Infection Control Training/Review Key Points

Regulatory and non-regulatory agencies. It is important to follow both.

OSHA/Regulatory — Bloodborne Pathogens Standard – Blood, Saliva, OPIM

Must be easily accessible/understand, include Exposure Plan

Enforced, update regularly (SARS-CoV-2 interim guidelines)

Needlestick Safety Act

Hazardous Communication Standard (HazCom) Chemical Safety,

Safety Data Sheets, Labeling, Pictograms, Signage

Spill Kits – Blood/Chemical

Ergonomic Standard

Noise Standard

Work environment – Housekeeping

Emergency/Evacuations

Engineering Controls/Devices

Work Practice Controls

CDC – Non-Regulatory — Guidelines for Infection Control in Dental Health-Care Settings – 2003

Treat ALL dental patients the same by using Universal/Standard Precautions (implement interim guidelines including Transmission Based precautions)

Modes of disease transmission – Direct, Indirect, Droplet, Airborne

Airborne precautions – Interim guidelines – Refer to ASHRAE for expert advice

Many bacteria and viruses are able to live on environmental surfaces for long periods of time. Colds and flu for up to 7 days, HBV 1 week, HCV 4 days, MRSA days to weeks, TB up to months, COVID-19 studies continue

Oregon Board of Dentistry/Regulatory — Infection Control Guidelines include dentist is ultimately responsible for infection control training in the dental office.

Prevention:

Vaccination when available, PPE, Engineering Controls, Work Practice Controls

Hand Hygiene; wash hands for 15 seconds when first arriving at work, before eating, after using the restroom and if visibly soiled. (When refilling liquid soap container, empty and rinse prior to refilling) Use alcohol handrub in-between glove changes and whenever hands are not visibly soiled.

Mask, Protective Eyewear, Face Shields – Must wear a mask and either eye protection with solid side shields or a face shield when chance of splash or spatter from chemicals or BBP. Impact resistance eyewear, ANSI Z87.1-1998. N-95 respirators recommended during COVID-19 pandemic.

Protective clothing: gowns, lab coats or uniforms that cover the skin and personal clothing likely to become soiled with blood, saliva and infectious material. Should be changed if they become visibly soiled and should always be removed when leaving the work area. Can be worn an entire day but must be disposed of daily or laundered by employer if reusable. (COVID-19 interim guidelines…remove before leaving operatory)

Procedure (exam) gloves should be changed between all patients and not worn when reaching into drawers or cupboards. When they are removed hands must be washed or handrub used. Immediately prior to donning new gloves, handrub should be used.

Utility Gloves should be worn when cleaning up spills, processing instruments and disinfecting treatment rooms.

PPE Supply Optimization and Decontamination Strategies during pandemic.

Sharps should be disposed of “close to point of use” (in treatment room), Regulated medical waste (bloody and saliva soaked disposable items, extracted teeth without amalgam) placed into bio-bag in treatment room and transported to bio-hazard container

Dispose amalgam waste from traps, scrap including empty amalgam capsules (amalgam waste handler)

Vacuum system line cleaning should be performed at the end of every work day and after all surgical procedures.

The instrument processing center/room should have well designed sections; cleaning, preparation/ packaging, sterilization and storage.

Steps of Instrument Processing:

Contaminated instruments should be covered while transporting them to instrument processing room.

Place instruments into holding solution if not able to immediately start cleaning process or into washer following manufacturer instructions. Ultrasonic cleaner solution should be changed daily or when noticeable debris.

Following bur and endo file cleaning in ultrasonic, rinse them thoroughly and inspect for any remaining debris, hand scrubbing may be necessary. Package burs and files to sterilize. (files should not be inserted into clean sponge during sterilization). Follow manufacturers recommendations for sterilization and reuse.

All hinged instruments should be in “open” position while sterilizing.

Use appropriate size pouch for individual instruments. Packages must be wrapped and sealed correctly to avoid gaps.

Identify sterilizer and date on outside of instrument cassettes and packs of every load

Do not overload sterilizers. Refer to sterilizer manufacturer manual of instructions. Allow instruments to dry completely prior to removal for storage.

Sterilization Monitoring Indicators include *Mechanical* which is the digital readings on the sterilizer, *Chemical* which includes indicator strips, tape and pouches. *Biological spore tests* are placed into sterilizers weekly and results should be recorded and kept for 3 years.

Store all instruments covered in drawers or cupboards and open at “time of use”.

When setting up instruments and all items that will be used intra-orally, do not touch with bare hands even if they are clean. Wear clean gloves at all times when touching the items that will be placed into the oral cavity. Do not wear gloves when reaching into drawers or cupboards to obtain additional items, remove gloves, use handrub.

Dental handpiece processing should be followed according to manufacturer instructions. Motors must be sterilized between use.

CDC guidelines are to make sure handpieces are clean and dry prior to sterilization, an indicator strip should be in each cycle of not packaged instruments, they should be allowed to dry and cool, and be handled aseptically. The CDC recommends a 20 to 30 flush prior to using a highspeed handpiece.

Single use (disposable) Devices & Products: Infection Control Experts recommend the use of single unit dosage packaging to eliminate the potential of cross contamination when items are stored in open containers and drawers. This includes cotton products (cotton rolls, tipped applicators, 2x2 sponges, etc.)

Clean and Disinfect according to the CDC Guidelines which includes using an intermediate level disinfectant. Perform a two-wipe method; *cleaning* wipe to remove debris, dispose of wipe and gloves, use handrub, don new gloves, perform *disinfecting* wipe. Always follow manufacturer instructions. Go to EPA website to identify products that can kill SARS-CoV-2.

X-ray exposure buttons should be covered with barrier tape and disposed after every patient. While exposing radiographs gloves must be worn. Masks and eyewear are options that will prevent saliva from contacting the operators’ eye, nose and mouth mucous membranes. This may occur when a patient sneezes or coughs. All lead aprons should be hung flat not folded, to reduce the development of cracks and holes in the apron. Touch lead aprons with clean hands only.

OSHA requires the work areas to be “Clean and Organized” which enhances a healthy and safe environment.

Dental Unit Water Quality: Using water of uncertain quality is inconsistent with infection control principles. Follow EPA water quality of <500 CFU’s.

Dental casts (gypsum and stone) can harbor microorganisms that will live up to 7 days if impressions are not properly disinfected prior to pouring. Impressions should be rinsed, disinfected and bagged before sending to the dental lab. Follow KP Lab Case Guidelines.

CDC Updates, currently available information as of 9/2021

Dental Facilities

- Dental healthcare personnel (DHCP) should regularly consult their state dental boards and state or local health departments for current information and recommendations and requirements specific to their jurisdictions, which might change based on level of community transmission in the county where their healthcare facility is located.
- Postpone all non-urgent dental treatment for: 1) patients with suspected or confirmed SARS-CoV-2 infection until they meet criteria to discontinue Transmission-Based Precautions and 2) patients who meet criteria for quarantine until they complete quarantine.
  - Dental care for these patients should only be provided if medically necessary. Follow all recommendations for care and placement for patients with suspected or confirmed SARS-CoV-2 infection.
  - If a patient has a fever strongly associated with a dental diagnosis (e.g., pulpal and periapical dental pain and intraoral swelling are present) but no other symptoms consistent with COVID-19 are present, dental care can be provided following the practices recommended for routine health care during the pandemic.
- When performing aerosol generating procedures on patients who are not suspected or confirmed to have SARS-CoV-2 infection, ensure that DHCP correctly wear the recommended PPE (including a NIOSH-approved N95 or equivalent or higher-level respirator in counties with substantial or high levels of transmission) and use mitigation methods such as four-handed dentistry, high evacuation suction, and dental dams to minimize droplet spatter and aerosols.
  - Commonly used dental equipment known to create aerosols and airborne contamination include ultrasonic scaler, high-speed dental handpiece, air/water syringe, air polishing, and air abrasion.
- Dental treatment should be provided in individual patient rooms whenever possible.
- For dental facilities with open floor plans, to prevent the spread of pathogens there should be:
  - At least 6 feet of space between patient chairs.
  - Physical barriers between patient chairs. Easy-to-clean floor-to-ceiling barriers will enhance effectiveness of portable HEPA air filtration systems (check to make sure that extending barriers to the ceiling will not interfere with fire sprinkler systems).
  - Operatories should be oriented parallel to the direction of airflow if possible.
  - Where feasible, consider patient orientation carefully, placing the patient’s head near the return air vents, away from pedestrian corridors, and toward the rear wall when using vestibule-type office layouts.
  - Ensure to account for the time required to clean and disinfect operatories between patients when calculating your daily patient volume.