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

Cross references	NSW Health PD2017_013 *Infection Prevention and Control Policy* NSW Health PD2017_026 *Clinical and Related Waste Management for Health Services* NHMRC *Australian Guidelines for the prevention and control of Infection in Healthcare* SGH-TSH CLIN027 *Aseptic Technique - Competency and Education Requirements* SGH CLIN 442 *Peritoneal Dialysis (PD) – Peritonitis Management and Treatment* SGH PD WPI 217 *Continuous Ambulatory Peritoneal Dialysis (CAPD) Freeline Solo Exchange Procedure*
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 as per NSW Health PD2017_013 Infection Prevention and Control Policy
- 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. **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. Perform hand hygiene
    b. Wear PPE and don gloves as per NSW Health PD2017_013 *Infection Prevention and Control Policy*
    c. Expose the PD catheter
    d. Keep PD catheter away from clothing
14. Remove gloves and perform hand hygiene
15. Don sterile gloves
16. Perform connection procedure as per SGH PD WPI 217 *Continuous Ambulatory Peritoneal Dialysis (CAPD) Freeline Solo Exchange 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. Perform disconnection procedure as SGH PD WPI 217 *Continuous Ambulatory Peritoneal Dialysis (CAPD) Freeline Solo Exchange Procedure* ensuring all key parts/sites are protected
    a. Open a new Opticap (with minicap)
    b. Perform hand hygiene
    c. Wear PPE and don sterile gloves as per NSW Health PD2017_013 *Infection Prevention and Control Policy*
    d. Disconnect patient using non-touch disconnection technique
    e. Apply the new minicap to catheter using non-touch technique
24. Apply the Opticap to the line of the drain bag to prevent contamination & leaking of PD effluent
25. Secure the catheter in place with micropore tape
26. Weigh the drain bag, record the volume and PD effluent quality (i.e. colour, clarity and fibrin status)
27. Write “PD fluid” on the patient label for the drain bag ensuring patient details is not covered.
28. Attach patient labels onto the drain bag and pathology request form.
29. Send the labelled drain bag 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 received on the pathology request form
30. Discard used equipment as per NSW Health PD2017_013 *Infection Prevention and Control Policy*
31. Remove gloves and PPE
32. Perform hand hygiene
33. Clean trolley after use and perform hand hygiene
34. Document the procedure on the patient notes
35. Inform the PD CNC (page 1091) or PD nurses (X33770)
36. Inform the renal team
37. Handover to the next shift

3. Network file	Renal, Peritoneal Dialysis
4. External references / further reading	Akoh, J. A. (2012). Peritoneal dialysis associated infections: An update on diagnosis and management. *World Journal of Nephrology, 1*(4), 106-122. doi: 10.5527/wjn.v1.i4.106 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 2014 June]; Available from: http://www.cari.org.au/Dialysis/dialysis%20peritonitis/dialysis_peritonitis.ht

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5. Specialty/department committee approval	Peritoneal Dialysis Committee Dr Franziska Pettit, Staff Specialist Signature: 20.05.20
6. Department head approval	Dr George Mangos, Department Head Renal Services Signature: 20.05.20
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Revision and Approval History

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