

**PERITONEAL DIALYSIS UNIT RENAL DEPARTMENT
Workplace Instruction (Renal_SGH_WPI_094)**

PERITONEAL DIALYSIS (PD) – CHANGING PD CATHETER TITANIUM CONNECTOR AND EXTENSION SET

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| Cross references | NSW Health PD2007_036 - Infection Control Policy SGH-TSH CLIN027 - Aseptic Technique - Competency and Education Requirements SGH CLIN357 - Peritoneal Dialysis Catheter (and Extension Set) – Management of Contamination SGH WPI – Peritoneal Dialysis Exit Site Care - Post Op SGH WPI – Peritoneal Dialysis Exit Site Care - Regular Daily Dressing |
| 1. Purpose | To ensure the process of changing the PD catheter titanium connector and extension set is performed according to best practice guidelines reducing the risk of infection and ensuring patient safety. |

2. Process

2.1 Recommendations to change the PD catheter (PDC) titanium connector and extension set

- When a PDC titanium connector is damaged or faulty
- Immediately after a PDC titanium connector contamination
- In the event of a PDC titanium connector recall
- Whenever a PDC has a split or hole
 - Note: Surgical review for reinsertion of new PDC is to be considered if the split or hole is < 6 cm from the PDC exit site

2.2 Devices

2.2.1 Equipment

- Dressing pack
- Sterile scissors
- Sterile gloves
- Blue clamp
- Antiseptic solution (Betadine or Chlorhexidine)
- Blue sheet
- Dressing (Cutiplast or Excilon or Tegaderm or Mepore film)
- Micropore tape

2.2.2 Key parts

- Sterile Gauze
- New titanium connector

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- New PD extension/transfer set
- Minicap

2.2.3 Key site

- Abdominal PD catheter

2.3 Procedure

1. Educate the patient and/or carer on the importance of changing the PDC titanium connector and extension set
2. Ascertain the type of exit site dressing the patient requires
3. Ascertain the type of antiseptic solution suitable for the patient
4. Perform hand hygiene
5. Identify and gather equipment and key parts for procedure
6. Check expiry dates on equipment and key parts
7. Clean trolley/work surface with detergent
8. Perform hand hygiene
9. Don gloves
10. Prepare general aseptic field equipment and key parts at the patient's bedside
11. Secure the end part of the PD catheter to the abdomen with a micropore tape
12. Remove old dressing
Note: If PDC has a split or hole, ascertain location and measure if ≥ 6 cm. from exit site
13. Perform hand hygiene
14. Wash the blue clamp and dry thoroughly
15. Wipe the blue clamp with antiseptic solution and dry thoroughly
16. Clamp the PD catheter closest to the skin using the blue clamp
17. Place the PD catheter over a blue sheet
18. Soak sterile gauze in antiseptic solution
19. Perform hand hygiene
20. Don sterile gloves
21. Change the PDC titanium connector and extension set using aseptic technique ensuring all the key parts/sites are protected:
 - a. Soak the length of the PD catheter with antiseptic soaked gauze for 2 minutes;
 - b. Clean the exit site twice with antiseptic soaked gauze;
 - c. Close the valve on the new PDC extension/transfer set;
 - d. Remove clear plastic cap from new PDC extension/transfer set and replace with new minicap;
 - e. Place PD catheter over sterile towel;

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- f. Remove antiseptic soaked gauze from PD catheter and replace with a new set of antiseptic soaked gauze. Soak PDC for another minute;
- g. Using dry gauze, undo the old PDC extension//transfer set from titanium connector;
- h. Using dry gauze, undo the titanium connector from the PDC;
Note: For PDC split or hole, cut the PDC near the hole/split leaving at least \geq 6cm from exit site
- i. Secure the new titanium connector to the PDC tip by sliding PDC into the titanium screw lock (see Figure 1, 2 and 3);

Figure 1

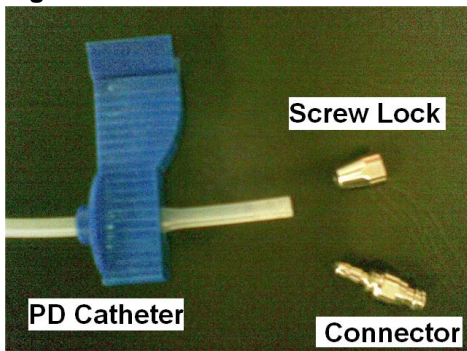


Figure 2



- j. Insert the pointed end of the titanium connector into the PDC tip (see Figure 4);

Figure 3



Figure 4



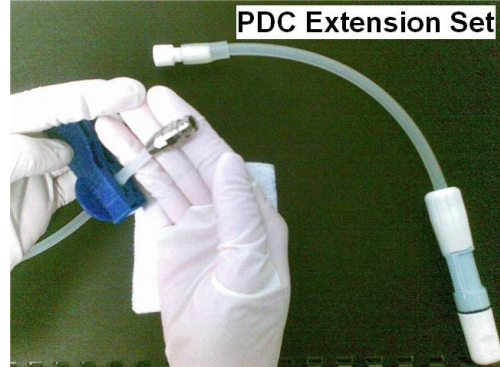
- k. Twist clockwise the titanium screw lock to secure to the titanium connector (see Figure 5 and 6);

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Figure 5



Figure 6



- I. Using dry gauze, connect and secure the new PDC extension/transfer set to the new titanium connector (see Figure 7 and 8);

Figure 7



Figure 8



22. Remove blue clamp from the PD catheter
23. Change exit site dressing as per WPI – Peritoneal Dialysis Exit Site Care - Post Op or Regular Daily Dressing using aseptic technique ensuring all the key parts/sites are protected
24. For contaminated PDC and/or titanium connector, administer treatment and manage as per Peritoneal Dialysis Catheter and Extension Set – Management of Contamination; Clinical Business Rule SGSHHS
25. Discard used equipment in the clinical waste bin
26. Remove gloves
27. Perform hand hygiene
28. Clean trolley after use and perform hand hygiene
29. Document the procedure on patient notes
30. Handover to the next shift

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|---|--|
| 3. Network file | Renal, Peritoneal Dialysis |
| 4. External references / further reading | <p>Bender, F. H., Bernardini, J., & Piraino, B. (2006). Prevention of infectious complications in peritoneal dialysis: best demonstrated practices. <i>Kidney International</i>, 70(S103), S44-S54.</p> <p>Figueiredo, A., Goh, B.-L., Jenkins, S., Johnson, D. W., Mactier, R., Ramalakshmi, S., Wilkie, M. (2010). Clinical Practice Guidelines for Peritoneal Access. <i>Peritoneal Dialysis International</i>, 30(4), 424-429. doi: 10.3747/pdi.2010.00087</p> <p>Firaneq, C. & Guest, S. (2011). Hand Hygiene in Peritoneal Dialysis. <i>Peritoneal Dialysis International</i>. 31(4):399-408</p> <p>Gokal, R., Alexander, S., Ash, S., Chen, T.W., Danielson, A., Holmes, C., Joffe, P., Moncrief, J., Nichols, K., Piraino, B., Prowant, B., Slingeneyer, A., Stegmayr, B., Twardowski, Z., and Vas, S. (1998). Peritoneal catheters and exit-site practices toward optimum peritoneal access: 1998 update. <i>Peritoneal Dialysis International</i>. 18(1), 11-33.</p> <p>Kim, Y., Song, Y. R., Kim, J.-K., Kim, H. J., Kim, S., & Kim, S. G. (2014). Use of a New Connector Decreases Peritoneal Dialysis-Related Peritonitis. <i>Peritoneal Dialysis International</i>, 34(1), 128-130. doi: 10.3747/pdi.2012.00329</p> <p>Piraino, B., Bernardini, J., Brown, E., Figueiredo, A., Johnson, D. W., Lye, W.-C., Szeto, C.-C. (2011). ISPD Position Statement on Reducing the Risks of Peritoneal Dialysis-Related Infections. <i>Peritoneal Dialysis International</i>, 31(6), 614-630. doi: 10.3747/pdi.2011.00057</p> <p>Prowant, B. F., & Ryan, L. P. (1989). Peritoneal dialysis transfer set change procedures study. <i>American Nephrology Nurses Association Journal</i>, 16(1), 23-26.</p> |
| 5. Specialty/department committee approval | Peritoneal Dialysis Committee , Franziska Pettit, Staff Specialist Date: Feb 2017 |
| 6. Department head approval | Mark Brown, Department Head Renal Services Date: Feb 2017 |
| 7. Executive sponsor approval – NCD or CGM | Christine Day, Nurse Manager Medicine Date: Feb 2017 |

Revision and Approval History

| Date published | Revision number | Author (Position) | Date revision due |
|----------------|-----------------|-----------------------------|-------------------|
| February 2017 | 1 | Anna Claire Cuesta (PD CNC) | February 2020 |

**PERITONEAL DIALYSIS UNIT RENAL DEPARTMENT
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| WPI Criteria | Yes | No |
|--|------------|-----------|
| Contains ward/unit/department specific instructions only | ✓ | |
| Description of process is straight forward and without variables. NOT a WPI if dependent on various decision making pathways e.g. if something is A do B and if C do D | ✓ | |
| Process is free from complex clinical decision making | ✓ | |
| Process is free from medications | ✓ | |
| Process is free from high risk invasive procedures | ✓ | |
| Document will be located on the ward/unit/department dedicated intranet page | ✓ | |
| Document will be listed in a local register by custodian responsible for facilitating WPI review every 3 years | ✓ | |
| Department head will approve the document and nursing co-director or clinical group manager will be the executive sponsor | ✓ | |
| If NO to any of the criteria ↓ NOT a WPI – progress to clinical business rule (CIBR) development | | |