



HYPERBARIC OXYGEN THERAPY

Introduction

- Presenter: Edward Coleman
- Role: Safety Director/Hyperbaric Tech
- Location: Jackson Hospital
- Time in the field: 5 years. March 2020

This month's topic: Chamber Care



Overview:

Maintenance and cleanliness of the hyperbaric chambers are an important part of compliance and safety for patients and staff. Governing and regulatory bodies will ensure these safe practices are being performed according to policy.





Cleaning Precautions

- *Hyperbaric staff will only use chamber manufacturer's APPROVED cleaning products on acrylic surfaces.
- *Hyperbaric staff will use a soft, damp, cotton cloth or towel to clean the chamber surfaces.
- *Hyperbaric staff will use personnel protection equipment (PPE) and follow manufacturer's recommended procedures when handling cleaning chemicals.
- *Hyperbaric staff will avoid spraying any liquid on exposed electrical circuits, including patient monitoring and grounding leads.
- *Hyperbaric staff will ensure that prohibited items **DO NOT** enter the chamber to ensure safety and the integrity of the chamber's acrylic.

Chamber Care



Approved Perry Acrylic Cleaning Products

The following materials are acceptable:

- Detergent in a solution of warm water (not exceeding 120 degrees F.).
- The acrylic cylinder should be washed with a clean, soft, lint-free cloth that has been moistened in a solution of water and mild soap, **Joy (or) Ivory** dish detergent (1:100 water solution).
 - Rinse with a soft, lint-free cloth moistened with clean water. Do not allow water or disinfectant liquid to accumulate inside the chamber. Never use a dry cloth or abrasive cleaning agents on the acrylic.
- Commercial Products approved for cleaning and disinfecting are:

Perry Products

- o Coverage HB
- o Hibitane
- o Ascend
- o PDI Sani-Cloth Bleach Wipes (MSDS 0010 / EPA Reg. No. 9480-8)
- o PDI Sani-Cloth AF Germicidal Wipes (MSDS 0090)
- o PDI Sani-Cloth AF3 germicidal wipes (MSDS 0101)
- o STERIS LpH® se One Step Germicidal Detergent (product / SDS # 6466 @ dilution ratio of 1:256)
- o EcoLab A-456-N (EPA 42964-31)
- o Bleach – Up to 15% aqueous Sodium Hypochlorite (NaOCl) [7681-52-9]
- o Aqueous Hydrogen Peroxide – 3% to 20% (H₂O₂) [7722-84-1]
- o Aqueous Chlorine Dioxide up to 2% (ClO₂) [10049-04-4]
- o Chlorox Healthcare Bleach Germicidal Wipes Clorox Company (Bleach, caustic soda and sodium metasilicate based, lint-free cloths.)
- o Enviroguard64, Enviroguard64LLC (Quaternary Ammonium Surfactants plus Ethanol, in small quantity)
- o Coverage Spray HB Plus Steris (Quaternary Ammonium Surfactants plus Ethanol, in small quantity)
- o Vital Oxide (formerly EXPEL) Orison Marketing, L.L.C. (Chlorine Dioxide Aqueous Spray plus Quaternary Ammonium Surfactants)
- *Do not use any cleaners or disinfectants containing high concentrations of alcohol. They are known to initiate crazing of the acrylic cylinder.*
- *Please note that many other formulated hospital cleaners such as Oxivir TB contain very high concentrations of Ethanol, Isopropanol or Benzyl Alcohols which cause serious damage to the acrylic window and MUST NOT be used. IF IN DOUBT PLEASE CONTACT YOUR CHAMBER SUPPLIER FOR ADVICE.*
- *Correctly diluted cleaners may be used at up to 100° F (38° C) MAXIMUM*
- *ALWAYS USE THE CORRECT DILUTION & FOLLOW THE MANUFACTURERS' AND FACILITY'S PROCEDURES*
- *Soft lint-free cloths must be used to prevent scratching the acrylic window.*
- *Do not use cleaners when the chamber is pressurized.*
- *Caution must be exercised when using cleaners containing strong perfumes - some of which are known to damage acrylic.*

Approved Sechrist Acrylic Cleaning Products

Sechrist lists the following as acceptable disinfectants for acrylic surfaces in monoplace chambers:

Bleach: aqueous sodium hypochlorite, up to 15%

Aqueous hydrogen peroxide: 3% to 20%

Aqueous chlorine dioxide: up to 2%

Commercial cleaners include:

Sechrist Products

Asept HB	Ecolab Inc	Ready-to-use	Coverage® Spray HB Plus	Steris Corporation	Ready-to-use
Mikrozyd Sensitive Wipes Premium	Shülke	Ready-to-use	Quaternary Disinfectant Wipes	Ecolab Inc	Ready-to-use
Vital Oxide	Vital Solutions	Ready-to-use	Quaternary Disinfectant Cleaner	Ecolab Inc	1:256 – 1:64 dilution (Ready-to-use)
Peroxide Multi-Surface Cleaner and Disinfectant RTU	Ecolab Inc	Ready-to-use	Clorox Healthcare Bleach Germicidal Cleaner	Clorox	Ready-to-use
Virex Plus	Diversey	1:128 dilution	Virasept	Ecolab Inc	Ready-to-use
Virex II 256	Diversey	1:256 dilution	Sani-Cloth Bleach Wipe	PDI/Nicepak	~1:10 dilution (Ready-to-use)
Sani-Cloth® Plus	PDI/Nicepak	Ready-to-use	LpH-se	Steris Corporation	1:256 dilution
Sani-Hypercide Wipe	PDI/Nicepak	Ready-to-use	Neutral Disinfectant Cleaner	Ecolab Inc	1:256 – 1:64 dilution
Sani-Cloth® HB Wipe	PDI/Nicepak	Ready-to-use	Stat III TB	Ecolab Inc	1:128 dilution
			Oxycide Daily Disinfectant	Ecolab Inc	1:128 – 1:64 dilution



Serena Group Cleaning Policy



*Hyperbaric staff will clean the exterior of the chamber weekly.

*Hyperbaric staff will clean the chamber interior daily or immediately after treatment for exposure to multi-drug resistant bacteria or infestations that require cleaning after every treatment. The list is not comprehensive. The decision to clean the chamber after each use can be made by the supervisor provider and/or safety director.

- Vancomycin resistant enterococcus
- Clostridium difficile
- Methicilin resistant staphylococcus aureus
- Insect of the genus Cimex (bed bugs)
- Fleas
- Lice
- Visibly soiled

*The stretcher mattress will be cleaned after each treatment. The gurney frame will be cleaned weekly or after becoming soiled.

*Chamber cleaning will be documented.

Procedure



1. Spray the approved disinfectant cleaning solution covering the chamber interior, beginning at the foot-end and working out through the chamber door. Remove cover plates as needed, to access protected areas. Allow the spray mist to settle for at least 20 seconds.
2. Allow the disinfectant to set according to product labeling recommendations.
3. Wipe the excess disinfectant with a soft, cotton cloth. Repeat as needed to eliminate streaking.
4. Vent the chamber to remove residual odor.
5. The non acrylic chamber exterior can be cleaned with the detergent solution followed by a clean, warm water wipe down.
6. All other ancillary hyperbaric equipment will be cleaned after each use with the approved cleaner in accordance with manufacturer's recommendations.



Chamber Maintenance Checklists

Maintenance

Checklists can be located on the Serena Group Member's Portal and in the policies and procedures. Be sure to use the correct checklist as each chamber manufacturer and chamber type has a different checklist.

- Daily (opening and closing)
- Weekly
- Annual

Conclusion

Maintaining clean chambers protects their longevity and the health of your patients. Use a cotton cloth when wiping the acrylic, such as a pillowcase, and do not clean the acrylic in a circular motion. When cleaning the acrylic be sure to check for crazing or scratches, if you notice and acrylic damage, notify your hyperbaric service technician and national safety director right away. The muffler should be removed from the chamber weekly and cleaned with soapy water and a wire brush, if necessary. Make sure that the area surrounding the chamber is kept clean and free of dust. Approved cleaning products can be found at perrybaromedical.com and sechristusa.com. Hand sanitisers can be utilized in the hyperbaric center, but the hand sanitizer cannot have a high percentage of alcohol as alcohol based products cannot go in the chamber room. Opening and closing checklists will be performed daily and documented in the chamber logs, along with weekly maintenance checklist. Annual preventative maintenance records should also be filed in the chamber logs.

Quiz



Question 1

If the first patient of the day has MSRA, it is adequate to clean the chamber at the end of the day. True or False

Answer 1

False. Staff will clean the chamber interior immediately after treatment for exposure to multi drug resistant bacteria or infestations.

Question 2

Where do you find the list of approved chamber cleaners?

Answer 2

perrybaromedical.com
or sechristusa.com

Question 3

How often should the chambers be cleaned?

Answer 3

The exterior should be cleaned weekly at a minimum. The interior should be cleaned daily or immediately after treatment for exposure to drug resistant bacteria or infestations.

Question 4

Daily maintenance is to be completed at the completion of patients for that day.

Answer 4

False. Daily maintenance should be completed at the opening and closing of the day.

Question 5

What cloth is best to be used to wipe the acrylic?

- a. Paper towels
- b. Microfiber towels
- c. Cotton fabric

Answer 5

c. Cotton fabric

Round Table



- Welcome Jaylon at Jackson Hospital
- Member's Portal is down



Attendance: August



In Attendance:

- Henry Ford
- Chambersburg
- Fairview
- Inspira
- Monroeville
- Jackson
- Akron
- MGMC

Absent:

- ACMH



NEXT MONTH

Topic:

Safe Wound Dressings

Thursday, October 9, 2025

12:15pm est

Presenter: Akron



Contact Us

QUESTIONS/PROBLEMS

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MEMBER'S PORTAL

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THANK YOU !!!

