

PERITONEAL DIALYSIS CATHETER (PDC) – HEPARIN LOCK ST GEORGE HOSPITAL

<p>Cross References (including NSW Health/ SESLHD policy directives)</p>	<p>NSW Health PD2013_043 Medication Handling in NSW Public Health Facilities NSW Health PD2007_036 Infection Control Policy SGH-TSH CLIN027 Aseptic Technique NSW Health PD2012_007 User applied Labelling of Injectable Medicines, Fluids and Lines Renal Department Protocol - <i>Peritoneal Dialysis: Simple/Small Flush On A Peritoneal Dialysis Catheter</i> Renal Department Protocol - <i>Management of Poor Flow: No Flow Catheter</i></p>
<p>1. What it is</p>	<p>A guideline and procedure for the safe administration of a anticoagulant lock in a peritoneal dialysis catheter</p>
<p>2. Risk Rating</p>	<p>Low</p>
<p>3. Employees it Applies to</p>	<p>Registered Nurses (RN) trained in peritoneal dialysis RN trained in accessing peritoneal dialysis catheters Medical Officers (MO) trained in accessing peritoneal dialysis catheters</p>

4. Process

4.1 Recommended Heparin Lock Dose and Usage

- A heparin lock is recommended for the following situations:
 - Weekly to maintain the patency of new PD catheter (< 3 weeks from insertion)
 - Weekly to maintain the patency of a PD catheter not in use
 - To resolve a blocked or poor flowing PD catheter
- Heparin lock dose is: 5000 Units/5 mL mixed with 15 mL Normal Saline
- Heparin lock must be prescribed on a medication chart, it is not nurse initiated.
- Exceptions:
 - Patients with or at risk of heparin induced thrombocytopenia and thrombosis syndrome (HITTS)
 - Patients with signs of acute bleed from a non-compressible site, including post-operative, cerebral, GI, haemothorax and haemorrhagic pericarditis.
 - Patients with known allergy or hypersensitivity to heparin or pork products

4.2 Devices

4.2.1 Equipment:

- Trolley
- Dressing pack
- Sterile gloves

4.2.2 Key parts

- Drawing-up needle (18G)
- 20mL syringe
- Normal saline - 10mL ampoule
- Minicap
- Heparin 5000 IU in 5mL ampoule

4.2.3 Key site

- Abdominal PD catheter

4.3 Procedure

1. Educate the patient and/or carer on the importance of PDC heparin lock
2. Perform hand hygiene
3. Identify and gather equipment and key parts for procedure
4. Check expiry dates on all equipment and key parts
5. Clean trolley/work surface with detergent
6. Perform hand hygiene
7. Don gloves
8. Prepare general aseptic field equipment and key parts at the patient's bedside
9. Prepare the heparinised saline lock using aseptic technique ensuring all the key parts are protected:
 - a. Attach drawing up needle to 20 mL syringe;
 - b. Alcohol swab the Heparin and saline ampoules;
 - c. Open the Heparin ampoules and aspirate all content into the 20 mL syringe;
 - d. Open normal saline ampoules and aspirate 15 mLs into the 20 mL syringe
10. Place the PD catheter over sterile towel
11. Perform the PDC heparin lock using aseptic technique ensuring all the key parts are protected:
 - a. Using dry gauze, remove minicap from PDC
 - b. Connect the Heparinised saline syringe to end of PDC
 - c. Open the PDC valve
 - d. Push all the Heparinised saline solution into the PD catheter
 - e. Close the PDC valve
12. Disconnect syringe from PDC and apply new minicap
13. Secure the end part of the PD catheter to the abdomen with a micropore tape
14. Discard used equipment in the clinical waste bin
15. Remove gloves
16. Perform hand hygiene
17. Clean trolley after use and perform hand hygiene
18. Document the procedure on patient notes
19. Handover to the next shift

5. Keywords	Peritoneal dialysis, Peritoneal dialysis catheter, Heparin lock
6. Functional Group	Renal, Peritoneal Dialysis
7. External References	<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>Margetts, P. (2009). Heparin And The Peritoneal Membrane. <i>Peritoneal Dialysis International</i>, 29(1), 16-19.</p> <p>Ross, L. A., & Labato, M. A. (2013). Current techniques in peritoneal dialysis. <i>Journal of Veterinary Emergency and Critical Care</i>, 23(2), 230-240. doi: 10.1111/vec.12035</p>
8. Consumer Advisory Group (CAG) approval of patient information brochure (or related material)	Not Applicable
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 i.e. Renal care flip chart, advance and basic PD learning package and PD orientation package - Monthly inservice education by PD CNC/nurses to all renal nurses - PD tutorial to Junior Medical Officers by the PD CNC at the beginning of renal rotation
10. Knowledge Evaluation	<p>Q1: When is heparin lock required in a PD catheter?</p> <p>A: Post insertion of a new PD catheter Weekly when the PD catheter is not being used For blocked or poor flowing PD catheters</p> <p>Q2: Why do you instill a heparin lock into a PD Catheter?</p> <p>A: To maintain the patency and to resolve the blockage of a PD catheter</p> <p>Q3: How is heparin lock instilled into a PD catheter?</p> <p>A: Using aseptic technique according to the procedure for administration described in this clinical business rule</p>
11. Who is Responsible	Director of St George and Sutherland Renal Service. Nursing Unit Manager, Dialysis Unit

Approval for Peritoneal Dialysis Catheter (PDC) – Heparin Lock	
*Specialty/Department Committee	Committee title: Peritoneal Dialysis Committee Chairperson name/position: Franziska Pettit, Staff Specialist Date: 29.09.16
*Nursing/Midwifery Co-Director	Name/position: Christine Day, Nurse Manager Medicine Date: 13.09.16
*Medical Co-Director	Name /position: Mark Brown, Department Head Renal Services Date: 22.07.16
*Drug and Therapeutics Committee (SGH)	Chairperson's Name: A/Prof Winston Liauw Date:15.11.16
Contributors to CIBR development e.g. CNC, Medical Officers (names and position title/specialty)	Franziska Pettit, Staff Specialist Sunil Badve, Staff Specialist Johneen Tierney, Director of Pharmacy

Revision and Approval History

Date	Revision number	Author (Position)	Revision due
June 2016	0	Anna Claire Cuesta (PD CNC)	June 2019

General Manager's Ratification

Name Leisa Rathborne	Date: 07.12.16
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