

Infection Control Training Record

Date: _____

*(Print and sign name
of person)*

Attended infection control training, conducted by Nancy Dewhirst RDH,BS. This training was conducted away from the office at (address) _____ . The training included the following general California State Board required topics, with the expectation that site-specific follow-up training be conducted at the attendees' workplaces to complete the information that is specific to each workplace (Course objectives):

**DENTAL BOARD OF CALIFORNIA
INFECTION CONTROL REGULATIONS**

California Code of Regulations Title 16 §1005. Minimum Standards for Infection Control

(a) Definitions of terms used in this section:

- (1) "Standard precautions" are a group of infection prevention practices that apply to all patients, regardless of suspected or confirmed infection status, in any setting in which healthcare is delivered. These include hand hygiene, use of gloves, gown, mask, eye protection, or face shield, depending on the anticipated exposure, and safe handling of sharps. Standard precautions shall be used for care of all patients regardless of their diagnoses or personal infectious status.
- (2) "Critical items" confer a high risk for infection if they are contaminated with any microorganism. These include all instruments, devices, and other items used to penetrate soft tissue or bone.
- (3) "Semi-critical items" are instruments, devices and other items that are not used to penetrate soft tissue or bone, but contact oral mucous membranes, non-intact skin or other potentially infectious materials (OPIM).
- (4) "Non-critical items" are instruments, devices, equipment, and surfaces that come in contact with soil, debris, saliva, blood, OPIM and intact skin, but not oral mucous membranes.
- (5) "Low-level disinfection" is the least effective disinfection process. It kills some bacteria, some viruses and fungi, but does not kill bacterial spores or mycobacterium tuberculosis var bovis, a laboratory test organism used to classify the strength of disinfectant chemicals.
- (6) "Intermediate-level disinfection" kills mycobacterium tuberculosis var bovis indicating that many human pathogens are also killed. This process does not necessarily kill spores.
- (7) "High-level disinfection" kills some, but not necessarily all bacterial spores. This process kills mycobacterium tuberculosis var bovis, bacteria, fungi, and viruses.

- (8) “Germicide” is a chemical agent that can be used to disinfect items and surfaces based on the level of contamination.
- (9) “Sterilization” is a validated process used to render a product free of all forms of viable microorganisms.
- (10) “Cleaning” is the removal of visible soil (e.g., organic and inorganic material) debris and OPIM from objects and surfaces and shall be accomplished manually or mechanically using water with detergents or enzymatic products.
- (11) “Personal Protective Equipment” (PPE) is specialized clothing or equipment worn or used for protection against a hazard. PPE items may include, but are not limited to, gloves, masks, respiratory devices, protective eyewear and protective attire which are intended to prevent exposure to blood, body fluids, and OPIM, and chemicals used for infection control. General work attire such as uniforms, scrubs, pants and shirts, are not considered to be PPE.
- (12) “Other Potentially Infectious Materials” (OPIM) means any one of the following:
 - (A) Human body fluids such as saliva in dental procedures and any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.
 - (B) Any unfixated tissue or organ (other than intact skin) from a human (living or dead).
 - (C) Any of the following, if known or reasonably likely to contain or be infected with HIV, HBV, or HCV:
 - 1) Cell, tissue, or organ cultures from humans or experimental animals;
 - 2) Blood, organs, or other tissues from experimental animals; or
 - 3) culture medium or other solutions.
- (13) “Dental Healthcare Personnel” (DHCP) are all paid and non-paid personnel in the dental health-care setting who might be occupationally exposed to infectious materials, including body substances and contaminated supplies, equipment, environmental surfaces, water, or air. DHCP includes dentists, dental hygienists, dental assistants, dental laboratory technicians (in-office and commercial), students and trainees, contractual personnel, and other persons not directly involved in patient care but potentially exposed to infectious agents (e.g., administrative, clerical, housekeeping, maintenance or volunteer personnel).
 - (b) All DHCP shall comply with infection control precautions and enforce the following minimum precautions to minimize the transmission of pathogens in health care settings mandated by the California Division of Occupational Safety and Health (Cal/OSHA).
 - (1) Standard precautions shall be practiced in the care of all patients.
 - (2) A written protocol shall be developed, maintained, and periodically updated for proper instrument processing, operator cleanliness, and

management of injuries. The protocol shall be made available to all DHCP at the dental office.

- (3) A copy of this regulation shall be conspicuously posted in each dental office.

Personal Protective Equipment:

- (4) All DHCP shall wear surgical facemasks in combination with either chin length plastic face shields or protective eyewear whenever there is potential for aerosol spray, splashing or spattering of the following: droplet nuclei, blood, chemical or germicidal agents or OPIM. Chemical-resistant utility gloves and appropriate, task specific PPE shall be worn when handling hazardous chemicals. After each patient treatment, masks shall be changed and disposed. After each patient treatment, face shields and protective eyewear shall be cleaned, disinfected, or disposed.
- (5) Protective attire shall be worn for disinfection, sterilization, and housekeeping procedures involving the use of germicides or handling contaminated items. All DHCP shall wear reusable or disposable protective attire whenever there is a potential for aerosol spray, splashing or spattering of blood, OPIM, or chemicals and germicidal agents. Protective attire must be changed daily or between patients if they should become moist or visibly soiled. All PPE used during patient care shall be removed when leaving laboratories or areas of patient care activities. Reusable gowns shall be laundered in accordance with Cal/OSHA Bloodborne Pathogens Standards (Title 8, Cal. Code Regs., section 5193).

Hand Hygiene:

- (6) All DHCP shall thoroughly wash their hands with soap and water at the start and end of each workday. DHCP shall wash contaminated or visibly soiled hands with soap and water and put on new gloves before treating each patient. If hands are not visibly soiled or contaminated an alcohol based hand rub may be used as an alternative to soap and water. Hands shall be thoroughly dried before donning gloves in order to prevent promotion of bacterial growth and washed again immediately after glove removal. A DHCP shall refrain from providing direct patient care if hand conditions are present that may render DHCP or patients more susceptible to opportunistic infection or exposure.
- (7) All DHCP who have exudative lesions or weeping dermatitis of the hand shall refrain from all direct patient care and from handling patient care equipment until the condition resolves.

Gloves:

- (8) Medical exam gloves shall be worn whenever there is contact with mucous membranes, blood, OPIM, and during all pre-clinical, clinical, post-clinical, and laboratory procedures. When processing contaminated sharp instruments, needles and devices, DHCP shall wear heavy-duty utility gloves to prevent puncture wounds. Gloves must be discarded when torn or punctured, upon completion of treatment, and before

leaving laboratories or areas of patient care activities. All DHCP shall perform hand hygiene procedures before donning gloves and after removing and discarding gloves. Gloves shall not be washed before or after use.

Needle and Sharps Safety:

- (9) Needles shall be recapped only by using the scoop technique or a protective device. Needles shall not be bent or broken for the purpose of disposal. Disposable needles, syringes, scalpel blades, or other sharp items and instruments shall be placed into sharps containers for disposal as close as possible to the point of use according to all applicable local, state, and federal regulations.

Sterilization and Disinfection:

- (10) All germicides must be used in accordance with intended use and label instructions.
- (11) Cleaning must precede any disinfection or sterilization process. Products used to clean items or surfaces prior to disinfection procedures shall be used according to all label instructions.
- (12) Critical instruments, items and devices shall be discarded or pre-cleaned, packaged or wrapped and sterilized after each use. Methods of sterilization shall include steam under pressure (autoclaving), chemical vapor, and dry heat. If a critical item is heat-sensitive, it shall, at a minimum, be processed with high-level disinfection and packaged or wrapped upon completion of the disinfection process. These instruments, items, and devices, shall remain sealed and stored in a manner so as to prevent contamination, and shall be labeled with the date of sterilization and the specific sterilizer used if more than one sterilizer is utilized in the facility.
- (13) Semi-critical instruments, items, and devices shall be pre-cleaned, packaged or wrapped and sterilized after each use. Methods of sterilization include steam under pressure (autoclaving), chemical vapor and dry heat. If a semi-critical item is heat sensitive, it shall, at minimum, be processed with high level disinfection and packaged or wrapped upon completion of the disinfection process. These packages or containers shall remain sealed and shall be stored in a manner so as to prevent contamination, and shall be labeled with the date of sterilization and the specific sterilizer used if more than one sterilizer is utilized in the facility.
- (14) Non-critical surfaces and patient care items shall be cleaned and disinfected with a California Environmental Protection Agency (Cal/EPA)-registered hospital disinfectant (low-level disinfectant) labeled effective against HBV and HIV. When the item is visibly contaminated with blood or OPIM, a Cal/EPA-registered hospital intermediate-level disinfectant with a tuberculocidal claim shall be used.
- (15) All high-speed dental hand pieces, low-speed hand pieces, rotary components, and dental unit attachments such as reusable air/water syringe tips and ultrasonic scaler tips, shall be packaged, labeled and

heat-sterilized in a manner consistent with the same sterilization practices as a semi-critical item.

- (16) Single use disposable items such as prophylaxis angles, prophylaxis cups and brushes, tips for high-speed evacuators, saliva ejectors, air/water syringe tips, and gloves shall be used for one patient only and discarded.
- (17) Proper functioning of the sterilization cycle of all sterilization devices shall be verified at least weekly through the use of a biological indicator (such as a spore test). Test results shall be documented and maintained for 12 months.

Irrigation:

- (18) Sterile coolants/irrigants shall be used for surgical procedures involving soft tissue or bone. Sterile coolants/irrigants must be delivered using a sterile delivery system.

Facilities:

- (19) If non-critical items or surfaces likely to be contaminated are manufactured in a manner preventing cleaning and disinfection, they shall be protected with disposable impervious barriers. Disposable barriers shall be changed when visibly soiled or damaged and between patients.
- (20) Clean and disinfect all clinical contact surfaces that are not protected by impervious barriers using a California Environmental Protection Agency (Cal-EPA) registered, hospital grade low- to intermediate-level germicide after each patient. The low-level disinfectants used shall be labeled effective against HBV and HIV. Use disinfectants in accordance with the manufacturer's instructions. Clean all housekeeping surfaces (e.g. floors, walls, sinks) with a detergent and water or a Cal-EPA registered, hospital grade disinfectant. Products used to clean items or surfaces prior to disinfection procedures shall be clearly labeled and DHCP shall follow all material safety data sheet (MSDS) handling and storage instructions.
- (21) Dental unit water lines shall be anti-retractive. At the beginning of each workday, dental unit lines and devices shall be purged with air or flushed with water for at least two (2) minutes prior to attaching handpieces, scalers, air water syringe tips, or other devices. The dental unit lines and devices shall be flushed between each patient for a minimum of twenty (20) seconds.
- (22) Contaminated solid waste shall be disposed of according to applicable local, state, and federal environmental standards.

Lab Areas:

- (23) Splash shields and equipment guards shall be used on dental laboratory lathes. Fresh pumice and a sterilized or new rag-wheel shall be used for each patient. Devices used to polish, trim, or adjust contaminated intraoral devices shall be disinfected or sterilized, properly packaged or wrapped and labeled with the date and the specific sterilizer used if more than one sterilizer is utilized in the facility. If packaging is compromised,

the instruments shall be recleaned, packaged in a new wrap, and sterilized again. Sterilized items will be stored in a manner so as to prevent contamination.

- (24) All intraoral items such as impressions, bite registrations, prosthetic and orthodontic appliances shall be cleaned and disinfected with an intermediate-level disinfectant before manipulation in the laboratory and before placement in the patient's mouth. Such items shall be thoroughly rinsed prior to placement in the patient's mouth.

- (c) The Dental Board of California and the Dental Hygiene Committee of California shall review this regulation annually and establish a consensus.

NOTE: Authority cited: Section 1614, Business and Professions Code. Reference: Section 1680, Business and Professions Code.

Seminar Notes:

Safety Officer responsible: _____

Office inspection conducted at least annually for physical site and employee compliance:
General safety: eye wash stations, fire extinguishers, exits, lighting, employee and safety signs, emergency equipment, safe storage of compressed gasses and chemicals, electrical safety, cleanliness and asepsis, waste management, safety supplies including PPE, etc.

CDC Checklist: <http://www.cdc.gov/OralHealth/infectioncontrol/guidelines/index.htm>

To be used along with 2003 Infection Control Recommendations

Chain of infection:

Standard Precautions

Hand Hygiene

PPE

Environmental Asepsis

Safe Injections

Respiratory hygiene /cough etiquette

For symptomatic people with respiratory infection:

- Cover nose/mouth when coughing or sneezing
- Use tissues to contain respiratory secretions and dispose of them in the nearest waste receptacle after use

- Perform hand hygiene after contact with respiratory secretions and contaminated objects/materials. Use non-antimicrobial soap and water, alcohol-based hand rub, or antiseptic handwash.
- Materials should be available in waiting, clinic, business, lab, and personal areas:
 - Tissues and no-touch receptacles for used tissue disposal
 - Conveniently located dispensers of waterless hand sanitizers
 - Supplies for handwashing if sinks are available

Hepatitis B

Hepatitis C

HIV

Post Exposure Prophylaxis National Clinicians' PEP Hotline 1-888-448-4911 Call 24/7

- Exposure packet
- Direct MD re: testing, disclosure, include HCV!
- Counseling
- Rapid HIV, HCV testing
- PEP follow-up: after exposure test 3-6 weeks, 3-6 months, 9 months
- ART available – 2 hour window for maximum effect

Hand Hygiene

PPE: Gloves

Aerosol Transmitted Diseases (ATD's)
Signs, symptoms, screening

ATD examples & Key points

Vaccines <http://www.cdc.gov/vaccines/adults/rec-vac/hcw.html>

- HBV
- Influenza
- Measles
- Mumps
- Rubella
- Varicella-Zoster
- Tetanus
- Polio
- Pneumonia
- Meningitis
- HPV
- OSHA policies:
 - New hires & employees

Tuberculosis

Active TB vs. asymptomatic occupational exposures

Signs & symptoms

Screening & referrals

Aerosol Transmitted Diseases (ATD's)

Screening criteria

Respiratory Protection

Surgical masks

ASTM level 1,2,3

Instrument Processing: Traffic flow & technology selection

Instrument cleaning:

Safe instrument transport

Enzymatic foam

Ultrasonic vs. instrument washers

Sterilizer monitoring

Weekly spore testing

Per-load integrators / process indicators

Mechanical / physical monitoring

Instrument cassettes and wrapping

Unwrapped cycles

Single-use disposables

Surface disinfection

Environmental Asepsis:

Cleaning and disinfection

Barriers

Dental Waterlines

Treatment

Monitoring

Sterile Surgical standards

Hand hygiene

Gloves / gown

Face protection

Instrument set-up

Sterile Irrigation water

Comparison of Standard, Contact, Droplet and Airborne Precautions

	Standard Precautions	Contact Precautions	Droplet Precautions	Airborne Precautions
General Instructions	Follow OSHA and CDC infection Control Guidelines for all procedures.	Follow Standard Precautions and additional steps (below). Additional precautions are necessary to prevent spread of Vancomycin Resistant pathogens.	Follow Standard Precautions and additional steps (below). Post and practice Hygiene/Cough Etiquette	Follow Standard Precautions and additional steps (below).
Applies to:	All patients, including those needing extra precautions	People known or suspected to be infected or colonized with a serious pathogen that might be transmitted by direct or indirect contact.	People known or suspected to be infected with a serious pathogen that can be transmitted by large particle droplets.	People known or suspected to be infected with a serious pathogen that can be transmitted by small droplet nuclei or dust particles.

Perform Hand Hygiene	Immediately after touching blood, body fluids, contaminated items even if gloves are worn. Routine: plain soap and water. Specific circumstances: Waterless handrubs / antimicrobial soaps	Wash hands immediately after removing gloves with antimicrobial agent or use alcohol handrub.	Perform hand hygiene immediately after contact with contaminated respiratory secretions or contaminated items.	Follow Standard Precautions.
Gloves	Clean, nonsterile to touch contaminated materials / items. Don just prior to touching mucous membrane or nonintact skin. Change between; pts. or tasks (same pt.) if gloves might transmit pathogens from contaminated area to clean. Promptly after use; remove gloves, perform hand hygiene. Avoid re-contamination of hands.	Don gloves to enter room. During procedure, change gloves after contact with infective material. Remove gloves before leaving room/ Perform hand hygiene immediately.	Follow Standard Precautions.	Follow Standard Precautions.
Mask, Eye Face Protection	Wear mask and eye protection / face shield to protect mucous membranes of eyes, nose, mouth from blood, body fluids, secretions and excretions during splash or spray procedures	Follow Standard Precautions	Wear procedure or surgical mask when working within 3 ft. of infected person.	Wear N95 respirators when entering room of person known or suspected to have airborne respiratory illness. Persons immune to measles (rubeola) or varicella need not wear N-95 respirator.
	Standard Precautions	Contact Precautions	Droplet Precautions	Airborne Precautions
Gown	Wear clean, nonsterile gown during splash or spray or contact procedures to protect skin & clothes to protect from blood, body fluids, secretions and excretions. Select gown for appropriate fluid resistance. Remove soiled gown as promptly as possible & perform hand hygiene.	Don gown to enter room. Remove gown before leaving room. Isolate used gown and dispose of or route to laundry aseptically.	Follow Standard Precautions.	Follow Standard Precautions.
Pt. Care Equipment	Handle Pt. care items aseptically; avoid personal contact, injury and cross-contamination to other patients or environment. Clean and reprocess reusable appropriately. Discard single-use items properly.	If possible use single-use disposable noncritical patient-care equipment. If not possible, clean and disinfect or sterilize items before next use.	Follow Standard Precautions.	Follow Standard Precautions.
Environ-Mental control	Have supplies & procedures for routine care, cleaning, disinfection of surfaces &	Follow Standard Precautions.	Follow Standard Precautions.	Follow Standard Precautions. Consider a wide

	equipment. Consistently perform procedures.			area (whole room) around the patient contaminated.
Linen	Handle, transport & launder linens soiled with blood, body fluids, secretions and excretions so as to prevent; skin & mucous membrane exposure, contamination of clothing, and cross-contamination of surfaces, items or other patients.	Follow Standard Precautions.	Follow Standard Precautions.	Follow Standard Precautions.
Bloodborne Pathogen Protections	Prevent injuries during procedures, clean-up and disposal of sharps. Use barrier resuscitation equipment instead of mouth-to-mouth methods.	Follow Standard Precautions.	Follow Standard Precautions.	Follow Standard Precautions.
Patient Placement	Place those patients who will contaminate the environment, or who can not assist in maintaining asepsis control in a private room.	Place patient in private room.	Place patient in private room. Door may remain open. Maintain spatial separation of at least 3 ft. between infected person and others.	Place patient in private room. Keep door closed. Special facilities with negative pressure treatment rooms and air handling systems are required: 6 – 12 air exchanges / hour, safe discharge of air to outside and high-efficiency filtration of air going to indoor spaces.
Patient Transport	Provide a safe passageway for patients in public areas. Guide patients in clinical areas to prevent injury & cross-contamination, and preserve clinical asepsis.	Follow Standard Precautions	Move / transport patient out of private room only if essential. If transport is necessary minimize dispersal of droplets by masking patient. If possible.	Move / transport patient out of private room only if essential. If transport is necessary minimize dispersal of droplets by masking patient. If possible.

Every day, for every patient, consistent and effective Standard Precautions will prevent most infections related to patient care. Hand hygiene remains the single most important infection control precaution for preventing disease transmission and will prevent countless infections. Transmission-based Precautions are necessary when people have serious infectious diseases, transmitted by contact, droplets or airborne small particles.

References: www.Osap.org and www.cdc.gov

Sample ATD Screening Form:

Patient Screening for Aerosol Transmissible Diseases (ATD)

Name (Print first, last) _____

Do you have: (circle answer)

A history of Tuberculosis? Yes No If yes, explain: _____

Symptoms of tuberculosis?

Productive cough (> 3 weeks): Yes No If yes, explain: _____

Bloody sputum Yes No If yes, explain: _____

Night sweats Yes No

Fatigue Yes No

Malaise Yes No

Fever Yes No

Unexplained weight loss Yes No

Flu & Other Aerosol transmissible diseases, including pertussis, measles, mumps, rubella, chicken pox, meningitis:

Do you have: (circle answer)

How long? Explain:

Fever? Yes No _____

Body aches? Yes No _____

Runny nose? Yes No _____

Sore throat? Yes No _____

Headache? Yes No _____

Nausea? Yes No _____

Vomiting or diarrhea? Yes No _____

Fever and respiratory symptoms? Yes No _____

Severe coughing spasms? Yes No _____

Painful, swollen glands? Yes No _____

Skin rash, blisters? Yes No _____

Stiff neck, mental changes? Yes No _____

In compliance with California OSHA Title 8, Section 5199, dental facilities must pre-screen patients for aerosol transmissible diseases. Dental procedures are not performed on patients suspected or identified as having aerosol transmissible diseases.

Chronic Respiratory Diseases (NOT ATD's, and not considered infectious) do not disqualify a patient from treatment under California OSHA Title 8, Section 5199:

Do you have: (circle answer)

Asthma? Yes No

Allergies? Yes No

Chronic upper airway cough syndrome "postnasal drip"? Yes No

Gastroesophageal reflux disease (GERD)? Yes No

Chronic obstructive pulmonary disease (COPD)? Yes No

Emphysema? Yes No

Bronchitis? Yes No

Dry cough from ACE inhibitors? Yes No

Questions

1. The “Chain of Infection” includes Pathogens, Source of infection, Transmission, Route of entry and Susceptible host. Identify the correct statement related to the “Chain of Infection”:
 - a. The “Chain of Infection” is a sequence of factors and events necessary for infectious disease transmission.
 - b. To control disease transmission, it is necessary to break each and every link in the “Chain of Infection”.
 - c. The “Chain of Infection” is impossible to break in a dental setting.

2. Standard Precautions include hand hygiene, use of PPE, respiratory hygiene / cough etiquette, environmental asepsis, instrument sterilization, sharps safety and safe practices. Identify the correct statement related to Standard Precautions:
 - a. The concept of “Standard Precautions” refers to the minimum precautions dental workers take while treating every patient, to prevent disease transmission.
 - b. “Standard Precautions” are based solely on bloodborne pathogens.
 - c. “Standard Precautions” are effective in preventing the transmission of aerosol transmissible diseases (ATD’s), such as tuberculosis or pertussis.

3. Periodic testing of dental workers is recommended for hepatitis B immunity and infection with hepatitis C and HIV. Identify the best reason for these recommendations:
 - a. HIV transmission to dental workers is a common occurrence in dentistry.
 - b. If discovered, hepatitis B and C, as well as HIV are treatable.
 - c. Dental workers should NOT be tested more than once for hepatitis B immunity or infection with hepatitis C or HIV.

4. After an occupation exposure to a bloodborne pathogen, testing of both the exposed person and the source person is recommended. Identify the correct statement about the use of rapid testing.
 - a. Rapid testing for HIV is unreliable.
 - b. The exposed person should be tested using the skin test for HIV.
 - c. The source individual should be tested using the rapid tests for HIV and hepatitis C for the purpose of determining medical treatment of the exposed person.

5. How long should a dental worker lather while washing hands for the first time in the morning and at the end of the day?
 - a. 20 seconds
 - b. 1 minute
 - c. 30 seconds

6. How long should a dental worker lather while washing hands repeatedly during the workday?
 - a. 20 seconds
 - b. 15 seconds
 - c. 40 seconds

7. How long should hand sanitizer remain wet on hands?
 - a. 8 seconds
 - b. 10 seconds
 - c. 15 seconds

8. The most reliable surface disinfectant products to use on clinical contact surfaces are:
 - a. Low level hospital disinfectants
 - b. EPA approved Intermediate level disinfectants
 - c. Domestic cleaning products with 99% antimicrobial kill claims

9. Intermediate level disinfectants are effective against tuberculosis. Some products, however, are poor pre-cleaners because of chemical properties. Identify the chemical property associated with poor cleaning performance:
 - a. High alcohol
 - b. Low alcohol
 - c. High water content

10. Identify the correct statement regarding waterline management:
 - a. Sterile water and delivery devices must be used for surgery, while potable water must be used for non-surgical dental procedures.
 - b. Potable water is drinking water with bacterial levels of less than 2000 CFU/mL.
 - c. There is no way to know the level of waterline contamination.

Answers:

- 1 a
- 2 a
- 3 b
- 4 c
- 5 b
- 6 a
- 7 c
- 8 b
- 9 a
- 10 a