

Adult and geriatric health nursing - 2
NRS352

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Assisting the Patient Undergoing Lumbar Puncture

Preparation

- 1 Before procedure, the patient should empty bladder and/or bowel.
- 2 Give a step-by-step summary of the procedure. For lying position,
- 3 If patient has signs of increased intracranial pressure, a computed tomography scan should be done to rule out mass effect.
- 4 Position the patient on side with a small pillow under head and a pillow between legs. Patient should be lying on a firm surface.
- 5 Position the patient on side with a small pillow under head and a pillow between legs. Patient should be lying on a firm surface.
- 6 Assist the patient in maintaining this position by supporting behind the knees and neck. Assist the patient to maintain the posture throughout the examination.
- 7 Alternately, for sitting position, have the patient straddle a straight-back chair (facing the back) and rest head against arms, which are folded on the back of the chair.

Procedure

- 1 The skin is prepared with antiseptic solution (avoiding use of chlorhexidine), and the skin and subcutaneous spaces are infiltrated with local anesthetic agent.
- 2 A spinal needle is introduced at the L3-L4 interspace. The needle is advanced until the “give” of the ligamentum flavum is felt and the needle enters the subarachnoid space. The manometer is attached to the spinal needle.
- 3 After the needle enters the subarachnoid space, help the patient to slowly straighten up.
- 4 Instruct the patient to breathe quietly (not to hold breath or strain) and not to talk.
- 5 The initial pressure reading (opening pressure) is obtained by measuring the level of the fluid column after it comes to rest.
- 6 About 2 to 3 mL of spinal fluid is placed in each of three test tubes for observation, comparison, and laboratory analysis. Spinal fluid should be clear and colorless.
- 7 Closing pressure is the pressure on the manometer after the CSF specimen is collected and/or excess CSF removed.
- 8 After the procedure, the patient is instructed to remain flat for about 2 hours.
- 9 Ensure adequate hydration with oral or Parenteral fluids.
- 10 Monitor for spinal headache, and observe for CSF leak.

Bone Marrow Aspiration and Biopsy

EQUIPMENT

- Bone marrow aspiration tray
- Marrow aspiration needles with stylets
- Towels
- 25G and 22G needles
- Two 25-mL syringes
- Three 5-mL syringes
- Local anesthetic (1% procaine or Xylocaine)
- Sterile gauze squares
- Sterile gloves, drape
- Skin antiseptic
- Masks and protective eyewear for physician and nurse (check your facility's policy)
- Laboratory equipment
- Coverslips
- Microscopic slides
- Test tubes (plain and heparinized)
- Scalpel blade and handle

Preparation

1. Explain the procedure to the patient. Tell patient when the skin will be marked, antiseptic applied, and the needle puncture performed.
2. Give analgesic or tranquilizer as requested, 30 minutes before procedure. May not be necessary for aspiration.
3. Place the patient in prone or supine position
4. The following sites are most commonly used:
 - a. Posterior superior iliac crest
 - b. Anterior iliac crest (if patient is very obese)

Iliac crest aspiration/biopsy

Procedure

1. Position the patient on the abdomen (prone) or on side with top knee flexed
2. The posterior iliac crest is located and marked.
3. The skin area is prepared and draped. The marked area is infiltrated with local anesthetic through the skin and subcutaneous tissue to the periosteum of the bone.
4. A small incision may be made.
5. The bone marrow needle, with stylet in place, is introduced through the incision. The needle is advanced and rotated by using firm and steady pressure. When the needle is felt to enter the outer cortex of the bone marrow cavity, the stylet is removed and the syringe attached. Negative pressure is applied, and a small volume of blood and marrow is aspirated.
6. A biopsy is taken by using a special needle equipped with a sharp cutting edge and a hollow core.
7. After removal of needle, apply pressure to site and dressing.

Irrigating the External Auditory Canal

EQUIPMENT AND SOLUTIONS

- Kind and amount of solution desired (usually warm water)
- Ear syringe and irrigation device
- Protective towels
- Cotton balls and cotton-tipped applicators
- Solution bowl or emesis basin
- Bag for disposable items

Preparation

1. After explaining procedure to the patient, place in a position of sitting or lying with head tilted forward and toward affected ear
2. Position protective towels.

Procedure

1. Use a cotton applicator to remove any discharge on outer ear.
2. Place basin close to the patient's head and under the ear.

Test temperature of solution. It should be comfortable to the inner aspect of wrist area (approximately 98.6° F [37° C] or body temperature).

3. Sit the patient in a chair appropriate for the procedure with the ear to be irrigated facing the nurse
4. Inspect both ears with the otoscope.
5. Place the protective cape and disposable towel in position, and ask the patient to hold the receiver under the ear.
6. Check your head light or mobile light is in place.
7. sitting at the same level as the patient when carrying out this procedure.
8. Gently pull the pinna upwards and outwards to straighten the meatus.
9. Place the tip of the nozzle into the external auditory meatus entrance. Nothing should be inserted into the ear further than the part that can be seen from the outside. Warn the patient that you are about to start and that if they have any symptoms of pain, dizziness or nausea
10. If you have not managed to remove the wax within 5minutes of irrigation, it may be worthwhile moving on to the other ear, as the introduction of water via the irrigating procedure will soften the wax and you can retry irrigation after about 15minutes
11. Periodically inspect the meatus with the auriscope and inspect the solution running into the receiver.
12. After removal of the wax, ask the patient to dry mop the excess water from the meatus. Dry mop excess water from meatus under direct vision because stagnation of water and any abrasion of the skin during the procedure may predispose the otitis externa to infection.

Irrigating the Eye (Conjunctival Irrigation)

EQUIPMENT

- An eyedropper, aseptic bulb syringe, or plastic bottle with prescribed solution depending on the extent of irrigation needed (usually more than 1,000 mL for each eye)
- For copious use (ie, chemical burns), sterile normal saline or prescribed solution and I.V. setup with attached tubing
- Irrigating lens for chemical injury (contraindicated for particulate matter)
- Litmus paper
- Basin, towels

Preparation

1. Verify the eye to be irrigated and the solution and amount of irrigant. Work as quickly as possible and have equipment ready ahead of time, if chemical injury is suspected.
2. The patient may sit with head tilted back or lie in a supine position.
3. Instruct the patient to tilt head toward the side of the affected eye.

Procedure

1. Test pH using plain litmus paper in cul de sac of affected eye.
2. Wash eyelashes and lids with prescribed solution at room temperature; a curved basin should be placed on the affected side of the face to catch the outflow.
3. Evert the lower conjunctival sac. (If feasible, have the patient pull down lower lid with index finger.)
4. Instruct the patient to look up; avoid touching eye with equipment.
5. Allow irrigating fluid to flow from the inner canthus to the outer canthus along the conjunctival sac.
6. Use only enough force to flush secretions from conjunctiva. (Allow patient to hold receptacle near the eye to catch fluid.)
7. Occasionally, have patient close eyes.
8. Wait 1 minute after irrigation and retest pH.
9. Pat eye dry and dry the patient's face with a soft cloth.
10. Record kind and amount of fluid used as well as its effectiveness

Assisting the Patient Undergoing Suprapubic Bladder Drainage (Cystostomy)

EQUIPMENT

- Sterile suprapubic drainage system package (disposable)
- Skin germicide for suprapubic skin preparation; sterile gloves
- Local anesthetic agent if needed

Procedure

1. Place patient in a supine position with one pillow under head.
2. Expose the abdomen.
3. The bladder is distended with 300–500 mL sterile saline in a urethral catheter, which is removed, or patient is given fluids (PO or I.V.) before the procedure.
4. The suprapubic area is surgically prepared. After the skin is dried, the needle entry point is located.
5. The skin and subcutaneous tissues are infiltrated with local anesthesia.
6. A small incision may be made.
7. The catheter is introduced via a guide wire, needle, or cannula through the incision and advanced in a slightly caudal direction.
8. The catheter is advanced until the flange is against the skin where it is secured with tape, a body seal system, or sutures.
9. The catheter is connected to a sterile drainage system. Secure drainage tubing to lateral abdomen with tape.
10. If the catheter is not draining properly, withdraw the catheter 1 inch (2.5 cm) at a time until urine begins to flow. Do not dislodge catheter from bladder.
11. The drainage is maintained continuously for several days. If a “trial of voiding” is requested, the catheter is clamped for 4 hours.
 - a. Have patient attempt to void while the catheter is clamped.
 - b. After patient voids, unclamp the catheter and measure residual urine.
 - c. Usually, if the amount of residual urine is less than 100 mL on two separate occasions (AM and PM), the catheter may be removed.
 - d. If the patient complains of pain or discomfort, or if the residual urine is over the prescribed amount, the catheter is usually left open. When the catheter is removed, a sterile dressing is placed over the site. Usually the tract will close within 48 hours.
11. Monitor of complications

Assisting the Patient Undergoing (Acute) Peritoneal Dialysis*

EQUIPMENT

- _ Dialysis administration set (disposable, closed system)
- _ Peritoneal dialysis solution as requested
- _ Supplemental drugs as requested
- _ Local anesthesia
- _ Central venous pressure monitoring equipment
- _ Suture set
- _ Sterile gloves
- _ Skin antiseptic

Procedure

1. Prepare patient emotionally and physically for the procedure.
2. Ensure that the consent form has been signed.
3. Weigh patient before dialysis and every 24 hours thereafter, preferably on an in-bed scale.
4. Take temperature, pulse, respiration, and blood pressure readings before dialysis.
5. Have patient empty bladder.
6. Flush the tubing with dialysis solution.
7. Make patient comfortable in a supine position. Have

Performance phase

The following is a brief summary of the method of insertion of a temporary peritoneal catheter (*done under strict asepsis*).

1. The abdomen is prepared surgically, and the skin and subcutaneous tissues are infiltrated with a local anesthetic.
2. A small midline incision is made 1 1/4 to 2 inches (3–5 cm) below the umbilicus
3. The trocar is inserted through the incision with the stylet in place, or a thin stylet cannula may be inserted percutaneously

4. Patient is requested to raise head from the pillow after the trocar is introduced
5. When the peritoneum is punctured, the trocar is directed toward the left side of the pelvis. The stylet is removed, and the catheter is inserted through the trocar and maneuvered into position
 - a. Dialysis fluid is allowed to run through the catheter while it is being positioned

6. After the trocar is removed, the skin may be closed with a purse-string suture. (This is not always done.) A sterile dressing is placed around the catheter
7. Attach the catheter connector to the administration set, which has been previously connected to the container of
8. Drugs (heparin, potassium, antibiotic) are added in advance
9. Permit the dialyzing solution to flow unrestricted into
10. Allow the fluid to remain in the peritoneal cavity for the prescribed time period (20–30 minutes). Prepare the next exchange while the fluid is in the peritoneal cavity.
11. Unclamp the outflow tube. Drainage should take approximately 20–30 minutes, although the time varies with each patient.
12. Check outflow for cloudy appearance, blood, or fibrin.
13. If the fluid is not draining properly, move patient from side to side to facilitate the removal of peritoneal drainage. The head of the bed may also be elevated.
14. Ascertain catheter patency. Check for closed clamp, kinked tubing, or air lock. *Never push the catheter in.*
15. When the outflow drainage ceases to run, clamp off the drainage tube and infuse the next exchange, using strict aseptic technique
16. Take blood pressure and pulse every 15 minutes during the first exchange and every hour thereafter. Monitor the heart rate for signs of dysrhythmia.
17. Take patient's temperature every 4 hours (especially after catheter removal).
18. The procedure is repeated until the blood chemistry levels improve. The usual duration for short-term dialysis is 48–72 hours. Depending on patient's condition, 48–72 exchanges will be necessary.
19. Keep an exact record of patient's fluid balance during the treatment.
 - a. Know the status of patient's loss or gain of fluid at the end of each exchange. Check dressing for leakage and weight on gram scale if significant.
 - b. The fluid balance should be about even or should show slight fluid loss or gain, depending on patient's fluid status.
20. Promote patient comfort during dialysis.
 - a. Provide frequent back care and massage pressure areas
 - b. Have patient turn from side to side.
 - c. Elevate head of bed at intervals.

d. Allow patient to sit in chair for brief periods if condition permits (only with surgically implanted catheter; with trocar, patient is usually on bed rest).

21. Observe for the following:

a. Abdominal pain—note the time of discomfort during exchange cycle and duration of symptoms.

b. Dialysate leakage—change the dressings frequently, being careful not to dislodge the catheter; use sterile plastic drapes to prevent contamination.

Procedure 1

Assisting the Patient Undergoing Lumbar Puncture

No	Procedure Steps	Performed		
		Yes	No	
A	Preparation			
1	Before procedure, the patient should empty bladder and/or bowel.			
2	Give a step-by-step summary of the procedure. For lying position,			
3	If patient has signs of increased intracranial pressure, a computed tomography scan should be done to rule out mass effect.			
4	Position the patient on side with a small pillow under head and a pillow between legs. Patient should be lying on a firm surface.			
5	Position the patient on side with a small pillow under head and a pillow between legs. Patient should be lying on a firm surface.			
6	Assist the patient in maintaining this position by supporting behind the knees and neck. Assist the patient to maintain the posture throughout the examination.			
7	Alternately, for sitting position, have the patient straddle a straight-back chair (facing the back) and rest head against arms, which are folded on the back of the chair.			
C	Procedure			
1	The skin is prepared with antiseptic solution (avoiding use of chlorhexidine), and the skin and subcutaneous spaces are infiltrated with local anesthetic agent.			
2	A spinal needle is introduced at the L3-L4 interspace. The needle is advanced until the “give” of the ligamentum flavum is felt and the needle enters the subarachnoid space. The manometer is attached to the spinal needle.			
3	After the needle enters the subarachnoid space, help the patient to slowly straighten up.			

4	Instruct the patient to breathe quietly (not to hold breath or strain) and not to talk.			
5	The initial pressure reading (opening pressure) is obtained by measuring the level of the fluid column after it comes to rest.			
6	About 2 to 3 mL of spinal fluid is placed in each of three test tubes for observation, comparison, and laboratory analysis. Spinal fluid should be clear and colorless.			
7	Closing pressure is the pressure on the manometer after the CSF specimen is collected and/or excess CSF removed.			
8	After the procedure, the patient is instructed to remain flat for about 2 hours.			
9	Ensure adequate hydration with oral or parenteral fluids.			
10	Monitor for spinal headache, and observe for CSF leak.			

Procedure 2

Bone Marrow Aspiration and Biopsy

EQUIPMENT

- Bone marrow aspiration tray
- Marrow aspiration needles with stylets
- Towels
- 25G and 22G needles
- Two 25-mL syringes
- Three 5-mL syringes
- Local anesthetic (1% procaine or Xylocaine)
- Sterile gauze squares
- Sterile gloves, drape
- Skin antiseptic
- Masks and protective eyewear for physician and nurse (check your facility's policy)
- Laboratory equipment
- Coverslips
- Microscopic slides
- Test tubes (plain and heparinized)
- Scalpel blade and handle

No	Procedure Steps	Performed		CLO
		Yes	No	
A	Preparation			
	Explain the procedure to the patient. Tell patient when the skin will be marked, antiseptic applied, and the needle puncture performed.			
	Give analgesic or tranquilizer as requested, 30 minutes before procedure. May not be necessary for aspiration.			
	Place the patient in prone or supine position.			
	The following sites are most commonly used: a. Posterior superior iliac crest b. Anterior iliac crest (if patient is very obese)			
	Iliac crest aspiration/biopsy			
1	Position the patient on the abdomen (prone) or on side with top knee flexed			
2	The posterior iliac crest is located and marked			
3	The skin area is prepared and draped. The marked area is infiltrated with local anesthetic through the skin and subcutaneous tissue to the periosteum of the bone.			

4	A small incision may be made.			
5	The bone marrow needle, with stylet in place, is introduced through the incision.			
6	The needle is advanced and rotated by using firm and steady pressure. When the needle is felt to enter the outer cortex of the bone marrow cavity, the stylet is removed and the syringe attached. Negative pressure is applied, and a small volume of blood and marrow is aspirated.			
7	A biopsy is taken by using a special needle equipped with a sharp cutting edge and a hollow core.			
8	After removal of needle, apply pressure to site and dressing.			

Procedure 3

Irrigating the External Auditory Canal

EQUIPMENT AND SOLUTIONS

- Kind and amount of solution desired (usually warm water)
- Ear syringe and irrigation device
- Protective towels
- Cotton balls and cotton-tipped applicators
- Solution bowl or emesis basin
- Bag for disposable items

No	Procedure Steps	Performed		Comments
		Yes	No	
A	Preparation			
	After explaining procedure to the patient, place in a position of sitting or lying with head tilted forward and toward affected ear.			
	Position protective towels.			
B	Procedure			
	Use a cotton applicator to remove any discharge on outer ear.			
	Place basin close to the patient's head and under the ear.			
	Test temperature of solution. It should be comfortable to the inner aspect of wrist area (approximately 98.6° F [37° C] or body temperature).			
	d) Wash hands			
	Sit the patient in a chair appropriate for the procedure with the ear to be irrigated facing the nurse			
	Inspect both ears with the otoscope			
	Place the protective cape and disposable towel in position, and ask the patient to hold the receiver under the ear.			
	Check your head light or mobile light is in place			
	sitting at the same level as the patient when carrying out this procedure			
	Gently pull the pinna upwards and outwards to straighten the meatus			

	<p>Place the tip of the nozzle into the external auditory meatus entrance. Nothing should be inserted into the ear further than the part that can be seen from the outside. Warn the patient that you are about to start and that if they have any symptoms of pain, dizziness or nausea</p> <p>If you have not managed to remove the wax within 5minutes of irrigation, it may be worthwhile moving on to the other ear, as the introduction of water via the irrigating procedure will soften the wax and you can retry irrigation after about 15minutes</p>			
	<p>Periodically inspect the meatus with the auriscope and inspect the solution running into the receiver.</p>			
	<p>After removal of the wax, ask the patient to dry mop the excess water from the meatus. Dry mop excess water from meatus under direct vision because stagnation of water and any abrasion of the skin during the procedure may predispose the otitis externa to infection.</p>			

Procedure 4

Irrigating the Eye (Conjunctival Irrigation)

EQUIPMENT

- An eyedropper, aseptic bulb syringe, or plastic bottle with prescribed solution depending on the extent of irrigation needed (usually more than 1,000 mL for each eye)
- For copious use (ie, chemical burns), sterile normal saline or prescribed solution and I.V. setup with attached tubing
- Irrigating lens for chemical injury (contraindicated for particulate matter)
- Litmus paper
- Basin, towels

No	Procedure Steps	performed		Comments
		Yes	No	
A	Preparation			
	Verify the eye to be irrigated and the solution and amount of irrigant. Work as quickly as possible and have equipment ready ahead of time, if chemical injury is suspected.			
	The patient may sit with head tilted back or lie in a supine position.			
	Instruct the patient to tilt head toward the side of the affected eye.			
B	Procedure			
1.	Test pH using plain litmus paper in cul de sac of affected eye.			
2.	Wash eyelashes and lids with prescribed solution at room temperature; a curved basin should be placed on the affected side of the face to catch the outflow.			
3.	Evert the lower conjunctival sac. (If feasible, have the patient pull down lower lid with index finger.)			
4.	Instruct the patient to look up; avoid touching eye with equipment.			
5.	Allow irrigating fluid to flow from the inner canthus to the outer canthus along the conjunctival sac.			
6.	Use only enough force to flush secretions from conjunctiva.(Allow patient to hold receptacle near the eye to catch fluid.)			
7.	Occasionally, have patient close eyes.			
8.	Wait 1 minute after irrigation and retest pH.			
9.	Pat eye dry and dry the patient's face with a soft cloth.			
10.	Record kind and amount of fluid used as well as its effectiveness.			

Procedure 5

Assisting the Patient Undergoing Suprapubic Bladder Drainage (Cystostomy)

EQUIPMENT

- Sterile suprapubic drainage system package (disposable)
- Skin germicide for suprapubic skin preparation; sterile gloves
- Local anesthetic agent if needed

No	Procedure Steps	Performed		Comments
		Yes	No	
A	Procedure			
1.	Place patient in a supine position with one pillow under head.			
2.	Expose the abdomen.			
3.	The bladder is distended with 300–500 mL sterile saline in a urethral catheter, which is removed, or patient is given fluids (PO or I.V.) before the procedure.			
4.	The suprapubic area is surgically prepared. After the skin is dried, the needle entry point is located.			
5.	The skin and subcutaneous tissues are infiltrated with local anesthesia.			
6.	A small incision may be made.			
7.	The catheter is introduced via a guide wire, needle, or cannula through the incision and advanced in a slightly caudal direction.			
8.	The catheter is advanced until the flange is against the skin where it is secured with tape, a body seal system, or sutures.			
9.	The catheter is connected to a sterile drainage system.			
10.	Secure drainage tubing to lateral abdomen with tape.			
11.	If the catheter is not draining properly, withdraw the catheter 1 inch (2.5 cm) at a time until urine begins to flow. Do not dislodge catheter from bladder.			
12.	The drainage is maintained continuously for several days.			
13.	If a “trial of voiding” is requested, the catheter is clamped for 4 hours. a. Have patient attempt to void while the catheter is clamped. b. After patient voids, unclamp the catheter and measure residual urine.			

	<p>c. Usually, if the amount of residual urine is less than 100 mL on two separate occasions (AM and PM), the catheter may be removed.</p> <p>d. If the patient complains of pain or discomfort, or if the residual urine is over the prescribed amount, the catheter is usually left open.</p>			
14.	When the catheter is removed, a sterile dressing is placed over the site. Usually the tract will close within 48 hours.			
15.	Monitor for complications.			

Procedure 6

Assisting the Patient Undergoing (Acute) Peritoneal Dialysis

EQUIPMENT

- _ Dialysis administration set (disposable, closed system)
- _ Peritoneal dialysis solution as requested
- _ Supplemental drugs as requested
- _ Local anesthesia
- _ Central venous pressure monitoring equipment
- _ Suture set
- _ Sterile gloves
- _ Skin antiseptic

No	Procedure Steps	Performed		Comments
		Yes	No	
A	Procedure			
	1. Prepare patient emotionally and physically for the procedure.			
	2. Ensure that the consent form has been signed.			
	3. Weigh patient before dialysis and every 24 hours thereafter, preferably on an in-bed scale.			
	4. Take temperature, pulse, respiration, and blood pressure readings before dialysis.			
	5. Have patient empty bladder.			
	6. Flush the tubing with dialysis solution.			
	7. Make patient comfortable in a supine position. Have			
	Performance phase			
	The following is a brief summary of the method of insertion of a temporary peritoneal catheter (<i>done under strict asepsis</i>).			
	1. The abdomen is prepared surgically, and the skin and subcutaneous tissues are infiltrated with a local anesthetic.			
	2. A small midline incision is made 1 1/4 to 2 inches (3–5 cm) below the umbilicus.			
	3. The trocar is inserted through the incision with the stylet in place, or a thin stylet cannula may be inserted percutaneously.			
	4. Patient is requested to raise head from the pillow after the trocar is introduced.			
	5. When the peritoneum is punctured, the trocar is directed toward the left side of the pelvis. The stylet is removed, and the catheter is inserted through the trocar and maneuvered into position.			

	a. Dialysis fluid is allowed to run through the catheter while it is being positioned.			
	6. After the trocar is removed, the skin may be closed with a purse-string suture. (This is not always done.) A sterile dressing is placed around the catheter.			
	7. Attach the catheter connector to the administration set, which has been previously connected to the container of Drugs (heparin, potassium, antibiotic) are added in advance			
	9. Permit the dialyzing solution to flow unrestricted into			
	10. Allow the fluid to remain in the peritoneal cavity for the prescribed time period (20–30 minutes). Prepare the next exchange while the fluid is in the peritoneal cavity.			
	11. Unclamp the outflow tube. Drainage should take approximately 20–30 minutes, although the time varies with each patient.			
	12. Check outflow for cloudy appearance, blood, or fibrin.			
	13. If the fluid is not draining properly, move patient from side to side to facilitate the removal of peritoneal drainage. The head of the bed may also be elevated.			
	14. Ascertain catheter patency. Check for closed clamp, kinked tubing, or air lock. <i>Never push the catheter in.</i>			
	15. When the outflow drainage ceases to run, clamp off the drainage tube and infuse the next exchange, using strict aseptic technique			
	16. Take blood pressure and pulse every 15 minutes during the first exchange and every hour thereafter. Monitor the heart rate for signs of dysrhythmia.			
	17. Take patient's temperature every 4 hours (especially after catheter removal).			
	18. The procedure is repeated until the blood chemistry levels improve. The usual duration for short-term dialysis is 48–72 hours. Depending on patient's condition, 48–72 exchanges will be necessary.			
	19. Keep an exact record of patient's fluid balance during the treatment			
	a. Know the status of patient's loss or gain of fluid at the end of each exchange. Check dressing			

	for leakage and weight on gram scale if significant.			
	b. The fluid balance should be about even or should show slight fluid loss or gain, depending on patient's fluid status.			
	20.Promote patient comfort during dialysis.			
	a. Provide frequent back care and massage pressure areas			
	b. Have patient turn from side to side.			
	c. Elevate head of bed at intervals.			
	d. Allow patient to sit in chair for brief periods if condition permits (only with surgically implanted catheter; with trocar, patient is usually on bed rest).			
	21.Observe for the following:			
	a. Abdominal pain—note the time of discomfort during exchange cycle and duration of symptoms.			
	b. Dialysate leakage—change the dressings frequently, being careful not to dislodge the catheter; use sterile plastic drapes to prevent contamination.			
	c. Place the patient in a more upright position and use smaller fluid volumes to try to relieve pain and leakage.			

Procedure 7

Check List For Cast Application

No	Procedure Steps	Performed		Comments
		yes	no	
1	Review the medical record and medical orders to determine the need for the cast.			
2	Perform hand hygiene. Put on gloves and/or other PPE, as indicated.			
3	Identify the patient. Explain the procedure to the patient and verify area to be casted.			
4	Perform a pain assessment and assess for muscle spasm. Administer prescribed medications in sufficient time to allow for the full effect of the analgesic and/or muscle relaxant.			
5	Close curtains around bed and close the door to the room, if possible. Place the bed at an appropriate and comfortable working height, if necessary.			
6	Position the patient as needed, depending on the type of cast being applied and the location of the injury. Support the extremity or body part to be casted.			
7	Drape the patient with the waterproof pads.			
8	Cleanse and dry the affected body part.			
9	Position and maintain the affected body part in the position indicated by the physician as the stockinette, sheet wadding, and padding is applied. The stockinette should extend beyond the ends of the cast. As the wadding is applied, check for wrinkles.			
10	Continue to position and maintain the affected body part in the position indicated by the physician or advanced practice professional as the casting material is applied. Assist with finishing by folding the stockinette or other padding down over the outer edge of the cast.			
11	<i>Support the cast during hardening.</i> Handle hardening plaster casts with the palms of hands, not fingers. Support the cast on a firm, smooth surface. Do not rest it on a hard surface or sharp edges. Avoid placing pressure on the cast.			
12	<i>Elevate the injured limb above heart level with pillow or bath blankets, as ordered, making sure pressure is evenly distributed under the cast.</i>			

13	Place the bed in the lowest position, with the side rails up. Make sure the call bell and other necessary items are within easy reach.			
14	Remove gloves and any other PPE, if used. Perform hand hygiene.			
15	Obtain x-rays, as ordered.			
16	Instruct the patient to report pain, odor, drainage, changes in sensation, abnormal sensation, or the inability to move fingers or toes of the affected extremity.			
17	Leave the cast uncovered and exposed to the air. Reposition the patient every 2 hours. Depending on facility policy, a fan may be used to dry the cast.			

Procedure 8

CHECK LIST FOR CAST REMOVAL

No	Procedure Steps	Performed		Comments
		Yes	No	
1	Review the medical record and medical orders to determine the need to remove the cast.			
2	Identify the patient. Explain the procedure to the patient			
3	Assemble all the necessary articles			
4	Determine where the cut will be made. Mark the area to be cut with a felt pen.			
5	Close curtains around bed and close the door to the room, if possible. Place the bed at an appropriate and comfortable working height, if necessary.			
6	Inform the patient to shield eyes.			
7	Grasp the electric cutter as illustrated.			
8	Rest the thumb on the cast.			
	Turn on the electric cutter. Push the blade firmly and gently through the cast while holding the thumb against the cast to steady the blade while cutting through the cast.			
9	Cut the cast on both sides.			
	Separate the cast with the hands.			
10	Cut through the padding and stockinette with scissors			
11	Lift the extremity carefully out of the posterior portion of the cast			
	Clean the skin gently with mild soap and water. Blot dry. Apply a skin cream			
12	Remove gloves and any other PPE, if used. Perform hand hygiene.			
13	Remove gloves and any other PPE, if used. Perform hand hygiene.			
14	Emphasize the importance of continuing the prescribed exercises			
15	Record the procedure			

Procedure 9

CHECK LIST FOR APPLICATION OF TRACTION

No	Procedure Steps	Performed		Comments
		yes	No	
1	Review the medical record and the nursing plan of care to determine the type of traction being used and care for the affected body part.			
2	Perform hand hygiene. Put on PPE, as indicated.			
3	Identify the patient. Explain the procedure to the patient, emphasizing the importance of maintaining counterbalance, alignment, and position.			
4	Perform a pain assessment and assess for muscle spasm. Administer prescribed medications in sufficient time to allow for the full effect of the analgesic and/or muscle relaxant.			
5	Close curtains around bed and close the door to the room, if possible. Place the bed at an appropriate and comfortable working height.			
6	Ensure the traction apparatus is attached securely to the bed. Assess the traction setup.			
7	Check that the ropes move freely through the pulleys. Check that all knots are tight and are positioned away from the pulleys. Pulleys should be free from the linens.			
8	Place the patient in a supine position with the foot of the bed elevated slightly. The patient's head should be near the head of the bed and in alignment.			
9	Cleanse the affected area. Place the elastic stocking on the affected limb, as appropriate.			
10	Place the traction boot over the patient's leg. Be sure the patient's heel is in the heel of the boot. Secure the boot with the straps.			
11	Attach the traction cord to the footplate of the boot. Pass the rope over the pulley fastened at the end of the bed. Attach the weight to the hook on the rope, usually 5 to 10 pounds for an adult. Gently let go of the weight. <i>The weight should hang freely, not touching the bed or the floor.</i>			
12	<i>Check the patient's alignment with the traction.</i>			
13	<i>Check the boot for placement and alignment. Make sure the line of pull is parallel to the bed and not angled downward.</i>			

14	Place the bed in the lowest position that still allows the weight to hang freely.			
15	Remove PPE, if used. Perform hand hygiene.			