Peritoneal Dialysis (PD) – Intraperitoneal Ceftriaxone Administration

<table>
<thead>
<tr>
<th>Cross References</th>
<th>Medication Handling in NSW Public Health Facilities; NSW Health PD2013_043</th>
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<tbody>
<tr>
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<td>Peritoneal Dialysis – Peritonitis Treatment Protocol; Renal Department Protocol</td>
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<td>Peritoneal Dialysis – Antibiotic Administration Guidelines; Renal Department Protocol</td>
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<td>Continuous Ambulatory Peritoneal Dialysis (CAPD) Freeline Solo Exchange Procedure; Renal Department Protocol</td>
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1. Purpose
To ensure the administration of intraperitoneal Ceftriaxone is performed according to best practice guidelines reducing the risk of infection and ensuring patient safety

2. Process
2.1 Devices
   2.1.1 Equipment
   - Trolley
   - Portable IV pole
   - Water for injection – 10 ml ampoule
   - Alcohol swabs x 2
   - Blue clamp

   2.1.2 Key parts
   - Ceftriaxone – 1 gram vial
   - Drawing-up needle (18G)
   - 21 G needle
   - 10 ml syringe
   - PD fluid (Freeline Solo bag)

   2.1.3 Key site
   - Rubber bung on Ceftriaxone vial
   - Rubber bung on PD fluid
   - Abdominal PD catheter

2.2 Recommended Intraperitoneal Dose for treatment of Peritonitis
   - Daily dose of 1 gram for 14 – 21 days
2.3 Procedure

1. Warm the selected PD fluid (freeline solo bag) on the warmer
   a. Select appropriate PD fluid strength by conducting a fluid assessment on patient 30 minutes prior to CAPD procedure
   b. Note: PD fluid takes 30 minutes to warm.

2. Ensure the “5 Rights” of Principles for Safe Medication Administration is observed with second person check

3. Perform hand hygiene

4. Identify and gather equipment and key parts for procedure

5. Check expiry dates on antibiotic vial, PD fluid and water for injection

6. Clean trolley/work surface with detergent

7. Perform hand hygiene

8. Don gloves

9. Prepare general aseptic field equipment and key parts near the patient’s bedside

10. Use the sharp edge of the blue clamp to open outer pouch of the dialysis bag. DO NOT USE SCISSORS OR KNIVES

11. Place the opened bag on top of the clean trolley and ensure the lines are facing up

12. Recheck the dialysis bag strength, volume, expiry, colour and for leakage

13. Prepare the antibiotics using aseptic technique ensuring all the key parts/sites are protected
   a. Alcohol swab the rubber bung on Ceftriaxone vial;
   b. Attach drawing up needle to 10 ml syringe;
   c. Open water ampoules and aspirate all content into the 10 ml syringe;
   d. Push needle into the rubber bung on a Ceftriaxone vial, inject 5 mls of water, invert vial and shake until all powder dissolves then aspirate all content;
   e. Once Ceftriaxone vial is emptied into the 10 ml syringe, replace drawing-up needle with 21G needle.

14. Administer the antibiotics into the dialysis fluid using aseptic technique ensuring all the key parts/sites are protected
   a. Alcohol swab the rubber bung on dialysis fluid;
   b. Push needle into the centre of the dialysis fluid bung and inject all content.
      Note: For accidental piercing of the bag or the side of the bung, use a new dialysis fluid

15. Administer Ceftriaxone intraperitoneally through CAPD exchange as per Continuous Ambulatory Peritoneal Dialysis (CAPD) Freeline Solo Exchange Procedure; Renal Department Protocol
   a. Note: Dwell intraperitoneal Ceftriaxone for 6-8 hours

16. Wear PPE

17. Discard bag and lines in the clinical waste bin, discard needles in sharps bin

18. Remove gloves and PPE

19. Perform hand hygiene

20. Clean trolley after use and perform hand hygiene
21. Sign and co-sign the medication chart
22. Document the procedure on the CAPD chart and patient notes
23. Handover to the next shift

3. Network file location/reference, if applicable

St George Hospital Renal Website: [http://stgrenal.org.au/](http://stgrenal.org.au/)

4. External References / Further Reading


**Revision and Approval History**

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<tr>
<th>Date published</th>
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<th>Author/Contact Officer (Position)</th>
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<tbody>
<tr>
<td>March 2015</td>
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<td>Anna Claire Cuesta PD CNC</td>
<td>March 2018</td>
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<td>Dr Sharon Ong (Nephrologist)</td>
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Approved by: The St George Hospital Renal Department - Peritoneal Dialysis Committee

Date: 10th March 2015

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