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

| Cross References (including NSW Health/SESLHD policy directives) | 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 - Peritoneal Dialysis: Simple/Small Flush On A Peritoneal Dialysis Catheter  
Renal Department Protocol - Management of Poor Flow: No Flow Catheter |
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<tr>
<td>1. What it is</td>
<td>A guideline and procedure for the safe administration of an anticoagulant lock in a peritoneal dialysis catheter</td>
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<td>2. Risk Rating</td>
<td>Low</td>
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| 3. Employees it Applies to | Registered Nurses (RN) trained in peritoneal dialysis  
RN trained in accessing peritoneal dialysis catheters  
Medical Officers (MO) trained in accessing peritoneal dialysis catheters |

## 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
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<tr>
<th>5. Keywords</th>
<th>Peritoneal dialysis, Peritoneal dialysis catheter, Heparin lock</th>
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<tr>
<td>6. Functional Group</td>
<td>Renal, Peritoneal Dialysis</td>
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<td>8. Consumer Advisory Group (CAG) approval of patient information brochure (or related material)</td>
<td>Not Applicable</td>
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| 9. Implementation and Evaluation Plan | - 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 | Q1: When is heparin lock required in a PD catheter?
A: Post insertion of a new PD catheter
   Weekly when the PD catheter is not being used
   For blocked or poor flowing PD catheters
Q2: Why do you instill a heparin lock into a PD Catheter?
A: To maintain the patency and to resolve the blockage of a PD catheter
Q3: How is heparin lock instilled into a PD catheter?
A: Using aseptic technique according to the procedure for administration described in this clinical business rule |
| 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

<table>
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<tr>
<th>Date</th>
<th>Revision number</th>
<th>Author (Position)</th>
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<tr>
<td>June 2016</td>
<td>0</td>
<td>Anna Claire Cuesta (PD CNC)</td>
<td>June 2019</td>
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## General Manager’s Ratification

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<tr>
<td>Leisa Rathborne</td>
<td>07.12.16</td>
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