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NEPHROLOGY PROGRAM
DEPARTMENT POLICIES AND PROCEDURES

Biomed Neph - Section 03 - Water Quality Management - Neph Tech 3-04
Water Softener Verification and Brine Tank Cleaning
No.: 01068 (TOH Standardized Policy Number)

ISSUED BY:
Nephrology Technical Practice Committee

DATE OF APPROVAL:
N/A

APPROVED BY:
Program Clinical Director / Division Head

LAST REVIEW/REVISION DATE:
2017/05

CATEGORY:
Water Quality Management

IMPLEMENTATION DATE:
2007/07

PURPOSE:

- To confirm proper operation of the water softener and adequate level of softener salt on a weekly basis
- To confirm the annual cleaning requirements for water softener brine tank installed in all Hemodialysis units

DEFINITION(S): N/A

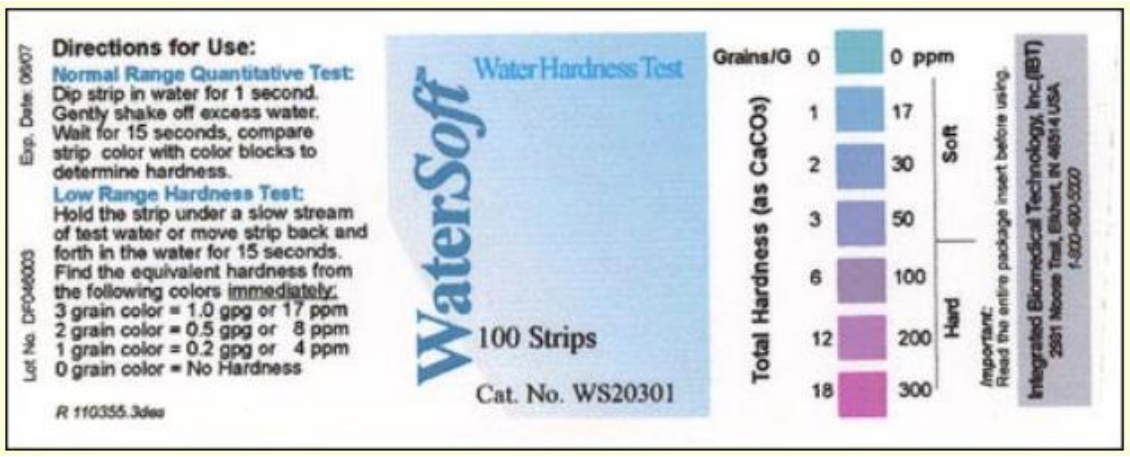
ALERTS: N/A

SUPPLIES AND TOOLS REQUIRED:

- Water hardness test strips *WaterSoft # WS20301*
- High quality water softener salt
- Clean scoop with holes for drainage
- Large sanitized container
- Wet/dry vacuum cleaner

PROCEDURE:

Section A: Verifying water softener operation – measuring hardness



- **Measuring calcium and magnesium as total hardness**

1. Flush pre and post water softener sample valves for 2 minutes
2. Take water samples from both sample ports (pre and post)
3. Dip test strips in water for 1 second
4. Gently shake off excess water and wait 15 seconds to compare strips color with color blocks to determine hardness
5. Depending on the water source hardness, the pre water softener sample should indicate a test value of 17 ppm or more
6. Post water softener sample should indicate close to 0 ppm of hardness when water softener unit is operating normally
7. Troubleshoot the problem if there is no difference of color between the two test strips

Section B: Verifying water softener operation – verifying salt level

8. Open lid of the brine tank and verify that water is visible over the salt level
9. Add sufficient salt (to water level)
10. Document completion of above tests (sections A & B) on Water Treatment System Daily Log

Section C: Verifying water softener operation – annual cleaning

11. In order to ensure proper operation of the water softener systems installed in all Hemodialysis units, the water softener brine tanks will be emptied and cleaned on a yearly basis
12. When the system is due for cleaning, install a sign on the brine tank stating: “Yearly cleaning due, do not add more salt”.
13. Mark the water and salt level on the side of the tank using tape

14. Remove the lid of the brine tank and if necessary remove all remaining salt from the brine tank using the scoop. Place the salt in the large sanitized container ensuring it is clean and free of debris
15. Empty the remainder of the brine tank using the wet/dry vacuum cleaner
16. Clean the inside of the brine tank and injector tube and protector with R.O. treated water and empty once more with vacuum cleaner
17. Once tank is cleaned, move salt back into tank and add fresh salt until previous salt level is reached
18. Add water (post-carbon) until water level is at previous marked level
19. Replace lid on brine tank and remove sign
20. Document maintenance intervention in NephroCare as well as Equipment Maintenance Log Sheets on the "V" drive

RELATED POLICIES / LEGISLATION:

1. Nephrology Policies and Procedures - Biomed Neph - Section 01 - Equipment Maintenance - Neph Tech 1-03 (#01057) Equipment Repair Worksheet Procedure
2. Nephrology Policies and Procedures - Biomed Neph - Section 01 - Equipment Maintenance - Neph Tech 1-07(#01060) NephroCare Work Orders

REFERENCES:

1. CSA-ISO 13959:15 *Water for haemodilaysis and related therapies*
2. CAS-ISO 26722-16 *Water treatment equipment for haemodialysis applications and related therapies*
3. *WaterSoft* water hardness test # WS20301 product insert

COMMENTS / SIGNIFICANT REVISIONS: N/A