

	Policies and Procedures Title: <b>PERITONEAL DIALYSIS – ADULT</b> <b>RN Specialty Practice: RN Procedure:</b> Peritoneal Dialysis <b>LPN Additional Competency:</b> Basic Peritoneal Dialysis with an Established Plan of Care  I.D. Number: <b>1112</b>
Authorization:  <input checked="" type="checkbox"/> SHR Nursing Practice Committee <input checked="" type="checkbox"/> Kidney Health Policy and Procedure Committee	Source: Nursing Date Effective: May, 2017 Scope: <b>SHR and Affiliates</b>

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**OVERVIEW**

Peritoneal Dialysis clients may be cared for in a variety of settings. These settings include client’s homes, long term care facilities, acute care and intensive care units. Clients should always be encouraged to provide their own PD care. When a client is too ill to perform their own PD care, they will need arrangements made for provision of their PD. reference to certified RN/LPN or trained care provider (i.e. family member) needs to provide the care. Patient should be encouraged to provide their own care. Also reference trained family member.

**DEFINITIONS**

**Continuous Ambulatory Peritoneal Dialysis (CAPD)** - a manual exchange of the fluid using a two bag system. It is generally done 3-5 times per day, using approximately 2L.

**Continuous Cycling Peritoneal Dialysis (CCPD)** - A form of dialysis using a machine that exchanges fluid as per a previously determined program. The settings can be varied from client to client. CCPD is generally done overnight while the patient is sleeping.

**Dialysate**- commercially prepared solution that is instilled into the peritoneal cavity for dialysis.

**Effluent**- Used dialysate fluid once it has been drained from the peritoneal cavity.

**Established Plan of Care** – based on an RN assessment of care needs, the plan of care for Basic Peritoneal Dialysis may be considered established no earlier than three weeks after a client is started on PD. The PD plan of care must be documented in a nursing care plan. A PD client requiring frequent changes to dialysate solution, a recent switch between CAPD and CCPD, exit site infection or a plan which includes treatment for peritonitis does not have an established plan of care for basic Peritoneal Dialysis.

**Exchange** - The cycle of the emptying and refilling of fluid from the peritoneal cavity.

**Exit Site**- where the peritoneal dialysis catheter exits the skin.

**Peritoneal Dialysis (PD)** - dialysis using a semipermeable membrane (peritoneum), via a percutaneous catheter in the abdominal cavity.

**Peritonitis**- an inflammation/infection of the peritoneum (a membrane in the abdomen that lines the organs) and the surrounding tissues that can lead to major complications.

## ROLES

**Home Dialysis Educators:** RNs hired to work in Kidney Health as Peritoneal Dialysis Patient Educators.

**Licensed Practical Nurses (LPNs)** - LPNs who have successfully completed the IV Therapy completer course or equivalent, and identified by their manager in targeted practice settings will be certified in the LPN Additional Competency Basic Peritoneal Dialysis with an Established Plan of Care to provide care independently, as assigned, for clients who are less complex, more predictable, at lower risk for negative outcomes. If a change is required in the PD plan of care, the LPN will consult with a certified RN, Home Dialysis Educator or physician and work collaboratively to establish a new plan of care.

In practice settings which are not targeted, LPNs currently educated or certified may continue to provide Basic Peritoneal Dialysis, as assigned, but LPNs requiring initial certification will not be certified until targeting is approved for the practice setting.

**Registered Nurses (RNs)** – RNs identified by their manager in targeted practice settings will be certified in the Registered Nurse Specialty Practice (RN Procedure): Basic and Complex Peritoneal Dialysis. See appendix A for a skills list. If a change is required to a Basic PD plan of care within an LPN's assignment, an RN will provide consultation as needed and work collaboratively with the LPN until a new plan of care is established. At any time, if PD care needs are beyond the individual competence of a certified RN, she will consult and work collaboratively with another certified RN, a Home Dialysis Educator or physician to provide care.

**Registered Psychiatric Nurses (RPNs)** - RPN certification for this Specialty Practice is under review by the SHR Nursing Practice Committee.

## 1. PURPOSE

- 1.1 To provide safe, competent care for peritoneal dialysis patients
- 1.2 To outline training requirements, roles and skills for the differing levels of PD care.

## 2. POLICY

- 2.1 **The RN certified in this RNSP will have first completed the following learning modules/ activities prior to performing Peritoneal Dialysis Basic and Complex: See Appendix A**
  - 2.1.1 Complete the required learning module "Peritoneal Dialysis and Care of the Adult Patient" and quiz (teaching and learning methods may vary e.g. classroom and/or self- study using paper module or on line )
  - 2.1.2 Complete a skills checklist with a certified RN during simulation or during first treatment to ensure safety checks are followed appropriately.
  - 2.1.3 Provide documentation of learning module quiz and skills checklist to educator/supervisor

- 2.1.4 Yearly recertification of Peritoneal Dialysis Basic and Complex is required
- 2.2 **The LPN certified in this additional competency will have first completed the following learning modules/activities prior to performing Peritoneal Dialysis - Basic: See Appendix A**
  - 2.2.1 Complete the required learning module and quiz (teaching and learning methods may vary e.g. classroom and/or self- study using paper module or on line )
  - 2.2.2 Complete a skills checklist with a certified RN or certified LPN during simulation or during first treatment to ensure safety checks are followed appropriately.
  - 2.2.3 Provide documentation of learning module quiz and skills checklist to educator/supervisor
  - 2.2.4 Yearly recertification of Peritoneal Dialysis Basic required
- 2.3 **All Sites**
  - 2.3.1 When looking after a PD client (not on 6<sup>th</sup> Medicine SPH), the RN (or healthcare worker) should contact the Nephrologist on call for questions/concerns specific to PD related issues
  - 2.3.2 Home Dialysis Educators are available to answer PD related questions/concerns. They can be reached at 306-655-5317 Mon – Fri from 0800-1700.
  - 2.3.3 The On Call Home Based Therapies RN is available weekday evenings from 1700-2300. On stat holidays and weekends, the On Call Home Based Therapies RN is available from 0800-2300. Please page through SPH switchboard at 306-655-5000. Outside of these hours, please page the Nephrologist on call.
  - 2.3.4 If PD is required at a location other than one of the three Saskatoon acute hospitals, arrangements must be made with the Home Based Therapies manager (for example- client is moving to long term care).
  - 2.3.5 Within 4 hours of initial assessment, PD clients should be identified and Nephrology should be notified of the client’s admission to obtain orders for PD.
- 2.4 **St. Paul’s Hospital ONLY**
  - 2.4.1 RNs from 6<sup>th</sup> Medicine SPH will provide coverage evenings from 2300-0800 for patients in ER requiring sampling of effluent (see appendix B) and initiation of Peritonitis Protocol (Peritonitis in Continuous Ambulatory Peritoneal Dialysis Form # 103264, and Peritonitis in Continuous Cycling Peritoneal Dialysis Form # 103264). Contact the Charge Nurse on 6<sup>th</sup> Medicine for assistance. If sampling is required, once completed, the 6<sup>th</sup> Med RN will leave a message for the PD unit to follow up in the am. All other inquiries or issues from 2300-0800 shall be communicated to the Nephrologist on call for appropriate actions.
  - 2.4.2 RNs from 6<sup>th</sup> Medicine can also initiate CCPD programs as ordered by the nephrologist in ER but are not expected to do this at other hospitals or hospital wards. The nephrologist will make arrangements for other units/wards.
  - 2.4.3 If a client is capable of doing PD independently, PD supplies can be obtained from 6<sup>th</sup> Medicine SPH.

## 2.5 SKILLS

- 2.5.1 Any skills not listed in Appendix A or in another policy, should be clarified with a Home Dialysis Client Educator if unsure of appropriate role to complete the task.

## 2.6 TRAINING AND RECERTIFICATION

- 2.6.1 Training and re-certification is to be provided only by clinical nurse educators as identified by Home Based Therapies Manager, or Home Therapies Patient Educators, who have received advanced peritoneal dialysis training.
- 2.6.2 Please see Appendix A for certified skills list, which identifies what each level of training can do for skills, along with roles and recertification required.
- 2.6.3 Initial certification includes completion of the learning package and a clinical training component provided at SPH
- 2.6.4 All trained healthcare professionals must perform a safe demonstration of care, and receive recertification yearly to maintain competency.

## 3. REFERENCES

Baxter Healthcare Corporation. Prescribing information for Dianeal Peritoneal Dialysis Solution. Last revised Dec 2015.

[http://www.baxter.ca/en/downloads/healthcare\\_professionals/products/Dianeal\\_EN.pdf](http://www.baxter.ca/en/downloads/healthcare_professionals/products/Dianeal_EN.pdf)

Retrieved online April 21<sup>st</sup>, 2017

Core Curriculum for Nephrology Nursing, American Nephrology Nurses' Association. 6<sup>th</sup> edition, 2015, Module 3, p229-277.

Daugirdas, Blake, and Todd, Handbook of Dialysis, 5th ed., 2015, pp 391-526.

Potter, Perry and Ostendorf, 8<sup>th</sup> Ed. (2014) *Clinical Nursing Skills and Techniques*. Elsevier Mosby; St. Louis, Missouri.

Regina Qu'Appelle Health Region- Southern Saskatchewan Kidney Health Services, "Care of the PD Patient and Assignment of Duties". Personal communication from Christine Day, October 4<sup>th</sup>, 2016.

**Appendix A**

Skills	Basic	Complex
Who can perform	<ul style="list-style-type: none"> <li>• RNs, LPNs i.e. who have been certified for care of the PD client</li> <li>• RNs, LPNs who have been certified by Home Dialysis Educators at alternate sites to perform care of the PD client and who maintain that certification.</li> </ul>	Clinical Nurse Educators Kidney Health, Home Dialysis Educators, RNs certified in Basic Peritoneal Dialysis
Certified Skills	<ul style="list-style-type: none"> <li>• Exit site care</li> <li>• Cyclor set up</li> <li>• Manual twin bag exchanges</li> <li>• Charting of PD therapy</li> <li>• Administering of IP antibiotics and heparin</li> <li>• Basic troubleshooting</li> </ul>	<ul style="list-style-type: none"> <li>• Collection of effluent (see Appendix B)</li> <li>• Care for the more complex PD client</li> <li>• Advanced troubleshooting</li> <li>• Care of the ER PD client (see 2.4.1)</li> </ul>
Recertification	<ul style="list-style-type: none"> <li>• Annual recertification required</li> <li>• Need a minimum of 2 set ups per year to maintain certification or repeat training needed</li> <li>• Annual theory review will be provided through e-learning</li> </ul>	<ul style="list-style-type: none"> <li>• Same as Basic with addition of:                         <ul style="list-style-type: none"> <li>○ Annual review of effluent sampling or minimum of 2 samples per year to maintain certification</li> <li>○ Review of off unit binder</li> </ul> </li> </ul>

APPENDIX B

**Peritoneal Effluent Sampling**

For RNs needing to draw samples from PD effluent



Supplies:

- Violet blood tube(CBC- for cell count)
- Pink top container (for gram stain)
- Grey top blood culture bottle (for C & S)
- 20 ml syringe
- 18g blunt fill syringe
- Blood transfer device
- Alcohol swabs
- Appropriate PPE

PROCEDURE:

1. Perform hand hygiene
2. Don appropriate PPE
3. Retrieve drain bag full of PD effluent from patient requiring sample
4. Attach blunt needle to syringe
5. Clean port on the drain bag with alcohol swab
6. Withdraw 20 mls of effluent from PD bag
7. Squirt about 2 mls of solution into the pink top container
8. Remove blunt needle and attach transfer device to syringe
9. Connect syringe to blood culture bottle and allow about 10-15 mls of effluent to transfer
10. Connect syringe to violet blood tube and allow it to fill until the vacuum expires or the tube is about half full
11. Discard remaining effluent and sharps in the sharps container
12. Label 3 samples with client id labels and process as per usual for transport to the lab
13. Remove PPE and Perform hand hygiene.



Violet blood tube



Pink top sterile container



Blood culture bottle (grey)