



MANITOBA RENAL PROGRAM

SUBJECT <ul style="list-style-type: none"> ONLINE Circulation of Bloodlines with Substitute After Blood Reinfusion 	SECTION 30.10 Hemodialysis: Equipment Procedures
	CODE 30.10.11
AUTHORIZATION <ul style="list-style-type: none"> Professional Advisory Committee, Manitoba Renal Program Nursing Practice Council, St. Boniface Hospital 	EFFECTIVE DATE April 20, 2018
	REVISION DATE

PURPOSE:

- To describe the procedure to circulate substitute in the extracorporeal circuit (ECC) after blood return when using ONLINE Plus™ system on the Fresenius 5008.

POLICY:

- Nurses who have received instruction from an educator or delegate may perform this procedure.
- Substitute within the ECC can be circulated for **90 minutes**. If patient is not reconnected within time frame; discard lines and commence hemodialysis with new set up.

EQUIPMENT:

- Fresenius 5008
- 2 - 10 mL syringes with 0.9% NaCl
- Connector (sterile)
 - can use blue Safeline connector or Fresenius recirculating connector #04-9502-8
- Sterile red cap (or other sterile leur locking cap)
- Supplies as needed for hemodialysis access as per MRP policy 30.20.01 *Venipuncture of the Arteriovenous Fistula/Graft*, 30.20.02 *Accessing and Locking Dialysis Central Venous Catheter*, or 30.20.04 *Use of closed Needleless Access device with hemodialysis Central Venous Catheter*

PROCEDURE

- Press reinfusion button I/O and perform steps:
 - Clamp arterial access and bloodline.

KEY POINTS

- Maintain aseptic technique when handling open blood lines and connection sites

PROCEDURE

- b. Perform hand hygiene and don clean gloves. Disconnect arterial bloodline from patient and attach to Safeline using sterile connector (as described in Equipment list)

- c. Place a sterile red cap on the infusion port of the blood line where Safeline was just disconnected.

- d. Unclamp arterial bloodline. Press *OK* to start reinfusion

2. When screen reads *Blood Reinfused*, press *Continue Reinfusion* until bloodlines are clear.

3. Press *I/O* to stop reinfusion.

Screen reads *Reinfusion Interrupted* with options to:

CONTINUE REINFUSION, CONTINUE TX or
REMOVE BLOOD LINES.

Note: Do not select until step 4 (putting lines into circulation) is done.

4. Perform hand hygiene and don clean gloves. Then prepare bloodlines for circulation:
 - a. Clamp venous and arterial access and bloodlines.
 - b. Disconnect arterial line from Safeline. Keep connector attached to the arterial line & maintain sterility.
 - c. Disconnect venous end from patient and attach to the other end of the connector.

 - d. Remove the red cap and reattach Safeline to infusion port.
 - e. Open the clamps on arterial and venous bloodlines and access.

5. Press *Treatment*.

6. Screen reads *NO BLOOD DETECTED*. Press *Continue Treatment*.

7. Press *OPTIONS* then *CIRCULATION* button.

8. When Circulation **START** is displayed in blue and

KEY POINTS

- For AVF/AVG, attach 10 mL syringe with 0.9% NaCl and flush needle.
- Access CVC as per MRP policy 30.20.02 *Accessing and Locking Dialysis Central Venous Catheter* or 30.20.04 *Use of closed Needleless Access device with hemodialysis Central Venous Catheter*. Attach 10 mL syringe with 0.9% NaCl to lumen and flush.
- If using blue Safeline connector, a new connector must be used for reinfusion for termination of treatment.

- Keep infusion port sterile.

- Selecting *Treatment* at this time can cause alarms that are difficult to correct as the Safeline is no longer connected to the bloodline.

- Maintain aseptic technique when handling open blood lines and connection sites

- For CVC follow MRP policy 30.20.02 *Accessing and Locking Dialysis Central Venous Catheter* or 30.20.04 *Use of closed Needleless Access device with hemodialysis Central Venous Catheter*.
- For AVF/AVG, attach 10 mL syringe with 0.9% NaCl and flush needle.

- Pressing start while the 5008 is conducting a connection test may create pressure alarms that

PROCEDURE

the arterial pressure is not reading 300mmHg,
press Start *Circulation I/O* button.

9. Prompt will appear to prepare the blood lines for circulation mode (done in step 4).

Press *Circulation* to start blood pump.

10. Turn dialyzer so that the venous (blue) end is up.

11. Prompt will read "*Stop Circulation*"
Keep in circulation until issues resolved.

12. Press *OK* when HD to resume.
Prompt reads:
Has the patient been reconnected?

13. Perform hand hygiene and don clean gloves.
Clamp bloodlines and connect to vascular access.

14. Unclamp blood lines and access.
Press Treatment *Continue*.

15. Turn dialyzer so that arterial (red) end is up.

16. Increase Qb.

KEY POINTS

are difficult to clear.

- Qb during Circulation is 100 mL/min.
- If programmed, the heparin pump will continue to infuse during circulation.
- To facilitate the removal of air from bloodlines while patient is not connected to the 5008.
- Prompts may appear during circulation that no blood is detected or that the 5008 has been in circulation for X amount of minutes.
- Blood pump will stop automatically.
- For CVC follow MRP policy 30.20.02 *Accessing and Locking Dialysis Central Venous Catheter* or 30.20.04 *Use of closed Needleless Access device with hemodialysis Central Venous Catheter*.
- Blood pump will start automatically at 100 mL/minute.
- To prevent air from entering venous bloodlines.
- Ensure UF timer light is on.

DOCUMENTATION:

- MRP treatment record
- Integrated progress notes prn

REFERENCES:

Fresenius Medical Care: *5008 CorDiax ONLINEplus System; Simple, Safe, Cost-Effective*, 2015, EQMO915028E-09/2015.

Fresenius Medicare Care Reference Card (no date).