LaFleur Brooks' Health Unit Coordinating

7th edition

Chapter 11

Nursing Intervention or Treatment Orders

Lesson 11.1

Nursing Intervention Background and Communicating with the Central Service Department

1. Define the terms in the vocabulary list.
2. Write the meaning of the abbreviations in the abbreviations list.
3. Describe what is included in holistic care and provide an example of a nursing intervention.
4. Describe the function of the central service department with regard to nursing treatment orders.

Lesson 11.1

Nursing Intervention Background and Communicating with the Central Service Department (cont'd)

5. List the types of items stored in the central service stock supply closet (C-locker or cart) on the nursing units and the types of items stored in the central service department.
6. Explain why discontinued reusable equipment should be returned to the central service department as quickly as possible.

Nursing Intervention

- Nursing intervention is any act performed by a nurse that implements the nursing care plan. Ex:
  - Turning a comatose patient to avoid the development of bedsores
  - Teaching insulin injection to a diabetic patient before being discharged
- Interventions include:
  - Support measures
  - Activity limitations
  - Administration of meds

Holistic Care

- Holistic care is also called comprehensive or total care.
- Takes all aspects of care into account:
  - Physical
  - Emotional
  - Social
  - Economic
  - Spiritual needs of the patient
  - Patient response to illness

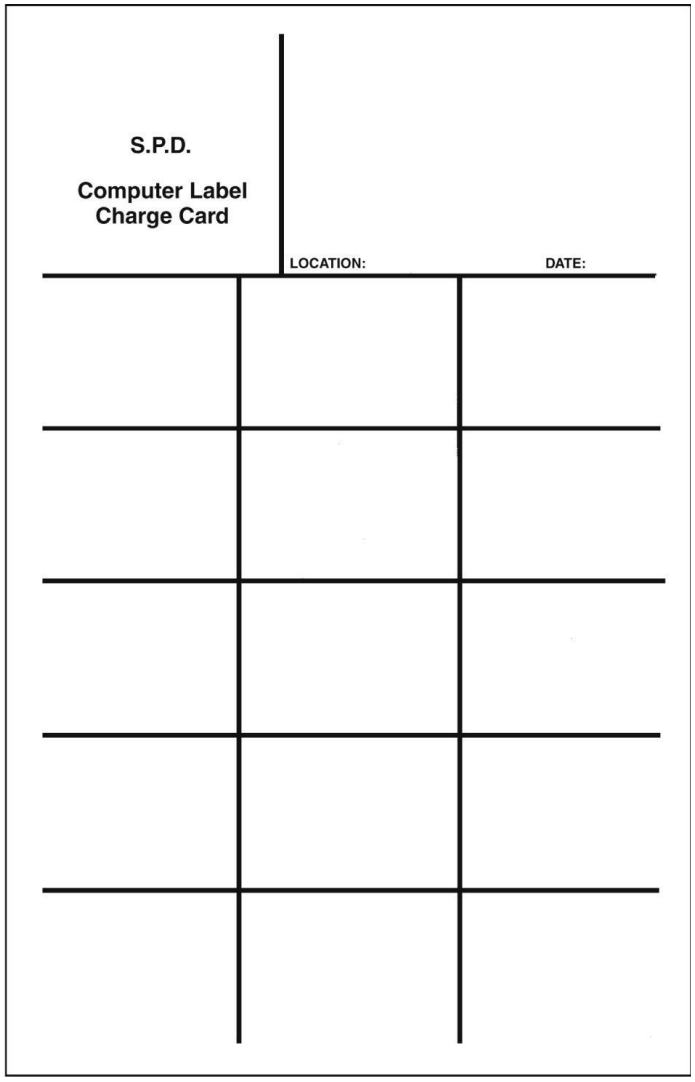
Central Service Department (CSD)

- The central service department (CSD) or supply purchasing department (SPD) distributes the supplies that are used for nursing procedures.
- Disposable or frequently used items are stored on each nursing unit.
  - Items will vary depending on the specialty of the nursing unit.
- That storage space is often referred to as the CSD closet or room or the C-locker.

Charges for CSD Items

- In hospitals using an electronic medical record system (EMR):
  - A computer with a scanner is located in the storage area, and nurses scan items with bar-code labels directly into the appropriate patient's EMR.
- When paper charts are used:
  - The charging process is done by removing a bar-code label from the item and placing it on the patient's CSD charge card.

CSD Patient Charge Card



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The Nursing Unit CSD Closet

Items Stored in Nursing Unit and CSD

- Reusable or infrequently used items are stores in the CSD.
- Items from the CSD are ordered by computer.

Disposable vs. Reusable Items

- Some items used for nursing treatments are disposable:
  - Enema bag or catheterization tray
- They are either discarded or given to patient for future use.
- Patient is charged for disposable equipment.

Disposable vs. Reusable Items, cont'd

- Other items are reusable:
  - Pneumatic hose or elevated toilet seats (ETS)
- They can be cleaned and sterilized to be used again.
- The patient is charged a rental fee.

Reusable CSD Items

- When a reusable item, such as an IV infusion pump, is discontinued:
  - It is placed in the dirty utility room.
  - A central service technician picks up the item and returns it to the CSD.
- It is important for these items to be returned as quickly as possible so if a rental charge has been assessed, it will be terminated, and the equipment will be readied for use by other patients.

Lesson 11.2

Types of Orders

7. List four types of enemas.
8. Explain the procedure and purpose of a urine flow test.
9. Explain two types of urinary catheterization procedures and two methods of measuring postvoid residual urine volume.
10. Describe two methods and four purposes of administering intravenous therapy.
11. Explain the major difference between peripheral intravenous therapy and a central line.

Lesson 11.2

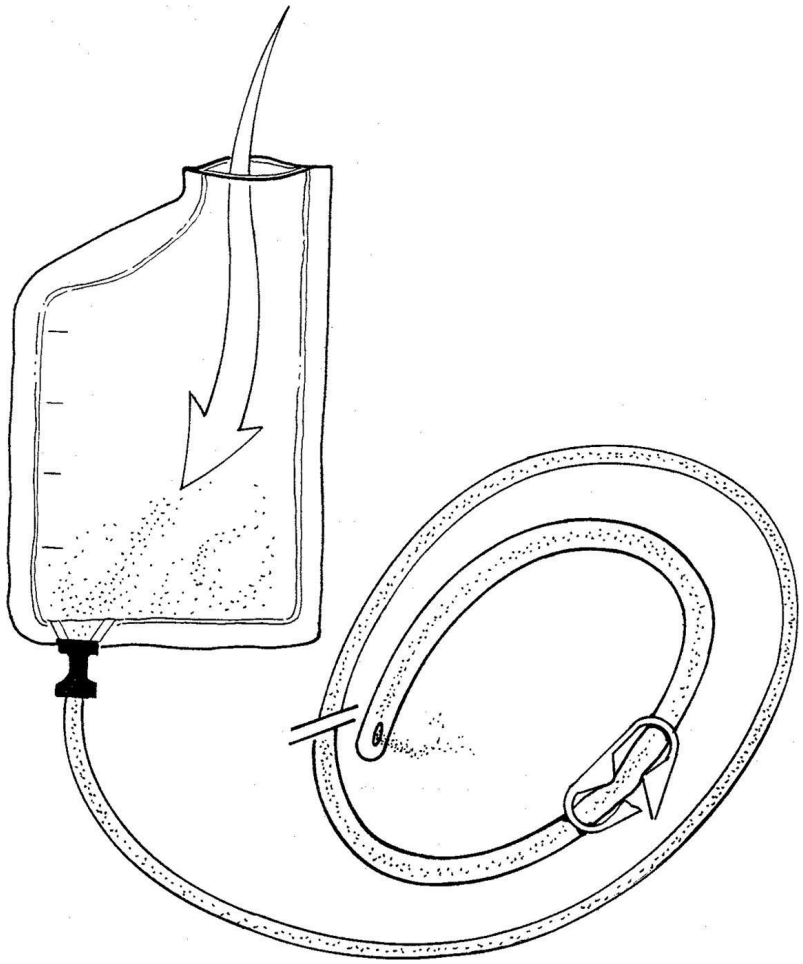
Types of Orders (cont'd)

12. List four types of central venous catheters.
13. Explain the purpose of a heparin lock and describe how a heparin lock is kept patent.
14. List three parts of a physician's order for intravenous therapy.
15. Identify three commercially prepared intravenous solutions and explain how the health unit coordinator (HUC) would determine how long a bag of intravenous solution would take to empty.

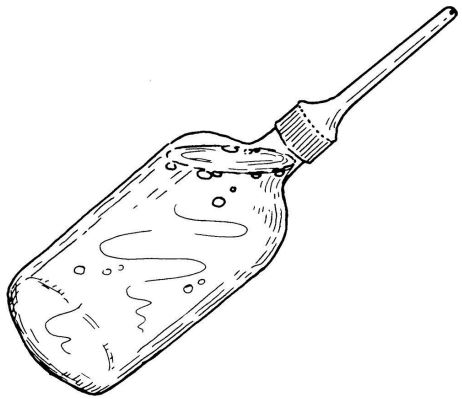
Intestinal Elimination Orders

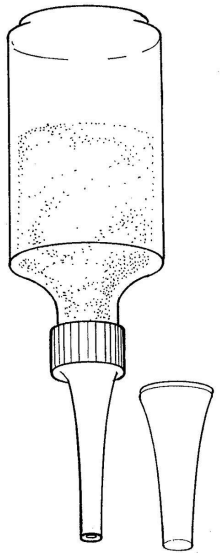
- Enemas, rectal tubes, and colostomy irrigations are treatments used to remove stool and/or flatus (gas) from the large intestine.
- Often used in preparation for surgery or diagnostic tests
- Common types of enemas:
  - Oil-retention
  - Soap suds
  - Tap water
  - Normal saline

Types of Enemas



Types of Enemas, cont'd

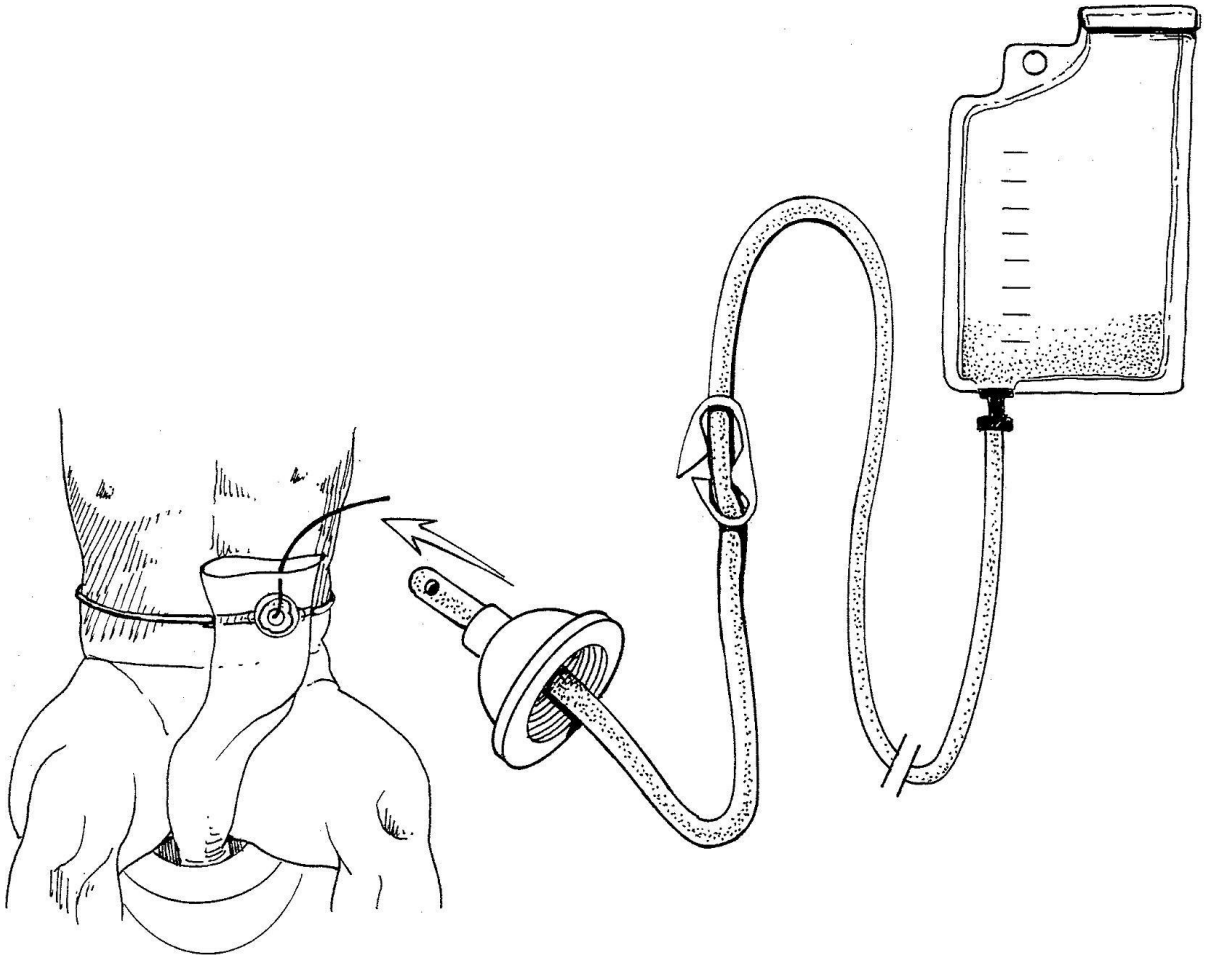




Flushes and Irrigations

- Harris flush – a return-flow enema that is used to relieve distention
- Colostomy (an artificial opening in the colon for passage of stool) irrigation – a flushing of fluid resembling an enema to regulate the discharge of stool
- A doctor's order is required for an enema, rectal tube, or Harris flush.

Colostomy Irrigation and Care



Bladder and Urinary Catheterization Orders

- Urine Flow Test
  - The patient voids into an uroflowmeter that reads, measures, and computes the rate and amount of urine flow.
  - Performed to evaluate the speed of urination, or amount voided per second, and the total time of urination.
  - Can indicate a problem in bladder function, such as an obstruction, that will need further tests to diagnose.

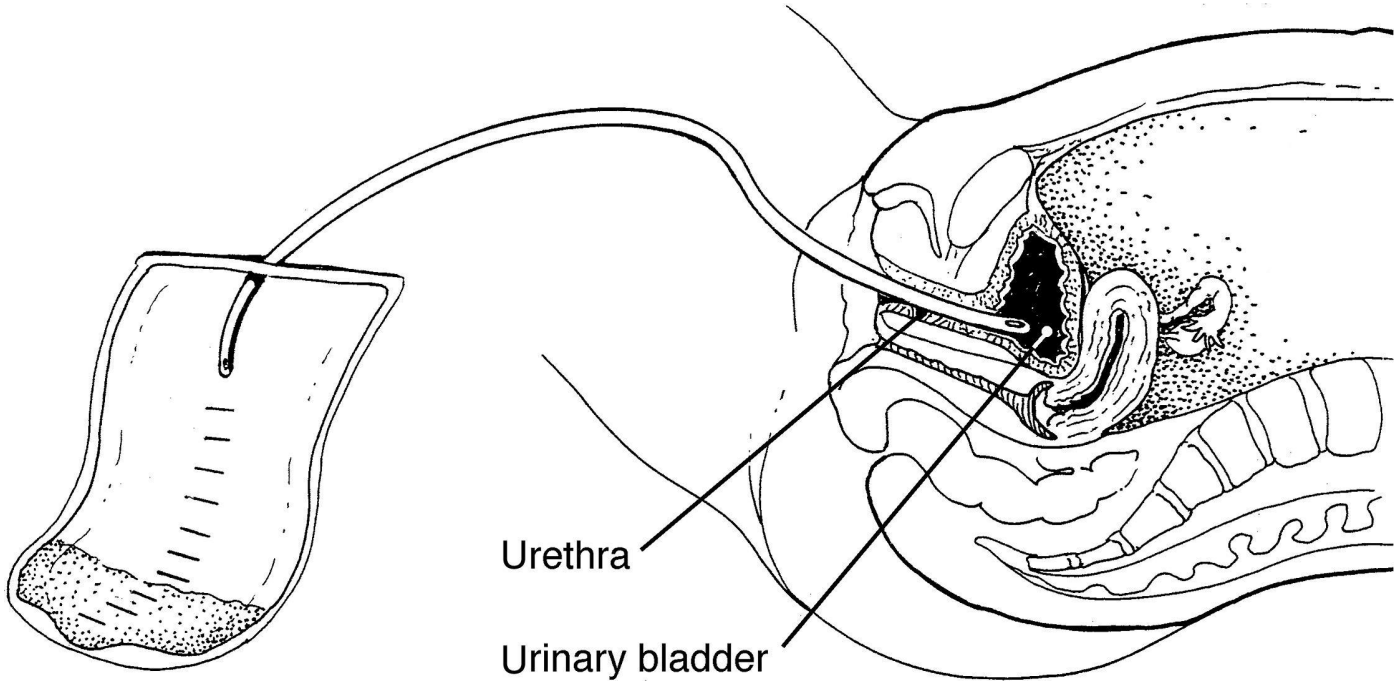
Urinary Catheterization

- The insertion of a latex-free tube called a catheter through the urethral meatus into the bladder to remove urine.
- Doctor can order one of two types of catheterization procedures:
  - Retention
  - Nonretention

Nonretention Catheter

- Intermittent or straight catheter
  - Used to empty the bladder
  - To collect a sterile urine specimen
  - May be used to check the urine residual
- Is removed from bladder after completion of the procedure (5 to 10 minutes)

Example of Intermittent (Straight) Catheter



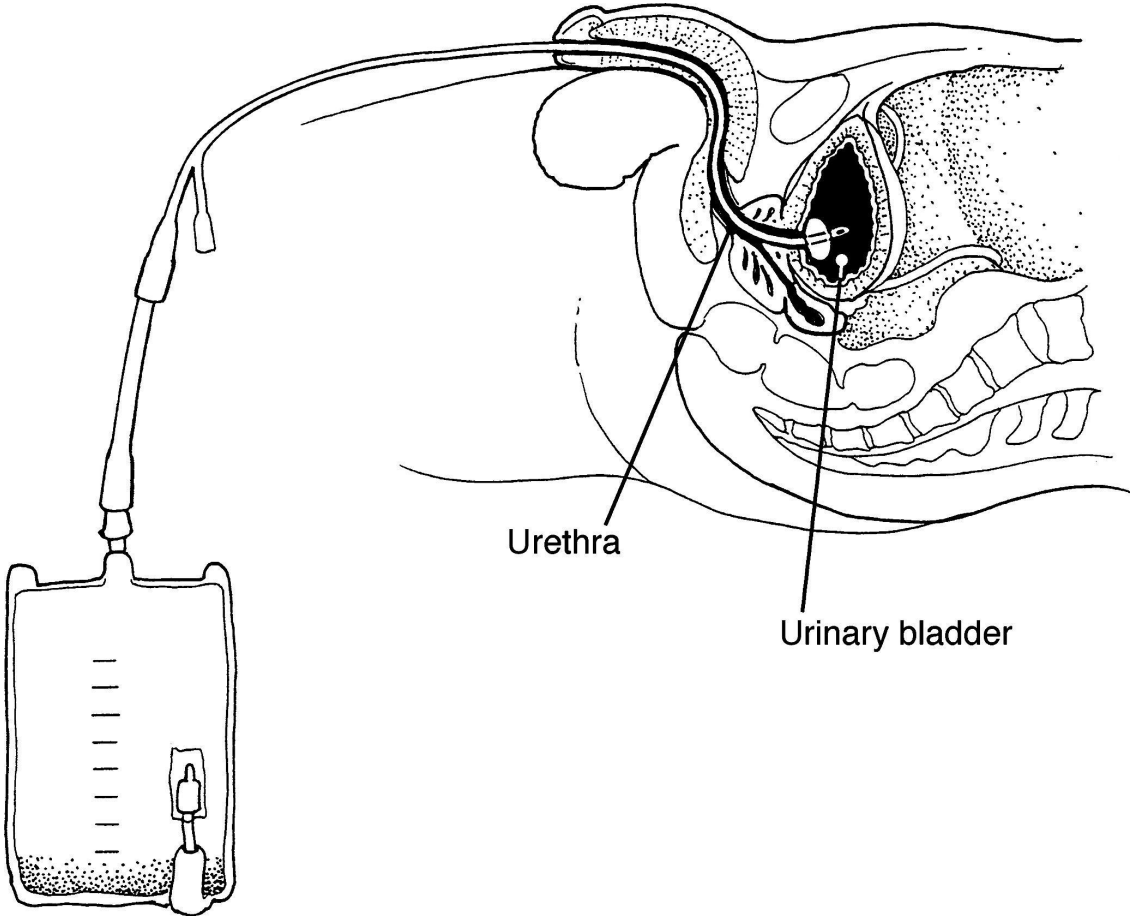
Methods of Measuring Postvoid Residual Urine Volume (PVR)

- Two methods to measure:
  - Portable bedside bladder ultrasound, called a bladder scanner
  - Straight catheterization
- Both methods are effective in measuring urine residual, but the convenience, efficiency, and safety of bladder ultrasound makes its use more preferable.

Retention Catheter

- Indwelling catheter (also called Foley catheter)
  - Remains in the bladder and usually connected to a drainage system that allows continuous flow of urine from bladder to the container.

Example of Indwelling (Foley) Catheter



Intravenous Therapy

- Intravenous therapy may be administered by two methods:
  - Continuous
  - Intermittent

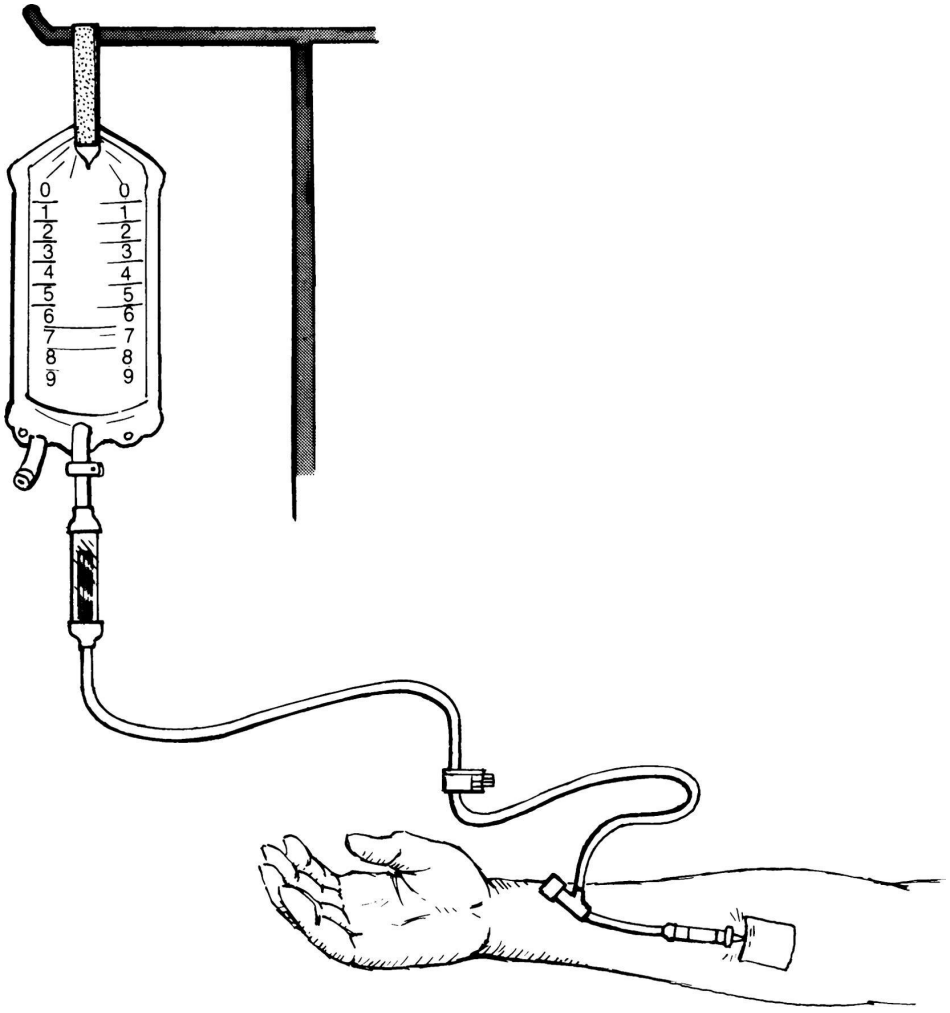
Intravenous Therapy, cont'd

- Intravenous therapy is given to do the following:
  - Administer nutritional support, such as total parenteral nutrition (TPN)
  - Provide for intermittent or continuous administration of medication
  - Transfuse blood or blood products
  - Maintain or replace fluids and electrolytes

Peripheral Intravenous Therapy

- Usually initiated by the nurse at the bedside
- Usually inserted into a vein (venipuncture) in the arm or hand or, on rare occasions, in the foot (adult)
- Is used for short-term IV therapy (i.e., a week or less)
- Is basic and easiest to initiate and is commonly used in hospitals
- Sometimes given through a vascular access device (VAD)

Peripheral Intravenous Therapy



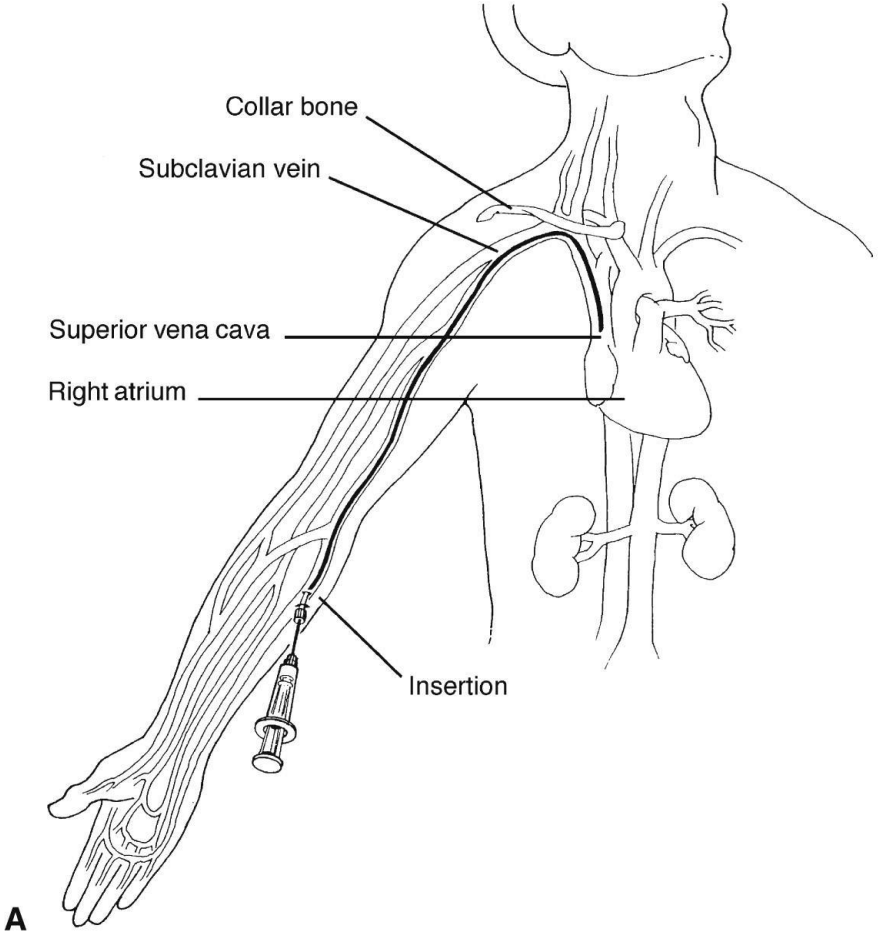
Central Intravenous Therapy

- A catheter is inserted into the jugular or subclavian vein or a large vein in the arm.
  - It is then threaded to the superior vena cava or the right atrium of the heart.
- A central venous catheter (CVC) is used.
- Commonly referred to as a central venous line or a subclavian line
- The HUC orders a central line tray or a triple lumen tray and an IV infusion pump from the CSD and prepares a consent form.

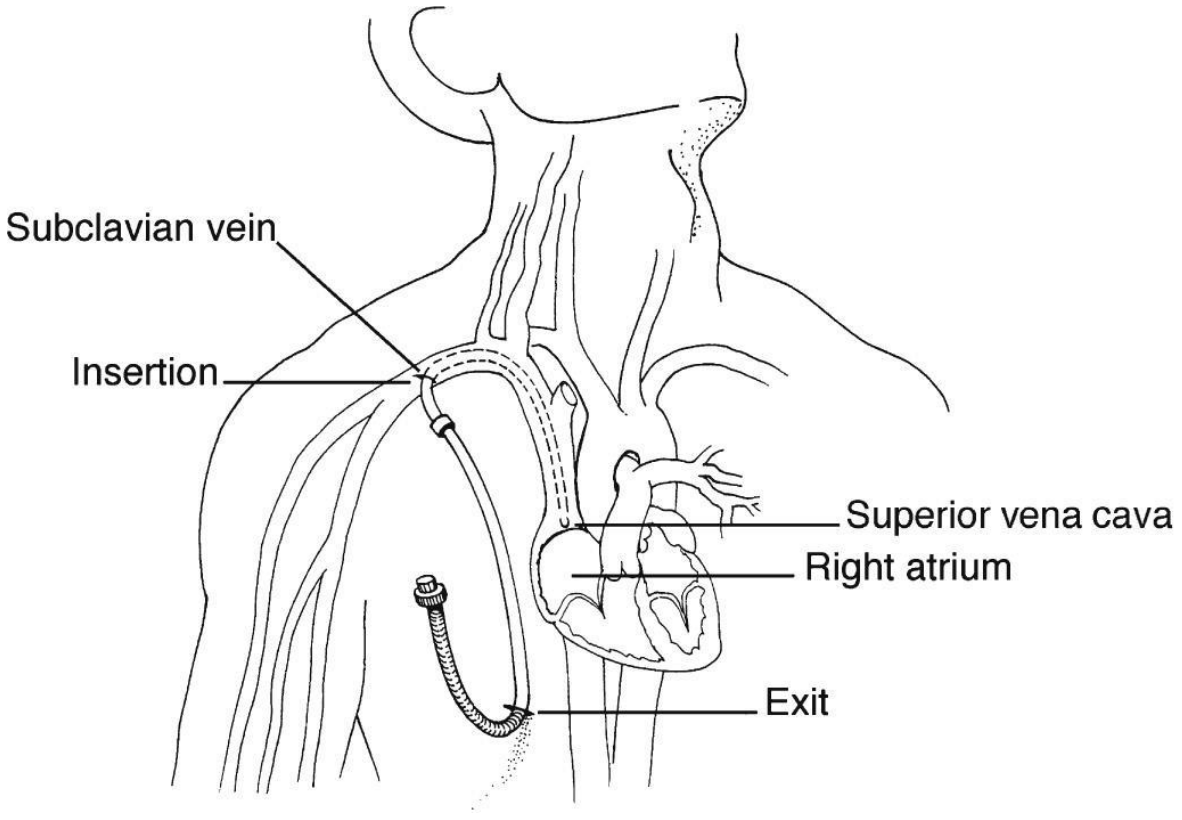
Types of Central Venous Catheters

- Peripherally inserted central catheters (PICC or PIC)
- Percutaneous CVC
- Tunneled catheters
- Implanted port

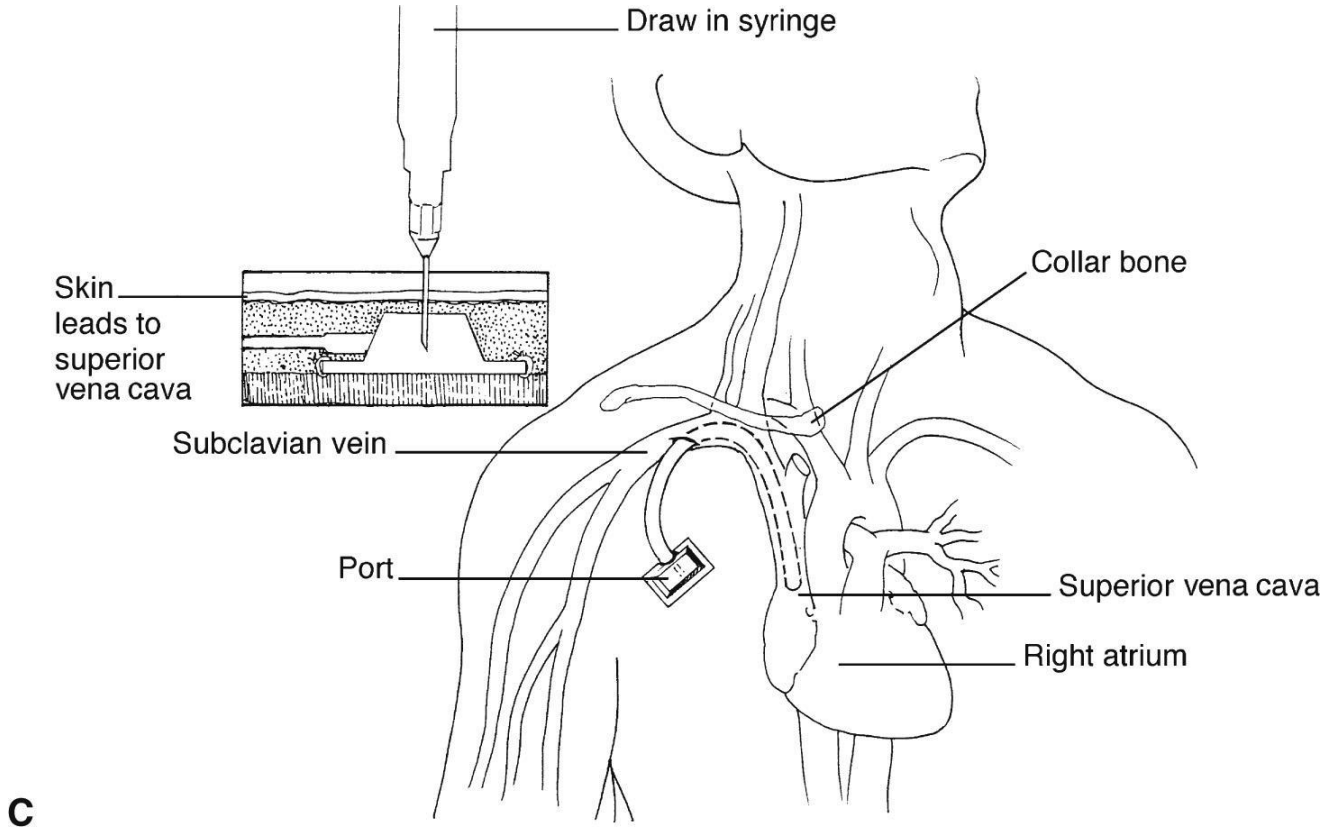
Peripherally Inserted Central Catheter (PICCs)



Percutaneous CVC



Implanted Ports



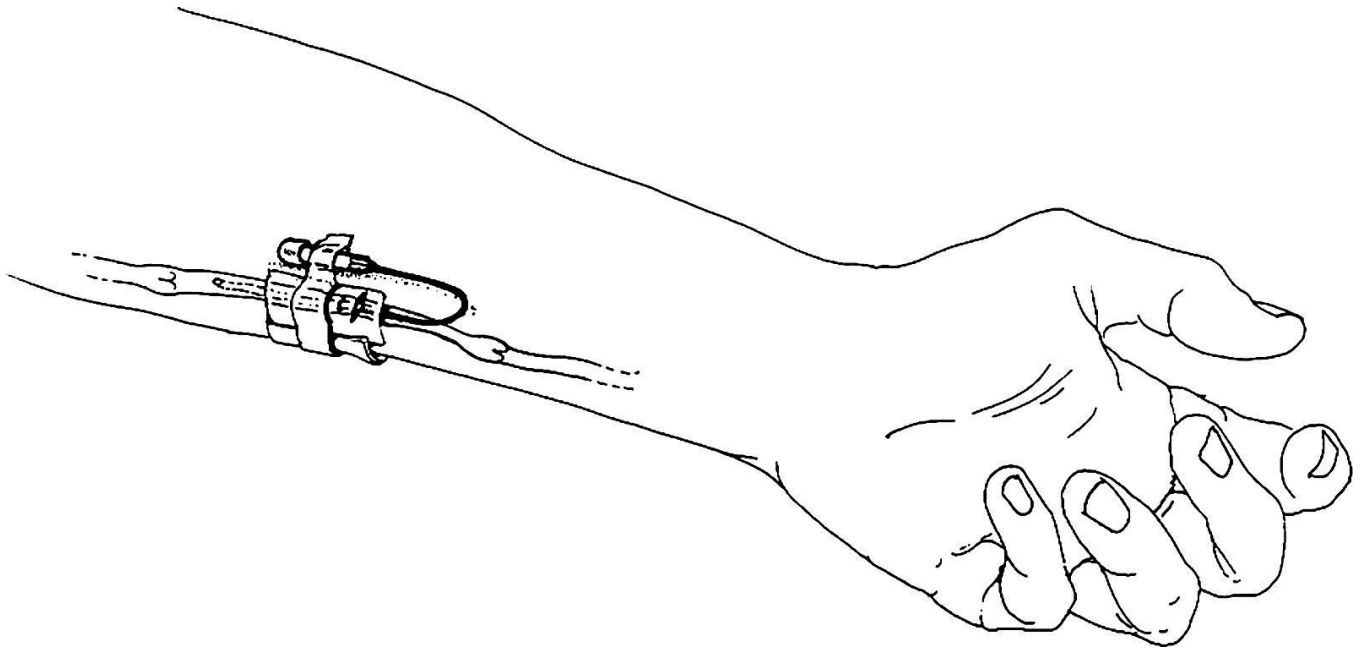
Heparin Lock (Heplock) or Saline Lock

- A venous access device placed on a peripheral IV catheter when used intermittently
- Used to maintain an intermittent line when IV fluids are no longer needed but IV entry is still required
- Commonly used for the administration of medication

Heparin Lock (Heplock) or Saline Lock, cont'd

- Consists of a plastic needle with an attached injection cap
- A needleless heplock or saline lock is also available.
- The device is kept patent with heparin or saline flushes ordered by the doctor to be administered at specific intervals.

An Intermittent Infusion Device (Heparin Lock)



Intravenous (IV) Infusion Pump

- An electrical device used for the administration of IV fluid
- Measures precise amount of fluid for a stated amount of time
  - Regulates drips per hour
- It is ordered from the central supply department (CSD).

An Intravenous Infusion Pump on an IV Pole

Doctor's Orders for Intravenous Orders

- Orders should contain three things:
- Type (solution)
- Amount
- Flow rate

Commonly Used Commercially Prepared IV Solutions

BOX 11-1 COMMERCIALLY PREPARED INTRAVENOUS (IV) SOLUTIONS THAT ARE COMMONLY USED

- Sodium chloride 0.45% (NaCl 0.45%, or half-strength NaCl)
- Sodium chloride 0.9% (NaCl 0.9%, or normal saline)
- 5% Dextrose in water (5% D/W, or D_5W)
- 10% Dextrose in water (10% D/W, or $D_{10}W$)
- 5% Dextrose in 0.2% sodium chloride (5% D/0.2% NaCl)
- 5% Dextrose in 0.45% sodium chloride (5% D/0.45% NaCl)

Commonly Used Commercially Prepared IV Solutions

- 5% Dextrose in 0.9% sodium chloride (5% D/0.9% NaCl)
- Lactated Ringer's solution with 5% dextrose (LR/5%D)
- 5% Dextrose in 0.2% normal saline
- 5% Dextrose in 0.45% normal saline
- Lactated Ringer's solution

Length of Time It Takes an IV to Infuse

- To determine the amount of time it will take for IV infusion to be completed:
  - Divide the number of milliliters in the IV bag by the rate of flow.
- In the doctor's order: 1000 mL 5% D/W @ 125 mL/hr
  - Divide 1000 by 125.
  - The answer is 8.
  - The IV will run for eight hours. Use this information to order the number of 1000-mL IV bags needed for a given amount of time.

Lesson 11.3
Additional Types of Orders and Complementary and Alternative Approaches and Therapies

16. List the four blood types and explain the importance of correct labeling of a blood specimen that is being sent for a type and crossmatch.
17. Explain the HUC's role in obtaining blood from the blood bank and the correct storage of blood.
18. Discuss the purposes of an arterial line and a Swan-Ganz catheter.
19. Identify three types of suction devices inserted during surgery.

Lesson 11.3
Additional Types of Orders and Complementary and Alternative Approaches and Therapies (cont'd)

20. List at least two heat applications and at least two applications used for cold therapy.
21. Explain why most comfort, safety, and healing orders require a doctor's orders and identify at least five items or types of equipment these orders may include.
22. List at least four complementary or alternative approaches or therapies that may be recommended or provided to hospitalized patients.

Types of Blood

- Four types of blood:
  - Type A
  - Type B
  - Type AB
  - Type O
- A person's blood is either Rh positive or Rh negative.

Transcribing Doctors' Orders for Blood Transfusions

- A type and crossmatch must be done before the patient receives blood or certain blood components to ensure compatability.
- Very important that blood specimen being sent for a type is labeled correctly
  - The specimen will be discarded if the specimen patient ID label and the patient name on the requisition are not the same.
  - The patient then will need to have blood redrawn, causing additional discomfort, a delay in treatment, and additional charges.

HUC Responsibilities Regarding Blood Transfusions

- The transfusion of blood is a potentially dangerous procedure.
- Special precautions must be taken to ensure correct administration of blood:
  - If two units of blood need to be picked up from the blood bank for two different patients on the nursing unit:
    - Have another person go to the blood bank to pick up the second unit or
    - Make two trips to pick up one unit at a time.

HUC Responsibilities Regarding Blood Transfusions, cont'd

- When blood is brought to the nursing unit and cannot be given within a reasonable time, the blood is to be returned to the blood bank for storage.
  - The storage temperature will ensure the safety of the blood.

Monitoring Lines and Catheters

- Arterial line, or art-line, or a-line:
  - A thin catheter inserted into an artery
- Most commonly used in intensive care and anesthesia:
  - To monitor the blood pressure in real-time (rather than by intermittent measurement)
  - To obtain samples for arterial blood gas measurements

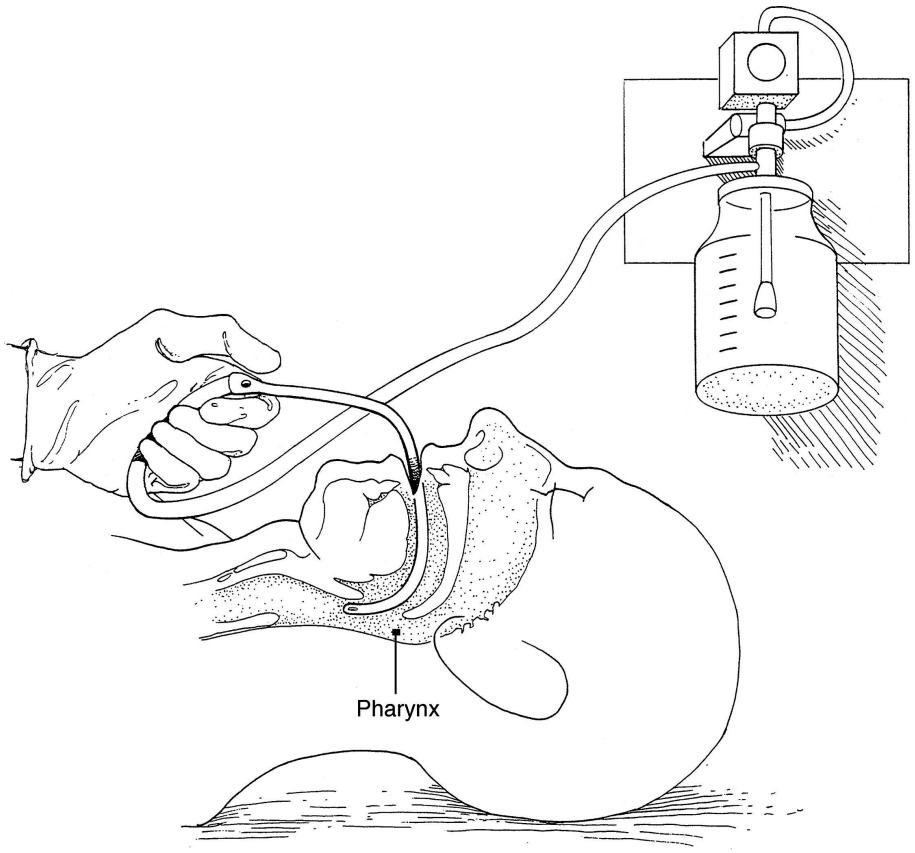
Swan-Ganz Catheterization

- The passing of a thin tube (catheter) into the right side of the heart and the arteries leading to the lungs
  - Used to monitor the heart's function and blood flow, usually in persons who are very ill

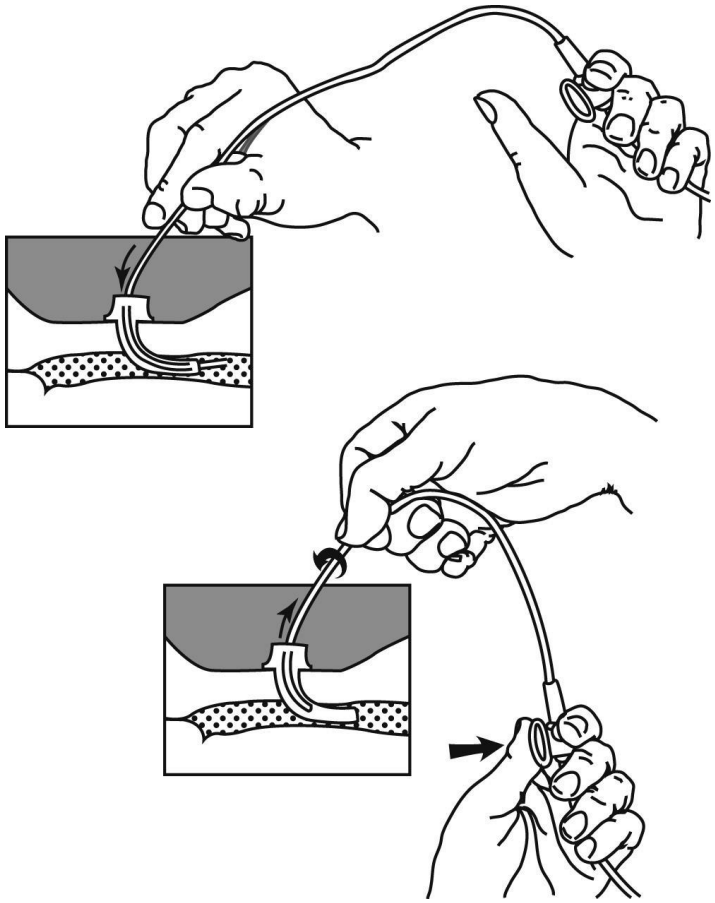
Suction Orders

- Suction may be ordered by the doctor to remove fluid or air from body cavities and surgical wounds.
- It may be ordered intermittently or continuously.
- It can be accomplished manually or mechanically.
  - Examples:
    - Gastric Suction
    - Throat Suction
    - Tracheostomy Suction
    - Chest Tube

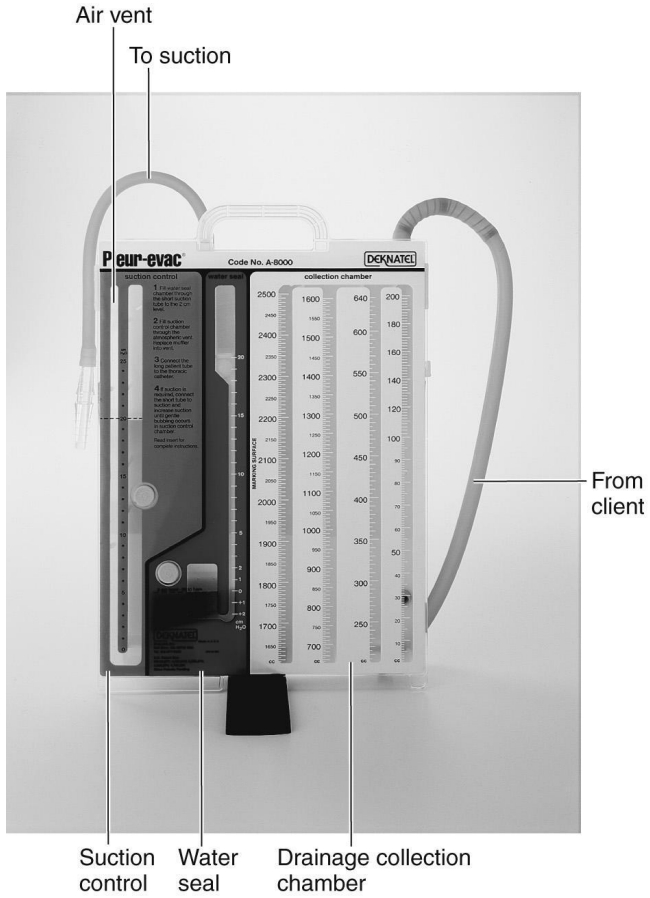
Example of Throat Suction

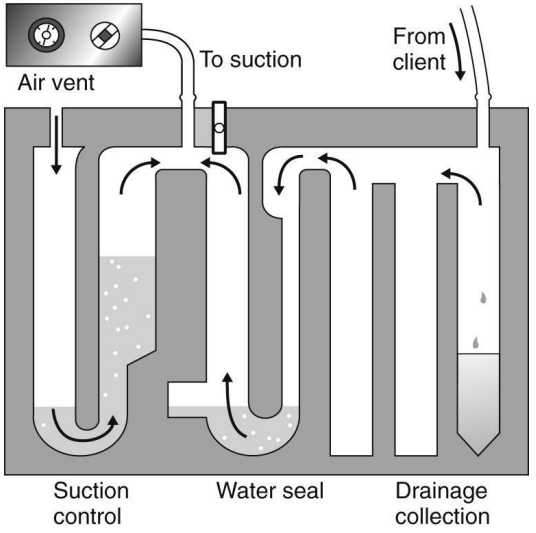


Example of Tracheotomy Suction



Pleur-Evac Chest Drainage System

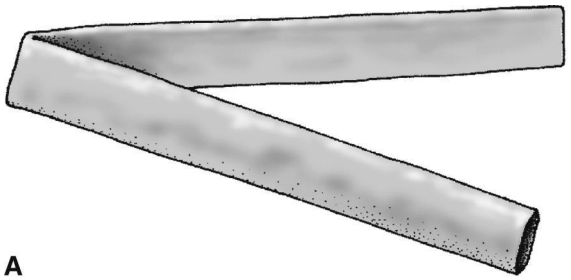




Types of Suction Devices and Surgical Drains

- Wound suction devices
  - Hemovac
  - Jackson-Pratt (JP)
  - Penrose Drain
  - T tube

Types of Surgical Drains



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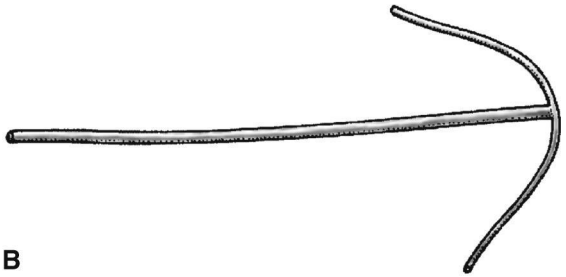

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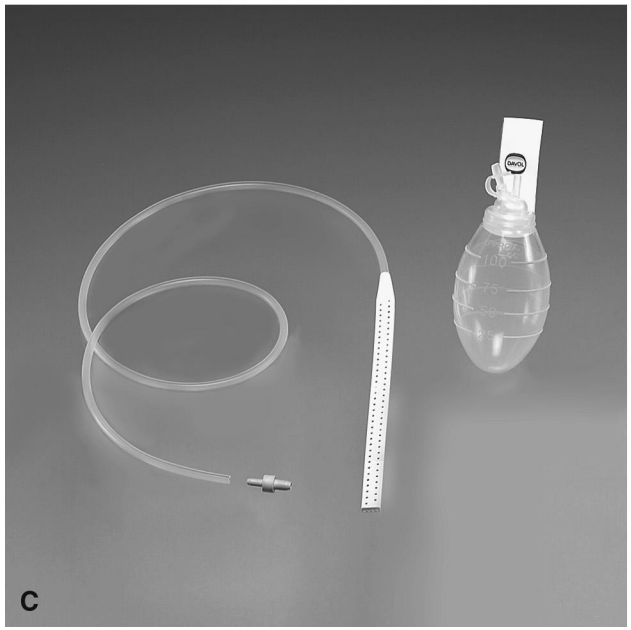

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Heat Application Orders

- Aquathermia pad (also called a K-pad or water flow pad)
- Hot compresses
- Soaks
- Sitz bath

Aquathermia Pad

Disposable Sitz Bath

Cold Application Orders

- Alcohol sponge baths
- Ice bag
- Hypothermia machine: fluid circulated through a network of tubing in a mattress-sized pad

Comfort, Safety, and Healing Orders

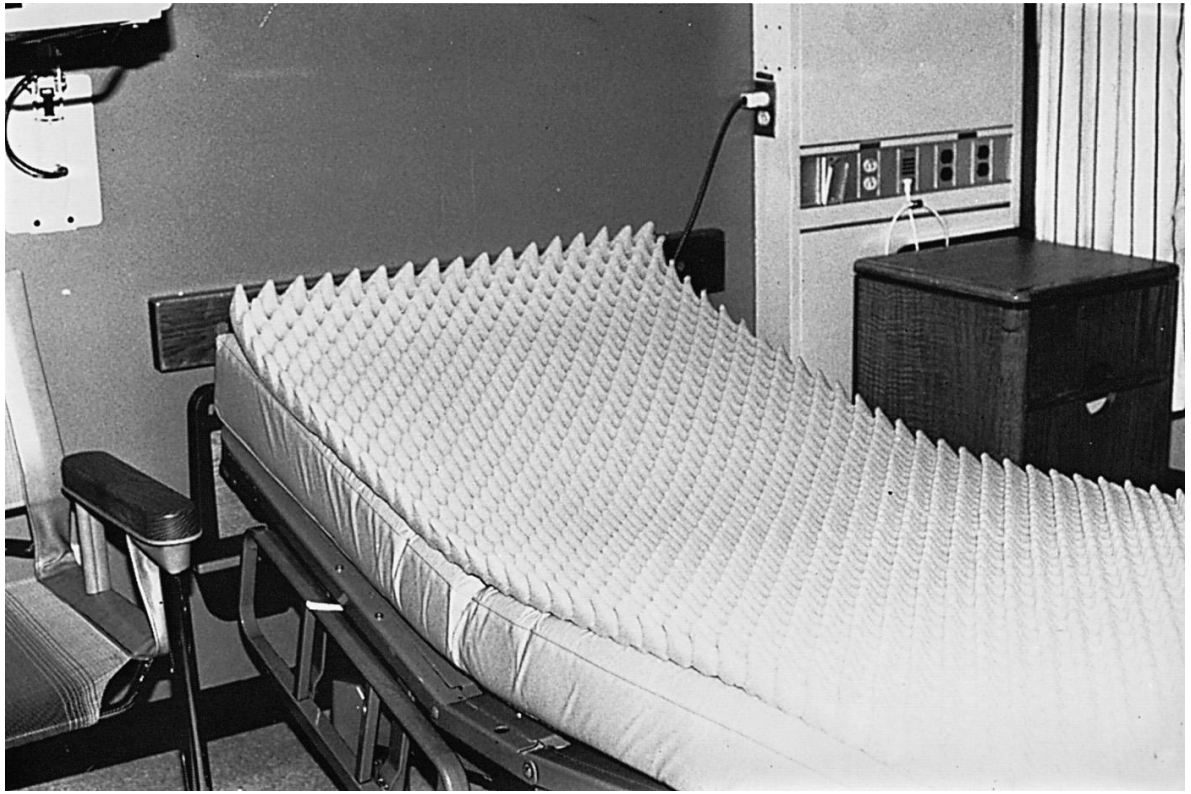
- Nursing staff determines and performs many tasks to promote comfort, safety, and healing, but most do require a doctor's orders for the patient's insurance to pay for items or equipment used.
- These orders can widely vary.

Comfort, Safety, and Healing Equipment

- Specialty beds
- Egg crate mattress
- Sheepskin
- Footboard
- Foot cradle
- Elevated toilet seat
- Immobilizer
- Sandbags
- Abdominal elastic binder
- Sling
- T.E.D hose
- Jacket restraint
- Equipment to shampoo bedridden patient's hair
- Pneumatic compression devices

A Hill-Rom Air Fluidized Bed

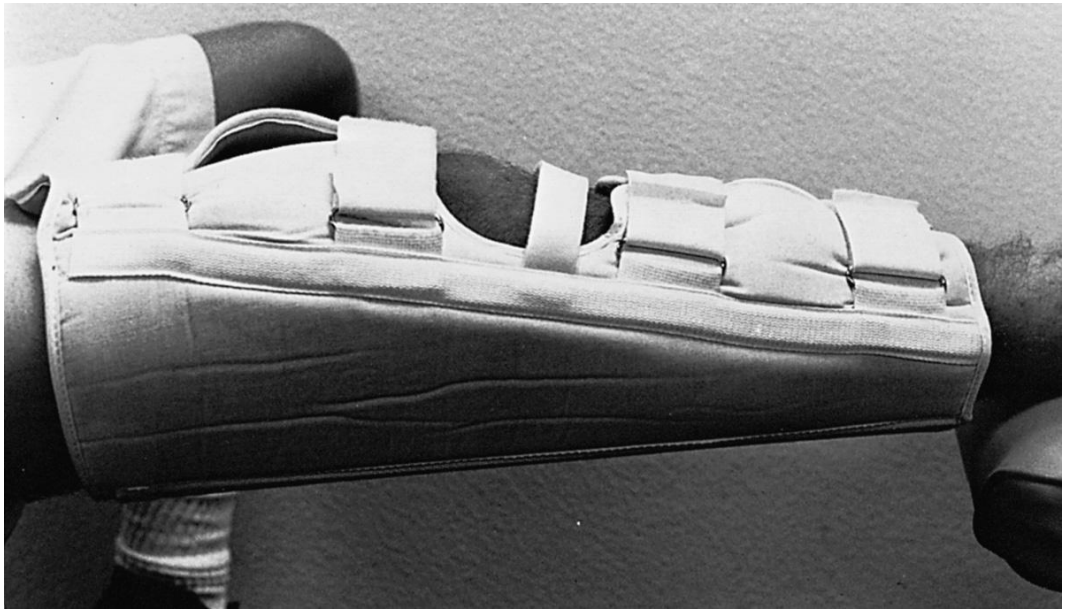
An Egg Crate Mattress



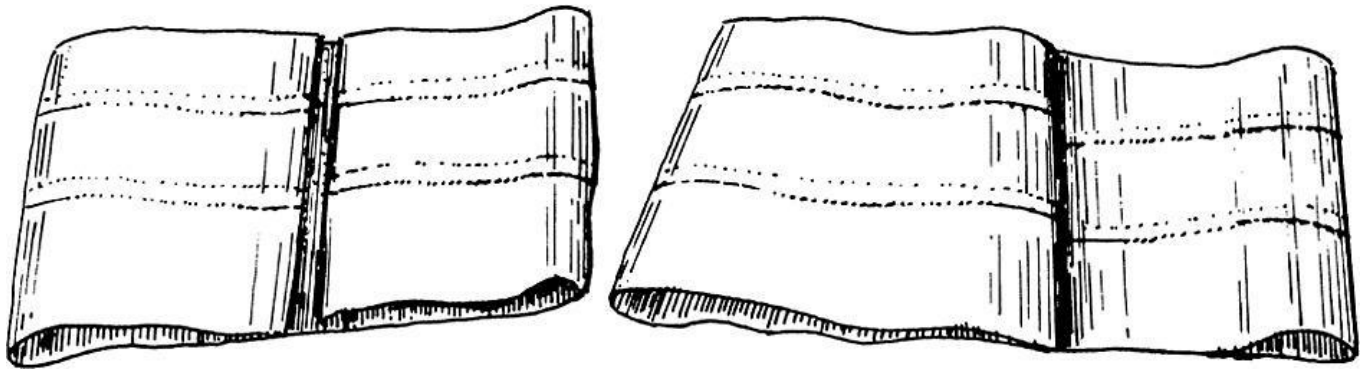
A Footboard

An Elevated Toilet Seat

Immobilizer



Elastic Binder



Jacket Restraint

Complementary and Alternative Therapies

- Acupressure
- Aromatherapy
- Imagery
- Journaling
- Magnets
- Massage
- Music therapy
- Tai chi
- Therapeutic touch