SUBJECT: NEPHROSTOMY TUBE MANAGEMENT

PURPOSE OF PROCEDURE: To provide the nurse with guidelines for management of the patient with nephrostomy tubes.

PERFORMED BY: RN

PHYSICIAN'S ORDER REQUIRED: NO

POLICY GUIDELINES:

1. Percutaneous nephrostomy tubes are inserted thru the skin via an incision line made at the flank and placed directly into the renal pelvis of the kidney to permanently or temporarily drain urine and/or decompress the urinary tract after a partial or complete obstruction has occurred. The tube exiting at the incision area is then anchored with sutures or securement device/dressing and connected to extension tubing that drains into a drainage bag.
2. Irrigation of nephrostomy tube if needed, it is to be ordered and performed by a specially trained Licensed Independent Practitioner
3. Aseptic technique to be maintained for dressing changes and when obtaining a urine specimen.
4. All urine specimens to be collected from nephrostomy tube by gravity. Do not aspirate.
5. All nephrostomy tubes to be checked at minimum once per shift to ensure for patency, securement, abnormal signs or symptoms (e.g. pain, leakage or bleeding), and any potential or actual skin breakdown from tightness of urinary drainage straps or skin under tubes.
6. Assist with positioning to prevent tube dislodgement. Securing the catheter to the body and anchoring the urinary drainage bag may assist with preventing infections, tube displacement, and local skin irritation.
7. Keep the drainage bag below the level of the kidneys at all times.
8. Notify the Provider for the following:
    - Nephrostomy tube dislodgement
    - Bright red urinary drainage after the first 48 hours of insertion
    - Urine output less than 240mLs in 8 hours
    - Urine output greater than 2000mL in 8 hours
    - Signs of infection
9. If tube is permanent, routine tube changes are recommended every 3 months or sooner as needed

EQUIPMENT REQUIRED:

Personal Protective Equipment (PPE), dressing kit, gloves, sterile gloves, tube securement device, sterile normal saline, transparent film, nephrostomy drainage bag and leg straps (with appropriate connector if needed), disposal bag, Skin barrier wipes

PROCEDURAL STEPS:

1. **Dressing Change**
   a. Change dressing at least twice a week and PRN or as ordered by provider.
      i. Explain and discuss procedure with patient
      ii. Perform hand hygiene and don gloves
      iii. If possible, assist patient onto the edge of the bed and position upright with back exposed. If unable, place in side lying position.
      iv. Secure drain with one hand and with other hand slowly and gently lift off previous dressing
      v. Inspect incision site for any redness, swelling, warmth, tenderness and discharge to detect signs of infection and skin breakdown. . If sutures are present, check for securement.
      vi. Note the markings on the tube at the exit site to check for accidental dislodgement.
      vii. Discard gloves and soiled dressing
      viii. Perform hand hygiene
      ix. Don sterile gloves
      x. Open and prepare the sterile saline solution, gauze pads
      xi. Moisten the gauze pads in normal saline and cleanse the site working from the drain outwards in a circular motion. Gently remove any encrustation. Allow site to dry.
      xii. If ordered, apply topical medication at this time
      xiii. Apply skin barrier wipe to intact peri-nephrostomy site
      xiv. Place sterile 4”x4” drain dressing around the tube exit site or transparent semipermeable dressing
      xv. Secure dressing with hypoallergenic tape.
      xvi. Secure tubing with securement device (e.g. Flexitrak, DrainFix)
      xvii. Dispose PPE and perform hand hygiene.

2. **Emptying and Changing Nephrostomy Drainage Bag**

   a. Perform hand hygiene and don gloves
   b. Using aseptic, non-touch technique, empty the urine bag by opening the drainage spout, and drain the bag into a urine collector container. Prevent spout from touching urine collection container or any other objects to prevent infection.
   c. Assess urine volume, color, clarity and odor.
   d. Using sterile technique change nephrostomy drainage bag weekly and PRN
   e. Gently pinch or clamp the soft nephrostomy tubing to prevent any leakage and gently disconnect bag
   f. Cleanse the connector hub with alcohol-impregnated chlorhexidine wipe
   g. Connect the new bag and allow urine to drain
   h. Apply leg strap if applicable and ensure not too tight over skin or bony prominences
   i. Place bag below level of kidneys to prevent urine backflow into kidney
   j. Place old empty urine drainage bag in a disposal bag and discard

PATIENT/FAMILY EDUCATION:

1. All patients and caregivers to be educated regarding care/management of nephrostomy tube prior to discharge, signs and symptoms of infection/potential complications, and provided with educational handout and contact telephone numbers for follow-up, or in case of problems.
2. Educate patient to drink at least two liters of fluid daily unless contraindicated
3. Educate and if possible demonstrate how to waterproof the dressing prior to showering

4. Educate patients and caregivers regarding handwashing prior and after procedures
5. Educate patient to follow any activity restrictions and avoid lifting greater than 10 pounds post-operatively until cleared by Provider.
6. Educate patient and caregivers to check for any possible twists or kinks in tubing.

DOCUMENTATION:

1. Document the following in Electronic Health Record (EHR):
    a. Dressing changes
    b. Drainage output
    c. Education provided to the patient and caregivers
    d. Any swabs or samples taken from site (e.g. exit site cultures, urinary samples)

2. Label dressing with Initials, time, and date

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11/16 – Initial
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