



**NEPHROLOGY PROGRAM  
DEPARTMENT POLICIES AND PROCEDURES**

**Hemodialysis - Section 10 - Gambro Artis - Neph 10-01b  
Preparing the Gambro Artis Hemodialysis Machine by the Aide for Double  
Needle Dialysis - Aides Procedure  
No.: 00753 (TOH Standardized Policy Number)**

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**ISSUED BY:**  
Hemodialysis Clinical Practice Committee

**DATE OF APPROVAL:**  
N/A

**APPROVED BY:**  
Program Clinical Director & Division Head

**LAST REVIEW/REVISION DATE:**  
2017/10

**CATEGORY:**  
Gambro Artis

**IMPLEMENTATION DATE:**  
2013/04

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**PURPOSE:**

- To prepare the Gambro Artis hemodialysis machine for a hemodialysis treatment maintaining aseptic technique and adhering to Routine Practices

**BACKGROUND STATEMENTS:**

1. The Gambro Artis will be prepared (concentrates opened and conductivity attained) no more than three hours prior to the patient's hemodialysis treatment
2. Supplies (0.9% NaCl, Blood lines, Dialyzer) are to be opened just prior to preparing the machine
3. Always use aseptic technique when making or breaking any fluid path connection
4. Bloodlines are sterile if package is not damaged and the protective sterility caps are in place. If these caps are found loose in the package and sterility of the bloodlines is not compromised, the caps or a syringe may be applied to maintain sterility.
5. Expiry dates should be checked for all supplies
6. The Gambro Artis machine must be connected to:
  - I. Treated water source
  - II. Drain
  - III. Grounded Emergency 20-amp electrical outlet

## **SUPPLIES:**

- R-191
- Gambro Artis Hemodialysis Machine
- Acidified dialysate concentrate - as prescribed
- Acid concentrate wand (if required)
- BiCart cartridge (Bicarbonate powder)
- ArtiSet blood tubing
- Two- 1 liter bags of 0.9% NaCl for IV injection
- Dialyzer- as prescribed

**DEFINITION(S):** N/A

**ALERTS:** N/A

## **PROCEDURE:**

### **Machine Preparation**

1. Perform Hand Hygiene as per Corporate Policies and Procedures Hand Hygiene Policy #00014
2. Ensure that:
  - I. the sensor bar and the blood pump door are both closed
  - II. the arterial and venous dialysate connectors are firmly connected to their ports
  - III. the EvaClean doors are firmly closed
3. If the machine is in the 'low power mode' the power light on the front panel will be green, press the on/off key to resume power. If the power light is not illuminated, turn the machine on by pressing the POWER switch on the right side of the machine.
4. For each treatment, you must verify the date of last disinfection. Press 'Disinfect/Rinse Settings' and verify that the last disinfection was completed within 48 hours (there will be a completed date and time in the stop column). If the machine has been in use, verify that a Rinse was completed between treatments.
5. If there is a used CleanCart in the BiCart holder, remove it. Pull the upper BiCart arm out and lift upwards, remove the used CleanCart disinfection cartridge from the BiCart holder. If there is no CleanCart in the BiCart holder, pull the lower arm of the BiCart holder down, and pull the upper arm up and outwards.
6. Remove the protective caps from either end of the BiCart cartridge and save the caps. Insert the BiCart cartridge into the lower BiCart arm. Support the lower arm with one hand while lowering and pressing the upper arm to pierce the cartridge. Ensure that the BiCart holder has perforated the BiCart cartridge by rotating the cartridge

7. Connect the acidified connector to the ordered acidified concentrate. If the patient is on a special bath, verify with the nurse if present or plug into the bath with the K concentration closest to the ordered K:
  - I. **If using Acidified jugs:** Place the acidified concentrate wand in the prescribed acidified dialysate concentrate jug. Remove the red acidified connector from the front of the machine and attach the red acid connector to the white wand
  - II. **If using Central Delivery acidified:** remove the red acidified connector from the front of the machine and attach to the appropriate acidified port on the front of the machine (these ports will be labeled K2, K3)
9. Touch the Prescription Icon (Blue Person), scroll down to 'Acid Bath' and confirm the acidified concentrate by matching the K+ concentrate to the options on the parameter screen. Highlight the concentrate that matches the acid concentrate that is connected and confirm.
10. Hang 2-1 Liter bags of 0.9% NaCl on the machine IV pole
11. Remove the prescribed dialyzer from its package and place it in the dialyzer holder, Arterial (red) end up if present depending on type of dialyzer. Ensure that all protective dialyzer caps are in place
12. Peel the sticker with the ArtiSet lot number off the package and stick onto the R-191
13. Open the ArtiSet tubing package on a flat surface (verify that the white spike is securely attached to the primeline and that the primeline is attached to the venous infusion line (blue clamp above cassette). Check that the blue heparin back-check valve is secure. Verify that all end caps are in place. Remove ArtiSet blood tubing from the package.
14. Follow all prompts step-by-step on the Hemodialysis machine screen and confirm steps are completed when the machine requests it. Please note the following additions to the instructions:
  - I. Save the white dialysate port caps for the end of treatment.
  - II. Check that the red O ring is in the white caps removed from the blood compartment of the dialyzer (FX800, FX1000, and Cordiax dialyzers)
  - III. Spike the bag of 0.9% NaCl as the last step of machine preparation. Do not clamp the prime line before spiking the bag of 0.9% NaCl
15. Verify that:
  - I. The clamp is open on the prime line. Clamps are open on the patient blood lines going into the EvaClean
  - II. Clamps are closed on arterial infusion lines (red clamps above cassette) and the 'Y' on the venous bloodline (white clamp)
16. Touch 'Auto-Prime' on home screen. The icon will now have a yellow indicator light showing that the Auto-Prime is programmed and will activate once the function checks are complete. Machine will do the function check with a message on the screen as it moves from 0% to 100%. Once the machine has reached 100% it will begin the Auto-Prime of the blood tubing and dialyzer.

17. The message “Priming Completed” will appear on the screen when the circuit prime and testing is complete. Touch ‘Confirm’.

**Note:** the machine will go into “Low Consumption” 2 minutes after the prime is completed (to conserve concentrate) until it is time to connect the patient

#### **RELATED POLICIES / LEGISLATION:**

1. Corporate Policies and Procedures – [Occupational Health and Safety - Hand Hygiene 00014](#)

#### **REFERENCES:**

1. Centre for Disease Control and Prevention. Recommendations for Preventing Transmission of Infections Among Chronic Hemodialysis Patients. MMWR 2001 / 50(RR05); 1-43. <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5005a1.htm>
2. Gambro Artis User Manual, 2010 Cod. 6992499 Rev
3. Dialyzer Product inserts:
  - I. Fresenius Medical Care- Fx class capillary Haemodiafilters Fx800 and Fx1000
  - II. Bellco Phylther Hollow Fiber Dialyzers
4. Kidney Campus. (n.d.) [Artis Dialysis System Operator’s Manual SW 8.09.13: Chapter 3 Machine Dressing and Priming.](#)

#### **COMMENTS / SIGNIFICANT REVISIONS: N/A**

**APPENDIX A**

# ArtiSet HD-DN HC

