PERITONEAL DIALYSIS: AFTER HOURS MANAGEMENT OF OUTPATIENTS

Cross References
(including NSW Health/SESLHD policy directives)

<table>
<thead>
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<th>SGH CLIN238 Clinical Business Rule</th>
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<tr>
<td>SESLHDPR/283 Patient with Acute Condition for Escalation (PACE) – Management of the Deteriorating ADULT &amp; MATERNITY Inpatient</td>
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<td>SGH CLIN353 PACE – Management of the Deteriorating Patient at SGH</td>
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<td>SGH CLIN357 Peritoneal Dialysis Catheter (and Extension set) – Management of Contamination</td>
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<td>SGH CLIN452 Peritoneal Dialysis – Afterhours Management of Planned Simple PD Procedure in 4South</td>
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1. What it is
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. Employees it Applies to
Nurses and medical officers (MO) across St George Hospital

4. Process
4.1 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.

4.2 POSSIBLE AFTER HOURS PD SCENARIOS
4.2.1 Planned simple PD procedures (refer to Flowchart 3 – Appendix 3)
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 CLINxxx Peritoneal Dialysis – Afterhours Management of Planned Simple PD Procedure in 4South**

- Patient booked for afterhours simple PD procedures that may need to present after 2200hrs or after the main hospital entrance door 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 the ward.

- Once the patient presents to the ward for afterhours simple PD procedure, 4S team must attend to the patient as per **SGH CLINxxx Peritoneal Dialysis – Afterhours Management of Planned Simple PD Procedure in 4South**

### 4.2.2 Decontamination of PD catheter (refer to Flowchart 1 & 3 - Appendix 1 & 3)

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 PD catheter decontamination 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 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 or delegate performs the decontamination process as per **SGH CLIN 357 Peritoneal Dialysis Catheter (and Extension set) – Management of Contamination**

- If patient becomes unwell during the procedure:
  - Inform the 4th Floor afterhours RMO, renal consultant on-call, AHNM and/or Bed Manager. PACE criteria applies according to **SESLHDPR/283 Patient with Acute Condition for Escalation (PACE) – Management of the Deteriorating ADULT & MATERNITY Inpatient** and the adult observation chart

- 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/or Bed Manager that the patient will need a longer stay admission.

- If patient remains well until procedure is completed and peritoneal dialysis culture WCC was less than 100:
  - Discharge patient and inform AHNM and/or bed manager of discharge.

- Document procedure in the clinical notes and forward to the PD Unit. Notify the PD unit via voicemail ext33770/33775 for outpatient follow-up
4.2.3 Management of blocked PD catheter (refer to Flowchart 2 & 3 – Appendix 2 & 3)

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.

- When the patient presents to 4S, the IC RN must initiate the admission process as per Management of poor/no flow PD catheter – Afterhours protocol.

- When the patient is admitted, the IC RN or delegate performs the PD catheter flushing process as per Management of poor/no flow PD catheter protocol – Afterhours protocol.

- If patient becomes unwell during the procedure
  - Inform the 4th Floor afterhours RMO, renal consultant on-call, AHNM and/or Bed Manager. PACE criteria applies according to SESLHDPR/283 Patient with Acute Condition for Escalation (PACE) – Management of the Deteriorating ADULT & MATERNITY Inpatient and the adult observation chart.

- If patient remains well until the procedure is completed BUT the PD catheter flushing is unsuccessful:
  - Inform the 4th Floor afterhours RMO, renal consultant-on-call, AHNM and/or Bed Manager that the patient will need a longer stay admission.

- If patient remains well until procedure is completed and PD catheter flushing is successful:
  - Discharge patient and inform AHNM and/or Bed manager of discharge.

- Document procedure in the clinical notes and forward to the PD Unit. Notify the PD unit via voicemail ext33770/33775 for outpatient follow-up.

4.2.4 Other situations including peritonitis

PD patients presenting with other clinical issues including symptomatic peritonitis SHOULD NOT be transferred to 4S for initial treatment. These patients must present (with their patient card) to ED immediately for assessment and management and be triaged as per the Australasian Triage Scale (ATS).

4.2.5 Patients presenting unexpectedly to ED for contaminated/blocked PD catheters (refer to Flowchart 3 – Appendix 3)

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 patient will need to be assessed by the triage nurse 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 and patient can be directed to the ward (refer to section 4.2.2 or 4.2.3) following assigning an ATS category. If any other clinical symptoms are identified at triage please refer to section 4.2.4. Immediately notify the Bed manager or AHNM for any potential patient transfer to 4S or other wards.
4.3 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

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<tr>
<th>5. Keywords</th>
<th>Peritoneal dialysis, PD catheter, peritonitis, decontamination, CAPD, APD, After-hours</th>
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<td>6. Functional Group</td>
<td>Renal</td>
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<td>Emergency</td>
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8. Consumer Advisory Group (CAG) approval of patient information brochure (or related material) Not applicable

9. Implementation and Evaluation Plan
   - Inservices
   - Publication on SGSHHS CIBR intranet page
10. Knowledge Evaluation

Q1: What situations require the patient to present directly to ED?
A: Unwell patients or patients with symptomatic peritonitis.
Q2: What ward covers the management of the PD outpatient afterhours?
A: Ward 4S, X33458/32253
Q3: What situations require the patient to present directly to 4S?
A: Patients requiring PD catheter decontamination, patients with suspected PDC blockage or patients booked for simple PD procedures.

11. Who is Responsible

Director of St George and Sutherland Renal Service
Nurse Manager, Medicine

Approval for Peritoneal Dialysis: After Hours Management of Outpatients

*Specialty/Department Committee
Committee title: Peritoneal Dialysis Committee
Chairperson name/position: Dr Franziska Pettit, Staff Specialist

*Nurse Manager
Name/position: Christine Day, Nurse Manager Medicine
Date: 06.09.18

*Medical Head of Department
Name /position: Dr George Mangos, Department Head Renal Services
Date: 06.09.18

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Revision and Approval History

<table>
<thead>
<tr>
<th>Date</th>
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<th>Revision due</th>
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<tr>
<td>December 2013</td>
<td>0</td>
<td>Anna Claire Cuesta Peritoneal Dialysis CNC</td>
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<td>January 2018</td>
<td>1</td>
<td>Anna Claire Cuesta Peritoneal Dialysis CNC</td>
<td>January 2021</td>
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General Manager's Ratification

Name: Leisa Rathborne
Date: 27.04.18
Appendix 1 - Flowchart 1

AFTERHOURS – PERITONEAL DIALYSIS CATHETER (AND EXTENSION SET)
MANAGEMENT OF CONTAMINATION ON 4 SOUTH

Patient/carer informs 4 south in charge of peritoneal dialysis catheter (PDC) and/or extension set contamination

Step 1 Inform patient to:
- Immediately place blue clamp on the PDC close to the skin;
- Stop dialysis and disconnect;
- Close the white valve on the PDC extension set and cover with minicap;
- Present to 4 south immediately. If after 2200 or hospital main door is closed, instruct patient to present to ED and inform ED clerical staff to call security for escort to 4S.

Step 2 Inform:
- AHSNM/Bed Manager;
- Afterhours RMO;
- Renal Consultant on Call;
- Security if patient needs escort from ED.

When the patient presents to 4 south

Step 3 Initiate the following:
- Complete and send to hotline (fax 33923) the “Afterhours PDC contamination Direct Admission Form” noting patient will be admitted in the 4 south oversancus (4SM_OVPD01) bed;
- Hotline patient through switch and generate front sheet and labels from IPM;
- Attend to or delegate a senior RN to attend to the decontamination procedure as per Peritoneal Dialysis Catheter (and Extension set) – Management of Contamination SGH CLIN 357

As per Peritoneal Dialysis Catheter (and Extension set) – Management of Contamination SGH CLIN 357
- Order PD fluid for MCS, cell count and cell differential;
- Order prophylactic IP antibiotics;
- Document admission notes.
SGH CLIN238 Clinical Business Rule

RN attending to decontamination

- Change the PDC extension set and or titanium connector as per Renal SGH WPIs 093 & 094;
- Obtain PD fluid specimen for MCS as per Renal SGH WPI 062 & 063;
- Infuse IP antibiotics via CAPD Freeline solo as per Drug Additives Used in Peritoneal Dialysis SGH Clinical Business Rules;
- Document the procedure in the patient notes;
- Leave antibiotics indwelling for 6 hours.

If the patient becomes unwell during the procedure:
- Inform the Afterhours RMO, Renal Consultant on call, AHSNM and Bed Manager
- PACE criteria applies
- Notify the PD unit via voicemail X33770/33775

If the patient remains well and PD fluid WCC is less than 100:
- Discharge patient with post procedure instruction to dwell intraperitoneal antibiotics for 6 hours before connecting to APD or CAPD to drain out;
- Inform the AHSNM and/ or Bed Manager of the discharge;
- Notify the PD unit via voicemail X33770/33775;
- Keep all relevant documents and forward to the PD unit

If patient remains well but PD fluid WCC is greater than 100:
- Inform the Afterhours RMO, Renal Consultant on call, AHSNM and Bed Manager to convert patient to a long stay admission
- Notify the PD unit via voicemail X33770/33775

PD Unit staff

- Follow-up patient the next day and until required;
- Copy relevant documents and file in patient’s PD folder;
- Send original copy of admission and clinical notes to medical records;
- Book a repeat PD fluid culture one week after the last antibiotic dose
Appendix 2 - Flowchart 2

AFTERHOURS – MANAGEMENT OF POOR FLOW OR NO FLOW PERITONEAL DIALYSIS CATHETER BY 4 SOUTH

Patient/carer informs 4 south in charge of blocked or non-flowing or poor flowing peritoneal dialysis catheter (PDC)

Step 1 Inform patient to:
- Stop dialysis and disconnect;
- Close the white valve on the PDC extension set and cover with minicap;
- Present to 4 south immediately. If after 2200 or hospital main door is closed, instruct patient to present to ED and inform ED clerical staff to call security for escort to 4S.

Step 2 Inform:
- AHSNM/Bed Manager;
- Afterhours RMO;
- Renal Consultant on Call;
- Security if patient needs escort from ED.

When the patient presents to 4 south

Step 3 Initiate the following:
- Complete and send to hotline (fax 33923) the “Blocked PDC Direct Admission Form” noting patient will be admitted in the 4 south overcencus (4SM_OVPD01) bed;
- Hotline patient through switch and generate front sheet and labels from IPM;
- Attend to or delegate a senior RN to attend to the PDC flushing procedure as per Peritoneal Dialysis – Simple Flush on a Peritoneal Dialysis Catheter SGH WPI

If simple PDC flush is successful: Proceed with 1 Litre PDC flush as per Renal SGH WPI 053

If simple PDC flush is unsuccessful: Clamp, close and cover the PD catheter then proceed to next step.
If the patient becomes unwell during the procedure:
- Inform the Afterhours RMO, Renal Consultant on call, AHSNM and Bed Manager
- PACE criteria applies
- Notify the PD unit via voicemail X33770/33775

If the patient remains well and PDC flush is successful:
- Discharge patient with post procedure instructions to continue dialysis as usual and contact PD nurses for follow-up and further instructions;
- Inform the AHSNM and/or Bed Manager of the discharge;
- Handover to the PD unit via voicemail X33770/33775;
- Keep all admission documents and forward to the PD unit

If patient remains well but PDC flush is unsuccessful:
- Inform the Afterhours RMO, Renal Consultant on call, AHSNM and Bed Manager to convert patient to a long stay admission
- Notify the PD unit via voicemail X33770/33775

PD Unit staff

- Follow-up patient the next day and until required;
- Copy relevant documents and file in patient’s PD folder;
- Send original copy of admission and clinical notes to medical records;
- Book a repeat PDC flush if problem/symptom recurs.
Appendix 3 - Flowchart 3
St George Hospital - Peritoneal Dialysis: Afterhours Management of Outpatients

For further information related to the clinical management of these issues, see Clinical Business Rule SGSHHS CLIN238 or contact St George Hospital PD Unit ext 33770

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