

Wound Care and Dressings

Performance Checklist

UNIT ONE Measures to Prevent Infection

UNIT ASSESSMENT

- Identified clients at risk for infection.
- Identified length of time client remained in surgery (the more hours in surgery, the greater the risk for infection).
- Assessed incision three times a day.
- Identified components necessary to prevent infection for individual clients.
- Assessed need for sterile technique compliance in client care.
- Assessed lab results for abnormal values.

COMPLETING A SURGICAL HAND SCRUB

Procedure

1. Removed all jewelry.

Performed Mastered
yes no

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2. Turned on water using foot or knee pedal or hand lever; adjusted water temperature to tepid.
3. Wet hands thoroughly.
4. With arms held up in front, began to scrub by cleaning fingernails with plastic or orange-wood stick.
5. Scrubbed hands 10 strokes with an antimicrobial solution.
 - a. Used brush or friction of hands.
 - b. Started at fingertips and with circular motion, worked around and between each finger.
 - c. Scrubbed back and front of hands using circular motion.
 - d. For 10 more strokes moved 3 inches above wrist, and then up arm to elbow continuing with circular scrubbing motion. Kept hand higher than arm at all times.

Performed Mastered
yes no

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- e. Repeated procedure for second hand and arm.
 - f. Placing arms under water faucet, kept fingertips pointed upward and rinsed thoroughly with water flowing down toward elbows.
6. Dried hands with sterile towel starting at fingertips and moving toward elbows.
 7. If hand levers were used to control water flow, turned faucets off with sterile towel used for drying hands. Did not touch faucet or sink with hands.

DONNING STERILE GLOVES

Procedure

1. Washed and dried hands.
2. Placed glove package on clean, dry, firm waist-height surface.
3. Removed outside wrapper of glove package by peeling tabs apart where indicated on wrapper. Pulled edges laterally to expose glove package. Ensured that this step was accomplished over firm surface.
4. Placed glove package on firm surface maintaining sterility of gloves by touching only outside of wrapper.
5. Grasped two edges of wrapper and lifted wrapper edges up and away from gloves, being careful not to touch gloves as package was opened.
6. With nondominant hand, picked up opposite glove by grasping section that had folded edge (inside edge of the cuff). Lifted glove up and away from wrapper.

Performed Mastered
yes no

Performed yes	Mastered no

7. Held hands above waist level, and inserted dominant hand into glove opening. Gently pulled glove into place with nondominant hand touching only the inside of cuff. Did not attempt to straighten out gloved fingers until both gloves had been put on.
8. With dominant, gloved hand, removed other glove from package. Made sure to touch only inside of the folded cuff. Lifted this glove up and away from wrapper.
9. Held gloved thumb away from body to prevent touching skin.
10. Place ungloved fingers into new glove opening. Gently pulled glove over the hand as before.
11. Kept hands above waist level, adjusted both gloves by touching only fingers, remembering to touch sterile surfaces with sterile surfaces.
12. Kept both sterile gloves in front of self and above waist level.

POURING FROM A STERILE CONTAINER

Procedure

1. Washed hands.
2. Gathered equipment.
3. Opened sterile container according to procedure.
4. Placed container on firm surface.
5. Took cap off bottle and inverted cap before laying on firm surface.
6. Held bottle with label facing up.
7. Poured small amount of liquid into nonsterile container.

Performed Mastered
yes no

Performed yes	Mastered no

	Performed		Mastered
	yes	no	
8. Poured liquid into sterile container, keeping label facing up, not touching container with bottle. Did not reach over sterile field, if container placed there.			
9. Replaced cap if liquid remained in bottle. If empty, discarded bottle in trash.			
10. Dated and initialed bottle, if reusing.			
11. Replaced partially filled bottle to storage area if it was to be reused.			

PREPARING A STERILE FIELD

Procedure

1. Washed hands.
2. Placed sterile towel packages on overbed table or on another surface close to table. Placed packages so that first wrapper edge could be opened away from sterile area.
3. Grasped far edge of wrapper and opened away from me.
4. Donned sterile gloves and mask according to hospital policy.
5. Using both hands, picked up two side edges of first wrapper and opened them away from middle of sterile field. Unfolded last edge without touching wrapper.
6. Picked up one edge of sterile towel, and moved away from table. Gently shook towel away from sterile area.
7. When towel was open, used other hand to pick up two edges that were away from body. Was careful to not touch towel with clothing.

	Performed		Mastered
	yes	no	
8. Lowered towel onto tray or bedside stand so towel was farthest away from body. Then laid towel down on tray by bringing it toward me, covering entire tray.			
9. Repeated same steps with second sterile towel.			
10. If solutions for cleansing skin were required, placed sterile medicine cups near one side of sterile towel.			
11. Took cap off antiseptic bottle.			
12. Poured small amount of solution into container, not on sterile field, keeping label in uppermost position.			
13. Poured antiseptic solution, from side of sterile field, directly into medicine cup.			
14. Opened sterile packages of dressings, and placed on sterile surface.			
<i>Commercially Prepared Packages</i>			
a. Opened package at designated end by pulling edges apart and downward to expose contents.			
b. Grasped edges of two sides of package and inverted package over edge of sterile field. Allowed contents to drop onto sterile field.			
c. Repeated procedure for each item to be placed on sterile field.			
<i>Hospital-Wrapped Packages</i>			
a. Held package and securely grasped one edge.			
b. Opened package wrapper by allowing edges to drop down, away from package.			
c. Grasped edges of wrapper with free hand and pulled them toward wrist, thus exposing sterile contents.			
d. Gently dropped contents on sterile field.			
e. Repeated procedure for each item to be placed on sterile field.			

15. If sterile supplies were not to be used immediately, covered with sterile towels.
 - a. Opened sterile towel package by opening wrapper away from body so that I did not cross over sterile field.
 - b. Picked up one towel at edge and opened towel by moving away from sterile field and allowing towel to fall open.
 - c. Grasped corner of towel opposite to one I was holding. Kept towel from touching contaminated areas.
 - d. Placed towel over sterile field starting at edge nearest me. Laid towel down without touching tray with hand. Moved towel across tray toward opposite edge.
 - e. Repeated procedure with second sterile towel.

PREPARING A STERILE FIELD USING PREPACKAGED SUPPLIES

Procedure

1. Washed hands.
2. Ensured working surface was clean and dry.
3. Removed outer plastic wrap.
4. Placed package in center of work area and positioned so opened package flap away from me.
5. Grasped edge of first flap of wrapper, moved it away and placed it on working surface.
6. Grasped first side flap, lifted it up; grasped second side flap and together moved both hands out toward sides. Placed flaps down on working surface.

Performed Mastered
yes no

7. Grasped last flap of wrapper and opened it toward body, taking care not to touch inside of flap or any contents of package.

PREPARING FOR DRESSING CHANGE WITH INDIVIDUAL SUPPLIES

Procedure

1. Washed hands.
2. Cleaned off bedside stand and washed thoroughly with antiseptic solution.
3. Placed supply packages on table in configuration that allowed you to open packages without reaching over sterile field.
4. Grasped cover of 4 × 4 pad plastic container and pulled flap back and away from sterile area. Placed cover in disposal bag.
5. Grasped edge of transparent dressings package, peeled back top covering. Placed opened package on work surface. Did not cross over any opened supply packages.
6. Continued to open all supplies using above steps.
7. Poured solution over pads in plastic container, if ordered.
8. Opened sterile gloves. Placed in position on table where you did not pass over a sterile field.
9. Tore tape and placed on side of overbed table.

Performed Mastered
yes no

UNIT TWO Dressing Change

UNIT ASSESSMENT

- Identified type of dressing required.
- Determined if sutures or staples needed to be removed.
- Assessed incision for infection.
- Assessed extent of healing.
- Assessed nutritional status.

CHANGING A DRY STERILE DRESSING

Preparation

1. Checked physician's orders and client care plan.
2. Washed hands.
3. Gathered appropriate equipment.
4. Identified client and explained procedure.
5. Provided privacy.
6. Cleaned off overbed table.
7. Placed sterile supplies on overbed table.
8. Raised bed to HIGH position, and lowered side rails.
9. Placed bag for soiled dressings near incision site.
10. Fanfolded linen to expose incision area.
11. Covered client with bath blanket, leaving incision area exposed.

Performed Mastered
yes no

Performed yes	no	Mastered

12. Opened sterile packages, and placed on overbed table. Arranged packages to ensure I didn't cross over sterile field when reaching for dressings.
13. Cut tape into appropriate length strips and placed on edge of overbed table.

Procedure

1. Removed dressing tape slowly by pulling tape toward wound.
2. Donned clean gloves.
3. Removed soiled dressings, and disposed of in proper bag. Wet dressing with sterile normal saline if it adhered to suture line.
4. Assessed incision area for erythema, edema, or drainage.
5. Assessed color of incision.
6. Removed clean gloves, and discarded.
7. Moved overbed table next to working area.
8. Donned sterile gloves.
9. Cleansed incision area with swabs or 4 × 4s soaked in normal saline, according to hospital policy. Cleansed from incision line outward, from top to bottom, using swab only once. Discarded swabs or 4 × 4s in disposal bag.
10. Placed 4 × 4 gauze pads over incision area, being careful not to touch incision or client with gloves.
11. Placed abdominal pad over incision, being careful not to contaminate gloves.
12. Removed gloves and discarded.

Performed Mastered
yes no

Performed yes	no	Mastered

13. Taped dressing securely.
14. Discarded trash in appropriate receptacle.
15. Lowered bed, raised side rails, and positioned client for comfort.
16. Washed hands.

Performed Mastered
yes no

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REMOVING SUTURES

Procedure

1. Gathered equipment.
2. Washed hands and donned clean gloves.
3. Removed dressing and discarded in disposable bag. (Discarded gloves only if soiled.)
4. Opened suture removal set, and donned gloves if second pair needed.
5. Picked up forceps with nondominant hand.
6. Grasped suture at knot with forceps and lifted away from skin.
7. Picked up suture scissors with dominant hand.
8. Placed curved tip of suture scissors under suture, next to knot.
9. Cut suture, and with forceps, pulled suture through skin with one movement.
10. Discarded suture into disposable bag.
11. Checked that entire suture was removed.
12. Continued to remove remaining sutures according to hospital policy.
13. Cleansed suture site with antiseptic solution.

14. Removed gloves, and placed in disposal bag.
15. Placed dressing or butterfly tape over incision area if ordered.
16. Discarded disposal bag into contaminated waste container.
17. Washed hands.

Performed Mastered
yes no

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REMOVING STAPLES

Procedure

1. Gathered equipment and opened sterile staple remover.
2. Washed hands and donned clean gloves.
3. Removed dressing, and discarded in disposal bag. (Discarded gloves only if soiled.)
4. Donned gloves if necessary.
5. Placed lower tip of staple remover under staple.
6. Pressed handles together to depress center of staple.
7. Lifted staple remover upward, away from incision site when both ends of staple were visible.
8. Placed staple removal device over disposal bag and released handles to release staple.
9. Removed all staples or as directed by hospital policy.
10. Cleansed incision area with antiseptic solution if ordered.
11. Removed gloves, and placed in disposal bag.

	Performed		Mastered
	yes	no	
12. Placed dressing over incision and secured with tape or placed butterfly tape over incision.			
13. Discarded disposal bag in contaminated waste container.			
14. Washed hands.			

UNIT THREE Wound Care

UNIT ASSESSMENT

- Identified type of dressing needed.
- Assessed level of pain associated with wound care and dressing change.
- Assessed wound for color, odor, or drainage.
- Assessed extent of wound.
- Assessed type of wound.
- Assessed for function of Hemovac or Jackson-Pratt suction.
- Assessed for extent of wound healing.
- Assessed for arterial insufficiency.

ASSESSING A WOUND

Preparation

1. Obtained health history, medical diagnosis, and physical examination data from chart or obtained missing information.
2. Determined type of wound: acute or chronic, and cause of wound.

	Performed		Mastered
	yes	no	
1. Obtained health history, medical diagnosis, and physical examination data from chart or obtained missing information.			
2. Determined type of wound: acute or chronic, and cause of wound.			

Procedure

1. Assessed type and extent of wound.
2. Observed color of wound.
3. Observed odor of wound.
4. Assessed level of moisture in wound.
5. Assessed wound drainage.
 - a. Type
 - b. Amount
 - c. Color of drainage
6. Assessed tissue viability.
7. Assessed surrounding area.
8. Assessed extent of pain if present.
9. Measured length and width of wound using a disposable measuring device/grid.
10. Measured depth of wound by placing a sterile cotton-tipped applicator stick into wound in several areas. Measured depth of each area using the measuring device/grid.
11. Checked for tunneling or sinus tracts by placing a sterile cotton-tipped applicator stick into suspected areas and advancing stick until resistance was met.
12. Evaluated laboratory rules.
13. Evaluated client's stress level. Increased stress leads to hypermetabolic states, which uses up oxygen and nutrients and affects wound healing.
14. Completed skill by following appropriate steps.
15. Documented findings and notified physician of any changes or unusual findings in the assessment.

	Performed		Mastered
	yes	no	
1. Assessed type and extent of wound.			
2. Observed color of wound.			
3. Observed odor of wound.			
4. Assessed level of moisture in wound.			
5. Assessed wound drainage. <ol style="list-style-type: none"> a. Type b. Amount c. Color of drainage 			
6. Assessed tissue viability.			
7. Assessed surrounding area.			
8. Assessed extent of pain if present.			
9. Measured length and width of wound using a disposable measuring device/grid.			
10. Measured depth of wound by placing a sterile cotton-tipped applicator stick into wound in several areas. Measured depth of each area using the measuring device/grid.			
11. Checked for tunneling or sinus tracts by placing a sterile cotton-tipped applicator stick into suspected areas and advancing stick until resistance was met.			
12. Evaluated laboratory rules.			
13. Evaluated client's stress level. Increased stress leads to hypermetabolic states, which uses up oxygen and nutrients and affects wound healing.			
14. Completed skill by following appropriate steps.			
15. Documented findings and notified physician of any changes or unusual findings in the assessment.			

PACKING A WOUND

Procedure

1. Followed Preparation steps in *Changing a Wound Dressing*.
2. Determined client's need for pain medication before beginning procedure.
3. Donned clean gloves and placed plastic bag near wound site.
4. Assessed wound site.
5. Removed tape slowly by pulling tape toward wound.
6. Removed soiled dressings and disposed of dressings and packing into plastic bag. Moistened packing with sterile saline solution if dry.
7. Removed gloves and discarded.
8. Donned sterile gloves.
9. Cleaned wound with saline solution and patted wound dry with 4 × 4 gauze pads.
10. Placed packing material in wound; packed lightly, filling tunneling or undermined areas.
11. Cut ribbon gauze with sterile scissors and left small wick exposed, if used for packing.
12. Covered packing with dressing and taped securely.
13. Disposed of used packing and gloves.
14. Washed hands.
15. Positioned client for comfort.

Performed Mastered
yes no

CHANGING A DRESSING FOR A VENOUS ULCER

Preparation

1. Washed hands.
2. Gathered appropriate equipment.
3. Identified client and explained procedure.
4. Provided privacy for client.
5. Raised bed to HIGH position. Lowered side rails.
6. Opened sterile packages, and arranged on overbed table.
7. Placed absorbent pad under wound.

Procedure

1. Donned clean gloves.
2. Removed compression bandage and old dressing, and placed in biohazard bag.
3. Assessed and measured wound.
4. Cleansed off debris by pouring cleansing solution over wound.
5. Rinsed wound with sterile normal saline.
6. Dried wound using sterile 4 × 4 dressings. Placed in biohazard bag.
7. Removed gloves, and donned sterile gloves.
8. Applied medicated moisturizer over wound, if ordered.
9. Removed backing on moisture-retentive dressing, and placed over open wound site.
10. Palpated arterial system: dorsalis pedis, posterior, or tibial pulse. If pulses nonpalpable, obtained Ankle-Brachial Index (ABI).

Performed Mastered
yes no

Procedure

1. Removed tape from client's skin by pulling *toward* incision.
2. Donned clean gloves.
3. Removed soiled dressing.
4. Discarded gloves and dressings into plastic bag.
5. Observed wound closely for signs of infection or healing. Donned sterile gloves.
6. If pin on Penrose drain was crusted, replaced it with a sterile pin. Was careful not to dislodge drain or suction tubing.
7. Using cotton applicators or gauze pads, cleansed drain site with cleansing solution and then saline.
8. Started cleansing at drain site, moving in a circular motion toward periphery.
9. Discarded applicators in plastic bag.
10. Advanced drain if ordered:
 - a. Using sterile forceps, pulled drain out of wound the ordered number of centimeters.
 - b. Repositioned safety pin so it was at level of skin.
 - c. Cut off excess tubing with sterile scissors. Left at least 2 inches of tubing on outside.
11. Placed several 4 × 4 dressings around drain.
12. Applied gauze pad with precut slit under drain site.
13. Applied dry, sterile gauze pads over drain.
14. Applied ABD pads over sterile gauze.
15. Removed gloves, and disposed of them in refuse bag.

Performed Mastered
yes no

Performed yes	Mastered no

Performed Mastered
yes no

16. Taped dressing or retied Montgomery straps (tie tapes).
17. Removed bag with soiled dressing from room.
18. Washed hands thoroughly.
19. Positioned client for comfort.
20. Lowered bed, and raised side rails.

Performed yes	Mastered no

APPLYING AN ABDOMINAL BINDER

Procedure

1. Obtained binder.
2. Explained use of binder to client.
3. Placed client in supine position.
4. Asked client to raise hips, and then slid binder under client's hips at level of gluteal fold. Placed top of binder at client's waist.
5. Brought ends of binder around client, and secured by pressing Velcro surfaces together. If using non-Velcro binder, secured binder with safety pins placed vertically along edges. Started pinning at bottom of binder and pinned toward waist.
6. Observed for wrinkles in binder.
7. Assessed client's ability to move freely, breathe deeply, and feel secure pressure over abdominal incision.
8. Assessed effectiveness of binder every 4 hours, and rewrapped every 8 hours if non-Velcro binder was used.

MAINTAINING WOUND DRAINAGE SYSTEM

Preparation

1. Checked physician's orders and client care plan.
2. Brought specimen cup to bedside.
3. Identified client and explained procedure.
4. Provided for comfort and privacy.
5. Washed hands and donned gloves.
6. Elevated bed to workable height.

Procedure

1. Exposed catheter insertion site while keeping client draped. Placed drainage system on absorbent pad.
2. Examined pump and catheter for patency, seal, and stability. If catheter was occluded, notified physician.
3. Removed Hemovac plug, which was labeled "Pouring Spout," or disconnected tubing from Jackson-Pratt system.
4. Poured drainage into specimen cup.
5. Compressed the Hemovac by pushing top and bottom together with hands or compressed bulb on Jackson-Pratt.
6. Held pump or bulb tightly compressed, and reinserted plug or connected tubing to reestablish closed drainage system.
7. Positioned suction devices on bed.
8. Measured and recorded amount of drainage.
9. Examined drainage for color, consistency, and odor.

Performed Mastered
yes no

Performed Mastered
yes no

10. Discarded drainage and container; removed gloves, and washed hands.
11. Sent culture specimen to laboratory, if ordered.
12. Made client comfortable, and lowered bed.
13. Compressed evacuator at least every 4 hours to provide suction. Measured drainage at least every 8 hours.

IRRIGATING WOUNDS

Preparation

1. Checked physician's orders and client care plan.
2. Gathered equipment.
3. Identified client.
4. Assembled equipment.
5. Explained procedure to client.
6. Raised bed and lowered side rails.
7. Washed hands.
8. Opened sterile packages on overbed table as with dressing change.
9. Poured sterile irrigating solution into container.

Procedure

1. Placed absorbent pads under client. Placed bath blanket under absorbent pads when irrigating large wound.
2. Positioned client so that solution flowed from wound to basin.

	Performed yes	Mastered no
3. Donned clean gloves.		
4. Removed and discarded used dressing.		
5. Removed gloves, and discarded into plastic bag.		
6. Placed overbed table near working area with all packages open.		
7. Donned sterile gloves.		
8. Inspected area surrounding wound for redness, tissue integrity, and signs of granulating tissue.		
9. Placed sterile basin under wound area.		
10. Drew solution from sterile container into 35-mL syringe with angiocath tip. Opened commercial cleaning solution package if using for irrigation.		
11. Followed directions on commercial wound cleaner container to determine appropriate distance to position nozzle from wound during irrigation.		
12. Repeated until all irrigation solution had been used.		
13. After irrigation, cleansed client's skin around wound and dried.		
14. Applied sterile dressing.		
15. Disposed of equipment properly.		
16. Removed gloves. Checked to see that client was comfortable before leaving room.		
17. Lowered bed, and raised side rails.		
18. Washed hands.		

UNIT FOUR Wet-to-Moist Dressings

UNIT ASSESSMENT

- Assessed wound edges for presence of granulation tissue.
- Assessed for changes in amount of drainage.
- Assessed if necrotic tissue was decreasing in amount.
- Identified if appropriate dressing was used for wound care.

APPLYING WET-TO-MOIST DRESSINGS

Preparation

1. Checked physician's orders and client care plan.
2. Washed hands.
3. Gathered equipment.
4. Explained procedure to client.
5. Provided privacy.
6. Raised bed to HIGH position, and lowered side rail nearest me.
7. Removed tape by pulling it toward wound.
8. Donned clean gloves.
9. Moistened dressing with normal saline before removing if dressing was dry.
10. Removed wound packing by gently grasping gauze without touching wound.
11. Placed soiled dressings in disposable bag.
12. Removed gloves, and disposed of them in bag.
13. Washed hands.

	Performed yes	Mastered no
1. Checked physician's orders and client care plan.		
2. Washed hands.		
3. Gathered equipment.		
4. Explained procedure to client.		
5. Provided privacy.		
6. Raised bed to HIGH position, and lowered side rail nearest me.		
7. Removed tape by pulling it toward wound.		
8. Donned clean gloves.		
9. Moistened dressing with normal saline before removing if dressing was dry.		
10. Removed wound packing by gently grasping gauze without touching wound.		
11. Placed soiled dressings in disposable bag.		
12. Removed gloves, and disposed of them in bag.		
13. Washed hands.		

Procedure

1. Opened packages of dressings, making sure sterility was maintained.
2. Poured normal saline solution over dressings.
3. Donned sterile gloves.
4. Picked up sterile gauze dressings one at a time.
5. Fluffed each dressing, and placed over wound.
6. Placed gauze in wound, covering all exposed surfaces. Pressed gauze into depressions or cracks.
7. Unfolded moist, sterile, 4 × 8 (ABD pad) dressing into single layer and placed it on top of wet dressings covering entire area.
8. Placed dry 4 × 8 pad over dressing to hold it in place.
9. Removed gloves, and placed in plastic bag.
10. Taped only edges of dressing.
11. Positioned client for comfort. Lowered bed, and raised side rail to UP position, if appropriate.
12. Discarded soiled material in appropriate container.
13. Washed hands thoroughly.
14. Observed wound for excessive drainage or drying out of dressings between dressing changes. Remoistened if dry.
15. Provided client or family teaching regarding wound care if appropriate.

Performed Mastered
yes no

UNIT FIVE Pressure Ulcers

UNIT ASSESSMENT

- Assessed stage of ulcer.
- Assessed size and depth of pressure ulcer.
- Assessed presence and location of undermining, tunneling, and sinus tracts.
- Identified if infection was associated with pressure ulcer.
- Assessed wound exudate.
- Evaluated effectiveness of ulcer treatment.
- Assessed healing process of ulcer.
- Assessed other bony prominences for potential formation of pressure ulcers.
- Assessed for presence of conditions that inhibit wound healing.
- Assessed wound size for changes.
 - To identify stage of ulcer.
 - To provide appropriate treatment for specific ulcer stage.
 - To promote healing of established ulcer.
 - To prevent new ulcer formation.
 - To prevent spread of pathogens from ulcerated area.

PREVENTING PRESSURE ULCERS

Procedure

1. Inspected skin at least daily, particularly over bony prominences. Used Braden Scale for assessment. Documented assessment findings.
2. Individualized client's bathing schedule.
 - a. Avoided hot bath water.
 - b. Used mild cleansing agents to minimize dryness.
 - c. Cleansed skin immediately if urine, fecal incontinence, or wound drainage seeped onto skin.
 - d. Provided humidity to prevent drying of skin.
 - e. Used cream to protect skin.

Performed Mastered
yes no

3. Avoided massaging bony prominences.
4. Promoted adequate dietary intake of protein, calories, and nutrients.
5. Ensured adequate fluid intake.
6. Repositioned bedridden client every 2 hours.
7. Encouraged mobility or range-of-motion exercises.
8. Minimized force and friction on skin when turning, positioning, or transferring client.
9. Maintained head of bed at lowest degree of elevation consistent with medical problem.
10. Placed at-risk clients on pressure-reducing devices, such as foam, static-air, alternating gel, water mattress, or air fluidized mattress.
11. Encouraged chairfast clients to shift position every 15 minutes.

APPLYING TRANSPARENT ADHESIVE FILM DRESSING

Preparation

1. Checked physician's orders and client care plan.
2. Checked type of dressing ordered.
3. Gathered supplies.
4. Obtained appropriately sized transparent dressing.
5. Washed hands.
6. Explained procedure to client.
7. Provided privacy.

Performed Mastered
yes no

Performed yes	no	Mastered

Procedure

1. Raised bed to HIGH position, and lowered side rails on working side of bed.
2. Donned clean gloves.
3. Removed old dressing, "walked off" dressing from one edge to other, and discarded in appropriate receptacle.
4. Washed pressure ulcer with sterile gauze pads moistened with sterile normal saline.
5. Dried thoroughly with sterile gauze pad.
6. Measured wound using pliable device.
7. Applied plasticizing agent (skin prep, skin gel) over surrounding tissue if ordered.
8. Loosened transparent dressing from one side of backing paper.
9. "Walked on" dressing: Started at one edge of site and gently laid dressing down, keeping it free of wrinkles. Allowed at least 1¹/₂-inch margin of dressing beyond ulcer margin.
10. Cut off tabs if using Op-Site after wound was completely covered.
11. Taped edges with hypoallergenic tape.
12. Removed gloves, and discarded in appropriate receptacle.
13. Positioned client for comfort.
14. Lowered bed, and raised side rails.
15. Removed and discarded equipment.
16. Washed hands.

Performed Mastered
yes no

Performed yes	no	Mastered

UNIT SIX Adjunctive Wound Care Therapy

UNIT ASSESSMENT

- Identified why usual wound therapy treatments were ineffective.
- Identified most effective adjunctive treatment for client.
- Assessed wound for baseline data before initiating treatment.
- Determined if wound was healing using adjunctive therapy.
- Assessed if client was good candidate for adjunctive therapy.
- Assessed client's nutritional status to ensure best results from V.A.C. therapy.
- Determined if wound was maintaining a moist environment with adjunctive therapy.
- Assessed periwound area for signs of maceration.

USING ELECTRICAL STIMULATION

Preparation

1. Determined if client was candidate for electrical stimulation.
2. Determined phase of wound healing.
3. Set the stimulator settings according to manufacturer's direction, based on client's phase in wound healing.
4. Explained procedure to client.
5. Gathered equipment.
6. Washed hands.
7. Provided privacy.

Procedure

1. Raised bed to HIGH position, lowered side rails as needed.

Performed Mastered
yes no

Performed yes	Mastered no

Performed Mastered
yes no

Performed yes	Mastered no

2. Placed client in position to enable staff to work with wound area and equipment.
3. Placed supplies on overbed table near working area.
4. Opened all supply packages, maintaining sterility.
5. Poured sterile normal saline into one basin.
6. Donned clean gloves.
7. Placed disposal bag near wound.
8. Removed dressing carefully to avoid interfering with granulation tissue.
9. Removed clean gloves, placed in disposal bag. Donned sterile gloves.
10. Placed sterile basin next to wound to catch irrigation solution as wound was cleansed.
11. Poured sterile normal saline into wound to cleanse wound.
12. Removed excess irrigation solution using sterile gauze pads.
13. Placed fluffed gauze pads into normal saline solution, squeezed out excess liquid.
14. Filled wound cavity with gauze including any undermined/tunneled spaces. Packed gently.
15. Placed surface (active) electrode in wound bed, over gauze packing.
16. Covered with dry gauze pad.
17. Taped dry pad securely.
18. Connected alligator clip to foil.
19. Connected to stimulator lead.
20. Placed a wet washcloth over area where dispersive electrode would be placed.

	Performed yes	no	Mastered
21. Selected a dispersive pad that is larger than the sum of areas of active electrodes and wound packing.			
22. Placed dispersive electrode proximal to wound. Placed over soft tissue, avoided bony prominences. Ensured electrodes did not touch.			
23. Ensured all edges of electrode are in good contact with skin. Held electrode in place with nylon elasticized strap.			
24. Placed client in position of comfort; raised side rails.			
25. Removed gloves and discarded.			
26. Washed hands.			
27. Donned clean gloves.			
28. Removed electrode from wound following treatment.			
29. Removed saline soaked gauze and covered wound with occlusive dressing.			

USING NONCONTACT NORMOTHERMIC WOUND THERAPY

Preparation

1. Checked physician's orders and client karex.
2. Gathered equipment. Selected appropriate sized wound cover and warming card after measuring wound.
3. Checked that temperature control unit's battery was charged; if not, recharged with battery pack or wall outlet power source.
4. Explained procedure to client.
5. Provided privacy.

Procedure

	Performed yes	no	Mastered
1. Placed equipment on overbed table.			
2. Opened sterile normal saline bottle, gauze pads, and basin with irrigating syringe.			
3. Placed disposable bag near wound site.			
4. Positioned client for easy access to wound.			
5. Removed compression stockings, if used.			
6. Donned clean gloves.			
7. Removed old dressing and placed in disposal bag.			
8. Removed clean gloves and placed in disposal bag.			
9. Filled irrigating syringe with normal saline.			
10. Placed moisture proof pad or sterile basin under wound site.			
11. Irrigated wound using the prescribed amount of irrigating solution.			
12. Cleansed surrounding skin with normal saline.			
13. Dried periwound skin area.			
14. Applied scalent to periwound area.			
15. Selected appropriate size wound cover for wound.			
16. Held wound cover near edges only. Pulled away 1/2 of wound cover liner.			
17. Placed wound cover over wound, so wound could be seen through window. Did not stretch wound cover over skin while applying.			
18. Checked for holes in wound cover, wrinkling, and folding of its edges.			
19. Pressed adhesive portion of cover to skin.			
20. Pulled away other half of wound cover liner.			

	Performed		Mastered
	yes	no	
21. Gently smoothed adhesive portion of wound cover with finger tips to ensure adhesive stuck to skin.			
22. Instructed client that wound cover is worn 24 hours per day; requires no additional dressing.			
23. Attached wound cover to Warm-Up® system.			
24. Removed gloves and discarded; washed hands.			
<i>for Using Warm-Up® Therapy System</i>			
1. Selected appropriate size warming card based on size of wound cover.			
2. Plugged warming card into gray socket on temperature control unit (TCU).			
3. Inserted warming card into wound cover pocket.			
4. Turned off TCU.			
5. Selected mode of power.			
6. Checked that battery has sufficient charge for therapy session, usually one hour.			
7. Plugged AC adapter into black socket on the TCU, if using the TCU with the AC adapter. Plugged AC adapter into wall outlet.			
8. Positioned TCU and warming card cable to allow client some movement. Instructed client not to lie on any electronic component, cable, cord, or wound cover.			
9. Pressed the ON button to begin therapy. Followed physician's orders for length of time for therapy.			
10. Shut off TCU and removed warming card by grasping edge of card and sliding it out of wound cover pocket. Placed card in plastic pouch for storage between treatment. DID NOT REMOVE WOUND COVER.			
11. Replaced compression therapy, if ordered.			

	Performed		Mastered
	yes	no	
<i>for Changing Wound Cover</i>			
1. Checked wound cover to ensure it needed to be changed.			
2. Gathered equipment for new wound cover.			
3. Explained procedure to client.			
4. Washed hands.			
5. Followed Preparation steps in <i>Using Noncontact Normothermic Wound Therapy</i> .			
6. Donned clean gloves.			
7. Placed disposal bag near wound.			
8. Gently pressed down on skin along one edge of wound cover.			
9. Carefully lifted edge of wound cover.			
10. Slowly peeled away wound cover until all edges were loose.			
11. Discarded wound cover in disposal bag.			
12. Washed hands.			
13. Reapplied new wound cover following Procedure steps in <i>Using Noncontact Normothermic Wound Therapy</i> .			
<i>for Charging Batteries</i>			
1. Plugged AC adapter connector into black socket on temperature control unit.			
2. Plugged AC adapter power cord into AC adapter inlet.			
3. Plugged AC adapter power cord into properly grounded wall outlet.			
4. Observed that green light and a steady amber light on AC adapter panel were on.			
5. Charged until amber light was flashing rapidly on AC adapter. (Full charge takes 2 hours.)			

USING VACUUM ASSISTED CLOSURE (V.A.C.®)

Preparation

1. Evaluated if client was candidate for V.A.C.® therapy: nutritionally stable, able to use device 22 hours each day, uses a pressure support surface if wound is over bony prominence.
2. Assessed wound to determine if therapy could be implemented.
 - a. Wound surrounded by at least 2 cm of intact periwound tissue to maintain air tight seal.
 - b. Wound open enough to insert foam dressing that touches all edges.
 - c. Wound debrided.
 - d. Sufficient circulation to assist in healing process.
3. Selected correct foam dressing according to size and type of wound.
4. Gathered equipment and supplies.
5. Provided privacy.
6. Explained procedure to client and determined willingness to use this therapy.
7. Washed hands.

Procedure

1. Placed disposal bag near wound.
2. Opened supplies and placed on overbed table. Opened kit maintaining sterility.
3. Drew up irrigating solution into syringe.
4. Donned clean gloves.
5. Removed old V.A.C.® dressing and placed in disposal bag.

Performed Mastered
yes no

Performed yes	Mastered no

Performed Mastered
yes no

Performed yes	Mastered no

6. Placed moisture proof pad or sterile basin under wound to protect skin and bed during irrigation.
7. Cleaned wound using aggressive irrigation. If debridement was to be done, notified appropriate person.
8. Removed gloves and placed in disposal bag.
9. Donned sterile gloves.
10. Dried wound and prepared periwound tissue with skin preparation agent, if necessary.
11. Cut the V.A.C.® foam to fit the shape and entire wound cavity, including tunneling or undermined areas.
12. Sized and trimmed drape to cover foam dressing, leaving 3.5 cm border per wound skin.
13. Gently placed foam into wound, ensuring entire wound is covered.
14. Applied tubing to foam. Kept tubing away from bony prominences.
15. Covered foam and 3.5 cm per wound area with drape. Did not stretch drape or compress foam with drape.
16. Lifted tubing and placed drape that had been bunched up to protect skin from pressure of tubing.
17. Secured tubing with additional piece of drape or tape several cm away from dressing.
18. Removed canister from sterile package and pushed into the V.A.C.® unit until you heard it click in placed. Alarm sounded if canister was not properly inserted into unit.

Respiratory Care

Performance Checklist

UNIT ONE Respiratory Preventive and Maintenance Measures

UNIT ASSESSMENT

- Observed client's physical ability to perform exercise (e.g., to assume Fowler's position, energy level, degree of pain experienced, and need for pain medication).
- Observed rhythm, rate, and depth of breathing.
- Auscultated breath sounds.
- Noted client's report of dyspnea or sign of stertorous breathing.
- Noted presence of adventitious sounds.
- Observed proximity of incision to muscles necessary for breathing and coughing.
- Assessed need for supported ventilation/resuscitation.

INSTRUCTING CLIENTS TO DEEP BREATHE

Preparation

1. Washed hands.
2. Provided privacy.
3. Explained rationale for procedure.
4. Helped client to sit straight up in bed or on side of bed.

Procedure

1. Demonstrated deep breathing steps, allowing time for client to practice each step.
2. Placed hands or had client place hands palm down around sides of client's lower ribs.
3. Told client to breathe in slowly through nose until chest was expanded and abdomen rose visibly.

	Performed yes	Mastered no

4. Had client hold sustained maximal inspiration 3–5 seconds, then exhale slowly through mouth.
5. Evaluated client’s response to determine how often exercise should be performed.

INSTRUCTING CLIENT TO COUGH

Preparation

1. Premedicated client if indicated for pain relief.
2. Washed hands.
3. Provided privacy.
4. Explained procedure to client.
5. Donned protective gear, if indicated.
6. Provided client with tissues.

Procedure

1. Placed client in upright position, upper body positioned slightly forward.
2. Asked client to slowly take two or three deep breaths through nose and exhale through mouth.
3. Instructed client to inhale deeply, hold breath for several seconds, lean forward, and cough using abdominal, thigh, and buttock muscles.
4. Instructed client with pulmonary condition to exhale through pursed lips and to phonate or huff while coughing in mid-exhalation.
5. Supported any incision with palms of your or client’s hands, or placed rolled pillow firmly against incision.

Performed Mastered
yes no

Performed yes	Mastered no

6. Encouraged client to deep breathe and cough frequently if cough was productive. Explained why coughing is beneficial, and kept tissues and disposal receptacle handy.

TEACHING DIAPHRAGMATIC BREATHING

Preparation

1. Checked physician’s orders and client care plan.
2. Washed hands.
3. Provided privacy.
4. Informed client that purpose of this exercise was to learn how to breathe by using abdominal muscles.

Procedure

1. Placed hands on client’s abdomen, below ribs.
2. Had client breathe in through nose and try to push stomach outward against your hands.
3. Instructed client to hold breath for 3–5 seconds to keep alveola open.
4. Had client breathe out slowly through mouth while applying slight pressure at base of ribs.
5. Encouraged client to practice diaphragmatic breathing frequently, using own hands to feel abdomen rise.

TEACHING USE OF AN INCENTIVE SPIROMETER (IS)

Preparation

1. Checked physician’s orders and client care plan.
2. Gathered equipment.

Performed Mastered
yes no

Performed yes	Mastered no

3. Washed hands.
4. Explained purpose and procedure to client.
5. If preoperative measurement was not done, used guide in spirometer package to determine client's volume goal, and set marker at this goal.
6. Attached open end of tubing to stem on front of exerciser.
7. Auscultated lungs before and after using IS.

Procedure

1. Instructed client to hold exerciser, place mouth tightly around mouthpiece, and breathe in a trial breath through mouth.
2. Explained that a slow deep breath is better than a fast breath.
3. Instructed client to exhale completely, then place mouth tightly around mouthpiece.
4. Instructed client to inhale slowly to raise and maintain flow rate indicator at "best" flow rate range, and continue inhaling to try to raise piston to prescribed (or preoperative measured) volume level.
5. Instructed client to remove mouthpiece but hold breath at maximum inspiration 3–5 seconds, then exhale through pursed lips. Repeated a few times, then coughed.
6. Encouraged client to use spirometer hourly, coordinating use with TV program breaks, for instance, as a reminder.
7. Provided positive feedback as client used IS to reattain predetermined inspiratory capacity using marked goal as an incentive.

Performed **Mastered**
yes **no**

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8. Replaced unit in bag when not in use, and kept in accessible place for client.

TEACHING PEAK-FLOW MEASUREMENT

Procedure

1. Assisted client to follow product instructions to assemble meter.
2. Instructed client to attach mouthpiece to peak-flow meter, if desired.
3. Slid indicator to bottom of meter scale to zero position.
4. Instructed client to inhale as deeply as possible, then place mouth around mouthpiece, forming a tight seal. If possible, client should be standing.
5. Had client blow out through mouth as hard and fast as possible.
6. Repeated peak-flow measurement three times and recorded highest value.
7. Instructed client to clean unit weekly, following manufacturer's instructions.

PROVIDING CPAP/BIPAP

Procedure

1. Connected CPAP/BIPAP device delivery tubing to pressure generator.
2. Plugged pressure generator into grounded outlet.
3. Connected oxygen delivery tubing into device tubing adapter port (if ordered).

Performed **Mastered**
yes **no**

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- Noted time elapsed since eating.
- Observed quality of secretions. Thick, tenacious secretions may require aerosol therapy prior to treatment.
- Noted client's ABGs/SpO₂ and changes on chest x-ray report.

PREPARING CLIENT FOR CPT

Procedure

1. Validated physician's order for CPT.
2. Washed hands.
3. Administered CPT before, or at least 2 hours after, meals to prevent vomiting.
4. Established location of lung segments if entire lung field was to undergo CPT; affected segment should be drained first.
5. Provided privacy.
6. Prepared client by explaining CPT and purpose.
7. Auscultated chest for breath sounds and adventitious sounds prior to therapy.
8. Obtained pulse oximetry, if indicated, before therapy.
9. Placed towel over skin when performing CPT (optional).

Performed Mastered
yes no

Performed yes	no	Mastered

PERFORMING POSTURAL DRAINAGE

Procedure

1. Loosened any tight clothing.
2. Lowered head of bed slowly so that client's head was positioned in no greater than a 25° downward angle.

3. Placed sputum container and tissues within client's reach.
4. Told client to remain in position for 3–15 minutes.
5. Instructed client to expectorate secretions.
6. Instructed client to turn to other side, then supine position, then repeated procedure. *(Note: Had client deep breathe between position changes.)*
7. Assisted client to slowly return to normal sitting position after coughing in dependent position.
8. Determined pulse oximetry, if ordered.
9. Auscultated chest areas for improved breath sounds.
10. Donned gloves.
11. Noted character and measured sputum, then discarded.
12. Removed gloves and washed hands.
13. Offered oral hygiene following secretion expectoration.

Performed Mastered
yes no

Performed yes	no	Mastered

PERFORMING CHEST PERCUSSION

Procedure

1. Covered area to be percussed with gown or cloth towel (optional).
2. Holding arms with elbows slightly flexed, cupped your hands with thumbs and fingers closed. Kept wrists loose and relaxed, and rhythmically flexed and extended wrists to clap over area to be drained.

3. Percussed by alternating hands and listened for hollow sound with strikes.
4. Slowly and rhythmically percussed each area for 3–5 minutes.
5. Did not percuss over bony prominences, breasts, or tender areas.
6. Encouraged client to “huff” cough after percussion of lung areas.
7. Auscultated all lung areas for changes in breath sounds.
8. Donned gloves, noted character and measures quantity of sputum and discarded.
9. Removed gloves and washed hands.
10. Offered oral hygiene.
11. Documented procedure and client’s response.

Performed Mastered
yes no

PERFORMING CHEST VIBRATION

Procedure

1. Performed vibration following postural drainage and percussion in each position.
2. Covered area to be vibrated with gown or cloth towel (optional).
3. Instructed client to breathe in through nose and exhale slowly through pursed lips.
4. Placed your hands flat over area to be vibrated or placed one hand on top of the other. Kept arms and shoulders straight and wrists stiff.
5. Had client inhale deeply.

6. As client exhaled through pursed lips, used moderate pressure to vibrate chest by quickly contracting and relaxing your arms and shoulders.
7. Vibrated for 3–4 expirations over area.
8. Encouraged client to “huff” cough before changing positions.
9. Assessed vital signs, pulse oximetry, and auscultated breath sounds.
10. Donned gloves.
11. Measured and noted character of expectorated secretions, then discarded.
12. Removed gloves and washed hands.
13. Provided oral hygiene.
14. Documented procedure and client’s response.

Performed Mastered
yes no

UNIT THREE Oxygen Administration

UNIT ASSESSMENT

- Reviewed client’s ABG results or pulse oximetry for SpO₂.
- Assessed client’s vital signs.
- Observed client for signs of increased work of breathing.
- Assessed skin under oxygen mask for irritation.
- Assessed for signs of carbon dioxide narcosis.

MONITORING CLIENTS RECEIVING OXYGEN

Procedure

1. Checked physician's orders for mode of oxygen delivery and prescribed oxygen liter flow.
2. Washed hands.
3. Employed safety precautions for oxygen administration.
4. Placed client in semi- or high-Fowler's position to facilitate lung expansion.
5. Turned and repositioned client frequently to promote ventilation.
6. Encouraged deep breathing and coughing, if indicated.
7. Ensured adequate fluid intake, especially if secretions were thick.
8. If ordered, humidified oxygen when flow rate was greater than 4 L/minute.
9. Assessed client's progress by frequently checking vital signs, level of consciousness, and SpO₂.
10. Assessed clients with COPD frequently for signs of carbon dioxide narcosis.
11. Evaluated SpO₂ 30 minutes after any change in oxygen flow rate.

USING PULSE OXIMETRY

Preparation

1. Evaluated client's health status before using oximetry.
2. Removed very dark nail polish or artificial nails if using fingers for sensor placement.

Performed Mastered
yes no

Performed yes	Mastered no

3. Obtained appropriate sensor.
4. Washed hands.

Procedure

1. Identified client and explained purpose and procedure for pulse oximetry.
2. Plugged unit into electric outlet.
3. Turned on power.
4. Applied sensor probe flush with skin and secured. Made sure both sensor probes were aligned directly opposite each other.
5. Set alarms to predetermined saturation levels or pulse rate.
6. Read oxygen saturation level on digital read-out monitor.
7. Evaluated findings with previous saturation levels and changes in oxygen therapy.
8. Rotated site of clip-on probes every 4 hours. Replaced disposable probes every 24 hours.
9. Validated that oximeter pulse rate was consistent with manually assessed pulse rate.
10. Documented findings on appropriate hospital record.

USING AN OXYGEN ANALYZER

Procedure

1. Calibrated analyzer with room atmosphere and 100% oxygen.
2. Placed sensor in the atmosphere to be monitored.
3. Read and recorded FIO₂.

Performed Mastered
yes no

Performed yes	Mastered no

USING AN OXYGEN CYLINDER

Procedure

1. Placed oxygen cylinder in carrier in secure, upright position.
2. Using hexagon key, slowly turned cylinder release valve clockwise (left to open) to crack tank open for brief period, then closed (right to tighten).
3. Checked pressure gauge on front of tank to determine amount of oxygen pressure in tank.
4. Attached flowmeter regulator unit over neck of cylinder, aligning pins with green “O” ring openings.
5. Used turn key to tighten regulator to cylinder neck.
6. Connected delivery tubing to “Christmas tree” adapter on regulator unit.
7. Opened cylinder release valve using hexagon key on top of cylinder.
8. Slowly opened regulator/flowmeter and adjusted to prescribed rate or oxygen delivery in liters per minute.

Performed Mastered
yes no

Performed yes	Mastered no

USING NASAL CANNULA

Preparation

1. Checked physician’s orders for oxygen prescription (flow rate).
2. Gathered equipment.
3. Inserted oxygen flowmeter into wall outlet.
4. Connected cannula tubing to flowmeter.

Performed Mastered
yes no

Performed yes	Mastered no

5. If humidification was ordered, placed disposable humidifier unit between flowmeter and cannula tubing.
6. Washed hands.

Procedure

1. Explained purpose and procedure of oxygen use to client.
2. Placed nasal prongs of cannula into client’s nares.
3. Fit cannula tubing around client’s ears and adjusted tubing slide under client’s chin.
4. Adjusted flow of oxygen (limited to 6 L/minute or less).
5. Monitored vital signs and checked client’s condition regularly.
6. Provided nares care every 4 hours—used water-soluble products (surgical lubricant) and avoided petroleum products (e.g., petrolatum) because they are combustible.
7. Monitored for pressure around ears and padded cannula tubing for comfort.

USING AN OXYGEN FACE MASK

Preparation

1. Checked physician’s orders and client care plan.
2. Gathered equipment.
3. Washed hands.

Procedure

1. Explained procedure and purpose to client.
2. Checked size of face mask to make sure it fit client.
3. Turned on oxygen flow to liters prescribed. If reservoir bag was attached, partially inflated it with oxygen.
4. Placed client in semi- or high-Fowler’s position.
5. Fit mask to client’s face from nose downward during expiration. If reservoir bag attached, oxygen flowed at a level to prevent bag from collapsing.
6. Placed elastic band around client’s head.
7. Stayed with client until client felt at ease with mask.
8. Assessed client’s condition by checking vital signs and oxygenation status.
9. Changed mask and tubing according to agency policy and provided skin care to face.
10. Checked equipment frequently. If humidifier attached, checked water level, disposed and changed PRN.

Performed **Mastered**
yes **no**

**SETTING UP AND MONITORING
A PEDIATRIC TENT**

Preparation

1. Checked physician’s orders.
2. Gathered equipment.
3. Explained purpose of tent to child and parents.
4. Provided favorite toy or blanket.
5. Washed hands.

Procedure

for Setting up Pediatric Tent

1. Secured tent/canopy and placed machine at head of empty bed/crib with control knobs on opposite side of working area.
2. Placed thermometer in tent.
3. Connected oxygen regulator into oxygen source and selected concentration.
4. Connected delivery tubing to canopy.
5. Plugged in machine.
6. Set up humidifier/nebulizer and filled tray (at back of machine) with sterile water.
7. Padded crib frame that supports canopy with blankets.

for Monitoring Child in Tent

8. Turned on oxygen to prescribed concentration (21%–50%) and maintained temperature at 17.8°–21.2°C (64°–70°F).
9. Secured canopy by tucking in all sides under mattress.
10. Monitored temperature regularly.
11. Analyzed and recorded tent oxygen concentration, and checked child’s vital signs/oximetry as ordered.
12. Kept crib sides up for safety.
13. Selected toys that were washable, did not produce static electricity, and were appropriate for child’s age.
14. Checked dampness of clothes and changed PRN to prevent chilling.
15. Minimized number of times tent was opened to maintain desired FIO₂.

Performed **Mastered**
yes **no**

USING AN OXYGEN HOOD

Procedure

1. Checked physician's orders and client care plan.
2. Washed hands.
3. Placed hood around child's head and attached tubing to oxygen supply.
4. Closed ports and lid, but did not obstruct neck opening.
5. Cared for infant through portholes or lid.
6. Maintained oxygen levels at 40–50%, and checked for moisture that accumulated inside hood.
7. Observed usual oxygen administration precautions.

	Performed		Mastered
	yes	no	

UNIT FOUR Artificial Intubated Airways

UNIT ASSESSMENT

- Assessed client's level of consciousness.
- Determined if gag and swallow reflex were present.
- Assessed breath sounds in all lung fields, SpO₂, and ABGs.
- Noted shortness of breath, labored breathing, tachypnea, or tachycardia.
- Noted character of secretions.

INSERTING AN OROPHARYNGEAL AIRWAY

Procedure

1. Determined client was unresponsive and had no gag reflex.

	Performed		Mastered
	yes	no	

2. Selected appropriate size airway—length from corner of mouth to corner of ear tragus.
3. Washed hands. Donned gloves.
4. Opened client's mouth with crossed-finger technique; used modified jaw thrust if necessary.
5. Performed oral suctioning.
6. Held tongue down with tongue depressor and advanced airway to back of tongue, OR advanced airway upside down (curved upward) and, as airway passed uvula, rotated airway 180°.
7. Checked that concave curve fit over tongue. It extended from lips to pharynx, displacing tongue anteriorly.
8. Taped top and bottom airway in position.
9. Positioned client on side to facilitate drainage.
10. Removed gloves and discarded.
11. Observed position of airway and evaluated quality of client's spontaneous breathing.
12. Continued to monitor.

INSERTING A NASOPHARYNGEAL AIRWAY (NASAL TRUMPET)

Procedure

1. Selected appropriate size tube—lumen slightly narrower than client's nares and length from nosetip to earlobe.
2. Washed hands; donned gloves.
3. Lubricated entire length of tube.

	Performed		Mastered
	yes	no	

4. Explained procedure to client.
5. Inserted entire tube gently through one naris, following anatomic line of nasal passage. If obstructed, used other naris.
6. Validated position by feeling exhaled air through tube and inspecting tube tip behind nares.
7. Taped top and bottom of tube in position if necessary.
8. Positioned client on side for drainage of secretions.
9. Removed gloves and washed hands.
10. Monitored position of airway and client response.
11. Suctioned upper airway PRN using clean technique.

ASSISTING WITH ENDOTRACHEAL INTUBATION

Preparation

1. Determined that client has *no protective airway reflexes*.
2. Brought crash cart to client's doorway.
3. Checked that all necessary equipment was functioning: oxygen/suction source and delivery systems.
4. Inflated and deflated airway cuff to determine it is intact. (See skill for *Inflating a Tracheal Tube Cuff* in Unit Six.)
5. Washed hands and donned gloves.

Performed Mastered
yes no

Performed yes	Mastered no

6. Inserted stylet into tube (only for oral intubation).
7. Lubricated tube.
8. Administered medication as ordered.
9. Removed client's dentures/bridgework and placed in labeled denture cup.
10. Reviewed procedure for *Bag-Valve-Mask Ventilation*.

Procedure

1. Placed client in flat supine position with pillow under shoulders to hyperextend neck and open airway. Positioned so that mouth, pharynx, and trachea are aligned.
2. Restrained client's hands only if necessary.
3. Premedicated client as ordered.
4. Preoxygenated client for several minutes, using bag-valve mask.
5. Using thumb and index finger, applied cricoid pressure during tube insertion.
6. Maintained cricoid pressure while inflating cuff to "minimal leak" inflation by placing stethoscope at client's suprasternal notch and noting a slight hissing sound at peak of inspiration.
7. Attached bag-valve-mask device, provided ventilation, and looked for chest to rise.
8. Checked tube placement using CO₂ detector.
9. Placed stethoscope over epigastrium.
10. Auscultated lung fields for bilateral breath sounds.

Performed Mastered
yes no

Performed yes	Mastered no

	Performed		Mastered
	yes	no	
9. Left suction catheter in place.			
10. Had client take a deep breath.			
11. Applied suction while removing catheter and airway at the same time.			
12. Immediately applied supplementary oxygen.			
13. Monitored client frequently at first, then regularly.			
14. Disposed of equipment, removed gloves, and washed hands.			

UNIT FIVE Suctioning

UNIT ASSESSMENT

- Assessed client's need for suctioning.
- Observed vital signs for increases in pulse and respiration.
- Auscultated breath sounds for presence of adventitious sounds.
- Observed respiratory status for tachypnea, shortness of breath, and restlessness.
- Observed for signs of hypoxia.

SUCTIONING USING SEPARATE CATHETER AND GLOVE

Preparation

1. Checked physician's orders and client care plan.
2. Gathered equipment.
3. Recruited assistant for manual resuscitation, if indicated.

	Performed		Mastered
	yes	no	

	Performed		Mastered
	yes	no	
4. Attached resuscitator bag to oxygen tubing, if indicated.			
5. Washed hands.			
6. Assessed lung sounds, heart rate and rhythm.			
7. Opened suction catheter package and opened saline flush solution container.			
8. Set suction control regulator at 80–120 mm Hg.			
9. Donned protective gown, mask, and goggles.			

Procedure

1. Explained procedure and rationale to client regardless of level of consciousness.
2. Placed client in semi-Fowler's position.
3. Turned on suction.
4. Removed lid of saline bottle.
5. Administered 100% oxygen for 1–2 minutes or had assistant use resuscitator bag with adapter to hyperoxygenate client.
6. Donned sterile gloves. (*Dominant* hand remained "sterile"; *nondominant* hand became "clean.")
7. Used *nondominant* hand and poured sterile saline into flush solution container. (*Nondominant* hand is no longer sterile at this point.)
8. Held catheter in protective covering with *dominant* (sterile) hand and attached to suction tubing (held with *nondominant* hand).
9. Held catheter covering with *nondominant* hand and slipped catheter out with *dominant* (sterile) hand.

	Performed Mastered	
	yes	no
5. Administered 100% oxygen (oxygen flowmeter to maximum “flush”) for 1–2 minutes, or had assistant use resuscitator bag with tracheal tube adapter to hyperoxygenate client.		
6. Donned sterile gloves. (<i>Dominant</i> hand remained “sterile”; <i>nondominant</i> hand became “clean.”)		
7. Used <i>nondominant</i> hand and poured sterile saline into flush solution container. (<i>Nondominant</i> hand is no longer sterile at this point.)		
8. Held catheter in protective covering with <i>dominant</i> (sterile) hand and attached to suction tubing (held with <i>nondominant</i> hand).		
9. Held catheter covering with <i>nondominant</i> hand and slipped catheter out with <i>dominant</i> (sterile) hand.		
10. Lubricated sterile catheter by dipping it into cup with sterile normal saline.		
11. Used <i>dominant</i> (sterile) hand and inserted catheter into client’s airway (endotracheal tube) without applying suction.		
12. Continued to advance catheter quickly until resistance was felt, even if client coughs or “bucks.”		
13. Withdrew catheter slightly, then began suctioning using a rotating motion as the catheter was withdrawn.		
14. Suctioned intermittently by placing and releasing <i>nondominant</i> thumb over catheter suction port.		
15. Limited suction to no more than 5–10 seconds.		

	Performed Mastered	
	yes	no
16. Reattached oxygen delivery device and had client take several deep breaths, or hyperoxygenated client’s lungs with resuscitator bag.		
17. Flushed suction catheter and tubing with sterile saline.		
18. Used same catheter (according to agency policy) and repeated suctioning procedure one time, if necessary. Allowed 3 minutes between suctioning attempts for hyperoxygenation.		
19. Coiled suction catheter around hand and degloved over it to discard.		
20. Replaced catheter in sleeve at time interval according to agency policy.		
21. Discarded gloves and catheter.		
22. Turned off suction source.		
23. Covered end of suction tubing connector with sterile gauze.		
24. Assessed lung sounds and heart rate and rhythm for changes.		
25. Washed hands.		
26. Emptied suction receptacle PRN or at end of every shift, noting character of secretions.		
27. Ensured call bell was within client’s reach.		

UNIT SIX Tracheostomy Care

UNIT ASSESSMENT

- Noted presence of dried or moist secretions around cannula or on tracheal dressing.
- Noted excessive coughing of secretions.

- 17. Washed hands.
- 18. Assured call bell was within client's reach.

CHANGING TRACHEOSTOMY TUBE TIES

Preparation

- 1. Recruited assistant to hold trach tube in place when changing ties.
- 2. Explained procedure to client.
- 3. Washed hands.
- 4. Gathered equipment.
- 5. Placed client in semi- to high-Fowler's position.

Procedure

for Twill Tape Ties

- 1. Cut trach ties to length desired if not pre-cut.
- 2. Folded ends of trach ties over 1 1/2 inches, and cut slit in piece starting at folded edge.
- 3. If available, had assistant hold trach tube in place. Cut old trach ties, removed, and discarded.
- 4. Passed slit end of ties through flange loop of trach tube about 2–3 inches.
- 5. Threaded the other end of tie all the way through slit. Pulled it firmly in place.
- 6. Repeated steps 4 and 5 on other flange loop.
- 7. Brought ties around client's neck and tied in square knot to one side of neck, leaving one finger breadth slack under tie.

Performed Mastered
yes no

Performed yes	Mastered no

- 8. Cut off soiled trach ties if not already done, and discarded.
- 9. Positioned client for comfort.
- 10. Washed hands.

Alternate Method

- 1. Using a long piece of twill, pulled end of tape through flange slit.
- 2. Double taped around back of neck.
- 3. Threaded one end through other flange slit and tied to other end.
- 4. Applied new tape before old one was cut off and removed (didn't require an assistant).

CAPPING A TRACHEOSTOMY TUBE

Preparation

- 1. Checked physician's orders and client care plan.
- 2. If client considered ready for weaning from airway, obtained order to change to fenestrated uncuffed tube.
- 3. Washed hands.
- 4. Gathered equipment.
- 5. Explained procedure to client and reassured that suffocation won't occur.
- 6. Placed client in semi- or high-Fowler's position.
- 7. Donned clean gloves.

Performed Mastered
yes no

Performed yes	Mastered no

Procedure

1. Using clean technique, suctioned nasopharynx (if cuffed tube in place).
2. Attached syringe and *deflated tracheal cuff* if present. Placed speaking valve or cap over opening of tracheostomy tube.
3. Observed client for respiratory distress.
4. Stayed at bedside until client was comfortable and exhibited no difficulty breathing.
5. Placed notice: *“Do not inflate cuff with cap in place”* on pilot balloon, over bed, and on client’s chart.
6. Discarded gloves and washed hands.

	Performed yes	no	Mastered

UNIT SEVEN Chest Drainage Systems

UNIT ASSESSMENT

- Assessed client’s respiratory status, vital signs, H&H before procedure.
- Noted placement of chest tube (intrapleural or mediastinal).
- Assessed that all system connections were securely taped.
- Noted prescribed amount of negative pressure to be established.
- Checked patency of chest tubes.
- Assessed for signs of mediastinal shift.
- Noted character and amount of chest drainage.

MAINTAINING A TWO-BOTTLE DRAINAGE/SUCTION SYSTEM

Preparation

1. Filled water-seal/collection bottle (#1) with 300 mL water to submerge underwater seal tube.
2. Attached client’s clamped chest catheter tubing to underwater seal tube to establish a water seal preventing atmospheric air from entering client’s pleural space and to reestablish intrapleural negative pressure.
3. Unclamped client’s chest catheter tubing to allow air/fluid to escape from client’s intrapleural space.
4. Connected underwater seal bottle to manometer bottle (#2).
5. Made sure all tubing and bottle connections were sealed to assure that system was airtight.

Procedure

for Gravity Drainage

1. Checked that water-seal/collection bottle tube (attached to client’s chest catheter tubing) was submerged in 300 mL water.
2. Checked that air vent tube of second bottle was open to atmosphere and unobstructed.
3. Ensured patency of system by noting “tidaling” in water-seal tube (fluid rose in tube with client’s inhalation and descended on exhalation).
4. Noted occasional bubbling of air from the water-seal tube.
5. Reported event of continuous bubbling in the water-seal bottle.

	Performed yes	no	Mastered

6. Checked tubing for obstruction. (Tidaling ceased when lung had re-expanded or intrapleural tube system was obstructed.) Assessed for return of breath sounds or obtained chest x-ray to determine re-expansion.

for Suction

1. Submerged lower end of suction control tube in prescribed amount of water.
2. Left suction control tube open at top.
3. Connected air vent tubing to Emerson pump or wall suction.
4. Regulated suction source to point where water in second bottle just bubbles.
5. Noted *occasional* bubbling of air in the water-seal tube of first bottle.
6. Noted *continual* bubbling of air through open end of control tube in the second bottle (suction source).
7. Noted and recorded fluid level in water-seal/collection bottle.

SETTING UP AND MAINTAINING A DISPOSABLE WATER-SEAL CHEST DRAINAGE SYSTEM

Procedure

1. Gathered equipment.
2. Washed hands.
3. Unwrapped water-seal chest drainage system.
4. Placed unit in stand on floor at bedside.

Performed Mastered
yes no

Performed yes	Mastered no

5. Removed plastic connector on short tube attached to the water-seal chamber.
6. Removed plunger from 60-mL syringe and attached barrel of syringe (or funnel) to a short rubber tube.
7. Poured specified amount of sterile saline into barrel of syringe, filling water-seal chamber to the 2-cm level (according to package directions).
8. Removed plastic plug from atmosphere vent to the suction control chamber.
9. Attached syringe barrel to atmosphere vent and poured sterile saline into chamber.
10. Filled suction control chamber to 20-cm level.
11. Inserted plastic plug to close vent of suction control chamber.
12. Removed long tube adapter from collection chamber and connected it to chest tubes.
13. Taped connection.
14. Coiled tubing loosely on bed, but provided a straight line of tubing from bed to collection system.
15. Made sure that tubing was free and not kinked. Did not use pins or restrain tubing.
16. Attached short rubber tube on water-seal source to suction, using adapter connection piece.
17. Turned suction device on slowly until bubbling suction control chamber noted.
18. Monitored water levels daily in both water-seal chamber and suction control chamber.

Performed Mastered
yes no

Performed yes	Mastered no

- 19. Maintained pressure.
 - a. Kept drainage system below level of bed.
 - b. Maintained suction control negative pressure to create gentle bubbling.
 - c. Maintained water-seal level (2 cm).
 - d. Maintained suction control chamber water level at 20 cm or as ordered.
- 20. Maintained chest tube patency. Only if physician ordered, milked chest tubes to maintain drainage and tube patency.
 - a. Milked tube away from client toward drainage receptacle (disposable system or bottles).
 - b. If ordered, milked tube by alternately folding or squeezing and then releasing drainage tubing.
- 21. Stripped chest tubes only if physician ordered, following same time frame as milking chest tubes.
 - a. To strip chest tube, pinched tubing close to chest with one hand and, using a lubricated thumb and forefinger, compressed and slid fingers down tube toward receptacle.
 - b. Released pressure on tube and repeated stripping action until reaching receptacle.
- 22. Kept rubber-tipped hemostat at client's bedside.
- 23. Kept collection system below client chest level.
- 24. Marked drainage on disposable system collection chamber every shift. Drainage measured at eye level. Reported drainage exceeding 100 mL/hour.
- 25. Assessed client's status.
 - a. Instructed client to deep breathe and cough at frequent intervals.
 - b. Encouraged client to change positions frequently.

	Performed yes	Mastered no

- c. Observed and reported any unusual respiratory signs or symptoms.

ADMINISTERING AUTOTRANSFUSION USING PLEUR-EVAC ATS

Procedure

1. Washed hands and donned gloves.
2. Connected client's pleural or mediastinal chest tube by following steps 1 through 3 printed on Pleur-evac unit.
3. Checked that ALL clamps were open on blood collection bag and drainage tubing and that connections were airtight.
4. Checked that blood began collecting in bag.
5. Marked time and amount of drainage on bag.
6. Closed clamps on top of bag when first bag nearly full. Closed clamp on chest drainage tubing and collection bag and connected new bag to drainage system—made sure all connections were tight.
7. Depressed button on high-negativity relief valve, and released it when negativity dropped to desired level.
8. Closed white clamp on client tubing, two white clamps on top of collection bag, and disconnected all connectors on first bag.
9. Removed protective cap from collection tubing on replacement bag. Maintained aseptic technique when changing tubing.
10. Used red connectors to connect unit's collection tubing to client's chest drainage tube.

	Performed yes	Mastered no

Circulatory Maintenance

Performance Checklist

UNIT ONE Control of Bleeding

UNIT ASSESSMENT

- Observed amount of bleeding.
- Checked for source of bleeding.
- Observed extent of wound.
- Identified familial history of bleeding disorders.
- Assessed baseline vital signs and arterial blood pressure readings.
- Observed color, temperature, and condition of skin.
- Asked about medications taken routinely by client.

USING DIGITAL PRESSURE

Procedure

1. Donned gloves, sterile preferred.
2. Identified closest artery proximal to bleeding site.
3. Applied direct pressure to artery, using gloved finger.
4. If towels or 4 × 4 gauze pads were available, applied direct pressure to site if wound did not contain glass particles.
5. Raised affected limb above level of heart about 30°.
6. Maintained direct pressure for at least 5 minutes.
7. Did not remove pressure before 5 minutes.
8. When bleeding subsided, proceeded to clean and dress the wound.

Performed Mastered
yes no

Performed yes	no	Mastered

9. To control nosebleeds (epistaxis), placed client in sitting position, with head tilted forward. Pinched nose for 5 minutes. If ordered, applied ice pack to assist in vasoconstriction.
10. Removed glove when bleeding subsided.
11. Washed hands immediately.

Performed Mastered
yes no

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USING PRESSURE DRESSING

Preparation

1. Checked physician's orders.
2. Assembled necessary supplies according to extent of wound.
3. If time permitted, explained procedure to client and provided light and privacy.
4. Washed hands thoroughly if time permitted.
5. Set up sterile field and prepared cleansing solution if time permitted.

Procedure

1. Donned sterile gloves.
2. Cleansed wound and applied dressing. Used several layers of 4 × 4 gauze pads.
3. To provide occlusive dressing, placed tape tightly over entire dressing. Did not completely circle an extremity or body.
4. Placed all soiled materials in biohazard bag.
5. Removed gloves and washed hands thoroughly.
6. Monitored vital signs, and observed for signs of shock.

7. Positioned client for comfort.
8. Elevated extremity to prevent bleeding.
9. Monitored frequently for signs of bleeding and hematoma. Hematomas feel spongy even under bandages.

Performed Mastered
yes no

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UNIT TWO Circulatory Maintenance

UNIT ASSESSMENT

- Evaluated client's overall physical condition, particularly client's cardiovascular status to determine if candidate for compression stockings or devices.
- Observed baseline vital signs before procedures were initiated.
- Determined if client was at risk for pooling of blood in extremities.
- Assessed for peripheral edema by palpating pulses and observing color and temperature as well as fluid accumulation.

APPLYING GRADUATED COMPRESSION STOCKINGS (ELASTIC HOSIERY)

Preparation

1. Checked physician's orders for specific reason client needs elastic stockings.
2. Checked physician's orders for type and specifications.
3. Gathered equipment, identified client, and explained procedure.
4. Washed hands, provided for client's privacy and comfort.

Performed Mastered
yes no

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5. Applied drape as top linens were removed. Bathed, dried, and powdered client's legs.
6. Assessed lower extremities for edema, dry skin, and palpable pulses.
7. Positioned client in dorsal recumbent position, and elevated bed to working height.
8. Measured client for hosiery size.
9. Compared measurements to manufacturer's chart to obtain correct hose size.

Procedure

1. Inverted foot of stocking back to heel area.
2. Holding both sides of hose at inverted foot area, pulled hose over toes and eased gently toward top of foot.
3. Gathered top of hose down to heel area, and with curving motion, covered heel and then pulled hose up the leg.
4. Repositioned client, and washed hands.
5. Observed extremity(ies) for edema above level of hose.
6. Observed that stockings were wrinkle free and correctly placed on extremity(ies).
7. Checked client after 30 minutes for adequate circulation by noting warmth and color of feet.
8. Removed hose two to three times daily for 30 minutes. Assessed skin integrity and performed neurovascular checks.
9. Washed in mild detergent and warm water as needed.

Performed Mastered
yes no

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APPLYING SEQUENTIAL COMPRESSION DEVICES

Preparation

1. Checked physician's orders for type of disposable leg sleeve needed.
2. Identified client and explained procedure.
3. Assessed client for potential problems and contraindications for use of these devices.
4. Measured circumference of upper thigh.
5. Noted exact measurement and referred to manufacturer's sizing chart to determine exact fit of sleeve.
6. Completed a neurovascular assessment. Included an evaluation of skin color, temperature, sensation, capillary refill, and presence and quality of pedal pulses. Documented findings.
7. Assembled equipment. Read manufacturer's directions for connecting and operating controller and sleeve.
8. Read directions for setting sleeve pressure (between 35 and 45 mm Hg). Maximum pressure did not exceed client's diastolic pressure.
9. Located and identified indicator lights on controller for ankle, calf, and thigh pressure in addition to cooling light.

Procedure

1. Removed sleeve from plastic bag.
2. Unfolded sleeve and followed directions to fit sleeve to client's leg.
3. Placed leg on white side of sleeve lining.

Performed Mastered
yes no

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	Performed yes	Mastered no
4. Checked that back of ankle was over ankle marking.		
5. Wrapped sleeve securely around client's leg.		
6. Attached hook edge securely to sleeve.		
7. Checked fit by placing two fingers between client's leg and sleeve. Readjusted as needed.		
8. Removed tubing assembly from package and connected to plugs on leg sleeve. Arrows on both plug and connector lined up to ensure proper fit.		
9. Connected tubing assembly plug to controller at tubing assembly connector site.		
10. Ensured tubing was free of kinks or twists.		
11. Plugged controller power cable into grounded electric outlet and attached unit to bed frame.		
12. Turned controller power switch ON. Monitored that alarms were audible.		
13. Checked that pressure indicator lights and cooling light were functioning properly. When pressure was applied to each segment of leg, specific light was on. When cooling light was ON, the compression lights were OFF, as this was when no compression is applied to leg. Checked arterial pressure.		
14. Monitored that compression and cooling cycles were correct. Ankle pressure was applied first, followed by calf pressure, and then thigh pressure.		
15. Monitored neurovascular checks every 2-4 hours. Turned machine off immediately if client complained of numbness or signs of DVT.		

	Performed yes	Mastered no
16. Monitored client's tolerance of device.		
17. Turned off machine at prescribed time intervals to assess skin and to provide skin care.		
18. Turned power switch OFF to remove sleeve. Disconnected tubing assembly from sleeve at connection site. Unwrapped sleeve from leg.		

UNIT THREE Electrocardiogram (ECG) Monitoring

UNIT ASSESSMENT

- Determined if there was preexisting cardiac disease or chest pain.
- Assessed client's level of understanding and cooperation with procedure.
- Determined client's level of fear or anxiety regarding diagnosis, procedure, or outcome.
- Identified pharmacologic agents currently prescribed.
- Determined other pathologic conditions that may precipitate conditions, such as fever, anxiety, alcohol, tobacco, or caffeine ingestion.
- Determined subjective complaints of diaphoresis, palpitations, dizziness, or fainting.
- Identified electrolyte abnormalities affecting the electrocardiogram, particularly potassium and calcium deficiencies or excesses.

MONITORING THE ECG

Preparation

1. Gathered equipment.
2. Washed hands.
3. Explained procedure to client.

	Performed yes	Mastered no

8. Summarized findings to obtain interpretation.
9. Determined if arrhythmias were potentially life-threatening.
10. Documented interpretation of findings, and placed ECG strip in client's chart.

Performed Mastered
yes no

RECORDING A 12-LEAD ECG

Preparation

1. Checked physician's orders for ECG.
2. Identified client and explained procedure.
3. Assessed chest for placement of electrodes.
4. Determined if skin site care was necessary. Cleansed area with soap and water where necessary. Allowed to dry thoroughly before placing electrodes.
5. Attached electrodes to wires before pressing onto client's chest.
6. Checked the color coding on manufacturer's directions before placing electrodes to ensure they were appropriately placed.

Procedure

1. Ensured that electrodes were going in same direction so that lead wires hung at same angle.
2. Placed electrodes on fleshy areas, avoiding bone and muscle.
3. Placed the four limb leads, one on each limb, according to color coding.

4. Placed chest leads following appropriate directions.
5. Obtained three augmented limb and lead tracings.
6. Recorded ECG according to manufacturer's directions on machine.

Performed Mastered
yes no

MONITORING CLIENTS ON TELEMETRY

Preparation

1. Gathered equipment.
2. Determined lead placement (Lead II or MVL I).
3. Explained procedure to client.
4. Allayed client's fears about ECG being monitored at base station.
5. Explained telemetry range limitations.
6. Instructed client to notify nurse if electrodes fell off.

Procedure

1. Checked expiration date on electrode packet.
2. Selected electrode site not over bony prominence or muscular area.
3. Assessed skin site before placing electrodes. Cleansed site with soap and water and allowed to dry thoroughly.
4. Inserted lead wires into transmitter box.
5. Attached wires to electrodes before putting them on client.

6. Used the color-coded diagram from the manufacturer to accurately place electrodes on the chest.
7. Had base station run an ECG strip to check for clarity of strip and lead placement.
8. Placed transmitter into pouch.
9. Checked monitor strip at least once a shift or when client condition changed.
10. Switched lead selector switch on monitor to obtain different lead reading, if necessary.
11. Checked lead placement at least once a shift, unless notified not working properly.
12. Changed electrodes at least every three days.
13. Checked client at least every four hours or more often if warranted.

	Performed yes	no	Mastered

UNIT FOUR Emergency Life Support Measures

UNIT ASSESSMENT

- Assessed client for signs of cardiac or respiratory arrest.
- Knew my own responsibilities for an arrest situation.
- Identified location of resuscitation equipment.
- Identified the location of the emergency cart, nearest defibrillator, and 12-lead ECG machine.
- Identified procedure for activation of cardiac arrest team.

ADMINISTERING BASIC LIFE SUPPORT TO AN ADULT

Procedure

for Unresponsiveness

1. Called a code and assessed client as first steps in CPR phase.
2. Quickly approached client.
3. Checked responsiveness. Shook shoulders. Shouted, "Are you OK?"
4. Called out or phoned for help.
5. Moved into proper position. Placed victim flat on firm surface, and positioned myself next to victim at approximately same level.

for Airway

1. Took following measures if suspected airway obstruction from food or other foreign body.
2. Pressed backward on forehead.
3. Lifted chin by placing 2 fingers on chin. Lifted chin up and forward until teeth were nearly closed.
4. Assessed breathing:
 - a. Leaned over victim's head, and looked at chest to determine if chest rises and falls.
 - b. Placed ear near victim's mouth and nose to listen and feel for air movement.

for Rescue Breathing

1. Evaluated respiratory function:
 - a. Put ear down near client's mouth.
 - b. Looked for chest movement.
 - c. Felt for air flow against my cheek.
 - d. Listened for exhalation of breath.

	Performed yes	no	Mastered

2. Prepared to ventilate if no respirations were present:
 - a. Left dentures in place.
 - b. Pinched off nostrils.
 - c. Fully covered victim's mouth to form mouth-to-mouth seal or placed barrier device or breathing piece to facilitate procedure.
 - d. Continued to tilt head and lift chin before each ventilation.
3. Administered mouth-mouth breathing:
 - a. Gave slow rescue breath, 2 seconds each breath.
 - b. Released seal, and turned head.
 - c. Took fresh breath.
 - d. Watched for rise of chest with each breath. If chest did not rise, reopened airway and gave another breath.
 - e. Used least tidal volume to make chest rise.
 - f. Checked carotid pulse for 5–10 seconds.
 - g. Continued rescue breaths if pulse was present. Gave breaths every 5 seconds (12 breaths/min).
 - h. If victim had pulse and was breathing, placed in rescue position.
 - i. If no signs of circulation, no pulse, began CPR.
4. Alternative method: Performed rescue breathing using barrier device or face mask.

for Circulation

Single Rescuer

1. Felt for carotid or femoral pulse, and palpated one side with two fingers for 5–10 seconds.

Performed Mastered
yes no

Performed yes	Mastered no

2. Checked for other signs of circulation (i.e., normal breathing, coughing, or movement in response to the 2 rescue breaths).
3. If pulse or other signs of circulation were not present, began CPR.
 - a. Positioned hands on lower half of sternum, between nipples.
 - b. Placed heel of one hand on sternum and other hand superimposed on top of first hand.
 - c. Interlaced fingers and extended fingers off rib cage.
 - d. Positioned your body with shoulders directly above your hands.
 - e. Administered 15 compressions at a rate of 100/minute. Compressed chest 1–1 1/2 inches.
 - f. Counted compressions using first 15 letters of alphabet: a, b, c, etc..
 - g. Released pressure between compressions for cardiac refilling but did not take heel of hand off chest.
4. Continued CPR at the rate of 15 compressions and two rescue breaths for both single or two rescuer CPR.
5. Paused 2 seconds for each ventilation.
6. Checked carotid pulse for 5 seconds after four cycles of compression and ventilation.

Two Professionals Arrive Together To Do CPR

1. Rescuer "A" assumed position at head of victim to perform ventilation.
 - a. Performed head-tilt/chin-lift maneuver for airway opening.
 - b. Assessed breathing.
 - c. Ventilated with 2 slow breaths of 2 seconds.

Performed Mastered
yes no

Performed yes	Mastered no

Performed Mastered
yes no

- d. Observed for chest rise and fall.
 - e. Rescuer “A” checked for carotid pulse for 5–10 seconds.
 - f. Rescuer “B” assumed position of compressor at level of chest and located site for chest compression.
 - g. If no pulse, rescuer “A” stated “no pulse” and “B” began compressions.
 - h. Rescuer “B” completed 15 compressions (1½–2 inches) at rate of 100/minute and then paused after 15th compression.
 - i. Rescuer “A” gave 2 slow breaths.
 - j. Rescuer “B” counted using alphabet.
 - k. Rescuer “B” began compressions again at ratio of 15 compressions to 2 ventilations.
 - l. Rescuer “A” checked carotid pulse after 1 minute and then after every few minutes.
2. When Rescuer “B” became tired, a signal to switch was made. (Completed at least 10 cycles before switching.)
- a. Rescuer “B” (compressor) said “switch” and completed 15th compression. Each rescuer simultaneously switched.
 - b. New Rescuer “A,” at head, checked carotid pulse for 5–10 seconds. If no pulse, stated, “no pulse” and gave 2 slow ventilations.
 - c. New Rescuer “B” began cycle of compressions.

for Continuing CPR

1. Checked carotid or femoral pulse and signs of circulation every few minutes of CPR.
2. Checked pupils every 4–5 minutes (optional if third trained person was present)—not always a conclusive indicator.

Performed Mastered
yes no

3. Observed for abdominal distention (all age groups).
 - a. If evident, repositioned airway, and reduced force of ventilation.
 - b. Maintained a volume sufficient to elevate ribs.
4. Ventilator: checked carotid pulse frequently between breaths to evaluate perfusion.
5. Ventilator: observed each breath for effectiveness.
6. If respiratory arrest only, checked major pulse after each minute (12 breaths) to ensure continuation of cardiac function.
7. If client was breathing, placed in recovery (side-lying) position, unless cervical injury suspected.
8. Terminated CPR under following conditions:
 - a. Resuscitation was successful.
 - b. Spontaneous return of vital functions.
 - c. Assisted life-support measures were initiated.
 - d. Client was transferred to emergency vehicle or code team arrived.
 - e. Client was pronounced dead by physician.
 - f. Rescuer was exhausted and could not continue.

PLACING VICTIM IN RECOVERY POSITION

Procedure

1. Assessed for potential head or neck trauma; if you suspected injury, did not tilt or turn client’s head. If absent, and client has a pulse and is breathing adequately, placed in recovery position.

2. Straightened victim's legs.
3. Placed victim's arm nearest to you at right angles to his/her body, with elbow bent and palm upward.
4. Placed other arm across chest, and placed hand near his/her cheek.
5. Grasped victim's far-side thigh above knee; pulled thigh up toward his/her body.
6. Rolled victim toward you onto his/her side.
7. Ensured upper leg (including knee and hip) were bent at right angles over the lower leg.
8. Tilted head back to maintain open airway, placed hand under cheek to maintain head tilt, if necessary. (This is hand that was placed near cheek.)
9. Monitored victim closely until transported to facility.

Performed Mastered
yes no

Performed yes	Mastered no

ADMINISTERING CPR TO A CHILD

Procedure

1. If nurse suspected cardiac or respiratory arrest, followed these steps:
 - a. Perform CPR for 1 minute unless child high risk for arrhythmias or cardiac arrest.
 - b. Called for help and secured defibrillation.
 - c. Checked responsiveness by shaking child, slapping bottom of feet, or rubbing chest to elicit a cry.
 - d. Placed child on lap, over arm, or on a firm surface.
2. If foreign body aspiration was suspected, followed steps for obstructed airway.

3. Cleared airway by lowering child's head, turning to side, and sweeping mouth with little finger.
4. If unable to clear airway with sweeping motion, placed child in airway position (chin forward with neck slightly extended).
5. Placed rolled towel under shoulders to maintain chin in jutting-out position, without causing hyperextension of neck.
6. Evaluated respiratory function by following these steps:
 - a. Placed cheek next to child's mouth and nose.
 - b. Faced infant's chest and observed for chest movement.
 - c. Felt for air flow against cheek.
 - d. Listened for exhalation.
7. For absent respirations, began artificial ventilation.
 - a. Maintained open airway. Tipped head back.
 - b. Formed tight seal by encircling nose and mouth of child.
 - c. Maintained tight seal.
8. Administered two breaths.
 - a. Gave breaths slowly.
 - b. Filled cheeks with air and used short puffing breaths. Did not use full breaths for children.
 - c. Between breaths, released seal for exhalation, and turned my head to side.
 - d. Took fresh breath; did not allow complete deflation of lungs (stair step volume).
 - e. Maintained position.
9. Did not release child when giving ventilations; just turned head to side.

Performed Mastered
yes no

Performed yes	Mastered no

	Performed		Mastered
	yes	no	
10. Administered ventilations at 20/minute (1–1½ seconds per breath) for children under 1 year of age, and the same for children over 1 year of age. (Neonates: 1 second/breath, then 30–60 breaths/minute.)			
11. Continued ventilations until child was intubated or ambu bag was available.			
12. For cardiopulmonary arrest, followed these steps:			
a. Followed procedure for initiating artificial ventilation.			
b. After administering two slow breaths, checked carotid for presence of pulse. Palpated for 5–10 seconds. (For infant, checked brachial pulse; neonate—umbilical.)			
c. Began cardiac compression. Maintained patent airway with hand on infant's forehead.			
13. For infants to 1 year of age:			
a. Grasped both hands behind infant's back for support and overlapped thumbs at midsternum, if 2 rescuers available.			
b. For 1 rescuer, placed tip of index and middle finger at lower sternum, one fingerbreadth below nipple line.			
14. For children 1–8 years of age, used heel of one hand at lower half of sternum.			
15. For children over 8 years of age, used two hands over lower half of sternum.			
16. Remembered that compression depth for children is 1–1½ inches, for infants 1/2–1 inch, and for neonates 1/3–1/2 depth of chest.			
17. Did not take fingers or heel off skin between compressions.			

	Performed		Mastered
	yes	no	
18. Performed cardiac compression and ventilated at the rate of one breath to five compressions.			
a. For infants under 12 months, administered compression 100 times per minute to depth of 1/2–1 inch.			
b. For infants over 12 months and up to 8 years, administered compression 100 times per minute to depth of 1–1½ inches.			
c. For neonates, 120/minute (90 compressions to 30 breaths at 1/3 to 1/2 depth of chest.)			
19. Compression/ventilation ratio:			
a. Neonate—3:1.			
b. Infant under 1 year—5:1.			
c. Child 1–8 years—5:1.			
20. Rechecked carotid or brachial pulse every 10 cycles.			
21. Continued CPR until code team arrived or was instructed to stop by a physician.			

PROVIDING BAG-VALVE-MASK VENTILATION

Preparation

1. Determined that client's breathing was absent or inadequate.
2. Summoned assistant if client was not intubated.
3. Gathered equipment.
4. Placed client in supine position.
5. Connected mask airway adapter to bag.
6. Connected oxygen tubing and oxygen flowmeter to bag inlet.

Procedure

1. Turned oxygen flowmeter wide open to 15L/minute (“flush”).
2. Standing at client’s head, hyperextended client’s neck.
3. Placed apex of mask over client’s nose and placed base of mask between client’s lower lip and chin.
4. Using dominant hand, compressed central portion of resuscitator bag just until client’s chest rose (1–2 sec), then allowed exhalation.
5. Provided ventilations every 5 seconds for an apneic adult, noting that client’s chest rose and fell with each compression.
6. If client breathed spontaneously, gave compressions in synchrony to support ventilation.
7. Observed for possible gastric distention.
8. If gastric distention occurred in the unresponsive client, had assistant provide cricoid pressure to client’s airway.
9. Notified physician or respiratory care practitioner for further client evaluation.

Performed **Mastered**
yes **no**

USING THE AUTOMATED EXTERNAL DEFIBRILLATOR (AED)

Procedure

1. Opened AED (automatically turns on power in some devices).
2. Pressed power button ON, if not automatically part of opening AED. Sounded alerts, lights, and voice prompts told you that power is ON and directed you in the use of AED.

Performed **Mastered**
yes **no**

3. Placed AED near head on left side of victim.
4. Removed victim’s clothing on torso.
5. Ensured chest was dry.
6. Opened package of adhesive electrode pads. If defibrillation electrode pads not preconnected to cables, attached one end of cable to AED and other end to electrode pads. Snapped connecting cables to pads.
7. Peeled off protective plastic backing from pads to expose adhesive surface.
8. Placed 2 adhesive electrode pads directly on skin of chest, following pictures on pads.
 - a. First pad on upper right side of victim’s chest, to right of sternum, top edge touching bottom of clavicle.
 - b. Second pad (marked with a ♥) placed outside of left nipple, with top margin of pad at the anterior axillary line.
 - c. Did not place pads directly over nitroglycerine patches or within 5 inches of implanted devices such as pacemakers.
9. Stopped CPR if someone was performing CPT. Instructed everyone helping to not touch victim, in order for the AED to analyze rhythm. You may have needed to push ANALYZE button to start analysis (some machines begin analyzing the rhythm as soon as pads are applied).
10. If analysis indicated need for a shock, pushed “SHOCK” on AED. (It may have automatically charged when the rhythm indicated need to shock. Voice message would have informed everyone to “stay clear.”)
11. Pressed the ANALYZE button following each shock for follow-up rhythm report.

12. If victim was not in need of shock, rescuer immediately checked for pulse and began CPR.
13. After three shocks or “no shock indicated” message on machine, checked for signs of circulation; if absent, began CPR for one minute. Repeated this procedure up to three times.
14. When victim was no longer in ventricular fibrillation or tachycardia, the AED signaled “no shock indicated,” or “no shock advised,” or “check breathing and pulse.”
15. Left AED electrodes attached to victim’s chest and left AED in ON position.
16. Followed protocol for rescue breathing or CPR as victim’s condition warranted.

ADMINISTERING THE HEIMLICH MANEUVER FOR CONSCIOUS CLIENT

Procedure

1. Assessed choking client for pale color progressing to cyanosis.
2. Was familiar with choking signs.
 - a. Asked client if he or she can speak.
 - b. Asked client to hold hand on neck if choking.
3. If unable to talk or coughing became ineffective, began abdominal thrusts.
4. Stood behind client. Placed arms around client’s waist.

Performed Mastered
yes no

Performed yes	Mastered no

5. Positioned hands halfway between xiphoid process and umbilicus. Identified area by placing thumb near xiphoid and index finger on umbilicus.
6. Made fist with one hand. Placed other hand over fist.
7. Pressed fist into client’s abdomen.
8. Using rotating motion of hands, forcefully thrust hands in an upward direction to assist in expelling foreign body.
9. Repeated measures until foreign body was expelled.

ADMINISTERING THE HEIMLICH MANEUVER FOR UNCONSCIOUS CLIENT

Procedure

1. Placed victim on back.
2. Established unresponsiveness, shook and shouted.
3. Grasped jaw and lifted jaw and tongue with one hand.
4. Performed finger sweep with index finger of free hand.
5. Assessed breathing.
 - a. Leaned over client and looked at chest to determine if chest was rising and falling.
 - b. Placed ear and cheek near client’s mouth and nose to listen and feel for air movement.

Performed Mastered
yes no

Performed yes	Mastered no

	Performed yes	Mastered no
6. Pinched nose and attempted to ventilate. Gave two long ventilations of 2 seconds duration.		
7. Repositioned head and attempted to ventilate a second time if chest did not rise and fall.		
8. Knelt and straddled client's thighs to prepare for Heimlich maneuver.		
9. Placed hand just above umbilicus. Placed second hand directly over first hand.		
10. Pressed heel of hand toward head with 5 quick subdiaphragmatic abdominal thrusts.		
11. Repeated finger sweep.		
12. Repeated abdominal thrusts until foreign object cleared.		
13. Placed client in rescue position following removal of foreign body.		
14. If pulse was absent but airway patent, began CPR.		

CALLING A CODE

Preparation

1. Identified clients at risk for coding at the beginning of shift.
2. Assessed breathing for rate, quality, and presence of adventitious breath sounds.
3. Evaluated overall color and assessed need for oxygen.
4. Assessed vital signs and oxygen saturation levels.
5. Palpated for peripheral pulses.

	Performed yes	Mastered no
6. Assessed extremities for edema and mottled skin.		
7. Completed a neurological assessment for baseline data.		
8. Checked that client had a patent IV.		
9. Checked the code status of client. Was he or she a full-code, partial-code, or do-not-attempt to resuscitate (DNAR or NO CPR) status?		
10. Checked facility policy for calling a code.		
11. Identified location of code cart.		
12. Monitored client for change in status frequently throughout shift.		
Procedure		
1. Assessed if client was unresponsive.		
2. Checked for breathing and presence of pulse.		
3. Called a code and asked that crash cart be brought into room.		
4. Positioned client in supine position, opened airway, and initiated breathing. Used barrier device or shield if available.		
5. Initiated chest compressions if client did not have a pulse.		
6. Maintained CPR until code team arrived.		
7. Asked unit personnel to clear room of unnecessary equipment to make room for code cart and team.		
8. Moved other client from room if possible or closed curtain.		
9. Asked all unnecessary personnel to leave to make room for code equipment and decrease activity in room.		

10. A team member knowledgeable in CPR took over for client's nurse and allowed her or him to assist code team and provide communication regarding client's condition.
11. When code team arrived, instituted bag-valve-mask device immediately.
12. Set up flowmeter and oxygen equipment if not already in place. Ventilated client with 100% oxygen.
13. Placed client on cardiac board or headboard if not already in place and continued chest compressions.
14. Placed client on cardiac monitor.
15. Established IV of 0.9% sodium chloride or lactated Ringer's solution.
16. Set up suction and intubation equipment.
17. Set up defibrillation and pacing equipment as needed.
18. Assisted code team with medication preparation.
19. Acted as communicator between physician, lab, family members, and other staff.
20. Prepared to move client to critical care unit or other department as needed.
21. Documented the code findings.

	Performed		Mastered	
	yes	no	yes	no
10. A team member knowledgeable in CPR took over for client's nurse and allowed her or him to assist code team and provide communication regarding client's condition.				
11. When code team arrived, instituted bag-valve-mask device immediately.				
12. Set up flowmeter and oxygen equipment if not already in place. Ventilated client with 100% oxygen.				
13. Placed client on cardiac board or headboard if not already in place and continued chest compressions.				
14. Placed client on cardiac monitor.				
15. Established IV of 0.9% sodium chloride or lactated Ringer's solution.				
16. Set up suction and intubation equipment.				
17. Set up defibrillation and pacing equipment as needed.				
18. Assisted code team with medication preparation.				
19. Acted as communicator between physician, lab, family members, and other staff.				
20. Prepared to move client to critical care unit or other department as needed.				
21. Documented the code findings.				

PROVIDING CARE FOLLOWING A CODE

Procedure

1. Reminded physician he or she needed to talk with family.
2. Washed client's face and hands, and provided clean top sheet.

3. Escorted family in to see client.
4. Assisted in transferring client to ICU (or morgue if necessary).
5. Provided one-to-one nursing care for client until ICU transfer was accomplished.
6. Updated charting.
7. If assigned, restocked emergency cart or obtained replacement cart.
8. Returned all equipment to original location. Remembered to recharge defibrillator.
9. Cleaned room.
10. Allowed other clients to return to room.
11. Participated in staff critique of resuscitation management.

Performed Mastered
yes no

	Performed		Mastered	
	yes	no	yes	no
3. Escorted family in to see client.				
4. Assisted in transferring client to ICU (or morgue if necessary).				
5. Provided one-to-one nursing care for client until ICU transfer was accomplished.				
6. Updated charting.				
7. If assigned, restocked emergency cart or obtained replacement cart.				
8. Returned all equipment to original location. Remembered to recharge defibrillator.				
9. Cleaned room.				
10. Allowed other clients to return to room.				
11. Participated in staff critique of resuscitation management.				

UNIT FIVE Pacemaker Management

UNIT ASSESSMENT

- Assessed preexisting cardiovascular status.
- Identified client's or family's knowledge of and cooperation with procedure.
- Assessed cardiac monitor rhythm and rate.
- Assessed heart sounds.
- Observed client's general appearance for pallor, dyspnea, or edema.
- Assessed for hemodynamic abnormalities related to low cardiac output, including dizziness, weakness, altered level of consciousness, low blood pressure, and decreased urinary output.
- Ensured placement of intravenous route for administration of fluids and drugs during an emergency.

ASSISTING WITH PACEMAKER INSERTION

Preparation

1. Washed hands.
2. Provided sedation as necessary.
3. Connected client to a continuous ECG monitor.
4. Placed client in supine position with head flat or slightly lower than body.
5. If either the subclavian or external jugular vein used, placed a towel roll under client's shoulders to provide better exposure of insertion site.

Procedure

1. Assisted physician as needed.
2. Continuously monitored ECG and client status during insertion.
3. Donned gloves to prevent microshock to client.
4. Connected pacing electrode to appropriate outlet terminal (unipolar to negative and bipolar to both the positive and negative terminals).
5. Turned on power switch on external pacemaker.
6. Set rate according to physician's orders.
7. Set milliamperes (mA) by determining threshold. To do this, observed the ECG while slowly increasing the number of milliamperes from its lowest setting to a point where a QRS complex was detected following each stimulus.

Performed Mastered
yes no

Performed yes	Mastered no

8. Multiplied threshold level according to hospital policy (usually two to four times) to adjust milliampere setting.
9. Set sensitivity mode according to physician's order (usually 1.5 mV).
10. Secured all connections. Put plastic cover back over pacemaker controls if required.
11. Placed external pacemaker and exposed wires in rubber glove to ensure insulation against electric shock to client.
12. Applied sterile dressings to insertion site, and taped securely.
13. Obtained chest x ray following insertion to validate lead placement if pacemaker not inserted using fluoroscopy.
14. Obtained 12-lead ECG.

Performed Mastered
yes no

Performed yes	Mastered no

MAINTAINING PACEMAKER FUNCTION

Procedure

1. Observed for failure to sense.
 - a. Observed oscilloscope for presence of pacemaker artifact (spikes); artifact before QRS complex in ventricular paced or preceding the P waves and QRS waves in AV sequential pacing.
 - b. Checked connections for secure, tight fit.
 - c. Observed that pace-sense needle deflects to right, indicating pacing occurring.
 - d. Checked sensitivity dial to determine if sensitivity threshold set correctly.

AUSCULTATING FETAL HEART RATE

Procedure

1. Washed hands before and after each client.
2. Introduced self to client and family and checked identaband.
3. Explained procedure to client and family.
4. Located back of fetus, using Leopold's maneuvers and/or asked client which side she usually feels the baby kick.
5. Placed bell or diaphragm in quadrant over back of fetus.
6. Evaluated fetal heart rate: is it rapid and does it sound like a horse running? If you heard swishing sound along with each beat, it may be the cord and the bell or diaphragm should be relocated.
7. Compared mother's pulse with beats you were hearing. They should not be simultaneous or the same rate. If they were, you repositioned bell to another location.
8. Counted fetal heart rate. To obtain rate, counted for 30 seconds and multiplied by 2. Another method: count for two 15-second periods and multiply by 4. Both numbers should be within 4–8 beats of each other.
9. Auscultated FHR between, during, and for 30 seconds following a uterine contraction.
10. Monitored FHR according to AWHONN (1998) recommendations.
 - a. Took 20-minute EFM strips on all clients admitted to labor unit.
 - b. Low risk clients: auscultated or assessed tracing q–1 hr in latent phase, q–30 min in active phase, and q–15 min in second stage.

Performed Mastered
yes no

- c. High-risk clients: auscultated or assessed tracing q–30 min in latent phase, q–15 min in active phase, and q–5 min in second stage.

APPLYING EXTERNAL ELECTRONIC FETAL MONITORING

Procedure

1. Washed hands and prepared client for monitoring.
2. Explained procedure to client and family.
3. Turned on monitor, calibrated, labeled, and checked that monitor was recording properly.
4. Placed two elastic belts around client's abdomen.
5. Placed "toco" over a firm part of the uterus fundus, off center. Attached elastic belts snugly.
6. Checked and readjusted belt periodically.
7. Noted uterine contraction (UC) tracing; adjusted line to reflect reading. Assessed with fingers on fundus.
8. Applied ultrasonic gel to diaphragm of the ultrasonic transducer.
9. Placed transducer on mother's abdomen, usually in quadrant that fetus' back is located.
10. When FHR was located and clear, attached elastic belt snugly to maintain contact.

Performed Mastered
yes no

INTERPRETING ELECTRONIC FETAL MONITORING TRACINGS

Procedure

1. Assessed if quality and length of recording adequate to interpret.
2. Determined type of monitor used, external or internal, and paper speed.
3. Evaluated if baseline FHR between 110–160.
4. Determined if there was absent, minimal, moderate, or marked baseline FHR variability.
5. Evaluated if there were accelerations or decelerations from baseline.
6. Determined frequency, duration, and intensity or uterine contractions.
7. Assessed if contractions were regular and if there was acceptable relationship to uterine contractions.
8. Evaluated changes occurring over time of more than 10 minutes duration.
9. Compared and contrasted FHR recording and related to what was happening clinically (mother and fetus) and to client's history.
10. Determined if FHR was reassuring, nonreassuring, or ominous.

Performed Mastered
yes no

	Performed yes	Mastered no

11. Notified clinician with clear description of FHR including: baseline rate, baseline FHR variability, presence of accelerations, periodic changes (decelerations), and changes or trends in FHR over time.
12. Documented description, interpretation, interventions, and results.

ASSESSING PERIODIC FETAL HEART RATE CHANGES

Procedure

1. Assessed that fetal heart rate and uterine contractions were within normal limits indicating that fetal brain was well-oxygenated.
2. Checked baseline FHR variability. Normal between 120–160 bpm.
3. Identified accelerations or decelerations.
 - a. Accelerations.
 - b. Early decelerations.
 - c. Late decelerations.
 - d. Variable deceleration.
4. Identified changes in FHR recording over time; did not interpret reading on one short review.

Performed Mastered
yes no

	Performed yes	Mastered no