1 **Dental Board of California Infection Control Requirements**

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2 **Infection Control Regulations**

- California Dental Board
  - Minimum standards for infection control
- California Department of Occupational Safety and Health
  - Bloodborne pathogens rule
- California Department of Public Health
  - Medical waste management act

3 **Dental Board of California**

- Minimum Standards for Infection Control
  - First passed in 1994
  - Latest revision effective August 20, 2011
    - Changes in definitions
    - Expanded scope to include all DHCP
    - Specific steps and practices for disinfection and sterilization

4 **California Dental Board**

- Standard Precautions
- Written protocol developed, maintained and periodically updated (available to all DHCP)
  - Instrument processing
  - Operatory cleanliness
  - Management of injuries
- Copy of the regulation conspicuously posted in each office
- Follow the Cal/OSHA Bloodborne Pathogens Standard

5 **Standard Precautions**

- The same infection control procedure for all patients regardless of health history
- All body fluids with the exception of sweat considered as potentially infectious

6 **Hepatitis C Virus**

- 3.2 million people living with HCV in the US
- 80% are chronically infected
- 45%-85% of people are unaware of their infection
- 58.5% born between 1945-1965
- Highest death rate among persons age 50-59
- Annual rate of newly reported infections=84.7 per 100,000 population (2011)
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  - CDC. Evaluation of Hepatitis C Virus Infection Testing and Reporting – Eight U.S. Sites, 2005-2011.MMWR 2013;62

7 **CDC Guidelines**

8 **Infection Control Strategies**

- Vaccinations
- Safer work practices
- Safer devices
- Standard precautions
  - Personal protective equipment
  - Sterilization
  - Disinfection
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9 **Immunizations**

10 **Hepatitis B Vaccine**

- A series of three injections
  - 0, 1, and 6 months

11 **Post-immunization**

- HbsAb Anti-body Test
- >10 mili – International Units
- Consider repeating the series or checking for past infection if no antibodies are detected
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12 **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*

13 **Personal Protective Equipment (PPE)**

- Whenever there is a potential for:
  - Aerosol spray
  - Splashing or spattering of:
    - Droplet nuclei
    - Blood
    - Chemical or germicidal agents
    - OPIM

14 **Modes of Transmission**

- Direct contact with blood and body fluids
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- Indirect contact with contaminated instruments or surfaces
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- Contact of mucosa of the eyes, nose or mouth with droplets or spatter

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15 **Personal Protective Equipment**

- Chemical-resistant utility gloves when handling hazardous chemicals (in addition to appropriate, task-specific PPE)

16 **Masks and Protective Eyewear**

- Mask and eye protection or face shield and mask
- Change masks between patients
- Clean reusable face protection when soiled, disinfect between patients

17 **Protective Attire**

- Reusable or disposable
- Under same conditions as other PPE
- Changed daily or between patients if moist or soiled
- Remove before leaving patient care or laboratory areas
- Laundered as per Cal/OSHA

18 **Contaminated Laundry**

- Laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.
  - *Cal/OSHA Bloodborne Pathogens Rule*

19 **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

20 **Hand Hygiene – Soap and Water**

- At the start and end of each workday
- If contaminated or visibly soiled
- Thoroughly dried
- Before placing and after removing gloves (unless using hand sanitizer)

21 **Alcohol-based Hand Sanitizers**

- Alternative to soap and water
- For hands free of debris
- Good antimicrobial
- Not a cleaning agent

22 **Patient Care Restrictions**

1 - 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

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23 **Exam Gloves**
- For contact with mucous membranes, blood, OPIM
- During pre-clinical, clinical, post-clinical and laboratory procedures
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24 **Exam Gloves**
1. Remove gloves that are torn, cut or punctured
2. Do not wash, sterilize or disinfect gloves for reuse

25 **Needle and Sharp Safety**
- Post-exposure management

26 **Use Scoop Technique or…**

27 **Mechanical Device**

28 **Mechanical Devices**

29 **Sharps Containers**
- Disposable needles, syringes, scalpels, ends of orthodontic wires, broken glass, etc.
- Close as possible to point of use

30 **Evaluate Work Practices**

31 **Retracting Tissue Using Fingers**

32 **Handling Sharps**

33 **Instrument Transfers**

34 **Exposure Incident**
- Percutaneous injury
- Splash to mucous membrane or nonintact skin
  - involving a patient's blood or saliva
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35 **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

36 **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
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37 **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)

38 **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

39 **Instrument Processing**

40 **Categories of Patient Care Items**

41 **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.)

42 **Single-use Items**

- Used for one patient and discarded appropriately
  - Disposable prophy angles, prophy cups and brushes, plastic high speed evacuator tips, saliva ejectors, disposable a/w syringe tips, gloves

43 **Instrument Processing Flow**

- Receiving, cleaning, and decontamination
- Preparation and packaging
- Sterilization
- Storage
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44 **Cleaning Before Sterilization**

1 - Cover ultrasonic when in use
2 - Place instruments in a basket

45 **Washer/Disinfectors**

- Suitable for cassettes or baskets

46 **Hand Scrubbing**

47 **Drying Instruments**

- Dry instruments carefully
- Remove debris that was not cleaned mechanically
- Wear heavy-duty gloves to process instruments

48 **Packaging Instruments**

- Carefully place instruments in pouch or wrap
- Use materials compatible with type of sterilizer

49 **Dating Packs**

- Critical and semicritical instruments or containers must be wrapped or packaged
- Date each package and indicate the specific sterilizer if more that one is used
- Remain sealed and stored in a manner that prevents contamination.

50 **Marking Sterilization Packs**

1. Printed Tags
2. Sharpie Industrial Pen (13601)

51 **Loading Sterilizer**

52 **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

53 **Liquid Chemical Sterilant/Disinfectants**

- Only for heat sensitive critical and semicritical items
- Package or wrap upon completion of disinfection
- Heat tolerant or disposable alternative available for most items
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54 **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 indicators

55 **Biologic Monitoring (Spore Test)**

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

Clinical contact surfaces
Housekeeping surfaces

57 **Survivability of Organisms on Surfaces**

58 **Resistance to Chemical Germicides**

59 **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

60 **Clinical Contact Surfaces**

61 **Housekeeping Surfaces**

62 **Equipment Barriers**

- For items or surfaces difficult or impossible to clean and disinfect
- Changed when visibly soiled or damaged and between patients

63 **Disinfecting Clinical Contact Surfaces**

- Spray

64 **Disinfecting Clinical Contact Surfaces**

- Wipe (clean)

65 **Disinfecting Clinical Contact Surfaces**

- Spray
- Wait (disinfect)
- Always follow manufacturer's instructions for precleaning, contact time, etc.

66 **Premoistened Disinfectant Wipes**

- Wipe (clean)
- Wipe (disinfect)
- Wait
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67 **Clean Thoroughly Before Disinfecting**

68 **Dental Waterlines**

Dental Treatment Water
Sterile Water for Surgical Procedures

69 **Dental Unit Waterline Biofilm**

70 **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

71 **Surgical procedures involving soft tissue or bone**

1 - Use Sterile Delivery Devices
2 - Use Sterile Irrigants

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73 **Dental Lab**

74 **Lab Equipment**

- Splash and equipment guards on lathes.
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75 **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

76 **Dental Laboratory**

- Clean and heat sterilize heat-tolerant items used in the mouth
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- Heat sterilize, high-level disinfect or discard laboratory equipment that touches contaminated appliances
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77 **Contaminated Wastes**

- Disposed of according to local state and federal standards
- Sharps and red bags

78 **Other Regulated Medical Waste**

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

79 **Dental Radiology**

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

80 **Dental Radiographic Sensors**

- Use fluid-proof barriers
- Or use intermediate EPA-registered disinfectant between patients
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Thank you