POLICY

This protocol will be followed when performing a dressing change at the exit site of a peritoneal dialysis (PD) catheter. All newly placed peritoneal dialysis catheters require sterile dressing changing until surgical site is healed (4-6 weeks), then a clean technique (shower technique can be used). This policy includes protocol for initial sterile dressing changes, as well as the shower technique.

Sterile PD catheter dressings will be changed every seven days and when assessment determines it is necessary (e.g. presence of blood/moisture/drainage, dressing integrity is compromised, sides of dressing lifting more than 0.5 cm) to minimize the risk of infection. Once site is healed, shower technique will be performed daily.

This is a Beyond Entry Level Competency that requires initial certification and annual recertification.

Initial certification requires:
- knowledge attainment through self directed learning package (see Appendix A)
- facilitated hands on skills lab
- Precepted skills application and competency verification

Recertification requires:
- annual policy review
GUIDING PRINCIPLES AND VALUES

The use of aseptic technique when performing sterile dressing changes, reduce the risk of infection.

Always work in a clean environment and on clean surfaces.

Encourage as few people in the room as possible during the procedure.

One of the most important ways to prevent infection and complications is to anchor the peritoneal dialysis catheter. Anchor catheter in place with tape or immobilizer. This minimizes trauma to exit site and tunnel area. It also prevents the catheter from moving in and out and irritating the skin around the site.

Inspecting the PD catheter exit site: When checking the exit site and tunnel area, monitor for redness, tenderness, swelling and drainage. If signs of infection are present at the PD exit site, daily sterile dressings are required. A swab of the exit site is taken and sent for C&S whenever signs and symptoms of infection are suspected as per the physicians order. If patient is on peritoneal dialysis, then dressing and tubing changes should be coordinated so that they are performed together.

PROCEDURE:

A. Sterile Peritoneal Catheter Dressing Change

Rationale: When is a sterile dressing change required? In the Pediatric OR a transparent dressing will be applied to the exit site of the catheter. Initial post-op dressing change is performed within the first 48 hours and a transparent dressing is reapplied. If at any time the dressing is wet or exit site is draining, or dressing is not intact, it must be changed immediately; otherwise to be changed weekly until exit site is healed (about 6 weeks). If drainage requires daily dressing changes then use sterile gauze dressings.

Chlorhexidine skin prep can be used short term only (initial 4-6 weeks) due to drying properties on PD catheter which could result in catheter cracking. 2% chlorhexidine in 70% alcohol is the recommended chlorhexidine skin prep for sterile dressings. Infants less 34 gestation weeks (corrected age) 2% aqueous chlorhexidine (alcohol free). Allow antiseptic solution to dry 2 mins to ensure full antimicrobial effect.

The exit site should have no contact with bath/shower water until the site is completely healed.
Equipment

- Mask
- Gown
- Dressing tray
- Sterile gloves
- Tape
- Health centre approved antiseptic solution (Appendix C)
- Sterile gauze
- Sterile towel(s)
- C&S swab may be required
- Catheter stabilizer (change as needed)
- Transparent sterile dressing or sterile gauze dressing

1. Gather supplies.

2. Perform hand hygiene

3. Mask, gown and prepare tray.

4. Remove dressing. Assess site and tunnel area for redness, swelling, drainage and tenderness. If drainage present, send swab for C&S as per physicians orders, document and notify physician.

5. Repeat hand hygiene and apply sterile gloves.

6. Drape the area with a sterile towel.

7. Cleaning procedure:
   a. With a swab stick, lift catheter with sterile gauze to clean underneath from the insertion site outward using a circular motion, to cover a 5-10 cm radius.
   b. Turn over the swab/stick, repeat cleaning in the opposite direction from the insertion site outward.
   c. With the second swab/stick, clean the top of the exposed catheter from the insertion site moving down the length of the catheter.
   d. With the other side of the swab clean the underside of the catheter from the exit site out.
8. Allow antiseptic solution to dry for 2 minutes and until completely dry. **Do not assist in the drying process!** (Antiseptic solution needs to air dry and be in contact with the skin for 2 minutes to be most effective).

9. Place a sterile dressing over the exit site.

10. Anchor patient’s catheter.

**B. Clean Technique Peritoneal Dialysis Catheter Dressing Change (Shower technique)**

**Rationale:** When is a non-sterile dressing (shower technique) required? Once the peritoneal catheter exit site is healed, the patient’s exit site is cleaned daily using the shower technique. Povidone iodine is used for site cleansing, starting 4-6 weeks after catheter insertion. **If the exit site becomes infected** after the initial healing, daily sterile dressing changes (using sterile gauze dressing) will be required until resolved.

**Equipment**

- 4 health centre approved antiseptic swabs (Appendix C)
- Sterile gauze
- Sterile gauze dressing
- Tape
- C&S swab may be required
- Catheter stabilizer (change as needed)

1. Gather supplies

2. Remove dressing. Note: Assess site and tunnel area for redness, swelling, drainage and tenderness. If present, document and notify physician; send swab for C&S as per physician orders and change to sterile technique for dressing changes.

3. Patient may bath or shower as usual. If tub bath, the water level must be below exit site. Rinse exit site after the bath with clean water.

4. Dry completely with clean towel.

5. Cleaning procedure:

   a. With the first swab, using a circular motion, clean from the insertion site outward to cover a 5-10 cm radius.
b. Using new swab, repeat cleaning in the opposite direction from the insertion site outward.

c. With a new swab, clean the top of the exposed catheter from the insertion site moving down the length of the catheter.

d. With a new swab, clean the underside of the exposed catheter from the insertion site moving down the length of the catheter.

6. Allow antiseptic solution to dry for 2 minutes.

7. Place a sterile dressing over exit site.

8. Anchor the patient’s catheter.

REFERENCES

Peritoneal Dialysis Policy. BC Children’s Hospital, Feb 2012

Capital Health Interdisciplinary Clinical Manual # CC 50-065
Peritoneal Dialysis (PD); Care of the Patient Receiving


Hospital Sick Kids


RELATED DOCUMENTS

Policies
Central Venous Access Device (CVAD): Dressing Change, Clinical Policy 735 A

Infection Control Policy - 201.1 - Application of Routine Practices

Infection Control Policy - 205.2 - Hand Hygiene
Appendices

Appendix A

DEFINITIONS

*Peritoneal Dialysis (PD)*: A form of dialysis that uses the lining of the abdomen (peritoneal membrane), as a filter to remove waste products from the blood. A dialysis catheter is placed into the peritoneal cavity prior to initiation of dialysis therapy. Dialysate (dialysis solutions) is introduced into the peritoneal cavity via the PD catheter as prescribed by physician.
Appendix B

Peritoneal Dialysis Learning Activities Pre Workshop

Go to ‘eSource Learning’.

Click on Clinical Services….Children’s Health….. Oncology/Hematology/Nephrology…. Peritoneal Dialysis

Click on the Learning Modules and Resources.

Review the listed activities in the following order:

Modules (PowerPoint presentations):

1. Care of hospitalized PD patient
2. Chronic Kidney Disease - Pediatrics: Children Have Kidney Failure Too
3. Chronic Kidney Disease: Nursing Guidelines for Patient Education (Handout version)

Fact sheets:

1. Pediatric ESRD- Chronic Kidney Disease
2. Pediatric ESRD- Peritoneal Dialysis
3. Anemia
4. Bone Mineral Metabolism

Note that all listed learning activities come from the American Nephrology Nurses Association (ANNA) https://annanurse.org/; a leader in Nephrology nursing practice for North America
Appendix C

Health Centre Approved Antiseptic Solution:

For Peritoneal Dialysis policies and procedures:

- Chlorhexidine skin prep for sterile dressing changes
- Povidone-iodine for ‘Shower Technique’ daily dressing changes.

***

REPLACING THE FOLLOWING DISTRICT HEALTH AUTHORITY POLICIES/VERSION HISTORY

(List on the last page following the appendices)

***
**District Health Authority/IWK Policies Being Replaced**

(Please List)

**Version History**

(To Be Completed by the Policy Office)

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