

## Aga Khan University Hospital

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|--|--|---|----------------------------------|
| <b>Title:</b>  |  | CSSD Sterilization Process for Cataract/Eye Instruments |                                  |
| <b>Department / Division:</b>                                |  | Department of Anesthesiology/CSSD                       |                                  |
| <b>Approved By:</b>  |  | <b>Document No.:</b>                                    | CSSD-PP007                       |
| Chair, Sterilization<br>Disinfection Sub<br>Committee, DIPHE |  | <b>Issuance Date:</b>                                   | September 8, 2021                |
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|  |  | <b>Prepared By:</b>                                     | Sub Committee of<br>PCI and CSSD |
| Business Manager,<br>Department of<br>Anesthesiology         |  | <b>Total Pages:</b>                                     | Page 1 of 4                      |

**1. Purpose:**

- 1.1. To ensure the safe cleaning and sterilization of Cataract Eye instruments
- 1.2. To ensure monitoring of all decontamination processes and protocols for the handling and processing of Cataract Eye equipment and whether they meet the required standards to prevent cross infection

**2. Scope:**

To supply sterilized or disinfected Cataract Eye items to Day Care operating rooms

**3. Responsibility:**

CSSD and SDC staff.

**4. Terms and Definitions:**

4.1. Sterilization

- 4.1.1. The procedure of destroying all microorganisms or on a given environment including killing of their spores such as a surgical instrument, to prevent the spread of infection. This is usually done by using heat, radiation, or chemical agents.
- 4.1.2. The basic principle of steam sterilization, as accomplished in an autoclave, is to expose each item to direct steam contact at the required temperature and pressure for the specified time.

4.2. Steps to be followed at the OR level

- 4.2.1. All instruments will be opened prior to surgery and visually inspected by the scrub tech through microscope on the surgical field.
- 4.2.2. To minimize delays, a spare set of individually packed instruments will be kept in SDC OR to replace any questionable instruments found in the tray.

- 4.2.3. Any questionable instruments will be set aside separate from the surgical field.
- 4.2.4. Circulators notify to OR management and CSSD staff and maintain a log for questioned instrument.
- 4.2.5. Questioned instrument will be sent to CSSD for further inspection.
- 4.3. Instructions at Point of Use
  - 4.3.1. Immediate flushing of instrument (lumen) should be initiate in SDC OR by CSSD staff.
  - 4.3.2. Used item must have sent to CSSD as early as possible.
- 4.4. Cleaning, Disinfection and Sterilization

All the medical / surgical instrument will be processed (cleaning, disinfection, and sterilization) according to manufacturer recommendations / guideline.
- 4.5. CSSD Workflow for Cataract Eye Instruments
  - 4.5.1. Workflow for Cataract Eye items is as follows:
    - 4.5.1.1. Receiving, sorting, washing, heat disinfection and drying
    - 4.5.1.2. Inspection, setting trays and assembling packs
    - 4.5.1.3. Sterilization
    - 4.5.1.4. Transfer to sterile area
    - 4.5.1.5. Transport to SDC-OR
- 4.6. Receiving

Used cataract sets and hand pieces will be transported by assigned CSSD staff to CSSD.
- 4.7. Cleaning
  - 4.7.1. Cataract sets will be washed on a separate table. A soft brush should be used to clean instruments in accordance with the manufacturer's instructors. Lumen flushing should be done with the help of syringe 5 times each instrument will be flushed with distilled water and same will be followed by compressed air.
  - 4.7.2. Hand pieces will be washed manually according to manufacturer recommendations/ guideline.
- 4.8. Washer
  - 4.8.1. Washer will be assigned for washing Cataract Eye instruments. Washer disinfectant performs thermal disinfection of instrument at 90°C. Non-enzymatic detergent will be used in Washer disinfectant.
  - 4.8.2. Washer-disinfectors are automated and closed equipment that cleans and disinfects surgical instruments.
  - 4.8.3. Terminal cleaning will be performed in washer disinfectant before processing cataract eye instruments.
  - 4.8.4. Distill water and RO water quality control must be checked by MEP.

#### 4.9. Assembly and Packing

- 4.9.1. To ensure proper inspection of these tiny and delicate instrument, enough light should be present or inspect under magnification lamp.
- 4.9.2. All cataract instruments & hand pieces will be dried manually.
- 4.9.3. CSSD staff will check instruments for any wear & tear. If any wear & tear is observed, the shift in-charge will be informed.
- 4.9.4. Any foreign body/organic material will be found in item; it will send back to washing area.
- 4.9.5. CSSD staff will lubricate all instruments according to company instructions.
- 4.9.6. CSSD staff will verify the entire set of instruments with surgical checklist/photo gallery.
- 4.9.7. If any instruments mismatch, the shift in-charge will be informed. Shift in-charge will take steps to find out about the mismatch.
- 4.9.8. All instruments that are presented with open ratchets will be kept in proper position.
- 4.9.9. Before completing the set, it will be counter checked by the charge hand /shift in-charge or supervisor who countersigns to endorse by mentioning his/her name and initials on the checklist.
- 4.9.10. Sets will be packed according to the checklist.
- 4.9.11. After the final wrap label of the tray will be pasted on the final wrapper contain the following information: Pack ID, date of packaging, staff initials, expiry date and a disclaimer "Sterile until packaging is damage."
- 4.9.12. Container clip and autoclave tape will be placed on each tray.
- 4.9.13. Trays will be placed on holding trolley.

#### 4.10. Load Configuration

Items should be placed correctly and loosely into the basket, shelf, or cart of the sterilizer so as not to block the penetration of the sterilant.

#### 4.11. Sterilization

- 4.11.1. Steam Sterilization Process
  - 4.11.1.1. The sets and hand pieces will be steam sterilized on 134°C
  - 4.11.1.2. 4 minutes at 134°C in a pre-vacuum sterilizer

#### 4.12. Quality Control Check and Validation

- 4.12.1. Mechanical indicator
  - 4.12.1.1. Each autoclave cycle is mechanically monitor for steam sterilization by assessment of each cycle time and temperature.
  - 4.12.1.2. After cycle completion machine will give indicate of completion of cycle based on the fixed parameters
- 4.12.2. Chemical indicator

4.12.2.1. Daily Bowie Dick test is performed through chemical Indicator run before starting steam sterilization process. Log will be maintained for 1 year.

4.12.2.2. Every surgical instrument set contains chemical indicator which ensures proper sterilization of the set. The scrub person in operating room verifies it before surgery.

4.12.3. Biological indicators

4.12.3.1. EZ Test (Ampules) rapid action biological indicator will run on the day of cataract surgery in each load and incubate for 20 minutes as per the manufacturer recommendation. Supervisor will read the results and maintain log for 1 year.

4.12.3.2. In case of an unsatisfactory result in any of the quality indicators sterilizer will be hold until satisfactory results are obtained, and infection control representative is contacted for further guidance

4.13. Distribution

All cataract sets and hand pieces will be transport to SDC OR after completion of cycle.

5. **Process / Procedure:**

Not applicable

6. **Reference (s):**

Guidelines for the Cleaning and Sterilization of Intraocular Surgical Instruments - 2018

<https://www.aao.org/clinical-statement/guidelines-cleaning-sterilization-intraocular>

7. **Annexures:**

Not applicable

8. **Document Change Record:**

| Review # | Review Date<br>(dd-mm-yyyy) | Description of Change | Identification of Change |
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