PERITONEAL DIALYSIS (PD) – FLUID SPECIMEN COLLECTION VIA AUTOMATED PD (APD)

1. Purpose	To ensure the collection of PD fluid specimen via Automated PD is performed according to best practice guidelines reducing the risk of infection, ensuring patient safety and a clean specimen collection
2. Employees it Applies to	Registered Nurses (RN) Enrolled Nurses (EN or EEN)

3. PROCESS

Refer to SGH CLIN442 Peritoneal Dialysis - Peritonitis Management and Treatment, Renal SGH WPI 216 Automated Peritoneal Dialysis (APD) Connection And Disconnection Procedure – Claria Dialysis Machine and SGH PD WPI 217 Continuous Ambulatory Peritoneal Dialysis (CAPD) Freeline Solo Exchange Procedure

3.1 DEVICES

3.1.1 Equipment

- Trolley
- Micropore tape
- Sterile gloves
- Non – sterile gloves
- Blood culture set (self – vacuumed aerobic and anaerobic bottles)
- Specimen container (yellow top jar)
- 1 x 20 ml syringe
- 2 x 10 ml syringes
- 3 x 21 gauge needles
- Blue clamp
- 5 x alcohol or alcohol with chlorhexidine swabs

3.1.2 Other equipment

- Portable IV
- Patient labels
- Pathology form indicating test/s required
- PPE as per NSW Health PD2023_025 Infection Prevention and Control in Healthcare Settings
- Peritoneal Dialysis Machine
- 15L Cycler Drainage Bag

3.1.3 Key parts

- Flexicap
- Minicap
- Peritoneal dialysis fluid
- Cassette/lines
- Ultra Set or Manual Drain Bag

3.1.4 Key Site

– Abdominal PD catheter

3.2 PROCEDURE

1. Wear PPE as per NSW Health PD2023_025 Infection Prevention and Control in Healthcare Settings
2. Explain procedure to patient
3. Modify APD program or therapy to add 1 Litre “Last Fill”
4. Connect patient to PD machine as per SGH PD WPI 216 Automated Peritoneal Dialysis (APD) Connection And Disconnection Procedure – Claria Dialysis Machine
5. Once PD therapy is completed, disconnect patient from dialysis machine as per SGH PD WPI 216 Automated Peritoneal Dialysis (APD) Connection And Disconnection Procedure – Claria Dialysis Machine

   Note: Do not perform a manual drain prior to disconnection
6. Dwell 1 Litre last fill of PD fluid for 2 – 3 hours

   Note: Restart the PD fluid collection and do not send PD fluid for testing if dwell time is < 2 hours or > 3 hours.
7. After 2 – 3 hours of PD fluid dwell is completed, wear PPE as per NSW Health PD2023_025 Infection Prevention and Control in Healthcare Settings and drain the patient as per SGH PD WPI 217 Continuous Ambulatory Peritoneal Dialysis (CAPD) Freeline Solo Exchange Procedure

   Note: Do not refill if patient is usually on dry day APD program (i.e. zero or no last fill)
8. When the drain line is cool, close the blue clamp on the outflow line and twist close the catheter valve until it clicks
9. Perform disconnection procedure as per SGH PD WPI 217 Continuous Ambulatory Peritoneal Dialysis (CAPD) Freeline Solo Exchange Procedure ensuring all key parts/sites are protected
   a. Open a new Flexicap
   b. Open a new Minicap
   c. Perform hand hygiene
   d. Don sterile gloves
   e. Disconnect patient using non-touch disconnection technique
   f. Apply the new Minicap to catheter using non-touch technique
10. Apply the Flexicap to the line of the drain bag to prevent contamination & leaking of PD effluent
11. Secure the PD catheter on the abdomen with micropore tape
12. Weigh the drain bag, record the volume and PD effluent quality (i.e. colour, clarity and fibrin status)
13. Collect the PD fluid specimen from the drain bag using aseptic technique:
    a. Attach the 3 x syringes to the 21 gauge needles
    b. Clean the drain bag bung with alcohol, or alcohol with chlorhexidine swab, and allow to dry completely
    c. Aspirate PD fluid from the drain bag bung using the 3 x syringes (2 x 10 ml and 1 x 20 ml)

       Note: Clean the drain bag bung with alcohol, or alcohol with chlorhexidine swab, and allow to dry completely, for each aspiration/collection

d. Remove the cap of the blood culture bottles (self – vacuumed aerobic and anaerobic bottles), scrub the vial stoppers using alcohol, or alcohol with chlorhexidine swabs, and allow to dry completely.
e. Inject the first 10 ml PD fluid syringe to the self – vacuumed aerobic bottle
f. Inject the second 10ml PD fluid syringe to the self – vacuumed anaerobic bottle
g. Transfer the content of 20 ml PD fluid syringe into the specimen container (yellow top jar) and tightly secure the specimen container lid

14. Attach patient labels to specimen container and blood culture bottles
15. Write "PD fluid" on the patient labels ensuring patient details are not covered
16. Place specimen container and blood culture bottles including the labelled pathology request form in a biohazard bag and send to the laboratory.

    Note: If patient was given antibiotic/s prior to PD fluid specimen collection, note down all the antibiotics received on the pathology request form
17. Discard all equipment as per NSW Health PD2020_049 Clinical and Related Waste Management for Health Services
18. Remove gloves and PPE
19. Perform hand hygiene
20. Clean trolley after use and perform hand hygiene
21. Document the procedure on the patient notes
22. Inform the renal team and PD team (X33770 or page 1091)
23. Handover to the next shift

4. Cross References	NSW Health PD2023_025 Infection Prevention and Control in Healthcare NSW Health PD2020_049 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 - Assessment and Education Requirements SGH CLIN442 Peritoneal Dialysis - Peritonitis Management and Treatment WPI 216 Automated Peritoneal Dialysis (APD) Connection And Disconnection Procedure – Claria Dialysis Machine SGH PD WPI 217 Continuous Ambulatory Peritoneal Dialysis (CAPD) Freeline Solo Exchange Procedure
5. Keywords	Peritoneal dialysis, PD fluid, culture, specimen collection, APD
6. Document Location	Under "P" in Peritoneal Dialysis section – SGH-TSH Business Rule Webpage
7. External References	1. Chow, K. M., Li, P. K., Cho, Y., Abu-Alfa, A., Bavanandan, S., Brown, E. A., Cullis, B., Edwards, D., Ethier, I., Hurst, H., Ito, Y., de Moraes, T. P., Morelle, J., Runnegar, N., Saxena, A., So, S. W., Tian, N., & Johnson, D. W. (2023). ISPD Catheter-related Infection Recommendations: 2023 Update. *Peritoneal dialysis international : journal of the International*

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Approval for: PERITONEAL DIALYSIS – FLUID SPECIMEN COLLECTION VIA CONTINUOUS AMBULATORY PD (CAPD) FREELINE SOLO EXCHANGE	
Specialty/Department Committee	Committee: Peritoneal Dialysis Committee Chairperson: Franziska Pettit, Staff Specialist Date: 27.06.2024
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Revision and Approval History				
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