

# Clinical Procedures Resource Guide

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Programs: Hospice

PROCEDURE: Venipuncture \*

EQUIPMENT: Tourniquet  
Vacutainer, Vacutainer needles or syringe with needle  
Blood specimen tubes  
Alcohol prep pads  
Gauze pad  
Band-aid  
Non-sterile gloves  
Sharps Container

\* This procedure may only be performed by a nurse who has completed the agency's competency testing for venipuncture for the purpose of drawing blood.

\*\* Call patient day before if any special preparations for venipuncture are necessary (i.e. fasting)

\*\* Assess patient for possible risks associated with venipuncture: anticoagulant therapy, low platelet count, bleeding disorders.

PROCEDURE:

1. Follow pre-procedure protocol.
2. Select site carefully.
  - A. Preferred sites are the larger median cubital and cephalic veins of the arm or the dorsal wrist and hand veins.
  - B. Avoid using an arm on the side of a previous mastectomy or edematous extremities if possible.
  - C. Avoid drawing blood from the same arm in which IV fluids are being administered.
3. Measures to distend vein include the following:
  - A. Have patient make a fist.
  - B. Place patient's arm in dependent position.
  - C. Tap area gently.
  - D. Apply warm compresses.
  - E. Have patient pump fist.
4. Apply tourniquet 5 to 10 cm. above site in a manner that it can be removed by pulling an end with a single motion. Do not keep on patient longer than one minute.
5. Prep site with alcohol pad and wipe with sterile gauze or allow drying.
6. With bevel of needle up, insert needle into vein at a 15 to 30 degree angle either through
  - A. the top of vein (advancing needle into vein)
  - B. through side of vein.
  - C. Use thumb of opposite hand to anchor vein below site for drawing blood. **Do not attempt more than three venipunctures.** Call for assistance or to report difficulty in obtaining specimen.
7. Gently push specimen tubes into Vacutainer holder until tubes fill to capacity.

\*\*\*NOTE: If you are using a winged collection device, always fill a blue top tube second. The first tube may be wasted or used for another test.

8. Remove tourniquet.
9. Remove needle from vein; elevate patient's arm, keeping it straight. Apply pressure to site with gauze pad for 2-3 minutes or until bleeding stops. (Apply pressure for 5 minutes if patient is on anti-

**Programs: Hospice**

- coagulant therapy.)
10. Observe for hematoma
  11. Apply band-aid.
  12. Gently rotate all tubes
  13. Dispose of used material in sharps container.
  14. Wash hands.
  15. Label tubes with the following:
    - A. Patient's name
    - B. Date/Time
  16. Place tubes in a biohazard labeled plastic bag with lab requisition. Keep in a safe, cool place, avoiding direct sunlight, and deliver to laboratory as soon as possible.
  17. Document the following:
    - A. Procedure performed
    - B. Location of venipuncture
    - C. Type of specimen drawn
    - D. Number of attempts at venipuncture if more than one
    - E. Patient's tolerance of procedure
    - F. Name of laboratory the specimen was delivered to
  18. The lab results will come to the fax machine in the clinical area.
  19. The nurse will fax results to physician.
  20. Nurse receiving lab results will document nursing plan for follow-up
  21. Laboratory test results will be kept in the patient's chart.

Updated: 2011, 8/14

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**Programs: Hospice, Care Connections**

**CLINICAL PROCEDURE: Blood Glucose Specimen – Collection and Handling**

**EQUIPMENT:** FDA approved glucose Monitoring Device  
Non-sterile gloves  
Alcohol preps  
Lancet  
Blood Lancet Device  
Sharps Container  
Test strips

**PROCEDURE:**

1. Follow pre-procedure protocol.
2. Cleanse fingertip with alcohol prep.
3. Allow alcohol to dry completely.
4. Press the lancet against the side of the finger.
5. Squeeze the finger to get a large sized, hanging drop of blood.
6. Apply a blood sample to the test strip and follow manufacturer's instructions.
7. Dispose of lancet in Sharps container.
8. Remove gloves and wash hands.
9. Document blood glucose level.

Revised: 8/02  
Reviewed: 12/11, 8/14

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**Programs: Hospice**

**POLICY: Initiation of Peripheral IV Catheter**

1. Unless otherwise ordered by the patient's physician:
  - a. The peripheral IV catheter will be changed every 96 hours and prn for complications.
  - b. A peripheral IV catheter may dwell greater than 96 hours if
    - 1) the IV nurse can document that the pt. has compromised IV access;
    - 2) the patient refuses to have a new IV site established;
    - 3) the present IV site is without signs and symptoms that indicate possible complications
    - 4) a physician's order is obtained to indicate extended dwell time and
    - 5) the patient or caregiver is competent to observe for signs and symptoms of complications and intervene appropriately.
  - c. A catheter dressing, cap, and "extension" will be changed with every peripheral IV catheter site change. Pediatric patient changes will be at the discretion of RN depending on age and cooperation of child related to risk of losing site.
2. Restart IV at the first sign of phlebitis or infiltration.
3. Perform subsequent venipunctures proximal to a previous venipuncture.
4. A peripheral IV should dwell no longer than seven days in an adult patient without an additional physician's order. The criteria in 1.b. must continue to be met for a dwelltime greater than seven days.

**EQUIPMENT:**

- (1) IV Start Kit (includes nonsterile gloves)
- (1-2) IV Catheters (20, 22, 24, or 26 gauge)
- (1) Extension (optional), primed with 0.9% NaCl (T-Connector Extension for Pediatrics)
- (1) Needleless Connector Cap
- (1) Pre-filled syringe of normal saline

**PROCEDURE:**

1. Follow Pre-procedure protocol
2. Position patient in position of comfort that enables IV nurse to visualize and palpate veins for potential venipuncture.
3. Open and assemble necessary equipment. Select a catheter gauge based on vein size, dwell time needed, and the infusate.
  - A. The standard IV catheter for use is the 22 gauge. Catheter size will be determined on the condition of the patient and use of the IV. The 20 gauge catheters are used for blood and blood product administration or high volume administration. A 26 gauge catheter will be used for pediatric patients.
  - B. Butterfly needles may be used **ONLY** for one-time or short-term bolus infusions for which the nurse will be in the home during the infusion.
4. Apply tourniquet approximately 4-6" above venipuncture site and assess vein for venipuncture. (A tourniquet may not be necessary for those with fragile veins.) A size

appropriate tourniquet for pediatric patients is usually 1/2 width normal size tourniquet. Remove the tourniquet once the vein is selected.

5. Select a vein that is:
  - a. straight and smooth without palpable knots or bifurcations.
  - b. located in the non-dominant hand
  - c. distal
  - d. proximal to a previous venipuncture.
  - e. not in an extremity that is edematous or impaired
6. Prep venipuncture site with an alcohol prep pad in a concentric motion inside to outside, completing a two inch circle for 30 seconds. Allow alcohol to dry for two minutes.
  - a. Excess hair should be clipped, never shaved.
7. Repeat site preparation with povidone iodine prep pad and allow to dry for two minutes.
8. Apply tourniquet and apply nonsterile gloves.
9. Pick up catheter.
10. Hold the skin surrounding the vein taut with thumb in a downward fashion to secure the vein and prevent rolling.
11. Pierce through the skin into the vein, bevel up at a 30 – 15 degree angle on one clean brisk sweeping motion.

\*\*The nurse will make no more than three attempts to establish IV access before calling for assistance.

12. Observe for blood in the flashback chamber.
13. Advance catheter slightly with the stylet intact.
14. Pull back the stylet slightly and advance the catheter into the vein to the hub.
15. Secure the catheter wing with tape provided in the start kit in an “H” pattern.
16. Place index finger over catheter tip (through the skin) to occlude the blood flow.
17. Remove the stylet and attach and secure a cap, or 4” primed extension with cap to the catheter hub.
18. Cover IV catheter entrance site with a transparent dressing.
19. Flush catheter with 3 cc normal saline.
20. Secure the cap to arm/hand with additional tape as needed.
21. Label IV site with label provided in IV start kit. Label to include: date, time IV catheter gauge and length, and RN’s initials who inserted IV catheter.
22. RN documents vein cannulation procedure and includes:
  - a. Catheter gauge and length
  - b. IV site location/vein used for cannulation
  - c. Problems encountered, attempts made
  - d. Patient response to procedure
  - e. Site assessment after procedure
23. The patient and/or caregiver will be taught site observation and applicable troubleshooting procedures.

## Updated 2011

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Programs: Hospice, Care Connections

**PROCEDURE:** Peripheral IV Continuous Infusion

**EQUIPMENT:** Infusion pump  
IV solution  
IV tubing  
IV tubing label  
Needleless connector (injection cap port)  
Normal saline for irrigation of catheter  
3cc syringe/needle attached  
Alcohol wipes  
Tape, 1-inch width  
Gloves  
Sharps disposal container

**PROCEDURE:**

1. Perform Pre-procedure Protocol.
2. Spike IV solution container with IV tubing, and follow manufacturer's instructions for priming the IV tubing. Close the roller clamp on IV tubing.
3. Scrub the injection cap port with alcohol for 45 seconds. Allow to dry.
4. Irrigate the catheter with the prescribed amount of normal saline to assure patency.
5. Remove cap end of tubing at the male luerloc and insert in the center of prepared injection cap port.
6. Secure the injection cap port -- IV tubing connection with a 2" strip of 1" width tape. Tab the ends before applying the tape.
7. Start continuous infusion
  - A. Turn on the infusion pump that has been preset to the correct infusion rate. Note time and document on tape on bag.
  - B. Turn dial to the appropriate rate for flow controller.
10. Secure the IV tubing to the patient's arm with additional tape if necessary to prevent direct traction on the catheter or the patient's tissues.
11. Document in the patient's medical record:
  - a. Condition of site
  - b. Type of fluid
  - c. Rate of infusion
  - d. Infusion device

**Updated:** 1/2011

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Programs: Hospice, Care Connections

**PROCEDURE:** Peripheral Catheter Discontinuation

**EQUIPMENT:** Non-sterile Gloves  
2x2 sterile gauze sponges (2)  
Adhesive bandage  
Needle disposal container  
Alcohol Swaps

**PROCEDURE:**

1. Follow Pre-procedure Protocol
2. Don non-sterile gloves.
3. Open sterile gauze and band-aid.
4. Remove transparent dressing and all tape from cannula, being careful not to disturb cannula.
5. Hold catheter, clean site with antimicrobial swab. Allow to dry.
6. Place sterile gauze above the site, grasp the hub of the cannula and gently pull back, using a slow steady motion, keeping the hub parallel to the skin, removing the entire length of the cannula.

**\*\*NOTE:** Be careful not to raise up on the cannula before it is completely out of vein.

Hematomas occur when the cannula or needle is carelessly removed and render veins

7. Apply pressure instantly and firmly with sterile gauze for 2-3 minutes.

**\*\*NOTE:** If anticoagulants have been used, apply pressure for 5 minutes or until it can be

8. Inspect catheter for intactness.
9. Apply small adhesive bandage such as band-aid after pressure has been applied and the bleeding has stopped.
10. Wash hands.
11. Document in the patient's Medical Record
  - a. Procedure
  - b. Condition of site
12. Notify physician of significant findings.

**Updated: 1/2011**

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Programs: Hospice, Care Connections

**PROCEDURE:** Peripheral IV - Dressing Change and Site Care

**POLICY:** Peripheral IV site dressing is to be changed with the site change every 96 hours (4 days) and whenever it is wet, soiled, dislodged or non-occlusive.

**EQUIPMENT:** Alcohol swab  
Povidone-iodine sponge  
Transparent Semipermeable Membrane (TSM) dressing 1-inch tape  
Non-sterile gloves  
Plastic bag

**PROCEDURE:**

1. Follow pre-procedure protocol
2. Don gloves.
3. Remove the existing dressing carefully to avoid dislodging catheter and to minimize trauma to the vein.
4. Discard the dressing and gloves in plastic bag.
5. Examine the site for inflammation, exudate, or infiltration.
  - A. If changing dressing before the 96 hours and any of these conditions are present, remove the catheter and select a new access site.
6. Stabilize the device with the non-dominant hand.
7. Carefully scrub the site with the povidone-iodine sponge using a circular motion, beginning at the needle or catheter exit site and moving away from the site.
8. Repeat step 7 using the alcohol sponge. Allow to dry.
9. Apply the transparent dressing over the insertion site with the distal edge covering the connection of the cannula adapter and injection cap or extension tubing.
10. Slip the piece of 1/2 inch tape under the device at the edge of the transparent dressing, with the adhesive side facing up.
11. Cross the ends of the tape over the device in a chevron fashion and secure. Secure with additional tape as needed.
12. Remove gloves and wash hands.
13. Put label on dressing with date changed and nurse's initials.
13. Document the procedure including:
  - A. Date dressing changed
  - B. Date cannula inserted

**Updated: 1/2011**

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Programs: Hospice, Care Connections

**PROCEDURE:** Peripheral IV Intermittent Medication Administration Bolus Method

**POLICY:** Administer all medications in accordance with physician's orders regarding solution, frequency, and dose.  
Injection should be performed slowly to prevent side effects concomitant with rapid infusion.

**EQUIPMENT:** Alcoholwipes  
Medication to be administered in a syringe  
3cc syringes with normal saline

**PROCEDURE:**

1. Perform Pre-procedure Protocol
2. Check medication for accuracy and date of expiration.
3. Administer medication through needleless injection cap for **intermittent infusion:**
  - A. Cleanse needleless injection cap with alcohol. Allow to dry.
  - B. Irrigate catheter with 3cc of normal saline to assure patency. (Use 5cc if midline catheter in place.)
  - C. Insert luer loc of medication syringe into injection cap and slowly inject medication through injection cap per prescribed rate recommended by policy, pharmacist, or medication reference manual. Use a watch to time administration. Remove syringe.
  - D. Irrigate catheter with 3cc of normal saline to assure patency. (Use 5cc if midline catheter in place.). Administer normal saline at the same rate as the medication.
4. Document medication administration.

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Programs: Hospice, Care Connections

**PROCEDURE:** Central Venous Therapy - Management of Complications

**PROCEDURE:**

I. **Air Embolism** - possibly caused by the intake of air into the cardiovascular system during tubing changes or inadvertent opening, cutting or breaking of catheter.

A. Signs and Symptoms:

- Respiratory distress
- Unequal breath sounds
- Weak pulse
- Decreased blood pressure
- Churning murmur over precordium
- Change in, or loss of, consciousness

B. Nursing Interventions:

- Clamp catheter or fold over immediately.
- Turn patient on left side, head down so air can enter right atrium and be dispersed via pulmonary artery. Maintain position for 20 to 30 minutes.
- Don't have the patient hold his breath or bear down (as in having BM)
- Notify physician.
- Document interventions.

C. Prevention:

- Purge all air from syringes, tubing sets, needleless connectors and all other piece added to the catheter before hook up.
- Luer-locking connections will be used at all administration set junctions.
- Use air-eliminating filters proximal to patient.
- Use infusion-control device with air detection capability.
- Use Luer-lock tubing, tape connections, or use locking devices for all connections.

II. **Thrombosis** - possibly caused by a sluggish flow rate, composition of catheter material, pre-existing limb edema, infusion of irritating solutions, repeated or long term use of same vein or pre-existing cardiovascular disease.

A. Signs and Symptoms:

- Edema at puncture site
- Erythema
- Swelling of arm, neck and face
- Pain in the extremity, shoulder, neck or chest
- Engorged peripheral veins on the extremity, neck, shoulder, or chest wall.
- Difficulty with neck or extremity motion
- Fever, malaise
- Tachycardia

B. Nursing Interventions:

- Notify physician.
- Apply warm, wet compresses locally.
- Don't use limb on affected side for subsequent venipuncture.

- Document interventions.

C. Prevention:

- Maintain flow through catheter at steady rate with infusion pump, or flush as ordered.
- Encourage patient to use nonpharmacologic strategies for thrombosis prevention when possible including using cathed extremity by doing ADLS, gentle limb exercise and adequate hydration.

III. **Infection** - possibly caused by failure to maintain aseptic technique during catheter insertion or subsequent care, failure to comply with dressing change protocol, wet/soiled dressing remaining on site, contaminated infuscate, failure to maintain aseptic technique during solution hookup, immunosuppression or an irritated suture line.

A. Signs and Symptoms:

- Pain, redness, warmth, tenderness, swelling at insertion or exit site.
- Possible exudate or purulent material.
- Local rash or pustules.
- Fever, chills, malaise, nausea and vomiting
- Palpable venous cord

B. Nursing Interventions:

- Use the “Phlebitis Scale” to rank the severity of the phlebitis

Phlebitis Scale *	
Grade	Clinical Criteria
0	No Symptoms
1	Erythema at access site with or without pain
2	Pain at access site with erythema and/ or edema
3	Pain at access site Streak Formation Palpable venous cord
4	Pain at access Streak formation Palpable venous cord > 1 inch in length Purulent drainage

- Notify physician and, if ordered:
  - Culture site
  - Apply topical antibiotic ointment
  - Treat systemically with antibiotics and/or antifungal
  - Monitor vital signs
  - Redress aseptically
  - Document interventions

C. Prevention

- Maintain strict aseptic technique
- Adhere to dressing change protocols
- Change wet or soiled dressings prn

**Updated: 2/2011 Reference: Infusion Nursing Standards of Practice, 2011**

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Programs: Hospice, Care Connections

**PROCEDURE:** Saline Lock Irrigation

- POLICY:** Short Peripheral Catheters will be
- Irrigated (flushed) daily with 3 ml normal saline.
  - Flushed with 3ml normal saline pre and post medication administration and PRN.
  - Removed every 96 hours or as site requires

**\*\*Note:** Dwell time may be greater than 96 hours if the

- 1) nurse can document that the patient has compromised venous access;
- 2) patient refuses to have a new IV established;
- 3 present IV site is without signs and symptoms that indicate possible complications;

- EQUIPMENT:** Alcohol swabs  
3cc sterile normal saline in luer lock syringe  
Disposable gloves

**PROCEDURE:**

1. Assess site for edema, pain, warmth or discoloration.
2. Don gloves
3. Cleanse needleless connector (injection port) cap with alcohol. Allow to dry
4. Insert luer lock of syringe into cap.
5. Pull back gently on syringe plunger and check for blood return to check for placement.
6. Inject 3 ml normal saline through cap by pushing slowly on plunger.
7. Discard syringe in trash, remove gloves, and wash hands.
8. Document the following:
  - a. assessment of site
  - b. time of irrigation
  - c. route and amount of normal saline

Update: 2/2011

Reference: Infusion Nursing Standards of Practice, 2011  
Mosby's Pocket Guide to Nursing Skills and Procedures, 2011L

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Programs: Hospice, Care Connections

**PROCEDURE:** IVADs – Accessing and Irrigating  
Implanted Vascular Access Devices

**POLICY:**

- IVAD's will be flushed every 4 weeks (or according to M.D. order) with 20 cc 0.9% NaCL followed by 5 cc Heparin 100u/ml when not in use.
- Normal saline will be used to flush the line before and after each infusion.
- Each infusion will be followed by heparin (5cc of 100 U/cc) flushing.
- The system will always be accessed using sterile technique.
- A non-coring (e.g., Huber) needle system will always be used for access. The non-coring needle of choice should be flush to the skin and securely within the port.
- Positive pressure should be used when withdrawing the needle.
- The Huber needle, including injection cap, will be changed every 7 days or as necessary for complications (unless otherwise ordered by the physician).

**EQUIPMENT:** (1) Central Line dressing change kit  
(1) Huber needle with attached extension tubing  
(1) Needleless injection cap (optional)  
(2) 10 ml syringes of 0.9% NaCL  
(1) 5 ml syringe of Heparin 100u/ml  
Sharps container  
Nonsterile gloves

**PROCEDURE:**

1. Follow Pre-procedure protocol.
2. Don nonsterile gloves
3. Locate portal septum by palpation. Assess for redness, pain, swelling or drainage. Notify physician if any of these symptoms are present before proceeding.
4. Open central line dressing change kit maintaining a sterile field. Don a face mask. Open sterile supplies and place them (Huber needle, cap, 10 ml syringes of NaCL and 5 ml syringe of Heparin) on sterile field.
5. Don sterile gloves.
6. Place sterile injection cap on end of Huber needle extension.
7. Attach 10 ml saline syringe to the cap and prime the Huber needle. Clamp, leaving syringe in place. Place on sterile field.
8. Cleanse site using A or B below (Choraprep is preferred)
  - A. Chloraprep
    1. Cleanse catheter site with chloraprep applicator using a back and forth, up and down scrubbing motion with moderate friction working center outward.
    2. Allow to dry for a minimum of 30 seconds. Do not blot to dry.

- OR -

B. Betadine (Povidone iodine) and Alcohol

1. Starting at catheter insertion site cleanse skin in a circular motion outward from site with alcohol swabs x3.
  2. Air dry
  3. Repeat the same procedure with povidone iodine swabs x3.
  4. Cleansed area should extend 2 inches beyond catheter site.
  5. Air dry for a minimum of 2 minutes. Nurse may perform single blot with 4x4 to remove remaining povidone iodine.
9. Stabilize port septum by placing thumb and index finger on sides of septum.
  10. Push Huber needle firmly through the skin at a 90 degree angle until the needle comes in contact with the back of the portal chamber. (Do not press firmly into the back of the portal chamber as this can cause barring of the Huber needle making needle removal difficult and painful.)
  11. Unclamp. Pull back slightly on plunger to observe for blood return and flush with the 10 mls of saline. Repeat flush with 2<sup>nd</sup> 10 ml saline syringe. Clamp. Remove syringe and discard in trash.
  12. Insert Heparin syringe into the cap and flush with 5 ml Heparin 100u/ml. Clamp while flushing the last 0.2 – 0.3 ml of Heparin to maintain a positive pressure.
  13. Press down on septum with 2 fingers and pull Huber needle straight out. Discard in sharps container.
  14. Wipe port with alcohol wipe. Apply band-aid as necessary.
  15. Document procedure in EMR and IV Flow sheet if available, including:
    - A. date/time
    - B. amount and concentration of flush solution
    - C. Huber needle size
    - D. number of attempts to access port if greater than 1 and description of site
    - E. patient tolerance of procedure
    - F. Any abnormal findings and physician notification of such

Updated: 2/2011

Reference: Infusion Nursing Standards of Practice, 2011

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Programs: Hospice, Care Connections

**PROCEDURE:** IVADs - Obtaining Blood Specimens  
Implanted Vascular Access Devices

**EQUIPMENT:** Needleless Cap (optional)  
22 gauge Huber needle with extension tubing  
Lab tubes  
3 – 10cc syringes of Normal Saline  
1 - 5cc syringe Heparin flush (100u/ml)  
Sterile and non-sterile gloves  
Mask  
Alcohol swabs sticks (3) and Povidone iodine swab sticks (3)  
**OR**  
Chloraprep Applicator  
Alcohol wipes  
Band-aids  
Vacutainer with Vacutainer Holder  
Sharps Disposal Container

**PROCEDURE:**

1. Follow Pre-procedure protocol
2. Locate portal septum by palpation. Check for redness, pain, swelling, or drainage. Notify physician if any of these symptoms are present before proceeding.
3. Don non-sterile gloves.
4. Prep site with chloraprep applicator using a back and forth, up and down scrubbing motion with moderate friction working center outward. Allow to dry for a minimum of 30 seconds. Do not blot dry.

OR

5. Prep site with alcohol swab sticks starting at the port center and cleansing in a circular motion outward from the site for approximately 2 inches, repeat X 2. Air dry.
6. Repeat #5 using povidone iodine swab sticks, repeat X 3. Air dry minimum of 2 minutes.
  - A. Nurse may perform single blot with 4x4 to remove remaining povidone iodine. (Substitute a 2 minute alcohol swab stick cleansing if the patient is allergic to povidone-iodine.)
7. While drying, open package with Huber Needle and extension tubing and prime Huber Needle with normal saline without touching the Huber Needle or tubing except at distal end of tubing. Clamp leaving syringe in place. \* May attach needleless cap prior to priming tubing if desired.
8. Don mask and sterile gloves.
9. Anchor the port firmly between 2 fingers of one hand. Pushing firmly, insert the Huber Needle at a 90 degree angle through the skin until the bottom of the port chamber is felt.
10. Unclamp.



11. Patency should be confirmed by presence of blood return. Flush with remaining normal saline to confirm patency of port.
12. Obtain blood for discard to clear system. Clamp. Remove syringe and discard.
13. Obtain blood specimen and clamp tubing. Set blood specimen aside.
14. Flush with a total of 20cc NS to clear port and catheter of any blood.
15. Attach syringe with 5 ml Heparin Flush (1:100). Unclamp tubing and flush. Clamp while flushing the last 0.2 – 0.3 ml of Heparin to maintain positive pressure. Remove syringe.
16. Use 2 fingers of one hand to firmly hold port in place and pull Huber needle straight out. Dispose in sharps container.
17. Wipe with alcohol swab. Apply band aid as necessary.
18. Discard contaminated equipment in appropriate receptacles.
19. Label tubes and deliver specimens to lab.
20. Document date, procedure, Huber needle size, number of attempts to access port if greater than 1, description of site, patient tolerance of procedure, and lab test to be performed and where taken.

Updated: 2/2011

Reference: Infusion Nursing Standards of Practice, 2011  
Mosby's Pocket Guideline to Nursing Skills and Practice, 2011

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Programs: Hospice, Care Connections

**PROCEDURE:** IVADs - Continuous Infusion -- Dressing Change and Site Care  
(Implanted Vascular Access Devices)

**POLICY:** IVAD dressing change is to be done every 7 days and PRN if soiled, wet, or nonocclusive.  
Dressing will be changed maintaining strict sterile technique.  
Site will be inspected for signs of infection or displacement and if present, MD will be notified.  
A transparent semipermeable membrane dressing will be used for IVADs when accessed.  
If gauze is used to cushion wings of the access needle and it does not obscure the insertion site it will still be considered a Transparent dressing.

**EQUIPMENT:** Central line dressing change tray + Additional Supplies  
3 Povidone-iodine swab sticks Nonsterile gloves  
3 Alcohol swab sticks Plastic bag for waste  
Sterile gloves  
Sterile 2x2 gauze  
Skin protective film packet (skin prep) (1)  
1" tape  
Transparent dressing  
Mask

**PROCEDURE:**

1. Explain procedure to patient and assist to comfortable supine position with head turned away from site.
2. Place central line dressing kit near bedside and remove the top cover.
3. Don nonsterile gloves.
4. Remove old dressing.
  - A. Do not pull on needle access system.
  - B. Assess needle insertion site for signs of infection (i.e., redness, swelling, exudate), signs of hematoma, or accumulation of serous fluid. If any of the above conditions are present, it may be necessary to remove the needle and reaccess the site. Report unfavorable conditions to physician
5. Discard old dressings in plastic bag. Remove gloves.
6. Wash hands again.
7. Open central line dressing change kit. Don mask and sterile gloves.
8. Starting at needle insertion site, use friction to cleanse the skin in a circular motion working

outward with 2 alcohol swab sticks, one after the other for 2 minutes each. Clean an area approximately 4 inches in diameter. Allow to dry.

(Substitute a 2-minute alcohol swab stick cleansing if the patient is allergic to povidone-iodine.)

10. Swab area again with remaining alcohol swab stick to remove remaining povidone-iodine. Air dry.
  - A. If Huber needle in place, 2x2 gauze may be placed under the Huber needle wings to serve as a cushion to underlying skin. The gauze must not cover the Huber needle entrance site.
11. Apply protective film to entire area of skin where transparent dressing and tape will be applied.
12. Apply transparent dressing to site according to manufacturer's directions. Do not allow extension tubing to hang loosely. Loop and tape to chest. Leave access to proximal connection so that dressing can be left intact.
13. Label dressing site with date of dressing change and initial.
14. Discard soiled materials in proper receptacle. Remove your gloves and wash hands.
15. Document appearance of site and dressing change/site care per protocol.
16. Educate patient/ family to check site daily, to avoid pulling site when dressing or undressing, protect site when bathing, immediately report signs or symptoms of pain, burning, stinging or soreness at site, any wetness leaking or swelling at site and how to stop infusion pump.

Updated: 2/2011

References: Infusion Nursing Standards of Practice, 2011  
Mosby's Pocket Guide to Nursing Skills and Procedures, 2011

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Programs: Hospice, Care Connections

**PROCEDURE:** IVADs Devices - Management of Complications  
Implanted Vascular Access

**PROCEDURE:**

1. **Catheter occlusion** may be caused by kinking due to movement of the portal or catheter, occlusion by a thrombus, formation of a precipitate caused by infusion of incompatible drugs, or formation of a fibrin sheath. Occlusion may also occur as a result of external compression of the catheter (e.g., tumor growth).
  - A. Have patient change position, including upper body and arm movement, to rule out posture-related catheter kinking or blocking.
  - B. Verify catheter occlusion by attempting blood withdrawal via syringe.
  - C. If catheter cannot be aspirated or flushed, notify physician for instructions. It is recommended that an X-ray or radiopaque dye study be performed if there is any swelling at the catheter entrance or in the patient's neck or if symptoms of vena cava syndrome are present.
  - D. Do not attempt to forcefully irrigate a blocked catheter. This could lead to catheter damage and/or embolization of the occlusion.
2. **Air embolism** may be caused by air entering the catheter system through a leak in the needle access system or if the extension tubing on the needle access system is not clamped prior to cap removal. It may also occur if the needle access system-IV tubing junction is not secured during IV administration. Signs and symptoms of air embolism include hypotension, cyanosis, weak pulse, tachycardia, and loss of consciousness.
  - A. If air embolism occurs because of a leak in the needle access system, immediately remove the needle access device.
  - B. Turn patient on left side and lower head of bed. This position will keep embolism on right side, and pulmonary artery may absorb air bubbles.
  - C. Assess vital signs. Call physician for instructions.
3. **Catheter-related infection or sepsis** may occur as a result of poor asepsis. Signs and symptoms of catheter infection at the exit site include redness, pain, swelling, or drainage at the site. Signs and symptoms of sepsis include fever over 100 degrees F, backache, headache, malaise, nausea, and vomiting.
  - A. Assess the patient's exit site with each dressing change. Obtain order for antimicrobial therapy if indicated. Increase the frequency of dressing changes if local infection is suspected.
  - B. If blood cultures are ordered, do not begin prescribed antibiotic therapy until after cultures are drawn.
4. Appropriately document all findings and interventions related to management of complications.
5. Notify physician unusual findings and measures taken.

**Updated: 2/2011** O:\Procedures 2011\Infusion Therapy\Central Venous Therapy\IVAD Therapy\IVAD - Management of Complications.doc

Programs: Hospice, Care Connections

**PROCEDURE:** IVAD - Medication Bolus  
**EQUIPMENT:** Sterile kit to prep site  
(3) 10 cc syringes of normal saline  
10 cc syringe with 5 cc of Heparin 100u/ml  
22 gauge Huber needle with extension tubing  
Medication or solution for bolus  
Sharps box

**PROCEDURE:**

1. Prepare bolus medication as ordered.
2. Open central line dressing kit and prepare Huber needle and injection site according to procedure in “IVAD – Accessing and Irrigating” Steps 1 - 7.
3. Open clamp, check for blood return, and flush the system with normal saline to confirm patency. Clamp the extension tube and Remove the syringe.
4. Attach syringe with ordered medication to extension tube. Release flow clamp and inject drug as ordered.
5. Clamp extension tube. Remove syringe. Attach 10 cc syringe of normal saline and flush. If more than one drug is administered, follow each injection with a normal saline flush. Clamp the extension tubing. Remove syringe.
6. Attach Heparin syringe. Flush system with 5 cc Heparin 100u/ml. Clamp tubing while flushing the last 0.2 – 0.3 ml of Heparin and maintain a positive pressure.
7. Withdraw needle while pressing down on port with 2 fingers.
8. Cleanse site and apply band-aid if indicated.
9. Dispose of contaminated syringes and needles in appropriate receptacles.
10. Document in EMR and IV flowsheet. Documentation should include:
  - A. Date
  - B. Medication dose and amount
  - C. Huber needle size
  - D. Number of attempts to access port if greater than 1 and patients tolerance of procedure
  - E. description of site
  - F. any abnormal findings and physician notified of such.

Updated: 2/2011

Reference: Infusion Nursing Standards of Practice, 2011  
Mosby’s Pocket Guide to Nursing Skills and Procedures, 2011

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- PROCEDURE:** IVAD - Continuous Infusions  
Implanted Vascular Access Devices
- POLICY:** Huber needle and dressing should be changed every 7 days and prn during continuous infusions.
- EQUIPMENT:** IV solution as prescribed  
IV extension set with Luer-Lok ends and clamp  
22 gauge Huber needle with extension tubing  
Needleless injection cap  
Central Line Dressing Change Kit  
10 cc syringe of Normal Saline  
5 cc syringe Heparin 100u/cc  
Alcohol prep pads  
Sharps Container

**PROCEDURE:**

1. Follow Pre-procedure protocol.
2. Open central line dressing kit and prepare Huber needle and injection site according to procedure “IVAD – Accessing and Irrigating” Steps 1 – 6.
3. Locate portal septum by palpation. Insert the Huber needle perpendicular to the septum and push it firmly through the skin and septum until it touches the back of the portal chamber.
4. Open clamp, check for blood return, and flush the system with normal saline to confirm patency. Clamp extension tubing and remove syringe.
5. Sterile 2x2 gauze may be placed underneath the hub of the needle for comfort, but do not cover the Huber needle entrance site.
6. Place transparent dressing over needle.
7. Scrub injection cap with alcohol prep pad, allow to dry.
8. Connect IV set to injection cap on Huber extension tubing.
9. Release clamp and start infusion. Operate pump per manufacturer’s guidelines.
10. When the infusion is finished, clamp extension tube. Turn off pump.
11. Disconnect IV tubing from injection cap.
12. Scrub cap with alcohol prep pad.
13. Attach normal saline syringe to injection cap. Unclamp. Flush with 10cc normal saline. Clamp.
14. Attach 5 cc syringe of Heparin Flush 100u/ml. Unclamp. Flush. Clamp while flushing the last 0.2 – 0.3 ml of Heparin to maintain a positive pressure.
15. Leave Huber needle in place or remove according to M.D. orders.
16. Document in patient EMR and IV flow sheet, if available.
  - A. drugs infused
  - B. rate and time of infusion
  - C. patient tolerance of procedure
  - D. Huber needle size
  - E. description of site

**Update: 2/2011 Reference: Infusion Nursing Standards of Practice, 2011**

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Programs: Hospice, Care Connections

**PROCEDURE:** Peripherally Inserted Central Catheter Dressing Change (PICC)

**POLICY:** PICC dressing changes will be done 24 hours after insertion and then every 7 days and PRN.  
Exposed PICC lines will be measured weekly with dressing change and PRN

**EQUIPMENT:** Central line dressing tray which includes:  
Sterile gloves  
Face mask  
Chloraprep applicator  
[Optional alternative Povidine-iodine swabs 3 + Alcohol Swabs 3  
Alcohol swab stick  
Transparent dressing  
Gauze  
Label and tape  
Stabilization device if used  
Measuring tape  
Nonsterile gloves  
Plastic Bag

\*Note: Chloraprep will be used for catheter site cleaning only on patients 6 months of age and older.

Alcohol and povidone iodine will be used for patients less than 6 months

**PROCEDURE:**

1. Follow Pre-procedure Protocol
2. Open and prepare supplies (tray).
3. Don mask and nonsterile gloves.
4. Loosen top criss-cross tape with an alcohol prep pad as much as possible.

\*Do not use an adhesive removal pad. It will degrade the catheter if it comes in contact with it.

5. Pull and stretch the transparent dressing to loosen from the skin and remove.
  - A. Discard the old dressing and place in plastic bag in accordance with standard precautions.
  - B. Remove steri-strips or a securing device if in place and replace
6. Assess site for signs of infection.
7. Measure exposed PICC catheter from site to plastic bifurcation.
8. Remove soiled gloves and wash hands, don sterile gloves.
9. Cleanse catheter site using A or B below (Choraprep is preferred)
  - A. Chloraprep –
    1. Cleanse catheter site with chloraprep applicator for 30 seconds using a back and forth, up and down scrubbing motion with moderate friction working center outward.
    2. Allow to dry for a minimum of 30 seconds. Do not blot to dry.

OR

B. Betadine (Povidone iodine) and Alcohol

1. Starting at catheter insertion site cleanse skin in a circular motion outward from site.
2. Cleanse with alcohol swabs x3. Air dry
3. Repeat the same procedure with povidone iodine swabs x3.
4. Cleansed area should extend 2 inches beyond catheter site.
5. Air dry for a minimum of 2 minutes. Nurse may perform single blot with 4x4 to remove remaining povidone iodine.

\*\*Do not let the alcohol swab sticks come in contact with the catheter.

10. Apply skin protective swab 1 inch from the catheter insertion site and allow to dry.
11. Place a piece of anchor tape over the wings of the catheter.
12. Place a piece of tape “sticky” side up under the catheter wings.
  - A. Wedge the tape between the catheter wings and the hub (there is a notch between the wings and the hub).
  - B. Criss-cross the tape “sticky” side down over the hub to the skin.
13. Apply transparent dressing over the catheter entrance site and cover to catheter notch. (If the catheter site is oozing serous fluid, place a 2x2 gauze just below the catheter insertion site to act as a wick to absorb and pull the fluid away from the entrance site.)
14. Repeat step 12 with a second criss-cross taping procedure over the transparent dressing.
15. Place a piece of tape over the catheter hub to secure the catheter to the arm.
16. Apply dressing change label with RN initials and date.
17. Wash hands.
18. Document condition of site and procedure in patient’s EMR and IV flow Sheet, if available.

Updated: 2/2011

Reference: Infusion Nursing Standards of Practice, 2011

Mosby’s Pocket Guide to Nursing Skills and Procedures, 2011

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Programs: Hospice, Care Connections

**PROCEDURE:** Peripherally Inserted Central Catheter (PICC) Removal

**POLICY:** PICCs will be removed upon completion of therapy or whenever signs of vascular complications related to the catheter are observed.  
The nurse must obtain a physician's order to remove a PICC.

**EQUIPMENT:** Non-sterile gloves  
10 cc syringe of normal saline  
Alcohol prep pads  
Chloraprep  
Transparent Dressing  
Tape measure (disposable)  
2x2 gauze  
Sterile Gauze with Roll of tape (transpore or durapore)  
Suture removal kit (if needed)  
Plastic bags (2)

**PROCEDURE:**

1. Follow pre-procedure protocol.
2. Open and prepare supplies
3. Don gown, mask and non-sterile gloves.
4. Gently remove old dressing and discard in plastic biohazard bag.
5. Assess site for signs of infection or complication.
6. Remove soiled gloves, wash hand, don new pair of sterile gloves
7. Cleanse catheter site using A or B below (Chloraprep is preferred)
  - A. Chloraprep
    1. Cleanse catheter site with chloraprep applicator for 30 seconds using a back and (a) forth, up and down scrubbing motion with moderate friction working center (b) outward.
    2. Allow to dry for a minimum of 30 seconds. Do not blot to dry.
  - OR
  - B. Betadine (Povidone iodine) and Alcohol
    1. Starting at catheter insertion site cleanse skin in a circular motion outward from site. Cleanse with alcohol swabs x3. Air dry
    2. Repeat the same procedure with povidone iodine swabs x3.
  - C. Cleansed area should extend 2 inches beyond catheter site.
  - D. Air dry for a minimum of 2 minutes. Nurse may perform single blot with 4x4 to remove remaining povidone iodine
8. If catheter securement device is present, carefully disconnect catheter from device and remove device.

9. Using nondominant hand, apply sterile 4X4 gauze to site. Do not apply pressure.
10. Instruct patient to take a deep breath and hold it as catheter is withdrawn. Valsalva maneuver reduces the risk of air embolus.
11. With dominant hand, withdraw the catheter in a smooth, continuous motion, slowly and gently parallel to the skin and an inch at a time to prevent possibility of vasoconstriction and vasospasm. **Do not apply pressure on insertion site during cannula removal.**

NOTE: If **resistance** is met during removal, stop and attempt the following steps:

- a) Relaxation technique with the patient.
- b) Apply a warm, moist compress to the axilla and upper arm area to promote vasodilatation (for approximately 15 minutes).
- c) Reposition the patient's arm. Instruct the patient to alternate rotating the arm from a supine position to a prone position.
- d) Place tension on the catheter and tape in place. Allow tension to remain on the catheter for 15-30 minutes and recheck (tension may need to remain overnight).
- e) Contact the physician regarding problems with removal and follow his/her orders

12. Hold pressure at insertion site for a minimum of 5 minutes with sterile gauze or until bleeding stops
13. Apply sterile occlusive dressing and secure with tape.
14. Visualize the catheter tip for smoothness and integrity.
15. Measure the entire length of the catheter and document.
  - A. The length upon removal should be equal to the length at insertion.
  - B. Discard the disposable tape measure and PICC line in plastic biohazard bag.
16. Remove gloves and dispose in plastic bag. Double bag and put in trash.
17. Wash hands.
18. Document procedure in electronic medical record including:
  - A. Length of catheter
  - B. Integrity of catheter
  - C. Appearance of site,
  - D. Patient response to procedure.

Updated: 2/2011

Reference: Mosby's Pocket Guide to Nursing Skills and Procedures, 2011  
Infusion Nursing Standards of Practice, 2011

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Programs: Hospice, Care Connections

**PROCEDURE:** Subcutaneous Infusion – Continuous Infusion

**EQUIPMENT:** Subcutaneous Infusion Set  
Alcohol pads  
Choloprep swabs  
"1" inch tape  
Transparent dressing  
Nonsterile gloves  
Infusion pump with medication cassette and bag

**POLICY:** Use small gauge infusion device (25-27 Gauge).

The device should be aspirated prior to administration of medication or fluids to ascertain the absence of blood.

The optimal infusion rate is unknown. Medication rates of 3-5 ml per hour or hydration rates up to 1.5 L over 24 hours have been reported.

Using for medication:

May be used for continuous infusion of opiates.

Medications should be administered using an electronic infusion device, such as a CADD pump.

Access site used for medication administration should be rotated every 2-5 days and PRN as needed for site integrity.

Using for hydration:

Hydration fluids should be administered via manual flow control or an electronic infusion device.

Access site used for hydration should be rotated every 24-48 hours or after 1.5 - 2 liters of infused fluid and PRN as needed for site integrity.

**PROCEDURE:**

1. Obtain physician's order for dose, diluent, route, rate, frequency of administration of medication and use of pump.
2. Follow Pre-procedure protocol.
3. Prepare infusion pump, solution, and tubing. Attach the SUBQ set to the IV tubing and prime. Do not remove the needle shield.
4. Select a site in subcutaneous tissues.
  - A. Choose a site which is free from irritation, excessive hair or oils, or wounds.
  - B. Avoid sites overlying bones, or those which are excessively edematous or cachectic.
  - C. Choose a site at least 1 inch from the previous site.

<p><b>*NOTE:</b> Frequently used sites are the subcutaneous tissues of the abdomen and thighs; however the upper arms, chest and buttocks may also be used. Bony, swollen or bruised areas of the skin as well as the joints should be avoided.</p>
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- 5.
6. Prep insertion site with alcohol and allow to dry, followed by Chloroprep swabs using straight

- strokes, allow to dry.
7. Remove cover from the subcutaneous set.
  8. Grasp the fold of skin, exposing the prepared site. Insert the needle through the skin.
    - A. If using a butterfly needle set, insert the needle at a 25 – 35 degree angle.
    - B. If using a subcutaneous infusion set, insert the needle at a 90 degree angle until the adhesive disk is flush with the skin.
  9. Press around the entire disk to be sure you have a good seal.
  10. Apply transparent dressing and picture frame with 1 inch tape.
  11. Instruct patient and/or caregiver regarding observation of the subcutaneous site for symptoms of infection or irritation that may indicate need for site rotation.
  12. Begin infusion.
  13. If administering medication, observe patient for approximately 30 minutes for:
    - A. relief of pain
    - B. change in respiratory status
    - C. change in LOC
    - D. adverse effects such as sudden, unexpected, acute, clinically significant changes (i.e. cyanosis, decreased respirations, change in mental status, drop in BP or cardiac irregularities.)
  14. If no adverse effects are noted, continue infusion.
  15. If patient reports ineffective pain relief, notify physician and request a change in orders.
  16. Patient and/or CG may be instructed regarding Sub-Q-Set needle insertion, site observation and trouble shooting by the nurse who is competency tested in administration of subcutaneous infusions.
  17. Document:
    - A. Location of needle insertion
    - B. Gauge and length of needle
    - C. Pump settings for medication administration or fluids
    - D. Site assessment
    - E. Time infusion started
    - F. Pt./Caregiver instruction as well as their response and understanding of instruction
    - G. If for Opiates, location and description of pain. Note pain level, LOC, respiratory rate and BP prior to and 30 minutes after infusion started. Make a follow-up call within 24 hours of hook-up in order to monitor ongoing patient status and response to opiate infusion.
  18. Instruct pt/caregiver to report unrelieved pain to nurse.

**Updated: 2/2011, 9/2015**

**Reference: Infusion Nursing Standards of Practice, 2011  
Mosby's Pocket Guide to Nursing Skills and Practice, 2011**

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**Procedure:** CURLIN 6000 Ambulatory Infusion Pump

**Pump Passcode:** 1111-94629

**Equipment**

- 2 “C” batteries, backup set of batteries
- Power cord (Use power cord anytime patient is not ambulating.)
- PCA cord for bolus doses by patient (connects to left side of pump; connect before powering on)

**Setting up the Pump**

- Pump will come pre-programmed; Two nurses should verify settings against physician order to ensure that they match.
- Insert batteries in the back of the pump. There is a slide to unlock/lock and the door slides up to secure.
- If using the PCA cord for bolus doses, connect the cord to the pump before powering on.
- Connect the power cord to the bottom of the pump.
- Start the pump by pressing the **ORANGE “ON”** button. The pump will run through a self-check and battery check.

**Connecting IV tubing/bag to the Pump**

- Open CURLIN Pump from top using the metal door. On the tubing, there are two tabs to be inserted into the pump under the metal door: the **BLUE** tab goes first on the **RIGHT** side, then the **YELLOW** tab goes in the **LEFT** side (twist and remove the disc from the **YELLOW** tab before inserting into the pump). Close the metal door once properly inserted.
- Review and verify settings:
  - At the main menu, press **YES (GREEN button)** to select program.
  - Scroll down to **REPEAT RX** and press **YES**.
  - Press **YES** again to repeat.
  - Select **PCA** and press **YES**.
  - Press **YES** to **Maintain Current Bolus/Med Limit Schedule**. Pump will scroll through the current settings quickly. May click **NO** to review and then click through and verify each setting if needed. **Reset bag volume**.
- Once all settings have been verified by 2 nurses, connect the line to the patient, unclamp all lines, and press **RUN** to start the pump.

**Changing a Bag on a Running Pump**

Review the pump settings that are scrolling on the screen.

Change the med/tubing:

- If the pump is running, press **RUN/PAUSE**. Turn the pump off. Disconnect from the patient.
- Open metal door and remove old tubing and medication bag from pump. Set aside to waste.
- Insert new tubing/med bag into the pump.

Review and Verify Settings

- At the main menu, press **YES** to select program.
- Scroll down to **REPEAT RX** and press **YES**.
- Press **YES** again to repeat.
- Select **PCA** and press **YES**.
- Press **YES** to **Maintain Current Bolus/Med Limit Schedule**. Pump will scroll through the current settings quickly. May click **NO** to review and then click through and verify each setting if needed. **Reset the bag volume**.
- Connect the line to patient, unclamp all lines, and press **RUN** to start the pump.
- Waste old bag per protocol.

### **Checking and Clearing Totals**

To **SEE** Shift Totals:

- Press **OPTIONS** button (the **PINK** button)
- Scroll down to **SHIFT TOT**
- Press **NO/CHANGE** button (the **RED** button) to change from off to on and press **YES/ENTER** to accept the change.
  - You will be able to obtain amount given, bolus attempts/given, and any clinician doses given will show here.
- **EXIT** is already highlighted so press **YES/ENTER** button and press **YES/ENTER** button again to get out of the shift total screen.

To **CLEAR** Shift Totals:

- Press “**9**” (**CLR Shft button**) on the number pad.
- Enter code if required: **1111-94629**, then press “**9**” again.
- **CLEAR** is already highlighted so press **YES/ENTER** button to clear.

### **Change Basal/Bolus Settings on a Running Pump**

- If the pump is running, press **RUN/PAUSE**.
- Select Resume → press **YES**.
- Press **NO** to review.
- Press **YES** for each setting until you get to the next screen (**Do NOT use the arrow keys.**)

- Press **YES** until you reach the setting that you want to change (**Do NOT use the arrow keys.**)
- Press **NO** on the setting to be changed.
- Enter the passcode: **1111-94629**.
- Press **NO** again on the setting to be changed.
  - Enter the new value and press **YES** to accept.
- Press **YES** until you reach another setting to change or press **YES** until you reach the end of the list.
- Press **RUN/PAUSE** to resume with the new settings.

### **Programming the Pump**

- Press **YES** to program the pump.
- Scroll to new program. Lock code is required at this time **1111-94629**.
- Press **YES** for new program, scroll down to **PCA** and press **YES**.
- If there is a previous prescription programmed press **YES** to erase previous prescription.
- Press **YES** to go to each part of the order (**Do NOT use the arrow keys**). Units will be in MG. You will press **YES** to concentration and enter the number of mg/mL for concentration.
- The loading dose should be 0. Press **YES** to pass this. Press **YES** to med limits off. Press **YES** to next.
- Type in bag volume, then **YES**.
- Enter basal rate then press **YES**.
- Enter bolus amounts and press **YES**. Enter bolus interval in minutes and press **YES**, then enter the # of boluses allowed per hour.
- Press **ENTER** (**GREEN** button) when done. You may review your settings at this time.

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Programs: Hospice, Care Connections

## **POLICY: PLEURAL or PERITONEAL DRAINAGE SYSTEMS**

The Pleural or Peritoneal Catheters are specially designed catheter placed in the patient's chest or abdomen to facilitate drainage of pleural effusions and/or malignant ascites. The catheter openings on the distal end positioned in the pleural space facilitates fluid drainage. The proximal end of the catheter has a valve that prevents fluid or air from leaving the chest or abdomen until it is connected to a matching drainage line. Bottles or Bags (depending on system used) are available in 500ml and 1,000 ml volume capacity.

Once the tube is placed, interstitial fluid may be periodically drained by connecting one end of the drainage line to the valve and the other to a drainage bottle.

Patients who have these catheters are typically instructed to drain the device when they notice dyspnea from accumulating fluid or at specific intervals to reduce the risk of dyspnea, depending on the physician's preference and the patient's underlying pulmonary condition. Drainage intervals can range from three to four times per week to once a week or less **PER MD ORDER**.

### **FOCUSED NURSING ASSESSMENTS:**

1. Examine the tube to ensure that there are no kinks or loops that could occlude the tube, thus prohibiting adequate drainage. This involves a thorough assessment of examining the tube from the insertion site at the chest (or abdomen) to the drainage bottle.
  - A. Patients with chest tubes are at particular risk for respiratory distress or failure, if the tube becomes occluded. Accumulation of pleural or abdominal fluid may cause increased pressure on the diaphragm resulting in respiratory distress.
  - B. Check the dressing at the tube site to make sure it is dry and intact. If the tape is loosened, secure the dressing. If the dressing is wet and the patient has not showered or does not have another explanation, fluid is probably leaking out at the insertion site and the patient needs to be seen by the physician.
2. Perform a targeted nursing assessment:
  1. Listen for symmetry in breath sounds. In the absence of a pathological deviation (empyema, tumor, lobectomy, etc.), breath sounds should be symmetrical. If sounds are decreased on the side with the chest tube, there may be a reaccumulation of air or fluid on that side. If sounds are louder on the treated side, particularly if the patient has a malignant effusion, fluid may be collecting on the untreated side.
  2. To help determine if air or fluid is collecting in the pleural space, percuss the chest. Fluid collections will result in a dull percussion note; a pneumothorax will return a hyper resonant, hollow percussion note. If you suspect accumulation of fluid on the side with a chest tube, change position while you watch for increased drainage. If more fluid leaves the chest, the fluid simply may not have been accessible to the chest tube.



3. Ask the patient to rate any dyspnea on a scale of 1 to 10 using 1 as “no breathing difficulty” and 10 as “the worst possible trouble breathing.” Increasing dyspnea can indicate accumulation of air or fluid in the chest. Increasing dyspnea may indicate the need to actively drain the chest if the patient has a pleurX catheter.
4. Ask the patient about pleuritic chest pain and note the rate and depth of respirations. Because of the innervation of the parietal pleura, accumulation of air or fluid in the pleural space and any accompanying irritation or inflammation can be extremely painful. Patients will try to avoid this pain by taking smaller breaths, which result in less movement of the pleurae, and compensate for the lower volume by breathing faster
5. It is also important to thoroughly assess the respiratory status of a patient who has a tube placed for relief of increased abdominal interstitial fluid. This is due to pressure placed on the diaphragm, resulting in more shallow, weaker respirations.

Note: Any evidence of fluid or air accumulation not readily solved by repositioning the patient should be reported to the physician who placed the tube. If the patient is in significant distress, do not hesitate to call emergency medical services to transport the patient to the emergency department. A brief call ahead to give a brief report to the triage nurse would be helpful because most EDs do not commonly see home-care patients arriving with drainage tubes.

**EQUIPMENT:      PleurX Drainage Kit**

The PleurX Drainage Kit provides the supplies you need to drain the excess fluid. The items in the kit include:

- 1-Plastic vacuum bottle with drainage line
- 1-Procedure Pack, containing the following items:
  - 3-alcohol pads
  - 8-gauze pads
  - 1-foam catheter pad
  - 1-valve cap
  - 1-pair gloves
  - 1-self-adhesive dressing
  - 1-CSR wrap
  - 1-slide clamp

The plastic vacuum bottles with the attached lines, found in this kit will connect to the PleurX Catheter and will be used to drain the fluid from the appropriate site. There is a special access tip at the end of the tube which connects to the valve on the catheter. The clamp on the drainage line will let you stop or slow down the flow of fluid.

**Aspira Drainage Kit**

The Aspira Drainage Kit provides the supplies you need to drain the excess fluid. The items in the kit include:

- 1-Procedure Pack, containing the following Sterile items:
  - Clear Dressing

Tape  
Gloves  
Split Gauze  
Alcohol Pads  
Gauze Pads  
Sterile Sheet

The fluid is contained in a drainage bag connected to the attached lines. There is a special access tip at the end of the tube which connects to the valve on the catheter.

#### **WARNINGS:**

**Do not drain more than 1,000ml of fluid from the chest at any one time or more than 2,000 ml from the abdomen at any one time.** If the patient feels the need to drain more than this to provide comfort, contact the physician.

Keep the valve on the Catheter, as well as the tip on the drainage line, away from other materials and objects. This will help avoid contamination.

Do not use scissors or other sharp objects around the Catheter. If the catheter accidentally gets cut follow these steps:

- a. Pinch the catheter closed between your fingers.
- b. Slip the slide clamp over the catheter and push the catheter completely into the small end of the clamp. This will close the catheter.
- c. Send the patient to the physician immediately.

Do not put anything except the tip of the drainage line into the Catheter valve, as doing so could damage the valve. A damaged valve might let air be pulled into the chest or abdominal cavity or let fluid leak out through the valve.

If the patient feels a lot of pain when the site is being drained, clamp the drainage line to slow or stop the flow of fluid for a few minutes. If the patient doesn't feel better after doing this, contact their physician.

#### **CAUTIONS:**

*This product contains natural rubber latex which may cause allergic reactions.*

Wear sterile gloves during the drainage procedure and take care to avoid contaminating the valve on the Catheter and the tip on the drainage line.

The clamp must fully close the drainage line. If the tubing is not completely closed, it is possible for some or all of the vacuum in the bottle (PleurX type system) to be lost. Make sure that the valve and the tip are locked together. If they are not locked together, they may slip apart. If they do slip apart, a new drainage line should be used.

Depending on the site being drained, the following is a list (not all inclusive) of the potential complications: pneumothorax, re-expansion pulmonary edema, hypotension, circulatory collapse, spontaneous bacterial peritonitis, and infection.

**PROCEDURE:**

1. Wash hands.
2. Put on non-sterile gloves.
3. Remove dressing from over catheter. Observe for any redness, swelling or fluid around the catheter.
4. Remove gloves and wash hands.
5. Open Procedure Pack on firm surface, using sterile technique.
6. For Pleurx type drainage systems: Open vacuum bottle and drainage line pouch. Place bottle next to the sterile wrapping. Remove the paper wrapping from the drainage line and place the end of the drainage line on the sterile wrapping away from other items, keeping the tip sterile. For Aspira type drainage systems: Attach catheter tip to drainage bag line. (See literature for additional information)
7. Tear open alcohol pads. Lay open pouches on blue wrapping a short distance from sterile items.
8. Look at the green vacuum indicator on the top of the bottle. This indicator tells you if there is vacuum in the bottle. The indicator should be down, **not up**. If the indicator is up, discard the bottle and use another.
9. Put on sterile glove on the hand you use the most.
10. Using sterile technique, open pouch containing valve cap onto sterile field.
11. With your sterile hand, pinch the clamp on the drainage line **completely** closed.
12. With the drainage line still in your hand, remove the tip cover. Carefully place the tip of the catheter back onto the sterile wrapping.
13. Push the white slide clamp on the green rubber tube at the top of the vacuum bottle until it no longer pinches the tube closed.
14. Grasp the catheter valve in your non-sterile hand and remove the cap. While holding the valve, wipe the valve opening with the alcohol pad.
15. Continue to hold the catheter valve in your hand. Pick up the drainage line and insert the tip into the catheter valve. Push the tip completely into the valve. You will feel and hear a click when the tip and valve are locked together
16. Release the clamp on the drainage line. Fluid will flow into the container. You can slow the flow by pinching the clamp partially closed.

**Warning: If the patient feels a lot of pain in the chest when draining, clamp the drainage line to slow or stop the flow of fluid for a few minutes. Slowing the flow rate may also make procedure more comfortable for patients who are having abdominal ascites drained.**

17. The flow into the container may slow down when the fluid is almost completely drained or if the bottle is more than half full.

Programs: Hospice

18. When the container is full or flow stops, pinch the clamp on the drainage line completely closed.
19. When fluid stops draining, remove the glove from your hand and replace with the second glove.
  - If the patient still feels uncomfortable or short of breath, or if the container contains more than 450 mL of fluid - all the fluid may not have drained. Repeat process, using a second bottle (if using PleurX type system) but do not exceed the amounts specified above.
20. PleurX: To remove the first bottle, with the drainage line in your gloved hand and the catheter valve in your other hand, pull the tip out of the valve in a firm, smooth motion. Set the drainage line down. To attach a second bottle, repeat the steps for opening the bottle pouch and connecting the bottle to the catheter. You don't have to clean the valve between bottles.
21. With the drainage line in your gloved hand and the catheter valve in your other hand, pull the tip out of the valve in a firm, smooth motion. Set the drainage line down.
22. Remove the second alcohol pad from its pouch and wipe the valve opening.
23. Place the new cap over the catheter valve and twist it clockwise until it snaps into its locked position.
24. To apply new dressing: Remove the last alcohol pad from its pouch and clean around the catheter site.
25. Place the foam catheter pad around the catheter.
26. Wind the catheter into loops and place it over the foam pad. Cover the catheter with the gauze pad.
27. Center the self-adhesive dressing over the gauze pad and press down to make sure it is secure.
28. Grasp one of the colored tabs and pull the plastic sheet away from the dressing. Smooth and press down to make sure it is completely secure.
29. To empty bottle: With a pair of scissors and gloved hands, cut off the green vacuum indicator tube and the green rubber tube connected to the drainage line.
30. Drain the bottle/bag into the toilet.
31. Rinse the bottle/bag with bleach solution (1 quart of tap water to 1 tablespoon bleach) and discard solution into toilet and flush. Discard bottle/bag into trash. Clean scissors with bleach solution or alcohol.

Created: May 2004 Revised Sept 2008, Jan 2010, May 2010, May 2014  
Reviewed: Dec 2005; Oct 2006; Feb 2007, Dec 2009, Dec 2011, Nov 2012, May 2013, Nov. 2015, Oct. 2016, August 2017, Nov. 2018, June 2022

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**Programs: Hospice**

**CLINICAL PROCEDURE: Tracheostomy Care**

**EQUIPMENT:** Tracheostomy Care set which contains:

Complete 3 compartment tray	Pair gloves
Polylined drape	Gauze dressings 4"x4" X 4
Pipe cleaners X 2	Cotton tipped applicators X 3
Nylon bristle brush	Tracheostomy dressing
30" twill tape	Foam padding
1 fluid ounce packets hydrogen peroxide 3% concentration U.S.P. X 2	
Container sterile saline solution	
Suction equipment	
Syringe (if cuff is to be deflated)	
Plastic bag for disposal	

**\*NOTE:** Tracheostomy care is performed daily or p.r.n.

**PROCEDURE:**

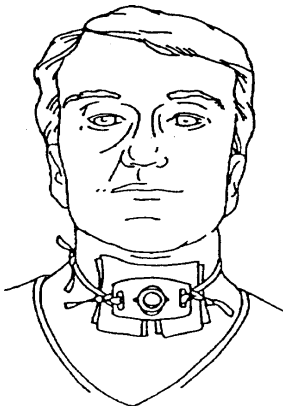
1. Follow pre-procedure protocol. Obtain physician's orders.
2. Place the patient in a semi-Fowler's position.
3. Pour hydrogen peroxide and saline into 2 compartment trays. Open the plastic bag to receive soiled articles.
4. Apply gloves. Suction the tracheostomy before giving tracheostomy care. Give tracheostomy care quickly to prevent hypoxia.
5. Remove the inner cannula. Place it in the peroxide and clean it with the brush and or pipe cleaners. Rinse it in the saline. Make sure all peroxide is removed. Replace the inner cannula, taking care to lock it into the correct position.
6. Using a 4x4 soaked in normal saline, gently remove exudate from around the stoma to prevent excoriation. Pat the area dry with a 4x4. Note the condition of the skin.
7. Unless excessive amounts of exudate are a problem, leave the area open. If secretions are a problem, slip the tracheostomy dressing (4x4 with slit) around the stoma.
8. Remove the tracheostomy ties and replace them with clean ties. Knot the ties rather than tying in a bow to prevent accidentally untying them. A family member or patient may hold tracheostomy tube in place to prevent decannulation.

**\*NOTE:** If velcro trach holder available, simply adjust to patient's neck size.

- A. If the cuff is inflated, suction the airway. Deflate the cuff and suction again before reinflating the cuff.

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9. Manipulate the tracheostomy tube as little as possible during the procedure to prevent discomfort to the client, irritation to the stoma, and the introduction of bacteria.
10. Discard soiled articles in the plastic bag. Wash hands.
11. Teach the patient and family to:
  - A. Have an extra tracheostomy tube available to replace in the stoma in case of accidental decannulation. Unless a patient is ventilator dependent, inserting the tube will not be an emergency.
  - B. Inflate the cuff according to the patient's needs.
  - C. Give mouth-to-tracheostomy resuscitation should respiratory arrest occur. This is appropriate only if the cuff is inflated. If the cuff is deflated, cover the tube with the finger and give mouth-to-mouth resuscitation.
  - D. Prevent food or medication from entering the tracheostomy. If this occurs, suction immediately.
  - E. Place a small makeup mirror on a table in front of the patient to facilitate doing tracheostomy care unassisted.
  - F. Be careful when taking a tub bath or shaving, so that water does not get into the tube.
  - G. Protect the tracheostomy from dust, dirt, and lint with a gauze pad, laryngectomy bib, or high-necked clothing.
  - H. Protect the skin around the tracheostomy from irritation by performing tracheostomy care daily or more often if secretions are increased.
  - I. In winter avoid cold air entering the tube directly. Use high-necked clothing or a light scarf.
  - J. Avoid persons with respiratory infections. Remove respiratory irritants from the home (e.g., pollen, dust, aerosols, pets). Use damp dusting or vacuuming to clean, as opposed to sweeping, dry dusting, and using aerosols.
  - K. Instruct the client or family to report any signs of respiratory infection.
12. Document in patient medical record.



Revised: 10/91, 10/96

Reviewed: 1/97, 1/98, 10/99, 12/11, 8/14

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**Programs: Hospice**

**CLINICAL PROCEDURE: Tracheostomy Tube Change**

**EQUIPMENT:** Disposable replacement tracheostomy tubes X 2 (one the same size and one a size smaller)  
Twill tape for ties or trach holder  
Lubricant  
Gloves  
Suction machine  
Oxygen supply (if available)  
Stoma care solution  
Q-tips  
Gauze dressing (split)

**PROCEDURE:**

1. Follow pre-procedure protocol. Obtain physician's orders for tube change and frequency of change.

**\* Note:**

- Patient should be NPO prior to procedure.
  - Two nurses will be on hand for the patient's initial trach change in the home. On subsequent changes, an assistant is recommended, but the nurse may handle the situation based on the needs for that particular patient.
2. Prepare new trach. If the trach tube is cuffed, deflate the cuff. Attach holder or ties while holding the trach by the flanges. Have suction set-up, and oxygen ready for use.
3. Lie patient flat on back or in semi-Fowler's position. For small patients or pediatric patients, it may be useful to put a towel roll under the shoulders to extend the neck.
- A. For a child, it is recommended to have an assistant ready to help with restraining the child if required.
4. Suction patient.
5. Loosen ties/trach holder while holding the trach in place. If an assistant is available, have the assistant put on gloves and hold the trach.
6. Clean neck area and inspect stoma.
7. Give stoma care, as needed.
8. With obturator in trach, lubricate end of the trach opening while holding in dominant hand. Try not to get the lubricant in the trach opening. Be careful not to touch the trach tube itself, but rather hold it by the flanges.
9. If an assistant is available, count to three and have the assistant remove the old trach and the primary nurse insert the new trach and remove the obturator immediately. Secure with trach ties while assistant holds trach in place. (see illustration 1)

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10. If there is no assistant available, remove the old trach with the non-dominant hand and replace with the new trach held with the nurse's dominant hand. Secure trach ties and ask client to hold trach in place, if possible.

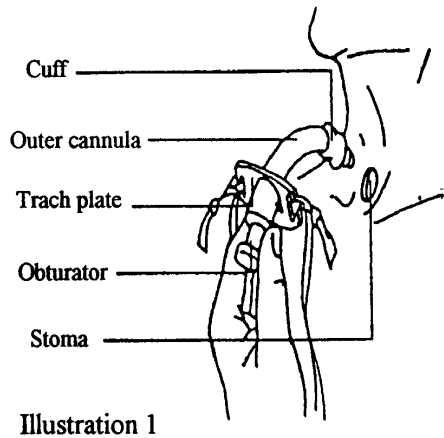


Illustration 1

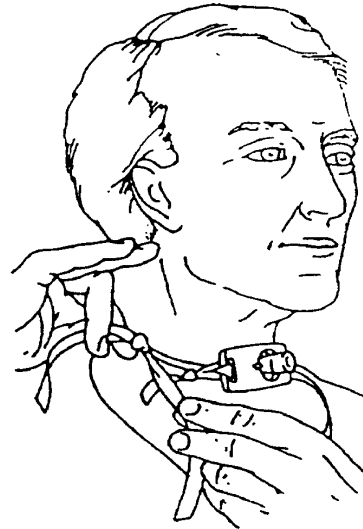


Illustration 2

11. Auscultate chest and assess for air exchange in both sides of the lungs. Inflate cuff with air, if cuff is present.
12. If breath sounds are within normal limits, insert inner cannula (if any), secure trach ties/holder and check snugness. One or two fingers should be able to be inserted between neck and trach ties/holder. (See illustration 2)
13. Suction if necessary. Provide stoma care and replace dressing sponge under trach plate as needed.
14. Wash hands.
15. Document in patient's medical record. Include the date of the change and any problems with the procedure.

Revised: 10/91, 10/96, 8/14

Reviewed: 1/97, 1/98, 10/99, 12/11



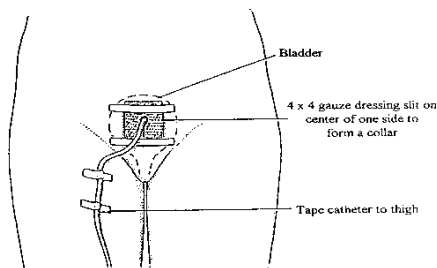
**Programs: Hospice**

**CLINICAL PROCEDURE: Suprapubic Catheter - Site Care**

**EQUIPMENT:** Mild bacteriostatic soap  
Antibacterial ointment as ordered by the physician  
Sterile 4 x 4  
Tape  
Nonsterile gloves

**PROCEDURE:**

1. Follow pre-procedure protocol.
2. Remove and discard soiled dressing into plastic disposable bag.
3. Put on nonsterile gloves.
4. Clean the area around the catheter with soap and 4 x 4's. Rinse with clean water.
5. Inspect the skin for irritation, purulent drainage, bleeding, or urinary leakage.
6. Apply antibacterial ointment around the stoma if ordered.
7. Reapply sterile 4 x 4, cut to center on one side to fit around the catheter like a collar or use a pre-split sponge.
8. Secure the 4 x 4 with hypo-allergenic tape and tape catheter, if patient desires, to thigh.
9. Wash hands.
10. Document in the patient's medical record:
  - A. the color and amount of drainage
  - B. the condition of the skin
  - C. all teaching
  - D. the patient or caregiver's response to teaching.



Revised: 10/91, 8/96

Reviewed: 1/97, 1/98, 10/99, 12/11, 8/14

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**Programs: Hospice**

**CLINICAL PROCEDURE: SUPRAPUBIC CATHETER REINSERTION**

**EQUIPMENT:** Catheter of the size and style designated by the physician  
Sterile packaged catheterization tray which containing:

Waterproof Drape (1)	Fenestrated Drape (1)
2 Vinyl Gloves	Povidone Solution
Solution Basin	6 Rayon Balls
Plastic Forceps	Lubricating Jelly
30 cc Prefilled Syringe	4 oz. Specimen Container
1200 ml. tray	Bag for disposal
Sterile 4 x 4	Tape
Nonsterile gloves	Sterile closed urinary drainage system

**\*NOTE:** Suprapubic Foley catheter is changed per physician's order.  
Closed drainage system is changed weekly or prn.

**PROCEDURE:**

1. Obtain physician's order.
2. Prepare patient:
3. Explain procedure to the patient. Provide privacy.
4. Place patient in supine position with pillow under head.
5. Protect bed with towel or plastic.
6. Expose abdomen.
7. Maintain sterility throughout the procedure.
8. Put on nonsterile gloves. Deflate the balloon. Remove the catheter and discard into the plastic disposal bag.
9. Remove gloves. Wash hands.
10. Open sterile Foley catheter tray. Assemble equipment.
11. Put on sterile gloves. Open lubricant package and squeeze lubricant onto sterile field.
12. Check catheter balloon for leaks by inflating with normal saline, then deflate.
13. Cleanse stoma and surrounding area with Betadine.
14. Grasp the catheter about 4 inches from the tip and dip the tip into the sterile lubricant.

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**Programs: Hospice**

15. Insert the catheter into the stoma until resistance is felt. Observe for urine flow from the catheter.
16. Inflate the bulb of the catheter with normal Saline (8ml - 10 ml).
17. Connect the catheter to the drainage system.
18. Dress the stoma and catheter, following suprapubic site care procedure.
19. Remove gloves. Wash hands.
20. Document procedure in the patient's medical record.
21. Instruct the patient and/or caregiver in care of closed drainage system:
  - A. Redress insertion site daily.
  - B. Empty the drainage bag through the designated drainage tube, usually at the bottom of the bag.
  - C. Report decrease in output.
  - D. Keep drainage bag below the level of the bladder; clamp tubing any time it is necessary to raise the bag higher than the level of the patient's bladder.
  - E. Keep tubing free of kinks, twists, or loops below the level of the drainage bag to avoid interference with free flow by gravity.
  - F. Keep drainage bag off the floor. Keep it secured at the appropriate level.

Revised: 12/96

Reviewed: 1/98, 10/99, 12/11, 8/14

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**Programs: Hospice, Care Connections**

**CLINICAL PROCEDURE: CATHETERIZATION – URINARY (MALE OR FEMALE)**

**EQUIPMENT:** Sterile catheter  
Disposable catheter tray  
Closed drainage system

**PROCEDURE:**

1. Follow pre-procedure protocol.
2. Establish privacy.
3. Position patient as follows:
  - A. Female - Supine with knees flexed and widely spread.
  - B. Male - Supine with legs extended and slightly apart. Flex knees slightly.
4. Drape patient.
5. If perineal area is soiled, don gloves and clean with warm soap and water solution.
6. Direct light source to provide visualization of genital area if needed.
7. Remove disposable gloves and wash hands.
8. Open catheter tray using aseptic technique.
9. Position moisture proof pad under patient's buttocks.
10. Put on sterile gloves using sterile technique.
11. Position sterile drapes. (Use of fenestrated drape is optional.)
12. Tear open the packet of cleansing solution and pour over the cotton balls.
13. Apply the water soluble lubricant to the catheter tip. Set aside on the sterile field. Open specimen container and set cap aside on sterile field (if applicable).
14. Before inserting the catheter, inflate the catheter balloon with the normal saline solution to inspect it for leaks. Deflate the balloon.
15. FEMALE:
  - A. Separate labia majora with non-dominant hand so that the urethral meatus is visualized. One hand is to maintain separation until catheterization is completed.
  - B. Clean the labia and meatus with cleansing solution. Use a single stroke for each cotton ball and discard. Give one downward stroke to each side of meatus, and then give last stroke down over meatus. Move top to bottom, front to back.
  - C. Do not allow labia to close over meatus once it has been cleaned.

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Programs: Hospice, Care Connections

- D. Pick up lubricated catheter with sterile hand and introduce it through urethral meatus.
- E. Extend approximately 2-3 inches for adult, 1 inch for child, into bladder.
- F. Do not force the catheter if it meets resistance.
- G. Discard catheter if it becomes contaminated.

16. MALE:

- A. Carry out the same preparatory phase as for the female patient. Place sterile drape under penis. (Use of fenestrated drape is optional.)
- B. Lubricate approximately seven inches of catheter.
- C. Grasp shaft of penis with non-dominant hand, raising it almost straight up. Maintain the position until procedure is ended.
- D. Using forceps and cotton swabs, wash glans around urethral meatus with cleaning solution. If patient is uncircumcised, retract foreskin using non-dominant hand.
- E. Insert catheter into urethra along the anterior wall by lifting penis perpendicular to the body. Advance catheter until urine flows.
- F. If resistance is felt, slightly increase traction pressure on penis and apply gentle, steady pressure on the catheter.
- G. Do not force catheter if it meets resistance.
- H. Discard catheter if it becomes contaminated.

17. When urine flows, transfer non-dominant hand to catheter to stabilize position.

**\*Note:** If catheterization is for specimen collection, collect specimen and remove catheter. If catheterization is for retention, stop flow when 700 ml of urine has been removed. Wait 5-10 minutes. Unclamp catheter and continue bladder drainage.

18. Instill sterile saline through the appropriate port to inflate Foley balloon. Attach to drainage bag.

19. Gather soiled items and dispose. Remove gloves and wash hands.

20. Position drainage bag in direct, dependent position below level of bladder.

21. Provide patient and/or caregiver with instruction sheet for Foley catheter care and review instruction with patient/caregiver. See Foley Catheter Care Procedure.

22. Document in the patient's medical record

- A. the date, size of catheter utilized, difficulty encountered, appearance of urine, and how the patient tolerated procedure.
- B. any teaching performed regarding catheter maintenance and responsiveness of the caregivers to instruction.
- C. type of specimen obtained and disposition in patient's medical record.

Revised: 10/91, 8/96

Reviewed: 1/97, 1/98, 10/99, 12/11, 8/14

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**Programs: Hospice, Care Connection**

**CLINICAL PROCEDURE: FOLEY CATHETER CARE**

\*NOTE: The bladder is a sterile area. The aim of foley catheter care is to prevent germs from entering this sterile area and causing infection.

**PROCEDURE:**

1. Empty the drainage bag at least 2 or 3 times a day. Definitely empty it when the bag is half full or more. Record the amount of urine in the bag on the Daily Care Chart each time it is emptied.
2. When emptying the drainage bag, do not allow the end of the tubing to touch ANYTHING. If the tubing touches anything, wipe the tubing with an alcohol sponge.
3. Keep the catheter taped to the patient's thigh with non-irritating tape. This will prevent uncomfortable tugging on the catheter
4. Keep the drainage bag lower than the level of the patient's bladder at all times. When the patient is turned, and the catheter must be switched from one side of the bed to the other, pinch the tubing and raise the drainage bag only as high as the mattress to pass it to the other side of the bed.
5. Cleanse the genital area around the catheter and about 6 inches of tubing at least twice daily with mild soap and water. Rinse and dry thoroughly.
6. Encourage the patient to drink plenty of fluids. A goal would be 2-3 quarts of fluid per day, but we know this is not possible for many of our patients.
7. Report fever, chills, or if urine does not appear to be draining through the tubing. If you do not see the urine draining, check to be sure the tubing is not kinked.
8. If the catheter should come out in the middle of the night, you can wait until morning to notify Hospice, UNLESS the patient is uncomfortable and feels the need to urinate, but can't.
9. Remember to wear gloves when you are providing catheter care. Wash your hands after you remove your gloves.
10. For persons using leg bags: Empty the bag at frequent intervals during the day. When the leg bag is removed at night, clean the bag with a disinfecting solution of bleach (1 part bleach mixed with 10 parts water). Rinse the bag and allow it to dry.

Updated: 8/14

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**Programs: Hospice**

**CLINICAL PROCEDURES: Dry Sterile Dressing**

**EQUIPMENT:** Appropriate dressing:

- Light drainage: non adherent dressing (may add cover sponge for cosmetic purposes) or gauze
- Medium drainage: Gauze sponges and appropriately sized wetproof ABD for drainage transfer
- Heavy drainage: Gauze sponges and a heavy drainage wetproof ABD (Montgomery straps are recommended in place of tape for large, frequently changed dressings)

Appropriate tape

(2) Sterile gloves, as appropriate (one set for standard dressing or two sets for special)

Plastic bags for soiled dressings and equipment

2 pair clean gloves

Sterile basin

Antiseptic-cleansing solution

**PROCEDURE:**

1. Determine classification of wound. Dressing techniques can be classified as special or standard, depending upon the nature of the infected wound or lesion.
  - A. Special dressing techniques should be used for all extensive wound infections, gas gangrene, impetigo, staphylococcal skin wound infections, and streptococcal (group A) skin infections. Special dressings require hand washing before and after patient contact, use of two sets of gloves, changing gloves between removal of the old dressing and application of the new dressing (and hand washing before putting on second set of gloves), use of sterile equipment, double bagging of soiled dressing, and the "no touch" dressing technique. All wastebaskets should have impervious disposable linings.
  - B. Standard dressings require hand washing before and after patient contact. Double bag the soiled dressings and equipment, and use the "no touch" technique when handling the dressings.
  - C. All dressings require clean gloves for dressing removal and sterile gloves for dressing application.
2. Follow pre-procedure protocol.
3. Remove adhesive tape and dressing.
  - A. Put on gloves.
  - B. Gently remove tape along longitudinal axis.
  - C. Press down on skin while lifting edges of dressing.
  - D. Remove tape near a wound by pulling toward the wound.
  - E. Remove old dressing.
  - F. Place old dressing in disposable bag.
  - G. Assess appearance and size of wound as well as characteristics and amount of exudate.
  - H. Remove and dispose of soiled gloves.
  - I. Set bag aside for disposal of other items. Seal bag before depositing in waste receptacle.
  - J. Wash hands.
4. Cleanse wound.

**Programs: Hospice**

- A. Put on clean gloves.
  - B. Clean wound with ordered solution from center outward; if cleaning a suture line, work from top to bottom.
5. Apply new dressing.
- A. Remove gloves; wash hands.
  - B. Open sterile dressing and antiseptic solution.
  - C. Put on sterile gloves. Cleanse wound with antiseptic solution.
6. Use a separate swab for each cleansing stroke.
- A. Place appropriate dressing over wound.
  - B. Remove gloves and secure dressing appropriately with tape or Montgomery straps.
7. Provide follow-up care.
- A. Make patient comfortable.
  - B. Dispose of soiled materials in plastic bag and seal it.
  - C. Wash hands.
8. Document in patient's medical record. Include condition and size of wound and description of drainage. Include instruction to patient or caregiver and their response.
9. Notify physician of any signs or symptoms of infection.

**\*NOTE:** Change dressing as ordered by physician, or as needed, depending on characteristics of wound.

Revised: 10/91, 1/97

Reviewed: 1/98, 11/99, 12/11, 8/14



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**Programs: Hospice**

**CLINICAL PROCEDURE: Wet Sterile Dressing (Wet-to-Dry Dressing)**

**EQUIPMENT:** Sterile solution, as ordered  
Medication, as ordered  
Examination gloves  
Sterile gloves  
Sterile dressings  
Tape  
Plastic bag

**PROCEDURE:**

2. Follow pre-procedure protocol.
3. Put on examination gloves.
4. Remove soiled dressing and place in plastic bag.
5. Remove examination gloves. Wash hands.
6. Cleanse wound as ordered
7. Open sterile dressings, taking care to touch only exterior of dressing packs.
8. Pour the ordered solution onto the dressing material. Do not allow the bottle to touch the dressing.
9. Put on sterile gloves.
10. Place the moistened sterile dressing on the wound.
11. Cover with a sterile dry dressing.
12. Remove gloves.
13. Secure dressing with tape.
14. Wash hands.
15. Document procedure and findings in the patient's medical record.

**\*NOTE:** Change dressing as ordered by physician or as needed, depending on characteristics of wound.

Revised: 10/91, 11/99

Reviewed: 1/97, 1/98, 12/11, 8/14

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**Programs: Hospice**

**CLINICAL PROCEDURE:** Time of Death

\*NOTE: A Hospice RN may pronounce that a patient has died in his/her place of residence.

The Attorney General has ruled:

"A nurse may pronounce an individual dead. The dividing line is whether there is a question of whether an individual is alive or dead. If there is a question, a physician must be consulted. Nursing personnel should record their observations and information as to the condition of the patient. Those entries on patient records may indicate that the patient has expired or the total absence of vital signs."

**PROCEDURE:**

The Hospice nurse will:

1. Respond to the reported death of a patient by going to the patient's residence, as appropriate. Other team members may also be called upon to visit, depending on circumstances.
2. Verify the absence of blood pressure, pulse, and respiration.
3. Notify patient's attending physician of the patient's death. If the death occurs after hours, the nurse may choose to delay notification of the physician until the morning, but in all cases the physician should be notified of the death within 24 hours.
4. Call the funeral home of the family's choice. Notify the director if the patient had a communicable disease. Provide the attending physician's name as the physician who will sign the death certificate.
5. Assist family in placing phone calls to pastor, other family members, etc.
6. Provide emotional support for family.
7. Provide post-mortem care to the deceased patient. (See procedure on Post-Mortem Care.)
8. Remain with the family until the mortician comes for the body.
9. Dispose of unused medications (See policy and procedure on Medication Disposal)
10. Notify all team members of the patient's death.

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**Programs: Hospice**

11. \*If death occurs during regular office hours, the hospice nurse will notify the team leader and members of the IDT of the death. If death occurs when the Hospice office is closed, the on-call nurse will notify the patient's volunteer of the death (unless it is late at night). The on-call nurse will check the nursing assistant schedule and notify the nursing assistant if scheduled for a visit. Report of the death will be left on the on-call e-mail box to inform others on the Hospice team.
12. Documentation at time of death includes:
  - A. Care at Time of Death Intervention in the EMR
  - B. Medication Disposal Form (Policy manual – Clinical Care Forms)
13. Call Equipment Company to arrange for pickup of medical equipment. Advanced Home Care to pick up equipment within 24 hours or per the family's instruction.
14. Create task in the EMR for Business Office staff with the information of patient's death.
15. Complete Admission/Status screen in the EMR re: Date, time and location of death.
16. Involved members of the Hospice team are encouraged to make a bereavement contact within the first month for closure and transition into bereavement services.
17. Grief Counseling Center mails a sympathy card within first 2 weeks and the involved social worker completes the Bereavement Risk Assessment within 3-6 weeks.

Reviewed: 12/11

Updated: 8/14

**Programs: Hospice, Care Connections**

**CLINICAL PROCEDURE: OXYGEN THERAPY**

<b>EQUIPMENT:</b>	O2 Concentrator	Humidifier, if indicated
	Cannula or mask	Distilled water
	Connecting tubing	No Smoking sign

**PROCEDURE:**

1. Follow pre-procedure protocol.
2. Assemble and test the equipment.
  - A. Plug concentrator into standard electrical outlet.
  - B. If using humidifier, fill with distilled water and attach container to oxygen connection on the front of the concentrator. (Humidifier used for O2 order of 3-l/m or greater.)
  - C. Attach O2 tubing to nipple adaptor. Attach nasal cannula or mask to tubing, if applicable.
  - D. Set flow control to prescribed flow rate.
  - E. Turn power switch to "ON" (alarm will sound for approximately one minute).
  - F. Check for oxygen flow and function of humidifier.
3. Delivery of oxygen
  - A. Place nasal cannula or mask on patient. Nasal prongs should be inserted so that the curve follows the natural curve of the nasal passages. Tubing is placed over each ear and secured under the chin.
  - B. An oxygen mask should cover the mouth and the nose. Secure the mask behind the head with an elastic band.
  - C. A trach collar should cover the trach site with collar fitting to the contour of the neck and elastic band secured behind the neck.
4. Determine if the patient is tolerating the oxygen.
5. The caregiver's responsibility:
  - A. Clean humidifier and tubing every 48 hours.
  - B. Disassemble humidifier and wash parts in mild dish detergent.
  - C. Scrub equipment with brush thoroughly.
  - D. Rinse well to remove all detergent.
  - E. Soak equipment for twenty (20) minutes in white vinegar solution containing (2) two parts white, distilled vinegar and (3) three parts distilled water. (example: One cup white, distilled vinegar to one and one-half cups distilled water)
  - F. Thoroughly rinse all parts with tap water.
  - G. Drain and dry on clean towel. **DO NOT WIPE DRY WITH TOWEL.**
  - H. Store in dust free area.
  - I. Wipe tubing/cannula or mask with warm water every 48 hours.
  - J. Check the concentrator's side filter daily and rinse with tap water when dirty.
6. Replacement of accessories
  - A. The nurse will be responsible for replacement (exception: facilities where protocol may be different):

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**Programs: Hospice, Care Connections**

- 1) Humidifier bottle should be replaced every month
- 2) Nasal cannula/mask and tubing should be replaced every month and in between infections or colds.
- 3) The pre-filter (inside panel door on side of concentrator) should be changed monthly.
- B. Advance Home Care responsibility:
  - 1) The bacteria filter will be changed by Advance support staff every 6 months when they make a maintenance check.
7. Portable oxygen tanks will be kept in the home as a back-up for the oxygen concentrator or for use when the patient must leave the home. Instructions for oxygen tanks include:
  - A. To turn tank on, turn the tank key in a counterclockwise direction.
  - B. Set the flow rate by turning flowmeter adjustment knob so that the black needle is at the prescribed flow rate.
  - C. To check if tank is low, turn tank on and observe regulator gauge needle. If it is in the red "refill" section, a new tank is needed.
  - D. To turn tank off, turn the tank key in a clockwise direction and check to make sure the needle is in the red area.
8. Teach the patient and family to:
  - A. Only use oxygen as ordered.
  - B. Adjust the flow rate prior to putting on the cannula or mask. This prevents receiving a blast of oxygen and enables a quick check of the system to see that it is functioning correctly.
  - C. Keep a portable back-up oxygen cylinder available in the event of a power failure or for travel, if the patient is using an oxygen concentrator.
  - D. Secure the oxygen cylinder on a cart or stand to prevent falls and subsequent injury.
  - E. Store oxygen equipment away from direct heat, open flames, grease, oil, or flammable materials. Oxygen will support combustion and cause material to burn faster.
  - F. To prevent possible sparks, dust the cylinder only with a cotton cloth. Do not cover the cylinder with material of any kind.
  - G. Keep open flames away from oxygen. Although open flames may not be obvious with electronic cigarettes and other vaping devices, most use rechargeable batteries that pose a significant threat of ignition. Enforce no-smoking and no-vaping rules within 10 feet of the equipment. Place a sign in the room to remind visitors. Place a sign on entrance doors of house or apartment.
  - H. Avoid using electrical appliances (e.g. electronic cigarettes/vaping devices, razors, and hair dryers) while using oxygen.
  - I. Avoid clothing or nightdresses of nylon material and woolen blankets, which might cause sparks or static electricity.
  - J. Avoid skin, eye, and clothing contact with the liquid from a leaking Liquid Oxygen Canister System.
  - K. Avoid using aerosols around the oxygen equipment to prevent fire.
9. The patient and/or Caregiver will receive the written educational sheet entitled "Oxygen Use and Safety" from Advanced Services. The nurse has the responsibility to follow-up on patient's understanding of instructions.
10. Document all teaching in patient medical record.

Revised: 10/91, 9/96, 8/14 Reviewed: 1/97, 1/98, 10/99, 2/11, 05/2023

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**Programs: Hospice**

CLINICAL PROCEDURES: Insertion of Macy Catheter to provide rectal access to administer liquids/medications.

**EQUIPMENT: (in kit)**

Clinician and Caregiver forms provided:

- |                                |                                    |
|--------------------------------|------------------------------------|
| 1-Clinician Instruction Manual | 2-Medication Administration Sheets |
| 1-Caregiver Instruction Manual |                                    |

Supplies provided in kit for insertion:

- |                            |   |
|----------------------------|---|
| 1-Macy Catheter            | 1-30ml luer syringe (discard after use) |
| 1-Catheter securing device | 1-Pair non-sterile gloves               |
| 1-Water soluble lubricant  | 1-non-sterile poly-towel                |

**PROCEDURE:**

1. Obtain physician's order.
2. Wash hands.
3. Gather equipment.
4. Provide privacy for patient. Explain procedure
5. Put on gloves. With catheter on a non-sterile towel, lubricate the first 3 inches of the catheter from the tip to the first marker with water soluble lubricant. Position the patient on the side for easy access to rectum. Avoid exposing patient unnecessarily.
6. Position the patient on the side for easy access to rectum. Insert the catheter into the rectum to the marker line between the two arrows. One marker arrow will be visible when properly placed. Temporarily remove the red safety cap from the Balloon Inflation Port. Inflate balloon by injecting 15ml cool tap water with luer syringe. Replace red safety cap back on Balloon Inflation Port. Gently tug to assure that the balloon is against the rectal sphincter. One marker arrow should be visible once properly placed. Position the tubing of the catheter between the legs. Secure the Macy Catheter to the anterior aspect of the patient's thigh or lower abdomen with a catheter securing device.
7. Remove gloves and discard.
8. Assist patient to comfortable position.
9. Wash hands.
10. Document in patient's medical record. Include date and time of insertion and how patient tolerated the procedure.
11. For maintenance:

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**Programs: Hospice**

- a. Be sure the catheter tube remains between the legs and is secured to the front portion of the thigh or lower abdomen.
  - b. Clean the anal area and catheter with soap and water or wet wipes when soiled or during routine bathing
  - c. Clean the medication port using a clean cloth dampened with only water if it becomes sticky with medication residue (do not use soap or other cleaning products).
  - d. Rinse medication syringe with water only after each use and may be stored for repeated use.
12. For Removal:
- a. Deflate the balloon with luer syringe by attaching the 20ml luer syringe to balloon inflation valve and gently withdraw the 15ml water from the balloon.
  - b. If needed, you may cut the catheter at the balloon inflation port: using scissors, cut below inflation port and allow water to drain out completely. (NOTE: catheter will not be able to be reinserted after cutting catheter at balloon inflation port).
  - c. Gently remove catheter.
  - d. Double bag in plastic trash bag, tie shut and discard into the trash.

Revised: 5/18

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**Programs: Hospice**

CLINICAL PROCEDURES: Administration of medications through the Macy Catheter.

EQUIPMENT: (in kit)

Clinician and Caregiver forms provided: 1-Clinician Instruction Manual, 2-Medication Administration Sheets

Supplies provided in kit for medication administration:

1 LiquiPill System, 1-10ml oral syringe, 2 receptacles, 1-3ml oral syringe, 2 syringe adapter caps    Grinder cap

**PROCEDURE:**

1. Obtain physician's order for medication and administration route.
2. Wash hands.
3. Gather equipment.
4. Provide privacy for patient. Explain procedure
5. (for liquids or suspensions only) - Pull the prescribed amount of liquid or suspended medications into the 3ml or 10ml enteral/oral syringe.
6. The Medication Administration Port is marked "MEDS" – only oral/enteral syringes will fit into this port. Insert the syringe into the Medication Administration Port. Inject medication over 3 to 5 seconds. Once all medications have been injected, flush the Medication Administration Port using the "Quick Flush" technique. With a 3ml oral syringe, inject 3ml cool tap water very quickly over less than 1 second.
7. (for liquefying oral tablets using the LiquiPill System) – Place tablets through slotted opening on top of LiquiPill grinder. Grind tablets by turning the grinder top with a back and forth movement until grinder moves smoothly. For capsules – remove the grinder cap, open capsule and pour directly into the medication reservoir. Remove the grinder top and add 10ml water to the medication reservoir. Place Syringe Adapter Cap on Medication Receptacle then shake and swirl for 10 seconds. After shaking and swirling, attach syringe to adaptor cap. Turn upside down and draw solution into the oral syringe. Insert syringe into Macy Catheter Medication Port marked "MEDS" and inject over 3 to 5 seconds. With the 3ml oral syringe, quick flush the catheter by injecting 3ml cool tap water very quickly over less than 1 second.
8. Remove gloves and discard.
9. Assist patient to comfortable position.
10. Wash hands.
11. Document in patient's medical record. Include date and time of insertion and how patient tolerated the procedure.

Revised: 5/18



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Programs: Hospice

CLINICAL PROCEDURES: Re-insertion of Macy Catheter after Expulsion

**The Macy Catheter may be reinserted in the same patient for up to 28 days if expelled or purposefully removed for defecation. The catheter must be replaced immediately after expulsion or defecation and not stored for later use.**

EQUIPMENT:

- 2pair non-sterile gloves
- Wash cloth moistened with water
- One 20ml luer syringe empty
- One 20ml luer syringe with 15ml water
- Water soluble lubricant packet
- Paper towel or non-sterile poly towel

PROCEDURE:

1. Wash hands prior to procedure
2. Put on Gloves
3. Attach empty 20ml luer syringe to balloon inflation valve and gently withdraw the 15ml water from the balloon.
4. Gently wipe the entire tip of the Macy Catheter with a moistened wash cloth and place the Macy Catheter on a paper towel or poly-towel. Discard washcloth appropriately
5. Remove and discard gloves and wash hands.
6. Put on new gloves
7. Open Water soluble lubricant packet and lubricate distal end of the Macy Catheter to the blue line
8. Insert Macy Catheter into rectum to blue marker line between arrows. Attach luer syringe filled with 15ml water to balloon inflation port and inject 15 ml water to inflate balloon. Gently tug to assure proper placement.
9. Secure catheter to anterior thigh or abdomen
10. Discard poly-towel, gloves and other supplies after procedure
11. Wash hands
12. Document procedure

Revised: 5/18