Peritoneal Dialysis (PD) – Intraperitoneal Gentamicin Administration
(10 milligram)

Cross References

- Medication Handling in NSW Public Health Facilities; NSW Health PD2013_043
- Peritoneal Dialysis – Peritonitis Treatment Protocol; Renal Department Protocol
- Peritoneal Dialysis – Antibiotic Administration Guidelines; Renal Department Protocol
- Continuous Ambulatory Peritoneal Dialysis (CAPD) Freeline Solo Exchange Procedure; Renal Department Protocol

1. Purpose

To ensure the administration of intraperitoneal Gentamicin 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
- Alcohol swabs x 2
- Blue clamp

2.1.2 Key parts

- Gentamicin 80 mg in 2 ml ampoule
- Drawing-up needle (18G)
- 21 G needle
- 1 ml syringe
- PD fluid (Freeline Solo bag)

2.1.3 Key site

- Rubber bung on PD fluid
- Abdominal PD catheter

2.2 Recommended Intraperitoneal Dose for treatment of Peritonitis

- Daily dose of 40mg, can be divided into 10 mg/bag for 14-21 days
- Take level after 3 days
- Daily Gentamicin levels if the patient is on Gentamicin for ≥ 3 days.
- Withhold gentamicin if level is >2 mg/L
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 ampoule and PD fluid

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 Gentamicin ampoule and break top to open;
   b. Attach drawing up needle to 1 ml syringe;
   c. Aspirate 0.25 ml from Gentamicin ampoule into the 1 ml syringe;
   d. 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 Gentamicin intraperitoneally through CAPD exchange as per Continuous Ambulatory Peritoneal Dialysis (CAPD) Freeline Solo Exchange Procedure; Renal Department Protocol
   a. Note: Dwell intraperitoneal Gentamicin for 6 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

St George Hospital Renal Website: http://stgrenal.org.au/
4. External References / Further Reading


Revision and Approval History

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<th>Author/Contact Officer (Position)</th>
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<tbody>
<tr>
<td>March 2015</td>
<td>1</td>
<td>Anna Claire Cuesta PD CNC</td>
<td>March 2018</td>
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<td>March 2015</td>
<td>1</td>
<td>Dr Sharon Ong (Nephrologist)</td>
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