THIS IS A POST-ENTRY COMPETENCY FOR REGISTERED NURSES THAT REQUIRES ASSESSMENT OF COMPETENCY PRIOR TO PERFORMING

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POLICY:

1. Intermittent irrigation of a nephrostomy tube:
   1.1. is a Post-entry Level Competency which requires the RN to be assessed as competent to perform the procedure.
   1.2. requires a written physician’s order.

2. Adherence to strict sterile technique is required as renal tissue is susceptible to injury and infection.

3. No more than one attempt is to be made to dislodge a clot or sediment via nephrostomy tube irrigation. If the nephrostomy tube remains obstructed following the one attempt, the physician is to be notified.

4. If there is no return from the first instillation, repeat instillations are not to be performed. The physician is to be notified if there is no return.
DEFINITIONS:

Nephrostomy tube: A catheter inserted into the kidney, usually when there is a blockage in the ureter that may be caused by a tumor, stone(s), or edema. The nephrostomy tube is attached to a closed drainage system or a urostomy appliance.

Hydronephrosis: the backup of urine into the kidney causing distention of the renal pelvis and calices with urine which may lead to kidney failure.

Percutaneous Nephrostomy: is the insertion of a tube through the skin into the renal pelvis.

GUIDING PRINCIPLES AND VALUES

1. The capacity of the renal pelvis is only 5-10 mL. An increase in fluid volume may traumatize the renal pelvis, causing pain and hemorrhage.

2. It is important to observe for pain or leakage around the nephrostomy tube during the irrigation procedure.

3. There are several types of nephrostomy tubes, so the equipment as listed below may vary. However, the most important thing to remember is to slowly irrigate with no more than 5 – 10 mLs of normal saline.

4. A vinyl connecting tube 30 cm. long with a stopcock is used to attach the nephrostomy tube to a leg bag.

EQUIPMENT:

1. 10 mL Syringe only and 18g Needle
2. Sterile Normal Saline (10 mL) or pre-filled syringe
3. Sterile bowl
4. 2 – Sterile 4” x 4” Dressing
5. Sterile Gloves
6. Alcohol swab

PROCEDURE: IRRIGATION OF NEPHROSTOMY TUBE

1. Obtain a written Physician’s Order
2. Gather equipment, take to bedside and assemble.
3. Position patient on side and expose catheter.
4. Wash hands.
5. Aseptically attach 18g needle to syringe.
6. Draw up 10 mL sterile Normal Saline into syringe or use a 10 mL pre-filled sterile Normal Saline syringe.
7. Remove needle from syringe.

8. Apply sterile gloves.

9. Position sterile bowl below nephrostomy tube (may use sterile 4 x 4 dressing if return flow minimal).

10. Turn the stopcock on the Vinyl connecting tube to off

11. Cleanse the junction between the nephrostomy tube and Vinyl connecting tube with alcohol wipe and lay on sterile 4 x 4 dressing.

12. Disconnect the Vinyl connecting tube closest to the Nephrostomy tube at the stopcock connector.

13. Wrap the end of Vinyl connecting tube in a sterile 4 x 4 dressing,

14. Attach the syringe to the nephrostomy tube.

15. Insert 5 to 10 mL sterile Normal Saline slowly (DO NOT FORCE).

16. Disconnect syringe from nephrostomy tube.
   16.1. The saline should drain out into the sterile bowl by itself. If not, reattach the syringe and gently withdraw on the plunger. All the saline may not return.
   16.2. Notify the Physician if there is no return.*DO NOT REPEAT IF THERE IS NO RETURN.

17. Aseptically reattach the Vinyl collecting tube to the nephrostomy tube.

18. Ensure there are no kinks in the Nephrostomy tube. Hold the end of the Nephrostomy tube steady and turn the Vinyl connecting tube onto the Nephrostomy tube.

19. Turn the stopcock to ‘on’ to allow for drainage. Assess and record:
   19.1. Amount, colour and consistency of return;
   19.2. Patient response (i.e. discomfort);
   19.3. Amount of irrigating solution used.

20. Wash around the incision site with normal saline and replace drain dressing if needed.

**PROCEDURE: OBTAINING URINE SPECIMEN FROM THE PERCUTANEOUS NEPHROSTOMY TUBE**

**A. Equipment**

- Disposable sterile field
- Alcohol wipes
- Sterile gloves

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Drainage bag with connecting tubing
Scissors
Disposable under pad
Non-sterile gloves
Sterile specimen cup
Label

B. Steps

1. Follow the procedure section, “Drainage bag change”
   - Facilitate gravity flow of urine collection into bag by ensuring bag is held below level of kidneys.
   - When sufficient volume of urine has collected, open drainage bag valve, and drain urine into sterile collection cup without allowing tip of bag to touch inside of cup.
   - Close drainage bag valve.
   - Prepare and label specimen.
   - Document that a specimen was obtained in Clinical Record, or on an approved ICU flow sheet.

KEY POINTS
Urine cannot be aspirated from the renal pelvis for collection, but must drain naturally.

REFERENCES:


Related Documents

Appendix A – Renal Concepts in Critical Care – Nephrostomy Tube Care

Appendix B – Learning module for Nephrostomy Tube, Intermittent Irrigation of – Shared Competency

Appendix C – Anatomy of Kidneys and Nephrostomy Tube Placement