Peritoneal Dialysis (PD) – Intraperitoneal Potassium Administration

1. Purpose
To ensure the administration of intraperitoneal Potassium is performed according to best practice guidelines reducing the risk of infection and ensuring patient safety

2. Process
2.1 Recommended Intraperitoneal Dose and Usage
- It is recommended to replace potassium intraperitoneally due to the rapid loss of potassium during > 24 hour IPD therapy.
- Intraperitoneal Potassium is given for > 24 hour IPD therapy only.
- Intraperitoneal Potassium is not proven effective in APD or CAPD therapy.
- Intraperitoneal Potassium must be prescribed on a medication chart, it is not nurse initiated.
- Serum potassium level must be checked.
- Intraperitoneal Potassium dose:

<table>
<thead>
<tr>
<th>Serum potassium (mmol/L)</th>
<th>K added/litre</th>
<th>K added/5 litres</th>
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</thead>
<tbody>
<tr>
<td>Greater than or equal to 5mmol</td>
<td>nil</td>
<td>nil</td>
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<tr>
<td>Less than 5mmol and greater than 3mmol</td>
<td>3mmol/litre</td>
<td>18mmol/6 litres</td>
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<tr>
<td>Less than or equal to 3mmol</td>
<td>4mmol/litre</td>
<td>24mmol/6 litres</td>
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2.2 Devices
2.2.1 Equipment
- Trolley
- Alcohol swabs
- Blue clamp
2.2.2 Key parts

- Potassium 10 mmol in 10 ml ampoule
- Drawing-up needle (18G)
- 21 G needle
- 10 ml syringe
- PD fluid

2.2.3 Key site

- Rubber bung on PD fluid
- Abdominal PD catheter

2.3 Procedure

1. Warm the selected PD fluid on the warmer or PD Homechoice machine
   a. Select appropriate PD fluid strength by conducting a fluid assessment on patient 30 minutes prior to PD procedure
   b. Note: PD fluid takes 30 minutes to warm.
2. Ensure the “5 Rights” of Principles for Safe Medication Administration is observed with second person check
3. Perform hand hygiene
4. Identify and gather equipment and key parts for procedure
5. Check expiry dates on Heparin ampoule and PD fluid
6. Clean trolley/work surface with detergent
7. Perform hand hygiene
8. Don gloves
9. Prepare general aseptic field equipment and key parts near the patient’s bedside
10. Use the sharp edge of the blue clamp to open outer pouch of the dialysis bag. **DO NOT USE SCISSORS OR KNIVES**
11. Place the opened bag on top of the clean trolley and ensure the lines are facing up
12. Recheck the dialysis bag strength, volume, expiry, colour and for leakage
13. Prepare Potassium using aseptic technique ensuring all the key parts/sites are protected
   a. Alcohol swab the Potassium ampoule/s and break top to open;
   b. Attach drawing up needle to 10 ml syringe;
   c. Aspirate all content from Potassium ampoule into the 10 ml syringe;
   d. Replace drawing-up needle with 21G needle.
14. Administer Potassium into the dialysis fluid using aseptic technique ensuring all the key parts/sites are protected
   a. Alcohol swab the rubber bung on dialysis fluid;
   b. Push needle into the centre of the dialysis fluid bung and inject appropriate Potassium dosage into PD fluid (i.e. Potassium 3mmol / 3ml / 1 Litre PD fluid or Potassium 18mmol / 18 ml / 6 Litre PD fluid).

Note: For accidental piercing of the bag or the side of the bung, use a new
15. Repeat procedure 13 and 14 to subsequent PD fluid bags
16. Administer Potassium intraperitoneally through ≥ 24 hour IPD program only.
17. Wear PPE
18. Discard bag and lines in the clinical waste bin, discard needles in sharps bin
19. Remove gloves and PPE
20. Perform hand hygiene
21. Clean trolley after use and perform hand hygiene
22. Sign and co-sign the medication chart
23. Document the procedure on the PD chart and patient notes
24. Handover to the next shift

3. Network file location/reference, if applicable
St George Hospital Renal Website: [http://stgrenal.org.au/](http://stgrenal.org.au/)

4. External References / Further Reading

Revision and Approval History

<table>
<thead>
<tr>
<th>Date published</th>
<th>Revision number</th>
<th>Author/Contact Officer (Position)</th>
<th>Date due for revision</th>
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<tbody>
<tr>
<td>March 2015</td>
<td>1</td>
<td>Anna Claire Cuesta PD CNC</td>
<td>March 2018</td>
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