A. Maslow’s hierarchy of basic human needs.
   1. Human behavior is motivated by a system of needs.
   2. Clients will focus or attempt to satisfy needs at the base of the pyramid before focusing on those higher up (Figure 3-1).
   3. Human needs are universal; however, some may be modified by cultural influence.
   4. The nursing process is always concerned with physiological needs first; then progresses to teaching, decreasing anxiety, etc. This is also true for the client with psychosocial needs; the client’s physiological needs must be met before progressing to the next level.

**NURSING PRIORITY:** Pay attention to Maslow’s hierarchy of needs when answering test questions related to setting priorities. The physiological needs at the base of the pyramid must be satisfied first in order to focus on other needs—and remember that oxygenation is always the first physiological need or priority.

**STEPS OF THE NURSING PROCESS**

* The categories of the nursing process and the activities in each category vary somewhat according to nursing authors. The nursing process as presented here correlates with the categories of the NCLEX-PN.

**Data Collection**

A. Collecting data.
   1. Objective data are nursing observations.
   Example: Client weighs 125 lb; 50 ml of green drainage via the nasogastric tube.
   2. Subjective data are information given by the client.
   Example: “My side hurts; I am scared about surgery.”
   3. Client data are collected using three skills.
      a. Observation: what can be seen.
      Example: Is the client awake or asleep; is the client obese or underweight; is the client smiling or frowning?
      b. Auscultation: what can be heard.
      Example: Is the client laughing; are there breath sounds present; do you hear hyperactive bowel sounds?
      c. Palpation: what can be felt.
      Example: Is the client’s skin warm and dry; does the client have a pedal pulse; is the client’s abdomen soft?

**Planning**

A. Assign priority to the nursing care activities.
B. Specify goals reflecting desired outcome of nursing care.
   1. Develop short-term and long-term goals.
   2. Identify nursing interventions for goal attainment.
   3. Establish outcome criteria.
C. Develop the written nursing care plan.
   1. Involve client and family in all aspects of planning.
   2. Keep care plan current and flexible.

**Implementing**

A. Initiate and carry out planned nursing activities.
B. Coordinate activities of client and family members along with health team members.
C. Document client’s responses to nursing actions.

**Evaluating**

A. Collect objective and subjective data and determine if goals were achieved.
B. Identify and make revisions to the nursing care plan.

**Maslow’s Hierarchy of Basic Human Needs**

*Figure 3-1 Maslow’s hierarchy of needs.* (From Zerwekh J, Claborn J: Memory Notebook of Nursing, Vol 1, ed 4, Ingram, Texas, 2008, Nursing Education Consultants.)
HEALTH ASSESSMENT

Health History

TEST ALERT: Collect baseline physical data on admission.

* The health history is a primary source of client information. The source of the information can be the client, relatives, friends, old records, or any combination of these. A predetermined format should be used as a guide for the interview.

A. Demographic data.
   1. Name, address, phone number, age, sex, marital status.
   2. Race, religion, usual source of medical care.

B. Chief complaint/reason for visit.
   1. Chief complaint (CC) is main reason client sought health care.
   2. CC is recorded in client’s own words.

Example: “I have been vomiting blood since this morning.”

C. History of the present illness.
   1. Chronological narrative story of the history of the present state of health.
   2. Includes relevant family history.

D. Past history.
   1. Childhood diseases.
   2. Immunizations.
   3. Allergies.
   4. Hospitalizations and serious illnesses.
   5. Accidents and injuries.
   7. Prenatal, labor and delivery, or neonatal history (recorded for all children under age 5 and older children with a congenital or developmental problem).

E. Review of systems (ROS).
   1. Is a verbal listing from head to toe of the client’s overall state of health.
   2. Contains subjective data given by the client; does not contain information from the physical examination. Specific assessment data for each body system can be found at the beginning of each chapter.

HEALTH TEACHING

Principles of Client Education

A. Common characteristics of the adult learner.
   1. The adult client’s background of experience, skills, and attitudes will form the basis for any new information received. Frequently the client has had no positive experiences in a hospital environment.
   2. The level of adult development will greatly affect the client’s readiness to learn. If a client is in a mid-life transition, it may be very difficult to learn new attitudes and skills that threaten self-image.

Example: A man in his early 40s may have difficulty accepting any education regarding his colostomy.

B. Factors contributing to the teaching-learning process.
   1. Readiness to learn.
      a. The client must feel the material is relevant to his/her health, and must be willing to put forth the effort to learn.
      b. The client must have the mental capacity to learn, as well as the physical ability to perform the skills.
      c. The client must have physical and safety needs met before focusing on learning. If a client exerts all of his/her energy to cope with the physical stress, then he/she has little energy for learning.
      d. Comfort.
         (1) Physical comfort: discomforts (such as pain, nausea, hunger, need to void) are distractors to the learning process.
         (2) Psychological comfort: anger, frustrations, fear, and guilt severely hamper the learning process.
   2. Before the teaching-learning process can begin, the client and the nurse need to discuss and agree on specific long-term and short-term goals. The nurse must carefully evaluate the client’s knowledge of the problem.

C. Factors relating to the presentation.
   1. State the specific objective of each teaching session: exactly what the client is to gain.
   2. Use vocabulary and terminology appropriate to the client’s understanding and to his or her developmental level. Use correct terms for body parts.
   3. Try to stimulate as many senses as possible. Use charts, handouts, and pieces of equipment when appropriate.
   4. Repetition is an integral part of learning. Be ready to repeat the material or to have the client repeat the skill until he/she does it correctly and becomes comfortable with the skill.
   5. The more active the client is in the process, the better he/she will retain the information.
   6. Plan short sessions; do not overwhelm the client with too much information at one time.
   7. When appropriate, actively involve the family and significant others.
   8. Be generous with positive reinforcement.

D. Pediatric factors influencing the learning process.
   1. Intellectual development moves from the concrete to the abstract.
   2. The nurse needs to assess the developmental level of the child before planning the educational approach.
      a. Preschool client.
         (1) The preschool child frequently experiences fears of body injury. Explanations should be simple.
(2) Separation anxiety is a problem in this age group; include parents in teaching session.

(3) The preschool child is aware of the physical and mechanical causes of problems he/she can see; the child is unaware of physical and mechanical forces that he/she cannot see.

b. School-age client.
   (1) Benefits from tours, drawings, anatomical dolls.
   (2) Learns well from role-playing and puppets.
   (3) Needs to include parents in teaching session for reinforcement and to maintain consistency.

c. Adolescent client.
   (1) Needs to be as independent as possible in management of health problem.
   (2) Needs assistance in coping with loss of independence and self-direction.
   (3) Educational programs need to help adolescent deal with changes in body image and in maintaining ego.

E. Older adult client.
   1. Determine the older adult client’s functional losses (i.e., hearing or vision impairment, memory loss).
   2. Identify social support to aid the older adult; this often increases compliance with information being taught.
   3. Determine hearing and visual acuity and make adjustments to leaning process.
   4. Determine if the client is experiencing any confusion or disorientation. Ask client to include family member in teaching activity.

BASIC NURSING SKILLS

Hygienic Nursing Measures

TEST ALERT: Assist with activities of daily living.

A. Beds and comfort measures.
   1. Avoid shaking linens.
   2. Hold all soiled linens away from your uniform.
   3. Mattresses.
      a. Alternating pressure mattress.
         (1) Provides a continuous shift of pressure by alternating inflation and deflation of air or water every 2 to 5 minutes.
         (2) Used to prevent development of or to treat pressure ulcers.
      b. Eggcrate mattress.
         (1) Foam rubber mattress with projections that look like an eggcrate.
         (2) Placed on top of a regular mattress.
         (3) Used to prevent pressure areas from developing in a bedridden client.

B. Bathing.
   1. Types of bath.
      b. Partial bath.
      c. Shower.
      d. Therapeutic bath: sitz bath or medicated bath.
   2. Nursing implications.
      a. Room should be kept warm, bath should begin with clean areas and progress to dirty areas.
      b. To prevent dry skin, irritation, and infection, carefully rinse all surface areas and dry them.
      c. Keep client warm by using a bath blanket and controlling room temperature.
      d. Ensure quiet and privacy.
      e. Moisturize skin with lotion.

✔ NURSING PRIORITY: Clients who are receiving external radiation therapy should not be bathed with soap over the area of the radiation, which will be marked. Lotions and powders should not be used on the area.

3. Levels of personal care.
   a. Complete care: Client requires total assistance from nurse because client is able to do little or nothing without assistance.
   b. Partial care: Client performs as much of his or her own care as possible; nurse usually completes remaining care.
   c. PM care (bedtime or hour of sleep): Is provided to prepare client for a relaxing, uninterrupted period of sleep; includes oral care, possible partial bathing, skin care, soothing back massage, straightening or changing the bed linen, and offering the bedpan or urinal.

C. Oral hygiene.
   1. Includes care of the client’s teeth or dentures, gums, tongue, and lips.
   2. When providing oral care to unconscious client, turn the client’s head to the side to prevent aspiration.

D. Hair care.
   1. Newborn infants need scalp scrubbed daily to prevent cradle cap.
   2. Adolescents usually require more frequent shampooing because of increase in oily secretions.
   3. Older adult clients will need to shampoo less often.

Body Alignment and Range of Motion (ROM)

A. Characteristics of correct body alignment in bed.
   1. Head up with eyes looking straight forward.
   2. Neck and back straight.
   3. Arms relaxed and supported at sides.
   4. Legs parallel to hips with knees slightly flexed.
   5. Feet separated and parallel to the legs with the toes pointed upward and slightly outward.
B. Range of motion (ROM).
   1. Active ROM.
      a. Client performs exercise without assistance.
      b. Used for client who independently performs activities of daily living (ADLs), but for some reason is immobilized or limited regarding activity.
      c. Goal is muscle strengthening, as well as maintenance and prevention of muscle atrophy.
   2. Passive ROM.
      a. Client cannot actively move.
      b. Cannot contract muscles; therefore muscle strengthening cannot be accomplished.
      c. Goal is to maintain joint flexibility and prevent contractures.

C. Principles of ROM exercises.
   1. Stretch muscles by moving the body part; avoid movement to the point of discomfort.
   2. Perform ROM at least twice daily on immobile clients, with a minimum of four to five repetitions of each exercise.
   3. Always support extremity above and below the joint when doing passive ROM on extremities.
   4. Involve the client in planning the exercise program.

TEST ALERT: Provide for mobility needs – ambulation, range of motion, repositioning.

Asepsis
A. Medical asepsis.
   1. Designed to reduce the number of pathogens in an area and decrease the likelihood of their transfer (e.g., hand hygiene).

TEST ALERT: Set up a sterile field; use appropriate equipment to maintain asepsis; use aseptic/sterile technique.

B. Surgical asepsis.
   1. Designed to not just simply reduce the number of pathogens but to make the object free of all microorganisms.
   2. Also known as sterile technique.
   3. Surgical asepsis is implanted for sterile procedures, such as changing sterile dressings, completing sterile catheterizations, and performing surgical procedures in the operating room (Box 3-1).

Postmortem Care
A. Determine whether there are any tissues or organs to be donated.
B. Consult with the nursing supervisor to determine whether the client’s death needs to be reported and or if the client’s death necessitates an autopsy.
   1. Death resulting from an accident or, homicide, or suicide.
   2. Unattended death; death occurring at a workplace or during incarceration.
C. Perform postmortem care as soon as possible.
   1. Determine whether family wants to participate in post mortem care.
   2. Unless client is to have an autopsy, remove all equipment according to facility policy.
   3. Cleanse the body and cover with a clean sheet. Place a pillow under the head and leave the arms on the outside of the sheet. Deodorize room if necessary.
   4. Offer the family an opportunity to be with the client. Provide privacy in an unrushed atmosphere.
5. Return all personal belongings to the family. Document what items were taken and by whom.
6. Attach identifying name tag to the body and to the shroud. Shroud the body according to facility policy.

**NURSING PRIORITY:** Make sure there is correct identification attached to the body before allowing the body to be removed from the nursing unit.

## Wound Care

* A wound is a disruption in normal tissue caused by traumatic injury; also may be surgically created.

### A. Nursing goals.
1. Promote healing.
2. Prevent further damage.
3. Prevent infection.

### B. Wound healing is affected by:
1. Nutritional status.
   a. Adequate calories and protein are necessary for tissue healing.
   b. The obese client is at increased risk for poor wound healing.
2. Excessive wound drainage: impairs tissue regeneration and will harbor bacteria.
3. Aging: slowing of tissue regeneration.
4. Infection: prolongs inflammation and delays wound granulation.
5. Location and approximation of wound edges.
6. Circulation to the wound.

### C. Characteristics of wound healing.
1. Black wounds.
   a. Necrotic devitalized tissue; high risk for infection.
   b. Frequently require sharp or surgical debridement of tissue for healing to occur.
2. Yellow wounds.
   a. Contain devitalized tissue; require cleaning for healing to occur.
   b. Mechanical debridement requires irrigations and dressing changes. A 19F intravenous (IV) catheter on a 30-mL syringe provides safe pressure for irrigation and removal of devitalized tissue.
   c. Wet-to-dry dressings, wet-to-moist dressings, wound packing, and enzymatic debridement may be used to cleanse yellow wounds.
   d. Hydrocolloidal dressings to retain moisture.
3. Red wounds.
   a. Require protection of fragile granulation tissue.
   b. Topical antibiotic ointment and nonadhering dressings may be used on shallow wounds.
   c. Wounds should be kept moist (moisture-retention dressings, hydrogel dressing); dry dressings will damage the new granulation tissue.

### D. Process of wound healing.
1. Primary intention: wound edges approximated and closed (surgical incision).
2. Secondary intention: wound left open to heal from the inside out with the formation of granulation tissue.

### E. Nursing interventions.

**NURSING PRIORITY:** When cleansing an area, always start at the cleanest area and work away from that area. Never return to an area you have previously cleaned. Discard the cleansing swab after each horizontal or vertical stroke.

1. Cleansing of wound. (Figure 3-2)
   a. Horizontal wound: cleansed from center of incision outward, then laterally.
   b. Vertical wound: cleansed from top to bottom, then laterally.
   c. Drain or a stab wound: cleansed in a circular motion.
2. Wound irrigations: commonly used for large open wounds that are healing by secondary intention.
   a. Direct the solution from the top to the bottom of the wound, and from clean to contaminated areas.
   b. Irrigation solution should be warmed to promote comfort.
   c. Position client to promote gravity drainage from wound.
3. Drains are inserted into an open wound to prevent the accumulation of secretions and exudate. (Figure 3-3).
   a. Penrose drain: soft flexible drain inserted into wound.
NURSING PRIORITY: Avoid pooling of excessive drainage under saturated dressing; this can lead to skin irritation and infection.

1. A safety pin or clip may be inserted through the Penrose drain to prevent it from slipping further back into the wound.
2. Frequent dressing changes are preferable to reinforcing the same dressing.
3. Jackson-Pratt catheter or drainage system: Bulb must be compressed to allow air to escape and then is recapped to maintain suction.
4. Hemovac: Evacuator must be compressed at least every 4 hours to provide suction; be sure to empty drainage from pouring spout.
5. Wet-to-dry dressings.
   a. Purpose is to trap necrotic tissue in the dressing as it dries.
   b. Dressing should be moist when applied and allowed to dry for 4 to 6 hours.
   c. When dressing is changed, the packed dressing should be gently removed along with absorbed drainage and nonviable tissue. Do not soak packing before removal; this will decrease the removal of nonviable tissue.

NURSING PRIORITY: When performing wet to dry dressing change, wring out excessive moisture from dressings. The dressings should be thick and wet enough to dry between dressing changes.

5. Montgomery straps: used when frequent dressing changes are needed; help to prevent skin irritation that could occur with tape removal.

6. Elasticized abdominal binders assist to prevent tension on the suture line, especially beneficial in obese clients. (Figure 3-4)

7. Obtain a specimen of wound drainage.
   a. Gently roll a sterile swab in the purulent drainage.
   b. Obtain wound specimen before any medication or antimicrobial agent has been applied to wound area or administered to client.

Figure 3-3 Medical – Wound drain and suction devices. (From deWit, S., Surgical Nursing: Concepts and Practice, St Louis, 2009, Saunders Elsevier).

Figure 3-4 Abdominal binding. From deWit, S. Fundamental skills and concepts for nursing, ed 3, St Louis, 2009, Saunders Elsevier).

Heat and Cold Applications

A. Heat applications.
   1. Purpose of heat application is to soften exudate, and increase blood supply to promote healing.
   2. Unless a physician orders continuous heat applications, treatment time is usually 20 to 30 minutes.
   3. Caution client regarding hot baths and vasodilating effect that may cause postural hypotension.
   4. Moist heat penetrates deeper than dry heat.
   5. Do not use heat on an area that is being treated with radiation, is bleeding, has been injured within the last 24 hours, or has decreased sensation.
   6. Types of heat application.
      a. Moist heat pack.
      b. Pad that circulates warmed water to distribute dry heat to body parts. Cover the source to protect the skin.
      c. Heat lamp or heat cradle.
      d. Sitz bath, use clean water, not water the client has used for bathing.

B. Nursing intervention – heat application.
   1. Take vital signs before, during, and after heat application, if heat is applied to a large area.
   2. Unless an order is for continuous heat applications, treatment time is usually 20 minutes.
3. Closely observe skin under area of heat application.
4. Do not allow client to adjust temperature settings.

C. Cold applications.
1. Ice bag, ice collar, or ice glove.
2. Cold compress or cold pack.
3. Hypothermia blanket.
4. Reduces edema, swelling and pain if applied immediately after an injury.
5. May be used to decrease temperature.

D. Nursing intervention – cold application
1. Frequently check the temperature of a client with a hypothermia blanket for treatment of a fever.

TEST ALERT: Provide cooling measure for elevated temperature.

2. Remove the cold pack if:
   a. There is mottling, or redness of skin.
   b. Client complains of burning pain or numbness.
3. Prevent chilling.
4. Do not use cold applications on areas of decreased circulation, open wounds, or area treated with radiation therapy.

✔ NURSING PRIORITY: Do not use hot or cold applications with conditions of impaired circulation (e.g., peripheral vascular disease or diabetes).

Specimen Collection

TEST ALERT: Collect specimens for diagnostic testing.

A. General principles.
   1. Use sterile equipment to obtain specimen and prevent contamination from outside sources.
   2. Use the correct container for each specimen: Preservatives, anticoagulants, or chemicals may be required.
   3. Always observe standard precautions when obtaining specimens, keep outside of container clean to prevent contamination in transfer to the laboratory.
   4. Properly label the specimen. Collect the correct amount at the correct time.

B. Types of specimen.
   1. Urine (see Appendix 18-3).
   2. Stool (see Appendix 13-13).
   3. Sputum: throat or nasopharyngeal (see Appendix 10-8).
   5. Wound specimen.

TABLE 3-1 NORMAL VITAL SIGNS

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Respiration</th>
<th>Pulse</th>
<th>Blood Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEONATE</td>
<td>30-60 breaths/min</td>
<td>120-140 beats/min</td>
<td>90/40-110/60 mm Hg</td>
</tr>
<tr>
<td>CHILD 2 TO 4 YEARS</td>
<td>24-32 breaths/min</td>
<td>90-130 beats/min</td>
<td>70/110 mm Hg</td>
</tr>
<tr>
<td>CHILD 6 TO 10 YEARS</td>
<td>15-26 breaths/min</td>
<td>90/40-110/60 mm Hg</td>
<td>100/60-120/80 mm Hg</td>
</tr>
<tr>
<td>ADULT</td>
<td>12-18 breaths/min</td>
<td>60-100 beats/min</td>
<td>100/60-120/80 mm Hg</td>
</tr>
</tbody>
</table>

✔ NURSING PRIORITY: Know the range of normal values for vital signs at different age levels. This is critical for identifying changes in a client’s status as well as for determining specific criteria for medication administration.

Vital Signs

TEST ALERT: Take client vital signs; compare changes in vital signs to client’s baseline; notify supervisor or health care provider for change in client status.

A. Normal values (Table 3-1).
B. Assessment.
   1. Respiration.
      a. Evaluate an infant’s respiratory pattern before stimulation.
      b. Check thoracic cavity for symmetrical excursion.
      c. Breath sounds are best evaluated with client in sitting position.
   2. Pulse rate.
      a. Irregular radial pulse (weak volume or low rate) should be assessed by taking an apical pulse rate reading for 1 full minute.
      b. Apical pulse is auscultated at the fifth intercostal space at the midclavicular line (point of maximal intensity, PMI).
      c. Apical-radial pulse is determined by two people counting both the apical and the radial pulse rates at the same time. This provides information about pulse deficit, which is the difference in the two values.
      d. A weak peripheral pulse may be evaluated by a Doppler ultrasound.
      e. Check apical pulse in neonates, infants, small children and in adult clients with irregular pulse.
3. Temperature.
   a. Temperature is affected by mouth breathing and temperature of oral intake.
   b. Oral temperature is taken unless otherwise indicated.

4. Blood pressure (BP) assessment (Box 3-2).

**NURSING PRIORITY:** Know the range of normal values for vital signs at different levels. This is critical for identifying changes in a client’s status as well as for determining criteria for medication administration.

**IMMOBILITY**

* Immobility is the therapeutic or unavoidable restriction of a client’s physical activity.

A. Causes of restricted movement.
   1. Spinal cord or neurological injury.

B. Therapeutic reasons for restricted movement.
   1. To decrease pain.
   2. To immobilize a wound.
   3. To limit exercise and activity (e.g., clients with cardiac problems).
   4. To reduce effects of gravity on edema, varicosities.

**Adverse Physical Effects of Immobility**
The primary nursing goal in the care of the immobilized client is the prevention of complications. This is achieved by initiating nursing activities to prevent complications and by careful assessment of major organ systems for specific data indicating the effects of immobility.

A. Cardiovascular system.
   1. Physical effects.
      b. Decrease in ability of the heart to maintain output.
      c. Venous stasis.
      d. Increase in cardiac workload.

   2. Nursing implications.
      a. Position body to enhance circulation.
      b. Change position frequently.
      c. Use passive and active range of motion.
      d. Begin activity gradually; allow client to sit before standing.

B. Respiratory system.
   1. Physical effects.
      a. Decrease in thoracic excursion.
      b. Decrease in O$_2$/CO$_2$ exchange.
      c. Increase in pulmonary infections.
      d. Increase in collection of fluids in the lung.

   2. Nursing implications.
      a. Elevate head of bed.
      b. Maintain adequate hydration.
      c. Have client turn, cough, and deep breathe every 2 hours.

d. Promote increase in activity as soon as possible; have client sit up in chair at bedside.

e. Assess pulmonary secretions for infection.

C. Urinary system.
   1. Physical effects.
      a. Urinary stasis.
      b. Increased calcium in urine may precipitate stone formation.
      c. Urinary tract infections.

   2. Nursing implications.
      a. Have client sit up to void, if possible.
      b. Increase fluid intake.
      c. Decrease calcium intake.
      d. Assess for urinary retention and urinary tract infection.

D. Musculoskeletal system.
   1. Physical effects.

**BOX 3-2 BLOOD PRESSURE ASSESSMENT**

**Procedure**
Client should be in a sitting position without legs crossed. The inflatable cuff is wrapped snugly around the upper half of the arm. The cuff is inflated 20 to 30 mm Hg above the point at which radial pulsation disappears. As the cuff is deflated, a sound is produced within the brachial artery just below the cuff and is audible with the stethoscope. The sounds (Korotkoff sounds) coincide with each pulse beat. Usually, when the cuff pressure is below diastolic, the sounds will cease or become muffled.

**NURSING PRIORITY:** It is important to ascertain and record when the sounds become muffled. If there is any doubt, the blood pressure (BP) may be recorded as a tripartite pressure (120/70/50 mm Hg), implying that the sound became muffled at 70 mm Hg and disappeared at 50 mm Hg.

**Nursing Implications**
Size of cuff should be 20% wider than the diameter of the limb. If the cuff is too large (e.g., on a child’s arm), the BP obtained will be substantially lower than the true BP. If the cuff is too small (e.g., on an obese person’s arm), the BP obtained will be higher than the true BP. The difference in BP between the right and left arms is normally 5 to 10 mm Hg.
b. Muscle weakness and atrophy, paralytic ileus.
c. Loss of motion in joints leads to fibrosis and contractures.

2. Nursing implications.
   a. Perform range of motion exercises.
   b. Encourage active contraction and relaxation of large muscle groups.
   c. Position body to maintain proper alignment.
   d. Encourage daily weight bearing (standing at bedside) when possible.

E. Gastrointestinal system.
1. Physical effects.
   a. Anorexia.
   b. Ineffective movement of feces through colon that leads to constipation.
   c. Diarrhea secondary to impaction.

2. Nursing implications.
   a. Establish bowel program; for example, defecate every other day or three times a week.
   b. Encourage diet with adequate protein, bulk, and liquids.
   c. Check for impaction.

F. Integumentary system.
1. Physical effects.
   a. Decrease in tissue perfusion leading to pressure ulcer.
   b. Decrease in sensation in an area of increased pressure.

2. Nursing implications.
   a. Maintain cleanliness.

b. Promote circulation through frequent positioning changes.
   c. Protect bony prominences when turning.
   d. Prevent pressure areas from tight clothing, cast, or braces.
   e. Perform frequent visual inspection of pressure areas.

TEST ALERT: Provide for mobility needs; maintain skin integrity; identify signs and symptoms of venous insufficiency.

PAIN

* Pain is a complex, universal experience.
  Pain is a sensory perceptual experience
  Pain is a totally subjective personal experience
  Pain is an early warning sign; its presence triggers awareness that something is wrong in the body (Figure 3-5).

A. Types of Pain
1. Acute pain: has an identifiable cause; is protective; short, predictable duration (lasting less than 3 months); it frequently has an immediate onset and is reversible or controllable with treatment. Most often has an identifiable source such as post operative pain that disappears as the wound heals.
2. Chronic pain: lasts more than 6 months; continual or persistent and recurrent. Pain may not go away; periods of decreased and increased pain. Origin of pain may not be known.
3. Referred pain: pain that does not occur at the point of injury. For example, pain related to myocardial ischemia may be felt in the left arm or shoulder; cholecystitis may be felt as shoulder pain.
4. Phantom pain: pain that follows the amputation of a body part; may be described as throbbing, cramping, or burning in the body part amputated.
5. Pretended pain (malingering): client expresses that there is pain when actually has no pain.
6. Psychogenic pain: pain due to emotional factors rather than physiological dysfunction.

B. Pain Assessment (Box 3-3)

1. Pattern of pain.
   a. Pain onset and duration: when it started, precipitating causes, and how long it lasts.
   b. Breakthrough pain: transient; may be moderate to severe and occurs beyond current analgesic treatment; usually rapid onset and very intense.

2. Area of pain.
   a. Ask the client to identify the pain site.
   b. Pain may be referred from the precipitating site to another location—shoulder pain with cholecystitis, left arm pain with MI.
   c. Sciatica pain follows a nerve pathway of the sciatic nerve, generally down the back of the thigh and inside the leg.
   d. Intensity of pain: use a pain or rating scale to help the client communicate the pain intensity.

Cultural Implications of Pain

A. Cultural beliefs and values affect how a client responds to pain.
B. Nurses frequently assume that their own cultural implications of pain and the ways they deal with pain are the same as those of the client.
C. Assess attitudes and beliefs that may affect effective treatment of the pain. Some clients may believe that taking pain medications will cause “addiction”; other clients may believe that complaining of pain is a sign of weakness.
D. Avoid stereotyping clients by assuming a specific culture will or will not exhibit more or less pain.
E. Nursing considerations of pain control associated with a client’s culture:
   1. Identify what the pain means to the client; for example, a woman in labor will perceive pain differently than a client who experiences pain as an indication of advanced disease.
   2. Identify cultural implications regarding how a client responds to or expresses pain; some clients moan and complain loudly while others may be very quiet and stoic.
   3. Individualize pain control based on the client’s response to pain.
   4. Establish communication methods for the client to express level of pain and adequacy of pain control (e.g., pain scales, FACES scale, pictures, images).
   5. Expression of pain is subjective; accept client’s perception and expression of pain, and facilitate nursing care to meet client’s cultural needs in providing pain control.

TEST ALERT: Validate pain utilizing a rating scale.

3. Type of pain—sharp, burning, throbbing, cramping.
4. Determine any activities and situations that precipitate or increase the level of the pain—movement, ambulation, coughing.
5. Client responses to pain.
   a. Increased blood pressure, pulse, and respirations.
   b. Diaphoresis, increased muscle tension, nausea and vomiting.
6. Client’s interpretation and meaning of the pain experience.
7. Harmful effects of pain. (Box 3-4)

TEST ALERT: Recognize cultural diversity in client’s perception of and response to pain.
Noninvasive Pain Relief Measures

A. Nursing intervention for pain relief (nonpharmacological).
   1. Change positions frequently and support body parts.
   2. Encourage early ambulation after surgery.
   3. Elevate swollen body parts.
   4. Check drainage tubes to ensure that they are not stretched, kinked, or pulled.
   5. Provide cutaneous stimulation through pressure, massage, bathing, and heat or cold therapy to promote relaxation.

B. Relaxation techniques.
   1. Relaxed muscles result in decreased pain level.
   2. Typical relaxation exercises focus on deep breathing and alternate tensing and relaxing of various body parts in a systematic manner.
   3. Meditation: focuses attention away from pain.
   4. Rhythmic breathing: method of relaxation and distraction by focusing on the breath.
   5. Music may assist in relaxation.

C. Guided imagery.
   1. Creative visualization is the therapeutic use of images from one’s imagination to focus away from pain sensation by emphasizing pleasant memories and experiences.
   2. Often combined with relaxation and biofeedback.

D. Hypnosis is also used to produce a state of altered consciousness that is characterized by extreme responsiveness to suggestion.

E. Biofeedback: provides client with information about changes in body functions of which client is usually unaware (e.g., blood pressure, pulse rate).

F. Transcutaneous electric nerve stimulation (TENS).
   1. Delivers an electrical current through electrodes applied to the skin surface of the painful region or to a peripheral nerve.
   2. Identify trigger points (areas that are extremely sensitive when stimulated) and place electrodes.
   3. Instruct client to adjust TENS unit intensity until it creates a pleasant sensation and relieves the pain.

G. Acupuncture: most common complementary therapy to decrease pain.
   1. Requires insertion of thin metal needles into the body at designated points to relieve pain.
   2. Is effective in pain management, as well as nausea and vomiting associated with postoperative and chemotherapy.
   3. Encourage client to review the credentials of the practitioner, who should have a master’s degree in oriental medicine and be registered to practice in the state.

TEST ALERT: Identify client need for PRN medications; provide nonpharmacological measures for pain relief; use an alternative/complimentary nursing actions in providing pain control (e.g., imagery, massage, repositioning).

Medications for Pain Relief

A. Administer as-needed (PRN) analgesic medications (see Appendix 3-2: Analgesics).
   1. Steps in administering PRN medications.
      a. Assess client to determine source and quality and characteristics of pain.
      b. Check client’s chart.
         (1) Last medication received and route of administration.
         (2) The time administered.
         (3) Client’s response to medication.
      c. Check current order for pain medication.
      d. Select appropriate medication.
         (1) Use nonopioid analgesics for mild to moderate pain.
         (2) Avoid combinations of opioids for older adults.
         (3) IV medications act more rapidly for acute pain relief.
         (4) Avoid IM injections in older adults.
         (5) Sustained-release and extended-release oral medications work well for chronic pain management and will provide pain management over a longer period of time.

B. Types of medications.
   1. Narcotic analgesics are used for relieving severe pain.
      Example: Morphone, codeine, hydromorphone (Dilaudid), meperidine (Demerol), oxycodone (Percodan).
   2. Nonnarcotic analgesics act at peripheral sites to reduce pain.
      Example: Propoxyphene (Darvon).
   3. Potentiating drugs are used to intensify the action of the narcotic agent.
      Example: Promethazine (Phenergan), hydroxyzine (Vistaril, Atarax), diazepam (Valium).

NURSING PRIORITY: Use a preventive approach in alleviating pain by administering narcotics before the pain occurs (if it can be predicted), or at least before it reaches severe intensity. This is particularly important in regard to care of the new postoperative client.

   e. Document pain intervention.
   f. Decrease stimuli in room and determine other factors influencing discomfort.
   g. At 15- and 30-minute intervals, assess client’s response to pain intervention and document nursing actions.
4. Nonsteroidal anti-inflammatory drugs have analgesic, anti-inflammatory, and antipyretic properties. Example: Acetylsalicylic acid (ASA) or aspirin, acetaminophen (Tylenol), ibuprofen (Motrin, Advil), naproxen (Naprosyn).

C. Patient-controlled analgesia (PCA).
   1. Client controls delivery of pain medication via a PCA pump.
   2. A common order is for 1 to 4 mg of morphine every 10 minutes until pain is relieved with a lockout dose of 10 mg per hour.
   3. Check for parameters for bolus dose of medication.
      a. Should be available for episodes of increased pain (dressing changes, chest tube insertion, etc).
      b. For the client who goes to sleep and awakens with severe pain unrelied by PCA.
      c. For cancer clients who experience breakthrough pain.
   4. Advantages of PCA.
      a. More effective pain control.
      b. Decreased client anxiety, client controls pain more effectively.
      c. Increased client independence.
      d. Decreased level of sedation.
      e. Client tends to use less narcotic.
   5. Instruct any family member or significant others not to administer medication (document that you have done this). Explain that PCA works on the principle that when the client is uncomfortable, he or she will use the PCA.

D. Palliative Pain Relief
   1. The prevention or relief of pain when a cure for the client’s illness is not feasible.


2. Administer analgesics based on client’s level of pain; medication is increased as client’s pain increases.
3. Pain medication is frequently administered on an around-the-clock schedule rather than a PRN schedule to maintain therapeutic levels of medication. Pain medication is administered in the absence of pain.

4. A nurse’s or client’s fear that the client will become dependent on, addicted to, or tolerant to medication is inappropriate in the provision of pain control in palliative care.
5. Breakthrough pain frequently occurs in clients with cancer; pain may occur spontaneously, may be precipitated by coughing, may occur at any time during the dosing interval, or may occur toward the end of the dose.
6. Fear that opioids will hasten death is unsubstantiated, even in clients at the very end of life. It is important that nurses provide adequate pain relief for the terminally ill client.

OLDER ADULT PRIORITY: Analgesics tend to last longer and there is an increased risk for side effects and toxic effects in the older client.

E. Evaluation of Pain Control
   1. Identify client behavior response before the intervention and compare with response following the intervention.
   2. Based on assessment of pain prior to medication, determine if pain has been resolved.
   3. Chart client response to pain medication.

END-OF-LIFE CARE

A. Provide psychosocial support to client and family

TEST ALERT: Provide care and support to clients and families at end-of-life; identify client’s end-of-life needs and ability to cope with end of life interventions.

1. Assist family to identify resources for decisions about treatment and to prepare advance directives.
2. Assist client to identify and to contact spiritual advisors.
3. Respond quickly to call lights, check on client often, this helps to keep the client from feeling abandoned or isolated.
4. Encourage family to participate in care assisting with food, hygiene measures, physical contact.

B. Assist client to understand implications of resuscitation and associated terms.

TEST ALERT: It is important that clients understand that full comfort and physical assistance will continue to be provided regardless of their choice to be resuscitated or not. Respect client choices for palliative care.

1. Allow natural death (AND), and or do not resuscitate (DNR): maintain comfort measures, hygiene and pain control; order must be written on chart.
2. Full code: full CPR and resuscitation actions.
3. Hospice care or palliative care
   a. Does not refer to a place, but rather to a concept of care that provides support for the client who is dying.
   b. Care may be provided in long-term care facility, hospital, or at home.
   c. Criteria for hospice care includes the client’s desire for the service and a physician’s statement that the client will probably not survive beyond the next 6 months (the allowed time frame is somewhat flexible since actual amount of time cannot be predicted).

### Physical Management of Symptoms

**A. Physical symptoms of impending death.**

1. **Sensory.**
   a. Hearing is usually the last sense to disappear— always consider the unconscious client can hear.
   b. Taste, smell are diminished.
   c. Vision is often blurred, blink reflex may be absent.

2. **Integumentary:** skin is often cool and clammy; mottling occurs on extremities; cyanosis occurs around mouth and nose and on nail beds.

3. **Respiratory**
   a. Respirations become shallow and irregular; Cheyne Stokes—periods of apnea alternating with deep rapid breathing.
   b. Increased mucus in upper airway causing gurgling, noisy respirations.
   c. Inability to cough or clear airway.

4. **Cardiovascular.**
   a. Heart rate may vary from a regular, increased rate to a slowing and irregular heartbeat before death.
   b. Decreased blood pressure and tissue perfusion.

5. **Elimination.**
   a. Bowel: output decreases, incontinence occurs.
   b. Monitor for constipation; bowel incontinence may occur.

6. **Musculoskeletal.**
   a. Gradual loss of ability to move, loss of facial muscle tone.
   b. Difficulty speaking, unaware of body position.

7. **Neurological.**
   a. Decreased level of consciousness.
   b. Decreased reflexes: gag, cough, swallow.

**B. Nursing interventions.**

1. Provide palliative pain management—the prevention or relief of pain when a cure for the client’s illness is not feasible.
   a. Pain medication is frequently administered on an around-the-clock schedule to maintain therapeutic levels of medication; do not delay or deny pain relief measures to a dying client.
   b. Moderate to large amounts of opioids may be required to maintain client’s comfort.
   c. Administer analgesics based on client’s level of pain; medication is increased as client’s pain increases.
   d. Adjuvant medications to increase effectiveness of analgesics—antiemetics, antidepressants, corticosteroids.
   e. A nurse’s or family’s fear that the client will become dependent on, addicted to, or tolerant to pain the medication is inappropriate in provision of pain control in palliative care.

2. Dehydration: maintain oral hygiene; do not force the client to eat or drink. The option to withhold artificial nutrition or hydration should be made by the client in the advance directive, or by the person designated in advance directive.

3. Respiratory distress: elevate the head of the bed, offer oxygen, provide medications to decrease apprehension.

4. Elimination.
   a. Monitor for constipation, follow facility protocol for indwelling catheters.
   b. Monitor bowel function, assess for impaction, promote normal function within client limitations.

5. Anorexia, nausea and vomiting.
   a. Assess for precipitating cause and administer medications to decrease nausea.
   b. Offer small, frequent meals, but do not focus on client’s need to eat.

6. Determine client’s personal preferences and cultural implications regarding death. Provide family care regarding cultural needs.

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### PERIOPERATIVE CARE

Surgical procedures, whether planned or an emergency intervention, represent a crisis in a client’s life. However minor, surgical procedures always carry some degree of risk, physical discomfort, and financial stress.

**A. Perioperative refers to the entire operative experience (preoperative, intraoperative, and postoperative care).**

**B. Preoperative phase:** the period of time before the surgical procedure.

1. Assessment and correction of physiological and psychological problems that may increase the client’s risk factors.

2. Client teaching regarding the surgery.

3. Client teaching regarding postoperative care and activities.

**C. Intraoperative phase:** the period of time the client is in the operating room.

**D. Postoperative phase:** this period begins with the admission of the client to the postanesthesia care unit (PACU) and includes the remainder of the client’s hospitalization and recovery period.
Preoperative Care

**TEST ALERT:** Perform care for client before and after surgical procedure.

A. Client profile.
1. Age: The older adult and the infant have more difficulty maintaining homeostasis than do the adult and child. The older adult is more likely to have chronic health problems complicating surgery (Box 3-5).
2. Weight: Obesity predisposes the client to postoperative complications of infection and wound dehiscence. Fatty tissue is more susceptible to the infectious process.
3. Preoperative interview.
   a. Chronic health problems and previous surgical procedures.
   b. Past and current drug therapy, including over-the-counter (OTC) medications.

**NURSING PRIORITY:** Evaluate client’s current medications, be sure to include OTC medications as well as any alternative medications (herbal remedies).

   c. History of drug allergies and dietary restrictions.
   d. Client’s perception of his or her illness and impending surgery.
   e. Client’s level of orientation and any visual or auditory problems that would hinder communication.
   f. Discomfort or symptoms client is currently experiencing.
   g. Religious affiliation.
   h. Family or significant others.
4. Psychosocial needs: Fear of the unknown is the primary cause of preoperative anxiety in the mentally stable client. The surgical experience is unique to each client and represents a time of crisis.
5. Check routine laboratory studies – may vary according to client’s diagnosis, values should be available to surgical team.
   a. Complete blood count (CBC), blood type.
   b. Clotting studies (PT, PTT, INR, see Appendix 11-1).
   c. Urinalysis.
   d. Chest x-ray – especially for older adults
   e. Serum electrolytes, serum creatinine and blood urea nitrogen (see Appendix 18-1).
   f. Electrocardiogram (ECG) - generally for clients over 40 years or unless otherwise indicated.

**TEST ALERT:** Provide care that meets the special needs of the older adult client.

**NURSING PRIORITY:** Anticipate questions regarding basic pre and postoperative nursing care as well as questions that apply to a specific surgical condition or procedure. Nursing implications for specific surgical procedures may be found under the major systems in the care of the medical-surgical client.

B. Preoperative teaching: The goal is to decrease the client’s anxiety and to prevent postoperative complications.
1. Evaluate the client’s current understanding of his/her illness and of the anticipated surgical intervention.
2. Use terminology the client will understand.
3. Do not overwhelm the client with too much information at one time; allow adequate time for client questions.
4. Involve the client’s significant others in the preoperative teaching.
5. Preoperative teaching content.
   a. Deep breathing and coughing exercises.
   b. Turning and extremity exercises.
   c. Pain medication policy, for example, PRN, PCA.
d. Adjunct equipment used for breathing: incentive spirometry, nebulizer, O₂ mask.
e. Explanation of NPO policy if indicated.

C. Physical preparation.
1. Skin preparation.
   a. The operative site and the surrounding area should be cleaned either by the client or by a member of the surgical team.
   b. Shaving the operative area is no longer recommended to be done by nursing staff; if area is to be shaved it should be done in the preoperative holding area or in the operating room.
2. Food and fluids are restricted for approximately 6 hours preoperatively.
3. Enemas or some type of gastrointestinal cleansing is usually administered the evening before surgery involving the GI tract, pelvic area, or retroperitoneal area. This assists to prevent fecal contamination in the peritoneal cavity. Take safety precautions with older adult client, bowel preparation can be exhausting.
4. Promote sleep and rest: After the preoperative procedures are completed, the client generally receives a sleeping medication to promote rest. Common medications used are barbiturates.

D. Informed Consent
1. The physician is responsible for having the consent form signed. It must be signed before sedation is given. The surgeon should give the client a full explanation of the procedure, including complications, alternatives, and risks involved.
2. The client’s informed consent record (permit) must be signed by the physician, the client, and a witness; the witness is frequently the staff nurse.

**NURSING PRIORITY:** The informed consent record (permit) must be signed before the client receives the preoperative medication.

3. The signed consent record (permit) is part of the permanent chart record and must accompany the client to the operating room.

**Day of Surgery**

A. Nursing responsibilities.
1. Have client follow routine hygiene care or shower with an antiseptic solution or bactericidal soap.
2. Review client’s regularly scheduled medications and determine if any medications are to be held on the day of surgery, or if all medications should be given.
3. Record vital signs within 1 hour of client being transported to surgery.
4. Secure and/or remove valuables according to hospital policy; wedding bands may be taped on finger.
5. Facility may require the client to remove fingernail polish or artificial nail from at least one finger.
6. Most often dentures and removable bridge work are removed to prevent breakage, aspiration or airway obstruction. Check young children for the presence of loose teeth.
7. Remove contact lens, prosthetic devices, glasses, hairpieces and give them to the client’s family. Remove any metal hairpins or clips.
8. Check client’s identification for first and last name, date of birth, physician, and hospital number.
9. Identify family and significant others who will be waiting for information regarding client’s progress.
10. Check the chart for completeness regarding laboratory reports, signed consent form, significant client observations, history and physical records.
11. Make sure the surgical team is aware of advanced directives, or any religious beliefs that could impact surgery (blood transfusions).

B. Preoperative medications (see Appendix 3-3).
1. Purpose.
   a. Decrease anxiety and provide sedation.
2. Nursing responsibilities.
   a. Ask client to void before administration of medication.
   b. Obtain baseline vital signs.
   c. Medication is usually administered about an hour before surgery. Many institutions are administering the medication in the operative suite so the client can participate in the “time out” process for identification of operative site.
   d. Raise the side rails and instruct the client not to get out of bed.
   e. Remove dentures and partial plates.
   f. Observe for desired response as well as undesirable side effects of medication.
   g. Maintain quiet environment before being transported to the operating room.
   h. Allow parent to accompany child as far as possible.

C. The “time out” is the protocol for preventing wrong site, wrong procedure, wrong person surgery; it must occur in the location where the procedure is performed. All members of the surgical team are involved in the positive identification of the patient, the name of the intended procedure, and the site of the procedure.

D. Nursing considerations for spinal anesthesia.
1. Client will not be able to feel any sensation below level of anesthesia.
2. Vasodilation below level of anesthesia may precipitate hypotension.
3. Client may experience postanesthesia headache (“spinal” headache).
4. Client may remain awake throughout procedure.
5. May be used in major surgical procedures below the level of the diaphragm.
OLDER ADULT PRIORITY: Spinal anesthesia may be used for clients undergoing transurethral resection of the prostate (TURP), inguinal herniorrhaphy, or orthopedic procedures, as well as for poor-risk clients who would not tolerate inhalation anesthesia very well.

E. Conscious sedation: the administration of an IV medication to produce sedation, analgesia, and amnesia.
   1. Characteristics
      a. Client can respond to commands, maintains protective reflexes, and does not need assistance to maintain airway.
      b. Amnesia most often occurs after the procedure.
      c. Slurred speech and nystagmus indicate the end of conscious sedation
   2. Nursing implications.
      a. Client is assessed continuously; vital signs are recorded every 5 to 15 minutes.
      b. Monitor level of consciousness; client should not be unconscious, but relaxed and comfortable.
      c. Client should respond to physical and verbal stimuli; protective airway reflexes remain intact.
      d. Potential complications include loss of gag reflex, aspiration, hypoxia, hypercapnia, and cardiopulmonary depression.
      e. Does not require extensive recovery time following surgery.

Immediate Postoperative Recovery

A. Admission of client to recovery area.
   1. Obtain baseline assessment.
      a. Vital signs.
      b. Status of respirations.
      c. General color.
      d. Type and amount of fluid infusing.
      e. Special equipment.
      f. Dressings.
   2. Notify supervisor or surgeon regarding any deterioration of client’s condition during the postoperative recovery period.

Nursing Interventions

- Goal: To maintain and support respiratory function.
  A. Leave airway in place until pharyngeal reflex (gag reflex) has returned.
  B. Position client to maintain ventilation and prevent aspiration.
  C. Encourage coughing and deep breathing.
  D. Administer humidified oxygen as necessary.
  E. Report significant changes in respiratory status.
  F. Listen to the chest for a decrease in breath sounds. Notify supervisor or PCP if there are significant changes in respiratory status.
  G. Monitor status and changes in pulse oximetry.

GENERAL POSTOPERATIVE CARE

- Goal: To maintain cardiovascular function and tissue perfusion.
  A. Monitor vital signs, usually every 4 hours, after full recovery.
  B. Evaluate skin color and nail beds for paleness and cyanosis.
  C. Assess client’s tolerance to increasing activity.
  D. Encourage early activity and ambulation.
  E. Monitor for circulatory complications of immobility.
# TABLE 3-2  COMMON POSTOPERATIVE COMPLICATIONS

<table>
<thead>
<tr>
<th>COMPLICATION</th>
<th>SIGNS AND SYMPTOMS</th>
<th>NURSING INTERVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atelectasis</td>
<td>Dyspnea, decreased or absent breath sounds over affected area, asymmetrical chest expansion, hypoxia.</td>
<td>Position client on unaffected side. Maintain humidification, oxygen (see Chapter 15). Administer narcotics cautiously if client is at increased risk. <strong>Prevention</strong>: assist client to turn, cough, and deep breath; provide adequate hydration; encourage ambulation, prevent abdominal distention.</td>
</tr>
<tr>
<td>Pulmonary emboli (PE)</td>
<td>Chest pain, dyspnea, tachycardia, increased anxiety, decreased pulse oximetry, decreased blood pressure.</td>
<td>Notify RN immediately of any chest pain or difficulty breathing in clients at increased risk. Place client in semi-Fowler's position and begin oxygen. Maintain bed rest. Remain with client in respiratory distress <strong>Prevention</strong>: Encourage ambulation as soon as possible, position client to prevent venous stasis.</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>Fever, shallow respirations, wet breath sounds, cough productive of thick yellow mucus, may progress to hypoxia.</td>
<td>Maintain client in low or semi-Fowler's, monitor pulse oximetry levels. Humidified oxygen and maintain good hydration. <strong>Prevention</strong>: cough and deep breath, encourage incentive spirometry. Older adult clients are at increased risk; encourage postoperative activity as soon as possible.</td>
</tr>
<tr>
<td>Shock</td>
<td>Decreasing blood pressure, weak pulse, restless, confusion, oliguria.</td>
<td>Anticipate RN will initiate IV access if not present, maintain NPO and bed rest. Position client supine. Prevent hypoxia and monitor vital signs. (see Chapter 11). <strong>Prevention</strong>: closely monitor drains and incisions for bleeding, identify clients at increased risk.</td>
</tr>
<tr>
<td>Wound infection</td>
<td>Poor wound healing, redness, tenderness, fever, tachycardia, leukocytosis, purulent drainage.</td>
<td>Culture incision to determine organism. Evaluate progress of wound healing. <strong>Prevention</strong>: identify high-risk clients; maintain sterile technique with dressing changes; good hand hygiene.</td>
</tr>
</tbody>
</table>

**TEST ALERT:** Monitor wounds for signs and symptoms of infection.

| Wound dehiscence                | Unintentional opening of the surgical incision.                                  | Evaluate for bleeding; maintain bed rest and or position client to prevent further pressure at incision site. **Prevention**: identify clients at increased risk for stress on incision and poor healing; assist client to splint incision when coughing; use abdominal binders. |
| Wound evisceration              | Protrusion of a loop of bowel through the surgical wound.                       | Cover bowel with sterile saline soaked dressing. Do not attempt to replace loop of bowel. Notify physician; client will most likely return to surgery for further exploration. |

Continued
TABLE 3-2 COMMON POSTOPERATIVE COMPLICATIONS—cont’d.

<table>
<thead>
<tr>
<th>COMPLICATION</th>
<th>SIGNS AND SYMPTOMS</th>
<th>NURSING INTERVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Urinary retention</strong></td>
<td>Inability to void 8 hours after surgery; bladder may be palpable; voiding small</td>
<td>Determine amount of fluid intake and when to anticipate client to void—generally within 8 hr. Palpate suprapubic area to evaluate for bladder</td>
</tr>
<tr>
<td></td>
<td>amounts, dribbling</td>
<td>distention. Assist client into normal voiding position if possible, run tap water, provide privacy. Catheterize only if necessary. <strong>Prevention:</strong></td>
</tr>
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<td></td>
<td></td>
<td>Determine preoperative risks: medications, length of surgery, history of prostate problems.</td>
</tr>
<tr>
<td><strong>Gastric dilatation</strong></td>
<td>Nausea, vomiting, abdominal distension, increased risk, decreased bowel sounds.</td>
<td>Clients with abdominal or bowel surgery are at increased risk. Position client in semi-Fowlers to decrease risk of aspiration. Maintain client NPO.</td>
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<tr>
<td></td>
<td></td>
<td><strong>Prevention:</strong> Older adult clients are at increased risk; and clients with abdominal or bowel surgery are at increased risk; encourage activity as</td>
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<tr>
<td></td>
<td></td>
<td>soon as possible; carefully monitor analgesics.</td>
</tr>
<tr>
<td><strong>Paralytic ileus</strong></td>
<td>caused by decreased peristalsis, or intestinal obstruction, preventing movement of</td>
<td>Prevention: same as for gastric distention. Maintain nasogastric tube suction and NPO status. If NG tube is not present, may begin early feeding of</td>
</tr>
<tr>
<td></td>
<td>stomach contents from the small intestine to the large intestine, leading to gastric</td>
<td>clear liquids to increase intestinal motility. Evaluate for distention, status of bowel sounds and abdominal discomfort. Monitor for possible compromised</td>
</tr>
<tr>
<td></td>
<td>distention.</td>
<td>respirations.</td>
</tr>
</tbody>
</table>

*IV*, Intravenous; *NPO*, nothing by mouth; *NG*, nasogastric

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- **Goal:** To maintain respiratory function.
  
  - A. Have client turn, cough, and deep breathe every 2 hours.
  
  - B. Encourage use of incentive spirometry to promote deep breathing.
  
  - C. Maintain adequate hydration to keep mucus secretions thinned and easily mobilized.
  
  - D. Encourage early ambulation.
  
  - E. Evaluate sputum for presence of infection.

- **Goal:** To maintain adequate nutrition and elimination.
  
  - A. Assess for return of bowel sounds and normal peristalsis.
  
  - B. Assess the client with a nasogastric tube for return of peristalsis.
  
  - C. Encourage fluids after client demonstrates tolerance to fluids.
  
  - D. Assess client’s tolerance of oral (PO) fluids; usually begin with clear liquids.
  
  - E. Diet is usually progressive as client’s condition and appetite indicate.
  
  - F. Record bowel movements; normal bowel function should return as evidenced by normal bowel movement on the second or third postoperative day (provided the client is eating).
  
  - G. Assess urinary output.

1. Client should void 8 to 10 hours after surgery.

2. If bladder catheter is present, client should average at least 30 ml per hour.

3. Promote voiding by allowing client to stand or use bedside commode, if not contraindicated.

4. Avoid catheterization if possible.

- **Goal:** To maintain fluid balance.
  
  - A. Monitor IV infusions for correct fluid and rate of infusion.
  
  - B. Assess for adequate hydration.
    
    1. Moist mucous membranes.
    
    2. Adequate urine output with normal specific gravity.
    
    3. Good skin turgor.
    
    4. Stable vital signs.
    
    5. Alert and oriented.

  - C. Assess character and amount of gastric drainage through the nasogastric tube.

- **Goal:** To promote comfort.
  
  - A. Anticipate pain; assess and administer appropriate analgesics.
  
  - B. Administer antiemetic for nausea and vomiting.
  
  - C. Maintain good hygiene (e.g., clean dressings, clean gown).
  
  - D. Change client’s position every 2 hours.
  
  - E. Allow for periods of rest after administration of analgesics.
In addition to the pain and discomfort associated with a surgical procedure, it is important to assess other possible sources of discomfort, such as full bladder, occluded catheter or tube, gas accumulation, IV infiltration, or compromised circulation due to position/pressure.

Postoperative Complications – see Table 3-2

Disaster Planning

TEST ALERT: Participate in preparation for internal and external disasters – participating in safety drills, identifying safety manager, locating Material Safety Data Sheet (MSDS).

A. Fire
   1. Immediately return to your unit if a fire code is called.
   2. If fire is localized (in one room or area), remove the clients from the immediate area.
   3. If clients on your unit are not in immediate danger, close all of the doors to the client's rooms and to the unit.
   4. If you need to evacuate your unit because of an immediate danger to staff and clients, evacuate clients in this order to provide for the most rapid removal of the most clients in a short period of time:
      a. First: Ambulatory clients are first because they can move the quickest and you can remove more clients quickly.
      b. Second: Clients in wheelchairs or walkers or clients that need assistance are next to be evacuated.
      c. Third: Clients that require the most assistance, for example, ventilator clients or those who are totally bedridden, are the next to be evacuated.
   5. Know the types of fire extinguishers:
      a. Class A: water or solution for paper or linen fires.
      b. Class B: foam extinguisher for grease, chemical, or electrical fires.
      c. Class C: multipurpose for paper, linen, or electrical fires.
   6. Using a fire extinguisher—remember PASS:
      Pull the pin.
      Aim at the base of the fire.
      Squeeze the trigger.
      Sweep from side to side.
B. Response acronym: RACE
   Rescue—remove all clients in immediate danger.
   Alert—initiate the alarm.
   Confine—close all doors and windows; turn off oxygen valves and electrical equipment.
   Extinguish—use the appropriate extinguisher for type of fire.

LEGAL IMPLICATIONS

Responsibility for Practice

A. Individual liability.
   1. Every nurse is liable for his or her own conduct.
   2. Liability may be shared by another person or group (e.g., the doctor, another nurse, or the hospital), but it cannot be removed by the statements or actions of another.
   3. If an RN is not available, the practical nurse may not carry out functions that are recognized to be outside the scope of practice of a practical nurse.

B. Unethical nursing care.
   1. Medication errors that are made and not reported/corrected.
   2. Physical and verbal client abuse.
   3. Providing care while under the influence of alcohol or drugs.
   6. Providing care outside the protocol for safe, ethical nursing practice according to the individual state nurse practice act.
   7. The practical/vocational nurse should follow the line of authority within the institution for reporting an incident.

C. Standard of care: The legal concept of a fictional, reasonable, prudent individual of the same education and profession against which another professional's performance is judged.
   1. Statement of nursing standards.
      a. Practice acts, and rules and regulations.
      b. Joint Commission (JC).
      c. Policy and procedures' manuals.
      d. Prior court decisions.
   2. Used to determine when a breach of duty has occurred.

D. Good Samaritan laws: enacted by individual states with the purpose of protecting health care providers who assist at accidents and emergencies.
   1. Care provided in good faith.
   2. Care must be gratuitous; no compensation is received for the care rendered.
   3. Care provided should not be negligent.
   4. Know the status in your state.
Legal Considerations

A. Negligence: Unintentional harm to another that occurs through failure to act in a reasonable and prudent manner.
B. Malpractice: Unprofessional nursing practice that fails to meet the proper standard of care.
C. Invasion of privacy: Protection of constitutional right to be free from undesired publicity and exposure to public view.
   1. Proper covering of physical body.
   2. Medical records.
      a. Release with signed client consent form.
      b. Release for medical “need to know” limited to caregivers only.
   3. Belongings must be protected and may not be searched without specific authorization. A client’s list of belongings should be explained to and signed by the client.
   4. Conversations confidential; in some states protected by specific statute.
   5. Photographs and viewing of procedures require consent of client.
   6. Control of visitor access to client and client information.
   7. Reporting laws are an exception – some information is required by law to be reported.

TEST ALERT: Follow regulation/policy for reporting specific issues (abuse/neglect, gunshot wound, or communicable disease, etc.)

   a. Communicable diseases.
   b. Injuries or deaths that are, or could be, caused by physical violence (gunshot and knife wounds).
   c. Client abuse - children and older adult.
   d. Others defined by state statute.
   8. Rights may be waived by the client but never by medical personnel.
   9. Nurses are obligated to maintain confidentiality of client’s health information in accordance with the Health Insurance Portability and Account ability Act (HIPAA) of 1996.

D. Valid consent (informed consent).

   TEST ALERT: Obtain client’s signature on consent form. The signed informed consent form provides evidence the consent process has occurred. The nurse should verify with the client that the physician has discussed the risks and benefits of the surgery and the client understands his/her rights.

   1. Timely: Some states or institutions have specific time restrictions on when consents are signed.
   2. Written: This is required for all invasive procedures.

   3. Witnessed signature: Do not sign an informed consent as a witness unless you know client has all information and understands the information necessary to an informed decision.
   4. Procedure specified in terms the client can understand.
   5. Client understanding of significant risks of procedure.
   6. Signed while client is free from mind-altering drugs or conditions.
   7. Withdrawal of consent can be written or verbal and may occur at any time before the procedure.

E. Orders: doctors/primary health care provider.

   TEST ALERT: Evaluate appropriateness of an order.

   1. Question any order that is not clearly written and understood.
   2. Each medication order should contain the correct medication name, the route of administration, the dosage amount, and the time of administration.
   3. Single-dose orders are for a medication to be given one time.
   4. “Stat” orders: procedure or medication should be given/carried out immediately; new orders should be scanned initially to determine if any “stat” orders are present.
   5. The nurse is responsible for questioning any medication order if the order is not clear, or if the nurse feels there may be an error in the order.

Protective Procedures

A. Documentation: written record of events surrounding client’s hospital stay.
   1. Protects client by promoting good communication among health care providers.
   2. Provides evidence in court of care given.
      a. Courts will not assume care is given unless it is recorded.
      b. Demonstrates meeting of standard of care.
   8. How to document (Box 3-6).
      1. Use the agency format correctly.
      2. Complete all portions of format.
         a. Use opinions only in assessment portion of charting, never in areas requiring factual data.
         b. Complete an honest record of events.
            (1) Do not alter record at any time.
            (2) Record all events, even unusual events, factually.
            (3) Give all appropriate information about each note (e.g., status of incision: presence of and type of drainage, inflammation of area, foul odor, and type of dressing if any).
            (4) Explain omissions in care.
      3. Time, date, and sign all entries.
4. Do not skip lines; do not leave any blank spaces for other people to chart.
5. Correct errors properly.
   a. Draw a straight line through error; date and initial.
   (a) No white-out on error.
   (b) No obliteration or erasure of error.
   (c) No recopying of page to omit note.
   b. Add omitted information by an “addendum” or “late entry”; give date and time of original note as well as date and time of addendum.
6. Use meaningful, specific language, do not use words you do not understand or unacceptable abbreviations.

C. Incident reports.

TEST ALERT: Report incidents/events/irregular occurrences according to facility guidelines.

1. Only the person directly involved in the incident should document the facts in the report.
2. Do not complete an incident report for someone else.
3. Document the facts.
   a. Do not draw conclusions or speculate on who caused or who was responsible for the incident.
   b. Do not state opinions or make judgments.
4. Report does not replace the documentation of the incident in the chart.
5. Do not document any reference to the incident report in the chart; the same factual information filed on the incident report should be included on the chart.
6. Failure to complete an incident report could be considered a cover-up.
7. Complete an incident report for any unusual occurrence or an event in which client or family safety was compromised. Follow the line of authority within the institution for reporting an incident.

D. Know your limits.

TEST ALERT: Recognize task/assignments you are not prepared to perform and seek assistance.

1. Physical-emotional: be aware of fatigue and exhaustion and compensate for them.
2. Practice competency.
   a. Do not perform procedures without adequate preparation, knowledge, and experience. Request supervision if you are unsure of your skills.
   b. Report unsafe practices to your supervisor.
   c. Do not allow anyone to talk you into doing something you are not sure of by letting him or her agree to take the liability or telling you that you should do it.

BOX 3-6 GUIDELINES FOR EFFECTIVE DOCUMENTATION

- All entries should be accurate and as objective as possible.
- Make corrections appropriately and according to agency or hospital policies. Do not obliterate any information that is written on the paper chart.
- If there is information that should have been charted and was not, make a “late entry,” indicating the time the charting actually occurred and the specific time the charting reflects. Example: 10/13/09, 10:00 a.m.
- All identified client problems, nursing actions taken, and client responses should be noted. Do not describe a client problem and leave it without including nursing actions taken and the client’s response.
- Be as objective as possible in charting. Rather than charting “The client tolerated the procedure well,” chart the specific parameters checked to determine that conclusion. A chart entry worded “ambulated, tolerated well” would be more effective if charted “ambulated complete length of hall, no shortness of breath noted, pulse rate at 98, respirations at 22.”
- Each page of the paper chart or each computer entry should contain the current date and time. Each time information is entered on a new page, make sure it reflects the current time of charting.
- Document who saw the client and what measures were initiated. Particularly note when the doctors visited; if you had to call a doctor because of a problem, record the doctor’s response. If orders were received, be sure they are signed according to policy. This is especially important if you had to make several calls to the doctor.
- Make sure your notes on the paper chart are legible and clearly reflect the information you intended. It is a good idea to read over your nurse’s notes from the previous day to see whether they still make sense and accurately portray the status of the client. If the notes do not make sense to you the next day, imagine how difficult it would be to decipher the information at a later date, or in court.
- Charting by exception may be available on electronic charts, as well as paper charts. In this case, the nurse may be required to document only significant findings or exceptions. It is important that exception notes are entered and provide a clear picture of the client’s care or status.
- Do not give your computer password or ID to anyone, and do not chart for any other health care person.
- If charting by computer in the client’s room, make sure the nursing or medical record has been closed before leaving the room.

Adapted from Irvin, Judy: Legal issues. In Zerwekh J, Claborn J, editors: Nursing today: Transitions and trends, ed 6, St. Louis, 2009, Saunders.
E. Client identification—The Joint Commission requirements:
1. Two identifiers are required; for example, the hospital identification number and the client’s name on the armband. Physicians name and client’s date of birth are commonly on identification armbands.
2. If client does not have an armband, then the individual’s stated name would be one identifier; the client’s date of birth, social security number, address, or phone number could serve as the second identifier.
3. Client’s current photograph or visual recognition may be used as one identifier in long-term care facilities, home care settings, or behavioral care facilities. For short-term clients, facilities with unstable staffing, and/or high-risk medications, the two-identifier requirement is necessary.
4. The client does not have to state his or her name as an identifier.

✔ NURSING PRIORITY: Always check client identification according to the Joint Commission guidelines.

Specific Situations at Risk

A. Physical injury to the client.
   1. Inappropriate side rail use.
   2. Inadequate supervision during ambulation.
   3. Obstacle or dangers on floor or in path of client.
   4. Improper transportation.

B. Improper use of restraints - may be physical or chemical restraints and are used only to protect the physical safety of the client and others.
   1. Use of a restraint on a client requires a physician’s order for:
      a. Type and location of restraint.
      b. Type of behavior for which restraint is to be used.
      c. Time frame that the order for the restraint covers.
   2. In an emergency situation, physical restraints may be used without a doctor’s order for a very limited period of time.
   3. Safe nursing practice for the care of a client in restraints includes:
      a. Check restrained client every 30 minutes and provide for physiological needs.
      b. Remove restraints and provide range of motion every 2 hours.
      c. Document the time of each check and the neurovascular status of client’s extremities.
      d. Remove restraints as soon as possible.
      e. Secure restraints to the bed frame, not to the side rails.
      f. Discuss with family the rationale for and purpose of restraints.
      g. Investigate all alternatives to restraints: family involvement, methods to increase client orientation, scheduled toileting activities.

B. Medication errors (see Chapter 4).
   1. Follow the seven rights of medication administration to protect the client.
   2. Have a basic knowledge of medications administered.
      a. Reason client is receiving the medication.
      b. Major side effects of medication.
      c. Anticipated client response to medication.
   3. Never administer a medication without a complete order.
   4. Notify the supervisor or RN if there is a obvious contraindication to the administration of a medication.

C. Administration of narcotics
   1. Never sign out for a narcotic you do not personally administer.
   2. Do not sign as a witness for narcotic wasting unless you actually observe the wasting.
   3. Always have another licensed person witness and co-sign whenever it is necessary to waste a narcotic.

D. Telephone and other verbal orders (Box 3-7).

TEST ALERT: Take a verbal or phone order; transcribe a physician’s order.

1. Practical nurses must be aware of the policies and procedures of the institution regarding telephone orders. Some institutions do not allow the PN to take doctor’s orders. The practical nurse is legally obligated to follow the policy of the employing institution.
2. Write down the telephone order and read it back; receive confirmation that the order is correct.
3. Do not take verbal orders with the physician present when it is not an urgent situation.
4. Orders left on voice mail are not acceptable; the nurse must call the health care provider to obtain the order directly.
5. Verbal orders left with patients or family members are not acceptable; the nurse must call the health care provider and obtain the order directly.
6. Obtain needed signature promptly for telephone orders.

D. Changes in client’s condition.

**NURSING PRIORITY: Identify and report significant changes in client condition.**

1. Notify appropriate individuals of changes – RN, unit supervisor, physician, or other health care provider.
2. Follow the chain of command if there is failure to provide appropriate care after notification of significant change in client condition.
3. Document changes and events surrounding the change in the client’s status.
4. The practical nurse is responsible for evaluating clients, and obtaining assistance, or notifying appropriate individuals of the change in client condition.
5. Follow up on assessments of client problems and what nursing action was taken to resolve the problem. For example, the nurse may very carefully document the events surrounding a client’s fall, but it is also critical to follow up on what was done to provide care and to protect the client after the fall.

E. Hand-off (shift) report: purpose is to provide accurate information and safe quality care throughout the client’s hospitalization.
   1. Use an interactive communication method understandable for all interdisciplinary teams — SBAR:
      - Situation—What is happening at the present time?
      - Background—What are the circumstances leading up to this situation?
      - Assessment—What do I think the problem is?
      - Recommendation—What should we do to correct the problem?
   2. The oncoming nurse is responsible for the nursing care required on his or her shift.
      a. Status of IVs and amount of fluid to count.
      b. Any abnormal conditions (vital signs, pain, special treatments).
      c. Status of client with regard to diagnosis. For example, cardiac client—presence or absence of chest pain and dysrhythmias; surgical client—voiding, incision status; orthopedic client—circulation distal to cast or traction.
      d. Psychosocial status of the client.

**TEST ALERT: Provide and receive report on assigned clients.**

**Legal Documents**

A. Client’s medical record or chart.
B. Advance medical directive (AD): a written document regarding a client’s desires for provision of medical care if that person is unable to make his or her own choices or decisions.
   a. Living will (natural death act): a written document describing the client’s wishes and special instructions regarding life support measures in the event that the client is incapacitated.
   b. Medical power of attorney for health care.
      1. Identifies the person designated by the client to ensure that previously agreed ADs are carried out according to the client’s direction.
      2. Identifies the person designated to make health care decisions for the client if the client is incapacitated.
   c. ADs may be changed or revoked by the client at any time.

**TEST ALERT: Provide information about advance directives (AD).**

C. Do not resuscitate (DNR) orders.
   1. Written by the physician based on the client’s written medical directives.
   2. Nurses are obligated to respect and observe the DNR order.
   3. Health care personnel should be advised of the DNR order.

**MANAGEMENT OF HEALTH CARE WORKERS**

A. Delegation is transferring to a competent individual the authority to perform a selected nursing task in a selected situation, the process for doing the work. The nurse retains accountability for the delegation, most often delegation is the role of the RN.
B. Assignment describes the distribution of work that each staff member is to accomplish in a given time. To assign is to direct an individual to do activities within an authorized scope of practice.
C. Supervision is the provision of guidance or direction, oversight, evaluation and follow-up by the licensed nurse for the accomplishment of a nursing task delegated to nursing assistive personnel. (NCSBN, 2004).
D. Role of the practical nurse (PN) in supervision
   1. The PN should ensure the unlicensed assistive personal (UAP) understands the assigned task, and the UAP should acknowledge to the PN that he/she understands the directions.
   2. The PN should make periodic checks to determine that the UAP is performing the tasks as directed.
3. If the UAP does not carry out the tasks correctly, the PN should correct the action in a timely professional manner. If the problem is not resolved, the RN should be notified.

4. The PN should assign tasks to the UAP that are clearly defined, are within the expected expertise of the UAP, and have very specific guidelines: for example, bathing, ambulating, client hygiene.

**TEST ALERT: Make client care or related task assignment.**

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**Study Questions: Concepts of Nursing Management**

1. Bed rest is frequently prescribed for clients who have had a brain accident or stroke until their condition stabilizes. How can the nurse avoid potential problems?
   1. Insert an indwelling catheter
   2. Help the client bathe two times daily
   3. Place the client on a circulating air mattress
   4. Develop an activity schedule with the client

2. The nurse begins charting on a client’s paper chart and after entering data discovers it has been written on the wrong chart. What is the best way to correct this error?
   1. White-out the wrong information and write over it.
   2. Recopy the page with the error so that the chart will be neat.
   3. Draw a straight line through the error, initial, and date.
   4. Obliterate the error so that it will not be confusing.

3. A client is nauseated and has vomited a large amount of foul smelling dark green bile fluid twice in the past hour. What is the best nursing action?
   1. Position the client in a supine position and maintain bed rest.
   2. Place client on nothing by mouth (NPO) status and notify the supervisor.
   3. Encourage clear liquids to help settle the stomach.
   4. Ambulate client to stimulate development of peristalsis.

4. The nurse enters the client’s room and discovers the client on the floor beside the bed. The side rails are up, and the client is confused and disoriented. What information would be included in the nurse’s documentation in the incident report?
   1. Upon entering the room, I discovered the client on the floor at the side of the bed; the side rails were up.
   2. The client fell out of the bed after the nursing assistant had explained to him the importance of not getting up.
   3. The client was confused and apparently tried to climb out over the side rails of the bed.
   4. Evidently the previous nurse did not check on the client to see that he was confused, and he fell out of bed.

5. The older adult client is being discharged with a prescription for hydrocodone (Vicodin) for pain control. What information will the nurse include when discussing with the client the possible adverse effects of the medication?
   1. Increase intake of bulk and fiber to prevent constipation.
   2. The pain control can be increased by taking an additional acetaminophen 500 mg.
   3. Return to the clinic for serum lab studies to determine toxicity levels.
   4. Increased bruising may occur because of changes in the skin.

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**TEST ALERT: Organize and prioritize care of assigned group of clients.**
6. The nurse is explaining to the client the importance of voiding prior to surgery. What would the nurse include in this explanation?
   1. It is important to have an accurate account of I&O for that day.
   2. Voiding before surgery will reduce the risk of bladder pain during surgery.
   3. Voiding prior to surgery will promote the physiological safety during surgery.
   4. Prior to surgery it is important to void to decrease the possibility of infection.

7. The nurse has been assigned an 86-year-old client who has suffered a stroke. The client is not oriented to person, place, or time and is pulling at his IV catheter and trying to climb out of the bed. The nurse has applied a vest restraint and bilateral soft wrist restraints. Which of the following nursing actions would be appropriate? Select all that apply:
   ___ 1. Provide for nutrition and elimination needs every 2 hours.
   ___ 2. Obtain a physician order every shift for continuation of restraints.
   ___ 3. Secure the restraints to the side rails of the bed.
   ___ 4. Tie the restraints in quick release knots.
   ___ 5. Assess and document behaviors that require continued use of restraints.

8. What potential problem should the practical nurse anticipate when too much strain is placed on the suture line?
   1. Thrombosis.
   2. Infection.
   3. Evisceration.
   4. Dehiscence.

9. Postoperative pain and cancer pain may be considered predictable. How can the nurse increase the effectiveness of the analgesics?
   1. Give them PRN.
   2. Administer once a day.
   3. Plan around-the-clock dosing.
   4. Administer twice a day.

10. A wound is left open after surgery and allowed to heal from the inside to the outside. This describes what type of healing?
    1. First intention.
    2. Second intention.
    3. Primary healing.
    4. Superficial healing.

11. A client has experienced a dehiscence and the nurse places the client on bed rest. What is the purpose of bed rest for this client?
    1. To decrease oxygen consumption.
    2. To increase the healing of the site.
    3. To prevent development of pneumonia.
    4. To prevent the occurrence of evisceration.

12. The nurse is caring for an immobilized client. What nursing measure is used to prevent the complications of atelectasis and pneumonia?
    1. Turn, cough, and deep breathe.
    2. Range of motion exercises.
    3. Clear liquid diet with frequent suctioning of secretions.
    4. Bed rest with frequent vital sign measurements.

13. Before a surgical procedure, the nurse asks a client to sign an informed consent form. What is important for the nurse to validate before the client signs this form?
    1. The physician has discussed the surgery with the client.
    2. The client understands the postoperative nursing care.
    3. The physician has discussed the possible complications.
    4. The client understands the surgery and the risks involved.

14. Older adult clients are considered high risk for respiratory problems based on problems of immobility and aging changes. What are these changes related to?
    1. Decreased lung expansion and reduced breathing capacity.
    2. Increased breathing and lung capacity.
    3. Poor posture and decreased size of chest cavity.
    4. Increased lung size and decreased tidal volume.

15. With the client in the prone position, which bony prominences would the nurse identify as being most susceptible to skin breakdown?
    1. Sacrum and elbows.
    2. Shoulder area and trochanter.
    3. Anterior iliac spines and patellae.
    4. Trochanter.

Answers and rationales to these questions are in the section at the end of the book titled Chapter Study Questions: Answers and Rationales.
Appendix 3-1  POSITIONING AND BODY MECHANICS

<table>
<thead>
<tr>
<th>POSITION</th>
<th>PLACEMENT</th>
<th>USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fowler’s</td>
<td>Head of bed at 45- to 60-degree angle; hips flexed</td>
<td>The height may be determined by client preference or tolerance; frequently used for client with respiratory compromise.</td>
</tr>
<tr>
<td>Semi-Fowler’s</td>
<td>Head of bed at 30- to 45-degree angle; hips flexed</td>
<td>Cardiac, respiratory, neurosurgical conditions, or client comfort.</td>
</tr>
<tr>
<td>Low Fowler’s</td>
<td>Head of bed at 15- to 30-degree angle; hips may or may not be flexed</td>
<td>Postoperative and clients with GI problems.</td>
</tr>
<tr>
<td>Lateral (side-lying)</td>
<td>Head of bed lowered; pillows under arm and legs behind back; flex knee of anterior side</td>
<td>For client comfort; increases uterine and renal perfusion in pregnancy and prevents supine vena cava syndrome during labor.</td>
</tr>
<tr>
<td>Semi-prone (Sims’)</td>
<td>Head of bed lowered; client placed on side with dependent shoulder lifted out and lying partially on abdomen; place pillow under flexed arm and under upper flexed knees</td>
<td>Prevents pressure areas, used for comfort</td>
</tr>
<tr>
<td>Lithotomy</td>
<td>On back with thigh flexed against abdomen and legs supported by stirrups.</td>
<td>For gynecological examination and surgical procedures in the perineal area.</td>
</tr>
<tr>
<td>Prone</td>
<td>Head of bed flat, client on abdomen, head turned to side</td>
<td>Used to promote drainage after oral surgery or tonsillectomy; used to prevent contractures in clients with above-the-knee amputation. Position will protect infant with imperforate anus, or spina bifida.</td>
</tr>
<tr>
<td>Supine</td>
<td>Bed in flat position, small pillow under head</td>
<td>For client comfort.</td>
</tr>
</tbody>
</table>

**TEST ALERT:** Position client to prevent complications after tests, treatments, or procedures.

**BODY MECHANICS—PREVENTION OF INJURY**

Manual lifting of a client should be avoided. If it is necessary to manually lift most or all of the client’s weight, obtain lift equipment and ask for adequate assistance.

**Body mechanics:**
1. Avoid twisting your body; keep your head and neck aligned with your spine.
2. Flex your knees and place your feet wide apart for good base of support.
3. Position yourself close to the bed or close to the client.
4. Use arms and legs to assist in lifting client, not your back.
5. Use pull sheet or slide board to move client to side of bed and/or to move up in bed.

**TEST ALERT:** Use transfer assistance device (roller, client lifts).

✔ **Key Points: Assisting the Client to Move Up in Bed**
- Lower the head of the bed so that it is flat or as low as the client can tolerate; raise the bed frame to a position that does not require leaning.
- If more than one person is needed for assistance, obtain a lifting device.
- Determine the client’s strong side and have him or her assist with the move.
- Instruct the client to bend legs, put feet flat on bed, and push.
- With 2 people, use a draw sheet or a lift sheet.
- Never pull a client up in bed by his arms or by putting pressure under his arms.

✔ **Key Points: Logrolling the Client**
- Spinal immobilization—use a team approach.
- Maintain proper alignment on head and back areas while turning.
- Before moving patient, place a pillow between client’s knees.
- Move client in one coordinated movement, using a turn/lift sheet.
Appendix 3-1  POSITIONING AND BODY MECHANICS—cont’d.

✓ **Key Points: Moving from Bed to Chair**

- Move client to the side of the bed (bed wheels locked), closest to the edge where the client will be getting up, place a chair with arms at bedside.
- Plan on assisting client to get out of bed on his strongest side.
- Raise head of bed, assist client to side of the bed.
- Move client to edge of bed and place your hands under client’s legs and shift his weight forward, pivot the client’s body so he is sitting position and his feet are flat on the floor.
- Have client reach across chair and grasp the arm of the chair.
- Stabilize client by positioning your foot at the outside edge of client’s foot.
- Pivot client into chair using your leg muscles instead of your back muscles.
- Assist client to move back and up in the chair for better position.

**TEST ALERT: Maintain correct body alignment.**

**Tips for Moving and Positioning Clients**

- Use a turn sheet to provide more support for client.
- Encourage client to assist in move by using the side rails and strong side of his or her body.
- No-lift policy: use lift equipment and assistance whenever a client requires most of his weight to be supported or lifted by someone.
- Use trochanter roll made from bath blankets to align the client’s hips to prevent external rotation when in the supine position.
- Use folded towels, blankets, or small pillows to position client’s hands and arms to prevent dependent edema.

Appendix 3-2  ANALGESICS

**General Nursing Implications**

- Assess client for pain parameters: blood pressure, pulse, and respiratory status before and periodically after administration.
- Use a scale to determine level of pain.
- For more effective analgesic effect, administer medication before pain is severe.
- Older or debilitated clients may require decreased dosage.

<table>
<thead>
<tr>
<th>Medications</th>
<th>Side Effects</th>
<th>Nursing Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Narcotic Analgesics</strong> bind to receptors in the central nervous system (CNS), altering the perception of and emotional response to pain. Controlled substances (Schedule II).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morphine sulfate: PO, subQ, IM, IV, epidural analgesia</td>
<td>Respiratory depression</td>
<td>1. Morphine is most commonly used for PCA.</td>
</tr>
<tr>
<td>Meperidine (Demerol): PO, subQ, IM</td>
<td>Orthostatic hypotension</td>
<td>2. Demerol: Not commonly used for control of chronic pain due to neurotoxic effect; use with caution in children and elderly clients because of increased risk for toxicity and seizures.</td>
</tr>
<tr>
<td>Fentanyl (Fentanyl, Sublimaze, Duragesic): IM, IV, PO, transdermal</td>
<td>Sedation, dizziness, lightheadedness, Increased tendency for seizures</td>
<td>3. All opioids: Use with caution in clients who have respiratory compromise.</td>
</tr>
<tr>
<td></td>
<td>Constipation</td>
<td>4. Pediatric implications: Medication dosage is calculated according to body surface area and weight.</td>
</tr>
<tr>
<td></td>
<td>Tolerance, physical and psychological dependence</td>
<td>5. Assess voiding and encourage client to void every 4 hours.</td>
</tr>
<tr>
<td></td>
<td>May decrease awareness of bladder stimuli</td>
<td>6. Requires documentation as indicated by Controlled Substance Act.</td>
</tr>
</tbody>
</table>

**STRONG OPIOID ANALGESICS**

1. Morphine is most commonly used for PCA.
2. Demerol: Not commonly used for control of chronic pain due to neurotoxic effect; use with caution in children and elderly clients because of increased risk for toxicity and seizures.
3. All opioids: Use with caution in clients who have respiratory compromise.
4. Pediatric implications: Medication dosage is calculated according to body surface area and weight.

**NURSING PRIORITY:** Advise clients using fentanyl patches not to expose patch to heat (hot tub, heating pad) since this will accelerate the release of the fentanyl.

**OLDER ADULT PRIORITY:** Prevent problems with constipation, monitor respiratory status.

5. Assess voiding and encourage client to void every 4 hours.
6. Requires documentation as indicated by Controlled Substance Act.
7. Instruct client to change position slowly to minimize orthostatic hypotension.
## Appendix 3-2 ANALGESICS—cont’d.

<table>
<thead>
<tr>
<th>Medications</th>
<th>Side Effects</th>
<th>Nursing Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MEDIUM TO STRONG OPIOID ANALGESICS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Codeine (PO, subQ)</td>
<td>Sedation, euphoria, respiratory depression, constipation, urinary retention, cough suppression</td>
<td>1. Usually administered by mouth. 2. Codeine is an extremely effective cough suppressant. 3. Do not confuse hydromorphone with morphine. 4. Warn patient to avoid activities requiring alertness until effects of drug are known. 5. Medications are often in various strength combinations with acetaminophen and/or ibuprofen.</td>
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<tr>
<td>Butorphanol (Stadol): PO, subQ, IM, IV, suppository</td>
<td>Dizziness, drowsiness</td>
<td>1. Monitor client for effective pain control. 2. Abrupt withdrawal after prolonged use may produce symptoms of withdrawal.</td>
</tr>
<tr>
<td>Nalbuphine (Nubain): subQ, IV, IM</td>
<td>Hypotension, hypertension, dysrhythmias.</td>
<td>1. Assess respiratory status, blood pressure, pulse, and level of consciousness until narcotic wears off. Repeat doses may be necessary if effect of narcotic outlasts the effect of the narcotic antagonist. 2. Remember that narcotic antagonists reverse analgesia along with respiratory depression. Titrate dose accordingly and monitor pain level. 3. Used: Used to reverse CNS and respiratory depression in narcotic overdose. 4. Contraindications and precautions: Use with caution in narcotic-dependent patients; may cause severe withdrawal symptoms.</td>
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<tr>
<td><strong>MEDIUM OPIOIDS</strong></td>
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<tr>
<td>Hydromorphone (Dilaudid): PO, subQ, IM, IV</td>
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<tr>
<td>Oxycodone (Percodan, combination with ibuprofen; Percocet, Tylox combinations with acetaminophen; OxyContin): PO</td>
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<tr>
<td>Hydrocodone (Vicodin, Lorset combinations with acetaminophen; Vicoprofen, combination with ibuprofen): PO</td>
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<tr>
<td>Propoxyphene (Darvon, Darvocet): PO</td>
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<tr>
<td><strong>NARCOTIC ANTAGONIST</strong> - Antagonists competitively block the effects of narcotics without producing analgesic.</td>
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<tr>
<td>Naloxone (Narcan): IV, IM, subQ</td>
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<tr>
<td>CDC, Centers for Disease Control and Prevention; CNS, central nervous system; IM, intramuscularly; IV, intravenously; PCA, patient-controlled analgesia; PO, by mouth (orally); subQ, subcutaneously</td>
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</tbody>
</table>