



**NEPHROLOGY PROGRAM  
DEPARTMENT POLICIES AND PROCEDURES**

**Nephrology - Section 01 - Nephrology Corporate - Neph Corp 1-02  
Home Choice Cyclers**

**No.: 01583** (TOH Standardized Policy Number)

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<b>ISSUED BY:</b> Home Dialysis Unit Clinical Practice Committee/ Hemodialysis Clinical Practice Committee	<b>DATE OF APPROVAL:</b> 2016/04
<b>APPROVED BY:</b> Program Clinical Director / Division Head	<b>LAST REVIEW/REVISION DATE:</b> 2017/02
<b>CATEGORY:</b> Nephrology Corporate	<b>IMPLEMENTATION DATE:</b> 2016/04

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**POLICY STATEMENTS:**

- Automated peritoneal dialysis (APD) is a form of peritoneal dialysis (PD) that is performed by a mechanical device, known as a cyclers. Treatment settings are programmed into the cyclers. The cyclers perform PD dialysis by automatically delivering the prescribed therapy throughout the night. This treatment is commonly called Continuous Cycling Peritoneal Dialysis (CCPD).
- A Nephrologist will prescribe the PD treatment using the pre-printed PD physician order (SPO 338) form for admitted PD patients; for ambulatory care patients in the Home Dialysis Unit orders will be placed in NephroCare

**NURSING ALERT(S):**

- Nurses may perform PD treatment via cyclers after completion of education by a Nurse Educator/delegate

Additional video resources:

- Setting up Home Choice Cyclers:  
<https://www.youtube.com/watch?v=L0MEPdxSYdQ>
- HDU Cycleur 'Home Choice':  
<https://www.youtube.com/watch?v=6iDJ2-qe0swSolution Choices>
- HDU how to choose solutions for PD cyclers:  
<https://www.youtube.com/watch?v=krv5ju7gXK8>
- HDU choisir des solutions pour les patients en dialyse péritonéal Cyclers  
[https://www.youtube.com/watch?v=kFAPIXJ\\_DB8](https://www.youtube.com/watch?v=kFAPIXJ_DB8)

**DEFINITIONS:** [See Appendix A](#)

**INFECTION PREVENTION AND CONTROL:**

Hand Hygiene:

1. Refer to [Corporate Policies and Procedures - #00014 Hand Hygiene](#)
2. Refer to [Corporate Policies and Procedures - #00233 Hand Hygiene Products and Materials](#)

Personal Protective Equipment:

1. Refer to [Infection Prevention and Control Policies and Procedures - #00023 Routine Practices](#)

**PROCEDURE:**

**Section A: Initiation of Cycler Therapy**

Equipment:

Quantity	Product	Order #
1	Cycler machine	1
	Cycler Cassette	320770
2	Minicap	320810
1	Drain line for patient in private room or	320730
1	Drain bag if patient <b>not</b> in private room	320735
1	Y connector and a second drain bag if patient has large volume or	321505
	Drainage container if patient is in community or HDU	
1	Clean towel	
1	Non sterile gloves	
1	CCPD record sheet and a copy of patient Cycler orders	
1	Mask if applicable	
	Dialysate solution bags as needed	

For Civic:

- Check supplies on the mobile cart for the next exchange (on the weekend ensure that there are sufficient supplies to cover weekend). If supplies are low, contact the Transportation Supervisor and request new “PD cart”

Patient assessment:

1. Review the patient’s chart for Cycler therapy orders
2. Review the patient’s Integrated Progress Notes (IPN) for additional information and vOacis for pertinent lab values
3. Review the CCPD record sheet to assess response to previous therapy
4. Assess the patient’s fluid status (weight, BP’s, edema, respiratory status), PD dressing, bowel movements
5. Select dialysate solution strength based on nursing assessment (i.e.: % PRN) or as per physician order

### Initiating Cyclor Therapy:

1. Perform hand hygiene
2. Open and inspect dialysate solution bags. Check for:
  - **S**- Strength of solution (ex 1.5% Dianeal)
  - **E**- Expiry Date- verify clarity of solution (should not be cloudy)
  - **A**- Amount in bag (volume)
  - **L**- Leaks
3. Place one solution bag on heater tray, and ensure the bag completely cover the silver thermostat button on the tray
4. Place all supply bags beside cyclor

### Verify or programming Cyclor:

#### **Checking NURSE'S MENU:** ([Appendix B for further information](#))

5. Turn on the cyclor; holding down the “secret” button at the 9 o'clock position beside **GO** button. Press ENTER to enter NURSE'S MENU, and then use ▾ or ▲ to review settings and ensure them to be correct
  - Mode ⇒ Standard
  - Min drain volume ⇒ 85%
  - Smart swells ⇒ Yes
  - Heater bag empty ⇒ No
  - Tidal full drains ⇒ Usually NO unless tidal full drains are ordered
  - Language ⇒ English US
  - Flush ⇒ Yes
  - Reset weight ⇒ Yes (for admitted patient), no (for patient in community)
  - Program locked ⇒ No
6. Turn off Cyclor to exit NURSE'S MENU

#### **Change Program:** ([Appendix C: for further information](#))

To programme or review the Cyclor Prescription:

7. Turn on Cyclor
8. Display reads “PRESS GO TO START” Do **NOT** press GO
9. Press ▼ until it reads “**CHANGE PROGRAM**”, press ENTER. Once flashing, use the ▲ and ▼ buttons and ENTER key to enter or review settings
  - For **CCPD/IPD Therapy**:
    - Therapy ⇒ ‘CCPD/IPD’
    - Total Volume ⇒ As per orders
    - Therapy Time ⇒ As per orders
    - Fill Volume ⇒ As per orders

➤ For **Tidal Therapy**:

- Therapy ⇒ 'Tidal'
- Total Volume ⇒ As per orders
- Therapy Time ⇒ As per orders
- Fill Volume ⇒ As per orders
- Tidal Volume ⇒ As per orders
- Total UF ⇒ **Default is 1000, MUST change** it as per orders or set it to **10 ml**

**Tidal Full Drain:** (only appears if Tidal Full Drain not changed to NO in Nurses Menu) change to 'no' in nurse menu unless specific physician order

10. Display reads "LAST FILL VOL" If correct press ▼. If not, program it correctly
11. Display reads "DEXTROSE: DIFFERENT or SAME" (only appears if has Last Fill).  
Note: If last fill is using Extaneal 7.5% (Icodextrin) solution, must choose 'DIFFERENT'. If last fill is using Dianeal (Dextrose based) solution, then choose Dextrose "SAME". If correct press ▼. If not, program correctly.
12. Display Reads "WEIGHT UNITS" Needs to be in KG. If correct press ▼. If not, program correctly
13. Reads "PATIENT WEIGHT" Press ENTER. Once flashing press ▲ to enter patient's ideal (target) weight
14. Press STOP. Reads:
  - "CYCLES ", "DWELL TIME", or/and "TIDAL VOLUME\_\_\_\_\_ML" and "UF per cycler" (only if on Tidal therapy)

Note: The Cycler may alarm and display "**I-drain**" (initial drain) with a flashed number. This **ONLY** happens if the Last Fill volume has been changed from the previous treatment setting. Press STOP to mute the alarm, calculate and ensure the initial drain alarm is set at 70% of the Last Fill volume or as ordered, OR set it to 0 if patient is empty when starting therapy. **Never** turn the Initial Drain Alarm OFF.

15. Press STOP. Display reads "PRESS GO TO START". Do **not** presses GO  
**Make Adjustment:** ([Appendix D: for further information](#))
16. Press ▼ until it reads "**Make Adjustment**"; press ENTER to adjust the settings:
  - Adjust loudness
  - AUTO DIM
  - SET CLOCK
  - SET Date
  - **I-Drain Alarm** (Initial Drain) ⇒ set as per orders or check that setting corresponds with 70% of last fill volume, OR set it to 0 if patient is empty when starting therapy. NEVER set Initial Drain to OFF
  - COMFORT LEVEL ⇒ usually set at 36°, but can be changed to 35° or 37°
  - **Last Manual Drain** ⇒ set **NO** unless it is ordered
17. Press STOP button to return to main menu

### Setting Up Cycler:

18. Reads "PRESS GO TO START". Press GO
19. Reads "LOAD THE SET"
20. Open cassette package
21. Open door, load cassette, close door
22. Place the organizer on the front of the door, and close all 6 clamps
23. Attach drain line to drain bag or drain line extension to toilet in hospital or drainage container in community
  - If the patient is in a private room, spike drain line to a drain line extension, remove the blue cap at the other end and tape this end in place under the toilet seat (ensure tip of drain is above the water level in the toilet)
  - If the patient is in a double or ward room, use a drain bag to collect the effluent. Place Drain bag shiny side up on a towel on the floor. Note: Drain bag can hold 15 litres. If the patient has a large total volume, use a Y connector to join 2 drains bags together.
24. Press GO. Reads "SELF TESTING". It takes about 3 minutes.
25. Machine beeps and reads "CONNECT BAGS"
26. Perform hand hygiene, and put on face mask if you are coughing, and Connect bags:
  - Connect the line with **RED** clamp to the **heater** bag on the top of cycler
  - Connect the lines with **WHITE** clamps to additional solution bags
  - Connect the line with **BLUE** clamp to the **LAST** fill bag
27. Break ALL Frangible Seals (*luer connections*)
28. Check connections and open clamps
  - Open clamp **only** to lines connected to solution bags
  - Leave any unused lines in the organizer with clamps closed
29. Open clamps on patient line, ensure the patient line is in the left slot of the organizer
30. Press GO, machine reads "PRIMING"
31. When priming complete, display screen alternate between "CONNECT YOURSELF" and "CHECK PATIENT LINE"

**Note:** if air is present in the patient line press STOP, press ▼ to REPRIME PATIENT LINE, press 'Enter'. Display will read "LINE IN ORGANIZER?" Ensure the patient line is correctly in place on the organizer, after all air is removed, press STOP to stop the prime, then press GO to resume program and clamp patient line)

### Connecting Patient to Cycler using Dianeal or Extraneal Solution:

(Note: [See Appendix E for connecting with Physioneal Solution](#))

32. Perform hand hygiene and don non-sterile gloves and mask (*in-patient only, pts at home do not use*)
33. Expose the PD catheter and place a clean towel under the transfer set
34. Ensure clamp is closed, and loosen mini cap ¼ turn
35. Remove patient line and connect it to the transfer set
36. Open the twist clamp on the transfer set and the clamp on the patient line
37. Remove gloves & mask, wash hands
38. Press "GO"

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39. Treatment begins with "INITIAL DRAIN"; if program has changed re-verify initial drain
40. Ensure that the initial drain has completed and that the first fill is infusing
41. Pressing the ▼ arrow will give you the drain volume, review program (cannot change program, but can view what is programmed) current time, and estimated time for completion of therapy. Press ▲ to get back to main screen
42. Document assessment in Patient's Interdisciplinary Progress Notes and choice of solutions, weight, and BP's on the CCPD Record sheet

## Section B: End of Cyclor Therapy

### Equipment:

Quantity	Product	SPD Order #
1	Cyclor machine	
1	Non-sterile gloves	
1	Mask with face shield or face shield alone	
2	Mini-cap	320810
1	CCPD record sheet	

1. When therapy is complete, display will read "END OF THERAPY"
2. Press ▼ button to retrieve the following information and document on the cyclor flow sheet
  - a. Initial drain volume
  - b. UF total
  - c. AVG dwell time (AVG= average)
  - d. Added or lost dwell time
  - e. Press ▲ until "End of Therapy" appears on screen
3. Press GO, display will read "Close all Clamps"
4. Close the twist clamp on the patient's extension tubing
5. Close the clamp on patient line
6. Close all the clamps connected to bags
7. Press GO; display will read "Disconnect Yourself"
8. Check expiry date on the mini-cap package and open mini-cap package
9. Sanitize hands and put on non-sterile gloves
10. Disconnect patient line from the transfer set
11. Attach mini-cap to the transfer set
12. Secure PD catheter with immobilizer
13. Open cyclor door, remove cassette, and discard
14. Press GO, display will read "Turn me OFF"
15. Turn cyclor OFF
16. If drainage bag or drainage container was used, drain the drainage bag in the toilet or hopper
17. Remove PPE and wash hands
18. Document patient's BP sitting/standing and weight on the CCPD record sheet

## Section C: Troubleshooting

Emergency disconnection [see Appendix F](#)

Troubleshooting alarms [see Appendix G](#)

Potential Complications and Interventions [see Appendix H](#)

### DOCUMENTATION:

1. Document on the CCPD record
2. Document on the Patient's Integrated Progress Notes (IPN)
3. Document issues with treatment in NephroCare (Civic Hemo Nurses and HDU Nurses)

### RELATED POLICIES / LEGISLATION:

1. [Corporate Policies and Procedures - #00014 Hand Hygiene](#)
2. [Corporate Policies and Procedures - #00233 Hand Hygiene Products and Materials](#)
3. [Infection Prevention and Control Policies and Procedures - #00023 Routine Practices](#)
4. [Nephrology - Section 01 - Nephrology Corporate - Neph Corp 1-01 Peritoneal Dialysis Catheter Care](#)

### REFERENCES:

1. HomeChoice, HomeChoice Pro, APD Systems, Baxter Trainer's Guide
2. ISPD Guidelines (2010) Peritoneal Dialysis Related Infections Recommendations: 2010 Update <http://www.pdconnect.com/content/30/4/393.full.pdf+html>
3. Additional video resource: Setting up Home Choice Cyclor: <https://www.youtube.com/watch?v=L0MEPdxSYdQ>
4. HDU Cycleur 'Home Choice:
5. <https://www.youtube.com/watch?v=6iDJ2-qe0swSolution Choices>
6. HDU how to choose solutions for PD cyclor: <https://www.youtube.com/watch?v=krv5ju7gXK8>
7. HDU choisir des solutions pour les patients en dialyse peritonéal Cyclor [https://www.youtube.com/watch?v=kFAPIXJ\\_DB8](https://www.youtube.com/watch?v=kFAPIXJ_DB8)

### COMMENTS / SIGNIFICANT REVISIONS: N/A

## Appendix A: Definitions

**I-Drain Volume:** amount of fluid drained from the peritoneal cavity during Initial Drain

**I-Drain Alarm:** is set to the minimum amount of drain volume expected during the Initial Drain. Verify that the amount is 70% of the last fill volume

**Lost and Added dwell:** the amount of dwell time that is gained or lost during treatment. It is related to prolonged or rapid drains or fills and is recorded by the machine. If the patient has lost more than 30 min of dwell time, the cause should be investigated and Nephrologist informed

**Tidal therapy / Tidal Volume Percentage:** is a form of APD where a portion of the dialysis solution in patient's peritoneal cavity is drained and filled each cycle. This is commonly used for patients who experience abdominal pain (drain pain) when completely draining their abdomen. The portion of the dialysis solution is drained and filled each cycle is expressed as the **Tidal Volume Percentage (%)**. It must be ordered by the nephrologist

**Total UF:** This term is used in two ways:

1. When it appears while programming or reviewing the **Tidal therapy**, is programmed to prevent overfill it represents the expected total ultrafiltration for the night portion of the therapy, as determined by nephrologist. When divided by the number of night cycles, this is used to calculate the UF per Cycle
2. When it appears at the end of therapy, it represents the sum of the UF removed from patient for all cycles of a treatment. If this is a **negative** number, it means more fluid has been filled than the amount that has been drained. For example, if the total fill volume is 10,000mls and the total drain volume is 9000 ml at end of therapy, the total UF is -1000mL. Nurses need to investigate the causes of negative UF such as: constipation, issues with drains/fills, lost dwell time, dehydration, etc. and notify the nephrologist

**Ultrafiltration (UF):** is the fluid removed from patient's body as a part of dialysis therapy. It is the difference between the total amount of fluid instilled and the amount of fluid drained

## Appendix B: Nurses Menu

\*\*To access Nurses Menu simultaneously press and hold the 09:00 position beside the green GO button and turn cyclor on

<b>Menu</b>	<b>Definition</b>	<b>Setting</b>
<b>Mode: Standard</b>	Fill volume > 500ml	Used in adults
<b>Mode: Low Volume</b>	Used for fill volumes 60-1000ml	Used in pediatrics
<b>Minimum Drain Volume</b>	Minimum amount of fluid expected to drain with each cycle	Default 85%
<b>Smart Dwells</b>	Adds time to dwell if drain/fill time is faster than expected	Default Yes
<b>Heater Bag Empty</b>	Used in pediatrics- empty bag placed on heater and first fill will be mixed solution from supply lines	No
<b>Tidal Full Drains</b>	For tidal therapy, allows complete draining at programmed intervals throughout therapy.	Set to <b>No</b> unless otherwise ordered
<b>Language</b>	Language used on cyclor display	English U.S.
<b>Flush</b>	Solution primed through tubing If 'yes'- once primed, solution flushed to drain bag/line	Yes
<b>Reset Weight</b>	Used to validate that fill volume does not exceed recommended levels.  Yes= ideal weight entered each treatment No= weight entered only once	Set to YES NOTE: enter pt.'s ideal weight not the actual weight
<b>Program Locked</b>	Prescription can be 'locked' so that no changes can be made	Yes/No (depends on the patient)
<b>Alarm Log</b>	Review 20 most recent alarms	Press 'Enter' to view
<b>Therapy Log</b>	Review information re: 5-6 most recent treatments	Use up/down arrow to scroll through data

## Appendix C: Programming the cyclor (Change Program)

Menu	Definition	Setting
Therapy: CCPD	Standard PD therapy	CCPD/IPD
Therapy: Tidal	Portion of fluid remains in the peritoneal cavity each cycle	Tidal
Therapy: High-Dose	Extra exchange using the cyclor is performed during daytime	High-dose CCPD
Therapy: High-Dose Tidal	Extra exchange using the cyclor is performed during daytime using tidal therapy	High-dose Tidal
Total Volume	Total amount of solution needed to complete therapy	_____ml
Therapy Time	Total time of therapy	____: ____ (hrs: min)
Fill Volume	Amount of fluid instilled into peritoneal cavity each cycle	_____ml
Last Fill Volume	Solution instilled into peritoneal cavity before end of treatment	_____ml
Tidal Volume (option appears only in tidal therapy)	Amount of solution to be drained/filled during each cyclor; expressed as % of fill volume	Default 95% Set as ordered
Total UF (only in tidal therapy)	Amount of UF expected to be removed this treatment.	Default 1000 ml Set at 10ml or as ordered
Dextrose: Different / Same	Different solution used for last fill to dwell during daytime; connected to final line (blue clamp)	Set to different if last fill = Extraneal
Full Drains Every (only appears in tidal therapy when set to 'Yes' in nurses' menu)	Frequency of full drains during tidal therapy.	Default: 3 Never set to 1
Weight Units	Units used to weigh patient	Default kg
Patient Weight	Used to verify that fill volumes do not exceed maximum allowable settings for weight	Default 1 kg (only if reset weight to Yes in Nurse Menu) Set as pt.'s ideal Wt.
<b>Press Stop</b>		
Cycles	Exchanges (drain, fill, dwell)	Calculated by cyclor; flashes on screen then says 'Press Go to Start'
Dwell Time	Length of each dwell	
Tidal Volume (appears only in tidal therapy)	Fill volume calculated based on percentage of tidal therapy programmed for all exchanges after the initial fill	
UF per Cycle (appears only in tidal therapy)	Estimated UF per cycle based on total UF programmed and number of cycles calculated	

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## Appendix D: Make Adjustments

<b>Menu</b>	<b>Definition</b>	<b>Setting</b>
Adjust Brightness	Change brightness of screen lettering, buttons	Press 'Enter' , screen will flash 'Please Adjust Now' Use up/down arrows to increase or decrease
Adjust Loudness	Change the volume of alarms/beeps	
Auto Dim	Completely dims after 5 minutes of no use	No
Set Clock	Adjust time	Need to change for daylight savings time and standard time
Set Date	Adjust day, month, year	i.e. 1 JAN 2012
<b>I-Drain Alarm</b>	Used to determine the minimum amount of drain expected during the initial drain.	Default: 70% of last fill volume or 0 if patient is empty.  <b>Never turn "OFF"</b>
Comfort Control	Adjust temperature of heater bag. Range 35-37°C	35°C, 36°C, 37°C
Last Manual Drain	Program manual drain after last regular drain, before last fill to allow for complete drain	Defaults to Yes  <b>Change to No</b>
UF Target (appears only if Last Manual Drain set to yes)	Minimum UF target to be drained to prevent a Low UF alarm	Default 0ml
Alarm (appears only if Last Manual Drain set to yes)	Alarm that notifies the patient to begin manual drain.	Default No Yes = audible and visual alarm No = visual alarm only

## Appendix E: Connecting Physioneal Solution to Cyclor



1) Open the over-pouch

2a) Open the long and

2b) the short Safety Moon seal



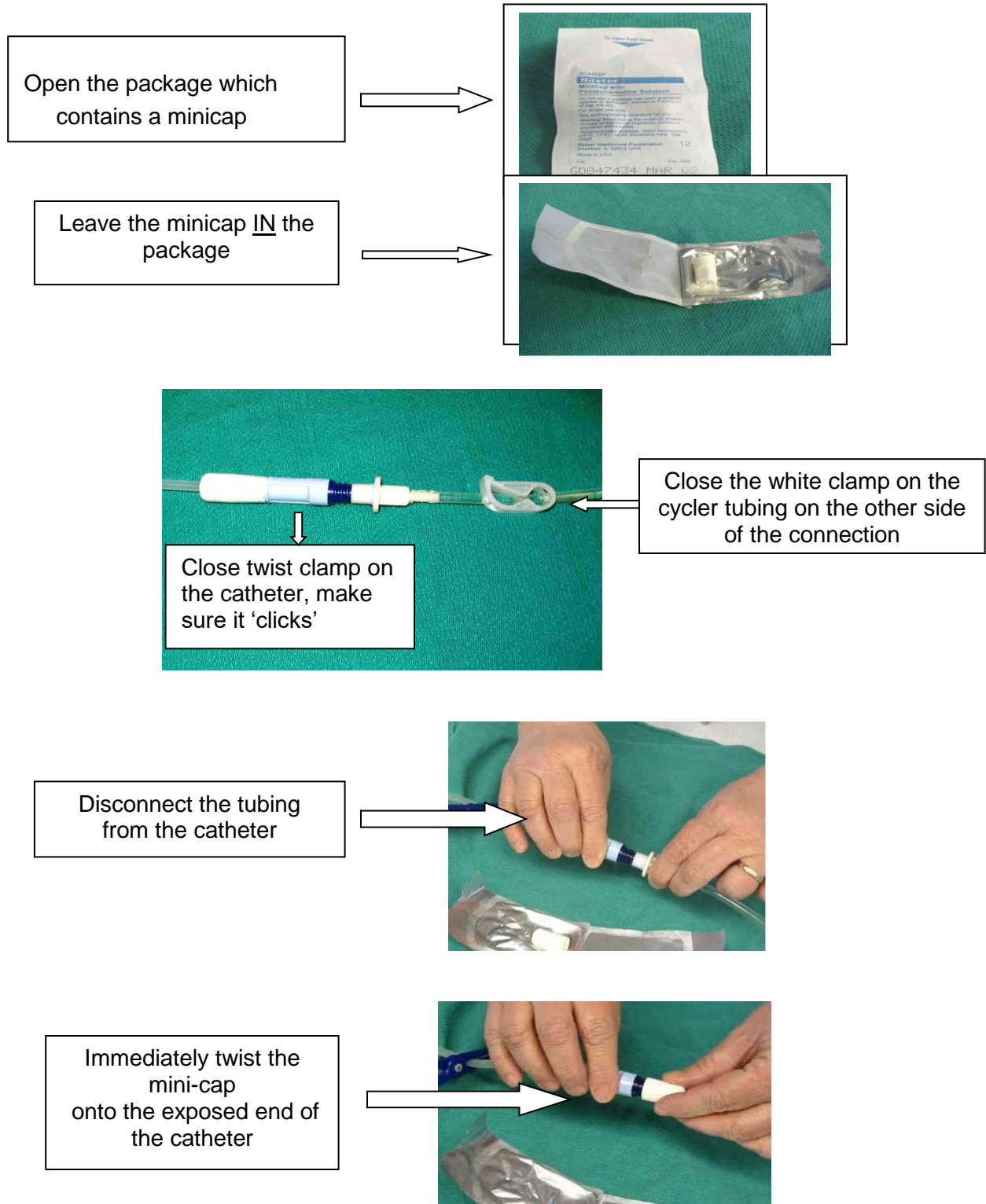
3) Place the bag(s)  
on the cyclor

4) Remove the  
pull-ring cap and connect

5) Close the wings of  
the bag connector

NOTE: Add medication to the upper chamber if needed.

## Appendix F: Emergency Cycler Disconnect



## Appendix G: Trouble Shooting Cyclor Alarms

\*\*\* Press **STOP** to mute, fix problem, press **GO** to restart \*\*\*

Alarm	Cause	Remedy
<b>Check Patient Weight</b>	<ul style="list-style-type: none"> <li>• Patient weight not entered</li> </ul>	<ul style="list-style-type: none"> <li>• Enter patient weight when prompted</li> </ul>
<b>Check Supply Line</b>  <b>Check Lines and bags</b>	<ul style="list-style-type: none"> <li>• Clamp/kink on lines or bags</li> <li>• Seal not fully broken</li> <li>• Defective bag</li> <li>• Not enough solution has been attached to the lines for the total volume</li> </ul>	<ul style="list-style-type: none"> <li>• Press STOP, check for kinks, clamps, broken seal, press GO</li> <li>• May need to set-up again</li> <li>• May need to set-up again</li> </ul>
<b>Check Patient Line</b>	<ul style="list-style-type: none"> <li>• Clamp/Kink on patient line or transfer set</li> </ul>	<ul style="list-style-type: none"> <li>• Press STOP, check for clamps/kinks, press GO</li> </ul>
<b>Low Drain Volume</b>  <b>Low Drain Volume on I-Drain</b>	<ul style="list-style-type: none"> <li>• Constipation (should be having <b>2 BMs daily</b>)</li> <li>• PD catheter malposition in body</li> </ul> <p>* If continued low alarms may indicate issue with catheter patency: Notify Nephrologist (Abd xray may be required)</p> <p>Causes may include:</p> <ul style="list-style-type: none"> <li>• Fibrin: physician may order Heparin or TPA for catheter patency</li> <li>• Internally kinked or malpositioned catheter; physician may send patient to radiology for catheter manipulation</li> <li>• Patient is likely empty</li> <li>• Cycle is too high/low</li> </ul>	<ul style="list-style-type: none"> <li>• Press STOP, have patient reposition (sitting up, roll over), press GO</li> <li>• Ensure bed is positioned higher than cyclor</li> <li>• Identify patient's last BM, likely needs laxatives</li> </ul> <p><i>*If alarms become disruptive, turn machine OFF and notify HDU in morning*</i></p> <ul style="list-style-type: none"> <li>• Press STOP to mute, arrow down to BYPASS, press ENTER</li> <li>• Cyclor should be at the same height as bed or within 6 inches</li> </ul>
<b>System Error #####</b>	<ul style="list-style-type: none"> <li>• Record machine serial number and system error number</li> <li>• Refer to Cyclor manual or call machine manufacturer helpline</li> </ul>	<ul style="list-style-type: none"> <li>• Turn machine OFF</li> <li>• Change machine OR abort therapy &amp; notify MD</li> <li>• Replacement cyclor can be ordered through the vendor: 1-800 # on top of cyclor- consult with Clinical Manager</li> <li>• Inform Educator as needed</li> </ul>
<b>Power Restored</b>	<ul style="list-style-type: none"> <li>• Power failure</li> <li>• Machine unplugged during treatment</li> </ul> <p><i>*For power failure <u>before</u> treatment, close all clamps, turn machine off &amp; on, press GO x2, machine will self-test, when done open clamps to bags &amp; patient line, press GO to prime</i></p>	<ul style="list-style-type: none"> <li>• Less than 30 min, treatment will resume</li> <li>• Longer than 30 minutes you can:             <ol style="list-style-type: none"> <li>Continue (press STOP to mute, arrow down to "continue", press GO)</li> <li>Abort (press STOP, arrow down to "end therapy", press ENTER)</li> </ol> </li> <li>• Over 2 hours: the cyclor will start from the beginning, <b>abort therapy &amp; notify MD</b></li> </ul>

## Appendix H: Potential Complications and Interventions

Potential Complications	Explanation/Rationale	Intervention
Abdominal pain/rebound tenderness, cloudy effluent, and/or Temperature $\geq 38^{\circ}$ C	Suspect peritonitis.	<ul style="list-style-type: none"> <li>• Notify the Nephrologist immediately</li> <li>• Activate HDU Medical Directive 1-3</li> </ul>
Outer wrapper of solution removed	Contamination risk	<ul style="list-style-type: none"> <li>• Use the solution within 24 hours</li> <li>•</li> </ul>
Dry contamination	Accidental touch contamination of the end of the transfer set while the twist clamp is closed	<ul style="list-style-type: none"> <li>• Apply a new Minicap to the transfer set</li> <li>• Leave on for 15 minutes</li> <li>• Proceed with care</li> <li>•</li> </ul>
Wet contamination	Fluid leaking from between the end of the transfer set and the PD tubing with leakage of fluid or open system contamination with no leakage of fluid	<ul style="list-style-type: none"> <li>• Apply gloves</li> <li>• Close the twist clamp on the transfer set</li> <li>• Immediately apply a new Minicap</li> <li>• Notify nephrologist; antibiotics and a transfer set change may be required</li> <li>•</li> </ul>
Hole in catheter	Accidental cut or catheter decay	<ul style="list-style-type: none"> <li>• Notify nephrologist and HDU</li> <li>• Patient will need antibiotics</li> <li>• Catheter will need repair</li> <li>• Repair done by HDU nurse</li> <li>•</li> </ul>
Tube disconnection	Disconnect occurring between the connector and the transfer set	<ul style="list-style-type: none"> <li>• Clamp the PD catheter using a toothless clamp over a gauze; wrap the exposed end with sterile gauze</li> <li>• Change the transfer set</li> <li>• Notify the Nephrologist; prophylactic antibiotics may be ordered</li> </ul>
Fibrin in effluent	Occurs occasionally	<ul style="list-style-type: none"> <li>• Add heparin (500U/L into heater bag) as per Medical Directive HDU 1.8</li> </ul>