


1  **Annual OSHA Training & Update**
Keeping It Real

3 Hours CE

By Nancy Andrews, RDH,BS

2  **Dentistry Is A Fun Ride!**

- Sometimes we don't see what's coming
- Sometimes things change
- Sometimes things happen
- Goodies, handout, action items, ?'s

3  **Safety Update**

- Written plan: where? Go over it!
- Right to know: hazards
- Exposed activities, who is exposed
 - To body fluids & injury
- Know how pathogens are transmitted
 - Standard precautions
- Safe practices
- PPE
- Safety devices
- Vaccinations
- PEP & emergency responses
- Recordkeeping

4 


5  **CDC's Call To Action:**

Improve Compliance

- > 90,000 deaths from hospital associated infections / year (247/day)
- 2003 CDC Infection Control Guidelines

6 

**Chain
of
Infection**

7  **Breaking
the Chain**

8  **IC Steps, Sequences**

- Chain of Infection
- Instrument processing – dirty to sterile
- Room cleaning, disinfection
 - Chaos & contamination to disinfected & ready
- Hand Hygiene
 - Wash to clean
 - Alcohol to disinfect

9  **Cross-contamination Challenge**

10  **Bloodborne Diseases**

- Acute vs. chronic
 - Symptomatic / asymptomatic
 - Some infected people recover
- Chronic: antibodies: ineffective
 - HBV: highly infective, → liver destruction (work restrictions)
 - HIV: variable infectivity, → CD4 cell destruction (work restrictions)
 - HCV: often asymptomatic, undiagnosed, no work restrictions

11  **Viral Hepatitis**

(Types B, C: bloodborne diseases - damage liver)

- Liver Inflammation
- Symptoms:
 - Tiredness
 - Loss of appetite
 - Nausea
 - Abdominal discomfort
 - Dark urine
 - Clay – colored stool
 - Jaundice: yellow skin, sclera (eyes)

12  **Hepatitis B Virus (HBV)**

- Bloodborne pathogen
- Transmitted by sex, IV drug use, sharps injury, birth (1 in 3 chance infection from occup. exp.)
- Survives & virulent outside body – 7 days
- Vaccine gives immunologic memory \geq 23 years
 - No boosters – retain immunological memory indefinitely, protects vs. clinical illness & chronic dis.
 - 95% seroconvert after vaccination
- “Carrier” = chronically infected & infectious
- Tx = antiviral drugs

13  **Rare Pt-to-Pt HBV Transmission****Summary**


- Only known documented case of HBV transmission between 2 dental pts in U.S.
- More undetected cases?
- Hardy virus – can persist in blood on surfaces for 7 or more days: also present in absence of visible blood
- Can be prevented with vaccination
- No cases of dentist-to-pt HBV transmission since 1987
- Reinforces need for meticulous IC
- Vaccinations = valuable for those > 40 years old

14  **HIV - AIDS**

- Every 5 sec. Someone = infected
- Virus attacks CD4 cells, weakens & destroys immune system
- Patient becomes susceptible to opportunistic infections
- Early tx before CD4 cells drop saves 70% more lives
- Blood HIV can differ from seminal HIV type!

15  **HIV Transmission**

- Blood
- Sex
- Pregnancy
- Birth
- Breast milk
- 1/ 300 chance of infection w/ needlestick
- No documented DHCW occupational infections from patients

16  **Opportunistic HIV Candidiasis****Thrush**17  **Angular Cheilitis**18  **Erythematous Candidiasis**

- 19 **Erythematous candidiasis**
- 20 **AIDS ~ viral infection**
Recurrent herpes labialis
- 21 **HIV ~**
Herpes simplex ulcerations
- 22 **Chronic HIV**
 - Fewer pills in HAART “cocktail” Increases compliance
 - If < 95% compliance → resistant HIV
 - Costs \$1500.00 / month (if treated)
 - HIV+ life expectancy = 24 years
 - New concern: aging with HIV
- 23 **HAART Works!**
 - 2008 – 2011 world study: 1763 couples; 1 partner = HIV (+), 97% = heterosexual
 - All had CD4 counts 350 - 550
 - International standard: treat when CD4 count < 350. U.S.: treat @ 500
 - Of those treated early:
 - 96% did not transmit HIV to partners
 - (27 of 28 transmissions in study were treated late)
 - Fewer severe AIDS symptoms if tx early
- 24 **HIV / AIDS**
 - Delayed diagnosis - still a problem
 - 20% of infected = unaware of status
 - 33% - diagnosed 1 yr before AIDS: too late to save life, far too late to prevent spreading HIV
 - States w/ biggest epidemics: Florida, NY, Texas, Georgia, NJ
 - HIV tx cuts transmission to partners 96%
- 25 **Preventive Meds for High Risk people**
 - Daily antiretroviral meds offer partial protection vs. HIV
 - Tested in gay men (San Francisco)
 - Now testing heterosexuals in Africa (one HIV+ partner)
 - Risk of abandoning safe behavior?
- 26 **HIV / AIDS - Current Strategies**
 - Rapid HIV type 1 + 2 Test: OraQuick:
 - Mouth swab or blood test
 - 99% accurate, 20 min. result
 - For source person testing or gen. Screening
 - Pre-arrange with Occupational Health M. D.
- 27 **Things Happen**
- 28 **Risk of Infection after Needlestick**
 - 1 Source
 - HBV
 - HCV
 - HIV
 - 2 Risk
 - 6.0-30.0%
 - 1.8%
 - 0.3%
- 29 **Prevent Injury, Bloodborne Pathogen Exposure**

- Safe use / handling of sharps
 - Careful removal of blades, needles
 - Avoid pointing blades, burs, needles towards body
 - Use sharps containers at use-site
 - Protected transport of sharps
- Use resuscitation devices, not mouth-to-mouth

30 **Sharps Management**

- Must investigate safety devices
- Only recap needles using:
 - Scoop technique or:
 - Mechanical devices designed to
 - hold needle sheath
 - eliminate need for 2 handed capping
- Do not bend, break needles
- Dispose of all sharp items in puncture resistant containers

31 

32 

33 **One-handed Scoop Technique**

34 

35 **Are You Set UP?**

36 **After the Accident:**

- Investigate:
- How did it happen?
- Why did it happen?
- How could it be prevented?
- Are there other similar risks / vulnerabilities?
- Get everyone's input!

37 **OSHA Update:**









- Make sure HCV is considered w/ PEP
- Counseling
- Oraquick: Rapid HIV testing:
- After exposure: Test 3-6 weeks, 3-6 months, 9 months
- Be able to get HAART - 2 hours
- Training, technology & precautions have decreased # of needlesticks 3 fold - in last decade











38 **Get Your Vaccines**

Everyone: **Some:**

- 1 • HBV
 - Influenza
 - Measles
 - Mumps
 - Rubella (German Measles)
 - Varicella – Zoster
-
- 2 • Tetanus
 - Polio
 - HAV
 - Pneumonia
 - Meningitis
 - HPV
- WWW.CDC.gov: new adult vaccine recs.

39 **Action Items:**

- Tests for antibodies in saliva
 - Need to identify HIV+ people to help them, and in case of exposures
- 54  **Your Questions?????**
- Hand hygiene
 - Surface disinfection
 - Environmental barriers
 - PPE
 - Instrument sterilization
 - Post Exposure Prophylaxis
 -
- 55  **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)
 - Which germs are the target for routine hand hygiene?
- 56  **Soap & Water (Tucson Study)**
- Can reduce disease transmission 50%
 - 95% say they wash hands after using public restroom
 - 67% actually do
 - 33% use soap
 - 16% wash long enough
 -
- 57  **Handwashing:**
- Frequently Missed Areas**
- 58  **Soap: Is It Effective?**
- Goal: physically remove debris, bioburden - reduce organisms
 - Active ingredients / formula - optimize:
 - Cleaning: surfactant
 - Fast action
 - Effective contact time aided by foam: instant lather, better coverage
 - Broad (& targeted) antimicrobial spectrum of activity
 - Persistence of antimicrobial activity?
- 59  **Effective Handwashing**
- How long should you lather?
 - Do you rinse thoroughly?
 - Do you use lotions?
 - Do you always dry completely with disposable towel?
 - Do you avoid touching faucets?
- 60  **Hand Asepsis**
- After touching contaminated items
 - Plain soap – routine handwashing
 - Antimicrobial / alcohol - main method on unsoiled hands
 - Use EPA approved healthcare products
 - Inflamed, irritated skin has more bacteria, handwashing fails to remove
- 61  **Hand Hygiene**
- Dry cracked hands double infection risk
 - Glove - related issues:

- Gloves fail
- Organisms grow under gloves, doubling every 12 min.
- 62  **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
- 63  **When To Wash...& When To Use Waterless Rubs**
 - Do both throughout the day :
 - Wash hands effectively with soap & water to remove contaminants
 - Use alcohol handrub to kill most organisms
 - ***Alcohol sanitizers do not eradicate Clostridium difficile spores – Washing is necessary
- 64  **Hands & Skin**
 - Products should be designed to protect skin
 - Inflamed, irritated skin has more bacteria, handwashing fails to remove
 - Flora multiplies under gloves rapidly: doubles every 12 min.
- 65  **Dermatitis**
- 66 
- 67  **Dermatitis**
 - 30% of HCW's
 - Mostly irritant contact dermatitis
 - Allergies are rare
 - Caused by
 - Detergents & water
 - Occlusive gloves (proteins, chemicals)
 -
- 68  **Most Important Skin Issues**
 - Non-intact skin may allow pathogens, irritants, allergens to enter
 - How?
 - percutaneous injury with contaminated objects
 - existing cuts / openings
 - dry, cracked skin
- 69  **Dermatitis – Vicious Circle**
 - Alcohol rubs burn
 - Avoid, wash more (> water)
 - Washing hurts
 - Wash fast, rinse less, dry less
 - > soap residue
 - > chapping
 - Disturbed skin flora
 - > susceptible to skin pathogens
- 70  **Dermatitis – Break the Cycle: Heal**
 - Effective cleaning, soap removal, drying
 - Emollients:
 - Lotion soap
 - Lotions
 - Barrier creams
 - Need enough (professional product)
 - Non-petroleum
 - Time.....
- 71  **Hand Rubs vs. Soaps**

- Faster process
- < irritation
- Faster antimicrobial effect
- Broader spectrum activity
- Better skin tolerance
- Better compliance
- **Some trace alcohol absorption

72 73  **Common Mistakes using Hand Rubs**

- Using low – emollient brands
- Washing immediately before
 - Not necessary (except surgery)
 - Water dilutes, promotes alcohol absorption
- Washing after alcohol (removes emollients)
- Applying alcohol rubs after removing powdered gloves
-

74 **Soap Safety**

- Soaps can become contaminated.
 - No “topping off” soap dispensers
 - Buy Professional products: higher quality control
- Professional standards are higher than home

75 **Common Mistakes
(That harbor organisms &
may damage gloves)**

- False nails, Nail polish & applications
- Un-manicured nails
- Jewelry
- Petroleum-based products

76 **Hand Hygiene**77 **Dirty Little Secrets**

Q: I saw a customer scooting the needle cap around the tray to get the cap on. He ran into a sharp instrument and stabbed his finger. Can I tell him he is required to buy a needle recapper?

78 **Dirty Little Secrets**

A: The “scoop” technique is not illegal, but there are better ways.

79 **Stretch Back of Neck**

- Turn head away from tight side
- Look down, feel stretch
- Hold chair on tight side
- Pull head forward with other hand
- Repeat, looking up



















80 **Mainstreamed risk behaviors**

- Bloodborne risks
- Skin infection risks

81 **Tattoo Risks**

- Skin not cleaned
- Needle not clean / sterile
- Ink “double-dipped”
- Unhealed tattoo portal of transmission / exposure

82 83 


- 84  **Unhealed / Infected Piercing= Open Wound**
- Tongues take ~ 6 weeks to heal
 - Many don't realize risks of kissing / oral sex with mouth piercing. Especially if both = pierced
- 85  **Surface Piercings**
- Piercing unconventional area
 - No skin fold
 - "U" or ring-shaped bar
 - Never remove - to keep the piercing open
 - Constantly re-injured: hair, clothes, movement, touch
- 86  **Piercing Problems**
- "Stretched" or "plug" piercings
 - Prolonged open wound
 - Plastic, wood, bone = less cleanable than surgical steel.
- 87  **Piercing Risks**
- Infection
 - Prolonged bleeding
 - Damage to blood vessels
 - Swelling, nerve damage
 - Bloodborne disease transmission
- 88 
- 89 
- 90  **Infections**
- 91  **Talent**
- 92 
- 93 
- 94 
- 95  **Prevent Injury, Skin Exposure**
- Safe use / handling of sharps
 - Hand hygiene
 - Safe practices – slow down!
 - Cover cuts, first aid
 - Even at home!
 -
- 96 
- 97  **Pandemics, Epidemics**
- 98  **Influenza Signs & Symptoms**
- Fever – sudden onset
 - Babies: > 100.4
 - Others: > 101.1
 - Cough
 - Sore throat
 - Intense body aches
 - Headache
 - Chills
 - Fatigue
 - Some: diarrhea, vomiting
- 99 
- 100  **H1N1: resistant to amantadine & rimantadine, and now.... partially to oseltamivir & zanamivir**
- 101 

102  **Who Should Be Vaccinated?**


- Everyone over 6 months old (CDC)
- Even those who had flu!
 - Confirmed previous cases: vaccine improves immunity
 - Suspected previous H1N1 cases: vaccinate
- HIGHLY recommended if:
 - have existing health problems
 - have contact with children under 5
 - healthcare professionals

103  **If You're over 65:**

- Get high strength vaccine
- Helps "less responsive immune systems"
- "Fluzone High-Dose" = inactivated influenza virus

104  **Office & Home Asepsis**

- Wash hands when arrive & frequently
 - Clean highly touched spots
 - Doorknobs, handles, tables, phones, pens, car, kitchen, bathroom, remote controls, sinks, chairs
 - Don't share pens, towels, cups, utensils
 - Sanitize / wash after touching money, public surfaces
- www.parenting.com

105  **#1 CDC Tip to Prevent "Swine Flu": Do NOT do this!**106 107  **Airborne Diseases**

- Measles
- Varicella (including disseminated zoster) †
- Tuberculosis †[£] , Flu
-
-
-
-
-
-

† requires >1 precaution £ See CDC TB Guidelines

108  **Pertussis**109 **Aerosol Transmissible Diseases**

- Pathogens capable of surviving air suspension:
 - Suspension in air, desiccation
 - Travel on dust particles, air currents
 - Particles < 5 μ
 - Absorption through conjunctivae, mucosal tissue of nose, respiratory tract


110  **Airborne Precautions**

- Private (-) pressure room
- 6 – 12 air changes / hour
- Safe discharge of air outdoors or monitored high efficiency filtration of room exhaust air
- Keep door closed, pt. in room
- N95 respirator to enter room

- Unless immune to measles, varicella
- No entry to susceptible HCW's
- Mask on pt. to transport
-

111  **Best Practices (& Calif. Law)**

- No dental tx performed on pt's with ATD (or suspected)
- Written OSHA screening procedure for ATD's (CDC screening)
- Screening performed prior to tx
- Employees trained to screen
 - Confirmation calls & @ check-in
 - Protect pt privacy, show concern!
- Aerosol procedures only done with MD's clearance - "pt non-infective"

112  **Get Started!**

- Train all employees
- Inform patients:
 - Patients with ATD's must be seen in special facilities only
 - Symptomatic patients will be dismissed
- Ask patients to only come to office when healthy
- Screen when: make appt, confirm, pt arrives

–

–

- Ask patients to inform

113 

114  **Screening for ACTIVE Cases**

- 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

115  **Active TB**

116  ***Mycobacterium tuberculosis***

- Mtb infection is NOT synonymous with ACTIVE TB!
- Positive skin test does mean ACTIVE TB!
- Vaccinated people have (+) skin tests, need chest X-rays to screen

117 

118  **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?
 - Symptoms of TB?

119  **Screen for TB:**

- Productive cough (> 3 weeks)
 - Bloody sputum
- Night sweats
- Fatigue

- Malaise
- Fever
- Unexplained weight loss
- If yes: medical referral, (reportable)

120 **Flu & Other ATD's**

Ask: Do you have....

- 1 • 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

121 **Chronic Respiratory Diseases (NOT ATD's)**

- 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

122 **Dental Worker Health**

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

123 **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>

124 **Summary**


125 **What If.....**

126 **Transmission-Based Precautions**

Contact, Droplet, Airborne

- Additional to Standard precautions
- Based on -
 - Disease Infectivity
 - How transmitted

- Used when –
 - Infective patients must be treated
 - In hospital, institutional settings
 - HCW becomes infected

127  **Contact Precautions**


- Private room
- Glove when entering room
- Remove gloves before leaving room
- Immediate hand hyg.
 - Antimicrobial or alcohol agent
- No bare handed contact w/ pt., items

128  **Contact Precautions**

- Gown when entering room, remove before leaving room
- Isolate used gown
- Limit pt. Transport
- Maintain precautions if pt. = moved, transported
- Dedicate non-critical equip. to pt., disinfect & barrier if re-used

129  **Droplet Precautions**

- Private room / cohort, open door =OK
- Maintain ≥ 3 ft. Between pts.
- No special air handling
- Mask to enter room, & ≤ 3 ft. of pt.
- Move pt out of room only if essential, mask on pt.

130  **Have on Hand:**

- NIOSH N95 respirators - TB protection
- Masks protect you & your patient
- Facial fit
-

131  **Get Your Vaccines**
























Everyone: Some:

- 1 • HBV
 - Influenza
 - Measles
 - Mumps
 - Rubella (German Measles)
 - Varicella – Zoster
 - 2 • Tetanus
 - Polio
 - HAV
 - Pneumonia
 - Meningitis
 - HPV
- WWW.CDC.gov: new adult vaccine recs.

132  **Surgical Masks**

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

133  **ASTM Levels**

- 134  **Fluid Resistance**
- Masks saturated from both sides
 - “Wicking”
 - Mask degrades from;
 - Perspiration
 - Talking
 - Sneezing
 - Length of time mask is worn
 - 20 min. – 1 hr. Use-life
 - Shield may lengthen use-life
 - Position mask to “stand out” from face
 -
- 135 
- 136  **Female Heart Attack Symptoms**
- Nausea
 - May never have chest pain
 - Or: chest, arm, jaw pain
 - Intense jaw pain (unique)
 - Intense sweating
 - If asleep jaw pain may awaken
 - Or: 60% of those who have MI during sleep do not wake up
- 137  **Surviving Heart Attack Alone**
- The scene: Alone, sudden pain
 - Arrhythmia, faint: 10 sec. consciousness
 -
- 138  **Surviving Heart Attack Alone**
- Cough deeply, vigorously, prolonged
 - Repeat ea. 2 seconds
 - Squeezes heart
 - Deep breath before each cough
 - Gets air to lungs, blood
 - Until help arrives
 - Or, heartbeat returns to normal
 - Get to hospital
- 139  **Operatory Asepsis**
- 140  **If Saliva Were Red**
- 141 
- 142 
- 143 
- 144 
- 145 
- 146 
- 147 
- 148 
- 149 
- 150 
- 151 
- 152  **Dental Aerosols – Visible?**
- 153 
- 154  **Single-use items**
- 155  **Cover or Remove Extra Items**
- 156  **Simplify Surfaces**

Environmental disinfection = cardinal feature in dentistry

157 **Dirty Little Secrets**

Q: "I have an account that buys "hospital disinfectants" instead of intermediate level disinfectants that kill TB. Is that legal?

Don't you need to kill TB?

158 **Dirty Little Secrets**

A: intermediate level disinfectants are required when there is a potential for blood on clinical contact surfaces. Low level disinfectants are "OK" for less important surfaces
TB is a benchmark organism

159 **Disinfectant Considerations**

- T.B. kill time
- Cleaning ability
- Tendency to damage materials
- Toxicity
- Alcohol content
- Directions for use: immersion, wipe
- Suggested rinsing
- Use – life
- Cost

Read the label!

160 **Intermedient Level Disinfectants Kill All Below:**

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

(Low level hospital disinfectants kill only):

- Vegetative bacteria - *Pseudomonas aeruginosa, Staphylococcus aureus*
- Lipid or medium-sized viruses - *Herpes simplex virus, hepatitis B virus, HIV*
(CDC)

161 **HIV Survival In Environment**

- Does not survive well outside body
- Drying reduces viral concentrations up to 99% within several hrs.
- Unable to replicate outside body
 - Same for HBV
- No known HIV infection from environmental surface contact

162 **Microorganism Survival on Fomites**

- Respiratory viruses – hours – 3 days
- Enteric viruses – days – weeks
- Enteric bacteria – hours – 2,3 days
- *Staphylococcus aureus* (MRSA) – days – weeks
- Spores – weeks - years

163 **Basic IC Rule: Clean Before Disinfection**

Which Products Clean & Disinfect?

- High % Alcohol Solutions (Over 20%)
- Damage surfaces, equipment
- Desiccate: adhere (fix) bioburden to surfaces
- Rapid evaporation: reduced contact time
- Ineffective pre-cleaner – must use other product to clean first
- Disinfectant only (step 2)

? Do NOT use high alcohol product to both clean and disinfect!


164 **Clean Before Disinfecting**

165 **Leave For Stated Time**

166 **Prevent Contamination**

167  **CDC Update**

- New technology: Items used intra-orally
 - Non-sterilizable, re-usable: use FDA cleared barrier & EPA intermediate level disinfectant
 - (digital sensors, caries diagnostic devices, intra-oral cameras – protective sheaths)
 - Aseptic technique
- Big issues:
 - Compliance
 - Antibiotic resistance

168  **Digital Sensors**169  **Green IC ???**

- Fewer / no toxins
 - Biodegradable surface disinfectants
- Re-usable vs. Disposable items
 - Cloth sterilization pouches
- Recyclable / recycled barriers, items
 - Is there available pick-up?
 - Know requirements for green processing / biodegrading (compost?)
- Reliable IC? - Ask: Does it work??

170  **Screening Practice**171  **Screen for TB:**

- Productive cough (> 3 weeks)
 - Bloody sputum
- Night sweats
- Fatigue
- Malaise
- Fever
- Unexplained weight loss
- If yes: medical referral, (reportable)

172  **Flu & Other ATD's**

Ask: Do you have....

- 1 • 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
 - Fever, respiratory symptoms +
 - Severe coughing spasms
 - Painful, swollen glands
 - Skin rash, blisters
 - Stiff neck, mental changes

173  **Dental IC Concerns**

- Many emerging, re-emerging dis's present first with flu-like symptoms

- Fever, respiratory problems, malaise
 - Patients may seek dental care
 - Reschedule!
 - Evaluate effectiveness of usual products & practices
 - Prepare alternatives
- 174 **Instrument Processing**
- Highest Level of Asepsis**
- 175 **CDC Update**
- Must heat sterilize ALL removable handpieces, even slow speeds
 - *electric handpieces: housing / sleeves = sterilizable, but micromotors may not be!
- 176 **Minimize:**
- 177 **Pre-Cleaning / Holding**
- 178 **How Do You Transport?**
- Protect Sharps
 - Cassettes
 - Tubs, trays with slides, lids
 - Avoid accidents
 - Use Cassettes / tubs / lids
 -
-
- 179 **Is This OK?**
- 180 **OK?**
- 181 **Instrument Processing**
- "Traffic Flow"**
- 182 **What's Wrong?**
- 183
- 184
- 185 **Sterilizer Monitoring**
- Indicators: per package
 - Heat
 - Integrators: per load
 - Time, temperature, pressure
 - Biological Monitors: weekly
 - Non - pathogenic spores
 - Keep written reports
- 186
- 187 **Dental Water Quality**
- 188
- 189
- 190 **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
- 191 **Self Contained Water Systems**
- For non-surgical procedures: \leq 500 CFU (potable)
 - Access to add chemicals
 - Treatment fluid:
 - Sterile water

- Freshly distilled water
- Medicaments / antimicrobials
- Must treat regularly
- Biofilm returns

192  **Waterline Treatment Options**

- Chemical “Shock” - removes biofilm
 - Sterilex, bleach
 - Caustic, may injure tissue. Rinse !
- Continuous chemical “maintenance” - prevents biofilm, keeps CFU’s low. Low levels in treatment water
 - DentaPure 1 /year
 - BluTab (Silver ions) - Confirm
 - ICX (Silver ions) - Adec

193  **Treat ALL waterlines**

194  **What You Do Over & Over**