Title: Procedure for Centaur Weekly Cleaning

Purpose: To aid the laboratorian in performing the weekly cleaning procedure for the Centaur.

Reagents and Supplies Necessary:
- ADVIA Centaur Cleaning Solution Concentrate
- Clean, spare water bottle
- 2L of prepared cleaning solution
- Maintenance screwdriver
- Paper towels
- Transfer pipettes
- Clean, spare water reservoir
- Clean, spare manifold
- Water reservoir cleaning cover

Procedure:
Warning: When handling the cleaning solution, follow the appropriate chemical safety guidelines, which include wearing gloves, lab coat and safety glasses or face shield.

From the ADVIA Centaur Immunoassay System Reference Manual:

1. Ensure that the spare water bottle is clean
2. At the workspace, select System Status.
4. Remove the water reservoir. Handle the glass sensors gently because they are fragile. The system will have errors if the sensors are damaged.
   a. Move the clamps that cover the sensors aside, carefully remove the sensors, and let them hang in the drawer.
   b. Disconnect the water tubing fittings and set them aside on paper towels.
5. Lift the water reservoir out of the system.
6. Remove the reservoir cap and empty any water from the reservoir.
7. Remove the manifold and install the water reservoir cleaning cover:
   a. Loosen the three knurled captive screws.
   b. Remove the manifold from the reservoir.
   c. Install the reservoir cleaning cover on the reservoir.
   d. Set the reservoir and manifold aside.
8. Install the spare manifold on the spare reservoir:
   a. Place the manifold onto the spare reservoir and push down into position.
   b. Tighten the three knurled screws.
9. Install the spare water reservoir and clean the sensors:
   a. Place the spare reservoir in the waste and water drawer.
   b. Clean the sensors by wiping the sensors with chem.-wipes saturated with cleaning solution.
c. Rinse the sensors by wiping the sensors with chem.-wipes saturated with ddI water. Residual cleaning solution on the sensors can affect assay results.
d. Repeat step c with fresh chem.-wipes.
e. Install the sensors in the top of the reservoir.
f. Secure the sensors with the clamps.
g. Connect the two water tubing fittings to the top of the reservoir.

10. Remove the water bottle:
   a. Pull out the waste and water drawer.
   b. Open the water bottle lid.
   c. Disconnect the water tubing from the water bottle and set aside on paper towels to absorb drips.
   d. Lift the water bottle up and out.
   e. Set the water bottle aside.

11. Install the spare water bottle:
   a. Fill the spare, clean water bottle with fresh ddI water and install the cap.
   b. Place the spare water bottle in the waste and water drawer.
   c. Connect the water bottle tubing to the bottle.
   d. Lower the water bottle lid.
   e. Push in the waste and water drawer.


13. Prime the reservoir:
   a. At the workspace, select Maintenance Status.
   b. Select Prime Water from Reservoir to Manifolds.
   c. Select Perform.
   d. After the priming is complete, the system is ready for operation.

14. Clean and rinse the water reservoir:
   a. Pour approximately 1L of cleaning solution into the reservoir.
   b. Place the cleaning cover on the reservoir and close tightly.
   c. Invert the reservoir and swirl the solution a few times.
   d. Soak the inverted reservoir for 5 minutes.
   e. Swirl the solution again and then soak the reservoir upright for an additional five minutes.
   f. Empty the solution from the reservoir.
   g. Remove the cleaning cover.
   h. Thoroughly rinse the inside of the reservoir, the cap, and the reservoir cleaning cover at least three times to ensure that there is no residual cleaning solution on the components.
   i. Fill the reservoir with ddI water.
   j. Install the cleaning cover on the reservoir.
   k. Invert the reservoir, swirl the water a few times, and return the reservoir to the upright position.
   l. Remove the cleaning cover and empty the water from the reservoir.
   m. Invert the reservoir to dry.

15. Clean and rinse the water bottle:
a. Remove the cap and empty any water from the water bottle that was removed in step 10.
b. Pour approximately 1L of cleaning solution into the water bottle.
c. Place the cap on the bottle and close tightly.
d. Swirl the solution around the inside of the bottle a few times.
e. Press some gauze/paper towel over the holes in the top of the bottle.
f. Invert the bottle, swirl the solution a few times and then return the bottle to the upright position.
g. Soak the bottle in the upright position for 5 minutes.
h. Repeat steps e and f.
i. Swirl the solution again and then empty the bottle.
j. Rinse the inside of the bottle including the tubing at least 5 times with fresh ddI water.
k. Invert the bottle to dry.

16. Clean the manifold:
   a. Empty the fluid from the tubing using a transfer pipette.
   b. Fill the tubing with cleaning solution using a transfer pipette.
   c. Soak the water reservoir manifold in cleaning solution for 5 minutes.
   d. Empty the fluid from the tubing using a transfer pipette.
   e. Do not touch the tubing. Touching the tubing can cause contamination.
   f. Rinse each tubing by filling it with reagent water using a clean transfer pipette, removing the fluid and repeating five times.
   g. To prevent corrosion, thoroughly rinse the metal components of the manifold with fresh ddI water, including caps, captive screws and clamps. Thoroughly rinse the manifold and remove excess water from the manifold and tubing.

*After the weekly cleaning procedure is completed, the Centaur will automatically update the maintenance log.