

Dental Board of California Infection Control Requirements

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Minimum Standards for Infection Control

Title 16 CCR
• Section 1005

Latest revision effective August 20, 2011

Must be posted in the office/clinic

Minimum Standards for Infection Control

Applies to all dental healthcare personnel (DHCP)

- "...DHCP includes dentists, dental hygienists, dental assistants, dental laboratory technicians, 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)."

Written Protocol

Standard Precautions

Written protocol developed, maintained and periodically updated (available to all DHCP)

- Instrument processing
- Operator cleanliness
- Management of injuries

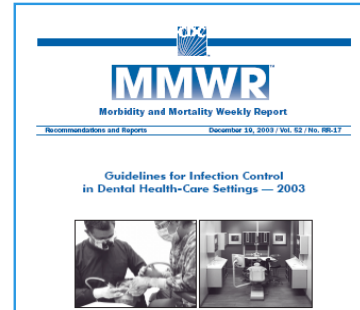
Protocol must be available to all DHCP at the dental office

Standard Precautions

Blood and all body fluids, excretions, secretions except sweat considered potentially infectious

The same infection control procedure for all patients every time

Includes hand hygiene, PPE, handling of sharps, sterilization and disinfection



www.cdc.gov/MMWR/preview/mmwrhtml/rr5217a1.htm

Infection Control Strategies

Vaccinations

Safer work practices

Safer devices

Standard precautions

- Personal protective equipment
- Sterilization
- Disinfection

Vaccinations

Hepatitis B

Measles/Mumps/Rubella

Varicella

Tdap

Polio

Influenza



Other vaccines recommended for locations where diseases not common in US are prevalent (e.g., yellow fever, typhoid)

Hepatitis B Vaccine

A series of three injections

- 0, 1, and 6 months



Post-immunization

HbsAb Anti-body Test

>10 mili – International Units

Consider a booster, repeating the series, or checking for past infection if no antibodies are detected

Booster Injections

CDC does not recommend boosters

- Immune memory remains intact
- Even if antibodies fall below detectible levels
- *Only applies to individuals that had post-vaccine testing indicating immune response to the vaccine*

Bloodborne Diseases Modes of Transmission

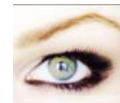
Direct contact with blood and body fluids



Indirect contact with contaminated instruments or surfaces



Contact of mucosa of the eyes, nose or mouth with droplets or spatter



Personal Protective Equipment

Personal Protective Equipment (PPE)

Worn whenever there is a potential for:

- Aerosol spray
- Splashing or spattering of:
 - Droplet nuclei
 - Blood
 - Chemical or germicidal agents
 - OPIM

Masks and Protective Eyewear



Surgical facemasks in combination with face shields or protective eyewear

Change masks between patients

Clean and disinfect or reusable face/eye protection between patients

Attire

Reusable or disposable gown or lab coat

Under same conditions as other PPE and for disinfection, sterilization and housekeeping procedures involving germicides or contamination

Changed daily or between patients if moist or soiled

Remove before leaving patient care or laboratory areas

Discarded or laundered as per Cal/OSHA



Contaminated Laundry

“Laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.”

◦ *Cal/OSHA Bloodborne Pathogens Rule*

Cal/OSHA Laundry Requirement

The employer shall clean, launder, and dispose of personal protective equipment at no cost to the employee

Placed in containers that are labeled or color-coded

Transported in containers that are labeled or color-coded

May be done onsite (by trained employees) or by a professional service (ensure the use of Standard Precautions)

Exam Gloves

For contact with mucous membranes, blood, OPIM

During pre-clinical, clinical, post-clinical and laboratory procedures



Exam Gloves

Remove and discard gloves that are torn, cut or punctured

Do not wash gloves before or after use



Heavy-duty Gloves

“Chemical-resistant utility gloves when handling hazardous chemicals (in addition to appropriate, task-specific PPE), and when processing contaminated sharp instruments, needles and devices.”



Hand Hygiene – Soap and Water

At the start and end of each workday

If contaminated or visibly soiled

Before placing and after removing gloves (unless using hand sanitizer)



Alcohol-based Hand Sanitizers

Alternative to soap and water

For hands free of debris

Good antimicrobial

Not a cleaning agent



Patient Care Restrictions

Refrain from direct patient care and handling patient care equipment if:

- Weeping dermatitis
- Exudative lesions
- Hand condition making DHCP or patient more susceptible to opportunistic infection or exposure



Needle and Sharp Safety

Post-exposure management

Use Scoop Technique or...



Mechanical Device



Mechanical Devices



Sharps Containers

Disposable needles, syringes, scalpels, ends of orthodontic wires, broken glass, etc.

Close as possible to point of use

Do not bend or break needles for disposal



Evaluate Work Practices

SEEK SAFER WAYS OF DOING THINGS

Placement of sharp items



Retracting tissues with fingers



Handling sharps



Instrument transfers



Exposure Incident

Percutaneous injury

Splash to mucous membrane or nonintact skin

- involving a patient's blood or saliva



Post-exposure Management

Prompt reporting of injuries

Interview of patient

Testing of patient and exposed worker

Referral for medical counseling

Written report documenting details of incident, including whether or not a safety device was involved

Postexposure Management for HIV

Collect source patient information

- Types of medications if patient is HIV-positive

Testing of exposed worker

- Baseline, 4-6 weeks, 12 weeks, 6 months

Risk assessment by qualified healthcare professional

Post-exposure prophylaxis, if indicated by assessment

Postexposure Management for HBV

Vaccinated responders

- No PEP

Unvaccinated person

- HBIG
- Begin vaccine series

Vaccinated nonresponder

- HBIG x2 (or more, if recommended by healthcare provider)

Postexposure Management for HCV

IG, antivirals not recommended for prophylaxis

Follow-up after needlesticks, sharps, or mucosal exposures to HCV-positive blood

- Test source for anti-HCV
- Test worker if source anti-HCV positive
 - Anti-HCV and ALT at baseline and 4-6 months later
 - For earlier diagnosis, HCV RNA at 4-6 weeks
- Confirm all anti-HCV results with RIBA

Refer infected worker to specialist for medical evaluation and management

Instrument Processing

Spauldings Classification of Instruments

Category	Definition	Reprocessing	Examples
Critical	Penetrate soft tissue or bone	Sterilization	Surgical instruments, periodontal scalers, surgical dental burs
Semicritical	Contact mucous membranes or non-intact skin	Sterilization or high-level disinfection	dental mouth mirrors, amalgam condenser, Handpieces and handpiece components
Noncritical	Contact intact (unbroken) skin	low- to intermediate-level disinfection	X-ray head/cone, facebow

Sterilization of Instruments

Critical and semicritical instruments

- Cleaned
- Heat sterilize
- High level disinfect or sterilize using chemical germicides only if item cannot be heat sterilized
- Discard if disposable

Heat sterilize all high-speed handpieces, low-speed handpieces, rotary components and all other attachments (e.g.: reusable air/water syringe tips, ultrasonic scaler tips, etc.)

Single-use Items

Used for one patient and discarded appropriately

- Disposable prophylaxis angles, prophylaxis cups and brushes, plastic high speed evacuator tips, saliva ejectors, disposable air/water syringe tips, gloves



Instrument Processing Flow



Receiving, cleaning, and decontamination

Preparation and packaging

Sterilization

Storage

Cleaning Before Sterilization

Place instruments in a basket

Cover ultrasonic when in use

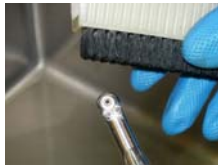


Washer/Disinfectors

Suitable for cassettes or baskets



Hand Scrubbing



Drying Instruments



Dry instruments carefully

Remove debris that was not cleaned mechanically

Wear heavy-duty gloves to process instruments

Packaging Instruments



Carefully place instruments in pouch or wrap

Use materials compatible with type of sterilizer

Dating Packs



Critical and semicritical instruments or containers must be wrapped or packaged

Date each package and indicate the specific sterilizer if more than one is used

Remain sealed and stored in a manner that prevents contamination.

Marking Sterilization Packs

Printed Tags



SPSmedical.com

Sharpie Industrial Pen (13601 or 13602)



Loading Sterilizer



Courtesy of Doni Bird

Some common packaging and sterilizer loading practices that are not best practices!



Heat-Based Sterilization

Moist heat (steam) under pressure

- Autoclaving

Dry heat

- Static air (convection, oven-type)
- Forced air (rapid heat transfer)

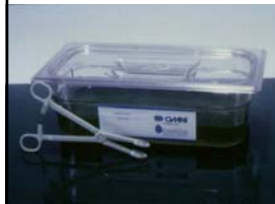
Unsaturated chemical vapor

- Proprietary formula of alcohol/formaldehyde

Issues with Spaulding's Classification

"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." – *California Dental Practice Act*

Liquid Chemical Sterilant/Disinfectants



"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." – *California Dental Practice Act*

Heat tolerant or disposable alternative available for most items

Low Temperature Sterilization

- Chemical sterilization
- Low temperature/low moisture
- Vaporized sterilizing agent
 - Hydrogen peroxide
 - Nitrogen dioxide



Chemical Indicators

Measure key parameters of the sterilization process (e.g. time, temperature)

Visual change when the desired parameter has been achieved

Single parameter indicators, multi-parameter integrators

- Not required by DPA
 - Recommended by CDC



Biologic Monitoring (Spore Test)



- Contain bacterial spores resistant to heat sterilization
- Highest level of confirmation for sterilization
- Required at least weekly for all sterilizers
- Maintain records for 12 months

Disinfection

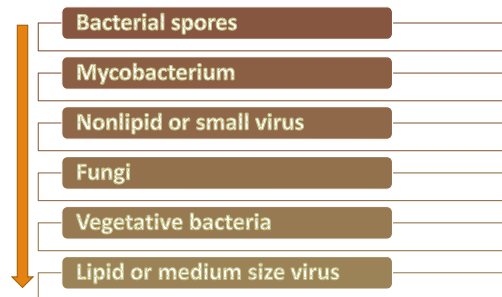
CLINICAL CONTACT SURFACES

HOUSEKEEPING SURFACES

Survivability of Organisms on Surfaces

HIV	• Hours
HSV	• Hours
Rhinovirus	• 14 Hours
Staph	• 5 Days
HBV	• 7 Days
HCV	• 6 Weeks
TB	• 6 to 8 Months

Resistance to Chemical Germicides



Disinfectants

Cal/EPA Registered Hospital disinfectant

Low-level

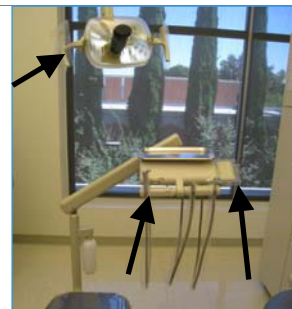
- Effective against HBV and HIV
- Acceptable for disinfection if no visible contamination with blood/OPIM

Intermediate Level

- Effective against *mycobacterium tuberculosis*
- Must be used for visible contamination with blood or OPIM

Cleaning must precede disinfection

Clinical Contact Surfaces



Housekeeping Surfaces



Equipment Barriers

For items or surfaces difficult or impossible to clean and disinfect

Changed when visibly soiled or damaged and between patients



Spray – Wipe - Spray

1. Spray on cleaner (or cleaner disinfectant)
2. Wipe to clean
3. Spray on disinfectant and then WAIT – follow label directions for contact time



Wipe – Throw - Wipe

1. Wipe on cleaner (or cleaner/disinfectant) (Pre-moistened towelette)
2. Throw away wipe (multiple surfaces will require multiple towelettes)
3. Wipe with fresh towelette(s) and WAIT – allow surface to remain wet for time indicated on the label



Limitations of Surface Disinfectants

- Must ensure surfaces remain wet for indicated contact time
- Dilution may affect efficacy
- Contact with some materials may decrease efficacy
- Subject to ineffectiveness due to user error

Clean Thoroughly Before Disinfecting



Dental Waterlines

- DENTAL TREATMENT WATER
- STERILE WATER FOR SURGICAL PROCEDURES

Dental Unit Waterline Biofilm



Dental Unit Water Lines

Water lines shall be anti-retractive

Flush lines with water or purge with air for at least two minutes at the beginning of the day **before** attaching devices

Flush between patients for 20 seconds (with devices attached)

Surgical procedures involving soft tissue or bone

Use Sterile Coolants/Irrigants



Use Sterile Delivery System



<http://airforcemedicine.afms.mil/decs>

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How are we doing? Please fill out our on-line customer satisfaction survey.

Air Force Dentistry
Air Force dentists have more time to focus on the health of their patients. They also have many opportunities to get additional training.

Site Map

Dental Lab

Lab Equipment

Splash and equipment guards on lathes.

- Fresh pumice and a sterilized or new rag wheel for each patient



Foam rag wheel with autoclavable mandrel

Disinfection of Devices

Intraoral items such as impressions, bite registrations, prosthetic and orthodontic appliances shall be cleaned and disinfected (intermediate-level disinfectant) before manipulation in the laboratory and before insertion in the patient's mouth.

Rinsed before inserting in patient's mouth



Dental Laboratory

Clean and heat sterilize heat-tolerant items used in the mouth

Heat sterilize, high-level disinfect or discard laboratory equipment that touches contaminated appliances



Contaminated Wastes

Disposed of according to local state and federal standards

Sharps and red bags



Other Regulated Medical Waste



Pharmaceutical waste
Collect separately from
biohazard waste
Medical waste treatment
facility for destruction

Dental Radiology



Wear gloves and other
appropriate personal
protective equipment
as necessary
Heat sterilize heat-
tolerant radiographic
accessories

Dental Radiographic Sensors



Use fluid-proof barriers

<http://www.dbc.ca.gov>

WELCOME TO THE DENTAL BOARD OF CALIFORNIA

ALERT: Fee Increase Effective July 1, 2014 for Dentists

CURRENTLY RECRUITING DIVERSION EVALUATION COMMITTEE (DEC) MEMBERS!!!!

ALERT - POTENTIAL LICENSE DENIAL OR SUSPENSION FOR FAILURE TO PAY FEES



Thank you