VANDERBILT UNIVERSITY
MEDICAL CENTER

# Standard Operating Procedure

**Immediate Use Sterilization** **Date 6/19/2012**

**Applicable to: Perioperative Services**
**Team Members Performing: Operating Room Technical Assistant**

## I. Purpose:

A. Provide guidance for immediate-use sterilization in the perioperative area. The use of immediate-use steam sterilization (IUSS) shall be kept to a minimum and shall be utilized only when there is insufficient time to process by the preferred wrapped or container method. Immediate-use steam sterilization shall not be used as a substitute for insufficient instrument inventory.

## II. General Information:

A. "Immediate-use" is broadly defined as the shortest possible time between a sterilized item's removal from the sterilizer and its specific transfer to the sterile field. A sterilized item intended for immediate use is not stored for future use, nor held from one case to another.

B. Immediate-use sterilization shall NOT be performed on the following devices or in the following situations:
   1. Implants, except in a documented emergency situation when no other option is available.
   2. Post-procedure decontamination of instruments used on patients who may have Creutzfeldt-Jacob disease (CJD) or similar disorders.
   3. Devices or loads that have not been validated with the specific cycle employed.
   4. Devices that are sold sterile and intended for single-use only.

C. Any staff member operating an on unit sterilizer must be trained on the proper use and must demonstrate competency to do so as measured by the Perioperative Learning Center.

D. Sterilizers are located in all Perioperative Units.

E. Instruments to be sterilized must be compatible to steam sterilization process.

F. Each person directly utilizing these sterilizers is responsible for implementing the proper procedure, technique and documentation. Documentation must be completed according to JCAHO Standards.

G. Manufacturer's recommended cleaning and sterilizing protocols and parameters must be followed.

## III. Procedures:

A. Instrumentation being process by immediate use sterilization should be cleaned in the decontamination area using an enzymatic solution, thoroughly rinsed and dried.

B. Cleaning, decontamination, and rinsing are critical and users must follow and complete all required processing steps regardless of the sterilization exposure parameters being used.

C. Place all clean, washed, unwrapped items in fenestrated pan or closed container with an integrator strip. All instruments with ratchets must be opened before they are to be sterilized, this also includes scissors.

D. Immediate-use steam sterilization may be performed only if the following conditions are met:

1. The device manufacturer’s written instructions on cycle type, exposure times, temperature settings, and drying times (if recommended) are available and followed.
2. Items are disassembled and thoroughly cleaned with detergent and water to remove soil, blood, body fats, and other substances.
3. Lumens are brushed and flushed under water with a cleaning solution and rinsed thoroughly.
4. Items are placed in a closed sterilization container or tray, validated for immediate-use sterilization, in a manner that allows steam to contact all instrument surfaces.
5. Measures are taken to prevent contamination during transfer to the sterile field.
6. All items to be processed must be able to withstand steam under pressure, without being damaged.

E. Place pan in autoclave and close door:

1. Check minimum exposure chart for correct times.

2. Set autoclave for appropriate cycle as indicated per autoclave procedure and manufacturer’s recommendations.

3. Document sterilizer activity accurately.

4. When cycle is complete, check the computer printout. The temperature must be $270^0$ or greater for the proper length of time and the steam pressure must be at 28 psi for the correct length of time. See Guidelines Sterilization.

5. Open door, check chemical integrator and document results.

6. Using towels as a potholder remove closed container from autoclaves and proceed to room. Verify correct room and enter. Place pan on unsterile table, open lid to check integrator and permit scrub nurse to remove item.

7. If using an open pan in a sub sterile room, remove pan from sterilizer touching only the handle, if it has one, or using sterile towels, check integrator and proceed to correct room, taking care not to touch anything with the pan in route.

8. Present pan to scrub nurse allowing her/him to visualize chemical indicator and remove sterilized item from pan.

9. Devices processed through immediate use steam sterilization are still hot when received by scrub nurse. Be sure to cool items before passing to surgeon, sterile water on field may be used.

F. Packaging and wrapping

1. Textiles, paper/plastic pouches, and non-woven wrappers shall not be used in immediate-use sterilization cycles unless the sterilizer is specifically designed and labeled for such use. Sterilizer manufacturer's written directions should be followed and reconciled with the packaging manufacturer's instructions for sterilization.

G. Transport

1. The user shall adhere to aseptic technique for immediate use steam sterilized items during transport to the point of use. The user shall ensure that the transfer is performed in a manner that prevents contamination of sterilized devices.

H. Sterilization containers

1. Rigid sterilization containers (eg. Flash paks) designed and intended for immediate-use steam sterilization cycles shall be used for the following reasons:
    - Reduce the risk of contamination during transport.
    - Facilitate ease of presentation to the sterile field, and protect sterilized items during transport.

2. Appropriate containers shall be used, cleaned, and maintained according to manufacturer's written instructions. The containers shall be opened, used immediately, and not stored for later use.

I. Documentation

1. Documentation of immediate use steam sterilization cycle information and monitoring results shall be maintained in a log to provide tracking of processed devices to the individual patient. The following shall be documented:
    - Medical record number and patient name for traceability purposes
    - Date and time of the cycle
    - Autoclave ID
    - Duration of cycle used
    - Cycle parameters (temperature, duration of cycle)
    - Item(s) sterilized
    - Reason for immediate-use steam sterilization
    - Name of the staff member processing the item(s)

2. A record describing what could have been done to prevent IUSS of the implant should be completed and used as part of a quality monitoring system.