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 **NEW 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
- 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 **THE GOOD OLD DAYS**

- No gloves
- No masks
- "cold sterilization"
- One handpiece for all
- Wiping room with 2 x 2 & alcohol

8 **CHAIN OF INFECTION**

9 **BREAKING THE CHAIN WITH STANDARD PRECAUTIONS**

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 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 **HEPATITIS B VIRUS (HBV)**
- "Carrier" = chronically infected & infectious
- PEP: vaccination must be offered (even if pre-vaccinated)

15 **HBV TREATMENT / VACCINES**
- Vaccine = non-infectious HBsAg
- 95% seroconvert after vaccination
- Vaccine gives immunologic memory ≥ 25 years
  - No boosters? – retain immunological memory indefinitely, protects vs. clinical illness & chronic dis.
- PEP = vaccine – best within 24 hrs.
- HBIG may also help as PEP
- Boosters may be needed for immunocompromised pts & hemodialysis pts.
- TX = antiviral drugs - IMPROVED

16 **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

17 **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

HCV-related oral ulcerative lesions →

18 **NEW TESTING REC'S**

- Traditional high risk people
- 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

19 **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

20 **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%

21 **HIV / AIDS**

- 20% of infected = unaware of status
- Must be tested to get treated!
- PrEP (Pre-Exposure Prophylaxis)
  - Truvada (tenofovir & emtricitabine)
  - 92% effective IF TAKEN CONSISTENTLY
- Safe practices still needed
- Education is key

22 **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.

23 **SAFE RE-CAPPING**

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

24 ☐ **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)
-

25 ☐ **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
  -
-

26 ☐ **ARE YOU SET UP?**

27 ☐ **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)

28 ☐ **HOW LONG SHOULD YOU LATHER FOR FIRST & LAST WASH OF THE DAY?**

A. 20 seconds
B. 40 seconds
C. 5 minutes
D. 1 minute

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

A. 1 minute
B. 15 seconds
C. 20 seconds
D. 30 seconds

30 **MOST RECOMMENDED:**
COMBINED PROTOCOL

1 • Plain soap – routine handwashing
2 • Antimicrobial / alcohol hand rub on unsoiled hands

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

- 5 seconds
- 8 seconds
- 15 seconds
- 20 seconds
-

32 **WATERLESS HAND-RUB SAFETY**

- 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

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 **SHE RUBBED HER EYE**

- 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

37 **GLOVES**

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

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

38 **HOW LONG DO GLOVES LAST?**

2
- No exact data
- Change per patient & when compromised
- No longer than 1 hour
-

  §1005 (b) (8)
-

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

- Oils – petroleum, others
- Dental materials, water, soap, chemicals, stretching, use!

40 **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

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

3
- Inhalation of suspended particles
- Small fluid droplets dry in nano-seconds, float
- Particles remain indefinitely
- Require special building design & PPE for safety
- ATD patients must be screened and referred

42 **AIRBORNE <u>DISEASES</u>**

- Measles, mumps

- Varicella (including disseminated zoster) ¥
- Tuberculosis ¥£ , Flu, pertussis, pneumonia
-
-
-
-
-
-

¥ requires >1 precaution £ See CDC TB Guidelines

43 ☐ **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.

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

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

45 ☐ **INFLUENZA SIGNS & SYMPTOMS**

- Fever & chills – sudden onset
- Cough
- Sore throat
- Intense body aches, skin sensitivity
- Headache
- Diarrhea, vomiting

46 ☐

47 ☐ **MEASLES – SERIOUS & SPREADING**

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

48 **KOPLIK SPOTS**

49 **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

50 **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

51 **SCARLET FEVER**

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

52 **SCARLET FEVER**

- Red lines at skin folds
-

53 **SCARLET FEVER**

- Flushed face, pale ring around mouth

54 **SCARLET FEVER**

Strawberry tongue or coated

55 **SCARLET FEVER**

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

56 **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

57 **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

58 **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

59 ***SKIN TEST FOR TB: MYCOBACTERIUM TUBERCULOSIS***

- Mtb infection is NOT synonymous with ACTIVE TB!
- Positive skin test does NOT mean ACTIVE TB!

60 ☐ **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?

61 ☐ **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

62 ☐ **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

63 ☐ **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

64 **DENTAL WORKER HEALTH**

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

65 **PPE: SURGICAL MASKS**

- Designed to protect patient from:
  - Oral, nasal, respiratory tract flora
  - (Breathing, speaking 1-3 cfu / min)
- Masks are bi-directional barriers

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

67 **IDENTIFY THE MASK YOU USE**

A. ASTM level 1
B. ASTM level 2
C. ASTM level 3
D. Don't know

68 **ASTM LEVELS**

69 **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!
-

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

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

71 **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

72 **CLINIC ATTIRE**

- Protective attire
- Comply with Cal/OSHA regs
- §1005 (b) (5)

73 **2 SAFETY GOALS**

- PPE: Masks
  - Select appropriate ASTM levels
  - Use correctly
  - Avoid cross-contamination
  - Know limits!
- PPE = outer garment
- Cal/OSHA rules
  -
  -

74 **OPERATORY ASEPSIS**

1 Strategies

2
- Simplify surfaces
- Load trays outside operatories
- Barriers
- Surface disinfection
-

75 **BARRIERS PREVENT CONTAMINATION OF HARD-TO-CLEAN SURFACES**

76 **DISINFECT WHEN CHANGE BARRIERS?**

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

78 **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)

79 **FOLLOW LABEL DIRECTIONS**

- Clean before disinfecting
- Proteins neutralize disinfectants
- Wear Utility gloves

80 **ARE YOU CLEANING BEFORE DISINFECTING???**

It depends on technique
And product selection

81 **EFFECTS OF ALCOHOL CONCENTRATION**

82 **WHAT IS THE ACTIVE INGREDIENT?**
WHICH PRODUCTS CLEAN?

83 **LEAVE FOR STATED TIME**

84 **MAKE ITEMS SAFE TO USE….. AND RE-USE**

85 **IF YOU DON'T CLEAN IT**

- You can't disinfect it
- You can't sterilize it

86 **SINGLE-USE DISPOSABLES**

87 **CDC & CALIF. REG:**

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

88 **INSTRUMENT PROCESSING:**
HIGHEST LEVEL OF ASEPSIS

89 **INSTRUMENT PROCESSING**
"TRAFFIC FLOW"

90 **HOW DO YOU TRANSPORT?**

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

→

91 **SAFE TRANSPORT?**

92 **PRE-CLEANING / HOLDING**

93 **ENZYME PREVENTS DEBRIS ADHERENCE**

94 ☐ **ULTRASONIC CLEANING**
ALLOW BUBBLES TO WORK

95 ☐

96 ☐ **INSTRUMENT WASHERS**

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

97 ☐ **CASSETTE DESIGN**

98 ☐ **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

99 ☐ **MONITORS HELP VISUALIZE SOIL REMOVAL**

NON-TOXIC <u>SYNTHETIC</u> BLOOD/DEBRIS

HOLDER ↓

100 ☐ **CHECK ULTRASONICS OR WASHERS**

101 ☐ **ONLY SCRUB IF DEBRIS REMAINS AFTER CLEANING….**

102 ☐ **PAPER UP? OR, PAPER DOWN?**

103 ☐ **WET WRAPS WICK & TEAR**

104 ☐ **VACUUM STERILIZER**

Single use water
Pre & post vacuum
Dry to dry time: 35-38 min.

Eliminates rust

105 **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)

106 **CLASS 5 CHEMICAL INDICATORS**

107 **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

108 **ARE YOU LABELING STERILIZATION PACKAGES?**

A. Yes
B. No
C. Only surgical packages
D. Only implantable devices
E.
E.

* Sharpee industrial permanent markers withstand 500 degrees

109 **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

110 **WHERE DO YOU LABEL?**

111 **DENTAL WATER QUALITY**

112 **DUWL – RELATED DEATH (2011)**
LANCET

- 82-yr old Italian Woman
- Legionnaires' dis (*L. pneumophila*)

- Proven from dentist's waterlines
- No other exposures
-

113 **2015 *MYCOBACTERIUM ABSCESSUS***
INFECTIONS - GEORGIA

- 9 pediatric infections confirmed after pulpotomies
  - 11 more probable cases
- July – Sept, 2015, One dental office
- *M. abscessus* = waterborne
  - Water
  - Soil
  - Dust
  - Plumbing
  - Dental waterlines
- Other outbreaks: medical, acupuncture, surgical clinics
  -
-

114 **2015 *MYCOBACTERIUM ABSCESSUS***
INFECTIONS - GEORGIA

- 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

115 **2016 *MYCOBACTERIUM ABSCESSUS***
INFECTIONS – ANAHEIM, CALIFORNIA

- >54 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
- Dentist ordered to stop using water (9/15/16)
  -
-

116 **N. A. MORALES, AFTER 1 MO. HOSPITALIZATION**

117 **2016 *MYCOBACTERIUM ABSCESSUS***

INFECTIONS - CALIFORNIA

- Pulpotomies must include pulp area "sterilization"
- And/or sterile standard
- Health Dept. ordered office to cease use of & replace on-site water system
- All DUWL must be tested
    - www.ochealthinfo.com/dentaloutbreak
-

118 ☐ **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

119 ☐ **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)

-

120 ☐ **WHEN DOING SURGICAL PROCEDURES, DO YOU USE .....**

Sterile water & sterile separate delivery device?

§1005 (b) (18)

121 ☐ **FOR POTABLE WATER**
YOUR OFFICE SHOULD:

A. Flush lines in AM & PM for 2 min./line
B. Flush lines between patients for 20 sec.
C. Purge lines weekly if using only water in bottles.
D. Purge lines @ 1 – 2 months if using disinfecting product in dental water

122 ☐ **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

123 **HOW DO YOU KNOW YOUR WATERLINES ARE SAFE?**

- Loma Linda University Waterline Testing
- ProEdge Waterline Testing

124 **TREAT, SHOCK, AND TEST ALL WATERLINES**

125 **TOP (GENERAL) SAFETY GOALS**

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

126 **TOP 3 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

127 **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

•

128 **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.

•
•

129 **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
   -
   -

130 **TOP SAFETY GOALS**

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

131 **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
-

132 **TOP SAFETY GOALS**

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

133 **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!

134 **WHAT YOU DO OVER & OVER**

135 **TEAMWORK!**