	MANITOBA RENAL PROGRAM		
SUBJECT ▪ Providing a Fluid Bolus Using the Fresenius 5008 ONLINEplus™ System		**SECTION**	**30.10 Hemodialysis: Equipment procedures**
		CODE	**30.10.05**
AUTHORIZATION ▪ Professional Advisory Committee, Manitoba Renal Program ▪ Nursing Practice Council, St. Boniface Hospital		**EFFECTIVE DATE** April 20, 2018	
		REVISION DATE	

PURPOSE:

1. To describe the procedure for using the Fresenius ONLINEplus™ system to provide a bolus of substitute for the purpose of visualizing dialyzer fiber clotting; or the provision of blood pressure support with clinical hypotension.

POLICY:

1. Nurses who have received instruction and who have demonstrated competency to educator or delegate may perform this procedure.

Procedure

Key Points

A. Providing a Substitute Bolus to Visualize Clotting

1. Go to *Options* screen and select **ONLINE**
   - ▪ Refer to MRP Policy 30.10.13 *Providing Hemodialysis without Heparin*

2. Select **Bolus**
   - ▪ Blood flow automatically drops to 50 mL/min.

3. Screen appears with dropdown screen:
   Choose Volume
   a. Select 120 mL volume for adult blood lines and dialyzers.
   b. If nurse determines on assessment other volume (more or less) should be given alternate volume can be selected
   c. Total volume given during treatment is added to UF Goal
   - ▪ Options given in volume in increments of 30 mL (30 mL – 240 mL)

   - ▪ Volume can be dependent on size of dialyzer or risk of clotting.

4. Press *Start Bolus*
   - ▪ Substituate Pumps starts and then stops upon completion of volume chosen
   - ▪ Qb (blood pump) will be at 50 mL/min
   - ▪ Bolus infusion rate (substitute pump) will be Qb before bolus selected minus 50.

5. Once blood pump starts, lower blood pump speed to **0** mL/min.
   - ▪ This ensures that blood does not mix with the substitute thus making it easier to visualize clotting in extracorpeal circuit.

Procedure	Key Points
6. Visualize dialyzer and venous chamber for clotting.	▪ Changes in TMP, clearance, and venous pressure may also indicate clotting in extracorpeal circuit.
7. Increase blood pump speed when prompt appears to increase blood flow to pre bolus mL/min.	
8. Document bolus delivered and amount of clotting visualized.	▪ The cumulative amount of bolus received is displayed on the "Bolus" screen

B. <u>Providing a Substitute Bolus for Hypotension</u>

Option 1 Procedure

1. Go to *Options* screen and select **ONLINE**	▪ Refer to MRP guideline 80.20.06a *Guidelines for the treatment of Intradialytic Hypotension*
2. Select **Bolus.**	▪ Blood pump speed (Qb) automatically drops to 50 mL/min.
3. Screen appears with dropdown screen: **Choose Volume**	▪ Options given in volume in increments of 30ml (30 mL - 240 mL) ▪ Usual amount would be 120 mL; this can be increased or decreased based on patient assessment.
4. Press **Start Bolus.**	▪ Substitute Pumps starts and then stops upon completion of volume chosen. ▪ Qb (blood pump) will be at 50 mL/min ▪ Bolus infusion rate (substitute pump) will be Qb before bolus selected minus 50.
5. Monitor and document patient's response to bolus.	
6. Increase blood pump speed when prompt appears to increase blood flow to pre bolus mL/min.	
7. Document bolus delivered.	▪ The cumulative amount of bolus received is displayed on the "Bolus" screen

C. <u>Providing a Substitute Bolus for Hypotension</u>

Option 2 *One touch* Emergency Bolus Procedure

1. Press the emergency cross button on the right hand of the screen.	▪ This will stop ultrafiltration (UF Timer turns off), start BP measurement and slow the blood pump to 200 mL/hr. ▪ The operating status indicator "traffic light" will turn yellow and flash ▪ Refer to MRP guideline 80.20.06a *Guidelines for the treatment of Intradialytic Hypotension*
2. Program volume of bolus to be administered.	▪ Default bolus volume is set for 150 mL ▪ Volumes available in increments of 30 mL.
3. Press **Start bolus.**	▪ Substitute Pumps starts and then stops upon completion of volume chosen ▪ Bolus infusion rate will be Qb before bolus selected minus 50

Procedure	**Key Points**

4. If necessary, the bolus can be terminated early by pressing the BOLUS I/O button.

5. Monitor and document patient's response to bolus.

6. Increase blood pump speed when prompt appears to increase blood flow to pre bolus mL/min.

7. Document bolus delivered.	▪ The cumulative amount of bolus received is displayed on the "Bolus" screen
8. Press the emergency cross to resume Ultrafiltration.	▪ Confirm that the UF Timer light is on ▪ The operating status indicator "traffic light" will turn back to green and stop flashing

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)