



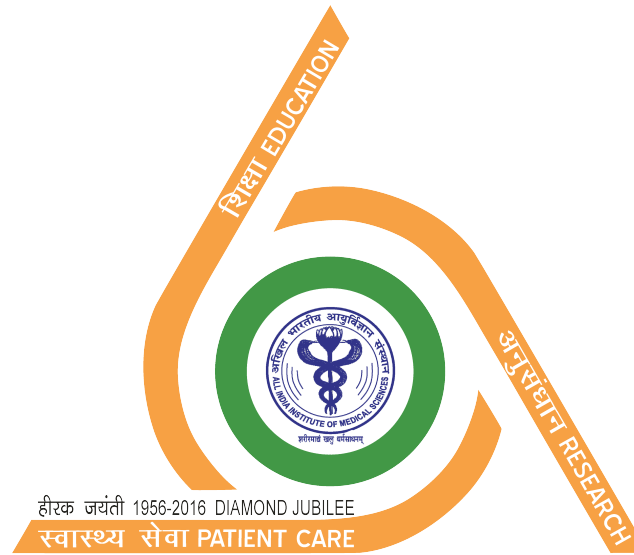
# **Manual of Nursing Procedures**

**Officer of Chief Nursing Officer**

**AIIMS, New Delhi**



# NURSING PROCEDURE MANUAL



**ALL INDIA INSTITUTE OF MEDICAL SCIENCES  
NEW DELHI, INDIA**

**Nursing Procedure Manual**  
**AIIMS,, New Delhi, India**

**Chief Editor**

Ms. Kamlesh Chandelia, Chief Nursing Officer

**Editors**

Ms. Rebecca Herald, ANS, NIE

Ms. Srinithya Raghavan, SNO, NIE

Ms. J. Subbulakkshmi, SNO, NIE

**Contributors**

Ms. Rajni Rehani, DNS

Ms. Vandana Singh, DNS

**Content Validation**

Dr. Poonam Joshi, Principal, College of Nursing  
AIIMS, Kalyani.

Ms. Aditi Sinha, Assoc. Professor  
College of Nursing, AIIMS, New Delhi

First Edition

Year of Publication 2022

**Published by**

Office of Chief Nursing Officer  
All India Institute of Medical Sciences  
New Delhi

## **PREFACE BY MS, AIIMS**

### **FORWARD**

It gives me immense pleasure to be sharing my thoughts on the much needed Nursing-in-service education manual. At the outset, I extend my heartiest congratulations to all contributors who put their efforts in compilation of this manual. I am sure the topics covered in it would serve as guiding templates for day to day procedures aimed at giving patient care services. In an apex institute like ours, it is all the more important to bring elements of standardization, quality and patient safety in however simple task we may perform. Different nursing personnels at different stages of their career can get a step by step procedural insight from this manual. The hands of approach imported through topics like bed making, mouth care, Administration of medications, nebulisation, suctioning, and urinary catheterization will go a long way in improving and inculcating the culture of patient safety and quality in these indispensable processes which form the cornerstone of patient care.



With this, I once again applaud the team efforts who extended their valuable contribution in bringing out this manual.

(Dr. D. K. Sharma)

# PREFACE

## CHIEF NURSING OFFICER, MAIN HOSPITAL

Nursing is a profession that is dedicated to render care to human lives and which needs a sound scientific knowledge, technical and soft Skills.

AIIMS is the premiere institute of this great nation with its exemplary contribution towards patient care, education and research. Keeping at par with this excellence, Nursing Services at AIIMS, New Delhi has made an effort to bring out this nursing Procedure Manual with an aim to provide uniformity in discharging patient care and to maintain a standardized protocol of quality nursing care in this premiere institute.

I hope that this manual will not only help the clinical nurses at AIIMS, New Delhi but will also ignite minds to bring out many more such manuals to help nursing fraternity not only in India but also globally.



A handwritten signature in black ink, appearing to read 'Kamlesh'.

Ms. Kamlesh Chandelia  
Chief Nursing Officer  
Main Hospital  
AIIMS, New Delhi.

# INDEX

|  | <b>Page No.</b> |
|--|-----------------|
| 1. Bed Making  | 12 - 18         |
| 2. Special Mouth care  | 19 - 20         |
| 3. Administering Oral Medications  | 21 - 22         |
| 4. Administering Injections  | 23 - 27         |
| 5. Administering Oxygen  | 28 - 32         |
| 6. Nebulisation Therapy  | 33 - 34         |
| 7. Sterile Endotracheal Suctioning   | 35 - 37         |
| 8. Administering Blood and Blood Components                                  | 38 - 39         |
| 9. Catheterization of Urinary Bladder  | 40 - 43         |
| 10. Administrating Enema   | 44 - 45         |
| 11. Nasogastric Intubation   | 46 - 48         |
| 12. Administering Enteral Feeds  | 49 - 53         |
| 13. Surgical Dressings   | 54 - 56         |
| 14. Assisting the Patients Undergoing Diagnostic<br>& Therapeutic Procedures | 57 - 63         |

# 1. BED MAKING

## 1a. OPEN BED

### Definition

Open Bed is defined when the bed is occupied, but the patient is walking around or ambulatory and not occupying the bed at the time of bed making.

**\* As per the circular no. F.15/Misc./2020-Estt-(H) dated 03.09.2020, if called upon for assistance by the nursing officer on duty for personal care & hygiene of hospitalized patients, it is the professional obligation of HA/SA to provide requisite assistance.**

### Articles Required

- Mattress with cover
- Bed sheets (As per predesignated Colour)-2
- Draw sheet -1
- Draw mackintosh -1
- Pillow cover -1
- Pillow -1
- Counter pane/bed cover (if available)- 1
- Blanket - 1
- Stool/chair for keeping articles
- Dirty linen trolley/hamper for dirty linen
- Gloves 1 Pair (Optional)

### Procedure

- Wash hands and assemble the articles and take to the bedside.
- Place the stool or chair at the foot end of the bed.
- Arrange the clean and folded linen in order of its use.
- Keep the pillow on the chair.
- Loosen the bed linen at all the sides .Strip the blanket and hang it over the chair or stool for re-use.
- Remove the used linen, place it in the hamper .Spread the bottom sheet lengthwise keeping the centre of it at the centre of the mattress from the right side.

- Tuck the bottom sheet 8 inches at the head end .Make envelope corners at the head end and foot end on your side.
- Pull tight at the centre and tuck in securely, along the side.
- Spread mackintosh and draw sheet placing the centers at 15" from the head end of the mattress and tuck them on your side.
- Go over the other side of the bed , straighten the bottom linen and repeat the above three steps.
- Spread the top sheet at the level of the mattress of the head end placing the centre in the centre of the mattress Spread the blanket (when required) two inches below the top sheet keeping its centre at the centre of the bed.
- Spread the counter pane if available over the blanket placing its centre at the centre of the bed.
- Fold the top linen 18 inches at the level of patient's shoulders .
- Tuck and make envelopes corner at the foot end of the bed. Move over to the other side, straighten the top linen and repeat steps .
- Slip the pillow into the pillow cover, place it keeping the open side away from the entrance.
- Remove equipments and soiled linen and discard appropriately.
- Adjust the bedside locker and stoolleave the unit tidy.
- Wash hands.

## **1b. CLOSED BED**

### **DEFINITION**

Unoccupied bed which denotes the unit is vacant.

### **ARTICLES REQUIRED**

Same as open bed

### **PROCEDURE**

- *All the steps as in open bed.*
- Pillow is kept after spreading bottom sheet, mackintosh, draw sheet.
- Unfold the top linen at head end; and tuck all the open sides.

## **1c. OCCUPIED BED**

### **DEFINITION:**

The bed which is made with the patient in the bed, at the time of bed making.



**DEFINITION:**

The bed which is made with the patient in the bed, at the time of bed making.

**ARTICLES REQUIRED**

Same as in open bed

**PROCEDURE•**

- Explain the procedure to the patient.
- Wash hands .
- Collect articles at the bedside
- Screen the patient. Flatten the bed if patient is propped up
- Place the chair or stool at foot end of the bed
- Place the clean and folded linen on the chair in order of its use.
- Loosen the bed linen from right side.
- Strip the counter pane (and blanket) if any .
- Strip the extra blankets one by one and place it at the footboard of the bed or back of the chair.
- Leave top sheet (and one blanket in winter on the patient) remove extra pillows leaving the one under the patient's head, and place them on the chair
- Turn the patient towards you. Go to the other side of the bed
- Fold the draw sheet towards the patient's back.
- Roll the draw mackintosh towards the patient's back
- Fold bottom sheet towards the patient's back.
- Place the clean bottom sheet ,length wise keeping the centre of the bed and.
- Proceed as in making open bed .
- Unroll the draw mackintosh ,tuck firmly on your side.
- Ensure the draw mackintosh is clean and free of wrinkles.
- Place the draw sheet tuck on your side and fold remainder close to the patient's back.
- Turn the patient towards you over the linen
- Go to the opposite side of the bed if there is no one to assist. Remove the used linen and place it in hamper bag.

- Spread out the bottom linen without wrinkles and tuck each side separately.
- Position the patient comfortably on the bed.
- Spread the top sheet and remove the top linen carefully without exposing the patient. Hold the top end of clean sheet with one hand and with the other hand pull the soiled top sheet from underneath towards the foot of the end.
- Place the blanket and counterpane keeping the centre at the centre of the bed and proceed as for open bed.
- Change pillowcase if necessary.
- Place pillow in position and make patient comfortable
- Replace articles.
- Wash hands.

#### **1d. OPERATION BED**

##### **DEFINITION**

It is a bed prepared for a patient who is recovering from the effects of anesthesia following surgery.

##### **ARTICLES REQUIRED**

SAME AS IN OPEN BED.

##### **Additional Articles:**

- Small mackintosh and treatment bowl
- B.P. Instrument, TPR tray, Resuscitation tray
- I.V. Stand
- Central oxygen supply with complete set
- Suction machine with tubing/central vacuum system
- Tourniquet
- Hot water bottles/Electric Blanket( If Available)

##### **A clean tray containing**

- A bowl with gauze pieces
- Artery forceps

- Tongue depressor spatula
- Airway
- Kidney tray
- Use carbolized bed .
- Spread the bottom linen as in open bed .
- Place the small mackintosh covered with treatment towel at the head end of the bed .
- Make the top bed cloths as in open bed and do not tuck the linen at the foot end .
- Fold up the foot end linen like the head end linen Fan fold the top linen lengthwise covering 2/3 of the bed on the right Side.
- Tuck the top linen on the opposite side.
- Place the covered hot water bottle under the top linen to warm the bed, one at the head end and other at the foot end.
- Place the pillow upright at the head of the bed .
- Check the oxygen and suction apparatus
- Leave the unit tidy .
- Wash hands.

## **2. SPECIAL MOUTH CARE**

### **ARTICLES REQUIRED**

A Tray Containing

- Gauze pieces in a small bowl
- Container with artery forceps, swab sticks and mouth gag
- Listerine / betadine, chlorhexidine gluconate or any other mouth wash prescribed.
- Boroglycerine, vaseline
- Feeding cup with water

### **PROCEDURE**

- Explain the procedure to the patient .
- Take tray to bedside.
- Wash hands take the patient to sit up if possible otherwise turn the head to one side.

- Place the small mackintosh and towel under the patient's chin .
- Open mouth by gently pressing lower jaw forward in unconscious patient .
- Clamp gauze pieces on artery forceps, dip in solution, squeeze and clean inside of cheeks and tongue.
- Clean upper teeth from gums to downwards and lower teeth from lower side to upwards massaging the gums.
- Clean inside of the cheeks in circular motion.
- Allow the patient to rinse mouth with solution first and then with water thoroughly. In unconscious patients let the fluid flow through the corner of the mouth or clean with wet gauze sponges.
- Clean lips with towel. Observe for any tooth decay, coated tongue, cracked lips or any other abnormalities and report .
- Apply glycerin or any other emollients to tongue, gums and lips.
- Remove kidney tray, mackintosh and towel .Put the patient in comfortable position.
- Replace the articles after getting them cleaned.
- Wash hands .
- Record the procedure.

### **3. ADMINISTRING ORAL MEDICATION**

#### **Equipment :**

- Medication tray
- Medication cups
- Medications
- Pill crushing device

#### **PROCEDURE**

- Assess for any contra indications to patient receiving oral medication.
- Verify the patient's name, prescribed medication, dose, route, time, and indication.
- Perform hand hygiene. Select medication and compare the label.
- Check the expiration date.

- Calculate medication dose as necessary.
- Double check calculation.
- All tablets/capsules to be given at the same time may be placed in one medicine cup.
- Identify the patient by comparing name and explain to him/her.
- Administer medications:
  - For Tablets: give medications in hands and offer water.
  - For sublingual: Have patient place medications under her/his tongue and allow it to dissolve completely. Caution patient against swallowing tablet.
  - If the tablet falls on the floor, discard it and repeat preparation.
  - Stay until the client has swallowed completely.
  - Assist the client in returning to comfortable position.
  - Evaluate patient's response to medications.
  - Record administration of oral medications in the chart.
  - Record the reason if any drug is withheld and inform the doctor.

#### **4. ADMINISTERING INJECTIONS**

##### **Articles:**

##### **A tray containing**

- Disposable syringe
- Needle
- Alcohol swab/ sterile cotton swab
- Medication
- Disposable gloves

##### **PROCEDURE**

- Review the order (name, dose, time, route and indication). Assess for any history of allergy. Check date of expiration of medicine Assess for contraindications.
- SC : circulatory shock, reduced local tissue perfusion etc.
- IM : muscle atrophy, reduced blood flow or circulatory shock

- Aseptically prepare correct medication.
- Check carefully. Be sure all air is expelled.
- Perform hand hygiene.
- Identify patient.
- Explain the procedure to patient and provide privacy.
- Put on disposable gloves. Keep sheet or gown draped over body parts not requiring exposure.
- Select appropriate injection site.
- Inspect the skin surface for bruises, inflammation or edema.
- Cleanse site with an antiseptic swab.
- Hold the swab in between third and fourth fingers of non dominant hand.
- Remove needle cap by pulling it straight off.
- Administer injection:

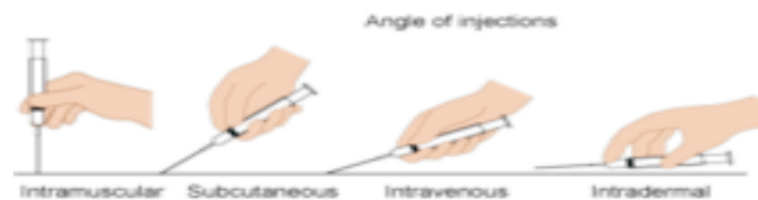
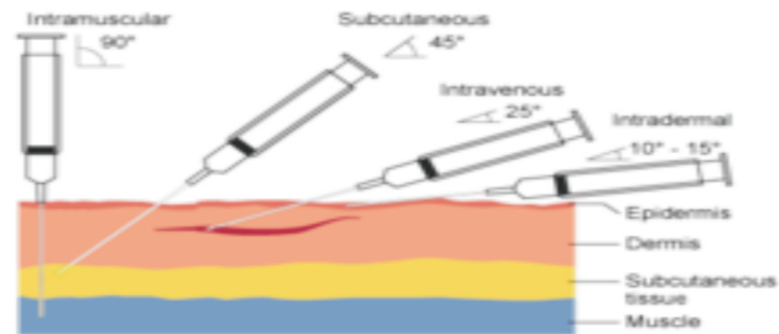
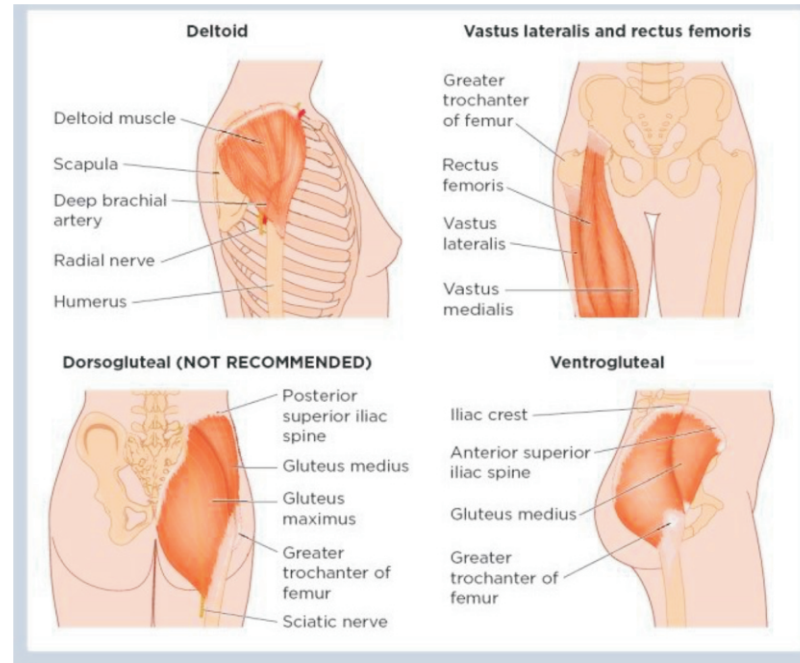
**Subcutaneous:**

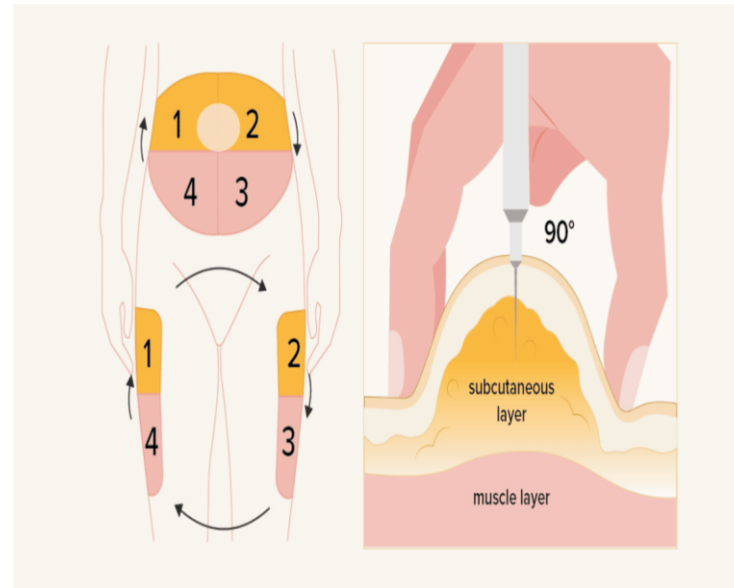
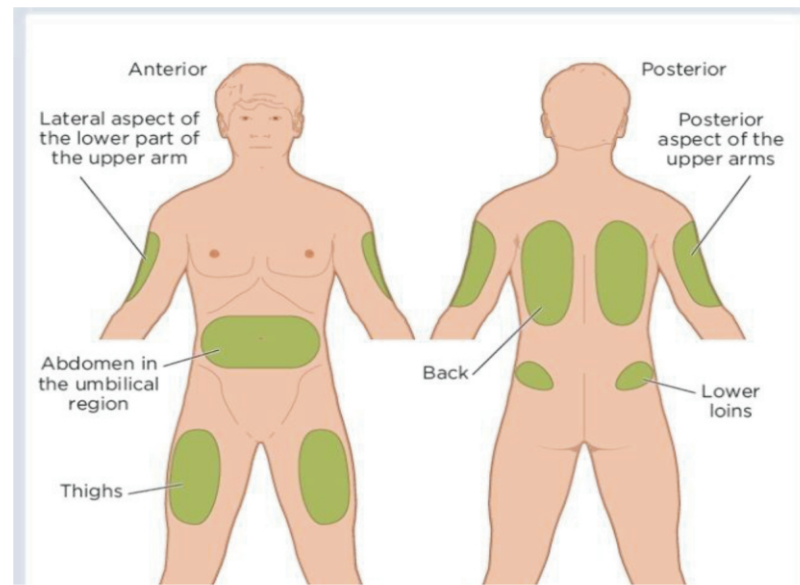
- Select the injection site.
- Pinch the skin with forefinger and thumb of non dominant hand.
- Inject needle quickly and firmly at 90 degree angle.
- Inject medication slowly.
- Once injected hold for three seconds and remove the needle.

**Intra muscular:**

- Select the site.
- Position non dominant hand at proper anatomical landmarks and pull skin down.
- If muscle mass is small, grasp body of muscle between thumb and fingers.
- Insert needle quickly at 90 degree angle into muscle. (Z Track method). After needle pierces skin, grasp lower end of syringe barrel with non dominant hand to stabilize the syringe.
- Continue to hold skin tightly with non dominant hand. Move dominant hand to end of plunger. Do not move syringe.

- Pull back on plunger 5 to 10 seconds if no blood appears, inject medicine slowly, at a rate of 1ml/10 sec.







**Intradermal:**

- Select the site
- With non dominant hand stretch over the skin with index and fore finger.
- With needle almost against skin, insert it slowly with bevel up at a 5 to 15 degree angle until resistance is felt. Then advance the needle through epidermis to approximately 3 mm below skin surface. Needle tip can be seen through skin.
- Inject medication slowly. Normally resistance is felt. If not, needle is too deep remove and begin again.
- While injecting medication, notice that small bleb approximately 6 mm in diameter appears on skin surface.
- Withdraw needle while applying swab gently over the site.
- Apply gentle pressure, don't massage site.
- Discard the items, wash hands .
- Document the procedure.

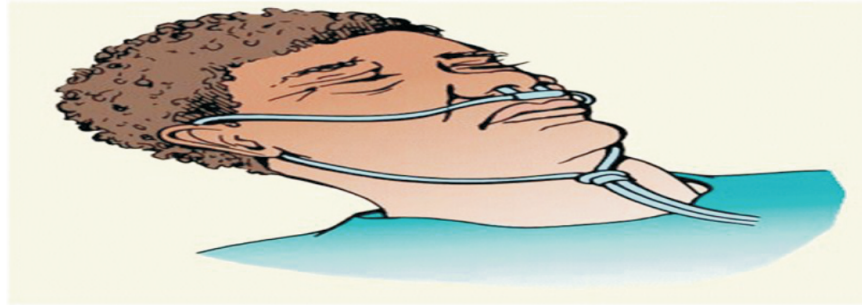
**5. ADMINISTERING OXYGEN****5a. BY NASAL CANNULA****Articles:**

- Oxygen source
- Nasal cannula with connecting tubing
- Flow meter with Humidifier filled with sterile water

**PROCEDURE :**

- Verify correct patient. Determine current vital signs, Level of Consciousness, and most recent ABG .Assess risk of CO<sub>2</sub> with oxygen administration.
- Show the nasal cannula to the patient and explain the procedure.

- Make sure the humidifier is filled to the appropriate mark.
- Attach the connecting tube from the nasal cannula to the humidifier outlet.
- Set the flow rate at the prescribed liters per minute. (2— liters)
- Feel to determine if oxygen is flowing through the tips of the cannula .
- Place the tips of the cannula in the patient's nose and adjust straps around ears for snug, comfortable fit.
- Record flow rate used and immediate patient response.
- Assess the patient's condition, ABG or SaO2 functioning of equipment at regular intervals.



## 5. ADMINISTERING OXYGEN

### 5b. BY SIMPLE FACE MASK

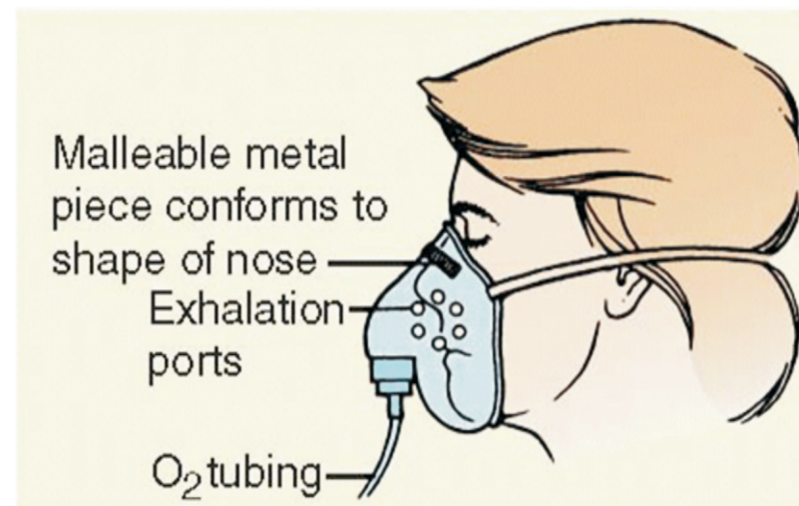
#### Articles:

- Oxygen source
- Flow meter with Humidifier filled with sterile water
- Simple face mask or aerosol mask

#### PROCEDURE :

- Verify correct patient.
- Determine current vital signs.

- Collect the equipments.
- Show the mask to the patient and explain the procedure.
- Attach the large bore tubing from the mask to the flowmeter.
- Set desired oxygen concentration and plug in the heating element, if used.
- Adjust the flow rate until the desired mist is produced (usually 10 to 12 L/minute).
- Apply the mask to the patient's face and adjust the straps so the mask fits securely.
- Dry face around mask every 2 hours.
- Drain the tubing frequently by emptying condensate into a separate receptacle, not into the humidifier.
- If a heating element is used, the tubing will have to be drained more often.
- Record FiO<sub>2</sub> and immediate patient response.
- Notify the physician if intolerance occurs.
- Assess the patient's condition and the functioning of equipment at regular intervals.



**5. ADMINISTERING OXYGEN**  
**5c. BY WAY OF ENDOTRACHEAL AND TRACHEOSTOMY**  
**TUBES WITH A T-PIECE**

**Articles:**

- Oxygen
- Flow meter
- Large-bore tubing
- T-piece and reservoir tubing

**PROCEDURE**

- Verify correct patient.
- Assess the patient's SaO<sub>2</sub> hemodynamic status, and Level Of Consciousness frequently. If patient condition changes, assess ABGs.
- Show the Tube to the patient and explain the procedure.
- Make sure the humidifier is filled to the appropriate mark.
- Attach the large bore tubing from the Tube to the humidifier outlet.
- Set desired Flow Rate humidifier bottle and plug in heating element if used.
- Adjust the flow rate until the desired mist is produced and meets the patient's inspiratory demand.
- Drain the tubing frequently by emptying condensate into a separate receptacle, not into the humidifier.
- If a heating element is used, the tubing will have to be drained more often .
- *Administering oxygen via endotracheal tube with a T-piece adapter. A T-piece adapter is attached to the endotracheal tube and large bore tubing, which serves as a source of oxygen and humidity.*
- Record FiO<sub>2</sub> immediate patient response.
- Note patient's tolerance of treatment.
- Report if intolerance occurs.
- Assess the patient's condition and the functioning of equipment at regular intervals.
- If the patient's condition changes, assess SaO<sub>2</sub> or ABGs and vital signs.
- Note changes suggesting increased work of breathing (diaphoresis, intercostal muscle retraction).

## 6. NEBULIZATION THERAPY

### Articles:

- Air compressor
- Connection tubing
- Nebulizer
- Medication and saline solution

### PROCEDURE

- Auscultate breath sounds, monitor the heart rate before and after the treatment for patients using bronchodilator drugs.
- Verify correct patient.
- Explain the procedure to the patient. This therapy depends on patient effort
- Place the patient in a comfortable sitting or a semiowler's position.
- Add the prescribed amount of medication and saline to the nebulizer cup.(Choice of diluents to be according to the unit policy)
- Air Compressor: Connect the tubing to the compressor and set the flow at 6 to 8 L/minute.
- Ultrasonic Nebulizer: Start the nebulizer.
- Instruct the patient to exhale.
- Tell the patient to take in a deep breath from the mouthpiece, hold breath briefly, then exhale.
- Nose clips are sometimes used if the patient has difficulty breathing only through the mouth.
- Observe expansion of chest to ascertain that patient is taking deep breaths .
- Instruct the patient to breathe slowly and deeply until all the medication is nebulized.
- On completion of the treatment, encourage the patient to cough after several deep breaths.
- Record medication used and description of secretions.
- Disassemble and clean/disinfect nebulizer tubing and cup after each use.

## 7. STERILE ENDO TRACHEAL SUCTIONING

### Articles:

- Air compressor
- Sterile suction catheters –According to size. The outer diameter of the suction catheter should be no greater than one-half the inner diameter of the artificial airway.
- Two sterile gloves
- Sterile towel
- Suction source at 8020 mm Hg
- Sterile water/ normal saline
- Resuscitation bag with a reservoir connected to 100% oxygen source
- Sterile cup for normal saline
- Sterile water-soluble lubricant jelly
- Face mask

### PROCEDURE

- Auscultate breath sounds, monitor the heart rate before and after the treatment for patients using bronchodilator drugs.
- Verify correct patient.
- Monitor vital signs .
- Explain the importance of performing the suction procedure
- Assemble equipment.
- Check function of suction and manual resuscitation bag connected to 100% O2 source.
- Put on face mask. Wash hands thoroughly.
- If the patient is on mechanical ventilation, test to make sure disconnection of ventilator attachment may be made with one hand.
- Open sterile towel. Place on patient's chest around the neck.
- Place small amount of sterile water-soluble jelly on towel.
- Open suction catheter package. Put on sterile gloves.
- Designate one hand as contaminated for disconnecting, bagging, and working the suction control.
- Usually the dominant hand is kept sterile and will be used to thread the suction catheter.
- Use the sterile hand to remove carefully the suction catheter from the package, curling the catheter around the gloved fingers.
- Connect suction source to the suction fitting of the catheter with the contaminated hand.

- Using the contaminated hand, disconnect the patient from the ventilator, CPAP device, or other oxygen source.
- Ventilate and oxygenate the patient with the resuscitator bag, compressing firmly and as completely as possible approximately four to five times (try to approximate the patient's tidal volume). This procedure is called “bagging” the patient.
- Or, press Suction/ Preoxygenate mode in ventilator.
- In the spontaneously breathing patient, coordinate manual ventilations with the patient's own inspiratory effort.
- Gently insert suction catheter as far as possible into the artificial airway without applying suction.
- Most patients will cough when the catheter touches the carina. Withdraw the catheter  $\frac{3}{4}$  inch to 1 inch (2 to 3 cm) and apply suction.
- Quickly rotate the catheter while it is being withdrawn.
- Limit suction time to no more than 10 seconds.
- Discontinue if heart rate decreases by 20 beats/minute or increases by 40 beats/minute, or if cardiac ectopy is observed.
- Bag patient between suction passes with approximately four to five manual ventilations.
- Rinse catheter between suction passes by inserting tip in cup of sterile water and applying suction.
- Continue making suction passes, bagging the patient between passes, until the airways are clear of accumulated secretions.
- Limit insertions of suction catheter to as few as needed (do not exceed four passes per suction episode).
- Give the patient four to five “sigh” breaths with the bag.
- Return the patient to the ventilator or apply CPAP or other oxygen delivery device.
- Maintain closed suctioning if available.
- Suction oral secretions from the oropharynx above the artificial airway cuff.
- Note change in vital signs or patient's intolerance to the procedure. Record amount and consistency of secretions.
- Replace / Discard the articles as per BMW management policies.

## **8. ADMINISTERING BLOOD AND BLOOD COMPONENTS**

### **Articles:**

- Tourniquet
- I Skin antiseptic solution
- Intravenous Cannula or venous catheter
- Blood transfusion set
- Normal saline
- Blood product as prescribed

### **PROCEDURE**

- Verify patient has given informed consent for the procedure.
- Inform the patient of the procedure, blood product to be given, approximate length of time, and desired outcome.
- Obtain the basic vitals.
- Prepare transfusion site. Select a large vein that allows patient some degree of mobility.
- Start the prescribed I.V. infusion.
- Obtain blood product from blood bank.
  - Inspect for abnormal color, cloudiness, clots, and excess air.
  - Read instructions on the product label regarding storage and infusion.
  - Check expiration date. Verify patient and product identification by checking with unit physician.
  - Check bag labels for expiration date and satisfactory serologic testing.
  - Verify patient identification
  - Ask the patient to state his full name



- Compare the name, and ID number on the bag tag with patient chart.
- Confirm ABO and Rh compatibility by comparing the bag label, bag tag, medical record.
- Start infusion slowly (ie, 2 mL/minute). Remain at bedside for 150 minutes.
- If there are no signs of adverse effect, increase flow to the prescribed rate.
- Record the following information on the patient's Transfusion chart:
  - Time and names of persons starting and ending the transfusion.
  - Names of individuals verifying patient ID.
  - Unique product identification number.
  - Product and volume infused.
  - Immediate response—or example, “no apparent reaction..”
- Observe the patient closely and check vital signs at least hourly till and until 1 hour after transfusion.
- Report signs of adverse effect to health care provider immediately

## **9. CATHETERIZATION OF THE URINARY BLADDER**

### **Articles :**

- Sterile gloves
- Disposable sterile catheter set with singlese packet of lubricant
- Antiseptic solution for periurethral cleaning (sterile)
- Gloves, drape, pads
- Sheet for draping

### **Selection of catheter size**

- Use the smallest catheter capable of providing adequate drainage.
- Make sure that catheter is not too large or too tight at urethral meatus

### **Procedure :**

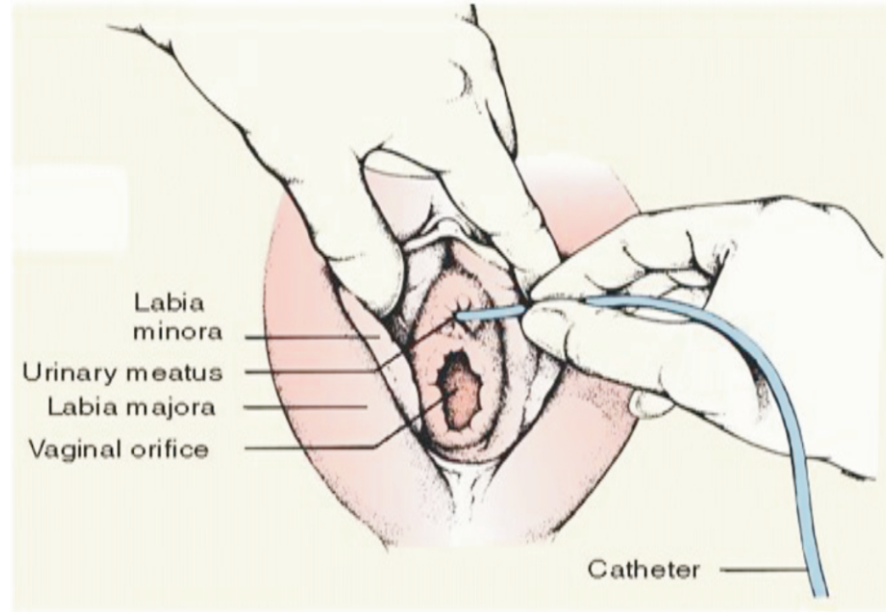
- Assess status of client.
- Explain procedure to patient
- Perform hand hygiene. Provide privacy. Place mackintosh under the client. Position the patient:

### **Female patient:**

- Wash hands. Put patient at ease.
- Assist to dorsal recumbent position( supine with knees flexed)
- Position in side lying (Sim's) with upper leg flexed at hip if can't assume recumbent position.
- Drape the patient
- Put on sterile gloves.
- Separate labia minora so urethral meatus is visualized one hand is to maintain separation of the labia until catheterization is finished
- Clean around the urethral meatus with a normal saline solution.
- Manipulate cleaning pads or cotton balls with forceps, cleaning with downward strokes from anterior to posterior.
- Introduce welllubricated catheter 2 inches (5.5 cm) into urethral meatus using strict aseptic technique. [The female urethra is a relatively short canal, measuring 1¼-1½ inches (3-4 cm) in length.]
- Maintain Closed system.
- Inflate the balloon of the catheter with the prescribed amount of normal saline.
- Avoid contaminating surface of catheter.

**Male patient:**

- Assist to supine position with thighs slightly abducted.
- Drape the patient
- Lubricate the catheter well with lubricant or prescribed topical anesthetic.
- Wash off glans penis around urinary meatus with an iodophor solution (Betadine) using forceps to hold cleaning pads. Keep the foreskin retracted. Maintain sterility of dominant hand.
- Grasp shaft of penis (with nondominant hand) and elevate it. Apply gentle traction to penis while catheter is passed. Maintain Closed system
- Using sterile gloves, insert catheter into the urethra advance catheter 60 inches (155 cm) until urine flows. [he length varies within wide limits the average length is about 8 inches (20 cm).]
- If resistance is felt at the external sphincter, slightly increase the traction on the penis and apply steady, gentle pressure on the catheter. Ask patient to strain gently (as if passing urine) to help relax sphincter.
- When urine begins to flow, advance the catheter another 1 inch (2.5 cm).
- Inflate the balloon of the catheter with the prescribed amount of normal saline.
- Replace (or reposition) the foreskin.
- Fix the catheter at the thigh with hypoallergenic tape.
- [Praphimosis (retraction and constriction of the foreskin behind the glans penis), secondary to catheterization, may occur if the foreskin is not replaced.]
- Record time, procedure, amount, and appearance of urine.



## 10. ADMINISTERING ENEMA

### Articles:

- Pre packaged enema or enema container
- Disposable gloves
- Water-soluble jelly
- Waterproof pad
- Bedpan or commode
- Washcloth and towel

### PROCEDURE

- Wash hands lace patient on left side with right knee flexed (Sims' position).
- Place waterproof pad underneath patient, and cover with bedsheet.
- Place bedpan or bedside commode in position for patients who cannot ambulate to the toilet or who may have difficulty with sphincter control.
- Remove plastic cover over tubing, and lubricate tip of enema tubing 3 inches (7.50 cm) unless prepackaged (tip is already lubricated).
- Even preackaged enema may need more lubricant .
- Put on disposable gloves.
- Separate buttocks and locate anus.
- Instruct patient that you will be inserting tubing and to take slow, deep breaths.
- Insert tubing 3 inches for adult patients.
- Slowly instill the solution using a clamp and the height of the container to adjust flow rate if using an enema bag and tubing.
- For high enemas, raise enema container 128 inches (30.55.5 cm) above anus for low enemas, 12 inches.
- If using a preackaged enema, slowly squeeze the container until all solution is instilled .

- Withdraw rectal tubing after all enema solution has been instilled or until clear (usually not more than three enemas).
- Instruct patient to hold solution as long as possible and that a feeling of distention may be felt.
- Discard supplies in the appropriate trash receptacle.
- Assist patient on the bedpan or to the bedside commode or toilet when urge to defecate occurs.
- Observe enema return for amount, fecal content. Instruct patient not to flush toilet until the nurse has seen the results.
- Document the type of enema given, volume, and results on the nurses record.
- Assess and document presence or absence of abdominal distension after enema was given.
- Assist the patient with washing perineum and rectal area, if indicated may also need a clean gown or linen change.

## **11. NASOGASTRIC INTUBATION**

### **Articles:**

- Nasogastric (NG) tube
- Water-soluble lubricant
- Towel, tissues, and emesis basin
- Glass of water
- Hypoallergenic tape: 12 inch and 1 inch
- Bio-occlusive transparent dressing
- Irrigating set with 20L syringe or a 50L catheterip syringe
- Stethoscope
- Tongue blade
- Disposable gloves

## PROCEDURE

- Ask if patient has ever had nasal surgery, trauma, a deviated septum, or bleeding disorder.
- Explain procedure to the patient, and tell how mouth breathing, panting, and swallowing will help in passing the tube.
- Place the patient in a sitting or highowler's positionplace a towel across chest.
- Remove denturesplace emesis basin and tissues within the patient's reach.
- Determine the length of the tube needed to reach the stomach.
- Wash your hands.
- Put on disposable gloves.
- Measure the patient's NEX (nose, earlobe, xiphoid), and mark the tube appropriately. Some tubes may be premarked to indicate length, but this may not correlate exactly with the measurement obtained.
- Coil the first 3 inches (7.50 cm) of the tube around your fingers.
- Lubricate the coiled portion of the tube with wateroluble lubricant.
- Avoid occluding the tube's holes with lubricant.
- Tilt back the patient's head before inserting tube into nostril, and gently pass tube into the posterior nasopharynx, directing downward and backward toward the ear.
- When tube reaches the pharynx, the patient may gagallow patient to rest for a few moments. Continue to advance tube gently each time the patient swallows.
- If there are signs of distress such as gasping, coughing, or cyanosis, immediately remove tube. Continue to advance the tube when the patient swallows, until the tape mark reaches the patient's nostril

- To check whether the tube is in the stomach:
  - Ask the patient to talk
  - Place a stethoscope over the left upper quadrant of the abdomen, and inject 10 to 20 cc of air while auscultating the abdomen.
  - X-rays may be done to confirm tube placement.
- Anchor with Hypoallergenic tape; split lengthwise and only halfway, attach unsplit end of tape to nose, and cross split ends around tubing.
- Apply another piece of tape to bridge of nose. Cleanse nares and provide mouth care every shift.
- Apply petroleum jelly to nostrils, as needed, and assess for skin irritation or breakdown.
- Keep head of bed elevated at least 30 degrees. Record the time, type, and size of tube inserted.
- Document placement checks after each assessment, along with amount, color, consistency of drainage.

## **12. Administering Enteral Feeds**

### **12a. Through NG Tube**

#### **Articles:**

- 50 ml syringe
- Stethoscope
- Prescribed feed
- Gloves
- Water

#### **Procedure**

- Assess the need for feed Verify the order, rate, route and frequency.
- Explain the procedure to patient Perform hand hygiene.
- Auscultate for bowel sounds before feeding. Have feeding at room temperature. Place patient in High Fowler's position, or elevate bed to 30 degrees. Verify the tube: aspirate's appearance. Check for gastric residual.
- Draw upto 30 ml of air and flush tube, pull back evenly to aspirate gastric content



**Syringe/ Intermittent feeding:**

- Initiate feeding:
- Pinch proximal end of the tube.
- Remove plunger from the syringe and attach barrel of syringe to end of tube.
- Fill the syringe with the measured amount of feed. Release tube and hold syringe high enough to empty gradually by gravity.
- Repeat until prescribed amount has been delivered.

**Continuous drip method**

- Hang feeding bag/bottle and tubing on IV pole.
- Connect distal end of tubing to the proximal end of the feeding tube.
- Set rate and initiate feeding. Flush the tube with 30 ml of water. Cap/Clamp the proximal end of tubing feed. Remove Gloves or perform hand hygiene.
- Monitor intake and output every 8 hour and do 24 hours total.
- Record the amount , type, patency of tube and the patient's response.

**Administering Enteral Feeds****12 b. Through Gastrostomy/Jejunostomy****Articles:**

- 50 ml syringe
- Stethoscope
- Prescribed feed—ag/Bottle
- Gloves
- Water

**Procedure**

- Assess the need for feed Verify the order, rate, route and frequency.
- Explain the procedure to patient .
- Perform hand hygiene. Auscultate for bowel sounds before feeding.
- Assess gastrostomy/jejunostomy site for breakdown, irritation, or damage.
- Have the feed at room temperature. Elevate head of bed 30 °to 45°.
- Put on gloves and verify tube placement.

**Gastrostomy:**

- Attach syringe and aspirate gastric secretions
- Observe their appearance.
- Return the aspirated contents to stomach unless the volume exceeds 100 ml.
- If the volume is greater than 100 ml on several consecutive occasions, hold the feed and inform the doctor.

**Gastrostomy:**

- Aspirate intestinal secretions and observe.
- Flush with 30 ml of water.
- Initiate feedings.

**A. Syringe feedings**

- Pinch proximal end of gastrostomy/jejunostomy tube.
- Remove plunger from the syringe and attach barrel of syringe to end of tube and then fill syringe with formula.
- Release tube, and elevate syringe to empty gradually by gravity.
- Refill until prescribed amount has been delivered.

**B. Continuous Drip**

- Verify that volume in container is sufficient for length of feeding (4—8 hours)
- Hang Container on IV pole and clear tubing of air. Connect tubing to end of Gastrostomy/jejunostomy.
- Begin infusion at prescribed rate.
- Administer water via feeding tube with or between feeds.
- Flush the tube with 30 ml of water every 4— hours and before and after administering medications.
- Rinse the syringe with warm water after all intermittent feedings. Assess the skin around the tube exit site.
- The skin around tube should be cleansed daily with warm water and mild soap.
- Dispose the supplies and perform hand hygiene.
- Evaluate the client's tolerance to tube feeding.
- Measure the amount of aspirate every 8 –2 hours for the intermittent feeding.
- Monitor intake and output every 24 hour.

- Weigh the patient daily until the maximum administration rate is reached.
- Record amount and type of feeding and patient's response to tube feeding, patency of tube and any side effect.

### **13. SURGICAL DRESSINGS**

#### **Articles:**

##### **Sterile:**

- Gloves
- Dressing set
- Appropriate dressing material
- Saline
- Betadine
- Sterile drum with gauze pieces & pads

##### **Unsterile:**

- Gloves
- Plastic bag
- Tape
- Pads
- Apron

#### **Procedure**

- Inform the patient of dressing change.
- Explain the procedure and have the patient lie in bed. Avoid near mealtime.
- Ensure privacy by drawing the curtains or closing the door expose the dressing site
- Wash your hands thoroughly. Place dressing supplies on a clean, flat surface (trolley).
- Cut (or tear) off pieces of tape to be used in dressing change. Place a disposable bag nearby to collect soiled dressings.

#### **Removing Old Dressing:**

- Put on gloves. Loosen all tape and gently pull tape ends toward the wound. It helps to hold skin taut with one hand while carefully peeling up an edge of the tape with the other hand.

- Remove old dressings, one layer at a time, and place them in a disposable bag. Removal of adherent dressings may be facilitated by moistening dressing with sterile saline solution.

### **Cleansing The Simple Surgical Wound**

- Use sterile technique. Open the package of sterile gloves open the sterile cleaning supplies (cotton tipped applicators, sterile gauze sponges, sterile solution cup, sterile saline solution).
- Put on sterile gloves. Clean along the wound edges using a small circular motion from one end of the incision to the other be sure to clean each side of the wound separately.
- Repeat the process using another moistened gauze or swab until the entire incision is clean.
- Do not scrub back and forth across the incision line. Sterile saline solution is the cleansing agent of choice. Topical antiseptics (ie, povidoneiodine, hexachlorophene) may be used on intact skin surrounding the wound but should never be used within the wound.
- Repeat the same process with the drain site. Always clean the drain site separately from the primary incision site.

### **Dressing the Wound**

- Maintain sterile technique with the use of sterile gloves. After the wound is dry, apply the appropriate dressing, taking into consideration the nature of wound. Tape dressing, using only the amount of tape required for secure attachment of dressing. Applying a “skin prep” on site to be taped can facilitate fixation and reduce irritation. When dressing the drain site:
- Use a premade drain pad (can be prepared by making a 2inch [5cm] slit, with sterile scissors, in 4" × 4" gauze pad).
- Gently slip the sponge around the drain repeat the process with the second drain sponge, placing it at a right angle to the other pad When dressing an excessively draining wound:
- Consider the need for extra dressings and packing material.

- Protect skin surrounding wound from copious or irritating drainage (such as gastrointestinal drainage) by applying some type of skin barrier.
- Assess the patient's tolerance to the procedure and help make the patient more comfortable.
- Discard the disposable items according to hospital protocol and clean/disinfect equipment that is to be reused.
- Wash your hands .
- Record the nature of the procedure and the condition of the wound as well as patient reaction.

**14. ASSISTING THE PATIENT UNDERGOING  
DIAGNOSTIC/THERAPEUTIC PROCEDURES**

**14A. LUMBAR PUNCTURE**

**EQUIPMENT**

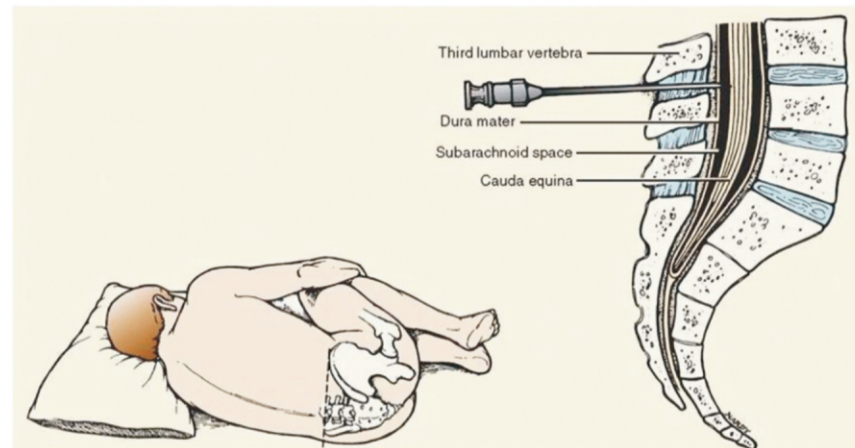
- Sterile lumbar puncture set
- Skin antiseptic (avoid use of chlorhexidine)

**PROCEDURE**

- Before procedure, the patient should empty bladder and/or bowel.
- Ensure the consent form is explained and signed.
- Give a stepytep summary of the procedure. For lying position, see accompanying figure.
- Position the patient on side with a small pillow under head and a pillow between legs. Patient should be lying on a firm surface.
- Instruct the patient to arch the lumbar segment of back and draw knees up to abdomen, chin to chest, clasping knees with hands.
- Assist the patient in maintaining this position by supporting behind the knees and neck. Assist the patient to maintain the posture throughout the examination
- Alternately, for sitting position, have the patient straddle a straightack chair (facing the back) and rest head against arms, which are folded on the back of the chair.

### **Performance phase (By the physician )**

- The skin is prepared with antiseptic solution (avoiding use of chlorhexidine), and the skin and subcutaneous spaces are infiltrated with local anesthetic agent.
- A spinal needle is introduced at the Linterspace. The needle is advanced until the “give” of the ligamentum flavum is felt and the needle enters the subarachnoid space. The manometer is attached to the spinal needle.
- After the needle enters the subarachnoid space, help the patient to slowly straighten up.
- Instruct the patient to breathe quietly (not to hold breath or strain) and not to talk.
- About 2 to 3 mL of spinal fluid is placed in each of three test tubes for observation, comparison, and laboratory analysis. Spinal fluid should be clear and colorless.
- **Follow up phase**
- After the procedure, the patient is instructed to remain flat for about 2 hours.
- Ensure adequate hydration with oral or parenteral fluids
- Monitor for spinal headache, and observe for CSF leak.



## **14b. ASSISTING WITH ABDOMINAL PARACENTESIS**

### **EQUIPMENT**

- Sterile paracentesis tray and gloves
- Local anesthetic
- Sterile Drape
- Collection bottle (vacuum bottle)
- Skin preparation tray with antiseptic
- Specimen bottles and laboratory forms

### **Procedure**

- Explain procedure to the patient
- Record the patient's vital signs.
- Have the patient void before treatment is begun. Make sure that consent form has been signed.
- Position patient in Fowler's position with his back, arms, and feet supported
- Drape patient with sheet exposing abdomen

### **Preparatory phase**

- Assist in preparing skin with antiseptic solution
- Open sterile tray and package of sterile gloves provide anesthetic solution
- Have collection bottle and tubing available.
- Assess pulse and respiratory status frequently during procedure watch for pallor, cyanosis, or syncope (faintness).
- Physician administers local anesthesia and introduces needle or trocar.
- Needle or trocar is connected to tubing and vacuum bottle or syringe fluid is slowly drained from peritoneal cavity.
- Apply dressing when needle is withdrawn

### **Follow up phase:**

- Assist patient to a comfortable position after treatment.
- Record amount and characteristics of fluid removed, number of specimens sent to laboratory, and patient's condition during treatment.

- Check blood pressure and vital signs every ½ hour for 2 hours, every hour for 4 hours, and every 4 hours for 24 hours.
- Watch for leakage or scrotal edema after paracentesis.

#### **14 c. ASSISTING THE PATIENT UNDERGOING THORACENTESIS**

##### **EQUIPMENT**

- Thoracentesis tray (if available) or
- Syringes: 5-, 20-, 50-mL
- Needles: 22G, 26G, or 16G (3 inches long)
- Three-way stopcock and tubing
- Biopsy needle
- Betadine
- Local anesthetic (such as lidocaine 1%)
- Sterile gauze pads (4" × 4" and 2" × 2")
- Sterile towels and drape
- Sterile specimen containers
- Sterile gloves
- Overbed/ Cardiac table and chair

##### **Procedure:**

- Check if consent form has been explained and signed.
- Determine if the patient is allergic to the local anesthetic agent to be used. Give sedation if prescribed
- Inform the patient about the procedure and indicate how the patient can be helpful
- Assist the patient to obtain comfortable position with adequate supports. If possible, place the patient upright (see accompanying figure) and help the patient maintain this position during the procedure.
- Expose the site to be aspirated
- Perform hand hygiene and put on personal protective equipment.
- The procedure is done under aseptic conditions. After the skin is cleaned, the doctor slowly injects a local anesthetic with a small gauge needle into the intercostal space.
- Ultrasound or direct physical examination is used to guide needle placement.



- The thoracentesis needle is advanced with the syringe attached. When the pleural space is reached, suction may be applied with the syringe.
- A 20L or 50L syringe with a three-way adapter (stopcock) is attached to the needle. (One end of the adapter is attached to the needle and the other to the tubing leading to a receptacle that receives the fluid being aspirated.)
- After the needle is withdrawn, pressure is applied over the puncture site and a small sterile dressing is fixed in place
- Place the patient on bed rest. A chest Xay is usually obtained after thoracentesis
- Record vital signs every 15 minutes for 1 hour
- Administer oxygen, as directed, if the patient has cardiorespiratory disease.
- Record the total amount of fluid withdrawn and the nature of the fluid, its color, and viscosity.
- f prescribed, prepare samples of fluid for laboratory evaluation (usually bacteriology, cell count and differential , determinations of protein, glucose, lactate dehydrogenase, specific gravity).
- A specimen container with preservative may be needed if a pleural biopsy is obtained.
- Make the patient comfortable .
- Evaluate the patient at intervals for increasing respirations, faintness, vertigo, tightness in the chest, uncontrollable cough, bloodinged mucus, and rapid pulse and signs of hypoxemia.
- Encourage deep breaths to expand the lungs

