



Surface Disinfection: BioSURF Surface Disinfectant Outperforms All Current Competitors

Gordon's Clinical Observations: There has been a major void in infection control in the U.S. for several years since Lysol Spray lowered the ethyl alcohol in its formulation. The May 2017 *Clinicians Report* included an article on pre-wet wipe surface disinfectants that may have frustrated you because of the lack of adequate products. Research just completed by TRAC Research, the human studies division of CR, has identified the plant-based BioSURF disinfectant that has a kill potential similar to the old very potent original formulation Lysol Spray. *You, your staff, and your patients will benefit from this very new information.*



Current pre-wet disinfectant wipe formulations are convenient, but have been shown to spread rather than kill pathogens contained within complex human proteins always shed during dental procedures (*blood, saliva, crevicular fluid, pus, etc.*). To achieve the thorough, fast microbe

kill expected by patients and clinicians on clinical surfaces, **there are three components of surface disinfection that must be present, effective, and compatible with each other. These components are: (1) The disinfectant formulation, (2) The packaging and dispensing, (3) The wipe material.** After 40+ years of a worldwide search that includes extensive microbial testing of now 190+ products, one has finally met the necessary essentials in all three surface disinfectant components. **The following report describes and lists steps in use of the newest BioSURF environmental surface disinfectant.**



Bag-in-a-Box dispensing of BioSURF

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Effective Implant Scaling

Gordon's Clinical Observations: Every practice has numerous patients with implants, and their use is increasing. Have you observed calculus forming around implants? If so, what instruments should be used to remove it? Both plastic and titanium scalers are promoted. Some are relatively effective, but others are useless. *In this report, CR clinicians and scientists discuss this clinical need and identify the best way to remove calculus from implants without endangering them.*

Implant failure is frustrating for both the patient and clinician. Maintaining and scaling implants continue to be controversial, including the unknown risks of damage to soft tissues or the implant itself. Some of the controversial factors include:

- Lack of soft tissue attachment to implant—probing and scaling may disrupt the epithelium
- Contribution of calculus to inflammation—how aggressively should it be removed?
- Scratching or gouging the implant—is there a negative effect?

Current implant scalers and probes are significantly improved over earlier designs and have features that minimize the risks associated with this hygiene challenge. **The following report provides clinical observations related to implant hygiene, a comparison of implant scalers, clinical tips, and CR conclusions.**



Heavy calculus formation around implants is uncommon, but when it does occur (such as shown) plastic scalers are largely ineffective.

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Is Your Oral Cancer Screening Adequate?

Gordon's Clinical Observations: Oral cancer is one of the most devastating of cancers destroying not only oral tissues, but often severely disfiguring the patient. The viability of oral cancer detection devices is controversial having received mixed results in the literature due to low specificity and false positives. Proponents use adjunctive screening devices in addition to standard exams, aiming to identify early and/or premalignant lesions which can be more conservatively treated. The comprehensive oral evaluation with thorough head and neck exam is the gold standard for oral cancer screening, and surgical biopsy of unresolving lesions is standard of care for diagnosis. *This report discusses best techniques for oral cancer screening.*

Early detection of oral cancer greatly improves survival rates. ADA recommends regular visual and tactile examinations, especially for patients exhibiting **common oral cancer risk factors**, including:

- Tobacco use
- Excessive alcohol consumption
- HPV infection
- Genetic predisposition
- Age and sex (*males age 40+ have increased risk*)

In addition to comprehensive oral examinations, many adjunct diagnostic aids are available to assist in oral cancer detection. **This report compares commercially available oral cancer screening devices and provides technique suggestions.**

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Products Rated Highly by Evaluators in CR Clinical Trials

Four products rated excellent or good by CR Evaluator use and science evaluations: TGuard Aerothumb; Galilean Pro TTL Loupe and EOS HP Headlamp; Cleanadent Cleansing Crystals; and SoloCem

Continued on Pages 6 and 8

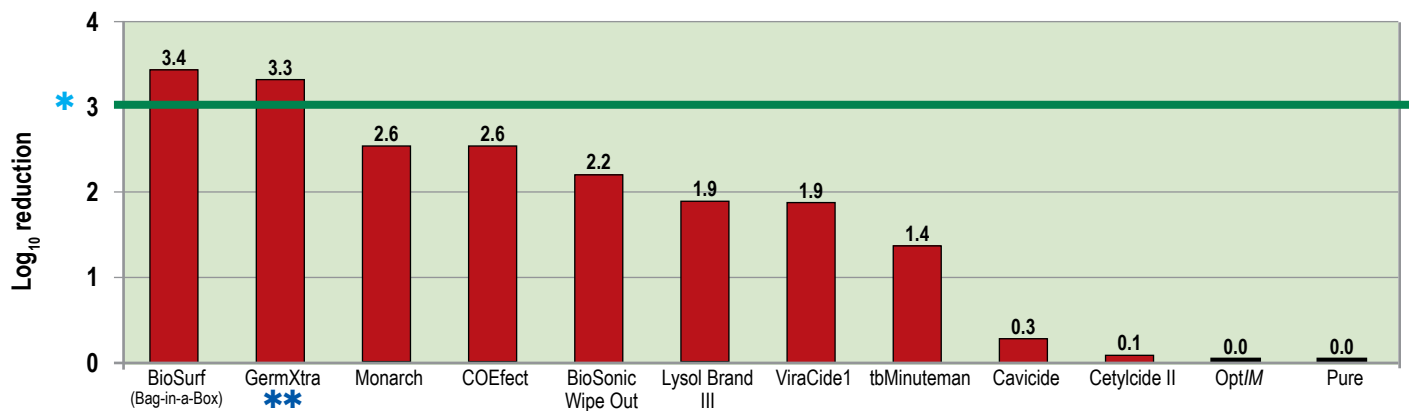
Surface Disinfection: BioSURF Outperforms All Current Competitors *(Continued from page 1)*

1. THE DISINFECTANT FORMULATION: ethyl alcohol and chlorhexidine gluconate chemistry

- Since 1976, we have defined “efficacy” of healthcare disinfectants as fast, broad-spectrum kill of **poliovirus1** and ***Mycobacterium bovis* bacteria (TB) in the presence of at least 10% fresh human whole blood**. These test organisms were selected because both are difficult to inactivate with chemicals. Fresh human whole blood was placed in the test system because it is a challenge faced clinically daily. Industry has avoided this challenge because most disinfectants are neutralized by it. **Disinfectant companies know their products fail to kill if complex body fluids are present. For years they have put clinicians at high risk by directing to clean before disinfecting. This dangerously places the cleaning personnel in harm’s way.**
- It is imperative that disinfectants simultaneously kill and clean.
- Over the years, our tests identified original formulation Lysol Disinfectant Spray and GermXtra as products that met the above criteria—earlier iterations of BioSURF did not. However, Lysol and GermXtra were dispensed as spray-ons which created irritating aerosols, and neither were sold with a compatible wipe, which meant incompatible wipe materials were often chosen unknowingly by staff.
- In January 2017, BioSURF plant-based formulation using a modified production process became available. The graph below compares results of testing this BioSURF dispensed directly from its novel “Bag-in-a-Box” packaging compared to other products tested.

FIGURE 1: Kill potential within 3 minutes of 12 surface disinfectants on poliovirus1 in the presence of 10% fresh human whole blood.

* Generally, if a chemical kills 3 \log_{10} (99.9%) of a million organism challenge, it can claim disinfection. Green line indicates 3 \log_{10} kill.



** Not available in U.S.

Summary of Graph:

- Only BioSURF Bag-in-a-Box and GermXtra from a freshly opened container killed poliovirus1 in the presence of 10% fresh human whole blood within 3 minutes. BioSURF is EPA registered in the U.S., but GermXtra is not (*both are registered in Canada and some other countries*). BioSURF active ingredients are 70.5% ethyl alcohol and 0.2% chlorhexidine gluconate by weight, or 84% ethyl alcohol and 0.2% chlorhexidine gluconate by volume at 60°F.

2. THE PACKAGING AND DISPENSING: Bag-in-a-Box



Bag-in-a-Box sealed delivery preserves disinfectant from air exposure degradation. To obtain full kill potential, the liquid should be dispensed directly onto a non-interfering wipe before each use.



Pump spray bottle dispensing is less desirable because it draws in air to displace the liquid as spray. This exposes contents to air degradation and decreases kill potential unless contents are fully used and fully replenished each day.

- Kill potential of all disinfectant formulations decreases when exposed to air. Once the manufacturer’s seal is broken, degradation begins.
- Pre-wet wipe dispensing makes no pretense of seal, and pump spray bottles draw in air to displace the liquid as spray. Once opened, both methods of packaging and dispensing cause gross loss of disinfectant kill potential over time. **This degradation problem is overcome by Bag-in-a-Box delivery**, which is a system long present in the wine industry to preserve wine chemistry and flavor.
- The efficacy of liquid in Bag-in-a-Box dispensing is maintained because the liquid is sealed within an air-tight bag that collapses on itself as the liquid volume decreases during use.
- For clinicians to obtain full kill potential from BioSURF, they should dispense the disinfectant directly onto a non-interfering wipe material just before each use.
- If clinicians insist on using a pump spray bottle, contents should be fully used then fully replenished *each day* to maintain kill potential (*start with empty bottle each day*).

BioSURF Bag-in-a-Box 5 liter bag = \$59 U.S.

U.S.—order from PureLife Dental at www.purelifedental.com

Canada—order from local dental dealers

Surface Disinfection: BioSURF Outperforms All Current Competitors *(Continued from page 2)*

3. THE WIPE MATERIAL: LeCloth Dry Wipes

LeCloth Dry Wipes are a separate product sold by the same company selling BioSURF. They are dispensed from a canister identical to those used for current generation pre-wet wipes, but they contain no liquid. **Ideally, LeCloth Dry Wipes are wet with BioSURF just before each use and discarded after each operatory clean-up, to achieve maximum disinfectant kill.** LeCloth Dry Wipes characteristics:

- Do not interfere with BioSURF kill.
- Biodegradable.
- Do not disintegrate during vigorous cleaning.
- Can be re-wet frequently to keep disinfectant delivery high during disinfection of an operatory.
- Discarded after each operatory clean-up as regular waste.
- 7" x 9" dimensions are convenient sizing.

LeCloth Dry Wipes = \$5 per roll of 100 (5¢ per wipe)
U.S.—order from PureLife Dental at www.purelifedental.com
Canada—order from local dental dealers



4. CLINICAL TECHNIQUES for BioSURF use

DISPENSING: Two possible methods

METHOD 1: Dispense from Bag-in-a-Box directly onto wipe. *(Preferred)*

- Set up the system as pictured. *(Note: the white bowl and glass pan are kitchenware and were purchased separately locally.)* This placement positioning for the BioSURF box facilitates dispensing from the top of a counter.
- Loosely ball up 1 or several LeCloth Dry Wipes and open faucet holding wipes very close to orifice, allowing excess to drip into the bowl.



METHOD 2: Dispensing from Bag-in-a-Box into spray bottle.

- Position Bag-in-a-Box on counter edge and dispense into a pump spray bottle. Spray from pump bottle directly onto LeCloth Dry Wipes, wetting generously and allowing excess to drip onto counter to be wiped. *(Do not spray directly onto surfaces. Fully fill bottle with fresh disinfectant daily.)*



Application Steps:

1. Generously wet LeCloth per Method 1 (*preferred*) or Method 2 shown at left. Spread disinfectant evenly and generously and scrub to remove visible debris. Re-wet LeCloth generously as needed, as you proceed.
2. Allow disinfectant **3 minutes** on surfaces to obtain penetration into soil and oral proteins and kill organisms within. *Less than the 3 minute contact time can diminish kill since this disinfectant is killing organisms within soil and oral proteins.*
3. **OPTIONAL STEP.** If streaking occurs on dark surfaces—*damp-wet* a paper towel with BioSURF and wipe surface quickly to produce even, shiny appearance as a last step, **AFTER** completing the 3 minute disinfection steps above.



Some types of rubber, plastic, paint, and naugahyde may not tolerate regular use of this high ethyl alcohol-chlorhexidine formulation. Clinicians should consider replacing items that will not tolerate effective disinfection after each patient, or use barriers for those items.

TRAC RESEARCH CONCLUSIONS: BioSURF is the first, and currently only U.S. EPA registered, surface disinfectant with the combination of:

- (1) 3 minute broad spectrum kill in the presence of fresh human whole blood.
- (2) Packaging designed to eliminate loss of kill potential due to air exposure by use of the wine industry's Bag-in-a-Box delivery.
- (3) Dispensing that prevents aerosol generation.
- (4) A wipe that does not interfere with the disinfectant's kill potential.
- (5) Biodegradability of all materials in the system.

Evaluators stated the box needs: (1) to be more sturdy, (2) a built-in collection bowl to catch overflow, (3) a more positive seat for the faucet.

Effective Implant Scaling *(Continued from page 1)*

Clinical Observations




















Implant hygiene observations from CR Clinicians and a recent survey (*n=878*):

- **Patient home care** was the most critical factor for success.
- **Clinicians indicated Excellent (48%) or Good (49%) success** at maintaining bone level and healthy soft tissues.
- **Calculus formed around implants less** than around natural teeth in most (77%) situations.
- **Many clinicians (28%) indicated they do not routinely scale around implants** if tissue appears healthy with no sign of calculus.
- **Most frequent treatments performed at recare appointments:**
 1. Scaling with implant-specific scaler (77%)
 2. Polish with rubber cup and paste (43%)
 3. Lavage (23%)
 4. Scaling with conventional hand scaler (17%)
 5. Scaling with ultrasonic scaler (11%)
 6. Sub-gingival air-slurry polishing or other treatments (<1%)
- **Types of implant scalers used most frequently:** Polymer/plastic (51%); Titanium (19%); Conventional stainless steel (14%); With special coating (6%)

The most common implant hygiene involved plastic scalers to remove plaque, disrupt bacteria, and stimulate tissues without marring the implant, abutment, or prosthesis. When calculus was present, however, titanium scalers were more effective.

Scaler Features and Performance

The following table shows 11 brands of implant hand scalers that performed well in recent CR in-house and clinical field testing. Numerous additional brands are available. Many brands are available in convenient kits that may include popular shapes, a perio probe, sharpening stone, and sterilization cassette. Conventional stainless steel scalers were used as controls for comparison.

| Brand Company | Approximate Cost Each | Example Tip | Average Width | Can Be Sharpened | Firmness and Tactile Sensitivity | Potential to Gouge Implant | Ease of Calculus Removal | Overall Rating (out of 10) |
|--|-------------------------|---|---------------|-------------------------|----------------------------------|----------------------------|--------------------------|--|
| Titanium Scalers | | | | | | | | |
| Athena Titanium Implant Scalers/ Curettes, <i>A. Titan</i> | \$50 |  | 0.8mm | Yes | Excellent | Minimal–Moderate | Excellent |  8.75 |
| Titanium Implant Instruments with ErgoMix handle, <i>LM Dental</i> | \$20 tips (plus handle) |  | 0.7mm | Yes | Excellent | Minimal–Moderate | Excellent |  8.63 |
| Titanium Implant Maintenance Instruments, <i>PDT</i> | \$52 |  | 0.8mm | Yes | Excellent | Minimal–Moderate | Excellent |  8.56 |
| Implant Instruments <i>American Eagle Instruments</i> | \$60 |  | 0.8mm | Yes | Excellent | Minimal–Moderate | Excellent |  8.44 |
| Titanium Scalars with Bionik handle <i>Karl Schumacher</i> | \$58 |  | 0.9mm | Yes | Excellent | Minimal–Moderate | Excellent |  8.44 |
| ImplantPro Titanium Scalars <i>Brasseler</i> | \$58 |  | 0.7mm | Not recommended | Excellent | Moderate* | Excellent |  8.25 |
| ImplaMate <i>Nordent</i> | \$61 |  | 0.8mm | Not recommended | Excellent | Minimal–Moderate | Excellent–Good† |  8.13 |
| Titanium Implant Curettes <i>Salvin</i> | \$62 |  | 0.8mm | Yes | Excellent | Moderate* | Excellent |  8.06 |
| Polymer Scalars | | | | | | | | |
| Implacare II Scalars <i>Hu-Friedy</i> | \$6 tips (plus handle) |  | 1.0mm | Intended for single use | Good–Fair | None–Minimal | Good–Fair | 7.94 |
| Implant-Prophy+ <i>Tess Oral Health</i> | \$27 |  | 1.2mm | Yes, stone provided | Good | Minimal | Good | 7.50 |
| Premier Implant Scalars <i>Premier</i> | \$29 |  | 1.1mm | No | Good | Minimal | Good–Fair | 7.06 |

* Very sharp and effective, approaching stainless steel scalars † Slightly rounded edge design was less aggressive around implants.

Summary of Findings: All scalars were clinically useful within their intended functions. Ratings showed the similar performance of scalars within each type. Overall, titanium scalars provided more thorough cleaning and debridement, but had greater potential to gouge implant.

• Titanium Scalars

(various alloys, treated, coated, etc.)

- Excellent sharp edges and firmness for tactile sensitivity and calculus removal.
- Rounded tips minimize soft tissue damage and gouging.
- Can scrape implants if used with firm pressure.
- Can leave dark marks on ceramics.

• Polymer Scalars

(plastic, resin, graphite, etc.)

- Non-marring to implant bodies, abutments, or prostheses.
- Useful for routine recare of healthy tissues. Can rub over calculus rather than removing it.
- Wider and more bulky than metal scalars.
- Under firm pressure, edges wear quickly leaving debris, and can feel flimsy.

• Conventional Stainless Steel Scalars

(control)

- Hard and sharp—excellent tactile sensitivity and calculus removal, but can easily gouge titanium.
- Contact of dissimilar metals can produce an electrochemical effect—significance unknown.

Effective Implant Scaling *(Continued from page 4)*

Clinical Tips

• **Suggested implant hygiene:**

- **Healthy implant and tissues:** Clean with prophy cup (*scaling may not be necessary*), or use a plastic or non-aggressive scaler which will not mar implant.
- **Calculus present:** Use a titanium scaler that will easily remove calculus while being relatively gentle on implant. Aggressive conventional stainless steel scalers are seldom needed.
- **In all cases:** Use care to minimize disruption of soft tissues which are often more fragile and not firmly attached to implants.

• **Patient home care:** Oral hygiene is the most important factor for long-term implant health. Instruct patients on proper flossing, brushing, and other aids (*mouthrinses, oral irrigators, electric toothbrushes, interproximal brushes, etc.*).

• **Probing around implants:** Wait a period of months after implant loading before gentle probing to establish a baseline. Periodically re-check, although many clinicians do not routinely probe around implants unless there is evidence of a problem. Use very gentle pressure with a flexible plastic or titanium probe to minimize damage to delicate tissues. Many implant scaler kits include a suitable probe.

• **Monitoring bone level:** Make and compare periodic radiographs to detect changes in bone level around implant. Sometimes bone begins resorbing despite healthy appearance of soft tissues.

• **Cement removal:** Extruded crown cement left subgingivally is a common cause of implant failure. Make radiographs after seating crown to look for missed cement interproximally. Remove with a sharp *stainless steel* scaler.

• **Sharpening titanium scalers:** Titanium instruments, which are softer than steel, should only be sharpened on dedicated stones that have not been used on steel scalers to avoid embedding hard steel burs into the titanium surface.

CR CONCLUSIONS: Calculus formation around implants and abutments is infrequent for most patients that practice adequate oral hygiene. Routine recare appointments should use the instruments best suited for the conditions present. Titanium scalers were superior to plastic scalers due to effective calculus removal, subgingival access, firmness, and tactile sensitivity, but must be used with care to avoid damage to implant and soft tissues.

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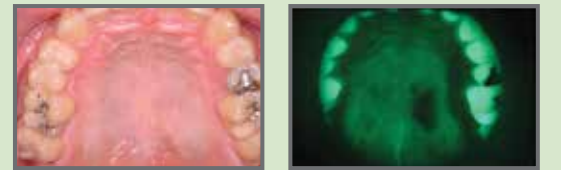
Is Your Oral Cancer Screening Adequate? *(Continued from page 1)*

CR Survey (n= 970)







- **Frequency of oral cancer exams:** 83% all recare visits, 74% initial exams, 19% “high-risk” patient visits, 15% annually, 9% every visit
- **28% currently use adjunct screening devices. Type used:** 19% fluorescence, 12% brush biopsy, 2% dyes, 1% salivary tests
- **Popular fluorescence screening devices:** 77% VELscope, 10% Identafi, 9% ViziLite Plus, 9% OralID, 1% Fusion DOE, 1% Bio/Screen

Adjunct Oral Cancer Screening Devices

This chart compares six fluorescence adjunct screening devices. They are not diagnostic instruments and are **to be used in conjunction with a comprehensive oral exam**. These screening devices accentuate *any* abnormal tissues (*not limited to cancerous lesions*) which have reduced auto-fluorescence and appear darker than healthy tissues (*see photo*).



Images courtesy of LED Dental
Fluorescence screening devices (VELscope shown) reveal a loss of auto-fluorescence (dark area) which is not apparent under white light.

| Photo |  |  |  |  |  |  |
|------------------------------------|---|---|---|--|---|---|
| Model | VELscope Vx | Identafi | Fusion DOE SE | Bio/Screen | ViziLite Pro | OralID |
| Company | LED Dental | DentalEZ | DentLight | AdDent | DenMat | Forward Science |
| Cost | \$1,995 | \$3,109 | \$1,495 | \$1,995 | \$1,995 | \$175/month * |
| Disposables (Cost/Patient) | Lens cap, barrier sheath (\$2.05) | Mirror, barrier sheath (\$3.65) | Barrier sleeve (\$0.15) | Lens cover (\$1.00) | Lens cover (\$1.00) | None ** |
| Photo Options | Apple iPod touch and adapter (<i>included</i>) | SLR camera filter (\$184) | SLR camera filter (\$359) | PhotoMed adapter † (\$99) | PhotoMed adapter † (\$99) | Smart device filter (\$89) SLR camera filter (\$95) |
| Battery Life (power supply) | 12 minutes (<i>built-in rechargeable</i>) | 120 minutes ‡ (2 AA batteries) | 35 minutes (<i>built-in rechargeable</i>) | 65 minutes (<i>built-in rechargeable</i>) | 140 minutes (<i>built-in rechargeable</i>) | 80 minutes ‡ (2 CR123a batteries) |

* Monthly fee includes marketing materials. Requires 2-year contract. Additional light \$125/month.

** CDC recommends barrier sheaths as best practice.

† PhotoMed offers camera adapter which attaches SLR camera to ViziLite PRO, Bio/Screen, and VELscope.

‡ Battery life dependent on battery brand/type.

Is Your Oral Cancer Screening Adequate? *(Continued from page 1)*

Oral Cancer Screening Protocol

1. Comprehensive oral exam, the “gold standard”:

Visual and tactile exam

- Extraoral exam
 - Thyroid
 - Lymph nodes
 - Back of the neck
 - TMJ
- Intraoral exam
 - Oral vestibule
 - Tongue (*base and lateral borders*)
 - Floor of mouth
 - Tonsils
 - Oropharynx
 - Hard and soft palate
- For additional training, consider the Oral Cancer Exam kit from Dental Emergency Kits and Resources.
- Oral cancer evaluation is included in periodic (*CDT code D0120*) and comprehensive oral evaluations (*code D0150*).

2. Use adjunct screening device (*optional*): Repeat intraoral exam using adjunct screening device (*example: VELscope Vx*) and watch for dark, abnormal tissues. These devices aid in the screening process, but are **not** diagnostic. Typically add 1–2 minutes to exam and may be assigned to staff members (*code D0431*).

Clinical Tips and Observations

- **Early detection increases survival rates:** According to the American Cancer Society, the 5-year survival rate for oral cancers detected in the early “local” stages (*stage I & II*) is 83%; however less than one-third of oral cancers are detected that early. The survival rate drops significantly in later cancer stages; 63% - “regional” (*stage III*), 38% - “distant” (*stage IV*).
- **Comprehensive oral exams - both visual and tactile.** It is easy to overlook the tactile component of oral exams, but palpation is very important. According to CR survey data, 49% of clinicians who have located cancerous lesions said palpation contributed to the discovery.
- **Additional screening tests:** various dyes (*example: OraBlu by AdDent*), brush biopsy (*example: OralCDx by CDx Diagnostics*), and salivary diagnostic tests exist to further aid in screening suspicious lesions. These tests **do not** replace a surgical biopsy and pathologic diagnosis.
- **How do I protect myself legally?** Detailed record keeping in the patient record is critical. Records should include: exams completed and any findings documenting the extent and location of abnormalities using photos, diagrams, cytology or biopsy results, and any other relevant information. Refer patients to a specialist when necessary and note in patient record. Follow-up to verify treatment and diagnosis.
- **Should you refer to a specialist?** Most clinicians surveyed (87%) refer biopsies to a specialist, a marked increase from previous data (76% in 2012). Clinicians were motivated to refer patients because of difficulties working with insurance companies and legal advantages.

CR CONCLUSIONS: The comprehensive oral evaluation with thorough head and neck exam is the gold standard for oral cancer screening, and surgical biopsy of unresolving lesions is standard of care for diagnosis. Optional adjunct screening devices, though **not** diagnostic, may make abnormal tissue more apparent at an earlier stage when it can be more successfully treated.

3. **Document findings in patient chart.** Include the following: written description of findings, photos, diagrams, referrals, reports, etc.

***If suspicious lesion is found:**

- Tactfully inform patient
- Document lesion (*photos, diagrams, etc.*)
- **Apparent cancerous lesion:** *immediately* refer to specialist or accomplish in-office biopsy
- **Suspicious lesion:** schedule follow-up appointment (*2 weeks*)
 - At follow-up evaluation (*code D0170*), re-examine lesion noting changes.
 - If lesion has not improved:
 1. Schedule additional follow-up (*2 weeks*) **or**
 2. Refer to specialist or accomplish in-office biopsy

CDT Procedure Codes

D0431: Adjunctive pre-diagnostic tests (*VELscope, Identifi, etc.*)
D7285: Incisional Biopsy of Oral Tissue – HARD
D7286: Incisional Biopsy of Oral Tissue – SOFT
D7288: Brush Biopsy – Transepithelial Sample Collection
(Prior to submitting claim, attach pathology report for all biopsies)

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Products Rated Highly by Evaluators in CR Clinical Trials *(Continued from page 1)*

Unique Thumb Cover with Lock Band to Deter Child from Thumb Sucking

TGuard Aerothumb MED et al



\$49.80/Kit

Safe, kind, low cost way to help children overcome thumb sucking. CR evaluation shows high success with test group. Kit includes one thumb cover, 30 retention bands, one instalock, instructions, and sticker chart. Thumb covers are washable and re-usable; retention bands are disposable.

Advantages:

- Difficult for child to remove once placed, which is necessary feature
- Adaptable to almost all childrens' hands
- Multicolored band adds “fun” to procedure

Limitations:

- Cooperation of child and parents needed for successful habit change
- Device can abrade skin on thumb (*results from incorrect size selection*)

CR CONCLUSIONS: 70% of 20 CR Evaluators stated they would incorporate TGuard into their practice. 80% rated it excellent or good and worthy of trial by colleagues.

Products Rated Highly by Evaluators in CR Clinical Trials *(Continued from page 1)*

High Quality, Custom Fitted Dental Loupes

Galilean Pro TTL Loupe Univet



\$2,100/Loupe and LED headlight combo

Univet has a wide variety of optical devices including Galilean and Prismatic dental and surgical loupes ranging from 2.0X to 5X magnification. The popular Galilean Pro through the lens (TTL) loupe and headlamp were evaluated by CR. The loupe exhibited excellent clinical characteristics. The custom fit was comfortable, including working distance, interpupillary distance, angle of inclination, and dioptric correction.

A high-power LED headlamp with lithium-ion batteries is available with unique screwed-on magnetic connection to loupes or an easily applied clamp arrangement containing the magnet allowing use with other loupes. Charging time 7.5 hours by sitting battery on a unique plate-like charging device. Use time at highest intensity is 8 hours. May use Bluetooth remote controller if desired. Five brightness intensities.

Advantages:

- High quality construction
- Competitive weight with other companies
- Excellent depth and width of field
- Bright image
- Competitive price
- Comfortable custom fit
- Battery can be charged wirelessly or with regular wired wall adapter

Limitations:

- Inadvertent touching of headlamp can rotate it in the magnetic attachment on the loupe
- Some frames require separate side splash guards
- Battery must be placed in particular location on charging plate to initiate charge if charged wirelessly

CR CONCLUSIONS: The Univet Galilean Pro dental loupes and headlamp exhibited excellent clinical characteristics. The high quality, custom-fitted loupes are impressive, and the headlamp is easy to adjust, has a well-defined circular light, and no peripheral scatter.

EOS HP Headlamp Univet



\$1,050/LED headlight when purchased separately

Removable Appliance and Prostheses Sonic Cleaner and Cleaning Solution

Cleanadent Cleansing Crystals

Dr. B Dental Solutions



\$18/Box of 60 (30¢/Packet)
\$7/Sonic Cleaner

Cleanadent Crystals is a cleaning powder created by a dentist that is individually packaged for convenience and appropriate concentration when used in the Cleanadent Sonic Cleaner or added to 1 cup of warm water. Cleanadent Crystals removed stains from dentures and partials, orthodontic retainers, mouth guards, night guards, and sleep apnea devices. Cleaning powder has a mild mint flavor. Ingredients: potassium peroxymonosulfate, sodium benzoic acid, citric acid, potassium bisulfate, magnesium carbonate, potassium sulphate, peppermint extract, potassium peroxydisulphate, sucrose.

Advantages:

- Cleans well
- Easy to use
- Small footprint; compact
- No objectionable flavor after rinsing

Limitation:

- No timer on sonic cleaner, automatic turn-off would be convenient

CR CONCLUSIONS: 72% of 18 CR Evaluators stated they would recommend Cleanadent for their patients to use at home. 88% rated it excellent or good and worthy of trial by colleagues.

Universal Self-Adhesive Resin Cement with MDP and 4-META

SoloCem Coltene



\$27.32/ml

SoloCem is a dual-cure, universal, self-adhesive resin cement. Contains zinc oxide, and MDP and 4-META monomers for good bond strength without requiring a separate bonding agent. CR bond tests verified adequate bond with both auto-cure and light-cure modes. Three shades: dentin, white opaque, and translucent.

Advantages:

- Easy to use
- Good shades
- Good viscosity
- Radiopaque

Limitation:

- As with other cements, clean-up can be challenging if allowed to fully set before excess is removed

CR CONCLUSIONS: 86% of 21 CR Evaluators stated they would incorporate SoloCem into their practice. 90% rated it excellent or good and worthy of trial by colleagues.