

PERITONEAL DIALYSIS CATHETER – POST INSERTION CATHETER CARE, DRESSING AND MANAGEMENT

<p>Cross References (including NSW Health/SELHD policy directives)</p>	<p>NSW Health PD2007_036 - Infection Control Policy SGH-TSH CLIN027 - Aseptic Technique - Competency and Education Requirements NHMRC Australian Guidelines for the prevention and control of Infection in Healthcare. 2010. Available: http://www.nhmrc.gov.au/node/30290</p> <ul style="list-style-type: none"> • Hand and wrist jewellery and fingernail enhancements • Hand hygiene and hand care • Personal protective equipment <p>SELHD SESLHNP/126 Antiseptics and Disinfectants Procedure SELHD SESLHDP/140 Waste management SELHD PD146 Wound - Antiseptic Dressing Policy SGH CLIN Peritoneal Dialysis (PD) Catheter Infection – Exit Site and Tunnel Infection Management and Treatment SGH CLIN Peritoneal Dialysis (PD) – Peritonitis Management and Treatment SGH CLIN 357 Peritoneal Dialysis Catheter (and Extension set) – Management of Contamination SGH CLIN Peritoneal Dialysis (PD) – Nasal Swab And Mupirocin</p>
<p>1. What it is</p>	<p>A guideline and procedure to protect the PD catheter from contamination or infection according to best practice guidelines</p>
<p>2. Risk Rating</p>	<p>Medium</p>
<p>3. Employees it Applies to</p>	<p>Registered Nurses (RN) Enrolled Nurses (RN) Medical Officers (MO)</p>

4. Process

Background

Patients with newly inserted peritoneal dialysis catheters (PDC) are prone to post procedure complications and infections, hence, it is crucial to protect the catheter and exit site to prevent complications and PD-related infection.

4.1 Safeguards

1. Assess PDC and exit site immediately after the insertion procedure. Ensure the occlusive and antimicrobial dressing are covering the exit site and titanium connector and a minicap is securing the tip of the PDC.
2. Closely assess and monitor the PDC exit-site and midline wound for excessive bleed, bruising or leak. Document the assessment findings and report to PD, renal and/or surgical team immediately.
3. Closely assess, monitor and manage the PDC exit-site and midline wound for signs and symptoms of infection as per SGH CLIN Peritoneal Dialysis (PD) Catheter Infection – Exit Site and Tunnel Infection Management and Treatment.
4. Post insertion care, dressing and management is to be carried out for minimum of 3 weeks from time of PDC insertion, longer for slow-healing wounds.

5. Newly inserted PD catheters must be immobilised and exit site to be kept dry to promote healing, this is facilitated through:
 - Weekly change of PDC exit site dressing for minimum of 3 weeks from time of PDC insertion, or longer for slow healing wounds
Note: Change or reinforce dressing immediately if dressing is displaced or wet. PDC exit site dressing may need to be changed more frequently if exit site or midline wound is bleeding or leaking excessively.
 - No bathing or showering for 3 weeks from time of PDC insertion, longer for slow healing wounds.
 - Always securing and taping down the tip of PDC to abdomen to prevent from dangling
6. Accreditation requirement must be complied with prior to dressing procedure (as per Appendix B). Post insertion dressing change can only be carried out by PD accredited RN/EN or RN/EN under the supervision of PD accredited RN.
7. Educate and remind patient on the importance of:
 - Not showering and weekly dressing change for minimum of 3 weeks from time of PDC insertion.
 - Monitoring PDC exit site and mid-line wounds for bleed or leak and to report concerns to healthcare team immediately

4.2 Devices

4.2.1 Equipment

- Trolley
- Blue Sheet
- Non sterile gloves
- Micropore tape

4.2.2 Key Parts

- AMD Antimicrobial sponge (Excilon)
- Occlusive film dressing (Tegaderm or IV 3000 or Mepore Film)
- White gauze
- Normal saline
- Betadine solution
- Sterile Gloves
- Dressing Pack

Add the following for suspected exit site infection:

- Sterile swab stick (for bacterial swab)
- Mupirocin ointment

4.2.3 Key site

- PD catheter

4.3 Procedure

1. Explain procedure to the patient
2. Perform hand hygiene
3. Don non sterile gloves
4. Remove old dressing and review PDC exit site and midline wound condition

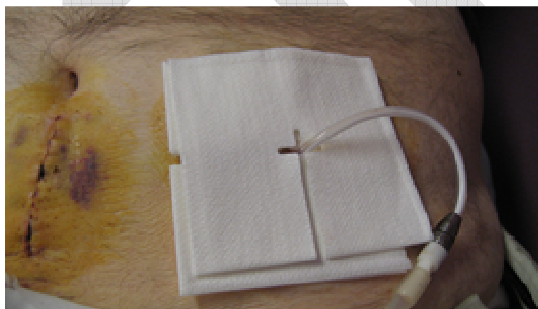
Note: If exit site is red or exudate is present, collect a wound swab for MCS, notify the PD and renal team and commence treatment as per SGH CLIN Peritoneal Dialysis (PD) Catheter Infection – Exit Site and Tunnel Infection Management and Treatment

Note: If midline wound is red or exudate present, collect a wound swab for MCS, notify the renal and surgical team. If midline wound is bruised or haematoma present, notify renal and surgical team immediately.

5. Perform hand hygiene
6. Identify and gather equipment and key parts for procedure
7. Clean trolley/work surface with detergent
8. Perform hand hygiene
9. Set-up general sterile field with equipment and key parts at the bedside
10. Perform hand hygiene
11. Don sterile gloves
12. Clean exit site and change dressing using sterile technique:
 - a. Clean around the exit site with normal saline twice
 - b. Dry exit site thoroughly with gauze
 - c. Apply mupirocin ointment to exit site if indicated
 - d. Cover exit site with Excilon
 - e. Loop the PDC aligning the titanium connector beside the exit site
 - f. Cover the entire area including the titanium connector with occlusive dressing (Tegaderm, IV 3000 or Mepore film) as per Appendix A
13. Clean midline wound and change dressing using sterile technique
 - a. Clean around the midline wound with betadine solution twice
 - b. Dry midline wound thoroughly with gauze
 - c. If required, cover midline wound with gauze and occlusive dressing
14. Immobilise tip of PDC with tape
15. Discard all equipment as per SESLHD SESLHDPD/140 Waste management
16. Document the procedure in clinical notes
17. Handover to the next shift
18. Inform the PD nurses

4.4 Appendixes

Appendix A





Appendix B

Peritoneal Dialysis Catheter (PDC) Exit Site Dressing Assessment Form

Limitations for Practice: Enrolled Nurse
Registered Nurse
Clinical Nurse Specialist
Clinical Nurse Consultant

Objective:
To ensure PDC exit site dressing procedure is performed according to best practice guidelines reducing the risk of infection and ensuring patient safety.

Background:

- PDC exit site dressing assessment and competency is compulsory for 4S nursing staff prior to attending to the procedure.
- Nursing staff with no exposure to PDC exit site dressing must observe the procedure then practice under supervision by a PD competent nurse.
- The assessor will advise the number of practice sessions the nursing staff requires prior to a final assessment.
- Simulated practice sessions are encouraged until technique is safe and satisfactory for a final assessment.
- Final assessment is to be performed on a patient.
- Final assessment is to be carried out by a PD competent nurse.
- PDC exit site dressing competency is to be renewed every 5 years.
- A reassessment may be necessary in line with policy revisions.

Note:

- Keep the original copy of your completed assessment form for your record.
- Forward a copy of the completed assessment form to the CNE and PD unit.

Peritoneal Dialysis Catheter (PDC) Exit Site Dressing Assessment Form

Name: _____ **Pay No:** _____
Print Signature

Please initial appropriate box

Action	P1	P2	P3	P4	P5	C
1. Ascertains type of PDC exit site dressing to do: Post-op or Regular Daily						
2. Refers and follows the appropriate exit site care PD WPIs						
3. Cleans trolley and collects equipments						
4. Performs handwash						
5. Prepares equipment and sets-up sterile field						
6. Secures end of catheter with tape						
7. Performs handwash						
8. Removes old dressing						
9. Reviews condition of exit site. Swabs as necessary and informs PD and renal team						
10. Performs surgical handwash						
11. Dons sterile gloves						
12. Cleans exit site as per appropriate PD WPIs						
13. Waits for exit site to dry. Applies topical antibiotics.						
14. Applies appropriate dressing. Ensures exit site and titanium are covered						
15. Secures PD catheter with tape						
16. Discards all equipments						
17. Documents the procedure						
18. Hands over to the next shift						

Practice 1 (P1) Assessor's name & initial _____ Date _____

Practice 2 (P2) Assessor's name & initial _____ Date _____

Practice 3 (P3) Assessor's name & initial _____ Date _____

Practice 4 (P4) Assessor's name & initial _____ Date _____

Practice 5 (P5) Assessor's name & initial _____ Date _____

Competent (C) Assessor's name & initial _____ Date _____

Approved by:

Date:

5. Keywords	Peritoneal dialysis, PD Catheter, Dressing,
6. Functional Group	Renal, Peritoneal Dialysis
7. External References	<p>Bender F., Bernardini, J., Piraino, B. (2006). Prevention of Infectious Complications in Peritoneal Dialysis: Best Demonstrated Practices. <i>Kidney International</i> 70: S44-S54</p> <p>Campbell, D. J., Johnson, D. W., Mudge, D. W., Gallagher, M. P., & Craig, J. C. (2014). Prevention of peritoneal dialysis-related infections. <i>Nephrology Dialysis Transplantation</i>. doi: 10.1093/ndt/gfu313</p> <p>Cho, Y., & Johnson, D. W. (2014). Peritoneal Dialysis–Related Peritonitis: Towards Improving Evidence, Practices, and Outcomes. <i>American Journal of Kidney Diseases</i>, 64(2), 278-289. doi: http://dx.doi.org/10.1053/j.ajkd.2014.02.025</p> <p>Dombros, N., Dratwa, M., Feriani, M., Gokal, R., Heimbürger, O., Krediet, R., . . . Verger, C. (2005). European best practice guidelines for peritoneal dialysis. 3 Peritoneal Access. <i>Nephrology Dialysis Transplantation</i>, 20 Suppl 9, ix13-ix15. doi: 10.1093/ndt/gfi1118</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>Li, P. K.-T., Szeto, C. C., Piraino, B., de Arteaga, J., Fan, S., Figueiredo, A. E., . . . Johnson, D. W. (2016). ISPD Peritonitis Recommendations: 2016 Update on Prevention and Treatment. <i>Peritoneal Dialysis International</i>, 36(5), 481-508. doi: 10.3747/pdi.2016.00078</p> <p>Li, P. K., Szeto, C., Piraino, B., Bernardini, J., Figueiredo, A., Gupta, A., Johnson, D., Kuijper, E., Lye, W., Salzer, W., Shaefer, F., and Struijk, D. G. (2010). Peritoneal Dialysis – Related Infections Recommendations 2010 Update. <i>Peritoneal Dialysis International</i>, 30(4), 393-423. doi: 10.3747/pdi.2010.00049</p> <p>Piraino B., Baile, G., Bernardini, J. and et al. ISPD Guidelines/Recommendations Peritoneal Dialysis Related Infections Recommendations: 2005 Update. <i>Peritoneal Dialysis International</i> 25: 107-131, 2005</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>Szeto, C.-C., Li, P. K.-T., Johnson, D. W., Bernardini, J., Dong, J.,</p>

	Figueiredo, A. E., . . . Brown, E. A. (2017). ISPD Catheter-Related Infection Recommendations: 2017 Update. <i>Peritoneal Dialysis International</i> , 37(2), 141-154. doi: 10.3747/pdi.2016.00120
8. Consumer Advisory Group (CAG) approval of patient information brochure (or related material)	N/A
9. Implementation and Evaluation Plan Including education, training, clinical notes audit, knowledge evaluation audit etc	<ul style="list-style-type: none"> - Included in the education tools developed to assist nurses in increasing their knowledge to the care of patients on peritoneal dialysis - Inservice education at ward/unit/department level - PD tutorial to Junior Medical Officers by the PD CNC at the beginning of renal rotation
10. Knowledge Evaluation	<p>Q1: What must be checked and monitored after a new PD catheter is inserted?</p> <p>A: Ensure appropriate occlusive and antimicrobial dressing are insitu and tip of PDC is secured with a minicap. Monitor wounds for signs of bruising, excessive bleed, infection or leak.</p> <p>Q2: Who can attend to post insertion PDC exit site dressing change?</p> <p>A: PD accredited RN/EN or RN/EN under the supervision of PD accredited RN.</p> <p>Q3: How long is the post insertion period</p> <p>A: Minimum of 3 weeks and longer for slow healing wounds</p> <p>Q4: How often is post insertion exit site dressing changed?</p> <p>A: Weekly for wounds without excessive bleed or leak. Immediate change for displaced or wet dressings or more frequent dressing change for bleeding or leaking exit site.</p>
11. Who is Responsible	Director of St George and Sutherland Renal Service. Nursing Unit Manager, Dialysis Unit

Approval for Peritoneal Dialysis Catheter – Post Insertion Catheter Care, Dressing and Management	
*Specialty/Department Committee	Committee title: Peritoneal Dialysis Committee Chairperson name/position: Franziska Pettit, Staff Specialist Signature _____ Date _____
*Nursing/Midwifery Co-Director	Name/position Christine Day, Nurse Manager Medicine Signature _____ Date _____
*Medical Co-Director	Name /position: Mark Brown, Department Head Renal Services Signature _____ Date _____
*Drug and Therapeutics Committee (SGH)	Chairperson's Name: Winston Liauw Signature _____ Date _____
Executive Sponsor	Name/Position: Signature _____ Date _____
Contributors to CIBR development e.g. CNC, Medical Officers (names and position title/specialty)	

Revision and Approval History

Date	Revision number	Author (Position)	Revision due
August 2017	0	Anna Claire Cuesta (PD CNC)	August 2020

General Manager's Ratification

Name Leisa Rathborne	Signature _____	Date _____
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