Peritoneal Dialysis (PD) – Intraperitoneal Fluconazole Administration

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 Fluconazole 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 4
- ☐ Blue clamp

2.1.2 Key parts

- ☐ Fluconazole 200 mg in 100 ml vial
- ☐ Drawing-up needle (18G) x 2
- ☐ 21 G needle x 2
- ☐ 50 ml syringe x 2
- ☐ PD fluid (Freeline Solo bag)

2.1.3 Key site

- Rubber bung on Fluconazole vial
- Rubber bung on PD fluid
- Abdominal PD catheter

2.2 Recommended Intraperitoneal Dose for treatment of Fungal Peritonitis

- Daily or 2nd daily dose of 200 mg IP
- Intraperitoneal Fluconazole must be prescribed on a medication chart, it is not nurse initiated
- Immediate PD catheter removal is recommended once fungal peritonitis is

confirmed by culture or microscopy, even without signs of systemic sepsis.

- Prolonged antifungal treatment to attempt clearance or determine response is not encouraged. IP fluconazole should only be an interim treatment pending removal of PD catheter.
- ≥ 25% of fungal peritonitis can lead to death
- Once PD catheter is removed, antifungal treatment should be continued via another mode of administration. The choice of antifungal agents will be dependent on the culture results.

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 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 rubber bung on Fluconazole vial;
    b. Attach drawing up needle to 50 ml syringe;
    c. Push needle into the rubber bung on a Fluconazole vial;
    d. Aspirate 50 mls from Fluconazole vial into the 50 ml syringe;
    e. Repeat same procedure for the 2nd 50 ml syringe;
    f. Once Fluconazole vial is emptied into the 2 x 50 ml syringe, replace drawing-up needles with 21G needles.
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 of the 1st 50 ml syringe;
    c. Repeat same procedure for the 2nd 50 ml syringe.
    Note: For accidental piercing of the bag or the side of the bung , use a new dialysis fluid

15. Administer Fluconazole intraperitoneally through CAPD exchange as per Continuous Ambulatory Peritoneal Dialysis (CAPD) Freeline Solo Exchange Procedure; Renal Department Protocol a. Note: Dwell intraperitoneal Fluconazole for 6-8 hours 16. Wear PPE 17. Discard bag and lines in the clinical waste bin, discard needles in sharps bin 18. Clean trolley after use 19. Remove gloves and PPE 20. 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/
4. External References / Further Reading	Walker, A. (2014). Management of peritoneal dialysis-associated peritonitis in adults and children. *The KHA-CARI Guidelines – Caring for Australasians with Renal Impairment* [cited 2015 March]; Available from: http://www.cari.org.au/Dialysis/dialysis%20peritonitis/dialysis_peritonitis.html Bannister, K. (2014). The influence of peritoneal dialysis systems and solutions on the incidence of peritonitis and catheter-related infections. *The KHA-CARI Guidelines – Caring for Australasians with Renal Impairment* [cited 2015 March]; Available from: http://www.cari.org.au/Dialysis/dialysis%20peritonitis/dialysis_peritonitis.html 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. *Peritoneal Dialysis International*, 30(4), 393-423. doi: 10.3747/pdi.2010.00049 Dombros, N., Dratwa, M., Feriani, M., Gokal, R., Heimburger, O., Krediet, R., . . . Verger, C. (2005). European best practice guidelines for peritoneal dialysis. 4 Continuous ambulatory peritoneal dialysis delivery systems. *Nephrology Dialysis Transplantation*, 20 Suppl 9, ix13-ix15. doi: 10.1093/ndt/gfi1118

Revision and Approval History

Date published	Revision number	Author/Contact Officer (Position)	Date due for revision
March 2015	1	Anna Claire Cuesta PD CNC	March 2018

Date published	Revision number	Approved (Position)	Date due for revision
March 2015	1	Dr Sharon Ong (Nephrologist)	March 2018