# PERITONEAL DIALYSIS (PD) - FLUID SPECIMEN COLLECTION VIA AUTOMATED PD

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| **Cross references** | NSW Health PD2017_013 *Infection Prevention and Control Policy*<br>NSW Health PD2017_026 *Clinical and Related Waste Management for Health Services*<br>NHMRC *Australian Guidelines for the prevention and control of Infection in Healthcare*<br>SGH-TSH CLIN027 *Aseptic Technique - Competency and Education Requirements*<br>SGH CLIN 442 *Peritoneal Dialysis (PD) – Peritonitis Management and Treatment*<br>SGH PD WPI 143 *Peritoneal Dialysis (PD) – Manual Drain With A Drain Bag (Ultra Set)*<br>SGH PD WPI 216 *Automated Peritoneal Dialysis (APD) Connection And Disconnection Procedure – Claria Dialysis Machine* |
| **1. Purpose** | To ensure the collection of PD fluid specimen via Automated PD is performed according to best practice guidelines, ensuring patient safety and a clean specimen collection |

## 2. Process

### 2.1 Devices

#### 2.1.1 Equipment

- Trolley
- Peritoneal Dialysis Machine
- 15L Cycler Drainage Bag
- 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
- Cassette/lines
- Ultra-Set or Manual Drain Bag

#### 2.1.3 Key site

- Abdominal PD catheter

## 2.2 Procedure

1. Explain procedure to patient
2. Modify PD program or therapy to add 1 Litre "Last Fill"
3. Connect patient to PD machine as per SGH PD WPI 216 *Automated Peritoneal Dialysis (APD) Connection And Disconnection Procedure – Claria Dialysis Machine*
4. 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**
5. 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.**
6. After 2 – 3 hours of PD fluid dwell is completed, drain the patient as per SGH PD WPI 143 *Peritoneal Dialysis (PD) – Manual Drain With A Drain Bag (Ultra Set)*
7. When the drain line is cool, close the blue clamp on the outflow line and twist close the catheter valve until it clicks
8. Open a new Opticap (with minicap)
9. Perform hand hygiene
10. Wear PPE as per NSW Health PD2017_013 *Infection Prevention and Control Policy*
11. Don sterile gloves
12. Disconnect patient using non-touch disconnection technique
13. Apply the new minicap to catheter using non-touch technique
14. Apply the Opticap to the line of the Ultra Set drain bag to prevent contamination & leaking of PD effluent
15. Secure the catheter in place with micropore tape
16. Weigh the drain bag, record the volume and PD effluent quality (i.e. colour, clarity and fibrin status)
17. Write "PD fluid" on the patient label for the drain bag ensuring patient details is not covered.
18. Attach patient labels onto the drain bag and pathology request form.
19. 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**
20. Discard used equipment as per NSW Health PD2017_013 *Infection Prevention and Control Policy*
21. Remove gloves and PPE
22. Perform hand hygiene
23. Clean trolley after use and perform hand hygiene
24. Document the procedure on the patient notes
25. Inform the PD CNC (page 1091) or PD nurses (X33770)
26. Inform the renal team
27. Handover to the next shift

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| **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<br>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.html<br>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. *Peritoneal Dialysis International, 36*(5), 481-508. doi: 10.3747/pdi.2016.00078<br>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). Pertioneal Dialysis-Related Infections Recommendations : 2010 Update. *Peritoneal Dialysis International, 30*(4), 393-423. doi: 10.3747/pdi.2010.00049<br>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. *Peritoneal Dialysis International, 31*(6), 614-630. doi: 10.3747/pdi.2011.00057<br>Sahlawi, M. A., Wilson, G., Stallard, B., Manera, K. E., Tong, A., Pisoni, R. L., . . . Perl, J. (2020). Peritoneal dialysis-associated peritonitis outcomes reported in trials and observational studies: A systematic review. *Peritoneal Dialysis International, 40*(2), 132-140. doi:10.1177/0896860819893810<br>Szeto, C.-C., Li, P. K.-T., Johnson, D. W., Bernardini, J., Dong, J., Figueiredo, A. E., . . . Brown, E. A. (2017). ISPD Catheter-Related Infection Recommendations: 2017 Update. *Peritoneal Dialysis International, 37*(2), 141-154. doi:10.3747/pdi.2016.00120<br>Walker, A., Bannister, K., George, C., Mudge, D., Yehia, M., Lonergan, M., & Chow, J. (2014). KHA-CARI Guideline: peritonitis treatment and prophylaxis. *Nephrology (Carlton), 19*(2), 69-71. doi:10.1111/nep.12152<br>Woodrow, G., Fan, S. L., Reid, C., Denning, J., & Pyrah, A. N. (2017). Renal Association Clinical Practice Guideline on peritoneal dialysis in adults and children. *BMC Nephrol, 18*(1), 333. doi:10.1186/s12882-017-0687-2<br>Yap, D. Y. H., Chu, W. L., Ng, F., Yip, T. P. S., Lui, S. L., & Lo, W. K. (2012). Risk Factors and Outcome of Contamination in Patients on Peritoneal Dialysis—A Single-Center Experience of 15 Years. *Peritoneal Dialysis International*, 32(6), 612-616. doi: 10.3747/pdi.2011.00268 |
| **5. Specialty/department committee approval** | Peritoneal Dialysis Committee<br>Dr Franziska Pettit, Staff Specialist<br>Signature: 20.05.20 |
| **6. Department head approval** | Dr George Mangos, Department Head Renal Services<br>Signature: 20.05.20 |

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| **7. Executive sponsor approval – Nurse Manager** | Christine Day, Nurse Manager Medicine<br>Signature: 28.05.20 |

**Revision and Approval History**

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