

Johns Hopkins Bayview Medical Center

CLINICAL RESEARCH UNIT

Policy 145

Polysomnography (PSG) Disconnection and Cleaning

Original Date: July 11, 2002
Previous Date: May 21, 2004
Reviewed Date: None

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Purpose: To provide a procedure and guidelines for disconnecting, removing and cleaning equipment after a sleep study.

Equipment:

- 1 Spray bottle of Cavicide™ or other equivalent biocide
- 1 Washcloth or similarly sized cloth
- 1 Plastic, glass, or ceramic cup-like container of at least 20oz. capacity
- 1 Plastic tray

Definitions:

Polysomnography: The simultaneous recording of multiple physiological variables related to sleep.

Cavicide™: A commercial liquid biocide.

Posey™: a cloth-like Velcro™ strip used to wrap into a neat bundle the wires and tubes connecting the subject to the head box.

Head box: All the wires from the subject are connected to a common piece of hardware called a jackbox or head box.

Cannula: Similar to a cannula that delivers oxygen to a subject through the nose; a cannula used in sleep studies measures air pressure.

Thermistor: A device placed in the subject's nose that measures minute changes in the temperature of the air breathed by the subject. The thermistor also has an extension that is placed in front of the subject's mouth to measure mouth-breathing.

Procedure:

1. After indicating "Lights On" in the computer sleep study (refer to the PSG Monitoring Procedure), put on gloves and take a tray into the subject's room. The tray will be used to collect the equipment and waste.
2. Greet the subject and turn on a light that is not directly over the subject's head, so you do not have light shining into the subject's eyes.
3. Disconnect the head box from the cable and ask the subject to sit on the edge of the bed.
4. Unplug the following from the head box:
 - Oximeter probe
 - Cannula
 - Thermistor
 - Belts
 - Leg wires
 - ECG
5. Unwrap the Poseys and place them on the tray.
6. Slide the adjustable collars on the cannula and thermistor all the way down.

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7. Gently remove the cannula and thermistor from the subject. If tape was used to stabilize these attachments, remove it and put it on the tray.
8. Unplug the thermistor from the extension wire and throw the thermistor in a biohazard trash can. **DO NOT THROW AWAY THE EXTENSION WIRE!**
9. Throw the cannula in a biohazard trash can.
10. Undo the adhesive wrap holding the oximeter probe to the subject's finger and place the wrap on the tray. Place the oximeter with its probe on the tray.
11. Unfasten the thorax and abdomen belts and place them on the tray.
12. One at a time, remove the electrodes attached to the face and cranium. Ensure the wires do not become tangled. Remove any tape and patches securing the electrodes and place them on the tray. While you are doing this, inform the subject that he/she can easily remove the paste by letting warm water run on their face and head for a while before using any soap or shampoo.
13. Unsnap the ECG electrodes from the adhesive patches on the subject's chest and place them on the tray. Remove the ECG adhesive patches from the subject's body and place them on the tray.
14. Unsnap the electrodes from the adhesive patches used on the subject's legs. Remove the adhesive patches from the subject's legs and place them on the tray. Ask the subject to pull the leg wires through their clothing, and then take them from the subject and place them on the tray.
15. Tell the subject he/she is now free of all wiring and may move about.
16. Take the tray and head box to the clean-up area.
17. Place the EEG, eye and chin electrodes in the container (see the Equipment list), still attached to the head box, under a faucet with warm running water. **DO NOT PUT THE HEAD BOX IN WATER!**
18. Soak a washcloth with Cavicide or another appropriate biocide.
19. Using the washcloth, completely wipe the extension wire.
20. Tie the extension wire into a neat bundle and set it aside.
21. Using the washcloth, completely wipe the leg wires and their electrodes, then set them aside
22. Using the washcloth, completely wipe the ECG wires, their electrodes, then set them aside
23. Unsnap the respiratory belts from their sensors and completely wipe the sensors and the wires with the washcloth.
24. Soak the cloth belts in warm soapy water and thoroughly rinse with water.
25. Spray the belts with Cavicide and let them stand for at least 3 minutes. After 3 minutes, thoroughly rinse the belts with water and hang them up to dry.
26. With the Cavicide-soaked cloth, wipe the oximeter probe, the oximeter, and the wires. Using a paper towel soaked in water, wipe the oximeter probe, the oximeter, and the wires.

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27. Remove the cup electrodes from the container. Examine each cup to ensure that all the cups are free of paste. If a cup has paste in it, **lightly** scrub the cup with a toothbrush until all the paste is removed.
28. Spray the cup electrodes and their wires with Cavicide and let them sit for at least three minutes.
29. Rinse the cup electrodes and their wires with water.
30. Throw all the tape and patches on the tray in a biohazard trash can.
31. Spray the tray with Cavicide and wipe it with the washcloth.
32. Untangle the wires attached to the head box and set the head box aside for the next nights' study.
33. Tie the leg and ECG wires into individual neat bundles and place them on a tray for the next night.
34. Place the washcloth in the hospital laundry bag.

References:

Grass-Telefactor, Warwick, RI

<http://www.grass-telefactor.com/knowledgebase/sterile4.html>

AARC-APT Clinical Practice Guideline

http://www.rcjournal.com/online_resources/cpgs/polycpg.html

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