is 45 cm above the level of the patient's anus.
13. Lubricate the end of the rectal tube for 5 to 7 cm.
14. Lift the buttock to expose the anus.
15. Slowly and gently, insert the rectal tube 7 to 10 cm. Direct it at an angle pointing toward the umbilicus.



16. If the tube meets resistance while inserting it, permit a small amount of solution to enter, withdraw the tube slightly and then continue to insert it. Do not force entry of the tube. Ask the patient to take several deep breaths.

17. Introduce the solution slowly.
18. Commercial preparations may be administered by compressing container with hands, according to package.
19. Clamp the tubing or lower the container if the patient has the desire to defecate or cramping occurs.
20. After solution has been given, clamp the tubing and remove the tube. Have paper towel ready to receive tube as it is withdrawn.
21. Have the patient keep the solution until the urge to defecate becomes strong, usually in about 5 to 15 minutes.
22. Remove disposable gloves.
23. Place patient in a sitting position on a bedpan or assist to a commode or to the bathroom.
24. Document the procedure.

Unit Thirteen

Urinary Elimination

- **Procedure 1: Applying an External Catheter (Condom).**
- **Procedure 2: Performing Urinary Catheterization.**
- **Procedure 3: Removing foley's catheter.**

Procedure 1: Applying an External Catheter (Condom):

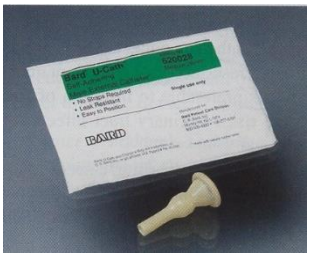
- The application of condom or external catheter connected to a urinary drainage system is commonly prescribed for incontinent males.

- Use of condom is preferable to insertion of a Foley's catheter because the risk of urinary infection is minimal.

Purposes:

1. To collect urine and control incontinence.
2. To prevent skin irritation as a result of urine incontinence.

Equipment:

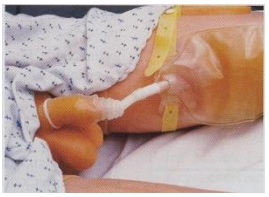


1. Condom sheath in appropriate size.
2. Basin of warm water and soap.
3. Washcloth and towel.
4. Bath blanket.
5. Disposable gloves
6. Velcro strap.
7. Urinary drainage.

Procedure steps

1. Explain the procedure to the patient.
2. Assemble the equipment.
3. Prepare urinary drainage setup.

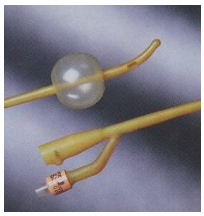
4. Wash your hands.
5. Assist the patient to the supine position.
6. Provide privacy.
7. Use the bath blanket and sheet to expose only the patient's genital area.
8. Wear disposable gloves.
9. Wash the genital area with soap and water, rinse, and dry thoroughly.
10. Roll the condom sheath outward onto itself.
11. Grasp the penis firmly with your non-dominant hand. Apply the condom sheath by rolling it onto the penis with your dominant hand. Leave 2.5- to 5-cm space between the tip of the penis and the end of the condom sheath.



12. Apply the elastic strap in a snug but not tight manner. Do not allow it to come in contact with the skin.
13. Documentation.

Procedure 2: Performing Urinary Catheterization:

- Urinary catheterization is the introduction of a catheter through the urethra into the urinary bladder. Strict sterile technique is used for catheterization in order to prevent infection.



- Foley catheter is a double-lumen catheter. The larger lumen drains urine from the bladder. A second smaller lumen is used to inflate a balloon near the tip of the catheter to hold the catheter in place within the bladder.

- A three-way Foley catheter has a third lumen through which sterile irrigating fluid can flow into the bladder.
- Catheters are connected to a closed system. This system consists of the catheter, drainage tubing, and a urine bag.

Purposes:

1. To relieve discomfort due to bladder distension.
2. To assess the amount of residual urine if the bladder empties incompletely.
3. To obtain a urine specimen.
4. To empty the bladder completely prior to surgery.
5. To manage incontinence when other measures have failed.

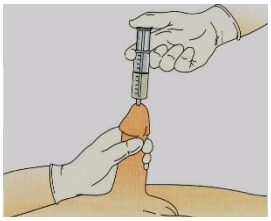
Equipment:

1. Sterile catheterization kit:
    a. Sterile gloves.
    b. Drapes.
    c. Antiseptic solution.
    d. Lubricant in 10ml syringe.
    e. Cotton balls or gauze squares.
    f. Forceps.
    g. Straight or indwelling catheter.
    h. Pre-filled syringe with saline / **distilled water.**
2. Adhesive tape.
3. Draw sheet.
4. Urine collection bag.

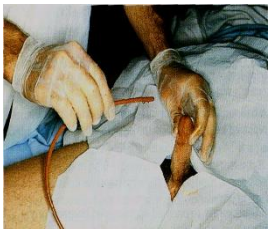
Procedure steps

1. Wash hand.
2. Explain procedure.
3. Provide good light & privacy.
4. Position the patient on his back with the thighs slightly separated.
5. Drape the patient so that only the area around the penis is exposed.
6. Clean the genital area and perineal area with warm soap and water. Rinse and dry. Wash your hand.
7. Prepare the urine drainage.
8. Open the sterile kit over table using sterile technique.
9. Pour antiseptic solution over cotton balls or gauze.
10. Put on sterile gloves.
11. Open the sterile drape and place it on the patient's thighs.

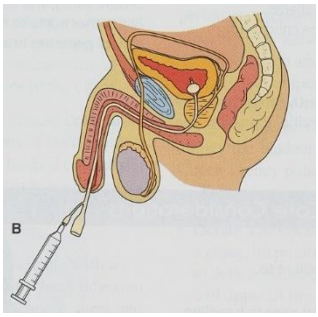
12. Place the catheter set on or next to the patient's legs on the sterile drape.
13. Test the catheter balloon. Attach the syringe pre-filled with sterile water to the injection port. Inject appropriate amount of fluid. If balloon inflates properly, withdraw fluid and leave syringe attached to port.
14. Remove the cap from the syringe pre-filled with lubricant.
15. Lift the penis with your non-dominant hand (which is then considered contaminated). Clean the area at the meatus with a cotton ball held with a forceps. Use circular motion, moving from the meatus toward the base of the penis for three cleansings.

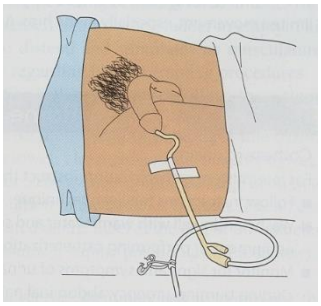


16. Hold the penis with slight upward .Gently insert the tip of the syringe with lubricant into the urethra and install the 10ml of lubricant. Or lubricate catheter from the outside.
17. Insert the tip into the meatus. Advance the catheter 15 to 20 cm in or until urine flows. If the catheter resists entry, ask the patient to breathe deeply and rotate the catheter slightly.



18. Inflate the catheter with the syringe attached.
19. Secure catheter to the upper thigh or lower abdomen.
20. Remove the equipment and make the patient comfortable in bed.
21. Wash your hands.
22. Record the time of the catheterization, the amount of urine removed.





Procedure 2.1 to set urinary catheterization in females :

Purposes:

6. To relieve discomfort due to bladder distension.
7. To assess the amount of residual urine if the bladder empties incompletely.
8. To obtain a urine specimen.
9. To empty the bladder completely prior to surgery.
10. To manage incontinence when other measures have failed.

Equipment:

1. Sterile catheterization kit:
    a. Sterile gloves.
    b. Drapes.
    c. Antiseptic solution.
    d. Lubricant in 10ml syringe.
    e. Cotton balls or gauze squares.
    f. Forceps.
    g. Straight or indwelling catheter.
    h. Pre-filled syringe with saline / **distilled water.**
2. Adhesive tape.
3. Draw sheet.
4. Urine collection bag.

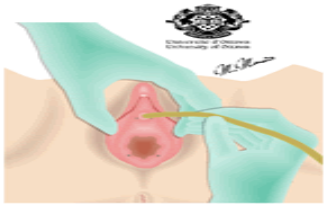
Procedure steps

1. Explain the procedure to the patient
2. Assess the condition of the patient
3. Collect the history from the patient whether she has any latex allergy
4. Provide privacy to the patient
5. Do not expose the patient and assist into supine position with legs extended and cover patient's genital area
6. Prior to commencement for procedure, if applicable ensure patient has washed genital area using soap and water and assist, if necessary, wearing non-sterile gloves
7. Arrange needed equipment near the bedside
8. Place the mackintosh or under pad under the patient's buttocks
9. Wash hands using bactericidal soap and water or bactericidal alcohol hand rub

10. Wear sterile gloves (both pairs)

11. Place sterile towels in patient's thighs and under buttocks in transversely and expose genital area

12. With thumb and one finger of your non-dominant hand, spread labia and identify meatus; be prepared to maintain separation of labia with one hand until urine is flowing well and continuously easy



13. Using cotton balls held with forceps, clean around the urethral orifice with 0.9% sodium chloride or an antiseptic solution by using single downward stokes

14. Instil (3–6 mL) anesthetic gel into urethral meatus; allow sufficient time for 5 minutes (time for anesthetic gel to take effect)

15. Pick up sterile catheter with dominant hand, holding it by its inner wrapper and expose tip of catheter, the remaining length should lie in the container, which should be placed between the patient's legs

16. Gently insert the catheter into the meatus and pass along the urethra until urine flows

17. Inflate the balloon with sterile according to the manufacture's direction and ensured that the catheter is draining properly beforehand; attach

18. Make the patient comfortable; ensure the area is dry

19. Measure the amount of urine and record drainage

20. Dispose all the used items as per institutional policy

21. Wash your hands.

22. Record the time of the catheterization, the amount of urine removed.

Procedure 3: Removing foley's catheter:

Equipment:

1. Gloves.
2. Syringe.
3. Cotton

Procedure steps:

1. Wash your hands.
2. Assemble the equipment at the patient's bedside.
3. Explain the procedure.
4. Put on gloves.
5. Attach the syringe to the balloon inflation opening on the catheter.
6. Deflates the balloon by aspirating the injected fluid.
7. Grasp the catheter with the absorbent cotton, inform client to take deep breath, and gently pull it from the urethra.
8. Measure and record the amount of urine in the collection bag before discarding it.
9. Discard the Foley's, gloves, cotton, and syringe in proper way.
10. Document care and assessment result.

Unit Fourteen

Wound Care

Content:

- **Introduction.**
- **Procedure 1: Cleaning a wound and applying a sterile dressing.**
- **Procedure 2: Irrigate (washing) and packing wound.**
- **Procedure 3: Collecting a Wound Culture.**

Introduction:

- Dressings are applied for the following purposes:
    1. To protect the wound from mechanical injury.
    2. To protect the wound from microbial contamination.
    3. To absorb drainage or debride a wound or both.

Procedure 1: Cleaning a wound and applying a sterile dressing:

- Wound cleaning involves the removal of debris (i.e. foreign materials, necrotic tissues, bacteria and other microorganisms).

- When dressings are changed, the nurse assesses the wound for appearance, size, drainage, swelling, pain, and the status of the drain or tubes.

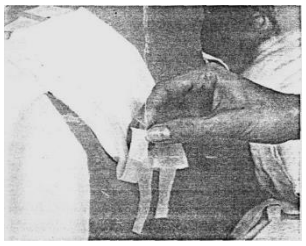
Equipment:

1. Sterile gloves.
2. Gauze dressings or squares.
3. Sterile dressing set or suture set.
4. Cleaning solutions (povidine-iodine, 70% alcohol, 3% hydrogen peroxide, and normal saline).
5. Clean disposable gloves.
6. Sterile drape (optional).
7. Plastic bag for soiled dressings.

8. Drawsheet.
9. Bath blanket.
10. Tape or ties, assorted dressings.

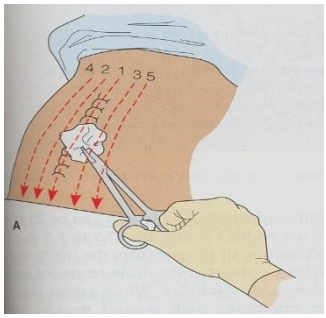
Procedure steps

1. Check the physician's order.
2. Explain the procedure to the patient.
3. Gather the equipment and wash your hands.
4. Provide privacy; Close the door. Use a bath blanket as needed when exposing the area to be redressed.
5. Position drawsheet under the patient.
6. Assist the patient to a comfortable position.
7. Place an opened, cuffed, plastic bag near the working area.
8. Loosen the tape on the dressing.
9. Don a clean, disposable glove and remove soiled dressings carefully. (Be aware of the drain).

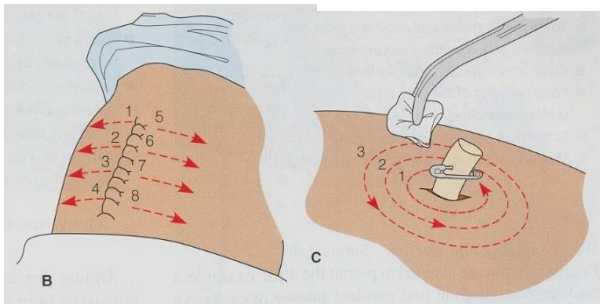


10. Assess amount, type, & odor of drainage & discard the dressing in disposable bag.
11. Using aseptic technique, open the sterile dressings and supplies on the work area.
12. Open the sterile cleansing solution and pour it in sterile basin. Don sterile gloves.
13. Clean the wound or surgical incision as in the following descriptions.
    a. Clean from top to bottom on the center or from the center outward.

b. Use one piece of gauze for each wipe, discard it by dropping it into the plastic bag. Do not touch the bag with the forceps.
c. Clean around a drain, if present, moving from the center outward in a circular motion. Use one piece of gauze for each circular motion.



d. Dry the wound using gauze in the same motion.



14. Apply a layer of dry, sterile dressing over the wound. Or apply moist gauze as a single layer directly onto wound surface. If wound is deep, gently pack gauze into wound with forceps until all wound surfaces are in contact with moist gauze.
15. Place sterile gauze under and around the drain if one is present.
16. Apply a second gauze layer to the wound site.
17. Place gauze dressing or tap over the wound.
18. Remove the gloves and apply tape.
19. Wash your hands. Remove all the equipment and make the patient comfortable.
20. Record the dressing change and appearance of the wound, and describe any drainage in the chart.

Procedure 2: Irrigate (washing) and packing wound:

- An irrigating (lavage) is the washing or flushing of an area.

- Frequently used irrigation solutions are sterile normal saline, lactated Ringer's solution, and antibiotic solutions.

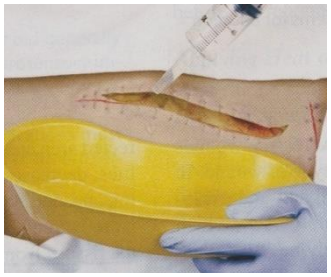
Equipment:

1. Basin.
2. Container.
3. Syringe.
4. Sterile gloves.
5. Irrigating solution (warmed to body temperature or 34° C to 37°C).
6. Clean disposable gloves.
7. Sterile dressing set or suture set.
8. Draw sheet.
9. Packing gauze (as specified by physician).
10. Bath blanket.
11. Tape.

Procedure steps

1. Explain the procedure to the patient.
2. Gather the equipment and Wash your hands.
3. Provide privacy; Close the door or curtain. Use a bath blanket as needed when exposing the wound site.
4. Position the patient so the irrigating solution will flow from the upper end of the wound toward the lower end. Place a drawsheet under the patient.
5. Place an opened, cuffed plastic bag near the working area.
6. Don a gown if recommended.
7. Loosen the tape on the dressing and put on a clean glove to remove soiled dressings and packing.
8. Assess the amount, type, odor of drainage, and condition of the wound.

9. Discard the dressings in the plastic disposal bag.
10. Wash your hands.
11. Using aseptic technique, open sterile dressings and supplies on a work area.
12. Pour warmed sterile irrigating solution into a sterile container. The amount may vary from 200 ml to 500 ml depending on the size and depth of the wound.
13. Don sterile gloves.
14. Hold the sterile basin with the non-dominant hand below the wound to collect the irrigation fluid.



15. Use the dominant hand to fill a syringe with irrigant. Gently direct a stream of solution into the wound keeping the tip of the syringe 2.5 cm above the upper area.
16. Continue the irrigation until the solution returns clear.
17. Use sterile forceps to gently insert sterile packing into the wound. Be careful not to pack the wound excessively. Cut the packing, if necessary, with sterile scissors. Allow a small strip of packing to protrude from the wound for easier removal.
18. Dry the area around the wound with sterile gauze.
19. Apply sterile dressing material. Remove the gloves and apply tape.
20. Wash your hands. Remove all equipment.
21. Make the patient comfortable.
22. Record length and depth of wound, irrigation, wound and drainage description.

Procedure 3: Collecting a Wound Culture:

Equipment:

1. Sterile culture tube with enclosed swab and Label.
2. Sterile gloves.

3. Clean disposable gloves.
4. Plastic bag for soiled dressing.
5. Laboratory requisition with rubber band or plastic bag.

Procedure steps:

1. Explain the procedure to the patient.
2. Gather equipment. Wash your hands.
3. Don clean disposable gloves.
4. Remove the dressing and assess wound drainage .
5. Using aseptic technique, don sterile gloves and cleanse the wound.
6. Twist the cap from the culture tube to loosen the swab or open separate swabs and remove the cap from the culture tube, keeping the inside uncontaminated.
7. Carefully insert the swab into the drainage, and roll it gently. Use another swab if collecting a specimen from another site.
8. Place the swab in the culture tube, being careful not to touch the outside of the container. Twist the cap to secure.
9. Remove gloves and Wash your hands.
10. Apply a clean dressing to the wound.
11. Wash your hands.
12. Remove all equipment and make the patient comfortable.
13. Label the specimen container appropriately with the patient's name, date, time, nature of the specimen.
14. Attach a laboratory requisition slip to the tube with a rubber band or place the tube in a plastic bag with the requisition attached. Send to the laboratory within 20 minutes.
15. Record the collection of the specimen, description of the wound & drainage.

Clinical Skills in Patient Care
Unit One
Medical Asepsis

Procedure 1: Hand Washing

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
1.	Determine the location of running water and soap.			5.1
2.	Prepare equipment: • Soap. • Warm running water. • Disposable towels.			5.1
3.	Assess hands for: • Nails should be short. • Remove all jewelry. • Check hands for breaks in skin.			5.2
	Procedure			
1.	Turn on water and adjust the flow, water should be warm.			5.1
2.	Wet hands thoroughly by holding them under the running water, and apply soap to hands. • Hold hands below the elbows.			5.1
3.	Wash and rinse the hands. • Use firm, rubbing and circular movements to wash the palm, back and write of each hand. • Interlace the fingers and thumbs and move the hands back and forth. • Rub the fingertips against the palm of the other hand. • Rinse the hands. **3 points**			5.1
4.	Dry the hands and arms using a paper towel.			5.1
5.	Use another paper towel to turn off the water source.			5.1

Result:

CLO	Student Performance		
5.1	……./9		
5.2	……./1	**Final Result**	**……./10**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit One
Medical Asepsis

Procedure 2: Donning and Removing Personal Protective Equipment

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	No	
1.	Prepare equipment: • Gown. • Mask. • Head cover. • Overshoes. • Clean gloves.			5.1
2.	Assess hands for: • Nails should be short. • Remove all jewelry. • Check hands for breaks in skin.			5.2
	Procedure			
1.	Explain to client what you are going to do.			5.1
2.	Wash hand.			5.2
3.	Don clean gown: • Pick up a clean gown and unfold it in front of you. • Slides the hands and arms through the sleeves. • Fasten the ties at the neck. • Overlap the gown at the back as much as possible, and fasten the waist ties. **3 points**			5.1
4.	Don the face mask: • Locate the top edge of the mask. The mask has a narrow metal strip at the edge. • Place the upper edge of the mask over the bridge of the nose. • Tie the upper ties at the back of the head. • Secure the lower edge of the mask under the chin, and tie the lower ties at the nap of the neck. • Adjust the metal strip firmly over the nose bridge. **3 points**			5.1
5.	Don clean disposable gloves: • Pull the gloves up to cover the cuffs of the gown.			5.1
6.	Remove the gloves first, since they are the most soiled: • Remove the first glove by grasping it on its palmer surface just below the cuff, taking care to touch only glove to glove. • Pull the first glove completely off by inverting or rolling the glove inside out. • Continue to hold the inverted removed glove by the fingers of the remaining gloved hand.			5.1

	• Place the first two fingers of the bare hand inside the cuff of the second glove. • Pull the second glove off to the fingers by turning it inside out. This pulls the first glove inside the second glove. **3 points**			
7.	Wash your hands.			5.2
8.	Remove the mask: • If using a mask with strings: o First untie the lower strings of the mask. o Untie the top strings . o Remove the mask from the face. • If side loops are present: o Lift the side loops up and away from the ears and face. • Discard a disposable mask in the appropriate container.			5.1
9.	Remove the gown when preparing to leave the room: • If a gown is grossly soiled: o Avoid touching soiled parts on the outside of the gown, if possible. o Grasp the gown along the inside of the neck and pull down over the shoulders. o Roll up the gown with the soiled part inside, and discard it in the appropriate container. **2 points**			5.1

Result:

CLO	Student Performance		
5.1	……./15		
5.2	……./3	**Final Result**	**……./18**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Two
Bed Making

Procedure 1: Changing an Unoccupied Bed

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
1.	Prepare equipment: • Two flat sheets, or one fitted and one flat sheet. • Cloth drawsheet (optional). • One blanket. • One bedspread. • Waterproof drawsheet . • Pillowcases for the head pillows. • Plastic laundry bag or portable linen hamper, if available.			5.1
	Procedure			
1.	Explain the procedure for the client.			5.1
2.	Wash hands.			5.2
3.	Provide privacy for the client.			5.1
4.	Place the fresh linen on the client's chair or overbed table; do not use another client's bed.			5.1
5.	Assess and assist the client out of bed.			5.1
6.	Strip the bed. • Check bed linens for any items belonging to the client, and detach the call bell or any drainage tubes from the bed linen. • Loosen all bedding systematically. • Remove the pillowcases, if soiled, and place the pillows on the bedside chair near the foot of the bed. • Fold reusable linens, such as the bedspread and top sheet on the bed, into fourths. • Remove the waterproof pad and discard it. • Roll all soiled linen inside the bottom sheet, hold it away from your uniform, and place it directly in the linen hamper. • Move the mattress up to the head of the bed. **3 points**			5.1
7.	Apply the bottom sheet and drawsheet: • Place the folded bottom sheet with its center fold on the center of the bed. • Spread the sheet out over the mattress. • Miter the sheet at the top corner on the near side and tuck the sheet under the mattress, working from the head of the bed to the foot.			5.1

	• If a waterproof drawsheet is used, place it over the bottom sheet. • Lay the cloth drawsheet over the waterproof sheet. **3 points**			
8.	Move to the other side and secure the bottom linens. • Tuck in the bottom sheet under the head of the mattress, pull the sheet firmly, and miter the corner of the sheet. • Pull the remainder of the sheet firmly so that there are no wrinkles. • Complete this same process for the drawsheet(s). **2 points**			5.1
9.	Apply or complete the top sheet, blanket, and spread: • Place the top sheet on the bed so that its center fold is at the center of the bed and the top edge is even with the top edge of the mattress. • Unfold the sheet over the bed. • Follow the same procedure for the blanket and the spread, but place the top edges about 15 cm (6 in) from the head of the bed. • Tuck in the sheet, blanket, and spread at the foot of the bed, and miter the corner, using all three layers of linen. • Leave the sides of the top sheet, blanket, and spread hanging freely. • Fold the top of the top sheet down over the spread, providing a cuff. **3 points**			5.1
10.	Put clean pillowcases on the pillows as required.			5.1

Result:

CLO	Student Performance		
5.1	……./17		
5.2	……./1	**Final Result**	**……./18**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Two
Bed Making

Procedure 2: Making an Surgical Bed

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	No	
1.	Prepare equipment: • Two flat sheets, or one fitted and one flat sheet. • Cloth drawsheet (optional). • One blanket. • One bedspread. • Waterproof drawsheet . • Pillowcases for the head pillows. • Plastic laundry bag or portable linen hamper, if available.			5.1
	Procedure			
1.	Wash hands.			5.2
2.	Place the fresh linen on the client's chair or overbed table; do not use another client's bed.			5.1
3.	Strip the bed • Check bed linens for any items belonging to the client, and detach the call bell or any drainage tubes from the bed linen. • Loosen all bedding systematically. • Remove the pillowcases, if soiled, and place the pillows on the bedside chair near the foot of the bed. • Fold reusable linens, such as the bedspread and top sheet on the bed, into fourths. • Remove the waterproof pad and discard it. • Roll all soiled linen inside the bottom sheet, hold it away from your uniform, and place it directly in the linen hamper. • Move the mattress up to the head of the bed. **3 points**			5.1
4.	Place and leave the pillows on the bedside chair.			5.1
5.	Apply the bottom sheet and drawsheet: • Place the folded bottom sheet with its center fold on the center of the bed. • Spread the sheet out over the mattress. • Miter the sheet at the top corner on the near side and tuck the sheet under the mattress, working from the head of the bed to the foot. • If a waterproof drawsheet is used, place it over the bottom sheet. • Lay the cloth drawsheet over the waterproof sheet. **3 points**			5.1
6.	Move to the other side and secure the bottom linens.			5.1

	• Tuck in the bottom sheet under the head of the mattress, pull the sheet firmly, and miter the corner of the sheet. • Pull the remainder of the sheet firmly so that there are no wrinkles. • Complete this same process for the drawsheet(s). **2 points**			
7.	Apply or complete the top sheet, blanket, and spread: • Place the top sheet on the bed so that its center fold is at the center of the bed and the top edge is even with the top edge of the mattress. • Unfold the sheet over the bed. • Follow the same procedure for the blanket and the spread, but place the top edges about 15 cm (6 in) from the head of the bed. • Do not tuck them in, miter the corners **3 points**			5.1
8.	Make a cuff at the top of the bed.			5.1
9.	Fold the top linens up from the bottom.			5.1
10.	On the side of the bed where the client will be transferred, fold up the two outer corners of the top linens so they meet in the middle of the bed forming a triangle.			5.1
11.	Pick up the apex of the triangle, and fanfold the top linens lengthwise to the other side of the bed.			5.1
12.	Leave the bed in high position with the side rails down.			5.1
13	Bed making is not normally recorded.			5.1

Result:

CLO	Student Performance		
5.1	……./20		
5.2	……./1	**Final Result**	**……./21**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Two
Bed Making

Procedure 3: Changing an Occupied Bed

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
1.	Prepare equipment: • Two flat sheets, or one fitted and one flat sheet. • Cloth drawsheet (optional). • One blanket. • One bedspread. • Waterproof drawsheet . • Pillowcases for the head pillows. • Plastic laundry bag or portable linen hamper, if available.			5.1
	Procedure			
1.	Explain the procedure for the client.			5.1
2.	Wash hands.			5.2
3.	Provide privacy for the client.			5.1
4.	Place the fresh linen on the client's chair or overbed table; do not use another client's bed.			5.1
5.	Remove the top bedding: • Remove any equipment attached to the bed linen, such as a signal light. • Loosen all the top linen at the foot of the bed, and remove the spread and the blanket. • Leave the top sheet over the client, or replace it with a bath blanket. **2 points**			5.1
6.	Change the bottom sheet and drawsheet: • Assist the client to turn on the side facing away from the side where the clean linen is. • Raise the side rail nearest the client. If there is no side rail, have another nurse support the client at the edge of the bed. • Loosen the foundation of the linen on the side of the bed near the linen supply. • Fanfold the drawsheet and the bottom sheet at the center of the bed, as close to the client as possible. • Place the new bottom sheet on the bed, and vertically fanfold the half to be used on the far side of the bed as close to the client as possible. • Tuck the sheet under the near half of the bed, and miter the corner. • Place the clean drawsheet on the bed with the center fold at the center of the bed. Fanfold the uppermost half vertically at the			5.1

	center of the bed, and tuck the near side edge under the side of the mattress. • Assist the client to roll over toward you onto the clean side of the bed. • Move the pillows to the clean side for the client's use. • Raise the side rail before leaving the side of the bed. • Move to the other side of the bed, and lower the side rail. • Remove the used linen and place it in the portable hamper. • Unfold the fanfolded bottom sheet from the center of the bed. • Facing the side of the bed, use both hands to pull the bottom sheet so that it is smooth, and tuck the excess under the side of the mattress. • Unfold the drawsheet fanfolded at the center of the bed and pull it tightly with both hands. • Tuck the excess drawsheet under the side of the mattress. **6 points**			
7.	Reposition the client in the center of the bed.			5.1
8.	Apply or complete the top bedding: • Spread the top sheet over the client, and either ask the client to hold the top edge of the sheet or tuck it under the shoulders. • The sheet should remain over the client when the bath blanket or used sheet is removed. • Complete the top of the bed. **2 points**			5.1
9.	Ensure the continued safety of the client: • Raise the side rails. • Place the bed in the low position before leaving the bedside. • Attach the signal cord to the bed linen within the client's reach. • Put items used by the client within easy reach. **2 points**			5.2

Result:

CLO	Student Performance		
5.1	……./15		
5.2	……./3	**Final Result**	**……./18**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Three
Surgical Asepsis

Procedure 1: Establishing and Maintaining a Sterile Field

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
1.	Determine: What procedure will be performed that requires sterile technique.			2.1
2.	Assemble equipment and supplies: • Package containing a sterile drape. • Sterile equipment as needed.			5.1
3.	Confirm sterility of package(s): • **I**nsure that the package is clean and dry. • Check the sterilization expiration dates on the package. • Look for any indications that it has been previously opened.			5.2
	Procedure			
1.	Explain to the client what you are going to do.			5.1
2.	Wash hands.			5.2
3.	Provide for client privacy.			5.1
4.	Open the package: • If the package is inside a plastic cover, remove the cover. • To Open a Wrapped Package on a Surface: o Place the package in the center of the work area so that the top flap of the wrapper opens away from you. o Pinch the first flap on the outside of the wrapper between the thumb and index finger. Pull the flap open. o Repeat for the side flaps. o Pull the fourth flap toward you. o Make sure that the flap does not touch any object. • To Add Wrapped Supplies to a Sterile Field: o Hold the package in one hand with the top flap opening away from you. o Using the other hand, open the package as described above, pulling the corners of the flaps well back. o With the free hand, grasp the corners of the wrapper, and hold them against the wrist of the other hand. o Place the sterile bowl, drape, or other supply on the sterile field by approaching from an angle, rather than holding the arm over the field. o Discard the wrapper. • Adding Commercially Packaged Supplies to a Sterile Field			5.1

	○ If the flap of the package has an unsealed corner, hold the container in one hand and pull back on the flap with the other hand. ○ If the package has a partially sealed edge, grasp both sides of the edge, one with each hand, and pull apart gently. ○ Hold the package 15 cm (6 in) above the field, and allow the contents to drop on the field. ○ Keep in mind that 2.5 cm (1 in) around the edge of the field is considered contaminated. • Adding Solution to a Sterile Bowl: ○ Before pouring any liquid, read the label three times to make sure you have the correct solution and concentration (strength). ○ Remove the lid or cap from the bottle and invert the lid before placing it on a surface that is not sterile. ○ Hold the bottle at a slight angle. ○ Hold the bottle of fluid at a height of 10–15 cm (4–6 in) over the bowl and to the side of the sterile field, so that as little of the bottle as possible is over the field. ○ Pour the solution gently. **4 points**			
5.	Use sterile forceps to handle sterile supplies: ○ Keep the tips of wet forceps lower than the wrist at all times, unless you are wearing sterile gloves. ○ Hold sterile forceps above waist level. ○ Hold sterile forceps within sight. ○ When using forceps to lift sterile supplies, be sure that the forceps does not touch the edges or outside of the wrapper. ○ When forceps handles come in contact with the bare hand, position the handles outside the sterile area. ○ Deposit a sterile item on a sterile field without permitting moist forceps to touch the sterile field when the surface under the absorbent sterile field is unsterile and a barrier drape is not used. **3 points**			5.1
6.	Documentation.			5.1

Result:

CLO	Student Performance		
2.1	……./1		
5.1	……./12		
5.2	……./1	**Final Result**	**……./14**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Three
Surgical Asepsis

Procedure 2: Donning and Removing Sterile Gloves (Open Method)

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
1.	Assemble equipment and supplies: • Sterile gloves.			5.1
2.	• Insure sterility of the package of gloves.			5.2
	Procedure			
1.	Explain to the client what you are going to do.			5.1
2.	Wash hands.			5.2
3.	Provide for client privacy.			5.1
4.	Open the package of sterile gloves: • Place the package of gloves on a clean dry surface. • Open the outer package without contaminating the gloves. • Open the inner package, pluck the flap so that the fingers do not touch the inner surfaces. **2 points**			5.1
5.	Put the first glove on the dominant hand: • Grasp the glove for the dominant hand by its folded cuff edge (on the palmar side) with the thumb and first finger of the nondominant hand. Touch only the inside of the cuff. • Insert the dominant hand into the glove and pull the glove on. **2 points**			5.1
6.	Put the second glove on the nondominant hand: • Pick up the other glove with the sterile-gloved hand, inserting the gloved fingers under the cuff and holding the gloved thumb close to the gloved palm. • Pull on the second glove carefully. • Adjust each glove so that it fits smoothly. **2 points**			5.1
7.	Remove the gloves: • Remove the first glove by grasping it on its palmer surface just below the cuff, taking care to touch only glove to glove. • Pull the first glove completely off by inverting or rolling the glove inside out. • Continue to hold the inverted removed glove by the fingers of the remaining gloved hand. • Place the first two fingers of the bare hand inside the cuff of the second glove. • Pull the second glove off to the fingers by turning it inside out. This pulls the first glove inside the second glove. **3 points**			5.1

Result:

CLO	Student Performance		
5.1	……./12		
5.2	……./2	**Final Result**	**……./14**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Three
Surgical Asepsis

Procedure 3: Donning a Sterile Gown and Gloves (Closed Method)

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	No	
1.	Assemble equipment and supplies: • Sterile pack containing a sterile gown. • Sterile gloves.			5.1
2.	• Insure sterility of the package of gloves.			5.2
	Procedure			
1.	Explain to the client what you are going to do.			5.1
2.	Wash hands.			5.2
3.	Provide for client privacy.			5.1
	Donning a Sterile Gown			
4.	Open the package of sterile gloves: • Remove the outer wrap from the sterile gloves and leave the gloves in their inner sterile wrap on the sterile field.			5.1
5.	Unwrap the sterile gown pack.			5.1
6.	Wash and dry hands carefully.			5.2
7.	Put on the sterile gown: • Grasp the sterile gown at the crease near the neck, hold it away from you, and permit it to unfold freely without touching anything, including the uniform. • Put the hands inside the shoulders of the gown, and work the arms partway into the sleeves without touching the outside of the gown. • If donning sterile gloves by using the closed method, work the hands down the sleeves only to the proximal edge of the cuffs; *or;* • If donning sterile gloves by using the open method, work the hands down the sleeves and through the cuffs. • Have a coworker grasp the neck ties without touching the outside of the gown and pull the gown upward to cover the neckline of your uniform in front and back. • Have a coworker take the two ties at each side of the gown and tie them at the back of the gown, making sure that your uniform is completely covered. **2 points**			5.1
	Donning Sterile Gloves (Closed Method)			
8.	Open the sterile glove wrapper while the hands are still covered by the sleeves.			5.1
9.	Put the glove on the nondominant hand.			5.1

	• With the dominant hand, pick up the opposite glove with the thumb and index finger, handling it through the sleeve. • Lay the glove on the opposite gown cuff, thumb-side down, with the glove opening pointed toward the fingers. Position the dominant hand palm upward inside the sleeve. • Use the nondominant hand to grasp the cuff of the glove through the gown cuff, and firmly anchor it. • With the dominant hand working through its sleeve, grasp the upper side of the glove's cuff, and stretch it over the cuff of the gown. • Pull the sleeve up to draw the cuff over the wrist as you extend the fingers of the nondominant hand into the glove's fingers. **2 points**			
10.	Put the glove on the dominant hand: • Place the fingers of the gloved hand under the cuff of the remaining glove. • Place the glove over the cuff of the second sleeve. • Extend the fingers into the glove as you pull the glove up over the cuff. **2 points**			5.1
11.	Remove the gloves first, since they are the most soiled: • Remove the first glove by grasping it on its palmer surface just below the cuff, taking care to touch only glove to glove. • Pull the first glove completely off by inverting or rolling the glove inside out. • Continue to hold the inverted removed glove by the fingers of the remaining gloved hand. • Place the first two fingers of the bare hand inside the cuff of the second glove. • Pull the second glove off to the fingers by turning it inside out. This pulls the first glove inside the second glove. **3 points**			5.1
12.	If appropriate, document that sterile technique was used in the performance of the procedure.			5.1

Result:

CLO	Student Performance		
5.1	……./19		
5.2	……./3	**Final Result**	**……./22**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Four
Vital Signs

Procedure 1: Assessing body temperature

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
1.	Determine site most appropriate for measurement.			2.1
2.	Prepare equipment: • Thermometer. • Thermometer sheet or cover. • Water soluble lubricant for rectal temperature. • Disposable gloves. • Towel for axillary temperature. • Tissues/wipes.			5.1
	Procedure			
1.	Explain the procedure for the client.			5.1
2.	Wash hands.			5.2
3.	Provide privacy for the client.			5.1
4.	Place the client in appropriate position. • lateral or Sim's position for inserting a rectal thermometer.			5.1
5.	**Apply protective sheet or probe cover if appropriate. **Lubricate a rectal thermometer.			5.1
6.	Place the thermometer. • For oral measurement: place the bulb on either side of the frenulum. • For axillary measurement: the bulb is placed in the center of the axilla. • For rectal measurement: apply disposable gloves, instruct the client to take a slow deep breath during insertion, Insert 1½ inches (3.5 cm) in adults, and never force the thermometer if resistance is felt. • For tympanic measurement: pull the pinna of the ear upward and backward for adults, backward for children over 3 years of age and downward and backward for children under 3 years of age while inserting the tympanic thermometer.			5.1
7.	Wait appropriate time: • 2-3 minutes for oral temperature. • 2 minutes for rectal temperature. • 6-9 minutes for axillary temperature. • Electronic or tympanic thermometers will indicate that the reading is complete through a light or tune.			5.1

8.	Remove the thermometer and discard the cover or wipe with the tissue if necessary.			5.1
9.	Read the temperature.			5.1
10.	Wash the thermometer if necessary and return it to the storage location.			5.1
11.	Document the temperature on client's record.			5.1

Result:

CLO	Student Performance		
2.1	……./1		
5.1	……./11		
5.2	……./1	**Final Result**	**……./13**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Four
Vital Signs

Procedure 2: Assessing a peripheral pulse

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
1.	Prepare equipment: • Watch with second hand or indicator.			5.1
	Procedure			
1.	Explain the procedure for the client.			5.1
2.	Wash hands.			5.2
3.	Provide privacy for the client.			5.1
4.	Select the pulse point.			5.1
5.	Assist client to a comfortable resting position.			5.1
6.	Palpate and count the pulse. • Place two or three middle fingertips lightly over the pulse rate. • Count for full minute. **3 points**			5.1
7.	Assess pulse rhythm and volume.			5.1
8.	Document pulse rate as beats per minute in client's record.			5.1

Result:

CLO	Student Performance		
5.1	……./10		
5.2	……./1	**Final Result**	**……./11**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Four
Vital Signs

Procedure 3: Assessing apical pulse

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed yes	Performed no	CLO
1.	Prepare equipment: • Watch with second hand or indicator. • Stethoscope. • Antiseptic swap.			5.1
	Procedure			
1.	Explain the procedure for the client.			5.1
2.	Wash hands.			5.2
3.	Provide privacy for the client.			5.1
4.	Position the client in supine or sitting position.			5.1
5.	Expose the area of the chest over the apex of the heart.			5.1
6.	Locate the apical impulse.			5.1
7.	Auscaltate and count the heart beat: • Use antiseptic swap to clean the ear pieces and diagram of the stethoscope. • Warm the diagram of the stethoscope. • Insert earpieces of the stethoscope in your ears. • Tap your finger lightly on the diagram to be ensure it is the active side of the head. • Place the diagram over the apical impulse. • Count the heart beats for 60 seconds. **3 points**			5.1
8.	Assess the rhythm and strength oh heart beats.			5.1
9.	Document heart rate in client's record.			5.1

Result:

CLO	Student Performance		
5.1	……./11		
5.2	……./1	**Final Result**	**……./12**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Four
Vital Signs

Procedure 4: Assessing an apical-radial pulse

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed yes	Performed no	CLO
1.	Prepare equipment: • Watch with second hand or indicator. • Stethoscope. • Antiseptic swap.			5.1
	Procedure			
1.	Explain the procedure for the client.			5.1
2.	Wash hands.			5.2
3.	Provide privacy for the client.			5.1
4.	Position the client appropriately.			5.1
5.	Locate apical and radial pulses.			5.1
	Two-nurse technique One nurse locate the apical impulses using stethoscope, the other nurse palpate the radial pulse.			
6.	Count apical and radial pulses: • Place the watch where both nurses can see it. The nurse who take the radial pulse may hold it. • Decide on time to begin counting. The nurse who take the radial pulse says start at that time. • Each nurse count the pulse for 60 seconds. Both nurses end counting when the nurse who take the radial pulse says stop. **3 points**			5.1
	One-Nurse technique			
6.	• Count the apical pulse for 60 seconds. • Count the radial pulse for 60 seconds. **3 points**			5.1
7.	Document the apical-radial pulse.			5.1

Result:

CLO	Student Performance		
5.1	……/9		
5.2	……/1	**Final Result**	**……/10**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Four
Vital Signs

Procedure 5: Assessing Respiration

Student's Name: …….

ID Number: …….. **Date: / /143 H**

Preparation		Performed		CLO
		yes	no	
1.	Prepare equipment: • Watch with second hand or indicator.			5.1
Procedure				
1.	Explain the procedure for the client.			5.1
2.	Wash hands.			5.2
3.	Provide privacy for the client.			5.1
4.	Place the client's arm across the chest and observe the chest movements with breathing supposing taking the radial pulse.			5.1
5.	Count the respiratory rate for 60 seconds. An inhalation and an exhalation count as one respiration.			5.1
6.	Observe the rhythm, depth, and character of respiration.			5.1
7.	Document the respiratory rate in the client's record.			5.1

Result:

CLO	Student Performance		
5.1	……./7		
5.2	……./1	**Final Result**	**……./8**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Four
Vital Signs

Procedure 6: Assessing Blood Pressure

Student's Name: …….

ID Number: …….. **Date: / /143 H**

Preparation		Performed		CLO
		yes	no	
1.	Prepare equipment: • Stethoscope. • Sphygmomanometer. • Antiseptic swap.			5.1
Procedure				
1.	Explain the procedure for the client.			5.1
2.	Wash hands.			5.2
3.	Provide privacy for the client.			5.1
4.	Place the client in appropriate position: • The adult client should be sitting if possible. • Both feet should be flat on the floor. • The elbow should be slightly flexed.			5.1
5.	Expose the upper arm.			5.1
6.	Wrap the deflated cuff evenly around the upper arm. • Locate the brachial pulse. • Apply the center of the bladder directly over the artery.			5.1
If this is the client's first examination				
	• Palpate the brachial artery with fingertips.			5.1
	• Close the valve on the pump by turning the knob clockwise.			5.1
	• Pump up the pump until you no longer feel the brachial pulse.			5.1
	• Note the pressure on the sphygmomanometer at that point.			5.1
	• Release the pressure completely in the cuff.			5.1
	• Waite 1 to 2 minutes before making further measurements.			5.1
7.	Place the stethoscope appropriately: • Clean the ear pieces with antiseptic swap. • Insert the ear attachment of the stethoscope in your ears. • Place the bill side of the stethoscope over the brachial artery. • Hold the diagram with the thumb and index fingers.			5.1
8.	Auscultate the clients blood pressure: • Pump the cuff until the sphygmomanometer reads 30 mmHg above the point where the brachial pulse disappears. • Release the valve on the cuff carefully so that the pressure decreases slowly.			5.1

	• As the pressure falls, identify the sphygmomanometer reading where you hear the first sound. Also, identify the sphygmomanometer where the sound disappears. • Deflate the cuff rapidly and completely. **3 points**			
9.	Remove the cuff.			5.1
10.	Document blood pressure in the client's record.			5.1

Result:

CLO	**Student Performance**		
5.1	……./19		
5.2	……./1	**Final Result**	**……./20**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Five
Medications

Procedure 1: Administering Oral Medications

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
1.	Assess: • Allergies to medication(s) • Client's ability to swallow the medication			5.1
2.	Assemble equipment and supplies: • Medication cart. • Disposable medication cups. • Medication administration record (MAR). • Drinking glass and water or juice.			5.1
3.	Check the MAR: • Check the MAR for the drug name, dosage, frequency, route of administration, and expiration date for administering the medication.			5.2
4.	Verify the client's ability to take medication orally.			5.1
	Procedure			
1.	Wash hands.			5.2
2.	Obtain appropriate medication: • Read the MAR and take the appropriate medication from the shelf, drawer, or refrigerator. • Compare the label of the medication container or unit–dose package against the order on the MAR . • Check the expiration date of the medication. Return expired medications to the pharmacy.			5.1
3.	Prepare the medication: • Calculate medication dosage accurately. 4.1 • Prepare the correct amount of medication for the required dose, without contaminating the medication. • Tablets or Capsules: o Place packaged unit–dose capsules or tablets directly into the medicine cup. Do not remove the medication from the wrapper until at the bedside. o If using a stock container, pour the required number into the bottle cap, and then transfer the medication to the disposable cup without touching the tablets. o Break scored tablets only, if necessary to obtain the correct dosage. Use a file or cutting device if needed. • Liquid Medication: o Thoroughly mix the medication before pouring.			4.1 5.1

	○ Remove the cap and place it upside down on the countertop. ○ Hold the bottle so the label is next to your palm, and pour the medication away from the label. ○ Hold the medication cup at eye level and fill it to the desired level. **3 points**			
4.	Provide for client privacy.			5.1
5.	Prepare the client: • Confirm the patient's identity • Assist the client to a sitting position or, if not possible, to a side-lying position.			5.1
6.	Administer the medication at the correct time: • Take the medication to the client within 30 minutes before or after the scheduled time. • Give the client sufficient water or preferred juice to swallow the medication. • Give only one tablet or capsule at a time. • If an older child or adult has difficulty swallowing, ask the client to place the medication on the back of the tongue before taking the water. • If the client says that the medication you are about to give is different from what the client has been receiving, do not give the medication without first checking the original order. • Stay with the client until all medications have been swallowed. **3 points**			5.1
7.	Record the medication given, dosage, time, and your signature.			5.1

Result:

CLO	Student Performance		
4.1	……./1		
5.1	……./13		
5.2	……./2	**Final Result**	**……./15**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Five
Medications

Procedure 2: Administration of medication through the Enteral tube (nasogastric tube N.G.T or gastric tube)

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
1.	Assess: • Allergies to medication(s)			5.1
2.	Assemble equipment and supplies: • Medication cart. • Disposable medication cups. • Medication administration record (MAR). • Drinking glass and water or juice. • Pill crusher. • Syringe 50-60 cc.			5.1
3.	Check the MAR: • Check the MAR for the drug name, dosage, frequency, route of administration, and expiration date for administering the medication.			5.2
	Procedure			
1.	Wash hands.			5.2
2.	Obtain appropriate medication: • Read the MAR and take the appropriate medication from the shelf, drawer, or refrigerator. • Compare the label of the medication container or unit–dose package against the order on the MAR . • Check the expiration date of the medication. Return expired medications to the pharmacy.			5.1
3.	Prepare the medication: • Calculate medication dosage accurately. • Prepare the correct amount of medication for the required dose, without contaminating the medication. • Tablets or Capsules: o The medication crushed and dissolved in a suitable solvent. **2 points**			4.1 5.1
4.	Provide for client privacy.			5.1
5.	Prepare the client: • Confirm the patient's identity • Check the place of the tube and put patient in a suitable position(semi-fowler or fowler during and after 30 mint of administration) to prevent aspiration by:			5.1

	○ Aspirate gastric content: normally yellow to green and examine PH ○ Auscultate over the epigastric area while you insert 10-20 ml of air into N.G.T: normally bubbling heard in the stomach. **3 points**			
6.	Wash the tube with warm water (10-20 cc).			5.1
7.	Administer medication by N.G.T (using the syringe).			5.1
8.	Wash the syringe and the tube with warm water (10-20 cc)			5.1
9.	Record the medication given, dosage, time, and your signature.			5.1

Result:

CLO	Student Performance		
4.1	……./1		
5.1	……./13		
5.2	……./2	**Final Result**	**……./15**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Five
Medications

Procedure 3: Preparing Medications from Ampules

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
1.	Assemble equipment and supplies: • MAR or computer printout. • Ampule of sterile medication. • File (if ampule is not scored) and small gauze square. • Antiseptic swabs. • Needle and syringe. • Filter needle.			5.1
2.	Check MAR: • Check the label on the ampule carefully against the MAR to make sure that the correct medication is being prepared. • Follow the three checks for administering medications. Read the label on the medication: o When it is taken from the medication cart o Before withdrawing the medication o After withdrawing the medication			5.2
	Procedure			
1.	Wash hands.			5.2
2.	Prepare the medication ampule for drug withdrawa: o Flick the upper stem of the ampule several times with a fingernail. o Partially file the neck of the ampule, if necessary, to start a clean break. o Place a piece of sterile gauze between your thumb and the ampule neck, or around the ampule neck, and break off the top by bending it toward you. o Dispose of the top of the ampule in the sharps container. **3 points**			5.1
3.	Withdraw the medication: o Place the ampule on a flat surface. o Remove the cap from the needle, and insert the needle into the center of the ampule. Do not touch the rim of the ampule with the needle tip or shaft. o Withdraw the amount of drug required for the dosage. o With a single-dose ampule, hold the ampule slightly on its side, if necessary, to obtain all the medication. o Tighten the cap at the hub of the needle before injecting the client. **3 points**			5.1

Result:

CLO	Student Performance		
5.1	……./7		
5.2	……./2	**Final Result**	**……./9**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Five
Medications

Procedure 4: Preparing Medications from Vials

Student's Name: …….

ID Number: …….. **Date: / /143 H**

Preparation		Performed		CLO
		yes	no	
1.	Assemble equipment and supplies: • MAR or computer printout. • Vial of sterile medication. • Antiseptic swabs. • Needle and syringe. • Sterile water or normal saline, if drug is in powdered form.			**5.1**
2.	Check MAR: • Check the label on the ampule carefully against the MAR to make sure that the correct medication is being prepared. • Follow the three checks for administering medications. Read the label on the medication: o When it is taken from the medication cart o Before withdrawing the medication o After withdrawing the medication			**5.2**
Procedure				
1.	Wash hands.			**5.2**
2.	Prepare the medication vial for drug withdrawal: • Mix the solution, if necessary, by rotating the vial between the palms of the hands, not by shaking. • Remove the protective cap, or clean the rubber cap of a previously opened vial with an antiseptic wipe by rubbing in a circular motion. • Add normal saline or distilled water if the vial contains powder. • Mix the content thoroughly. **3 points**			**5.1**
3.	Withdraw the medication: • Ensure that the needle is firmly attached to the syringe. • Remove the cap from the needle, then draw up into the syringe the amount of air equal to the volume of the medication to be withdrawn. • Carefully insert the needle into the upright vial through the center of the rubber cap, maintaining the sterility of the needle. • Inject the air into the vial, keeping the bevel of the needle above the surface of the medication. • Withdraw the prescribed amount of medication. **3 points**			**5.1**

Result:

CLO	Student Performance		
5.1	……./7		
5.2	……./2	**Final Result**	**……./9**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Five
Medications

Procedure 5: Administering an Intradermal Injection

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed yes	Performed no	CLO
1.	Assemble equipment and supplies: • Vial or ampule of the correct medication. • Sterile 1-mL syringe calibrated into hundredths of a milliliter. • 25- to 27-gauge needle. • Alcohol swabs. • Nonsterile gloves. • Epinephrine (a bronchodilator and antihistamine) on hand.			**5.1**
2.	Check the MAR: • Check the label on the medication carefully against the MAR to make sure that the correct medication is being prepared.			**5.2**
	Procedure			
1.	Wash hands.			**5.2**
2.	Prepare the medication from the vial or ampoule for drug withdrawal.			**5.1**
3.	Identify the client..			**5.1**
4.	Explain the procedure for the client.			**5.1**
5.	Provide privacy.			**5.1**
6.	Select and clean the site: • Select a site. Avoid using sites that are tender, inflamed, or swollen, and those that have lesions. • Put on gloves. • Cleanse the skin at the site using a firm circular motion, starting at the center and widening the circle outward. • Allow the area to dry thoroughly. **2 points**			**5.1**
7.	Prepare the syringe for the injection: • Remove the needle cap with your nondominant hand by pulling it straight off. • Expel any air bubbles from the syringe. • Grasp the syringe in your dominant hand, holding it between thumb and forefinger. • Hold the needle almost parallel to the skin surface, with the bevel of the needle up. **3 points**			**5.1**
8.	Inject the fluid: • Use your nondominant hand to spread the skin. • Place the needle flat against the patient's skin, opening side up, and insert the needle beneath the skin only about 0.3 cm inch.			**5.1**

	• Slowly inject the agent so that it produces a small wheal on the skin. • Withdraw the needle quickly at the same angle that it was inserted. • Do not massage the area. • Dispose of the syringe and needle safely. • Remove gloves. • Make circle with pen and write the time, date, medication and signature. **3 points**			
9.	Observe the site after 15 minutes.			**5.1**
10.	Chart the administration of the medication.			**5.1**

Result:

CLO	**Student Performance**		
5.1	……./15		
5.2	……./2	**Final Result**	**……./17**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Five
Medications

Procedure 6: Administering a Subcutaneous Injection

Student's Name: …….

ID Number: …….. **Date: / /143 H**

Preparation		Performed		CLO
		yes	no	
1.	Assess Allergies to medication.			
2.	Assemble equipment and supplies: • MAR . • Vial or ampule of the correct sterile medication. • Syringe and needle. • Antiseptic swabs. • Disposable gloves.			**5.1**
3.	Check the MAR: • Check the label on the medication carefully against the MAR to make sure that the correct medication is being prepared.			**5.2**
Procedure				
1.	Wash hands.			**5.2**
2.	Withdraw the medication from an ampoule or vial.			**5.1**
3.	Identify the client..			**5.1**
4.	Explain the procedure for the client.			**5.1**
5.	Provide privacy.			**5.1**
6.	Have the patient assume a position appropriate for the site selected: • Outer aspect of upper arm—the patient's arm should be relaxed at this side. • Anterior thigh—the patient may sit or lie with the leg relaxed. • Abdomen—the patient may lie in a semi-recumbent position. • Scapular area—the patient may be prone, on the side, or assume a sitting position.			**5.1**
7.	Locate the site of choice and ensure that the area is not tender and is free of lumps or nodules.			**5.1**
8.	Clean the area of the skin with an alcohol swab.			**5.1**
9.	Remove the needle cap with the nondominant hand, pulling it straight off.			**5.1**
10.	Grasp and bunch the area surrounding the injection site. Hold the syringe in the dominant hand between the thumb and the forefinger. Insert the needle quickly an angle of 45 -90 degrees.			**5.1**
11.	After the needle is in place, release the grasp the tissue and immediately move your nondominant hand to steady the lower end of the syringe.			**5.1**
12.	Aspirate by pulling back gently on the plunger of the syringe to determine whether the needle is in a blood vessel.			**5.1**

13.	If no blood appears, inject the solution slowly.			**5.1**
14.	Withdraw the needle quickly at the same angle it was inserted.			**5.1**
15.	Massage the area gently with the alcohol swab.			**5.1**
16.	Don't recap the used needle and discard it and syringe in a appropriate way.			**5.2**
17.	Put patient in comfortable position & document medication administration.			**5.1**

Result:

CLO	**Student Performance**		
5.1	……./17		
5.2	……./3	**Final Result**	**……./20**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Five
Medications

Procedure 7: Administering an Intramuscular (IM) Injection

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
1.	Assess Allergies to medication.			**5.1**
2.	Determine whether the size of the muscle is appropriate to the amount of medication to be injected.			**5.1**
3.	Assemble equipment and supplies: • MAR . • Sterile medication (usually provided in an ampule or vial). • Syringe and needle of a size appropriate for the amount of solution to be administered. • Antiseptic swabs. • Disposable gloves.			**5.1**
4.	Check the MAR: • Check the label on the medication carefully against the MAR to make sure that the correct medication is being prepared.			**5.2**
	Procedure			
1.	Wash hands.			**5.2**
2.	Withdraw the medication from an ampoule or vial.			**5.1**
3.	Identify the client.			**5.1**
4.	Explain the procedure for the client.			**5.1**
5.	Provide privacy.			**5.1**
6.	Put patient in a position appropriate for the selected site: • Gluteus: the patient may lie on his side with the hip and knee flexed. • Deltoid: the arm relaxed.			**5.1**
7.	Locate the site of choice and ensure that the area is not tender and is free of lumps or nodules.			**5.1**
8.	Clean the area with an alcohol swab.			**5.1**
9.	Remove the needle cap.			**5.1**
10.	Spread the skin at the site using your nondominant hand			**5.1**
11.	Hold the syringe in your dominant hand between thumb and forefinger. Quickly insert the needle into tissue at a 90-degree angle.			**5.1**
12.	Move your nondominant hand to hold the lower end of the syringe and the dominant the top of the syringe.			**5.1**
13.	Aspirate by slowly pulling back on the plunger to determine whether the needle is in a blood vessel. (If blood is aspirated, discard needle, syringe, and medication; prepare a new and inject in another site).			**5.1**

14.	If no blood is aspirated, inject the solution slowly.			**5.1**
15.	Remove the needle quickly.			**5.1**
16.	Massage the injection site with the alcohol swab using gentile pressure.			**5.1**
17.	Do not recap the used needle. Discard the needle and syringe appropriately.			**5.2**
18.	Assist the patient to a position of comfort & document medication administration.			**5.1**

Result:

CLO	**Student Performance**		
5.1	……./19		
5.2	……./3	**Final Result**	**……./22**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Five
Medications

Procedure 8: Adding Medications to Intravenous Fluid Containers

Student's Name: …….

ID Number: …….. **Date: / /143 H**

Preparation		Performed		CLO
		yes	No	
1.	Assess Allergies to medication.			**5.1**
3.	Assemble equipment and supplies: • MAR . • Correct sterile medication. • Diluent for medication in powdered form. • Correct solution container, if a new one is to be attached. • Antiseptic or alcohol swabs. • Sterile syringe and needle . • IV additive label			**5.1**
3.	Check the MAR: • Check the label on the medication carefully against the MAR to make sure that the correct medication is being prepared.			**5.2**
Procedure				
1.	Wash hands.			**5.2**
2.	Withdraw the medication from an ampoule or vial.			**5.1**
3.	Identify the client.			**5.1**
4.	Explain the procedure for the client.			**5.1**
5.	Provide privacy.			**5.1**
6.	Add the medication: • To New IV Container: o Locate the injection port, and carefully remove its cover. o Clean the port with the antiseptic or alcohol swab. o Remove the needle cap from the syringe, insert the needle through the center of the injection port, and inject the medication into the bag or bottle. o Mix the medication and solution by gently rotating the bag or bottle. o Complete the IV additive label with name and dose of medication, date, time, and nurse's initials. o Attach it upside down on the bag or bottle. o Clamp the IV tubing. Spike the bag or bottle with IV tubing and hang the IV. o Regulate infusion rate as ordered. • To An Existing Infusion:			**5.1**

	○ Determine that the IV solution in the container is sufficient for adding the medication. ○ Close the infusion clamp. ○ Wipe the medication port with the alcohol or disinfectant swab. ○ Remove the needle cover from the medication syringe. ○ While supporting and stabilizing the bag with your thumb and forefinger, carefully insert the syringe needle through the port, and inject the medication. ○ Remove the bag or bottle from the pole, and gently rotate the bottle or bag. ○ Rehang the container and regulate the flow rate. ○ Complete the medication label and apply to the IV container. **8 points**			
7.	Dispose of the equipment and supplies.			**5.1**
8.	Document the medication(s) on the appropriate form in the client's record.			**5.1**

Result:

CLO	**Student Performance**		
5.1	……./16		
5.2	……./2	**Final Result**	**……./18**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Five
Medications

Procedure 9: Administering Intravenous (IV) Injection Through Cannula (push)

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		Yes	no	
1.	Assess Allergies to medication.			5.1
2.	Assemble equipment and supplies: • Medication& card. • Syringe and needle. • Alcohol swab. • Disposable gloves.			5.1
3.	Check the MAR: • Check the label on the medication carefully against the MAR to make sure that the correct medication is being prepared.			5.2
	Procedure			
1.	Wash hands, don clean gloves.			5.2
2.	Withdraw the medication from an ampoule or vial.			5.1
3.	Identify the client.			5.1
4.	Explain the procedure for the client.			5.1
5.	Provide privacy.			5.1
6.	Assess the IV site for the presence of inflammation or infiltration.			5.1
7.	Select the injection port on venipuncture site.			5.1
8.	Clean the port with an alcohol swab.			5.1
9.	Uncap the syringe. Insert the needleless device into the center of the port.			5.1
10.	Pull back slightly on the plunger just until blood appears in the tubing.			5.1
11.	Inject the medication at the prescribed rate.			5.1
12.	Remove the syringe. Close IV.			5.1
13.	Dispose of the syringe in the proper receptacle (don't recap needle).			5.1
14.	Remove gloves and wash your hands.			5.1
15.	Chart the administration of the medication.			5.1

Result:

CLO	Student Performance		
5.1	……./16		
5.2	……./2	**Final Result**	**……./18**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Five
Medications

Procedure 10: Administering Intravenous (IV) Injection through Direct method

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		Yes	no	
1.	Assess Allergies to medication.			5.1
2.	Assemble equipment and supplies: • Medication& card. • Syringe and needle. • Alcohol swab. • Tourniquet. • Disposable gloves.			5.1
3.	Check the MAR: • Check the label on the medication carefully against the MAR to make sure that the correct medication is being prepared.			5.2
	Procedure			
1.	Wash hands, don clean gloves.			5.2
2.	Withdraw the medication from an ampoule or vial.			5.1
3.	Identify the client.			5.1
4.	Explain the procedure for the client.			5.1
5.	Provide privacy.			5.1
6.	Select appropriate place for vein puncture.			5.1
7.	Apply the tourniquet above the site with 15 cm.			5.1
8.	Ask patient to open and close his hand and wait for 30 second until the vein filled with blood.			5.1
9.	Clean the skin with an alcohol swab in circular motion.			5.1
10.	Make sure that the opening of the needle is upward.			5.1
11.	Insert needle by 15-30 angle and draw blood.			5.1
12.	Remove the tournigate.			5.1
13.	Give medication as ordered.			5.1
14.	Remove needle and apply pressure on site of injection for 1-2 minutes.			5.1
15.	Dispose of the syringe in the proper receptacle (don't recap needle).			5.2
16.	Remove gloves and wash your hands.			5.1
17.	Chart the administration of the medication.			5.1

Result:

CLO	Student Performance		
5.1	……./17		
5.2	……./3	**Final Result**	**……./20**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Five
Medications

Procedure 11: Instilling Ear Drops

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		Yes	no	
1.	Be sure that the instilled medication temperature is acceptable.			5.1
2.	Assemble equipment and supplies: • Cotton balls. • Disposable gloves. • Medication& medication card. • Paper tissues			5.1
3.	Check the MAR: • Check the label on the medication carefully against the MAR to make sure that the correct medication is being prepared.			5.2
	Procedure			
1.	Wash hands, don clean gloves.			5.2
3.	Identify the client.			5.1
4.	Explain the procedure for the client.			5.1
5.	Provide privacy.			5.1
6.	Clean the external ear of drainage with cotton balls moistened with normal saline solution, as necessary. (Disposable gloves if necessary)			5.1
7.	Place the patient on the unaffected side in bed, or if ambulatory, have the patient sit with the head well tilted to the side so that the affected ear is uppermost.			5.1
8.	Draw up the amount of solution needed in the dropper. Excess medication should not be returned to a stock bottle.			5.1
9.	Straighten the auditory canal by pulling the cartilaginous portion of the pinna up and back in an adult and down and back in an infant or a child under age 3 years, and straight back for a school-aged child.			5.1
10.	Hold the dropper in the ear with its tip above the auditory canal.			5.1
11.	Allow the drops to fall on the side of the ear.			5.1
12.	Release the pinna after instilling the drops, and have the patient maintain the position.			5.1
13.	Gently press on the tragus a few times to help move the medication from the canal toward the tympanic membrane.			5.1
14.	Wait 5 minutes before instilling drops in the second ear, if ordered.			5.1
15.	Document care.			5.1

Result:

CLO	Student Performance		
5.1	……./16		
5.2	……./2	**Final Result**	**……./18**

Clinical Skills in Patient Care
Unit Five
Medications

Procedure 12: Instilling Eye drops

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		Yes	no	
1.	Be sure that the instilled medication temperature is acceptable.			5.1
2.	Assemble equipment and supplies: • Medication & medication card. • Paper tissues, Cotton, Gloves			5.1
3.	Check the MAR: • Check the label on the medication carefully against the MAR to make sure that the correct medication is being prepared.			5.2
	Procedure			
1.	Wash hands, don clean gloves.			5.2
3.	Identify the client.			5.1
4.	Explain the procedure for the client.			5.1
5.	Provide privacy.			5.1
6.	Clean the eyelids and eyelashes of any drainage with cotton balls (moving from the inner toward the outer canthus).			5.1
7.	Tilt the patient's head back slightly if sitting, or place the patient's head over a pillow if lying down.			5.1
8.	Invert the monodrip plastic container that is commonly used to instill eye drops.			5.1
9.	Have the patient look up while focusing on something on the ceiling.			5.1
10.	Place the thumb or two fingers near the margin of the lower eyelid immediately below the eyelashes, and exert pressure downward over the bony prominence of the cheek.			5.1
11.	Hold the dropper close to the eye (avoid touching the eyelids or lashes, eyeball)			5.1
12.	Squeeze the container and allow the prescribed number of drops to fall in the lower conjunctival sac. (Do not allow drops to fall onto the cornea)			5.1
13.	Release the lower lid after the eye drops are instilled.			5.1
14.	Ask the patient to close the eyes gently.			5.1
15.	Apply gentle pressure over the inner canthus to prevent the eye drops from flowing into the tear duct.			5.1
16.	Instruct patient not to rub the affected eye and document care.			5.1

Result:

CLO	Student Performance		
5.1	……./16		
5.2	……./2	**Final Result**	**……./18**

Clinical Skills in Patient Care
Unit Five
Medications

Procedure 13: Antibiotic administration

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Procedure	Performed		CLO
		yes	No	
1.	Assess patient and check Dr Order.			5.1
2.	Make the sensitivity test			5.1
3.	Administer medication if sensitivity test is negative (if +ve inform Dr).			5.1
4.	Observe side sensitivity and side effect			5.1
	Procedure (sensitivity test)			
1.	Prepare Equipment: • Insulin syringe. • Diluted medication. • Distilled water. • Blue pen.			5.1
2.	Get 0.1 cc of the medication (dilute the medication if it not diluted) with a small needle syringe.			5.1
3.	Add 0.9 cc Distilled water to the medication.			5.1
4.	Inject 0.1 cc intradermal in the forearm (avoid blood vessels).			5.1
5.	Make mark (circle distal about3 cm from the injection site) to help you in identifying of the place of injection (don't use red pen)			5.1
6.	Write around the cycle: medication name, time and date of injection, and your name.			5.1
7.	Wait for 15-30 minute then assess the site of injection (sings of sensitivity include wheal formation, pruritus, and redness).			5.1
8.	If you see that one of these signs occurs or if you confused with the result don't give medication and notify physician			5.1
9.	Record what happen on the patient file.			5.1

Result:

CLO	Student Performance		
5.1	……./13		
5.2	……./0	**Final Result**	**……./13**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Six
Diagnostic Testing

Procedure 1: Measuring Blood Glucose

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
	Prepare equipment: • Blood glucose meter. • Blood glucose reagent strip compatible with the meter. • Paper towel. • Antiseptic swab. • Disposable gloves. • Sterile lancet, or #19 or #21- gauge needle. • Lancet injector (optional). • Cotton ball to wipe the glucose reagent strip (dry wipe method).			5.1
	Procedure			
1.	Explain the procedure for the client.			5.1
2.	Wash hands.			5.2
3.	Provide privacy for the client.			5.1
4.	Prepare the equipment: • Obtain a reagent strip from the container and place it on a clean, dry paper towel. • Calibrate the meter and run a control sample.			5.1
5.	Select and prepare the vascular puncture site: • Place the strip into the mete. • Choose a vascular puncture site. • Clean the site with the antiseptic swab and allow it to dry completely.			5.1
6.	Obtain the blood specimen: • Put on gloves. • Place the injector, if used, against the site, and release the needle. *Or:* Prick the site with a lancet or needle, using a darting motion. • Wipe away the first drop of blood with a cotton ball. • Gently squeeze (but do not touch) the puncture site until a large drop of blood forms. • Hold the reagent strip under the puncture site until enough blood covers the indicator square. The pad will absorb the blood. • Ask the client to apply pressure to the skin puncture site with a cotton ball. **3 points**			5.1

7.	Measure the blood glucose: • Most glucose meters will display the glucose reading automatically. • Discard the test strip and cotton balls.			5.1
8.	Document the method of testing and results on the client's record.			5.1
9.	Check for orders for sliding scale insulin based on capillary blood glucose results. Administer insulin as indicated.			5.1

Result:

CLO	**Student Performance**		
5.1	……./11		
5.2	……./1	**Final Result**	**……./12**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Six
Diagnostic Testing

Procedure 2: Taking venous blood sample

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	No	
	Prepare equipment: • Tourniquet, Gloves, Syringe or evacuated tubes, Antiseptic swap, Color-coded collection tube containing appropriate additives, Labels, Laboratory request form, 2" X 2" gauze pads, Adhesive bandage.			5.1
	Procedure			
1.	Explain the procedure for the client.			5.1
2.	Wash hands and put on gloves.			5.2
3.	Provide privacy for the client.			5.1
4.	Help patient to lie supine, with his arms at his sides. He can be in a chair and support his arm securely on an armrest or a table.			5.1
5.	Assess the patient's vein (blue in color or identify it by palpating)			5.1
6.	Put tourniquet just 10cm above the puncture site.			5.1
7.	Clean the venipuncture site with antiseptic swap (in a circular motion) and allow the skin to dry.			5.1
8.	Immobilize the vein by pressing with your hand.			5.1
9.	Position the needle holder or syringe bevel up and the shaft parallel to the patient a 30-degree angle to the arm.			5.1
10.	Insert needle to the vein.			5.1
11.	Withdraw the blood slowly.			5.1
12.	Remove the tourniquet.			5.1
13.	Place a gauze pad over the puncture site and slowly and gently remove the needle from the vein.			5.1
14.	Apply gentle pressure to the puncture site for 2 to 3 minutes or until bleeding stops and apply adhesive bandage.			5.1
15.	Detach the needle from the syringe, open the collection tube, and gently empty the sample into the tube			5.1
16.	Gently rotate the tube to help mix the additive with the sample.			5.1
17.	Discard syringes, needles, and gloves in the appropriate containers.			5.2
18.	Record the date, time, name of the test.			5.1

Result:

CLO	Student Performance		
5.1	……./17		
5.2	……./2	**Final Result**	**……./19**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Six
Diagnostic Testing

Procedure 3: Taking Arterial Blood Sample

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
	Prepare equipment: • Gloves, • Syringe, • Gauze, • Antiseptic swap, • Rubber stopper, • Heparin, • Adhesive bandage.			5.1
	Procedure			
1.	Explain the procedure for the client.			5.1
2.	Wash hands and put on gloves.			5.2
3.	Provide privacy for the client.			5.1
4.	Help patient to lie supine, with his arms at his sides. He can be in a chair and support his arm securely on an armrest or a table.			5.1
5.	Determine the site of puncture by index and middle fingers (determine radial and ulnar).			5.1
6.	Clean the site in circular motion.			5.1
7.	Palpate the radial artery by index and middle fingers while holding the syringe with other hand.			5.1
8.	Aspirate the plunger of the syringe about 1cc.			5.1
9.	Hold the needle bevel up at a 30- to 45-degree angle.			5.1
10.	Puncture the skin and arterial wall in one motion, following the path of the artery.			5.1
11.	Watch for blood backflow in the syringe (Don't pull back on the plunger, arterial blood should enter the syringe automatically).			5.1
12.	Withdraw the needle and then press a gauze pad firmly over the puncture site until the bleeding stops (at least 5 minutes).			5.1
13.	Ask a coworker to hold the gauze pad in place while you prepare the sample for transport to the laboratory.			5.1
14.	Check the syringe for air bubbles. if any appear, remove them by holding the syringe upright and slowly ejects some of the blood onto a gauze pad.			5.1
15.	Insert the needle into a rubber stopper. (Prevents the sample from leakage and keeps air out of the syringe).			5.1
16.	Put the labeled sample in the ice filled plastic bag and Attach laboratory request form and send the sample to the laboratory immediately.			5.1

17.	When bleeding stops, apply a small adhesive bandage to the site.			5.1
18.	Record the date, time, name of the test.			5.1

Result:

CLO	Student Performance		
5.1	……./18		
5.2	……./1	**Final Result**	**……./19**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Six
Diagnostic Testing

Procedure 4: Collecting Urine Sample (Random Specimen)

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
	Prepare equipment: • Bedpan or urinal with cover. • Gloves. • Specimen container. • Label. • Laboratory request form (LRF).			5.1
	Procedure			
1.	Explain the procedure for the client.			5.1
2.	Wash hands.			5.2
3.	Provide privacy for the client.			5.1
4.	Instruct the patient on bed rest to void into a clean bedpan or urinal (or ask the ambulatory patient to void into container in the bathroom).			5.1
5.	Put on gloves. Then pour at least 120 ml of urine into the specimen container, and cap the container securely.			5.1
6.	Label the specimen container with the patient's name and the date and time of collection.			5.1
7.	Attach the request form and send it the laboratory immediately.			5.1
8.	Document the procedure.			5.1

Result:

CLO	Student Performance		
5.1	……/8		
5.2	……/1	**Final Result**	**……./9**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Six
Diagnostic Testing

Procedure 5: Obtaining a Clean-catch midstream specimen (uncontaminated)

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
	Prepare equipment: • Basin, Soap and water, Towel, Gloves, "2 X 2" gauze pads, Povidone-iodine solution, Sterile specimen container, Label, Bedpan or urinal, LRF.			5.1
	Procedure			
1.	Explain the procedure for the client.			5.1
2.	Wash hands.			5.2
3.	Provide privacy for the client.			5.1
4.	Tell the patient to remove all clothing from the waist down and to clean the periurethral area (tip of the penis, and urinary meatus) with soap and water and wipe with a fresh 2" X 2" gauze pad soaked in povidone-iodine in circular motion.			5.1
5.	Instruct the patient to begin voiding into the bedpan, urinal, or toilet. Then, without stopping the urine stream, the patient should move the collection container into the stream, collecting 30 to 50 ml at the midstream portion of the voiding. He can then finish voiding into the bedpan.			5.1
6.	Put on disposable gloves.			5.1
7.	Take the sterile container from the patient, and cap it securely. Remove gloves and discard them.			5.1
8.	Wash your hands and tell the patient to wash his hands.			5.1
9.	Label the container with name of test, type of specimen, collection time, and suspected diagnosis.			5.1
10.	Attach request form and send the container to the lab.			5.1
11.	Document the procedure.			5.1

Result:

CLO	Student Performance		
5.1	……./11		
5.2	……./1	**Final Result**	**……./12**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Six
Diagnostic Testing

Procedure 6: Obtaining urine Sample from Indwelling Catheter

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed yes	Performed no	CLO
	Prepare Equipments: • Gloves. • Alcohol. • 10-ml syringe. • Needle. • Tube clamp. • Sterile specimen container. • Label.			5.1
	Procedure			
1.	Explain the procedure for the patient.			5.1
2.	Provide privacy.			5.1
3.	Wash hands.			5.2
4.	About 30 minutes before collecting the specimen, clamp the drainage tube to allow urine to accumulate.			5.1
5.	Put on gloves.			5.2
6.	Collect the specimen: • If the drainage tube has a built-in sampling port, wipe the port with an alcohol swap. Insert the needle on the sampling port and aspirate the specimen into the syringe. • If the catheter has no sampling port, wipe the area where the catheter joins the drainage tube with an alcohol sponge. Disconnect the catheter allow urine to drain into the sterile specimen container. Wipe both connection sites with alcohols and join them. **2 points**			5.1
7.	Remove clamp after collecting the specimen.			5.1
8.	Transfer the specimen to a sterile container, label it and send it to the laboratory immediately.			5.1
9.	Record the procedure.			5.1

Result:

CLO	Student Performance		
5.1	……/9		
5.2	……/2	**Final Result**	**……/11**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Six
Diagnostic Testing

Procedure 7: Obtaining a Timed urine collection

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation		Performed	
			yes	no
	Prepare Equipments: • Large collection container with a cap, Gloves, Bedpan or urinal if patient doesn't have an indwelling catheter, graduated container if patient is on intake and output measurement, Ice filled container if a refrigerator isn't available, Label, Laboratory request form.			5.1
	Procedure			
1.	Explain the procedure for the patient.			5.1
2.	Provide privacy.			5.1
3.	Wash hands.			5.2
4.	**A. 2-hour collection:** • Instruct the patient to Intake 470- to 950 ml of water about 30 minutes before collections begins. • After 30 minutes, tell him to void. Put on gloves and discard this specimen so the patient starts the collection period with an empty bladder. Record the time. • After each voiding, put on gloves and add the specimen to the collection container. • Keep the container in the refrigerator or in ice. • Instruct the patient to void about 15minutes before the end of the collection period. **3 points**			5.1
5.	**B. 12- and 24-hour collection:** • Put on gloves and ask the patient to void then Discard this urine (empty bladder) and record the time. • After putting first urine specimen into the collection container, keep the container into ice until the next voiding. • Collect all urine voided during the prescribed period before the collection period ends, ask the patient to void again. **3 points**			5.1
6.	Label the collection container and send it to the laboratory with laboratory request.			5.1
7.	Documentation: record date and interval of specimen collection and time of container sending to the laboratory			5.1

Result:

CLO	Student Performance		
5.1	……./8		
5.2	……./1	**Final Result**	**……./9**

Clinical Skills in Patient Care
Unit Six
Diagnostic Testing

Procedure 8: Sputum Sample Collection

Student's Name: …….

ID Number: …….. **Date: / /143 H**

Preparation		Performed		CLO
		yes	no	
	Prepare Equipments: • Sterile specimen container with tighter cap. • Gloves (if necessary). • Laboratory request. • Distilled water. • Facial tissues.			5.1
Procedure				
1.	Explain the procedure for the patient.			5.1
2.	Provide privacy.			5.1
3.	Wash hands.			5.2
4.	Position the patient (sit in a chair or at the edge of the bed or high Fowler's position).			5.1
5.	Ask the patient to rinse his mouth with water only to reduce contamination.			5.2
6.	Tell him to cough deeply and expectorate directly into the specimen container.			5.1
7.	Done gloves, close the container.			5.2
8.	Remove and discard your gloves, and wash your hands			5.2
9.	Label the container with the patient's name, doctor's name, date and time of collection.			5.1
10.	Record the time and date of collection and sending.			5.1

Result:

CLO	Student Performance		
5.1	……./7		
5.2	……./4	**Final Result**	**……./11**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Seven
Intravenous Therapy

Procedure 1: Starting an Intravenous Infusion

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed yes	Performed no	CLO
1.	Equipment: • IV solution. • IV tubing. • IV stand. • IV catheter (cannula or butterfly needle). • Tourniquet. • Cleansing swabs (alcohol, povidine-iodine). • Towel or disposable pad. • Gauze. • Time tape or label (for IV container). • Non-allergenic tape. • Electronic infusion device (if ordered). • Disposable gloves. • Watch or o'clock and pen and paper.			5.1
	Procedure			
1.	Gather all equipment and bring to bedside. Check IV solution and medication additives with physician's order.			5.1
2.	Explain procedure to patient and wash your hands.			5.1
3.	Prepare IV solution and tubing: • Maintain aseptic technique when opening sterile packages and IV solution.			5.2
	• Clamp tubing, uncap spike, and insert into entry site on bag as manufacturer directs. • Squeeze drip chamber and allow it to fill at least half way. • Remove cap at end of tubing, release clamp, and allow fluid to move through tubing. Allow fluid to flow until all air bubbles have disappeared. Close clamp and recap end of tubing, maintaining sterility of setup. **3 points**			5.1
	• Calculate the drop/minute or the rate. **6 points**			4.1
	• Apply label contain patient name, type and amount of solution, frequency of dose, rate(drop/minute), start and end time, and any additives(name, amount)			5.1
4.	Put the patient in a low Fowler's position. Place protective towel (pad) under the arm.			5.1

5.	Select an appropriate site and palpate accessible veins.			5.1
6.	If the site is hairy and agency policy permits, clip a 5 cm area around the intended site of entry.			5.1
7.	Apply a tourniquet 10- 15 cm above the venipuncture site.			5.1
8.	Ask the patient to open and close his/her fist. Observe and palpate for a suitable vein. Try the following techniques if a vein cannot be felt: • Release the tourniquet and have the patient lower his or her arm below the level of the heart to fill the veins or : • Gently taps over the intended vein to help distend it or: • Remove tourniquet and place warm moist compresses over the intended vein for 10 to15 minutes.			5.1
9.	Cleanse the entry site with an antiseptic solution according to agency policy. Use a circular motion to move from the center to outward.			5.1
10.	Use the nondominant hand to hold the skin against the vein. Avoid touching the prepared site.			5.1
11.	Enter the skin gently with the catheter held by the center in the dominant hand, bevel (the opening of the needle) side up, at a 10- to 30 degree angle. While following the course of the vein, advance the needle or catheter into the vein.			5.1
12.	When blood returns through the lumen of the needle or the chamber of the catheter, advance farther into the vein.			5.1
13.	Release the tourniquet. Quickly remove protective cap from the IV tubing and attach the tubing to the catheter or needle. Stabilize the catheter or needle with nondominant hand.			5.1
14.	Start the flow of solution by releasing the clamp on the tubing. Examine the tissue around the entry site for signs of infiltration (infusion of fluid in the skin).			5.1
15.	Secure the catheter with non-allergenic tape (side up and crossed over the device).			5.1
16.	Place sterile dressing over venipuncture site.			5.1
17.	Mark the date, time, and type of the catheter used.			5.1
18.	Fixing the tube with tape if needed.			5.1
19.	Adjust the rate of solution flow according to the amount prescribed or follow manufacturer's directions for adjusting flow rate on infusion pump.			5.1
20.	Remove all equipment and wash hands.			5.1
21.	Document the procedure .			5.1
22.	Return to check flow rate and observe for infiltration 30 minutes after starting infusion.			5.1

Result:

CLO	Student Performance		
4.1	……/6		
5.1	……/23		
5.2	……/1	**Final Result**	**……/30**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Seven
Intravenous Therapy

Procedure 2: Changing an IV dressing

Student's Name: …….

ID Number: …….. **Date: / /143 H**

Preparation		Performed		CLO
		yes	no	
1.	Equipment: • Towel. • Tape. • Clean gloves for peripheral & sterile gloves for central venous. • Sterile gauze or occlusive dressing**.** • Alcohol swabs or Povidine-iodine swabs.			5.1
Procedure (Peripheral IV)				
1.	Collect equipment and put them on bedside.			5.1
2.	Place towel or disposable pad under extremity.			5.1
3.	Wash your hands. Wear clean gloves.			5.2
4.	Carefully remove old dressing and leave tape that fix IV catheter in place.			5.1
5.	Assess IV site for presence of inflammation or infiltration.			5.1
6.	Loosen tape and gently remove it, steady catheter with one hand.			5.1
7.	Cleanse the entry site with an alcohol swab using a circular motion moving from the center outward. Allow to dry. Follow with povidine-iodine swab.			5.1
8.	Reapply tape strip to needle or catheter at entry site.			5.1
9.	Apply sterile gauze or dressing over entry site. Remove gloves.			5.1
10.	Secure IV tubing with additional tape if necessary. Label dressing with date, time of change, and initials. Check that IV flow is accurate.			5.1
Procedure (Central Venous Access Device)				
1.	Collect equipment and put them on bedside.			5.1
2.	Place towel or disposable pad under patient.			5.1
3.	Loosen tape and gently remove dressing.			5.1
4.	Open dressing kit using sterile technique. Put on sterile gloves.			5.1
5.	Using the alcohol swabs, move in a circular motion from the insertion site outward (2.5 cm- to 5cm). Allow to dry.			5.1
6.	Cleanse with povidine-iodine swabs using the same above technique.			5.1

7.	Reapply sterile dressing. Secure tubing or lumens to pre-insertion site.			5.1
8.	Documents date, time of dressing change, size of catheter.			5.1
9.	Label dressing with date, time of change, and initials.			5.1
10.	Discard equipment and wash hands.			5.2
11.	Record patient's response to dressing change and observation of site.			5.1

Result:

CLO	**Student Performance**		
5.1	……./20		
5.2	……./2	**Final Result**	**……./22**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Seven
Intravenous Therapy

Procedure 3: Administration of Blood

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
1.	Equipment: • Blood product. • Blood administration set (tubing with in-line filter & Y for saline administration). • IV stand. • 0.9% N/S (Dextrose may lead to clumping of red blood cells & hemolysis). • IV cannula (large). • Disposable gloves. • Tape.			5.1
	Procedure			
1.	Ask if the patient has had a transfusion or a transfusion reaction in the past.			5.1
2.	Explain procedure to patient. Advise patient to report any chills, itching, rash, or unusual symptoms.			5.1
3.	Obtain blood product from blood bank (according to agency policy).			5.1
4.	Complete identification and checks as required by agency: • Identification number. • Blood group and type. • Expiration date. • Patient's name. • Inspect blood for clots.			5.2
5.	Check for order and signed consent for transfusion (according to the policy).			5.1
6.	Warm the blood (covering the blood unite with blanket).			5.1
7.	Wash your hands and put on clean gloves.			5.2
8.	Hang container of 0.9% normal saline with blood administration set to initiate IV infusion and follow administration of blood. Start flow of normal saline.			5.1
9.	Take baseline vital signs before beginning transfusion (notify Dr If abnormal).			5.1
10.	Start infusion of the blood product: • Fill in-line filter with blood. • Start administration slowly (no more than 25- 50 mL for the first 15 minutes). Stay with the patient for the first 5-15 minutes of transfusion.			5.1

	• Check vital signs /5 minutes for the first half hour after the start of the transfusion and then / 1/2 hour or hour after the transfusion depending on agency policy. Any change in vital signs during the transfusion may indicate a reaction. • Increased infusion rate (If no adverse effects during the first half hour). • Observe patient for flushing, dyspnea, itching, rash. **3 points**			
11.	Maintain the prescribed flow rate as ordered.			5.1
12.	Stop blood transfusion and allow saline (prevents hemolysis of red blood cells and wash the blood in IV line) to flow if you suspect a reaction. Notify physician and blood bank.			5.1
13.	When transfusion is complete, infuse 0.9% normal saline.			5.1
14.	Record administration of blood and patient's reaction. Return blood transfusion bag to blood bank (according to agency policy).			5.1

Result:

CLO	**Student Performance**		
5.1	……./15		
5.2	……./2	**Final Result**	**……./17**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Eight
Nutrition

Procedure 1: Inserting a Nasogastric Tube

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	No	
1.	Determine: • The size of tube to be inserted. • Whether the tube is to be attached to suction.			5.1
2.	Prepare equipment: • Nasogastric tube (appropriate size). • Water-soluble lubricant. • Tongue blade. • Light. • Stethoscope. • Syringe 20- 50 ml with an adapter. • Tape. • Facial tissues. • Glass of water. • Suction apparatus. • Bath towel or disposable pad. • Safety pin and rubber band. • Clamp. • Emesis basin.			5.1
	Procedure			
1.	Check the physician's order for inserting a nasogastric tube.			5.1
2.	Explain the procedure.			5.1
3.	If the NGT is rubber, place it in a basin with ice for 5 to 10 min (optional).			5.1
4.	Wash your hands.			5.2
5.	Provide privacy for the patient.			5.1
6.	Assist the client to a high Fowler's position and drape his chest with a bath towel or disposable pad.			5.1
7.	Check the nares for patency by asking the client to occlude one nostril and breathe normally through the other. Select the nostril through which air passes more easily.			5.1
8.	Measure the distance to insert the tube by placing the tip of the tube at the client's nostril and extending it to the tip of the earlobe and the length of tubing needed to reach the client's stomach (xiphoid process).			5.1
9.	Lubricate the first 10 - 20 cm of the tube with water-soluble lubricant.			5.1
10.	Ask the client to lift his head, and insert the tube into the nostril while directing the tube downward and backward.			5.1

11.	Instruct the client to bring his head forward. Advance the tube in a downward and backward direction. Swallowing or drinking water through a insertion may be helpful.			5.1
12.	Check placement of the tube with a tongue blade and. flashlight.			5.1
13.	Keep advancing the tube until the tape marking is reached. Do not use force. Rotate the tube if it meets resistance.			5.1
14.	Remove the tube if patient develop coughing, cyanosis, & inability to speak.			5.1
15.	Determine that the tube is in the client's stomach: • Aspirate 10-20 cc by the syringe (green to yellow materials) • Inserts 10-20 cc of air in the tube and listens to the sound in the stomach area. If sounds not heard in epigastria area so the tube is out.			5.1
16.	Secure the tube to the client's face with tape: • Cut a piece of tape and split the bottom 2 inches. • Place the unsplit end over the bridge of the client's nose. • Wrap the split ends around the tubing.			5.1
17.	Attach the tube to suction or clamp the tube (according to the purpose).			5.1
18.	Secure the tube to the client's gown by using a rubber band or tape and a safety pin.			5.1
19.	Wash hands. Remove all equipment, and make the client comfortable.			5.2
20.	Record the insertion procedure, type and size of tube, description of gastric contents, and the client's response.			5.1

Result:

CLO	**Student Performance**		
5.1	……./20		
5.2	……./2	**Final Result**	**……./22**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Eight
Nutrition

Procedure 2: Removing a Nasogastric Tube

Student's Name: …….

ID Number: …….. **Date: / /143 H**

Preparation		Performed		CLO
		yes	no	
1.	Prepare equipment: • Disposable pad. • Tissues. • Disposable gloves. • 50-mL syringe (optional). • Plastic disposable bag.			5.1
Procedure				
1.	Confirm the physician's order to remove the tube.			5.1
2.	Explain the procedure.			5.1
3.	Wash your hands.			5.2
4.	Provide privacy for the patient.			5.1
5.	Assist the client to a sitting position, if health permits.			5.1
6.	Detach the tube: • Disconnect the nasogastric tube from the suction apparatus, if present. • Unpin the tube from the client's gown. • Remove the adhesive tape securing the tube to the nose.			5.1
7.	Remove the nasogastric tube: • Put on disposable gloves. • Ask the client to take a deep breath and to hold it. • Quickly and smoothly, withdraw the tube. • Place the tube in the plastic bag. **2 points**			5.1
8.	Documentation.			5.1

Result:

CLO	Student Performance		
5.1	……/9		
5.2	……/1	**Final Result**	**……./10**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Eight
Nutrition

Procedure 3: Administering a Tube Feeding

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
1.	Prepare equipment: • Formula. • Stethoscope. • 50 cc syringe. • Feeding bag, or pre-filled tube feeding set. • Clamp. • Disposable pad or towel. • Water. • Gauze square. • Rubber band.			5.1
	Procedure			
1.	Check the physician's order for removing a nasogastric tube.			5.1
2.	Explain the procedure.			5.1
3.	Position the client with the head of the bed elevated at least 30 degrees or normal position for eating as possible.			5.1
4.	Check to see that the gastric tube is properly located in the stomach: • Aspirate 10-20 cc by the syringe (green to yellow materials). • Inserts 10-20 cc of air in the tube and listens to the sound in the stomach area. If sounds not heard in epigastria area so the tube is out. **2 points**			5.1
5.	When syringe is used: • Remove the bulb from the syringe and attach the syringe to the nasogastric tube which is closed by fingers or clamp. Fill the syringe, release the tubing, and introduce the prescribed amount slowly (by gravity). • Hold the syringe approximately 12 inches above the stomach level. • Do not let the syringe empty while introducing the formula. • Introduce 30 ml to 60 ml of water into the tube after the formula is completely introduced. • Clamp the gastric tube when water fills the tubing. Disconnect the syringe and cover the end of the tubing with gauze secured with a rubber band. When using a feeding bag:			5.1

	• Hang the bag on an IV stand and adjust to about 12 inches above the stomach. Clamp the tubing, and pour the formula into the bag. Release the clamp enough to allow the formula to run through the tubing. • Attach the tubing to the nasogastric tube, open the clamp, and regulate the drip according to the physician's order. • Add 30 ml to 60 ml of water to the feeding bag when the feeding is almost completed, and allow it to run through the tube. • Clamp the tubing immediately after the water has been completed. • Disconnect the feeding bag from the nasogastric tube. Clamp the nasogastric • Tube and cover the end with gauze secured with a rubber band. **3 points**			
6.	Wash and clean equipment and your hands.			5.2
7.	Record the type and amount of feeding and the client's response.			5.1

Result:

CLO	**Student Performance**		
5.1	……./10		
5.2	……./1	**Final Result**	**……./11**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Nine
Fecal Elimination

Procedure 1: Administering an Enema

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
1.	Prepare equipment: • enema set (bag and rectal tube). • Water-soluble lubricant. • Additives (soap, salt if ordered). • Solution as ordered by physician. • Bath thermometer. • Waterproof pad. • Bedpan and toilet tissue. • IV pole. • Disposable gloves. • Paper towel. • Washcloth. • Soap. • Towel.			5.1
	Procedure			
1.	Assemble the necessary equipment. Warm solutions in amount ordered, and check temperature with a bath thermometer (for adult 40°-43°C, for children 37.7°C).			5.1
2.	Explain the procedure to the patient and plan where he or she will defecate. Have a bedpan or nearby bathroom ready for his use.			5.1
3.	Wash your hands.			5.2
4.	Add enema solution to container. Release the clamp and allow fluid to progress through tube before reclamping.			5.1
5.	Position waterproof pad under the patient.			5.1
6.	Provide for patient's privacy. Position and drape the patient on the left side [Sims' position) with anus exposed or on the back, as dictated by patient comfort and condition.			5.1
7.	Put on disposable gloves.			5.1
8.	Elevate the solution so that it is 45 cm above the level of the patient's anus. Hung the container on an IV pole.			5.1
9.	Lubricate the end of the rectal tube for 5 to 7 cm.			5.1
10.	Lift the buttock to expose the anus. Slowly and gently insert the rectal tube 7 to 10 cm. Direct it at an angle pointing toward the umbilicus.			5.1
11.	If the tube meets resistance while inserting it, permit a small amount of solution to enter, withdraw the tube slightly and then continue to			5.1

	insert it. Do not force entry of the tube. Ask the patient to take several deep breaths.			
12.	Introduce the solution slowly. Commercial preparations may be administered by compressing container with hands, according to package.			5.1
13.	Clamp the tubing or lower the container if the patient has the desire to defecate or cramping occurs.			5.1
14.	After solution has been given, clamp the tubing and remove the tube. Have paper towel ready to receive tube as it is withdrawn. Have the patient keep the solution until the urge to defecate becomes strong, usually in about 5 to 15 minutes.			5.1
15.	Remove disposable gloves.			5.1
16.	Place him or her in a sitting position on a bedpan or assist to a commode or to the bathroom.			5.1
17.	Document the procedure.			5.1

Result:

CLO	**Student Performance**		
5.1	……./17		
5.2	……./1	**Final Result**	**……./18**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Nine
Fecal Elimination

Procedure 2: Caring of Stoma

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed yes	Performed no	CLO
1.	Prepare equipment: •Pouching system. •Plastic bag. •Bedpan. •Water or pouch cleaning solution. •Gloves. •Facial tissues. •Paper tape. •Soap. •Skin shaving equipment.			5.1
	Procedure			
1.	Provide privacy and emotional support.			5.1
2.	Select suitable pouch size and type			5.1
3.	Put on gloves. Remove and discard the old pouch.			5.1
4.	Carefully wash with mild soap and dry the peristomal skin by patting gently Allow the skin to dry thoroughly. Inspect the peristomal skin and stoma (If necessary, shave surrounding hair)			5.1
5.	Apply the adhesive part of the pouch (wait for 2 minute to adhered properly)			5.1
6.	Connect the bag with the adhesive part			5.1
7.	Remove gloves.			5.1
8.	Record the date and time of the pouching system change.			5.1

Result:

CLO	Student Performance		
5.1	……/9	**Final Result**	**……./9**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Ten
Urinary Elimination

Procedure 1: Applying an External Catheter (Condom)

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	No	
1.	Prepare equipment: • Condom sheath in appropriate size. • Basin of warm water and soap. • Washcloth and towel. • Bath blanket. • Disposable gloves. • Velcro strap. • Urinary drainage.			5.1
	Procedure			
1.	Explain the procedure to the patient.			5.1
2.	Assemble the equipment. Prepare urinary drainage setup.			5.1
3.	Wash your hands.			5.2
4.	Assist the patient to the supine position and provide privacy. Use the bath blanket and sheet to expose only the patient's genital area.			5.1
5.	Wear disposable gloves. Wash the genital area with soap and water, rinse, and dry thoroughly.			5.1
6.	Roll the condom sheath outward onto itself. Grasp the penis firmly with your nondominant hand. Apply the condom sheath by rolling it onto the penis with your dominant hand. Leave 2.5- to 5-cm space between the tip of the penis and the end of the condom sheath.			5.1
7.	Apply the elastic strap in a snug but not tight manner. Do not allow it to come in contact with the skin.			5.1
8.	Documentation.			5.1

Result:

CLO	Student Performance		
5.1	……./8		
5.2	……./1	**Final Result**	**……./9**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Ten
Urinary Elimination

Procedure 2: Performing Urinary Catheterization

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	No	
1.	Prepare equipment: • Sterile catheterization kit: o Sterile gloves. o Drapes. o Antiseptic solution. o Lubricant in 10 mL syringe. o Cotton balls or gauze squares. o Forceps. o Straight or indwelling catheter. o Pre-filled syringe). • Flashlight or lamp. • Tape. • Waterproof pad. • Urine collection bag.			5.1
	Procedure			
1.	Gather equipment, wash hand, explain procedure, provide good light, & privacy.			5.2
2.	Position the patient on his back with the thighs slightly separated. Drape the patient so that only the area around the penis is exposed.			5.1
3.	Clean the genital area and perineal area with warm soap and water. Rinse and dry. Wash your hand.			5.1
4.	Prepare the urine drainage.			5.1
5.	Open the sterile kit over table using sterile technique.			5.2
6.	Put on sterile gloves. Open the sterile drape and place it on the patient's thighs.			5.2
7.	Place the catheter set on or next to the patient's legs on the sterile drape.			5.1
8.	Open all supplies: • Tests the catheter balloon. Remove the protective cap on the tip of the syringe and attach the syringe pre-filled with sterile water to the injection port. Inject appropriate amount of fluid. If balloon inflates properly, withdraw fluid and leave syringe attached to port. • Pour antiseptic solution over cotton balls or gauze. • Remove the cap from the syringe pre-filled with lubricant. **2 points**			5.1
9.	Lift the penis with your non-dominant hand (which is then considered contaminated). Clean the area at the meatus with a cotton ball held with			5.1

	a forceps. Use circular motion, moving from the meatus toward the base of the penis for three cleansings.			
10.	Hold the penis with slight upward .Gently insert the tip of the syringe with lubricant into the urethra and instill the 10 mL of lubricant. Or lubricate catheter from the outside.			5.1
11.	Insert the tip into the meatus. Advance the catheter 15 to 20 cm in or until urine flows. If the catheter resists entry, ask the patient to breathe deeply and rotate the catheter slightly.			5.1
12.	Inflate the catheter with the syringe attached. Secure catheter to the upper thigh or lower abdomen with the penis directed toward the chest.			5.1
13.	Remove the equipment and make the patient comfortable in bed.			5.1
14.	Wash your hands.			5.2
15.	Record the time of the catheterization, the amount of urine removed.			5.1

Result:

CLO	**Student Performance**		
5.1	……./13		
5.2	……./4	**Final Result**	**……./17**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Ten
Urinary Elimination

Procedure 3: Removing folly's catheter

Student's Name: …….

ID Number: …….. **Date: / /143 H**

Preparation		Performed		CLO
		yes	No	
1.	Prepare equipment: • Gloves. • Syringe. • Cotton.			5.1
Procedure				
1.	Wash your hands. Assemble the equipment at the patient's bedside.			5.2
2.	Explain the procedure and tell him that he may feel slight discomfort. Tell him that you'll check him periodically during the first 6 to 24 hours after catheter removal to make sure he resumes voiding.			5.1
3.	Put on gloves. Attach the syringe to the balloon inflation opening on the catheter.			5.1
4.	Deflates the balloon by aspirating the injected fluid.			5.1
5.	Grasp the catheter with the absorbent cotton, inform client to take deep breath, and gently pull it from the urethra.			5.1
6.	Measure and record the amount of urine in the collection bag before discarding it.			5.1
7.	Discard the folly's, gloves, cotton, and syringe in proper way.			5.1
8.	Document care and assessment result.			5.1

Result:

CLO	Student Performance		
5.1	……/8		
5.2	……/1	**Final Result**	**……./9**

Name and Signature of Evaluator: …….

Clinical Skills in Patient Care
Unit Ten
Oxygenation

Procedure 1: Administering Oxygen by Cannula, Face Mask, or Face Tent

Student's Name: …….

ID Number: …….. **Date: / /143 H**

	Preparation	Performed		CLO
		yes	no	
1.	Determine the order for oxygen, including the administering device and the liter flow rate (L/min), or the percentage of oxygen.			5.1
2.	Prepare equipment: • Cannula: o Oxygen supply with a flow meter and adapter. o Humidifier with distilled water or tap water. o Nasal cannula and tubing. o Tape. o Padding for the elastic band. • Face Mask: o Oxygen supply with a flow meter and adapter. o Humidifier with distilled water or tap water. o Prescribed face mask of the appropriate size. o Padding for the elastic band • Face Tent: o Oxygen supply with a flow meter and adapter. o Humidifier with distilled water or tap water. o Face tent of the appropriate size.			5.1
	Procedure			
1.	Explain the procedure for the client.			5.1
2.	Wash hands.			5.2
3.	Provide privacy for the client.			5.1
4.	Place the client in appropriate position- a semi-Fowler's position, if possible.			5.1
5.	Set up the oxygen equipment and the humidifier: • Attach the flow meter to the wall outlet or tank. • If needed, fill the humidifier bottle. • Attach the humidifier bottle to the base of the flow meter. • Attach the prescribed oxygen tubing and delivery device to the humidifier. **3 points**			5.1
6.	Turn on the oxygen at the prescribed rate, and ensure proper functioning.			5.1
7.	Apply the appropriate oxygen delivery device. • **Cannula:**			5.1

	○ Put the cannula over the client's face, with the outlet prongs fitting into the nares and the elastic band around the head. • **Face Mask:** ○ Apply the mask from the nose downward. ○ Secure the elastic band around the client's head. • **Face Tent:** ○ Place the tent over the client's face, and secure the ties around the head.			
8.	Document findings in the client record.			5.1

Result:

CLO	Student Performance		
5.1	……./11		
5.2	……./1	**Final Result**	**……./12**

Name and Signature of Evaluator: …….