1 **INFECTION CONTROL**

2 Hours CE

By Nancy Dewhirst, RDH,BS

2 **TOP 5 SAFETY GOALS**

- Have a plan
  - Written Safety Program
- Assign a person
  - Safety Manager
- Identify the enemy
  - Recognize & Understand Risks
- Keep everyone safe
  - Implement Standard Precautions
- Plan B
  - Plan for exceptions and accidents

3 **MUST POST IN OFFICE:**

Appendix 3
Dental Board of California
Infection Control Regulations

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

All DHCP must comply & follow OSHA laws
(b) (1-3)

4 **2016 CDC RECOMMENDATIONS**

http://www.cdc.gov/OralHealth/infectioncontrol/guidelines/index.htm

Checklists!
To be used along with 2003 Infection Control Recommendations

5 **WHO'S THE OFFICE SAFETY MANAGER?**

6 **UPDATE & EDIT YOUR IC PLAN**

- Injury & Illness Prevention Program
  - OSHA manual (CDA)
- Standard Operating Procedures (SOP's) = written step-by-step plans
- Location? Training?
- Instructions for Use & SDS book
- Must be specific & accurate
  - Surface disinfection
  - Hand hygiene

- Instrument processing
- Dental waterlines

7 **CHAIN OF INFECTION**

8 **BREAKING THE CHAIN WITH STANDARD PRECAUTIONS**

9 **IC 101**

- Isolate & separate
- Clean before disinfect / sterilize
- How do microbes die?
  - Heat (how hot? How cold?)
  - Chemicals (Which ones? What concentrations? How toxic?)
  - Is resistance likely?
- Are your systems working?
  - How do you know?
  -

10 **STANDARD PRECAUTIONS MINIMUM STANDARDS FOR ALL PATIENTS**

- Hand hygiene
- PPE
- Respiratory hygiene / cough etiquette
- Sharps safety
- Safe injections
- Instrument, device sterilization
- Environmental asepsis cleaning, disinfection, barriers

11 **STANDARD PRECAUTIONS**

- Proven effective for controlling
  - Bloodborne diseases
  - Contact diseases
  - Droplet diseases
-
- Not effective for airborne diseases

12 **MOST LIKELY DENTAL BLOODBORNE EXPOSURES**

- Percutaneous
  - Needles
  - Burs
  - Instruments, files
- Compromised skin

- Mucosal exposure
- HBV = efficiently transmitted directly & indirectly (survives on surfaces – 7 days)
- Other pathogens (ex: HCV) can remain infectious on surfaces – 1 month

13 **HEPATITIS B**

1 1980 - 2013

2 Incidence declined since 1991
(infant vaccinations)

3 2015 CDC Report

4
- At least 21% increase in acute HBV cases
- Due to injected drug use
- Grossly under-reported

-
- Chronic cases also under-reported
  - 850,000 – 2.2 mil cases???

14 **HBV BOOSTERS & TREATMENT**

Boosters?
- Vaccine gives immunologic memory ≥ 23 years
  - No boosters formally recommended
- Boosters may be needed sooner for immunocompromised pts & hemodialysis pts.
- Get tested. Know your status!

Treatment:
- If exposed, TX = booster vaccine, maybe HBIG
- Vaccine MUST be offered, even to pre-vaccinated workers. Best within 24 hrs.)
- Antiviral drugs - IMPROVED

15 **HEPATITIS C (HCV)**
- Most common chronic bloodborne infection in U.S.
- 2.7 – 3.9 million Americans have chronic HCV
  - 4 X more than either HBV or HIV
- Most chronic HCV carriers are baby boomers
  - Born 1946 – 1964
  - ~75% = unaware of infection

16 **HEPATITIS C (HCV)**
- Some people clear infection
- 85% develop chronic HCV
- Can result in chronic liver disease, cirrhosis, liver cancer, death
- Subclinical, undiagnosed, asymptomatic 10 – 20 years
- No vaccine

17 **TODAY'S TESTING REC'S**

- Test all high risk groups
- 1 time test for all baby boomers regardless of risk
  - 60% of DDS's = born 1945 – 1965
- New Rapid (40 min.) antibody tests
  - Venipuncture, finger-stick (less reliable)
  - OraQuick
  - Detect past or present HCV infection
  - Must be followed up with nucleic acid test (NAT) for viral RNA

18 **WHY SHOULD YOU GET TESTED FOR HEPATITIS C (HCV) ?**

- Antiviral drugs:
  - Eliminate virus or lower viral load
  - May reduce complications & progression
- Some types of HCV can be cured

19 **HIV UPDATE**

- 35 years since CDC first identified HIV
- NO cases of patient to dental worker HIV transmission
- No vaccine, but vital antiretroviral meds cut transmission to partners by 96%
- 20% of infected = unaware of status
- Must be tested to get treated!
- Education is key

20 **HIV / AIDS - CURRENT STRATEGIES**

- Rapid HIV type 1 + 2 Test: OraQuick:
  - Mouth swab or blood test
  - 99% accurate, 1 min. result
  - For source person testing or gen. Screening
  - Pre-arrange with Occupational Health M. D.

21 **SAFE RE-CAPPING**

- Only recap needles using:
  - Scoop technique
  - Mechanical devices designed to
  - hold needle sheath
  - eliminate need for 2 handed capping
- §1005 (b) (9)

22 **SHARPS & WASTE**

- Follow OSHA rules
- Dispose of all sharp items in puncture resistant containers
- Dispose of pharmaceutical waste as per EPA
- Dispose of contaminated solid waste as per EPA
  §1005 (b) (9, 22)
-

23 ☐ **POST EXPOSURE PROPHYLAXIS**

- Exposure packet
  - Phone numbers, forms, driving directions, payment arrangements
- Direct MD re: testing, disclosure, include HCV!
- Rapid HIV, HCV testing
- Response windows for maximum effect:
  - HIV - ART – 2 hours
  - HBV – 24 hours
  - HCV – 24 hours
- PEP follow-up: after exposure test 3-6 weeks, 3-6 months, 9 months
- Counseling
  -
-

24 ☐ **ARE YOU SET UP?**

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

25 ☐

26 ☐ **HAND HYGIENE**

- Hand hygiene is the single most important factor in transmission of disease
- 88% of dis. Trans. Is by hand contact
- 'Resident' skin flora is permanent (IN skin)
- 'Transient' flora is temporary (ON skin)

27 ☐ **1 MINUTE**
FIRST WASH OF THE DAY

- Start with clean hands
- Subsequent hand hygiene will be more effective

28 ☐ **HOW LONG SHOULD YOU LATHER WHILE WASHING REPEATEDLY DURING DAY?**

A. 1 minute
B. 15 seconds
C. 20 seconds

D. 30 seconds

29 **MOST RECOMMENDED: COMBINED PROTOCOL**

1 • Plain soap – routine handwashing

2 • Antimicrobial / alcohol hand rub on unsoiled hands

• No triclosan!

30 **HOW LONG SHOULD THE ALCOHOL SANITIZER STAY WET ON YOUR HANDS?**

• 5 seconds

• 8 seconds

• 15 seconds

• 20 seconds

•

31 **IS WATERLESS HAND-RUB EFFECTIVE?**

• Should have ethanol, not isopropyl alcohol

  • Less drying to skin

  • More effective vs. Viruses

• Must have enough emollients for heavy clinical use

• FDA cleared for medical use

  • "Safe and effective"

• Contact time: 15 sec.

32 **IF YOU DON'T USE ALCOHOL SANITIZER**

1 Plain soap – routine handwashing

2 Antimicrobial soap periodically

33 **COMMON MISTAKES (THAT HARBOR ORGANISMS & MAY DAMAGE GLOVES)**

• False nails, Nail polish & applications

• Un-manicured nails

• Jewelry

• Petroleum-based products

34 **COMPROMISED SKIN**

• Non-intact skin may allow pathogens, irritants, allergens to enter

• May NOT treat pts. or handle pt. care items until dermatitis resolves

  • §1005 (b) (7)

35 **HAND HYGIENE**

• Required B4 & after glove use

• Why do we wash / sanitize every glove change?

  • Gloves fail

  • Organisms grow under gloves, doubling every 12 min.

§1005 (b) (8)

36 **TATTOO, PIERCING RISKS**

- Unhealed tattoo, piercing = portal of transmission / exposure
- Patient and employee awareness / protection
- Written SOP

37

Broken skin management:

- Protect skin openings
- Finger cots, double glove
- Change dressings often.

38

- Ocular herpes is usually unilateral
- May migrate up nerve from oral infection.
- Recurs, leading to blindness
- 90% of U.S. adults carry herpes
- Neonates contract type 2 at birth

39 **WHEN CAN YOU WEAR A FACE SHIELD WITHOUT A MASK?**

40 **ONLY FOR <u>NON</u>-DUST OR <u>NON</u>-AEROSOL WORK**

41 **WEAR MASK UNDER FACE SHIELD FOR LAB WORK & PATIENT CARE**

42 **GLOVES**

- How do they fit?
- Are you allergic or sensitive?
  - Latex?
  - Accelerators?
    - Thiuram
    - Carbamate

- Do you trust your gloves?
- 4% may leak
  - Buy quality
-

43 **HOW LONG DO GLOVES LAST?**

2

- No exact data
- Change per patient & when compromised
- No longer than 1 hour
-

§1005 (b) (8)

-

44 **RESPECT GLOVE LIMITS**
WHAT DESTROYS GLOVES?

- Soap & water
- Oils – all types
- Petroleum, lanolin, mineral, palm & coconut oils
  - Emollients in products
  - Make-up
- Sweat, dental materials
- Stretching, donning, removing
- Use!!!-

CDC MMWR 2003

45 **2016 FDA BAN ON POWDERED GLOVES**

- Rule applies to:
  - All glove types
  - Exam & surgical gloves
  - Absorbable powder for lubricating surgical gloves
- Powder risks:
  - Increased aerosolized allergens (with latex gloves)
  - Severe airway inflammation
  - Surgical & wound inflammation & post-surgical adhesions

46 **DONNING & REMOVAL**
TECHNIQUE & SEQUENCE
DON IMMEDIATELY B4 USE
REMOVE IMMEDIATELY AFTER

47 **ATD TRANSMISSION**

2

- Inhalation of suspended particles
- Small fluid droplets dry in nano-seconds, float
- Particles remain indefinitely

48 **AEROSOL-TRANSMITTED-DISEASES (ATD)**

- Require special building design & PPE for safety
- ATD patients must be screened and referred

49 **AIRBORNE <u>DISEASES</u>**

- Measles, mumps
- Varicella (including disseminated zoster) Tuberculosis , Flu, SARS, Pertussis
-

50 **SCREENING FOR ACTIVE CASES**
LOOK FOR SYMPTOMS

- Goals = reduce transmission by:

- Early detection @ check-in
- Prompt isolation
- Implement respiratory hygiene / cough etiquette
- Defer elective TX
- Refer emergency / acute cases
  - For dental emergencies
  - For medical care
- Implement appropriate precautions
-
- Cal OSHA Title 8, Ch 4
- Section 5199 Aerosol Transmissible Diseases.
- California-only regulation.

51 ☐ **FIND THE 1 INCORRECT SIGN OF INFLUENZA**

A. Abrupt onset
B. Extreme fatigue
C. Body aches
D. Subnormal temp.
E. Fever

52 ☐ **INFLUENZA SIGNS & SYMPTOMS**

- Fever & chills – sudden onset (102 – 106 degrees)
- Cough (loose, then dry)
- Breathing difficulty
- Sore throat
- Intense body aches, skin sensitivity
- Headache, sinus / nasal pain
- Diarrhea, vomiting

53 ☐

54 ☐ **HAVE YOU SEEN MEASLES?**

- Leading cause of death in children (worldwide)
- 10-12 day incubation
- High fever (1 wk), runny nose, cough, white spots in mouth: precede rash

55 ☐ **KOPLIK SPOTS**

56 ☐ **PERTUSSIS: VIOLENT "PAROXYSMS"**

- Uncontrollable "100 day cough"
- Breaks ribs, causes vomiting, urination....
- Etiology: bacterium *Bordetella pertussis*
- Strips cilia, mucus stagnates, airways = raw, sensitive to touch, air, water...
- Confused with cold, symptoms build
- light fever

57 **SCARLET FEVER (SCARLATINA)**

- Caused by Gp A Streptococcus pyogenes (strep throat)
- Mostly children 5 – 15
- Antibiotics
- Untreated: may cause serious illness, rheumatic fever, kidney damage
- # of cases & deaths decreased since early 1900's
- Recent increase in cases. Cause unknown
- East Asia, England - @ 50 year high
- Droplet & contact transmission

58 **SCARLET FEVER**

- Red rash: looks like sunburn, feels like sandpaper
  - Begins on face, neck, spreads everywhere
  - Redness blanches
  - Later skin peels

59 **SCARLET FEVER**

- Red lines at skin folds
-

60 **SCARLET FEVER**

- Flushed face, pale ring around mouth

61 **SCARLET FEVER**

Strawberry tongue or coated

62 **SCARLET FEVER**

- Fever $\geq$ 101 degrees
- Lymphadenopathy
- Difficulty swallowing
- Nausea, vomiting
- Headache

63 **MAKE SURE YOU ARE PROTECTED!**

1
- HBV
- HAV
- Influenza
- Measles
- Mumps
- Rubella
- Varicella-Zoster
- Polio
-
- www.CDC.gov: new adult vaccine recs

- OSHA policies:
  - New hires & employees
-

2 • Tetanus, diphtheria
- Pertussis
- Pneumonia
- Meningitis
- HPV

64 **TUBERCULOSIS POLICY**
- MDR TB = worldwide risk
- Develop TB program appropriate to risk
- Tuberculin skin test (TST) when hired & per risk
- Ask all pts:
  - History of TB?
- Look for active cases of TB

65 **SCREEN FOR ACTIVE TB:**
- Productive cough (> 3 weeks)
  - Bloody sputum
- Night sweats
- Fatigue
- Malaise
- Fever
- Unexplained weight loss
- If yes: medical referral, (reportable)
- Look for symptomatic patients

66 ***SKIN TEST FOR TB:***
MYCOBACTERIUM TUBERCULOSIS
- Mtb infection is NOT synonymous with ACTIVE TB!
- Positive skin test does NOT mean ACTIVE TB!

67

68 **IF YOU WERE VACCINATED AGAINST TB – BLOOD TEST:**
- TB blood tests (interferon-gamma release assays or IGRAs), unlike the TB skin test are not affected by prior BCG vaccination

Also:
- Symptom tests
- ATD screening form
- Chest X-ray?

69 **TB, FLU & OTHER ATD'S**
ASK: DO YOU HAVE….

1 • TB

- Fever, cough….
- Flu
  - Fever?
  - Body aches?
  - Runny nose?
  - Sore throat?
  - Headache?
  - Nausea?
  - Vomiting or diarrhea?
-

If yes, re-appoint, refer

-

2 • Pertussis, measles, mumps, rubella, chicken pox, meningitis
  - Fever, respiratory symptoms +
  - Severe coughing spasms
  - Painful, swollen glands
  - Skin rash, blisters
  - Stiff neck, mental changes

70 ☐ **CHRONIC RESPIRATORY DISEASES (NOT ATD'S, NO FEVER)**

- Asthma
- Allergies
- Chronic upper airway cough syndrome "postnasal drip"
- Gastroesophageal reflux disease (GERD)
- Chronic obstructive pulmonary disease (COPD)
- Emphysema
- Bronchitis
- Dry cough from ACE inhibitors

71 ☐ **RESPIRATORY HYGIENE, COUGH ETIQUETTE POST SIGNS**

- Cover your cough (lists symptoms patients should report to staff)
- http://www.cdc.gov/ncidod/dhqp/pdf/Infdis/RespiratoryPoster.pdf
- Cover your cough instructions and fliers in several languages
- http://www.cdc.gov/flu/protect/covercough.htm

72 ☐ **DENTAL WORKER HEALTH**

- Symptomatic workers must be evaluated promptly
- No work until:
  - MD rules out ATD or
  - Worker is on therapy & is noninfectious

73 ☐ **PPE: SURGICAL MASKS**

- Masks are bi-directional barriers

- You & patients depend on them for:
- Coverage (mouth & nose)
- Filtration (particles, germs)
- Fluid protection
-

74 **MASKS "SINGLE-USE, DISPOSABLE"**
CHANGE BETWEEN PATIENTS OR SOONER §1005 (B) (4)

75 **ASTM LEVELS**

76 **KNOW MASK LIMITS**

- Mask degrades from;
  - Perspiration
  - Talking
  - Sneezing
  - Length of time mask is worn
  - Dust, spray
- Shield may lengthen use-life
- Position mask to "stand out" from face
- 20 min - 1 hour!
-

77 **NEVER RE-USE MASKS!**

78 **DOES LASER DENTISTRY REQUIRE SPECIAL MASK SELECTION?**

A. Yes
B. No
C.
But recommendations vary for dentistry

79 **LASER RESPIRATORY PROTECTION?**

- N95 / N100 respirators
- Or: full face shield & level 3 mask
- Facial fit = vital
- Fluid resistance
- Suction / filtration placed 1" from site
- Eye protection

80 **CLINIC ATTIRE**

- Protective attire
- Comply with Cal/OSHA regs
-

§1005 (b) (5)

81 **SIMPLIFY SURFACES**

Environmental disinfection = cardinal feature in dentistry

82 ☐ **WHAT IS YOUR PROTOCOL FOR RETRIEVING ITEMS DURING PROCEDURES?**

83 ☐ **BARRIERS PREVENT CONTAMINATION OF HARD-TO-CLEAN SURFACES**

84 ☐ **DISINFECT WHEN CHANGE BARRIERS?**

85 ☐ **USE FDA CLEARED MEDICAL GRADE BARRIERS (TESTED FOR VIRAL & BACTERIAL PENETRATION)**

86 ☐ **INTERMEDIATE LEVEL DISINFECTANTS VS. LOW LEVEL DISINFECTANTS**

Intermediate-Level Disinfectants kill:

- Mycobacteria - *Mycobacterium tuberculosis*
- Nonlipid or small viruses (Non enveloped) - *Polio virus, enteroviruses*
- Fungi - *Trichophyton spp.*

(Low level hospital disinfectants kill only):

- Vegetative bacteria - *Pseudomonas aeruginosa, Staphylococcus aureus*
- Lipid (enveloped) or medium-sized viruses - *Herpes simplex virus, hepatitis A, B & C virus, HIV, Ebola* (CDC) §1005 (b) (14)

87 ☐ **FOLLOW LABEL DIRECTIONS**

- Clean before disinfecting
- Proteins neutralize disinfectants
- Wear Utility gloves
- Leave for stated time
- Read the label!

88 ☐ **EFFECTS OF ALCOHOL CONCENTRATION**

89 ☐ **WHAT IS THE ACTIVE INGREDIENT? WHICH PRODUCTS CLEAN?**

90 ☐ **DON'T MIX CHEMICALS**

91 ☐ **DENTAL WATER QUALITY**

92 ☐ **DUWL – RELATED DEATH (2011) LANCET**

- 82-yr old Italian Woman
- Legionnaires' dis (*L. pneumophila*)
- Proven from dentist's waterlines
- No other exposures
-

93 ☐ **2015 *MYCOBACTERIUM ABSCESSUS* INFECTIONS - GEORGIA**

- 9 pediatric infections confirmed after pulpotomies

- 11 more probable cases
- Single location
- All pts were immunocompetent
- No deaths; hospitalizations, IV antibiotics, surgeries
- Dept. of Health notified Atlanta Dentists:
  - Follow DUWL disinfection protocol
  - Meet DUWL potable & surgical standards
  - Monitor DUWL
  - Promptly report suspected outbreaks

94 **2016 *MYCOBACTERIUM ABSCESSUS***
INFECTIONS – ANAHEIM, CALIFORNIA

- >72 pediatric infections confirmed after pulpotomies, children hospitalized
  - Children developed cellulitis
  - Symptoms: persistent fever, swelling – does not respond to TX.
  - Symptoms start 15 – 85 days after TX.
  - TX = long term hospitalization, IV antibiotics
  - >500 patients notified
- *M. abscessus* = waterborne
- Facility closed, ongoing issue
  -
-

95 **2016 *MYCOBACTERIUM ABSCESSUS***
INFECTIONS - CALIFORNIA

Professional Standards:

- Pulpotomies must include pulp area "sterilization"
- And/or sterile standard
- All DUWL must meet potable standards
- Implies need to validate
    - www.ochealthinfo.com/dentaloutbreak
-

96 **CAL. AB 1277**
EMERGENCY RULING
AMENDS SECT 1005, TITLE 16

- Requires irrigation fluids to be sterile or to contain recognized disinfecting / antibacterial property when treating exposed dental pulp
- Finalized – Dec. 31, 2018
- Makes DDS responsible, not water dept.

97 **2 STANDARDS FOR WATER SAFETY**

- Sterile - for surgery, (cutting bone, normally sterile tissue)
  - 0 CFU/mL of heterotrophic water bacteria
  - CDC special update, OSAP, Dental Board law

- Potable - for non- surgical procedures -
  - 500 CFU/mL of heterotrophic water bacteria (meets EPA safe drinking water standards)
  - CDC, OSAP, EPA, Dental Board

98 **2 STANDARDS FOR DENTAL TREATMENT WATER**

- Surgical Standard: USP sterile water & sterile delivery system
  - Bulb or other syringe
  - Peristaltic pump, sterile lines
  - Aqua-Sept
    - http://www.cdc.gov/oralhealth/infectioncontrol/questions/oral-surgical-procedures.html
- Non-surgical dentistry: Potable (500 CFU/mL)
  - Chemical treatment
    - Reservoirs
    - Cartridges

§1005 (b) (18)

-

99 **WHEN DOING SURGICAL PROCEDURES, DO YOU USE …..**

Sterile water & sterile separate delivery device?

§1005 (b) (18)

100 **FOR POTABLE WATER YOUR OFFICE SHOULD:**

A. Flush lines in AM for 2 min./line (handpieces off)
B. Flush lines between patients for 20 sec.
C. Shock/Purge lines @ 1 – 2 months if using disinfecting product in dental water
D.
D. Shock/Purge lines weekly if using only water in bottles.
E. Follow Manufacturer's directions (dental unit & DUW product)
F.

101 **SIMPLE FLUSHING OF WATERLINES**

* Flushing is important: flushing removes planktonic contaminants
BUT: flushing alone is NOT a reliable way to control DUWL biofilms.

-

102 **WATERLINE TREATMENT OPTIONS**

- Chemical "Shock" - removes biofilm
  - Sterilex, bleach
  - Caustic, may injure tissue. Rinse !
- Continuous chemical "maintenance" - prevents biofilm, keeps CFU's low.

- DentaPure 1 /year (dry bottle at night)
- BluTab (Silver ions) – ProEdge (keep bottle on)
- ICX (Silver ions) – Adec
- Team Vista - HuFriedy

103 ☐ **HOW WELL ARE WE DOING?**
DUWL TESTING RESULTS:

104 ☐ **HOW DO YOU KNOW YOUR WATERLINES ARE SAFE?**

- Loma Linda University Waterline Testing
- ProEdge Waterline Testing

105 ☐ **USE ASEPTIC TECHNIQUE TO DRAW SAMPLES**

- May pool samples from single bottle
- Limit to 3 ports

106 ☐ **IN-OFFICE TESTING**

HPC sampler Aquasafe ™

107 ☐ **A FREE OFFER TO GET YOU STARTED**

108 ☐ **MAKE SURE YOU'RE WATER IS SAFE.**

109 ☐ **TREAT, SHOCK, AND TEST ALL WATERLINES**

110 ☐ **MAKE ITEMS SAFE TO USE….. AND RE-USE**

111 ☐ **IF YOU DON'T CLEAN IT**

- You can't disinfect it
- You can't sterilize it
- 10% of sterilized metal ASW contained viable microbes

112 ☐ **CDC & CALIF. REG:**

- Must heat sterilize ALL removable handpieces, even slow speeds
  - *electric handpieces: housing / sleeves = sterilizable, but micromotors may not be!

113 ☐ **INSTRUMENT PROCESSING:**
HIGHEST LEVEL OF ASEPSIS

114 ☐ **INSTRUMENT PROCESSING**
"TRAFFIC FLOW"

115 ☐ **RESPECT**
DIRTY CLEAN STERILE AREAS

116 ☐ **HOW DO YOU TRANSPORT?**

- Protect Sharps
  - Cassettes
  - Tubs, trays with slides, lids
  - Avoid accidents

- Use Cassettes / tubs / lids
  -

→

117 **SAFEST TRANSPORT:**
CASSETTES, TUBS, TRAYS WITH LIDS

118 **CASSETTE DESIGN**

119 **PRE-CLEANING / HOLDING**

120 **ENZYME PREVENTS DEBRIS ADHERENCE**

121

122 **ULTRASONIC CLEANING**
ALLOW BUBBLES TO WORK

123 **IS THIS OK?**

124 **INSTRUMENT WASHERS**

-
- More efficient:
  - Space management
  - Instrument cleaning
  - Instrument management
-
-

125 **COMMON CLEANING ERRORS**

1 Ultrasonic

2
- Insufficient time
- Detergent concentration
- Ineffective cavitation
- Inappropriate temperature
- Overloading

3 Washer-Disinfector

4
- Wrong cycle ("rinse-hold")
- Inadequate water spray: spray impingement
- Clogged spray arms
- Pump/line clog or malfunction
- Overloading

126 **CHECK ULTRASONICS OR WASHERS WITH WASH-CHECKS**

127 **ONLY SCRUB IF DEBRIS REMAINS AFTER CLEANING….**

128 **WHAT'S WRONG?**

129 **WET WRAPS WICK & TEAR**

130

131 **STERILIZER MONITORING**

- Indicators: per package
  - Heat
- Class 5 indicators: per load or pack
  - Time, temperature, pressure
- Biological Monitors: weekly
  - Non - pathogenic spores
  - Keep written reports

    §1005 (b) (17)

132 **CLASS 5 CHEMICAL INDICATORS**

133 **WHY LABEL PACKAGES?**

A. To re-sterilize after 3 months
B. To identify date of sterilization in case of (+) growth spore test
C. To identify person sterilizing items

134 **WHERE DO YOU LABEL?**

135 **2 STERILIZATION LOGS**

- 1: Log of each cycle for each sterilizer
  - Class 5 Indicator strip results
    - Sterilizer
    - Date
    - Indicator pass/fail
    - Initial
  - Machine print-out
    -
- 2: Biological test results

136 **TOP (GENERAL) SAFETY GOALS**

- Written Safety Program
- Safety Manager
- Recognize & Understand Risks
- Implement Standard Precautions
- Plan for exceptions and accidents
-

137 **TOP SAFETY GOALS**

1. Written Safety Program
   - OSHA manual – personalize & update it
   - Enforce it
   - IC laws
   - Download CDC recommendations!

- Instructions for use, operation manuals….

2. Safety Manager
3. Recognize & Understand Risks

138 **TOP SAFETY GOALS**

4. Hand Hygiene
   - Calibrate staff
     - Technique
     - Hand care rules
   - Supplies & set-up
     - Products
     - Facility
- 5. Surface asepsis
   - Follow directions
   - Clean & disinfect
   - Barriers
   -

139 **TOP SAFETY GOAL**

6. PPE – Use correctly & respect their limits
- Gloves
   - Select for fit, reliability
   - Change 20 min – 1 hr.
- Masks
   - Select appropriate ASTM levels
   - Avoid cross-contamination
   - Change 20 min – 1 hr.
   -
   -

140 **TOP SAFETY GOALS**

7. Vaccines
   - Educate staff (CDC.gov)
8. Sharps safety
   - Handling & waste
9. Instrument sterilization
   - Organize sterilization pathway
   - Instrument cassettes
   - Instrument washer
   - Monitor cleaning
   - Use class 5 indicators
   - Keep logs

-
-

141 **TOP SAFETY GOALS**

10. Dental waterline management
- Insure sterile water for surgeries
- Insure potable standard for non-surgeries
- Control waterline contamination
- Monitor waterline safety
-

142 **TOP SAFETY GOALS**

11. Screen patients for active ATD's
  - Take temperatures
  - Know symptoms
- Notify patients & staff about ATD policy
- TB policy: test staff
- Respiratory hygiene, cough etiquette

-

143 **TOP 12 SAFETY GOALS**

12. PEP "Plan B"
  - Exposure incident package
  - Records
  - Follow-up
  - Stay alert for extraordinary cases
  -
-

144 **RESOURCES**

- Join osap www.osap.org
  - Organization for Safety, Asepsis and Prevention
- CDA Practice Support
- State Dental Board, ADA,
- OSHA

145 **IS THERE A CULTURE OF SAFETY WHERE YOU WORK?**

- Action list?
- Is your team know what you know?
- How do patients view your office?
- Make every patient visit the safest visit!

146 **WHAT YOU DO OVER & OVER**

147 ☐ **TEAMWORK!**