Peritoneal Dialysis (PD) – Intraperitoneal Heparin Administration

1. Purpose
   To ensure the administration of intraperitoneal Heparin 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
      - Heparin is recommended to be added to the dialysate to:
        - Maintain the patency of a new PD catheter (≤ 3 weeks from time of insertion)
        - Resolve a blocked PD catheter
        - Dissolve fibrin formation on PD effluent
      - Intraperitoneal Heparin dose is: 500 IU in every 1 Litre PD fluid
      - Intraperitoneal Heparin must be prescribed on a medication chart, it is not nurse initiated.

   2.2 Devices
      2.2.1 Equipment
         - Trolley
         - Alcohol swabs
         - Blue clamp

      2.2.2 Key parts
         - Heparin 5000 IU in 5 ml ampoule
         - Drawing-up needle (18G)
         - 21 G needle

Cross References
- Medication Handling in NSW Public Health Facilities; NSW Health PD2013_043
- Peritoneal Dialysis – Peritonitis Treatment Protocol; Renal Department Protocol
- Peritoneal Dialysis – Antibiotic Administration Guidelines; Renal Department Protocol
- Continuous Ambulatory Peritoneal Dialysis (CAPD) Freeline Solo Exchange Procedure; Renal Department Protocol
- Automated Peritoneal Dialysis (APD) Set-up and Connection Procedure – HomeChoice Dialysis Machine; Renal Department Protocol
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 Heparin using aseptic technique ensuring all the key parts/sites are protected
   a. Alcohol swab the Heparin ampoule/s and break top to open;
   b. Attach drawing up needle to 5 ml syringe;
   c. Aspirate all content from Heparin ampoule into the 5 ml syringe;
   d. Replace drawing-up needle with 21G needle.
14. Administer Heparin 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 Heparin dosage into PD fluid (i.e. Heparin 1000 IU / 1ml / 2 Litre PD fluid or Heparin 3000 IU / 3 ml / 6 Litre PD fluid).
      Note: For accidental piercing of the bag or the side of the bung, use a new dialysis fluid
15. Repeat procedure 13 and 14 to subsequent PD fluid bags
16. Administer Heparin intraperitoneally through APD or CAPD as per Renal Department Protocol
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/

4. External References / Further Reading


Revision and Approval History

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