Peritoneal Dialysis (PD) – Intraperitoneal Actilyse Administration

1. Purpose
To ensure the administration of intraperitoneal Actilyse 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
- For recurrent gram positive peritonitis treatment, to be used in conjunction with the appropriate intraperitoneal antibiotics
- For the management of blocked or poor flow PD catheter
- Note: Monitor patient closely for adverse effect/s from the use of Actilyse
- Intraperitoneal Actilyse must be prescribed on a medication chart, it is not nurse initiated.

<table>
<thead>
<tr>
<th>Intraperitoneal Actilyse dose:</th>
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<tr>
<td>♦ For recurrent peritonitis: Weekly treatment of 10 mg in 10 ml solution directly into the PD catheter, leave to dwell for 4 hours. Weekly treatment for up to 6 weeks with weekly culture of peritoneal effluent.</td>
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<tr>
<td>♦ For blocked or poor flow PD catheter: One-off treatment of 10 mg in 10 ml solution directly into the PD catheter, leave to dwell for 2-4 hours.</td>
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2.2 Devices

2.2.1 Equipment

☐ Trolley
2.2.2 Key parts

- Actilyse 10 mg vial
- Water for injection 10 ml vial (included in Actilyse box)
- Drawing-up needle (18G)
- 21 G needle
- 10 ml syringe
- Minicap
- PD fluid

2.2.3 Key site

- Rubber bung on Actilyse vial
- Rubber bung on Water for Injection vial
- Rubber bung on PD fluid
- Abdominal PD catheter

2.3 Procedure for Blocked or Poor flow PD catheter

1. Ensure the “5 Rights” of Principles for Safe Medication Administration is observed with second person check
2. Perform hand hygiene
3. Identify and gather equipment and key parts for procedure
4. Check expiry dates on Actilyse and water vials
5. Clean trolley/work surface with detergent
6. Perform hand hygiene
7. Prepare general aseptic field equipment and key parts near the patient’s bedside
8. Perform hand hygiene
9. Don gloves
10. Prepare Actilyse using aseptic technique ensuring all the key parts/sites are protected:
    a. Alcohol swab the rubber bung on Actilyse and water vials;
    b. Attach drawing up needle to 10 ml syringe;
    c. Push needle into the rubber bung on water for injection vial, aspirate all content into the 10 ml syringe;
    d. Replace drawing-up needle with 21G needle;
    e. Push needle into the rubber bung on Actilyse vial, inject 5 mls of water, invert vial and shake until all powder dissolves then aspirate all content.
11. Perform hand hygiene
12. Don sterile gloves
13. Administer all Actilyse solution directly into the PD catheter using sterile technique ensuring all the key parts/sites are protected:
   a. Remove needle from syringe containing Actilyse solution;
   b. Remove minicap from PD catheter;
   c. Attach Actilyse syringe to PD catheter;
   d. Inject all Actilyse solution into the PD catheter;
   e. Cover PD catheter with new minicap.

14. Discard syringe and needles appropriately
15. Clean trolley after use
16. Remove gloves and perform hand hygiene
17. Sign and co-sign the medication chart
18. Document the procedure on patient notes
19. Handover to the next shift

20. After dwelling Actilyse for 2-4 hours, aspirate Actilyse out of PD catheter using sterile technique ensuring all the key parts/sites are protected:
   a. Prepare general aseptic field with dressing pack, 10 ml syringe and new minicap near the patient’s bedside;
   b. Perform hand hygiene;
   c. Don sterile gloves;
   d. Remove minicap from PD catheter;
   e. Attach syringe to PD catheter;
   f. Aspirate Actilyse solution out of PD catheter, checking for PDC patency
   g. If PDC is patent, drain all effluent and resume PD as usual and as per CAPD exchange or APD Procedure, Renal Department Protocol
      Or
      If unable to aspirate all Actilyse solution from PDC or if PDC remains blocked, leave Actilyse in for another hour then attempt to aspirate again;
   h. Cover PD catheter with new minicap.

21. Discard syringe and needles appropriately
22. Clean trolley after use
23. Remove gloves and perform hand hygiene
24. Document the procedure and aspirate outcome on patient notes
25. Handover to the next shift

2.4 Procedure for Recurrent Peritonitis treatment:

1. Warm the selected PD fluid on the warmer
   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 PD fluid, Actilyse and water vials
6. Clean trolley/work surface with detergent
7. Perform hand hygiene
8. Prepare general aseptic field equipment and key parts near the patient’s bedside
9. Perform a CAPD exchange as per CAPD Freeline Solo Exchange Procedure; Renal Department Protocol
10. Perform hand hygiene
11. Don gloves
12. Prepare Actilyse using aseptic technique ensuring all the key parts/sites are protected:
   f. Alcohol swab the rubber bung on Actilyse and water vials;
   g. Attach drawing up needle to 10 ml syringe;
   h. Push needle into the rubber bung on water for injection vial, aspirate all content into the 10 ml syringe;
   i. Replace drawing-up needle with 21G needle;
   j. Push needle into the rubber bung on Actilyse vial, inject 5 mls of water, invert vial and shake until all powder dissolves then aspirate all content.
13. Perform hand hygiene
14. Don sterile gloves
15. Administer all Actilyse solution directly into the PD catheter using sterile technique ensuring all the key parts/sites are protected:
   f. Remove needle from syringe containing Actilyse solution;
   g. Remove minicap from PD catheter;
   h. Attach Actilyse syringe to PD catheter;
   i. Inject all Actilyse solution into PD catheter;
   j. Cover PD catheter with new minicap.
16. Wear PPE
17. Discard bag and lines in the clinical waste bin, discard needles in sharps bin
18. Clean trolley after use
19. Remove gloves and PPE
20. Perform hand hygiene
21. Sign and co-sign the medication chart
22. Document the procedure on the PD chart and patient notes
23. Handover to the next shift
24. After dwelling Actilyse for 4 hours, resume CAPD exchange as usual and as per CAPD Freeline Solo Exchange Procedure, Renal Department Protocol to drain out PD effluent to flush Actilyse out of PD catheter.

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

4. External References
Further Reading


Revision and Approval History

<table>
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<tr>
<th>Date published</th>
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<tbody>
<tr>
<td>March 2015</td>
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<td>Anna Claire Cuesta PD CNC</td>
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