PURPOSE:

1. To facilitate fluid removal without diffusion for patients who have more fluid to be removed than usual in their conventional hemodialysis time.

POLICY:

1. Registered Nurses and Licensed Practical Nurses in Dialysis may initiate sequential ultrafiltration (ISO UF) as per physician orders.

2. The maximum fluid removal rate is 30 mL/kg/hour to a maximum of 3L per hour unless otherwise ordered. If it is higher, decrease the goal or increase the UF time, or both.

3. Sequential Ultrafiltration (ISO UF) may be performed at any point during the treatment; however, sequential ultrafiltration is typically tolerated better at the start of hemodialysis.

4. If there is less than 2 hours remaining in the treatment, once Na and/or UF profiles have been stopped, the 5008 will not allow a profile to be programmed.

EQUIPMENT:

- Fresenius 5008 Delivery System

PROCEDURE:

KEY POINT:

A. ISO Ultrafiltration at Start of Treatment:

   - Re-check pre-weight unless specific fluid removal ordered. Keep in mind the maximum fluid removal maximum.

2. Touch UF Menu button.

3. Enter Total UF and total time (HD + ISO UF)  
   - The UF profile and Na profile cannot be set prior to programming ISO UF
**PROCEDURE:**

4. Enter desired ISO UF goal and ISO time.

5. Program UF and Na profiles to be used during HD if applicable


7. On completion of ISO UF time, the dialysate flow will resume and HD will recommence.

**KEY POINT:**

- The target to remove during the ISO phase

- Machine will automatically commence Isolated Ultrafiltration.

- Display in UF Menu shows ISO data as well as recalculated UF data.

- Machine automatically switches to hemodialysis when the ISO UF time/goal is reached. UF and Na profiles will also automatically start if programmed

**B. ISO Ultrafiltration at End of Treatment:**

1. If the ISO UF post treatment is planned but not programmed and the patient has an AVF, reset the heparin pump to stop time of 0 minutes. Once ISO UF commences, ensure that the heparin stop time is reset to 30 minutes.

2. When 5008 is finished HD scheduled time, a prompt will appear to reinfuse or to continue treatment. Select CONTINUE.

3. On UF menu screen:
   a. Reprogram UF time to reflect additional ISO time. Press O.K.
   b. Reprogram total UF to reflect addition of fluid to be removed during ISO UF. Press OK.
   c. Set the ISO UF:
      Input the ISO GOAL and press OK
      Input the ISO TIME and press OK

4. Press the UF Timer Light on.

5. Confirm that the heparin pump has resumed (if necessary) and that the stop time is set correctly for the prescription.

**C. ISO Ultrafiltration During Treatment**

1. From the treatment screen note the current dialysate Na (found under “Na profile mmol/l”) and the UF rate (found under “UF profile ml/min”).

2. Press UF timer I/O off. A prompt to stop both profiles or continue treatment will appear. Select STOP both profiles.
PROCEDURE:

3. Go to UF menu. Add the ISO Goal and ISO time to the total UF Goal and Time.

4. Set the ISO UF
   a. Input the ISO GOAL and press OK
   b. Input the ISO TIME and press OK

5. Press the UF Timer light

   ▪ Note the Dialysate flow will stop automatically.

6. Once the ISO UF is complete, the 5008 automatically returns to HD treatment

   ▪ There is no audible alert

7. Reset the UF Profile and then the Na profile

   ▪ Start Na = dialysate Na from step 1

8. Press UF Timer Light ON

DOCUMENTATION:

▪ Hemodialysis Treatment Record
▪ Integrated Progress Notes

REFERENCES:

Fresenius Medical Care 5008 Hemodialysis System Operating Instructions: Edition 9/10.10