

VALLEYS CARE
OLIVE VIEW-UCLA MEDICAL CENTER/HEALTH CENTERS
DEPARTMENT OF EMERGENCY MEDICINE
POLICY & PROCEDURE

NUMBER: 3302
VERSION: 1

SUBJECT/TITLE: **DISINFECTING/MAINTENANCE PROCEDURE OF THE ENDOCAVITARY (VAGINAL), TRANSDERMAL PROBE AND MACHINE**

POLICY: The Department of Emergency Medicine Physician staff will comply with the manufacturers' recommendations (Sonosite and GE) and Olive View Medical Centers Infection Control Policy and Procedure relating to the disinfecting/cleaning of the Ultrasound probes and machine.

PURPOSE: To insure proper cleaning and sanitary care of the Endocavitary (vaginal) and Transdermal ultrasound (UTZ) probes and machine.

DEPARTMENTS: **DEPARTMENT OF EMERGENCY MEDICINE (DEM)**

DEFINITIONS: Category of transducer:

Endocavitary - Invasive; Requires High-Level disinfection.

Transdermal - Non-Invasive; Requires Low-Level Disinfection/Non-sterile.

Cidex® OPA – Approved for use at OVMC - high level disinfectant

T-Spray – Approved for use at OVMC- low level disinfectant

Ultrasound Coupling Gels- Types of ultrasound gels recommended for use with this ultrasound machine.

The Endocavitary (Vaginal) Probe is, a high-frequency ultrasound probe designed for use with a standard ultrasound machine.

The Transdermal Probe is a high frequency ultrasound probe designed for use with a standard ultrasound machine.

PROCEDURE: The physician using the probe is responsible for following the procedure below, consistent with manufacturer guidelines:

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TRANSDUCER AND SYSTEM MAINTENANCE

- Inspect transducers prior to each use.
- Ensure transducers are always clean before they are used. There must be no UTZ gel (from previous imaging), any debris, films or unusual odors present.
- Ensure that there are no cracks or other damage to the transducers before they are used. Inspect the transducer surfaces for cracks and feel for cracks with finger tips as well.
- Where endocavity transducers are being used in clinical applications of a semi-critical nature (e.g., intraorally or trans-vaginal), **ensure the transducer is covered with the appropriate transducer cover/sheath.**
- Sterile probe covers are used for sterile procedures (i.e, central line placement) and clean non sterile probe covers should be used for endocavitary exams and all skin and soft tissue scans.

**LOW LEVEL DISINFECTION
NON-INVASIVE TRANSDUCERS**

Cleaning/Disinfecting

After every patient use:

| STEP | ACTION |
|------|--|
| 1 | Unplug cable, wipe UTZ transmission gel off transducer |
| 2 | Wipe transducer and cable with a dry or water moistened soft cloth |
| 3 | Wipe the transducer with T-Spray disinfectant |
| 4 | Remove any residue with a soft cloth moistened in water. Do not allow cleaning solutions to air dry on transducer |

**HIGH LEVEL DISINFECTION
INVASIVE TRANSDUCERS**

- **NOTE:** A protective sheath (eg, condom) will be used during each ultrasound performed, when the probe is used for Intracorporeal/endocavity applications (eg, transvaginal /obstetric procedures.

This level disinfection is often in liquid form. The compatible liquid method

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utilized at Olive View-UCLA Medical Center is Cidex® OPA. The following process will be observed:

Cleaning/Disinfecting

After every patient use:

| STEP | ACTION |
|------|---|
| 1 | Unplug the transducer. |
| 2 | Remove protective cover/sheath and dispose into appropriate waste receptacle. |
| 3 | Take transducer/cable to the dirty utility room. |
| 4 | Wash the transducer head and cable with soap and water to remove protein buildup. Warning- Do not rinse or immerse the transducer near the strain relief. |
| 5 | Place the transducer head in the Cidex® OPA solution in the white vertical cylinder. |
| 6 | Set the timer for 15 minutes and give the timer to the patient's nurse. |
| 7 | When the timer alarms, the nurse is to remove the transducer from the Cidex® OPA and rinse with water 3 times for a minimum of 1 minute each rinse. |
| 8 | Never allow transducer to (soak) remain in Cidex® OPA solution for more than 15 minutes |
| 9 | Return transducer to UTZ machine. (The nurse may ask a DEM physician to do this.) |
| 10 | Allow transducer to dry before use on next patient. |

GENERAL SYSTEM CLEANING RECOMMENDATIONS

LCD DISPLAY

- Turn off system prior to cleaning LCD display.
- Apply a small amount of one of the following cleaning solutions to a soft, non-abrasive cloth:
 1. Water
 2. Vinegar/water solution
 3. Isopropyl alcohol

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4. Petroleum Benzene

- Stroke cloth across display in one direction, moving from the top to the bottom.
- Computer wipes can be used only if they specifically state they are designed for LCD displays.

Cautions:

- Do not apply cleaning solution directly to the LCD display.
- Do not scratch the LCD display.
- Do not use paper towels to clean the LCD display.
- **NEVER USE:**

1. Acetone
2. Ethyl alcohol
3. Ethyl acid
4. Ammonia
5. Methyl chloride

TOUCH SCREEN

- Turn off system prior to cleaning touch screen on operator console. Any small amount of one of the following recommended cleaning solutions to a soft, non-abrasive cloth and wipe the screen:
 1. Water
 2. 1% Isopropyl alcohol

Cautions:

- Do not apply cleaning solution directly to the touch screen.
- Do not scratch the touch screen.
- Do not use paper towels to clean the touch screen.

OPERATOR CONSOLE

- Turn off system prior to cleaning the operator console. Any small

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amount of one of the following recommended cleaning solutions to a soft, non-abrasive cloth and wipe the screen:

1. Water
2. Mild detergent (PH level at or near 7)

Cautions:

- Do not apply cleaning solution directly to the operator console.

UPS (Front panel only)

- Turn off system and the UPS prior to cleaning the UPS control panel. Any small amount of one of the following recommended cleaning solutions to a soft, non-abrasive cloth and wipe the screen:

1. Water
2. Mild detergent (PH level at or near 7)

Cautions:

- Do not apply cleaning solution directly to the touch screen.

Maintenance (Non-Invasive/Invasive transducers)

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|--|
| Cautions: |
| NEVER sterilize the transducer with sterilization techniques such as autoclave, ultraviolet, gamma radiation, gas, steam, or heat sterilization techniques. Sever damage will result. |
| AVOID transducer contact with strong solvents such as acetone, freon, and other Industrial cleansers. |
| USE of pre-cleaning solutions should be restricted to the external transducer face. DO NOT get solutions on any other areas or surfaces of the transducer. This includes transducer connectors and contacts. |
| DO NOT drop transducers. |
| DO NOT hit the transducers against any surface that can dislodge or damage any of the transducer components. |
| DO NOT pinch or kink the transducer cables. |
| DO NOT use a brush to clean the transducer. |
| DO NOT immerse the transducer scan head past the first seam in any liquid. |

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| DO NOT soak the transducer for extended periods of time. |
| DO NOT rinse or immerse near the strain relief. |
| DO NOT use coupling gels and cleaning agents that have not been recommended by Sonosite or GE. |
| DO NOT use sterilization or disinfection methods that have not been recommended by Sonosite or GE. Severe damage will result. |
| DO NOT use chemicals such as phenol, benzothonium chloride, pHisoHex, benzoyl peroxide, hydrogen peroxide- commonly found in hospitals. These will damage the transducers |

ULTRASOUND COUPLING GELS

The following UTZ coupling gels are recommended for use with transducers:

| Gel Name | Manufacturer |
|------------------|-------------------------------|
| Aquasonic 100 | Parker Laboratories, Inc. |
| Clear Image | Sonotech, Inc. |
| Echo-Oil® | Echo Ultrasound |
| Echotrack® | Echo Ultrasound |
| Ecogel 100 & 200 | Echo-Med Pharmaceutical, Inc. |

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| References: | |
| Approved by: David Talan (Chief Physician), Jeanne Egusa (Nurse Manager), Vena Ricketts (DEM PI/QI Coordinator) | Date: 06/20/2011 |
| Review Date: 6/09, 2/11, 06/20/2014 | Revision Date: 6/25/09, 2/23/11 |
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