



Infection Control: CR Tested Products—Quick List 2013

The OSHA Blood Borne Pathogen Standard (*OSHA*) became U.S. Law in March 1992. Since then, attention to infection control (*IC*) practices in the dental office has increased. In December 2003, the U.S. Department of Health and Human Services Centers for Disease Control and Prevention (*CDC*) released “Guidelines for Infection Control in the Dental Health-Care Settings – 2003.” Although these latest guidelines are not law, they became “standard of care.” **Product recommendations are not part of either of these IC standards.**

This report provides a summary list of outstanding products for IC in twelve areas that are deemed critical to dentistry by Clinicians Report (*CR*). Key CR criteria for product efficacy and CDC guidelines are given in each area. Products listed as meeting CR’s criteria were identified through extensive laboratory and clinical-use testing performed on hundreds of products. All costs are retail list prices at time of compilation and are subject to change. For a more exhaustive listing of excellent IC products tested by CR go to www.CliniciansReport.org and under complimentary information, click on “Infection Control.”

AIR/WATER & EVACUATION

CR Criteria: Sterilizable between patients or disposable. Durable, easy to use, and adaptable to most dental units.

CDC: Any removable device that is attached to the air or waterlines should be heat sterilized to ensure that internal components have been sterilized.

AIR/WATER SYRINGE TIPS—Excellent sterilizable tips are available from dental unit manufacturers. Excellent disposable options are listed below.

Flashtips (Disposable)	22¢ /Tip Adapter free with tip purchase	Sultan Healthcare 800-637-8582 www.sultanhc.com	Purchase Source: Major Distributors
Seal-Tight (Disposable)	20¢ /Tip Adapter free with tip purchase	Total Care 800-841-1428 www.totalcareprotects.com	Purchase Source: Major Distributors

ORAL EVACUATION TIPS—Disposable saliva injector tips and high velocity suction tips are readily available at major distributors

DENTAL UNIT WATERLINES (CDC Guidelines, but not part of OSHA)

CR Criteria: Lower organism counts in water emitted from syringes and handpieces to <500 colony forming units per milliliter per ADA Board of Trustees and CDC ’03, require minimal staff intervention, and does not damage dental equipment. Use sterile water for surgical procedures.

CDC: For routine dental procedures, use water with <500 colony forming units (cfu) per ml of heterotropic water bacteria. During oral surgical procedures, sterile solutions (e.g., sterile saline or sterile water) should be used as the coolant/irrigator.

CONTROL OF MUNICIPAL WATER COUNTS

Sterisil System (Continuous treatment for 7–15 ops with deionization and silver ions)	\$5,499 / Direct Feed \$4,790 / Bottle fill with filters	Sterisil 877-755-7873 www.sterisil.com	Purchase Source: Major Distributors
VistaClear 1000-28-HP (Continuous treatment for 1–7 ops by filtration and oxidation/reduction process)	\$5,995 / System	Vista Research 866-559-2837 www.vistaclear.com	Purchase Source: Major Distributors

CONTROL OF INDEPENDENT WATER BOTTLE COUNTS

Sterisil Straw (Continuous treatment with silver ions.)	\$149.99 / Year	Sterisil 877-755-7873 www.sterisil.com	Purchase Source: Major Distributors
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DISINFECTANT FOR PERIODIC TREATMENT TO ELIMINATE RESISTANT ORGANISMS

Sterilex Ultra Powder (1 pack in 8 oz water) (0.5% sodium percarbonate)	\$3.40 / Packet	Sterilex Corp 800-511-1659 www.sterilex.com	Purchase Source: Major Distributors
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ENVIRONMENTAL SURFACE DISINFECTION (CDC expands beyond OSHA)

CR Criteria: Fast acting, broad spectrum kill that includes a resistant bacteria (tuberculosis, TB), and a resistant non-enveloped virus (poliovirus) in presence of heavy bioburden (fresh human whole blood). **Clinical Tip:** Surfaces should be disinfected first and then disinfected a second time to accomplish cleaning. Cleaning of surfaces before disinfection can spread contamination to a larger area and increase potential exposure.

- CDC:**
- Use fresh cleaning or EPA-registered disinfecting solutions daily or as instructed by manufacturers
 - Clean spills of blood or other contaminated fluids and decontaminate surface with EPA-registered hospital disinfectant with low-level (HBV and HIV label claims) to intermediate-level (TB claim) activity
 - Use surface barriers to protect clinical contact surfaces, specifically those that are difficult to clean
 - Avoid carpeting and cloth-upholstered furnishings in operatories, labs, and instrument processing areas

SURFACE DISINFECTANTS—See results for 52 disinfectants tested at www.CliniciansReport.org, click Infection Control and open EnvironSurfaceDisinfectants.pdf.

Lysol Brand III IC Disinfectant Spray (58% w/w ethyl alcohol)	\$12.95 / 19 oz can 2¢ / ml	Reckitt Benckiser 800-333-3899 www.reckittbenckiser.com	Purchase Source: Major Distributors
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PRE-TREATMENT CHLORHEXIDINE ORAL RINSE

CR Criteria: Lower the number of oral microorganisms which may lead to fewer microorganisms aerosolized into the work environment during dental treatment. **Clinical Tip:** Have patient do two 30-second rinses with 0.12% chlorhexidine (CHG) mouth rinse. First rinse removes materials from oral cavity that bind CHG and second rinse lowers microbial counts.

CDC: Although addressed, CDC does not provide any recommendations regarding their use.

Gum Chlorhexidine Gluconate Oral Rinse (0.12% CHG, alcohol-free)	62¢ / oz	Sunstar Americas 800-528-8537 www.gumbrand.com	Purchase Source: Major Distributors
PerioGard (0.12% CHG)	50¢ / oz	Colgate Oral Pharmaceuticals 800-225-3756 www.colgateprofessional.com	Purchase Source: Major Distributors
ProDenRx Chlorhexidine Oral Rinse (0.12% CHG)	37¢ / oz	Zila Pharmaceuticals 800-228-5595 www.zila.com	Purchase Source: Zila Pharmaceuticals

EYE PROTECTION

CR Criteria: Should have side shields, tolerate routine disinfection, comfortable, and economical.

CDC: Wear either eye protection with solid side shields or a face shield to protect mucous membranes of the eyes. Clean reusable eye protection between patients; if visibly soiled, clean and disinfect.

EYE GLASSES FOR OPERATOR

Googles Professional Eye (Disposable glasses) (1 frame, 25 lenses, and 1 neck strap)	\$27.99 / Kit	Total Care 800-841-1428 www.totalcareprotects.com	Purchase Source: Major Distributors
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SHIELD FOR OPERATOR

Schein (Face Shield) (Disposable Shield)	\$2.87 Each (24 / box)	Henry Schein 800-372-4346 www.henryscheindental.com	Purchase Source: Henry Schein
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EYE PROTECTION FOR PATIENT

P.A.L. (Protect-a-lens)	58¢ Each	Allpro 800-243-2285 www.allprodenal.com	Purchase Source: Allpro
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Rollens (clear and smoke)	47¢ Each (with adhesive) 40¢ Each (without adhesive)	Rollens 800-898-7474 www.rollens.com	Purchase Source: Rollens
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HELPFUL ACCESSORIES

KIMTECH Science Lens Cleaning Station	\$24.49 / Kit	Henry Schein 800-372-4346 www.henryscheindental.com	Purchase Source: Henry Schein
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FACE MASKS (CDC expands beyond OSHA)

CR Criteria: To maximize protection from aerosols: adapt to facial contours well (peripheral fit), high filtration of very small particles (>95% filtration of 3.0-3.5 micron particles), NOT contact nose or lips, comfortable, and economical. **Clinical Tip:** Change mask every 60 minutes when working in a dry clinical environment (routine exams). Change mask every 20 minutes when working with water cooled instruments (ultrasonic scalers and water cooled handpieces).

CDC: Change masks between patients and during treatment when possible if mask becomes wet.

SOFT PLEATED MASK

Critical Cover PFL (Positive Facial Lock) (Unique wire around edges of mask adapts to all face shapes. Plastic through center keeps masks from touching nose and lips.)	47¢ / Mask (headband, latex free) 48¢ / Mask (earloops, latex free)	Alpha ProTech 800-749-1363 www.alphaprotech.com	Purchase Source: Major Distributors
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Isolator Plus (N95 NIOSH respirator rated – CDC '03 requires respirators available in dental office)	\$1.46 / Mask	Crosstex 800-221-3046 www.crosstex.com	Purchase Source: Major Distributors
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PREFORMED CUP MASK

Triple Layer Molded (unique additional fabric lining at edges provide peripheral fit)	\$1.04 / Mask	3M ESPE 800-634-2249 www.3mespe.com	Purchase Source: Major Distributors
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GLOVES (CDC expands beyond OSHA)

CR Criteria: Operating gloves—consistent from year to year in having combination of low number of manufacturing defects, economical, and good clinical characteristics, (e.g., fit, tactile sensitivity, no bitter taste, no tackiness after wetting, resistance to tearing, adequate cuff length).

CDC: • Wear a new pair of gloves for each patient and replace gloves that are torn, cut, or punctured.

- Outline plans for education on and diagnosis of contact dermatitis and latex hypersensitivity.
- Use sterile surgeon's gloves and double glove during oral surgical procedures.
- Assure gown, lab coat, or uniform cover forearms.

LATEX

Nova (Polymer lined, powder free)	6¢ / Glove	Sentry Medical 800-603-1224 www.sentrymedical.com	Purchase Source: Sentry Medical
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Pharmatex (Polymer coated)	8¢ / Glove	Pharmatex 888-742-7628 www.pharmatexusa.com	Purchase Source: Pharmatex and Small Local Distributors
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NON-LATEX

Alasta (Nitrile)	9¢ / Glove	Dash Medical Gloves 800-523-2055 www.dashmedical.com	Purchase Source: Dash Medical and Major Distributors
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Le Soothe (Polychloroprene)	10¢ / Glove	SmartPractice 800-522-0800 www.smartpractice.com	Purchase Source: SmartPractice
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Posi-Prene (Polychloroprene)	8¢ / Glove	Clinical Supply Co 800-468-0188 www.clinicalsupplycompany.com	Purchase Source: Clinical Supply Co and Major Distributors
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UTILITY GLOVES (REUSABLE)

IMS Lilac Gloves (Nitrile)	\$3.26 / Glove	Hu-Friedy 800-483-7433 www.hu-friedy.com	Purchase Source: Major Distributors
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HANDCARE (CDC expands beyond OSHA)

CR Criteria: For protection under operating gloves—rapid antimicrobial activity, plus residual and cumulative activity. 4% chlorhexidine gluconate (CHG) hand washes provide this protection against bacteria. High ethyl alcohol concentration hand rubs can be effective antivirals.

CDC: • Perform hand hygiene before and after every patient.

• Perform hand hygiene before donning gloves and immediately after removal of gloves.

4% CHLORHEXIDINE FORMULATIONS

Hibiclens (4% CHG)	\$66.45 / Gallon (52¢ / oz)	Mölnlycke Health Care 800-843-8497 www.molnlycke.com	Purchase Source: Major Distributors
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HAND RUBS—CR tests show sufficient material must be dispensed to keep hands wet for 30 seconds of vigorous hand rubbing.

Endure 300 (Gel)	79¢ / oz	Ecolab 866-781-8787 www.ecolab.com	Purchase Source: Ecolab and Major Distributors
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Purell (Gel)	79¢ / oz	GoJo 800-321-9647 www.gojo.com	Purchase Source: Major Distributors
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INSTRUMENT DISINFECTION

CR Criteria: No touch cleaning and disinfection can be accomplished with instrument washers/disinfectors. If hand processing is necessary, a first step is use of fast acting, broad spectrum kill instrument soak to disinfect prior to scrubbing and packaging for sterilization.

CDC: Cleaning involves the physical removal of debris and reduces the number of microorganisms on an instrument or device. Automated cleaners increase the efficiency of the cleaning process and reduce the handling of sharp instruments.

INSTRUMENT WASHER: DISINFECTORS & ACCESSORIES—Instrument washers have three major advantages over hand scrubbing and ultrasonic cleaning: 1) minimize handling of contaminated instruments; 2) eliminate contaminated ultrasonic solutions and their aerosols; 3) deliver instruments clean, dry, disinfected and ready for final sterilization.

Dental Washer Disinfecter G7881 (under the counter)	\$9,450 / Washer	Miele 800-991-9380 www.mieleusa.com	Purchase Source: Major Distributors
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HydriM L110W (under the counter)	\$9,270 / Washer	SciCan 800-572-1211 www.scican.com	Purchase Source: Major Distributors
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Mesh Trays (#E146)	\$354 / Tray	Miele 800-991-9380 www.mieleusa.com	Purchase Source: Major Distributors
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Mark VI (cassette—16 instruments)	\$148.99 / Cassette	Premier Dental Products 888-773-6872 www.premusa.com	Purchase Source: Major Distributors
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3%+ GLUTERALDEHYDE INSTRUMENT SOAKS—Accomplish fast-acting, broad-spectrum kill including a resistant bacteria (tuberculosis) and a resistant non-enveloped virus (poliovirus) in the presence of heavy bioburden (fresh human whole blood).

Cidex Plus 3.4	31¢ / oz	Advance Sterilization Products (ASP) 800-595-0200 www.aspij.com	Purchase Source: Major Distributors
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NEEDLESTICK PREVENTION (OSHA added requirements in June 2001)

OSHA: 1. Maintain a sharps injury log. All percutaneous injuries from contaminated sharps must be recorded and maintained in a way that protects the confidentiality of the injured employee. This log must contain the following: a) type and brand of instrument involved, b) work area where injury occurred, and c) explanation of how injury occurred.

2. Add to the office exposure control plan. List work practices the office plans to use to prevent needlestick injuries in the office's exposure control plan. The exposure control plan is part of the original OSHA requirements.

Jenker Needle Recapper	\$58.69 Each	Dentsply Professional 800-989-8826 www.dentsply.com	Purchase Source: Major Distributors
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STERILIZATION

CR Criteria: Provide sterilization of instruments to meet FDA specification.

CDC: Heat sterilize intraoral devices that can be removed from air and waterlines.

CHEMICAL VAPOR HEAT STERILIZERS—Harvey Chemiclave, supported by Thermo Fisher Scientific, is no longer available for purchase.**DRY HEAT STERILIZERS**

DDS 7000* (Rapid dry heat)	\$4,087 / Sterilizer	Dentronix 800-523-5944 www.dentronix.com	Purchase Source: Dentronix and Major Distributors
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STEAM HEAT STERILIZERS

StatIM G4 (2000, 5000)*	\$6,755 / StatiM 2000 \$6,865 / StatiM 5000	SciCan 800-572-1211 www.scican.com	Purchase Source: Major Distributors
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*FDA cleared for handpiece sterilization

STERILIZER MONITORING (CDC expands beyond OSHA)

CR Criteria: Chemical indicators (temperature sensitive ink) provide visual confirmation that one parameter of the sterilization process reached a critical threshold but do not assure sterility

- Biological Monitors verify sterilization using 1 million spores of appropriate genus and species. Test strips are processed at least weekly and may be incubated in-office or sent to a monitoring service.

CDC: • Use chemical indicators (temperature sensitive ink) within each package. If not visible from the outside, place a second indicator on the outside of the package.

- Use mechanical monitors (timer, temperature, and pressure) for each load. Record results.
- Use biological monitors (spore strips) at least weekly to ensure the effectiveness of the sterilization process. Record results.
- Do not use instruments if monitoring reveals inadequate processing.

SEND-AWAY BIOLOGICAL MONITOR SERVICE**Maxitest Mail-in-Sterilizer Monitoring Service (order #101-4715) 52 tests**

Includes 2 monitors (the test and control), postage paid envelope, and results returned by mail

\$3.85/Test

Henry Schein

800-372-4346
www.henryschein.com

Purchase Source:

Henry Schein

IN-OFFICE BIOLOGICAL INDICATORS FOR 3 TYPES OF STERILIZERS**Attest 116K Kit**

(Steam Heat)

\$9.23/Indicator
\$508.20/System (incubator, indicators)

3M ESPE

800-634-2249
www.3mespe.com

Purchase Source:

Major Distributors

SporView Culturing Set

(Dry and rapid heat oven)

\$3.25/Indicator
\$165 Dry heat incubator
\$275/Starter kit

SPS Medical

800-722-1529
www.spsmedical.com

Purchase Source:

Major Distributors

Steritest

(Ethylene oxide)

\$5.95/Indicator
\$760/Incubator AN810

Andersen Products

800-523-1276
www.anpro.com

Purchase Source:

Andersen Products

POUCH WITH CHEMICAL INDICATORS**Assure Plus**

8¢–51¢ Each
(depending on size)

Sultan Healthcare

800-637-8582
www.sultanhc.com

Purchase Source:

Major Distributors

Peelvue Plus

10¢–60¢ Each
(depending on size)

Dux Dental

800-833-8267
www.duxdental.com

Purchase Source:

Major Distributors

Sure-Check

6¢–54¢ Each
(depending on size)

Crosstex

800-707-2737
www.crosstex.com

Purchase Source:

Major Distributors

REUSABLE POUCH—Require purchase of chemical indicators for inside and exterior of pouch**Enviro pouch**

6¢–11¢/Use
expect 200+ uses per pouch
\$12–\$22 Each (depending on size)

Enviro pouch

877-632-1991
www.enviropouch.com

Purchase Source:

Enviro pouch

VACCINES (CDC expands beyond OSHA)

CR Criteria: Render most humans immune to infection. CR recognizes the value of and encourages appropriate immunizations and serological testing to confirm immune status. Hepatitis B (HBV) Vaccination required by OSHA, employer to provide.

CDC: • HBV – Immunizations based on current recommendations, employee's medical history, and occupational exposure risk.

- 1 to 2 months after first set of 3-dose series, perform seroconversion test to confirm absence or presence of antibody against HBV. If negative, complete a second 3-dose series preferably with a HBV vaccine from a different manufacturer or determine if person is a carrier of HBV (HBsGg-positive).
- Repeat serological test for antibodies after second 3 dose series.
- Counsel non-responders to the vaccine on their susceptibility to HBV infection. Additional information is available at wp.hepb.org; then search non-responders.

CDC'S RECOMMENDED IMMUNIZATIONS FOR HEALTHCARE PERSONNEL (HCP) OCTOBER 2009 (See www.immunize.org/catg.d/p2017.pdf)**Hepatitis B (3 inoculations)****Engerix-B, Recombivax HB**

Give 3-dose series, confirm seroconversion, no booster

Source:

Local Health Department

Influenza**Trivalent (Inactivated) Vaccine - TIV
Live, Attenuated Vaccine - LAIV**

Give 1-dose intramuscularly Fall each year OR
Give 1-dose intranasally Fall of each year if non-pregnant, healthy,
and age 49 or younger

Source:

Local Health Department

Tetanus-Diphtheria-Pertussis

Give 1-dose Tetanus - Diphtheria booster every 10 years
Give 1-time dose of Tdap to all younger than 65 years

Source:

Local Health Department

If childhood infection not confirmed:**Varicella (Chickenpox)****Measles-Mumps-Rubella (MMR)**

2 doses 4 weeks apart - no booster
2 doses at least 1 month apart - no booster
Born before 1957: considered immune, but
recommend 2 doses MMR during mumps outbreak

Source:

Local Health Department