

Alteplase (Cathflo®) Administration for Occluded Peritoneal Dialysis Catheter



1.0 Practice Standard

The Registered Nurse who is trained and has demonstrated competency in Peritoneal Dialysis procedures will use the outlined procedure to restore patency of the peritoneal dialysis catheter obstructed by fibrin or blood clots.

The administration of Alteplase into a PD catheter requires a physician order.

Notify the nephrologist if the catheter remains blocked after the procedure.

2.0 Definitions and Abbreviations

- Tissue plasminogen activator (t-PA/alteplase/Cathflo®) is used to restore patency to peritoneal dialysis catheters obstructed by fibrin.
- Obstructed catheter: Inability to either drain or infuse dialysis solution.
- Outflow failure – the drainage volume is substantially less than the inflow volume and there is no evidence of pericatheter leakage. Usually occurs soon after catheter placement. Often preceded by:
 - irregular drainage
 - increased fibrin in the dialysate
 - constipation.
- Inflow failure – solution will not flow from the dialysate bag into the peritoneal cavity.

Transfer set and catheter priming volumes

BAXTER TRANSFER SET	LUMEN VOLUME
6 inch (most common length used)	2.26 ml
4 inch	1.5 – 1.6 ml

FRESENIUS TRANSFER SET	LUMEN VOLUME
Stay safe catheter extension	3.0 ml

PD CATHETER BRAND	LENGTH	LUMEN VOLUME	TOTAL VOLUME INCLUDING BAXTER 6" TRANSFER SET: GUIDE ONLY
Tenckhoff straight	47 cm	2.6 ml*	5 ml
Tenckhoff straight	42 cm	2.3 ml*	4.5 ml
Quinton Swan neck	62.5 cm	3.4ml*	5.5 – 6 ml
Covidien twin cuff curled	62 cm	3.4 ml*	5.5 - 6 ml
Quinton curl	62 cm	3.4 ml*	5.5 - 6 ml

**To determine the PD catheter priming volume, multiply the length of catheter by a correction factor of .0548cc/cm. The result is the priming volume in cc.*

BCCH PD Catheters	Total Length	Lumen Volume	Total Lumen Volume with 6” Transfer Set (2.26 ml)	Total Lumen Volume with 4” Transfer Set (1.5 – 1.6 ml)
Neonate	39.25 cm	2.15 ml*	4.4 ml	3.7 – 3.8 ml
Swan Neck 5.8 cm	38.5 cm	2.13 ml*	4.4 ml	3.6 – 3.7 ml
Swan Neck 8.5 cm	42 cm	2.30 ml*	4.6 ml	3.8 – 3.9 ml
Curled 10.5 cm	57 cm	3.12 ml*	5.4 ml	4.6 – 4.7 ml
Swan Neck 11.5 cm	59 cm	3.23 ml*	5.5 ml	4.7 – 4.8 ml
Adult Swan Neck	62.5 cm	3.4 ml*	5.7 ml	4.9 – 5.0 ml

**To determine the PD catheter priming volume, multiply the total length of catheter by a correction factor of 0.0548cc/cm. The result is the priming volume in cc.*