PERITONEAL DIALYSIS (PD): AFTER HOURS MANAGEMENT OF OUTPATIENTS FOR UNPLANNED PD PROCEDURE (FOR LONG And SHORT STAY) IN 4 SOUTH ST GEORGE HOSPITAL (SGH)

1. Purpose	A Clinical Business Rule (CIBR) to describe the process for the management of peritoneal dialysis outpatients after hours, when a peritoneal dialysis outpatient requires after hours assistance with troubleshooting and clinical management, and to ensure safe and timely management of peritoneal dialysis outpatient clinical issues.
2. Risk Rating	Medium
3. National Standards	1 – Clinical Governance 2 – Partnering with Consumers 3 – Preventing and Controlling Healthcare Associated Infection 5 – Comprehensive Care 6 – Communicating for Safety
4. Employees it Applies to	All Clinical Staff

5. PROCESS

BACKGROUND

Peritoneal dialysis (PD) patients manage their own treatment at home.

There are two forms of PD

1. Continuous Ambulatory Peritoneal Dialysis (CAPD) which involves the patient performing a manual exchange of fluid four times a day.
2. Automated Peritoneal Dialysis (APD) which is an automated system in which the patient self-connects to a machine at night (usually 8 hours) and the machine controls the inflow and outflow of the dialysis fluid.

Patients are fully trained in their own PD management, however, clinical complications, issues, or problems can occur. The PD unit nurses attends to all outpatient concerns during operating hours – Monday to Friday, 0730 to 1600. 4 South (4S) is the contact ward that provides PD support after hours, on weekends and during public holidays.

DEFINITIONS

- **After – hours** refers to the times that the PD unit is not operating and the PD Clinical Nurse Consultant (CNC) and PD Clinical Nurse Specialists (CNS) are not on duty. PD unit's business hours are Monday to Friday, 0730 – 1600 hours, except on public holidays or during holiday closure.
- **Unplanned** refers to unexpected presentation of PD patients requiring PD procedures or troubleshooting to be performed
- **Short stay** refers to presentation of PD patients requiring PD procedures that can be completed in ≤ 3 hours
- **Long stay** refers to presentation of PD patients requiring PD procedures that cannot be completed in ≤ 3 hours

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5.1 POSSIBLE AFTER HOURS PD SCENARIOS

5.1.1 Short Stay

1. **Planned simple PD procedures**

   Planned simple PD procedures are defined as anticipated PD procedures that require less than 3 hours to perform and are usually carried out in the PD unit during operating hours. However, some of these planned simple PD procedures may need to be carried out after hours, on the weekends or public holidays in 4S due to treatment timing, for example:

   - Patients receiving treatment for peritonitis in the form of daily intraperitoneal (IP) antibiotic administration via CAPD – IP antibiotic treatment will be administered Monday to Friday in the PD unit and in 4S over the weekend and public holidays.
   - Patients requiring a manual drain of PD effluent – IP antibiotics administered with PD fluid are to dwell for 6 – 8 hours only and must be drained out completely to prevent antibiotic toxicity. For IP antibiotics requiring 8 hour dwell time, administration is carried out in the PD unit during operating hours, draining out will have to be booked in 4S after hours.

- When a simple PD procedure is to be booked or planned for afterhours, refer to SGH CLIN452 *Peritoneal Dialysis – Afterhours Management of Planned Simple PD Procedure (for Short Stay) in 4South SGH*
- Patient booked for afterhours simple PD procedures that may need to present after 2200hrs or when main entrance is closed will need to access 4S via the Emergency Department (ED). Patient must advise ED Clerical staff of their appointment, security will then be contacted to escort patient to 4S.
- Once the patient presents to the ward for afterhours simple PD procedure, 4S team must attend to the patient as per SGH CLIN452 *Peritoneal Dialysis – Afterhours Management of Planned Simple PD Procedure (for Short Stay) in 4South SGH*

2. **Decontamination of PD catheter (Unplanned)**

   A contaminated PD catheter and extension set can lead to peritonitis. PD catheter contamination can occur anytime the patient is accessing their PD catheter. Patients are trained to call for support as soon as the contamination occurs as decontamination of PD catheter must be performed immediately to reduce the risk of developing peritonitis.

- When the patient contacts 4S, staff must advise the patient to:
  - Stop dialysis and disconnect
  - Clamp the dialysis line, close the valve and cover the PD catheter with minicap
  - Present to 4S immediately. (After 2200hrs or if main door is closed, patient must access 4S through ED. Advise patient to inform ED Clerical staff of their appointment, security will then be contacted to escort patient to the ward).
- The in-charge (IC) RN must inform the After Hours Nurse Manager (AHNM), Bed Manager, after-hours 4th Floor RMO and renal consultant on – call of the expected admission.
- When the patient presents to 4S, the IC RN must attend to patient's COVID – 19 screening and management as per as per most recent COVID guidelines and recommendation for SGH and initiate the admission process as per SGH CLIN 357 Peritoneal Dialysis Catheter (and Extension set) – Management of Contamination
- When the patient is admitted, the IC RN must attend to or delegate a senior RN to attend to the decontamination process as per SGH CLIN 357 Peritoneal Dialysis Catheter (and Extension set) – Management of Contamination

Note: This can be delegated to a PD skilled IC RN or a PD skilled RN with no patient load

- If patient becomes unwell during the procedure:
  - Inform the afterhours 4th Floor, renal consultant on – call, AHNM and Bed Manager. Activate and refer to the deteriorating patient's standard calling criteria as SGH CLIN 301 *CERS Management: St George Hospital*
- If patient remains well until the procedure is completed BUT peritoneal dialysis culture result revealed white cell count (WCC) greater than 100:
  - Inform the 4th Floor afterhours RMO, renal consultant on – call, AHNM and Bed Manager that the patient will need a longer stay admission for peritonitis treatment.
- If patient remains well until procedure is completed and peritoneal dialysis culture WCC was less than 100:
  - Discharge patient and inform the 4th Floor afterhours RMO, renal consultant on – call, AHNM and Bed Manager of discharge.
- Document procedure in eMR
- Notify the PD unit via voicemail on X 33770 / 33775 for outpatient follow-up

5.1.2 Long Stay

1. **Management of blocked PD catheter (Unplanned)**

   The PD catheter is considered the lifeline of patients on peritoneal dialysis. A poor flowing or blocked PD catheter must be assessed and investigated immediately before patients become unwell due to missed dialysis.

- When the patient contacts 4S, staff must advise the patient to:
  - Stop dialysis and disconnect
  - Clamp the dialysis line, close the valve and cover the PD catheter with minicap
  - Present to 4S immediately. (After 2200hrs or if main door is closed, patient must access 4S through ED. Advise patient to inform ED Clerical staff of their appointment, security will then be contacted to escort patient to the ward).
- The IC RN must inform the AHNM, Bed Manager, after-hours 4th Floor RMO and renal consultant-on-call of the expected admission with a possibility of being a long stay admission.
- When the patient presents to 4S, the IC RN must:
  - Attend to patient's COVID – 19 screening and management as per as per most recent COVID guidelines and recommendation for SGH
  - Initiate the admission process as per NSW Health PD2017_015 *NSW Health Admission Policy*, NSW Health PD2022_012 *Admission to Discharge Care Coordination* and most recent SGH admission policy in consideration of patient's COVID status i.e. SGH CLIN697 *Direct Admission – Covid Confirmed, Suspected and Close Contacts*
- When the patient is admitted, the IC RN must attend to or delegate a senior RN to attend to the PD catheter flushing and unblocking processes as per SGH CLIN 538 *PDC) - Poor flow no flow management*

  Note: Patient must be allocated to a PD skilled IC RN or a PD skilled RN with no patient load
- If patient becomes unwell during the procedure:
  - Inform the afterhours 4th Floor RMO, renal consultant on – call, AHNM and Bed Manager. Activate and refer to the deteriorating patient's standard calling criteria as per SGH CLIN 301 *CERS Management: St George Hospital*

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- If patient remains well until the unblocking procedure is completed BUT the PD catheter remains poorly flowing or blocked:
    - Inform the afterhours 4th Floor RMO, renal consultant on – call, AHNM and Bed Manager to confirm the patient's long stay admission.
- If patient remains well until the unblocking procedure is completed and the PD catheter is flowing well or unblocked :
    - Discharge the patient and inform the afterhours 4th Floor RMO, renal consultant on – call, AHNM and Bed Manager of discharge.
- Document procedure in eMR
- Notify the PD unit via voicemail ext33770/33775 for outpatient follow-up

2. Other after – hours situations requiring unplanned long stay admission including peritonitis

PD patients who are unwell and are presenting with other clinical issues including symptomatic peritonitis SHOULD NOT be transferred nor be directly admitted to 4S for initial treatment. These patients must be advised to present (with their patient card) to ED immediately for assessment and management and be triaged as per the Australasian Triage Scale (ATS).

5.1.3 ED Presentation For Contaminated And/Or Blocked PD Catheters (Unplanned)

PD patients with a contaminated or blocked PD catheter may in some instance present to ED without speaking to ward staff on 4S. In this instance, the triage nurse must assess, review and screen the patient (including COVID – 19 screening & management as per as per most recent COVID guidelines and recommendation for SGH) in order to confirm the patient has no other acute problems:

- If the presenting problem is relating ONLY to contaminated or blocked PD catheter, the ED nurse is to contact 4S IC RN, renal consultant on – call, Bed manager and AHNM to notify that the patient will be directed to the ward (refer to 5.1.1 or 5.1.2) following assigning an ATS category.
- If any other clinical symptoms are identified at triage please refer to 5.1.2 section 2. And immediately notify the renal consultant on – call, Bed manager, AHNM, 4S IC RN and relevant afterhours RMO for any potential patient transfer to 4S or other wards.

5.2 PD CONTACT NUMBERS

- After hours: 4S Ward: ext 33458 or ext 32253
- PD unit nursing staff: ext 33770 or ext 33775
- PD Clinical Nurse Consultant (CNC): ext 33775 or page 1091
- 4W Dialysis Nurse Unit Manager (NUM): ext 31643 or page 178

6. Cross References	NSW Health PD2017_015 *NSW Health Admission Policy,* NSW Health PD2022_012 *Admission to Discharge Care Coordination* NSW Health PD2020_018 *Recognition and management of patients who are deteriorating* Clinical Excellence Commissions (CEC) Between the Flags (BTF) Clinical Emergency Response System (CERS) Yellow Zone (Clinical Review) and Red Zone (Rapid Response)

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	SGH CLIN 301 *CERS Management: St George Hospital* SGH CLIN 357 *Peritoneal Dialysis Catheter (and Extension set) – Management of Contamination* SGH CLIN452 *Peritoneal Dialysis – Afterhours Management of Planned Simple PD Procedure (for Short Stay) in 4South SGH* SGH CLIN697 *Direct Admission – Covid Confirmed, Suspected and Close Contacts*
7. Keywords	Peritoneal Dialysis, After – hours, Troubleshooting
8. Document Location	SGH-TSH Business Rule Webpage
9. External References	1. Guidelines On The Implementation Of The Australasian Triage Scale In Emergency Departments (2016). Australasian College for Emergency Medicine (ACEM). https://acem.org.au/getmedia/51dc74f7-9ff0-42ce-872a-0437f3db640a/G24_04_Guidelines_on_Implementation_of_ATS_Jul-16.aspx 2. Campbell, D. J., Johnson, D. W., Mudge, D. W., Gallagher, M. P., & Craig, J. C. (2014). Prevention of peritoneal dialysis-related infections. *Nephrology Dialysis Transplantation*. doi: 10.1093/ndt/gfu313 3. Cho, Y., & Johnson, D. W. (2014). Peritoneal Dialysis–Related Peritonitis: Towards Improving Evidence, Practices, and Outcomes. *American Journal of Kidney Diseases, 64*(2), 278-289. doi: http://dx.doi.org/10.1053/j.ajkd.2014.02.025 4. Li PK-T, Chow KM, Cho Y, et al. (2022) ISPD peritonitis guideline recommendations: 2022 update on prevention and treatment. *Peritoneal Dialysis International*, 42(2):110-153. doi:10.1177/08968608221080586 5. 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 6. 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 7. Piraino, B., Bernardini, J., Brown, E., Figueiredo, A., Johnson, D. W., Lye, W.-C., . . . 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 8. 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 9. Walker, A., Bannister, K., George, C., Mudge, D., Yehia, M., Lonergan, M. and Chow, J. (2014), KHA-CARI Guideline: Peritonitis treatment and prophylaxis. Nephrology, 19: 69–71. doi:10.1111/nep.12152
10. Consumer Advisory Group (CAG) Approval	Not Applicable
11. Aboriginal Health Impact Statement	The Aboriginal Health Impact Statement does not require completion because there is no direct or indirect impact on Aboriginal people.

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	After-hours management of Outpatient PD patients is similar for patients of aboriginal and non-aboriginal background. Approval: T22/
12. Implementation and Evaluation Plan	**Implementation:** The document will be published on the SGH-TSH business rule webpage and distributed via the monthly SGH-TSH CGD report. Inservice Education **Evaluation:** Incident (IMS+) Monitoring
13. Knowledge Evaluation	**Q1: What situations require the patient to present directly to ED?** *A1: Unwell patients or patients with symptomatic peritonitis.* **Q2: What ward covers the management of the PD outpatient afterhours?** *A2: Ward 4S, X33458/33448* **Q3: What situations require the patient to present directly to 4S?** *A3: Patients requiring PD catheter decontamination, patients with suspected PDC blockage or patients booked for simple PD procedures.*
14. Who is Responsible	Department Head Renal Services Divisional Director, Medicine and Cancer

Approval for: PERITONEAL DIALYSIS (PD): AFTER HOURS MANAGEMENT OF OUTPATIENTS FOR UNPLANNED PD PROCEDURE (FOR LONG and SHORT STAY) IN 4 SOUTH ST GEORGE HOSPITAL (SGH)	
Specialty/Department Committee	Committee: Peritoneal Dialysis Committee Chairperson: Franziska Pettit, Staff Specialist Date: 04.05.2022
Nurse Manager (SGH)	Christine Day, Medicine and Cancer Divisional Director Date: 12.05.2022
Medical Head of Department (SGH)	George Mangos, Department Head Renal Services Date: 05.05.2022
Executive Sponsor	Christine Day, Medicine and Cancer Divisional Director Date: 12.05.2022
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Revision and Approval History				
Revision Date	Revision number	Reason	Coordinator/Author (Position)	Revision Due
Dec 2013	0	New	(Anna) Claire Cuesta Peritoneal Dialysis CNC	Dec 2016
Jan 2018	1	Review – amended to PACE calling criteria & inclusion of ED presentation	(Anna) Claire Cuesta Peritoneal Dialysis CNC	Jan 2021
May 2022	2	Review - amended to BTF & CERS calling criteria, updated notification processes and inclusion of COVID-19 screening and management	(Anna) Claire Cuesta Peritoneal Dialysis CNC	May 2025

General Manager's Ratification	
Angela Karooz (SGH)	Date: 25.05.2022

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