

**PERITONEAL DIALYSIS - FLUID SPECIMEN COLLECTION VIA CONTINUOUS
AMBULATORY PD (CAPD) FREELINE SOLO EXCHANGE**

Cross references	Infection Control Policy; NSW Health PD2007_036 Aseptic Technique; SGSHHS CLIN027 Freeline Solo Exchange for Nurses; Renal SGH WPI
1. Purpose	To ensure the collection of PD fluid specimen via CAPD Freeline Solo exchange procedure 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
- Blue clamp
- Micropore tape
- Sterile gloves
- PPE
- Patient label
- Pathology form indicating test/s required

2.1.2 Key parts

- Opticap (with Minicap)
- Peritoneal dialysis fluid (Freeline Solo bag)

2.1.3 Key site

- Abdominal PD catheter

2.2 Procedure

1. Explain procedure to patient
2. Confirm with patient/carer if peritoneal cavity is empty or full
3. Warm the selected peritoneal dialysis (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.
4. Perform hand hygiene
5. Clean trolley/work surface with detergent
6. Identify and gather equipment for procedure
7. Wash the blue clamp and dry thoroughly
8. Perform hand hygiene
9. Prepare general aseptic field with key parts, blue clamp and micropore tape
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. Check the bag strength, volume, expiry, colour and for leakage
13. Prepare the patient:
 - a) Don non-sterile gloves

- b) Expose the PD catheter
- c) Keep PD catheter away from clothing
14. Remove gloves and perform hand hygiene
15. Don sterile gloves
16. Perform connection procedure ensuring all key parts/sites are protected
 - a) Remove the coloured cap from the patient line and remove minicap from the catheter;
 - b) Use non-touch connection technique to connect catheter to the patient line;
 - c) Hang the full bag on an IV pole and place the empty drain bag on the floor;
 - d) Ensure all lines are not kinked or pulling from the exit site. Ensure catheter dressing remains intact;
 - e) Break the green stick to flush and prime the lines for 5 seconds then clamp the inflow line with a blue clamp
17. Twist open the catheter valve to commence drain (drain time is approximately 15 to 20 minutes). Note: Compare drain volume to previous fill volume. Drain volume should be more than the previous fill volume
18. Remove gloves and perform hand hygiene
19. When the drain line is cool, fill the patient:
 - a) Close the blue clamp on the outflow line;
 - b) Remove the blue clamp on the inflow line;
 - c) Run at least ≥ 1000 mL PD fluid into the patient (fill time is approximately 10-15 minutes)
20. When fill is complete, dwell PD fluid for 2 – 3 hours :
 - a) Place a blue clamp on the inflow line;
 - b) Twist close the catheter valve until it clicks;
 - c) Note the starting and finishing time of PD fluid dwell
21. When PD fluid dwell is complete, drain the patient:
 - a) Open the blue clamp on the outflow line;
 - b) Twist open the catheter valve;
 - c) Compare drain volume to previous fill volume. Drain volume should be more than the previous fill volume
22. When the drain line is cool, close the blue clamp on the outflow line and twist close the catheter valve until it clicks
23. Open a new opticap (with minicap)
24. Perform hand hygiene
25. Wear PPE and don sterile gloves
26. Disconnect patient using non-touch disconnection technique
27. Apply the new minicap to catheter using non-touch technique
28. Apply the opticap to the line of the drain bag to prevent contamination & leaking of PD effluent
29. Secure the catheter in place with micropore tape
30. Weigh the drain bag, record the volume and PD effluent quality (i.e. colour, clarity and fibrin status)
31. Write "PD fluid" on the patient label for the drain bag ensuring patient details is not covered.
32. Attach a patient label onto the drain bag and pathology request form.

33. Send labelled PD fluid specimen to pathology with the completed and labelled pathology request form.
Note: If patient was given antibiotic/s prior to PD fluid specimen collection, note down all the antibiotics patient received on the pathology request form
34. Remove gloves and PPE
35. Perform hand hygiene
36. Clean trolley after use and perform hand hygiene
37. Document the procedure on the patient notes
38. Inform the PD CNC (page 1091) or PD nurses (X33770)
39. Inform the renal team
40. Handover to the next shift

3. Network file	St George Hospital Renal Website: http://stgrenal.med.unsw.edu.au/StGRenalWeb.nsf
4. External references / further reading	<p>Akoh, J. A. (2012). Peritoneal dialysis associated infections: An update on diagnosis and management. <i>World Journal of Nephrology</i>, 1(4), 106-122. doi: 10.5527/wjn.v1.i4.106</p> <p>Bannister, K. (2014). The influence of peritoneal dialysis systems and solutions on the incidence of peritonitis and catheter-related infections. <i>The KHA-CARI Guidelines – Caring for Australasians with Renal Impairment</i> [cited 2014 June]; Available from: http://www.cari.org.au/Dialysis/dialysis%20peritonitis/dialysis_peritonitis.html</p> <p>Li, P. K.-T., Szeto, C. C., Piraino, B., de Arteaga, J., Fan, S., Figueiredo, A. E., . . . Johnson, D. W. (2016). ISPD Peritonitis Recommendations: 2016 Update on Prevention and Treatment. <i>Peritoneal Dialysis International</i>, 36(5), 481-508. doi: 10.3747/pdi.2016.00078</p> <p>Li, P. K.-T., Szeto, C. C., Piraino, B., Bernardini, J., Figueiredo, A. E., Gupta, A., Johnson, D.W., Kuijper, E., Lye, W.-C., Salzer, W., Schaefer, F., Struijk, D. G. (2010). Peritoneal Dialysis-Related Infections Recommendations : 2010 Update. <i>Peritoneal Dialysis International</i>, 30(4), 393-423. doi: 10.3747/pdi.2010.00049</p> <p>Piraino, B., Bernardini, J., Brown, E., Figueiredo, A., Johnson, D. W., Lye, W.-C. Price, V., Ramalakshmi, S., Szeto, C.-C. (2011). ISPD Position Statement on Reducing the Risks of Peritoneal Dialysis–Related Infections. <i>Peritoneal Dialysis International</i>, 31(6), 614-630. doi: 10.3747/pdi.2011.00057</p>
5. Specialty/department committee approval	Peritoneal Dialysis Committee
6. Department head	Mark Brown or Franziska Pettit, Department Head Renal Services

approval	
7. Executive sponsor approval – NCD or CGM	Christine Day, Nurse Manager Medicine

Revision and Approval History

Date published	Revision number	Author (Position)	Date revision due
June 2017	1	Anna Claire Cuesta (PD CNC)	June 2020

WPI Criteria	Yes	No
Contains ward/unit/department specific instructions only	✓	
Description of process is straight forward and without variables. NOT a WPI if dependent on various decision making pathways e.g. if something is A do B and if C do D	✓	
Process is free from complex clinical decision making	✓	
Process is free from medications	✓	
Process is free from high risk invasive procedures	✓	
Document will be located on the ward/unit/department dedicated intranet page	✓	
Document will be listed in a local register by custodian responsible for facilitating WPI review every 3 years	✓	
Department head will approve the document and nursing co-director or clinical group manager will be the executive sponsor	✓	
If NO to any of the criteria ↓ NOT a WPI – progress to clinical business rule (CIBR) development		