

THE DENTAL ADVISORTM

Improving Patient Care Through Research & Education

2015 CLINICAL PROBLEM SOLVERS

Dentists and their teams face daily challenges with materials and equipment when treating patients. Most teams have identified “go to” products that are helpful. These products can solve a clinical problem and save time, headaches, and costs.

This issue of THE DENTAL ADVISOR reports on products recommended by the editorial team of THE DENTAL ADVISOR. Each product has been identified as an excellent choice for solving a particular clinical challenge.

July/Aug 2015

Vol. 32, No. 6

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www.dentaladvisor.com

RATINGS:

Excellent + + + + +
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Good + + +

July/Aug 2015

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John M. Powers, Ph.D.

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Nelson Williams, M.S.
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Ron Yapp, M.S.

PUBLISHER

Dental Consultants, Inc.

Please send inquiries and address changes to:

THE DENTAL ADVISOR,

3110 West Liberty, Ann Arbor, MI 48103
Call: 800.347.1330 - 734.665.2020
Fax: 734.665.1648
Email: info@dentaladvisor.com
Website: www.dentaladvisor.com

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From the Desk of Dr. Bunek, Editor-in-Chief



No matter what subject I am lecturing on from translucency of zirconia to the latest and greatest digital scanning systems, I am consistently asked, "Which products do you use in your practice?" As a member of the editorial board and clinical evaluator at THE DENTAL ADVISOR, I feel fortunate to be well-versed in a broad range of dental products that reach the market. Because of this unique position, I look forward to offering this issue of Clinical Problem Solvers each year to our subscribers. This issue allows us to recommend products which we have found to solve very specific problems or address previously unresolved issues in dentistry.

We know that the individual practicing dentist is faced with an over-abundance of products (new and old) to choose from on a daily basis and limited time and resources can hinder the ability to thoroughly investigate the claims of manufacturers. It gives us genuine pleasure to be able to combine our experiences as practicing dentists and clinical evaluators to offer you this list of go-to products that truly solve clinical problems. While we all have our own opinions regarding individual products, this issue more directly offers you our advice on how these products can be utilized to overcome a specific challenge.

I hope you find these suggestions useful, and please keep your own recommendations coming! As always, you may reach me at drbunek@dentaladvisor.com.

2015 CLINICAL PROBLEM SOLVERS

Contributing Editors

Lori K. Brown,
DDS

Julius E. Bunek,
DDS, MS

Sabiha S. Bunek,
DDS

John W. Farah,
DDS, PhD

John A. Molinari,
PhD

Natalie Alexa,
BS, RDH

Lyn Vandelaar,
BS, RDH

Carol Reed,
RDA, CDA

Debbie Wojtowicz,
RDA, CDA

Monobond Etch & Prime (Ivoclar Vivadent, Inc.)

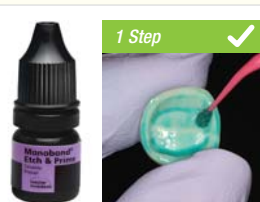
(800) 533-6825 | www.ivoclarvivadent.com

Clinician: Dr. Sabiha S. Bunek



Conventional pre-treatment method with hydrofluoric acid.

VS



Simplified pre-treatment method eliminating hydrofluoric acid.

CLINICAL PROBLEM: Pretreatment of glass-ceramic restorations requires conditioning the internal surface with hydrofluoric acid gel etch, followed by the application of a silane primer. Not only does this two-step process take time but clinicians are also concerned about the safety of hydrofluoric acid gel and would like to find an alternative.

SOLUTION: *Monobond Etch & Prime* combines the conditioner and silane primer into one material. Pretreatment of glass-ceramic restorations can now be done by applying one coat of *Monobond Etch & Prime* liquid on the internal surface of the restoration, agitating the applied liquid for 20 seconds, and allowing it to react for 40 seconds. The liquid is then thoroughly rinsed and air-dried. This product is one of the best innovations in dentistry - less steps and no more hydrofluoric acid gel etch! Lab testing performed by THE DENTAL ADVISOR confirmed excellent bond strengths when using this new primer with lithium disilicate ceramics.

NeoMTA™ Plus® (Avalon Biomed, Inc.)

(844) 682-7587 | www.avalonbiomed.com

Clinician: Dr. Lori K. Brown



CLINICAL PROBLEM: MTA cements have traditionally led to discoloration over time and are characterized by long set times.

SOLUTION: *NeoMTA™ Plus®* addresses these common issues by offering a powder-gel mix that sets to a state which can be easily applied and stays put during the placement of a base or liner. This allows the practitioner to continue with the restoration while *NeoMTA™ Plus®* reaches a final set. The off-white powder is formulated to avoid darkening and contains no bismuth oxide. The bioactive and radiopaque material is indicated for pulpotomy (including primary teeth), pulp capping, cavity lining, base, root-end filling, apexification, perforation repair, root resorption, sealing, and endodontic obturation.

PRO-SYS® Toothbrush (Benco Dental)

(800) 462-3626 | www.benco.com

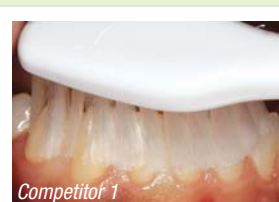
Clinician: Dr. Julius E. Bunek

CLINICAL PROBLEM:

Most manual toothbrushes do not reach plaque under the gumline.

SOLUTION:

PRO-SYS® Tapered Toothbrush includes DuPont Tynex™ tapered filaments arranged in a multi-level design. This design is intended to clean deeper in difficult-to-reach areas, sweeping below the gum line for thorough cleaning. The multi-level design allows the bristles to spread across the tooth surface with gentle pressure. The handle is rubber-free for a cleaner surface. For every toothbrush sold, one is donated to someone in need.



BruxZir® Anterior Solid Zirconia (Glidewell Laboratories)

(800) 854-7256 | www.glidewell dental.com

Clinician: Dr. John W. Farah



Tooth 7-10: Nos. 7 and 10 are *BruxZir Anterior*, 8-9 are *IPS e.max* (Ivoclar Vivadent)

CLINICAL PROBLEM: Finding an esthetic all-ceramic solution in the anterior region for heavy bruxers with limited interocclusal clearance.

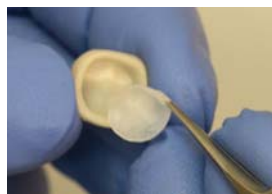
SOLUTION: *BruxZir® Anterior* is a monolithic zirconia that is manufactured to be highly translucent. It exhibits a high average flexural strength of 650 MPa and is an ideal, esthetic solution for your anterior cases. In addition to its esthetics, *BruxZir® Anterior* requires less reduction than other high-strength, monolithic glass-ceramic restorations.

Stabiliner

(Crown Delta Corporation)

(914) 245-8910 | www.crowndelta.com

Clinician: Debbie Wojotowicz, RDA, CDA



CLINICAL PROBLEM: Crowns/veneers slip during try-in. Especially challenging are second molars when there is not an adjacent tooth on either side and multiple restorations are tried in at once.

SOLUTION: *Stabiliner* prevents this movement or slipping of veneers and crowns during try-ins, allowing the patient to move freely without worry. This solution is extremely helpful in veneer cases when a patient may want to move to different light sources to examine shade. Many try-in pastes are difficult to clean up; however, *Stabiliner* is easily removed in one piece.

3M ESPE Protemp Plus Temporization Material (3M ESPE)

(800) 634-2249 | www.3mespe.com

Clinician: Dr. John W. Farah



Eight-unit bridge at 27 months



Close-up of eight-unit bridge and tissues

CLINICAL PROBLEM: A patient's schedule or the schedule dictated by treatment such as implants requires that a provisional restoration will remain in vivo for an extended period of time. Temporary crown and bridge materials can be prone to chipping and/or fracturing.

SOLUTION: *Protemp Plus* addresses this challenge by offering a provisional material with a high fracture resistance and high compressive strength resulting in a more durable temporary restoration that can be used long-term. I was surprised to hear my patient request after 18 months, to leave the *Protemp Plus* temporary in rather than trying in the permanent restoration. At this point, the provisional was completely intact with no chipping, no fractures and minimal staining.

Angie Products

(Angelus)

(855) 346-3682 | www.angelusdental.com

Clinician: Natalie Alexa, BS, RDH



CLINICAL PROBLEM: Children can be uncooperative in the dental chair due to fear of instrumentation and products used during the procedure.

SOLUTION: *Angie* by *Angelus* line of products offer a fun way to engage pediatric patients and include: disposable prophylaxis angles, saliva ejectors, syringe covers and sleeves, masks, a dappen ring, mouth props, air/water syringes, and a line of patient take-home products with the theme Dental Friends.

Le Soothe® Chloroprene Gloves

(SmartPractice)

(800) 522-0800 | smartpractice.com

Clinician: Dr. John A. Molinari



CLINICAL PROBLEM: Clinical staff often report hand fatigue due to the repetitive nature of their work.

SOLUTION: *Le Soothe® Chloroprene Gloves* are the most comfortable gloves I have ever worn, and they are not latex. They provide relief from hand fatigue without the need for purchasing expensive fitted gloves. The gloves are extra soft and stretch so that I feel like I am not wearing gloves at all. They mold to the shape of my hands and provide excellent tactile sensitivity. The aloe vera and Vitamin E in the glove leave my hands feeling very soft, without any dry feeling. I especially notice a difference during longer procedures.

Theracal LC

(Bisco Dental Products)

(800) 247-3368 | www.bisco.com
Clinician: Dr. Sabiha S. Bunek



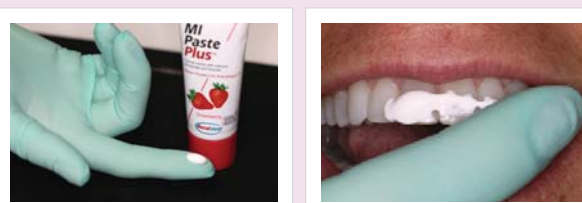
CLINICAL PROBLEM: It is time consuming to place a liner under deep restorations because most materials on the market have to be hand mixed or triturated.

SOLUTION: *Theracal LC* is one of my favorite products on the market. It is a resin-modified calcium silicate filled material ideal for indirect and direct pulp capping, and as a base/liner. When preparations are close to the pulp, I generally use a glass ionomer or CaOH as a liner to promote dentinal healing and to reduce post-op sensitivity. I find *Theracal LC* easier to use than other materials because it is dispensed in a flowable syringe, allowing for direct placement over the affected area. It is light cured so I can control my working time. This product is easy to use and provides me with consistent, effective results.

MI Paste Plus™

(GC America, Inc)

(800) 323-7063 | www.gcamerica.com
Clinician: Lyn Vandelaar, BS, RDH



CLINICAL PROBLEM: Patients experience post whitening sensitivity especially after an in-office whitening session. This sensitivity can be enough to deter some patients from moving forward with whitening and achieving the optimum esthetic results they desire.

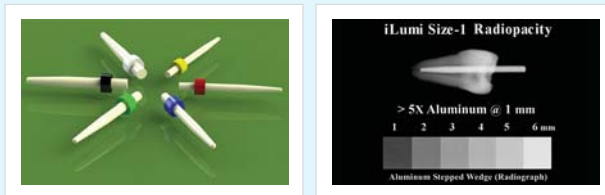
SOLUTION: Applying *MI Paste Plus™* after an in-office whitening or providing to patients to use at home can greatly decrease the intensity of post whitening sensitivity leading to greater compliance.

MI Paste Plus™ is also indicated for use as a topical treatment in the following types of patients: high-carries risk, xerostomia, orthodontics, oncology, pediatric, and high plaque/special needs. It is designed to provide extra protection for teeth and neutralize acid resulting from acidogenic bacteria in plaque and other internal and external acid sources.

iLumi Fiber Optic Dental Post

(iLumi Sciences, Inc.)

(703) 894-7576 | www.iLumiSi.com
Clinician: Dr. Lori K. Brown



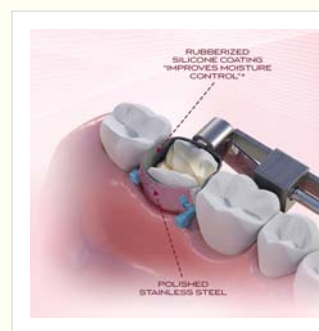
CLINICAL PROBLEM: Fiber posts, desirable in esthetic cases, are not radiopaque enough to distinguish them from surrounding tooth structure in a radiograph.

SOLUTION: *iLumi Fiber Optic Dental Posts* were independently tested in our laboratories with excellent results. The success of using esthetic fiber posts depends mainly on the fit of the post within the canal. Greater radiopacity provides greater contrast within the x-ray image and makes it easier for the clinician to evaluate fit. *iLumi Fiber Optic Dental Posts* provide this necessary contrast, are readily apparent on radiographs, and provide excellent light transmission for curing. *iLumi Fiber Optic Dental Posts* and drills are also accurately matched, resulting in very good adaption of the post to the tooth. Drills are marked with color to match the removable rubber stoppers on the posts, ensuring easy visual identification. Blister packs keep the posts organized and easy to open during the procedure.

PinkBand®

(PinkBand Dental Solutions, Inc.)

(847) 260-8330 | www.pinkband.org
Clinician: Carol Reed, RDA, CDA



CLINICAL PROBLEM: Traditional matrix bands often stick to composite.

SOLUTION: *PinkBand®* has a unique silicone coating, preventing composite from sticking. An added bonus is that the bands improve moisture control and are simple to remove. *PinkBand®* is available in multiple sizes and used with a tofflemire matrix. Contoured sectional matrix bands will be available soon.

Cavitron THINsert FITGRIP Ultrasonic Insert

DENTSPLY Professional

(800) 877-0020 | www.dentsply.com

Description

The **THINsert FITGRIP Ultrasonic Insert** is 47% thinner than the *SlimLine* insert and is designed to access difficult areas without sacrificing tactile sensation. The **FITGRIP** feature is a cushioned portion of the insert that allows the hygienist's fingers to conform to the grip. A large grip diameter and the rippled texture improve ergonomics and lessen the chance of slipping. **THINsert** is indicated for the removal of light to moderate calculus. **THINsert** 30K insert was evaluated in the *Cavitron Plus* unit by 33 consultants in over 1000 uses. This ultrasonic insert received a 92% clinical rating.

Suggested Retail Cost

\$179.99/each

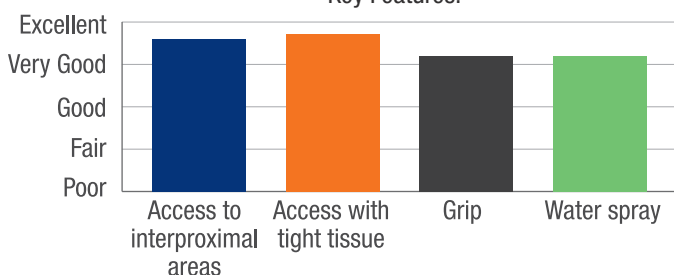
Product Features

THINsert is the thinnest ultrasonic scaler tip that many hygienists had used, and it had excellent access into tight pockets and interproximal areas. The bends in the tip made it useable in all areas of the mouth. It was a very useful specialty tip for areas that are typically hard to reach. The **FITGRIP** feature provided a comfortable grip for the user's fingers; a longer grip portion would have been an advantage when scaling posterior areas. The grip was comfortable to hold but added bulk that affected visibility and access to maxillary molars.

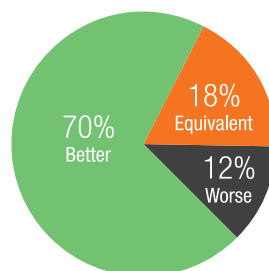
Clinical Tips

- Use with low water spray.
- For patients with heavy calculus, begin with a heavier tip before finishing with **THINsert**.
- Keep o-ring lubricated for easiest insertion.
- **THINsert** without **FITGRIP** is also available. ■

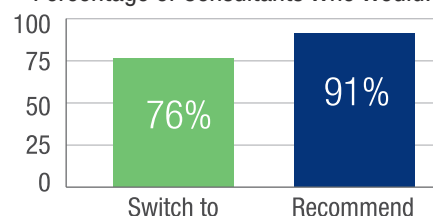
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



++++ 1/2



Consultants' Comments

"I like the very thin tip. It is more comfortable to the patient and does a great job."

"The curve of the tip is just right."

"I could remove calculus with this tip without having to hand scale afterwards."

"Great for use around crowded teeth."

"How thin this tip is! It can get into the tightest pocket and the narrowest contacts"

"The tip is so thin I can probe with it."

"The surface texture of the **FITGRIP** is sticky and gets hung up on the buccal mucosa rather than sliding freely against it."

"Grip needs to swivel."

AHfil +

Advanced Healthcare Ltd

www.ahl.uk.com

Description

AHfil + is a glass ionomer filling material indicated for Class III and Class V restorations, restoration of primary teeth, core build-ups, and minimally invasive restorations. The material contains translucent alumina-silicate for enhanced esthetics and has a packable consistency. No etching or bonding is necessary, and the use of a conditioner (polyacrylic acid) is optional. Finishing can be done after seven minutes, and the restoration should be protected from moisture by covering with a protective coating. **AHfil +** provides high fluoride release and has a coefficient of thermal expansion that approximates dentin. **AHfil +** is available in shades A2, A3, and A3.5 in powder/liquid for hand mixing or capsules for trituration. **AHfil +** Capsules were evaluated by 21 consultants in 301 uses. This glass ionomer restorative received a 76% clinical rating.

Suggested Retail Cost

\$ 149.95/50 capsules

+++



Consultants' Comments

"It seems to excel in terms of desensitizing tooth structure."

"Used it as a base layer under composite in deep preparations and in sensitive teeth."

"High fluoride content is good for caries-prone patients."

"Ideal for treating root caries."

"Especially useful for pediatric cases."

Cavitron Plus Ultrasonic System

DENTSPLY Professional

(800) 877-0020 | www.dentsply.com

Description

Cavitron Plus is an ultrasonic scaler that maintains the features of the original unit with the addition of *Tap-On Technology*, *Turbo* mode and finer water control. *Tap-On Technology* allows the operator to remove the foot from the pedal, avoiding the need for continuous, applied pressure. The *Turbo* mode requires a single push which increases power by 25%; it can also be activated hands-free by pushing the foot pedal to the floor. Other features include wireless foot control; autoclavable handpiece that rotates 330 degrees; illuminated diagnostic display; *Rinse* setting for flushing periodontal pockets and anti-bacterial lavage; and *Enhanced BlueZone*, an extended low power range for increased patient comfort when scaling sub-gingivally. The unit carries a two-year warranty. **Cavitron Plus** is indicated for all general supra- and sub-gingival scaling applications, periodontal debridement, and endodontic procedures. **Cavitron Plus** was evaluated by nine consultants in 747 uses. This ultrasonic scaler received a 97% clinical rating.

Suggested Retail Cost \$2925.45/unit

Equipment Features

Cavitron Plus has a neat, modern design in the familiar blue and white color scheme and simple display. The *Tap-On Technology* allowed users to work on “cruise control,” creating a comfortable procedure for the operator. Many hygienists, however, felt it reduced their responsiveness to their patients, and they preferred to disable this feature. Activation of the *Turbo* mode via the foot pedal allows uninterrupted scaling. Water control on the handpiece offers fine adjustments. Users noted about a 5-second delay in water shut-off after the foot pedal was de-activated. The handpiece is easy to assemble and performs debridement and scaling procedures efficiently.

+++++



Consultants' Comments

"This newer Cavitron Plus is quieter than the one I am currently using."

"It is a great all-around ultrasonic scaler."

"The smooth surface of the unit is easy to disinfect."

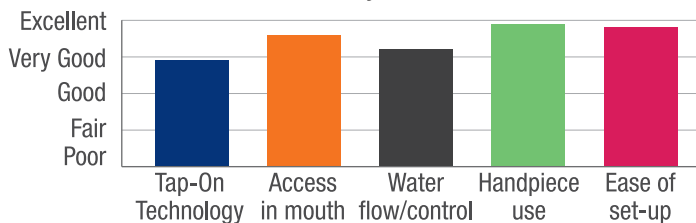
"Portable among operatories."

"Include two handpieces with the unit."

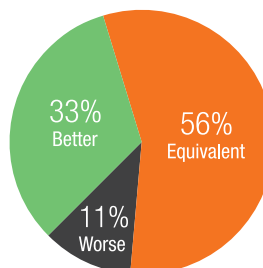
Clinical Tip

- For users who prefer the traditional foot pedal function, the *Tap-On Technology* can be disabled. ■

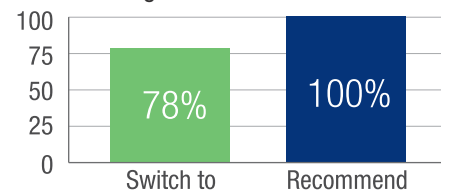
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



AHfil + (cont.)

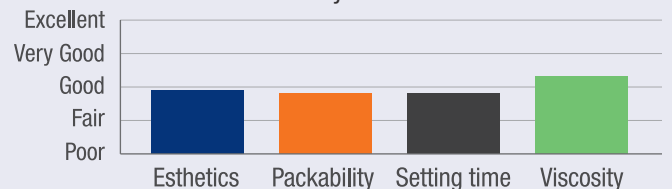
Product Features

AHfil + effectively adheres to dentin surfaces without the use of a conditioner. Consultants found that it reduced temperature sensitivity in teeth, and they used it as a base layer under composite in deep preparations and in sensitive teeth. Placement directly into the tooth from the capsule is a convenience compared to hand-mixed materials. The capsule contains adequate material for filling one or two teeth. The ability to place **AHfil +** without etching or bonding makes it especially useful for pediatric cases.

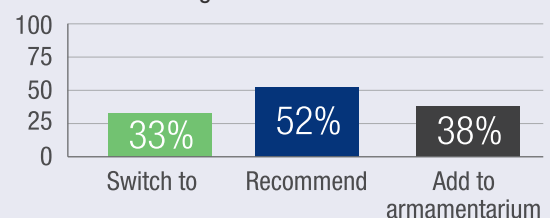
Clinical Tips

- Finishing and polishing using abrasive discs or stones is recommended at a subsequent appointment; however, at 7 minutes after placement, the material is hard enough to finish.
- Fluoride varnish can be used to coat the restoration after finishing. ■

Key Features:



Percentage of Consultants Who Would:



GC FujiCEM™ 2

GC America, Inc

(800) 323-7063 | www.gcamerica.com

Description

GC FujiCEM™ 2 is a resin-modified glass ionomer luting cement. Compared to original **GC FujiCEM**, it has increased bond strength to tooth structure and restorative materials. **GC FujiCEM™ 2** is indicated for permanent cementation of all types of metal-, resin-, alumina- and zirconia-based inlays, onlays, crowns, bridges, and endodontic posts. Working time is two minutes 15 seconds, and intraoral setting time is four minutes and 30 seconds. It is available in a light yellow shade and comes packaged with one 13.3 g **GC Paste Pak** cartridge, 20 mixing tips and one **GC FujiCEM™ 2 Dispenser**. Refills are also available with either two cartridges and 44 mixing tips in an automix package or two cartridges and a mixing pad for the hand-mixing package.

The purpose of this study was to determine the long-term clinical performance of **GC FujiCEM™ 2**. THE DENTAL ADVISOR evaluated performance at two-year recall.

Clinical Evaluation Protocol

- One hundred thirty all-ceramic restorations, cemented with **GC FujiCEM™ 2**, were recalled at two years. Restorations included 104 zirconia and lithium disilicate crowns, 17 bridge units, 6 implant crowns, and 3 implant bridge units (Figure 1).
- Restorations were placed on 102 molars, 12 premolars and 16 anterior teeth (Figure 2).

Clinical Observations at Two Years

Esthetics

The color stability of **GC FujiCEM™ 2** was rated excellent (Figure 3), ensuring optimal esthetics of the restoration.

Retention

GC FujiCEM™ 2 was rated excellent (Figure 3) when used to cement zirconia and lithium disilicate restorations in this study. Only six (<5%) of these restorations debonded in the past two years.

Resistance to Marginal Discoloration

The resistance to marginal discoloration of **GC FujiCEM™ 2** was rated excellent (Figure 3). There was minimal discoloration that might indicate microleakage.

Lack of Postoperative Sensitivity

The majority of patients reported no sensitivity (Figure 3). Four patients (3%) indicated there was some initial mild sensitivity that resolved within a few months.

Laboratory Properties

Mechanical properties of **GC FujiCEM™ 2** as independently tested at THE DENTAL ADVISOR Biomaterials Research Center are listed in Table 1.

Table 1. Laboratory properties of **GC FujiCEM™ 2**

Compressive strength	79.0 (8.5)* MPa
Flexural strength	31.6 (6.5) MPa
Flexural modulus	2.7 (0.2) GPa

*Means with standard deviations in parentheses.

Summary

One hundred thirty all-ceramic restorations, cemented with **GC FujiCEM™ 2**, were recalled at two-years. **GC FujiCEM™ 2** received excellent ratings for esthetics, resistance to marginal discoloration, lack of postoperative sensitivity, and retention. Less than 5% of all restorations debonded during the first two-years in service. These long-term clinical results provide confidence in this resin-modified glass ionomer. **GC FujiCEM™ 2** received a 98% clinical performance rating at two years. ■

2-year Clinical Performance

+++++



Consultants' Comments

"I am pleased with the esthetics and color stability in the restorations cemented with **GC FujiCEM™ 2**."

"The lack of sensitivity is very important."

"Retention is everything. I was very pleased to see so few debonds with this resin-modified glass ionomer."

Patients' Comments

"No problems with this crown."

"It feels good and looks good."

"I had some sensitivity at first but it went away quickly. It has been fine."

FIGURE 1

Distribution of restorations restored with **GC FujiCEM™ 2**.

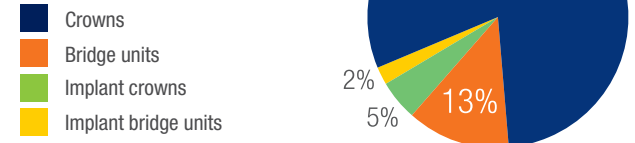


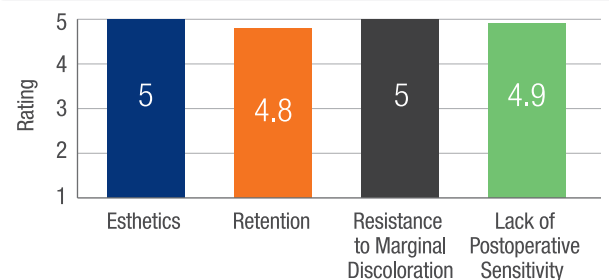
FIGURE 2

Distribution of teeth restored with **GC FujiCEM™ 2**.



FIGURE 3

Results of **GC FujiCEM™ 2** at two years.



iOptima

Bien-Air USA, Inc

(800) 433-BIEN | www.bienair.com

++++ 1/2



Description

The **iOptima** is an *Apple iPod* interface that allows the operator to convert their dental unit to an electric handpiece system. The **iOptima** app must be downloaded from *iTunes* and contains pre-programmed restorative and endodontic procedures. Auto-reverse and auto-forward functions, coupled with speed and torque control specific to file manufacturers are features of the endodontic mode. All settings are customizable, allowing the user to create and configure their own procedures. The system can be installed by the user in the office. A mounting bracket is provided or the console can set anywhere that allows easy access. The **iOptima** kit includes:

- 1 **iOptima** Control Unit
- 1 MX2 Micromotor
- 1 MX2 hose
- 1 Transformer
- 1 *iPod Touch*, 16GB

iOptima was evaluated by 14 consultants over a 90-day period. This electric handpiece system received a 91% clinical rating.

Suggested Retail Cost

\$2,799.00/kit

Equipment Features

iOptima provides an interface that is familiar to *iPod* users. Controls are simple and intuitive, and the software will receive automatic updates. Installation can be performed by office staff, converting any delivery unit into an electric handpiece system. The console (docking station) is a sleek, attractive unit that continuously charges the *iPod* and holds it at an angle that is easy to see and reach during procedures. A wide selection of pre-programmed settings is appropriate for most restorative procedures. Options such as speed, direction of rotation and torque can quickly be adjusted during the procedure. Users would have liked an option for control of water spray. Using one system for high-speed/low-speed/endodontic procedures requires frequent switching of programs and handpiece attachments.



Consultants' Comments

"Patients commented on the high tech nature of **iOptima**."

"I'm not an *iPod* user, but this was intuitive."

"The pre-programmed settings make this system unique and user friendly."

"Handpiece runs quietly and smoothly."

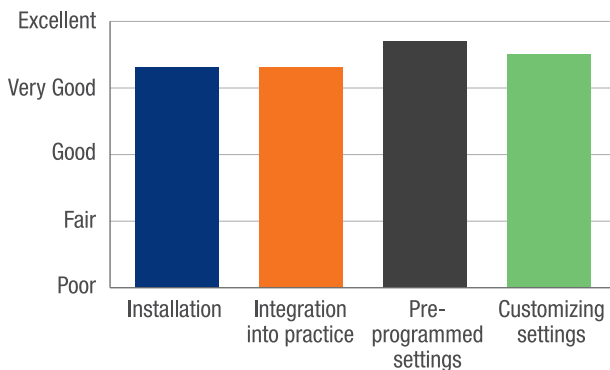
"A larger screen would be easier to see and navigate."

"There was no setting for reciprocating endo files."

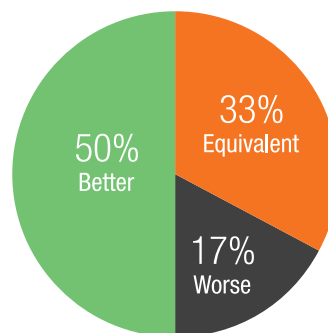
Clinical Tip

Use a clear plastic barrier over the surface of the *iPod* to avoid damage from disinfectant wipes. ■

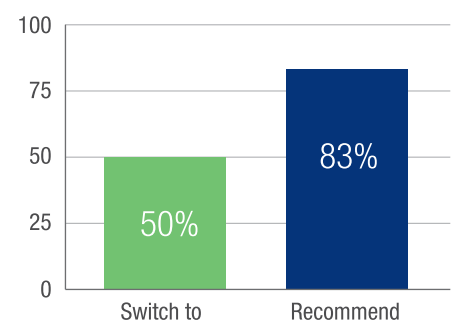
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



Zenostar® Zr Translucent

Ivoclar Vivadent, Inc.
(800) 533-6825 | www.ivoclarvivadent.us.com

Description

Zenostar® Zr Translucent is a pre-shaded zirconia with a flexural strength in the range of 1200 MPa. The purpose of this study was to determine the clinical performance of **Zenostar® Zr Translucent** restorations at placement and over a 12-month period.

Placement Protocol

Dentists placed 101 full-contour **Zenostar® Zr Translucent**, including:

- 60 second molar crowns
- 32 first molar crowns
- six premolar crowns
- one, three-unit bridge (teeth #4-6).

All restorations were designed, milled and finished by *Apex Dental Milling*, Ann Arbor, MI. Seventy-four percent of cases were completed with traditional impressions that were scanned by the milling center and converted into digital files. Dentists obtained impressions digitally through intraoral scanning in 26% of the cases (*True Definition*, *3M ESPE*, and *iTero*, *Align Technologies*). The restorations were stained and glazed to achieve the requested shade. The majority of crowns (74%) were cemented with adhesive resin cements (Figure 1).

Placement Results

The following parameters were evaluated at placement: esthetics, marginal integrity, fit to tooth, interproximal contacts, and occlusion. Categories evaluated were rated on a scale of 1 (poor) to 5 (excellent) (Figure 2).

Fit, Marginal Integrity, Contacts and Occlusion

These design features had excellent ratings with few exceptions. Both traditional and digital impressions produced crowns with excellent fit, requiring minimal to no adjustment.

Esthetics

The majority of **Zenostar® Zr Translucent** restorations received a rating of 5 (excellent) for esthetics. Crowns that received lower ratings were too opaque or had a higher shade value than adjacent teeth. Because the majority of these crowns were placed on molars, the crowns were considered clinically acceptable. In cases where occlusal adjustment removed the glaze from the surface, the exposed zirconia could be polished to a high gloss but had a visible color difference.

1-year Clinical Performance

+++++

Consultants' Comments

"Well done, even the shade. I wish they all this looked this way."
"Great...no adjustment needed."
"Crown is opaque but the patient loved it."

FIGURE 1

Cements Used with **Zenostar® Zr Translucent** Restorations

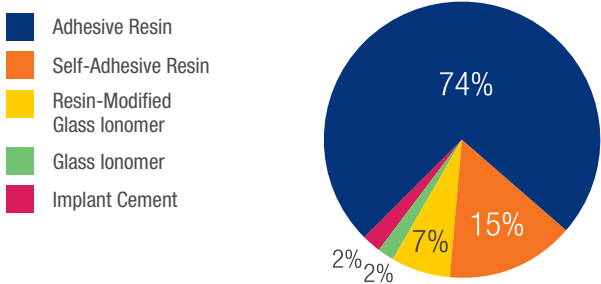
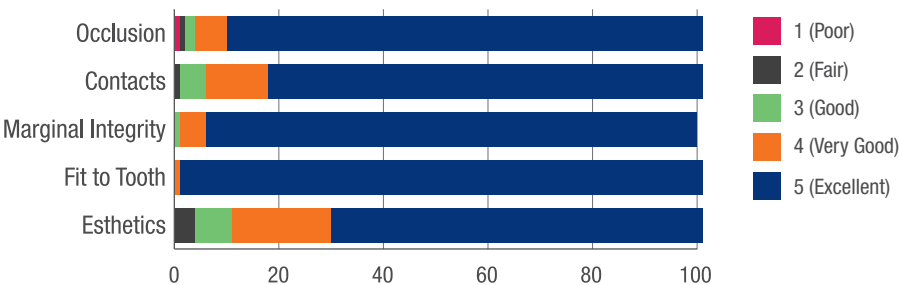


FIGURE 2

Zenostar® Zr Translucent Ratings at Placement (101 Units)



Zenostar® Zr Translucent, 1-year Clinical Performance (cont.)

Recall Results

Eighty-six units were evaluated at recall. Age of the restorations at recall is shown in Figure 3. At recall the following parameters were documented: esthetics, resistance to fracture/chipping, resistance to marginal discoloration, and wear resistance. Categories evaluated were rated on a scale of 1 (poor) to 5 (excellent) (Figure 4).

Esthetics

Esthetics at recall was unchanged from placement (Figure 4). Color was stable, and the glaze maintained a high level of gloss.

FIGURE 3

Age at Recall

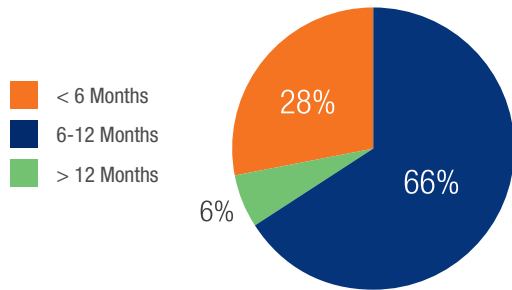
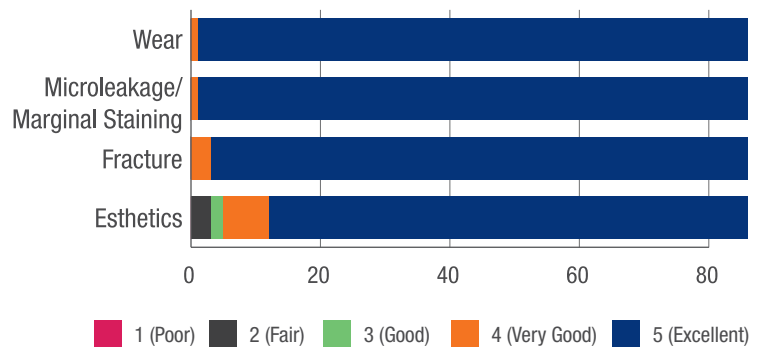


FIGURE 4

Zenostar® Zr Translucent Ratings at Recall (86 Units)



Resistance to Fracture/Chipping and Wear

Zenostar® Zr Translucent restorations were strong and durable, with no fracture, chipping or wear (including the glaze) noted during this recall period (Figure 4).

Resistance to Marginal Discoloration

Resistance to marginal discoloration was rated excellent (Figure 4). The accuracy of marginal fit contributed to lack of staining at the cement line.

Retention

Two crowns debonded to date. One mandibular, second molar crown debonded at five months; the crown was re-cemented. One mandibular, first molar crown debonded at the zirconia/cement interface. Both of these crowns were cemented with adhesive resin cements.

Summary

At placement, **Zenostar® Zr Translucent** restorations received excellent ratings for fit, marginal integrity, contacts and occlusion. The majority of **Zenostar® Zr Translucent** restorations received a rating of 5 (excellent) for esthetics, but some crowns were too opaque or had a value that was too high at the 12-month recall. The rating at placement was 96%.

At one-year recall, **Zenostar® Zr Translucent** restorations received excellent ratings for esthetics, resistance to fracture/chipping, resistance to marginal discoloration and wear resistance. **Zenostar® Zr Translucent** received a clinical performance rating of 98% at one year. ■

Note: Product available for purchase August 2015.

NoMIX Temporary Cement + + + + ½

Centrix, Inc.
www.centrixdental.com

NoMIX® Temporary Cement is now available in a new unit-dose take-home applicator for patient use at home or while traveling. **NoMix** is a single-component, moisture activated, temporary cement designed for short-term cementation of any restoration. Each contains 0.5grams of cement in a small tube for precise placement and enough material for two uses. Packaged in a display box, the 50-pack of take-home applicators is conveniently sized to fit on your counter. Simply open the tube and puncture the tip. Express a small amount onto any provisional restoration and set in place – no mixing is required. Cement will fully set in approximately 15 minutes. The patient should not eat for one hour after placement.



Editors' Note

NoMix Temporary Cement was originally evaluated and published by THE DENTAL ADVISOR in Vol. 21, No. 4, May 2004. It received a + + + + ½ rating and a 92% clinical rating.



PRG Barrier Coat

Shofu Dental Corporation

(800) 827.4638, (760) 736-3277 | www.shofu.com

Description

PRG Barrier Coat is a light-cured Giomer varnish formulated for treating dentinal hypersensitivity and providing a protective barrier with fluoride release and recharge. Gionomers are a unique class of bioactive materials. They contain a nano-sized multifunctional glass core that undergoes an acid-base reaction during manufacturing. Coated with six beneficial ions, fluoride, sodium, strontium, aluminum, silicate and borate, this ion arrangement protects the glass core from moisture, acid and plaque build-up, giving Giomer-based materials long-term aesthetics and durability. **PRG Barrier Coat** is self-adhesive, with no separate etching or bonding steps required. Only a thin surface layer, about 15 µm, is needed to provide prolonged hypersensitivity relief. Containing no alcohol, acetone or hema, **PRG Barrier Coat** is safe to use adjacent to soft tissue. This is a two-part system inclusive of a base and activator that are mixed together. Apply a thin layer of the mixture and leave undisturbed for more than three seconds. Light cure for 10 seconds. Each kit includes a 0.9 mL syringe of **PRG Barrier Coat Active**, eight unit-dose containers of **PRG Barrier Coat Base**, and accessories. Refrigeration is required. **PRG Barrier Coat** was evaluated by 23 consultants in 226 uses. This desensitizer received an 84% clinical rating.

Suggested Retail Cost \$33.66/kit

Product Features

PRG Barrier Coat is easy to apply, providing an ultra-thin coating that has the potential to last up to six months. Many consultants noted that it was immediately effective, distinctly with patients suffering from severe gum recession. The volume of material in a single dose is enough to treat about two teeth. Treatment of broader areas requires mixing additional solution. Orthodontists used it around orthodontic

+++ 1/2



Consultants' Comments

"Effective on root sensitivity."

"Short application time."

"Application is not sensitive to patients."

"Coating looks opaque."

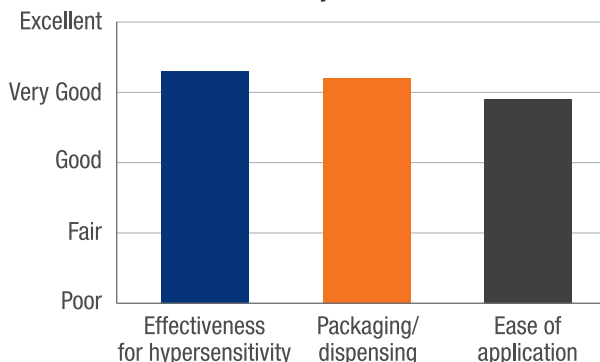
"Not the easiest dispensing system."

brackets to provide protection from plaque, hoping to prevent white spots. It is also useful on areas of high-carries risk: exposed root surfaces, newly erupted molars, and decalcified enamel. Consultants rated the product as very good for patient comfort and 61% reported that they would add it to their practice, even though the requirement for refrigeration and bringing it to room temperature before use may add extra chair time for unscheduled use.

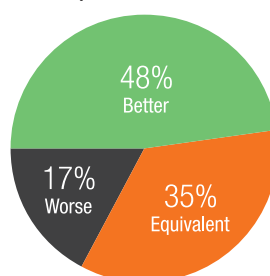
Clinical Tip

- Maintain a dry field during use. ■

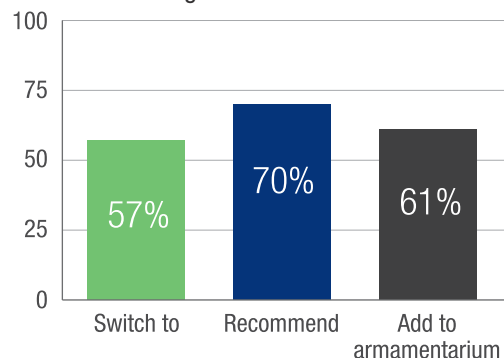
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



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