**ATTACHMENT 13**

**STERILIZATION AREA**

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**Introduction**

Sterilization of all instruments and consumable supplies is done prior to performance in the laboratory or clinical setting. Students are instructed to sterilize all instruments and consumable supplies in a sealed bag according to the tray set-up used for clinical experience. Students will set up a minimum of four tray set-ups when working on the clinical patient experiences. These trays will be disinfected between each patient. After treatment, all instruments are transported back to sterilization area and the process of sterilization will be repeated as described in the handout.

The sterilization area contains the following equipment and supplies:

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| --- | --- |
| **Description: Contaminated Side of Sterilization Area** | **Quantity** |
| Ultrasonic unit with chemical | 1 |
| Disinfectant tray with immersion disinfectant solution | 1 |
| Utility gloves | 1 pair per student |
| Holding container for enzymatic solution | 1 |
| Biohazard waste container | 6 |
| Regular trash container | 6 |
| Biohazard bag | 1 at a time |
| Trash bag | 1 at a time |
| Self-sealing bags for sterilization | 100 |
| Process integrator strips, | 100 |

**Instrument recirculation occurs in the sterilization area. There is a clean and contaminated area that is separated clearly defined. The sterilization area is centrally located in order to provide easy access from the treatment rooms/operatories. It is not part of the laboratory area or near the staff lounge. No eating, smoking, drinking, applying cosmetics or lip balm, or handling contact lenses occurs in this area.**

**Contaminated Side of Sterilization Area**

The contaminated instruments and tray are placed on the counter on the contaminated side in preparation for sterilization. The contaminated area contains protective eyewear, utility gloves, counter space, a sink, a large biohazard waste container, holding solution, 1 ultrasonic unit, supplies for packaging instruments before sterilization. Prior to handling contaminated items, utility gloves are donned. All cotton products, etching/bonding materials, small biohazard bag from operatory, etc. are removed from tray and placed into large red biohazard bag. The biohazard bag is sealed and discarded into the large red biohazard waste container located on the contaminated side of the sterilization area. The instruments are placed into the ultrasonic unit. After the instruments have been removed, rinsed, and dried they are bagged for sterilization. The tray is rinsed and surface disinfected. After all the contaminated instruments, are prepared for sterilization the counters in this area are disinfected.

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| **Description: Clean Side of Sterilization Area** | **Quantity** |
| Sterilizers-Autoclaves | 1. Midmark 11 Steam Autoclave 2. Statim 2000 Steam Autoclave |
| Nitrile gloves | 1 pair per  student |
| Sterilization indicator strips | 100 |

**Clean Side of Sterilization Area**

The sterilizer is located on the clean side of the sterilization area. The clean area has counter space and storage drawer/space for sterilized instruments. Replacement cotton products and bonding materials are placed in the clean area in preparation for restocking the tray. **Contaminated trays, instruments, and consumable products are never placed in this area.**

**EXPOSURE CONTROL PLAN**

**IMPRESSION PREPARATION AND DISINFECTION**

All intra-oral items such as impressions and bite registrations shall be cleaned and disinfected in the Dental Treatment Room with an intermediate level of disinfectant before manipulation in the laboratory.

After an impression or bite registration is completed, it needs to be disinfected properly utilizing a disinfecting solution, gloves and personal protective equipment. This is accomplished by following the specific steps for a spray or immersion technique.

**Armamentarium:**

* Personal protective Equipment (PPE)
* Disinfection Solution - approved for use as hospital chemical germicide
* Airtight plastic bag
* Utility Gloves
* Paper towels

**Rinse and disinfect impressions and bite registrations before transfer to the laboratory avoiding cross contamination.**

***Procedure:***

* Use individual instrument tray set-ups whenever possible.
* Unit dose concept: dispense enough impression material for the individual patient to avoid contamination.
* Thoroughly rinse the impression/bite registration under running tap water.
* Remove any remaining blood with camel paintbrush, soap and water.
* Spray or immerse entire impression/bite registration in disinfectant following manufacturer’s directions.
* Place sprayed/immersed impression or registration into a labeled airtight plastic bag.
* Follow manufacturer’s instructions for exposure time.

**Transfer to the laboratory.**

* Remove impression from plastic bag, thoroughly debride and rinse under running water prior to pouring.
* Gently shake impression/registration to remove excess water.
* When preparing slurry water, use set stone which has not been poured against an impression.
* Soak reusable impression trays in presoak for designated time, scrub in soapy water, rinse, dry, and seal in peal packs for autoclaving.

**APPLIANCE DISINFECTION AND TRANSFER TO THE ORTHODONTIC LABORATORY**

The key to preventing micro-organism transfer in the dental laboratory is by breaking the chain of infection or cross-contamination at critical exchange points**.** All intra-oral orthodontic appliances shall be cleaned and disinfected in the Dental Treatment Room with an intermediate level of disinfectant before transfer and manipulation in the laboratory.

**Armamentarium:**

* Personal protective Equipment (PPE)
* Disinfection Solution - approved for use as hospital chemical germicide
* Airtight plastic bag
* Utility Gloves
* Paper towels

**Rinse and disinfect appliances before transfer to the laboratory avoiding cross contamination.**

***Procedure:***

* Use individual instrument tray set-ups whenever possible.
* Thoroughly rinse the appliance under running tap water.
* Remove any debris from appliance surface with scrub brush with soap and water.
* Store scrub brush in an approved hospital chemical germicide changed weekly or by manufacturer’s recommendations between uses and autoclave brushes weekly.
* After cleaning, place appliances in a beaker or container of disinfectant and ultrasonically clean for 10 minutes with cover in place.
* Follow manufacturer’s instructions for exposure time.
* Remove container and appliance from ultrasonic and wash with soap and water.
* Rinse appliance under running water to eliminate residual disinfectant.
* Gently shake appliance to remove excess water.

**OUTGOING APPLIANCE PREPARATION, PACKAGING AND DELIVERY**

After an appliance is fabricated in the laboratory, it needs to be disinfected properly prior to delivery to the patient.

***Procedure:***

* Thoroughly rinse the appliance under running tap water.
* Remove any debris from appliance surface with scrub brush with soap and water.
* Store scrub brush in an approved hospital chemical germicide changed weekly or by manufacturer’s recommendations between uses and autoclave brushes weekly.
* After cleaning, place appliances in an approved intermediate level disinfectant.
* Follow manufacturer’s instructions for exposure time.
* Remove appliances from disinfectant, rinse, and store in a sealed plastic bag to prevent contamination from handling.