PERITONEAL DIALYSIS: AFTER HOURS MANAGEMENT OF OUTPATIENTS

Cross References (including NSW Health/ SESLHD policy directives)	SESLHDPR/283 *Patient with Acute Condition for Escalation (PACE) – Management of the Deteriorating ADULT & MATERNITY Inpatient* SGH CLIN353 *PACE – Management of the Deteriorating Patient at SGH* SGH CLIN357 *Peritoneal Dialysis Catheter (and Extension set) – Management of Contamination* SGH CLIN452 *Peritoneal Dialysis – Afterhours Management of Planned Simple PD Procedure in 4South*
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

5. Keywords	Peritoneal dialysis, PD catheter, peritonitis, decontamination, CAPD, APD, After-hours
6. Functional Group	Renal Emergency
7. External References	Australasian College for Emergency Medicine (2006). Policy on The Australasian Triage Scale. *ACEM.* http://www.acem.org.au/media/policies_and_guidelines/P06_Aust_Triage_Sc ale_-_Nov_2000.pdf 2000 (reviewed 2006) 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 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 Li, P. K., 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*. doi: 10.3747/pdi.2016.00078 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 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
8. Consumer Advisory Group (CAG) approval of patient information brochure (or related material)	Not applicable
9. Implementation and Evaluation Plan Including education, training, clinical notes audit, knowledge evaluation audit etc	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

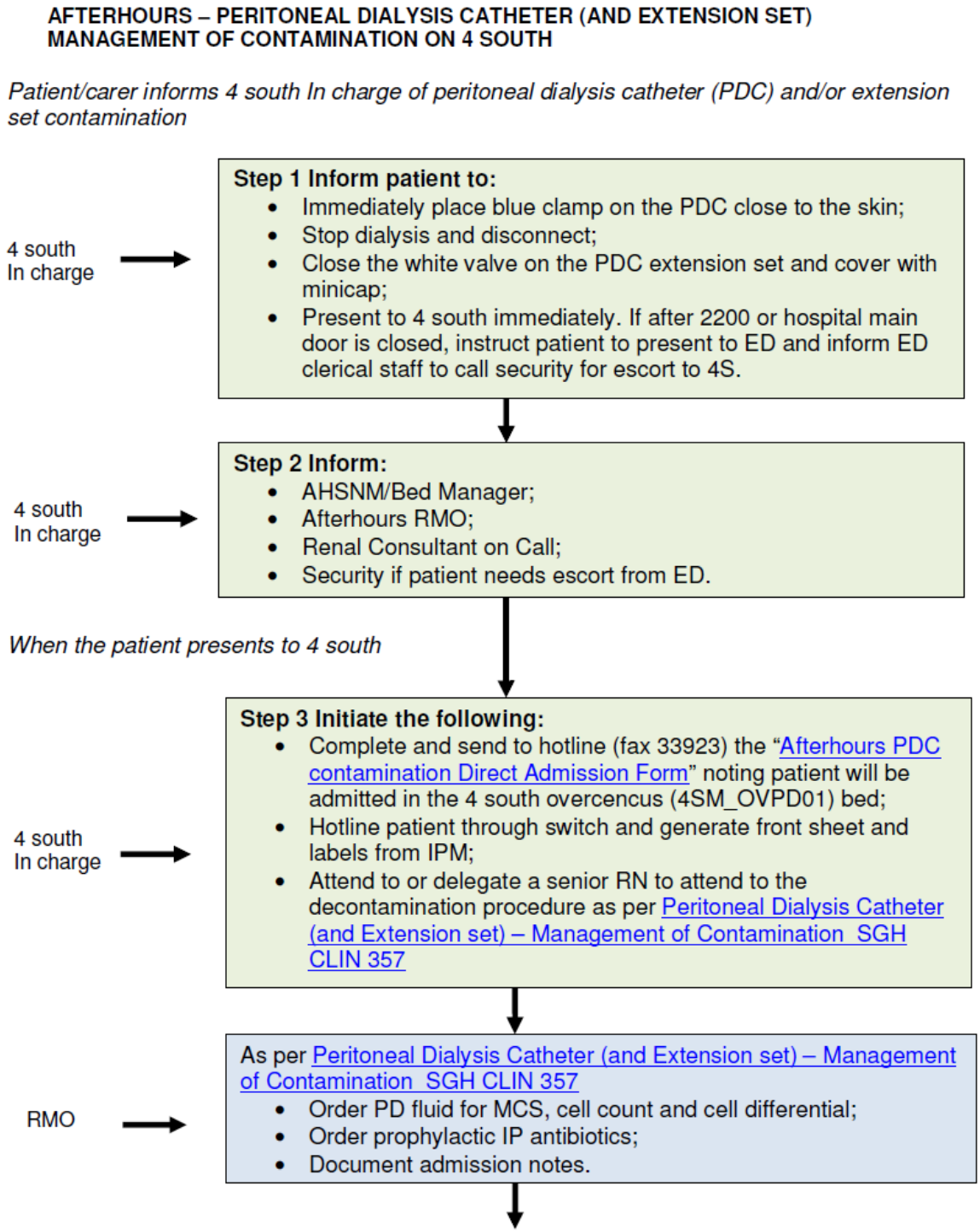
Approval for Peritoneal Dialysis: After Hours Management of Outpatients	
***Specialty/Department Committee**	Committee title: Peritoneal Dialysis Committee Chairperson name/position: Dr Franziska Pettit, Staff Specialist
***Nurse Manager**	Name/position: Christine Day, Nurse Manager Medicine Date: 06.09.18
***Medical Head of Department**	Name /position: Dr George Mangos, Department Head Renal Services Date: 06.09.18
Contributors to ClBR development e.g. CNC, Medical Officers (names and position title/specialty)	Bernardine Romero, CNC Emergency Department Lauren Neuhaus, CNE Emergency Department Andrea Matisan, CNE 4South Shelley Tranter, CNC Renal Ray Andraos, Manager Security Mervat Dawoud, Manager Clinical Information Systems

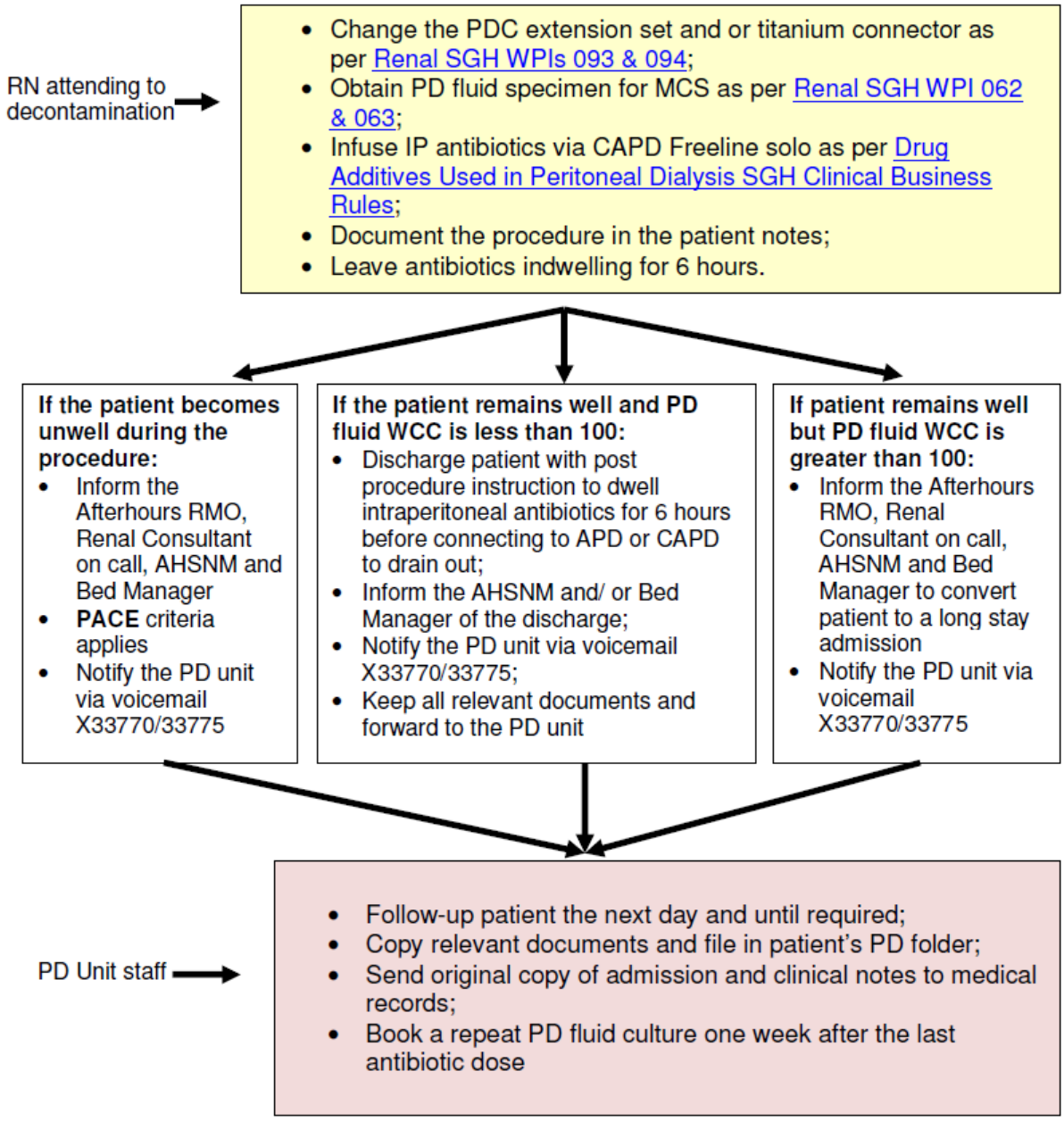
Revision and Approval History

Date	Revision number	Author (Position)	Revision due
December 2013	0	Anna Claire Cuesta Peritoneal Dialysis CNC	December 2016
January 2018	1	Anna Claire Cuesta Peritoneal Dialysis CNC	January 2021

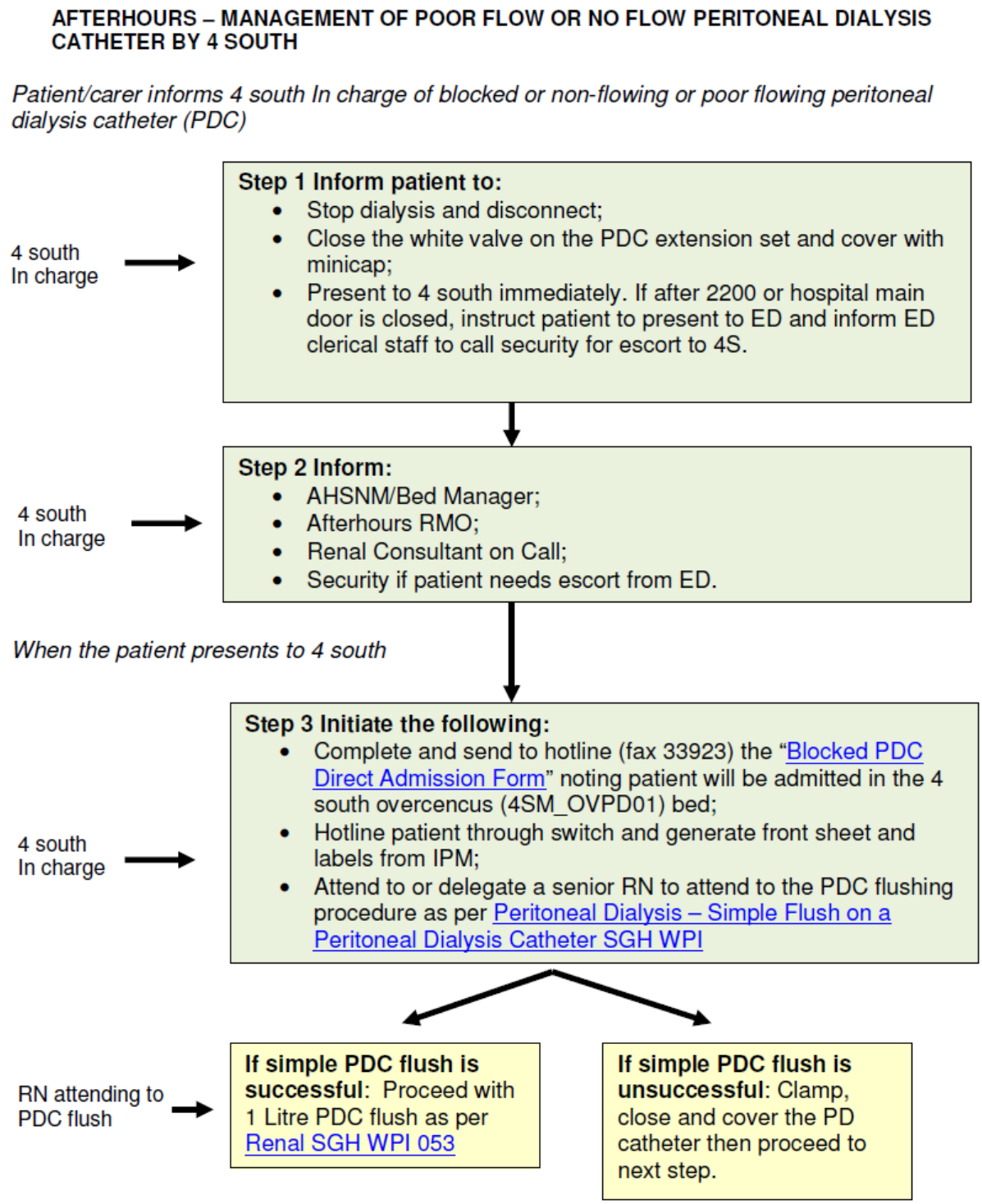
General Manager's Ratification	
Name: Leisa Rathborne	Date: 27.04.18

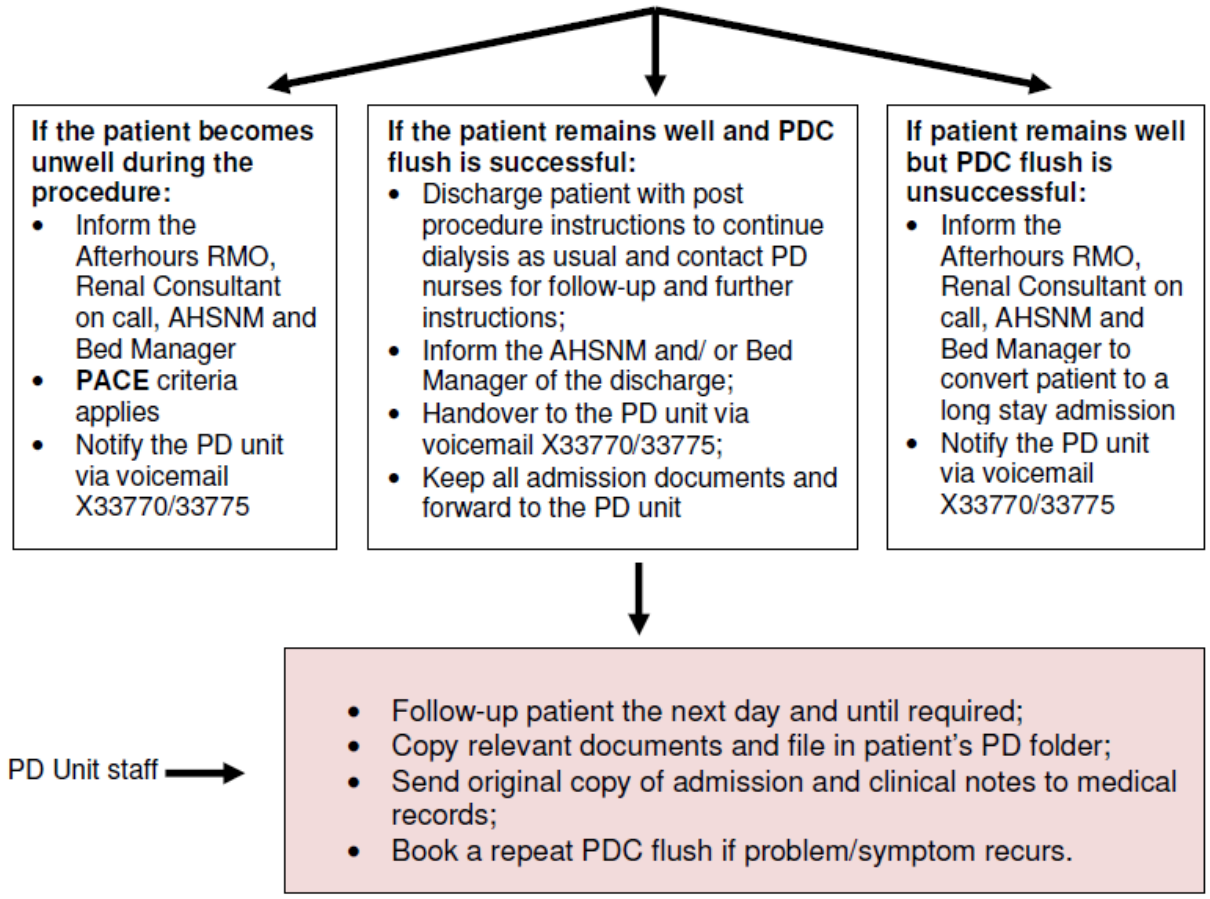
Appendix 1 - Flowchart 1





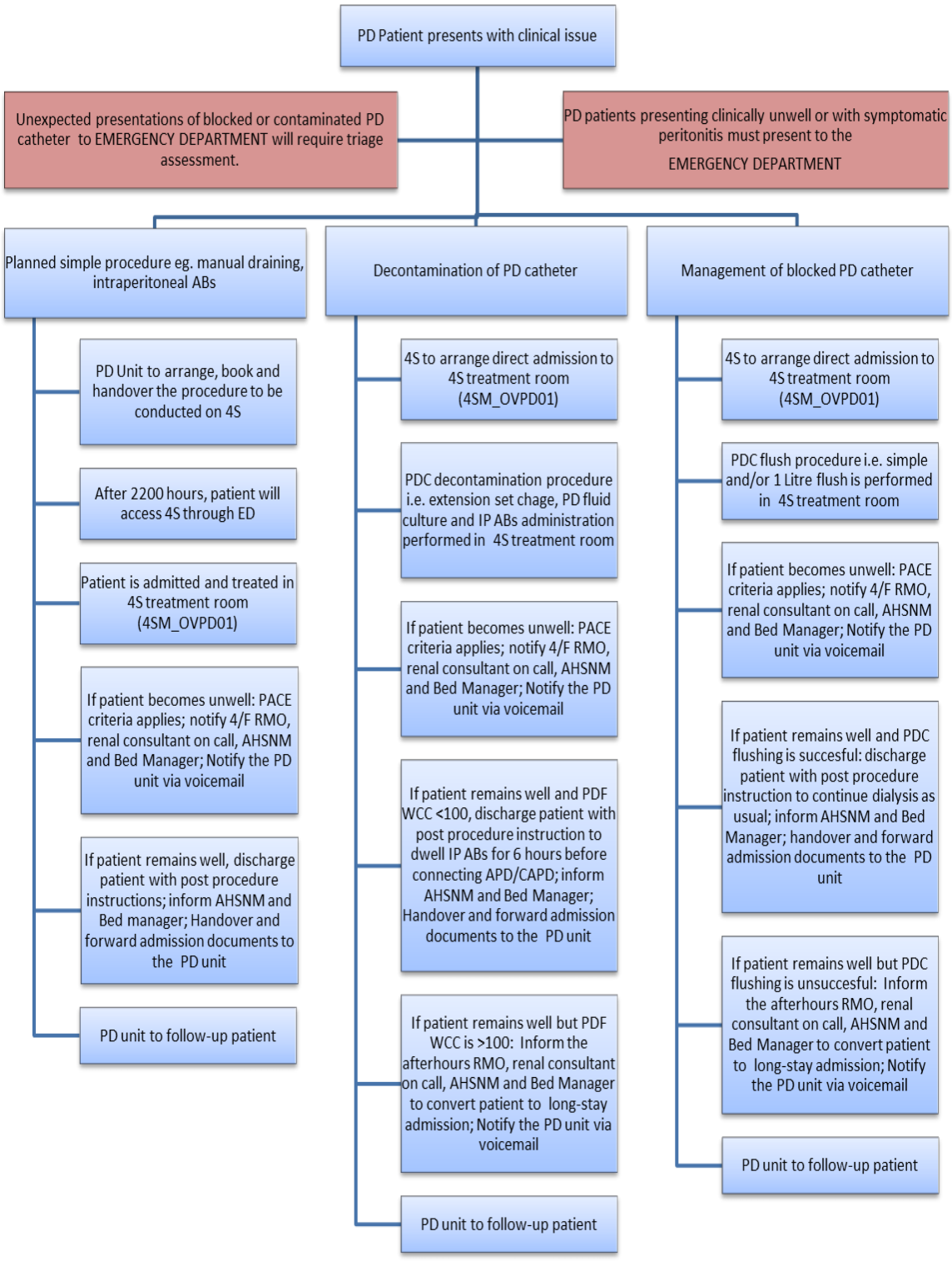
Appendix 2 - Flowchart 2





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