

# TeamSmile Operations Manual

## Sterilization Area

**Purpose:** To maintain procedures that ensure the instruments used to provide patient treatment have been adequately processed. The main goal of these procedures is to prevent the spread of potentially pathogenic microbes from contaminated instruments to patients and dental personnel. Cleaning, disinfection and sterilization of dental instruments and handpieces (critical and semi critical) are the procedures that occur in this area.

### 5 Dental Volunteers

- Verify that all sterilization volunteers are current with their Hepatitis B Vaccine
- Review “Sharps” protocol
- Review “Needle Stick” Strategy
- Review Personal Protection Equipment requirement
- Review proper bagging of instruments – see pictures
- Review instrument bagging instruction

**Sterilization Area Inventory****Item Location**

Sterilization Pouches: 3.5x9, 2.75x9, 3.5x5.25, 5.25x10	Bin #1 – Black Bin/Red Top
Autoclave Indicator Tape	Bin #1 – Black Bin/Red Top
Hand Piece Maintenance Spray Spraynet (2) Red	Bin #2 – Black Bin/Red Top
Hand Piece Maintenance Spray Lubrifluid (2) Blue	Bin #2 – Black Bin/Red Top
Instrument Cleaner Empower (1)	Bin #2 – Black Bin/Red Top
Disinfectant Spray CaviCide (2)	Bin #2 – Black Bin/Red Top
Disinfectant Spray Lysol IC (1)	Bin #2 – Black Bin/Red Top
Extra Rubbing Alcohol (3)	Bin #2 – Black Bin/Red Top
Febreeze	Bin #2 – Black Bin/Red Top
MaxiTab for Ultrasonic (at least ½ box)	Bin #3 - Black Bin/Red Top
Biological Monitoring System	Bin #3 - Black Bin/Red Top
Indicator Vials (8) / Foil	Bin #3 - Black Bin/Red Top
Internal Indicator Strips	Bin #3 – Black Bin/Red Top
Protective Eyewear	Bin #3 - Black Bin/Red Top
Utility Gloves (Size 7, 8, 9)	Bin #3 - Black Bin/Red Top
Pot Holders (4 gloves)	Bin #3 - Black Bin/Red Top
Roll of Towels	Bin #3 – Black Bin/Red Top
Sterilization Label Gun with 2 markers	Bin #3 – Black Bin/Red Top
Biological Monitor Log	Bin #3 – Black Bin/Red Top
Bio Bags (large)	Bin #4 - Black Bin/Red Top
Sharps Containers (16)	Bin #4 - Black Bin/Red Top
Plastic Bins (3)	Black Sterilization Bin
Drying Rack	Black Sterilization Bin
Instrument Baskets & instrument Cleaning Brushes	Black Sterilization Bin
Ultrasonic	Long Crate
M3 Sterilizer (1)	Long Crate
Red “Bio Hazard” Trash Bin Dental 7 Preventative Care	Sterilization Crate #1
Black Trash Cans move to Hygiene (10) / X-ray (2)	Sterilization Crate #1
Absorbent Towels	Sterilization Crate #1
M3 (3)	Sterilization Crate #1
M9s (2)	Sterilization Crate #2
Rugs	Sterilization Crate #2

**Additional Items**

- Hand Sanitizer – Purell
- Arrange for a local vendor to deliver 20 gallons of distilled water on program set up day

## Sterilization Area Set-Up

(3) 8-foot Tables

Put tables in a 'W' configuration with Central Distribution Area.

Cover tables with white, plastic table cover found in the Registration Crate.

Table A - Drying table for drying instruments after they are taken out of the sterilizers

- Place Absorbent Towels across the table.

Table B - Receiving table for the dirty instruments

1. Cover with Midmark table cloth then put plastic table cover on top.
2. Create an area where the dental volunteers drop off their dirty instruments.
3. The following items are located in this area:
  - Disinfection Spray
  - Hand Sanitizer
  - Roll of Towels
  - Trash can

Table C - Prep table for the ultrasonic and cleaning items in the following order on the table

1. Cover with plastic table cover.
2. The following items are located in this area in the following order on the table
  - Plastic Bin with Instrument Cleaner and Instrument Cleaning Brushes
  - Ultrasonic Cleaner with plastic instrument baskets
  - Plastic Bin with water in it
  - Drying Rack, make sure there is a plastic container on the floor if water overflows from the rack.
  - Paper Towels to dry instruments.
  - Plastic Bin for handpieces, syringes, sonic scaling inserts, hygiene sheaths. This is the handpiece maintenance area where each hand piece must be lubed with maintenance spray then flushed out by utilizing a delivery system or handpiece maintenance machine
  - Sterilization Pouches
  - Autoclave Indicator Tape
  - Sterilization Label Gun
  - Internal Indicator Stripes
  - Sterilization Log

Ultrasonic Set-up

- Set up ultrasonic in accordance with the manufacturer's instructions using distilled water
- Once set up, test the ultrasonic with foil
- Add the proper amount of MaxiTabs to the water.
- Use only designated ultrasonic tabs and change the solution as directed.

### Sterilization Machines Set Up

Place pot holders on top of the M9.

### Sterilizers Set-up

- Set up sterilizers in accordance with the manufacturer's instructions, using distilled water in the reservoirs.
- Once sterilizers have been set up, run each of them through a complete "warm-up" cycle: run one cycle with controlled instruments and one with an Indicator Vial. User **MUST** complete the three cycles before using the machines.
- Once the Vials have went through a cycle, crack the vial and place in the Incubator. Make sure you also crack the "Control" vial and place in the specific labeled area of the Incubator. Wait 10 hours and log spore test results in the Sterilization Log Book.
- Program day, run a full cycle prior to the start of the TeamSmile clinical.

### **ELECTRICAL REQUIREMENTS FOR STERILIZATION AREA:**

- Each Sterilizer requires its own electrical power outlet with a maximum of two outlets on one 20 amp circuit breaker.
- On Set Up day, run all Sterilizers at the same time to check for sufficient electrical distribution.

## Sterilization Area Procedures

### Personal Protective Equipment (PPE)

- Everyone in sterilization area **MUST** wear a **PPE gown**.
- If you are operating TABLE B & C (splashing or spraying is anticipated during cleaning), volunteers must wear a **mask** otherwise it is optional.
- If you are operating TABLE B & C (splashing or spraying is anticipated during cleaning), volunteers must wear protective eyewear otherwise it is optional.
- **Puncture resistant chemical utility gloves** must be worn if you are operating TABLE B & C.
  - Must disinfect gloves after use
  - Recommend wearing nitrile gloves underneath

### Instrument Sterilization – All TeamSmile instruments should be sterilized.

Critical patient care instruments are those that penetrates soft tissue, contacts bone, enters into or contacts the bloodstream or other normally sterile tissue and should be sterilized after **EVERY** use. Critical instruments include forceps, scalpels, bone chisels, scalers and surgical burs.

Semi-critical patient care instruments are those instruments that contacts mucous membranes or non-intact skin; such as mirrors, composite instruments, x-ray holders, handpiece, and syringe. They too should be sterilized after **EVERY** use.

#### Step 1 – Dental Assistants / Dental Assistant Students will:

**Transport Dental Instruments and Handpieces to Sterilization Area in the Red Bin with plastic bin cover closed and latched and the plastic tray that was given to them when they picked up their instruments.**

- Instruments should be transported in **closed**, rigid, leak-proof container, this reduces exposure to self and others people in the clinic.

#### Step 2 – Table B, Drop off Instruments

##### Dental Assistants / Dental Assistant Students will:

- Open container and move dental instruments and place on the plastic tray they have brought with them.
- Disinfect the red bin at table B and take the bin back to their dental operatory.
- The separating of reusable and disposable items should already been done at the dental operatory.
- Sharps and bio materials are to be disposed of at the dental operatory.

##### Sterilization Assistant will:

- Remove handpieces and hygiene sheaths and place in the bin on the other side of the ultrasonic.
- Syringes and sonic scaling inserts must be examined for blood. If instruments are visibly contaminated with blood, they need to be properly cleaned to remove soil, then disinfected using an EPA-registered hospital disinfectant with a tuberculocidal claim. They then need to be place in bin on the other side of the ultrasonic.
- Exam the rest of the instruments to look for instruments that are damaged or broken. These need to be labeled and removed from circulation.
- Place all other instruments in the pre-soak bin.

### Step 3 – Table C, Soak and Ultrasonically Clean Instruments

#### Sterilization Assistant will:

- Examine instruments and utilize instrument cleaner and instrument cleaning brushes to rid instruments of debris prior to placing in ultrasonic cleaner.
- If instruments are visibly contaminated with blood, they need to be properly cleaned to remove soil, then disinfected using an EPA-registered hospital disinfectant with a tuberculocidal claim.
- Avoid hand scrubbing instruments, use designated instrument cleaning brushes.
- Follow manufacturer's instructions for use of ultrasonic cleaner. Please adhere to the OSHA guidelines for exposure to chemical disinfectants and sterilants. These guidelines can be found in the Sterilization Manuals found in the Bin #3.
- Only use ultrasonic solution and change it after the morning shift, then if the solutions seems dirty.
- Place instruments in baskets, than put the basket in the ultrasonic for 10 minutes.
- Make sure to leave hygiene instruments in their cassettes.

### Step 4 – Table C, Rinse with Clean Water and Dry Instruments

#### Sterilization Assistant will:

- Once ultrasonic cycle is complete, lift baskets out of the ultrasonic and drain water from the baskets.
- Place the instruments in the clean water bin.
- After a few minutes, place the instruments on the drying rack and pat dry with the paper towels.

### Step 5 – Pouch or Wrap Instruments

#### Special Instrument Bin:

- Handpieces and Hygiene Sheaths: Wipe External Surfaces with proper disinfectant, Lube and Remove Burs from handpieces. These items need to be single packaged.
- Syringes need to packaged.
- Sonic scaling inserts are kept in their plastic container with indicator tape placed around it with an internal indicator placed inside the plastic container.
- All other instruments should be single packaged EXCEPT DIAGNOSTIC SETS AND HYGIENE CASSETTES.
- Packaging must be sealed and cannot be folded over causing a gap.
- Do not over fill packages.
- Hinged instruments must be left open when sterilizing.
- If the package gets puncture, a new package must be used.
- TeamSmile uses an internal/external indicator package.
  - **Large Pouches 10x5.25:** Hygiene Cassettes, Rubber Dam Instruments
  - **Medium Pouches 9x3.5:** Diagnostic Sets: (Mirror, Explorer, Probe), Hygiene Sheaths, Forceps, Syringes,
  - **Small Pouches 9x2.75:** All instruments and handpieces
  - **X-Small Pouches 5.25x3.5:** Bur Blocks, Needle recapping

## Step 6 – Table F, Labeling, Logging, Sterilizing and Drying Instruments

### Sterilization Assistant will:

- There are 4 phases to sterilization. Heating, Exposure, Venting, & Drying. Avoid removing instruments until cycle is complete. **This prevents contamination.**
- Once the instruments have been packaged, they will be placed on a table near the sterilizers.
- Prior to sterilization, it is your job to inspect all packages to make sure all instruments are free from any debris, properly sealed and not punctured in the bag. If not go back to step 3 with dirty instruments.
- At this table, the packaged instruments should be labeled with the date of sterilization, the cycle number, and the machine number. Utilize the sterilization labeler to place a sticker with this information on the plastic side of the bag. Do not write on the paper side of the sterilization bag or on blue paper if the item is wrapped. Use the appropriate pen provided to write on the paper flap that seals on the plastic side of the bag.
- Never place instruments in the sterilizer unwrapped.
- When loading, avoid piercing instrument package and overloading.
- Load instruments paper side up.
- An internal sterilization indicator should be used in each cycle and logged.
- Each sterilizer has its own log sheet that will include: Date and Load Number.
- Log sheets are located in the Sterilization Log Book. Each sterilizer will have its own log sheet for each event. If an additional log sheet is needed fill out: program name and unit # at the top.
- Once sterilizer is loaded, run it on the pouch cycle.
- It is best to run handpieces and hygiene sheaths in the M3s.

## Step 7 – After the end of the cycle

- Place instruments on Table A.

### Additional TeamSmile Information

- Make sure packages used for patient care have indeed been processed through a sterilizer and the external and internal chemical indicator has changed color.
- Check the integrity of sterile packaging material before placing on Table A. Reclean and repack any instrument package that has been compromised.
- Place items/packages correctly and loosely into the sterilizer so as not to impede penetration of the sterilant.
- **SHARPS MUST BE DISPOSED OF AT THE DENTAL OPERATORY.**
- Hygiene Instruments once cleaned can be autoclaved/sterilized in their cassettes.
- Make sure all hinged instruments are open during sterilization.
- Place pouches paper side up and do not over load the sterilization unit.
- Place internal indicator strip inside the sonic scaler case prior to sealing case with indicator tape.
- Make sure lid is on the autoclave when in use.

## Sterilization Equipment Parameters

<b>Sterilizer Name and Method</b>	<b>LOAD Items to be sterilized</b>	<b>Exposure Time</b>	<b>Temperature F</b>	<b>Pressure PSI</b>	<b>Dry/Cool Time</b>
Steam Autoclave M3 #1	Pouches	5min 30 sec	270	27.1	30 min
Steam Autoclave M3 #2	Pouches	5min 30 sec	270	27.1	30 min
Steam Autoclave M3 #3	Pouches	5min 30 sec	270	27.1	30 min
Steam Autoclave M3 #4	Pouches	5min 30 sec	270	27.1	30 min
Steam Autoclave M9 #1	Pouches	5min	270	27.1	30 min
	Handpieces	6min	270	27.1	30 min
Steam Autoclave M9 #2	Pouches	5min	270	27.1	30 min
	Handpieces	6min	270	27.1	30 min



## Sterilization Area Tear-down

Return Sterilization Area inventory items back to their original bins, crates and areas of storage per the inventory checklist.

- Stop sterilization process per Program Director (approximately 2:30 pm).
- All instruments must be autoclaved, placed in sterilization pouches and sealed.
- Place sealed pouches in Rubbermaid® marked “Unsterilized” (red X on this bin).
- Once last cycle in sterilizer is complete, break sterilizers down per provided instruction manual.
- Any instruments on Table A that are not dry, must be bagged again and placed in the bin marked “Unsterilized” (red X on this bin).
- Items on Table A that are already sterilized will need to be put away respectively.
- Ultrasonic - drain water into a bucket, clean with Lysol IC®, and wipe dry.
- Clean all plastic bins and baskets with Lysol.