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AN OPPORTUNITY FOR HEALING

Dr. Elizabeth Reynolds

I would like to open by sharing some words from Kitty O'Meara's poem, "In the Time of Pandemic."

"And the people stayed home.

And they read books, and listened, and rested, and exercised, and made art, and played games, and learned new ways of being, and were still.

And they listened more deeply. Some meditated, some prayed, some danced. Some met their shadows. And the people began to think differently.

And the people healed.

And, in the absence of people living in ignorant, dangerous, mindless, and heartless ways, the earth began to heal.

And when the danger passed, and the people joined together again, they grieved their losses, and made new choices, and dreamed new images, and created new ways to live and heal the earth fully, as they had been healed."

As we are well ensconced in a six-week work hiatus I have noticed that I am struggling with my everyday life. Most of us, I would guess, practice in the manner to which Dr. Overton alludes in his article later in this Journal. We get to work between 7 and 8, work through lunch seeing both scheduled patients and emergencies, move from operatory to operatory checking hygiene patients and seeing our patients; running from an extraction in one room to a crown preparation in the next, juggling HR issues and the ordering of supplies and patient care with the infinite number of responsibilities that come with running a small business. We get home at 6 or 7, have (or cook) dinner, tuck the children in bed, finish the chart notes from the day, and get up and begin it all again the next day. We may complain and whine a bit, but it is how we are made. It is what we do and in some bizarre way we love it. For many of us, it defines who we are.

I initially had grand ideas about what I was going to do for two weeks at home: I could clean out the garage, clean out the closets, organize the Tupperware, whatever my heart desired. Little did I realize how much of a challenge it would be to establish my schedule every day. For someone who is used to being told exactly where to be every moment of every working day, I suddenly realized that I didn't have a schedule. I have since managed to get a bit more organized, but it is still unsettling to awaken each day without the purpose of going to work. I am so grateful for those days that I am assigned to go in and see emergency patients; I feel as though I have a purpose back. Two of my friends mentioned that having too much time on their hands is not a good thing, and I could not agree more. We think too much. We worry too much. We allow our thoughts to get muddled and they swirl around in our heads and we begin to lose our perception of what is truly important.

When I read Kitty O'Meara's poem, I am reminded to take a moment to reevaluate. I try to remember that not only are our patients and teams dependent on us, but so are our families. Our children take their lead from us. They feed on our anxiety so it is our responsibility to provide them with stability and knowledge and comfort. With all of these people dependent on us, we need to be sure to take care of ourselves, just as Dr. Overton recommends. Use this opportunity to take time for you. Meditate, read, pray, exercise, play with your children. Be kind and find joy in the blooms of spring and in the sunrise of a new day. And if we do, when this is all over, we will see that the earth will be healed just as we have healed ourselves.

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REFINING EXCELLENCE

DISRUPTING THE THIRD-PARTY PROCESS

Dr. Kirk Norbo, ADA 16th District Trustee

The ADA continues to forge partnerships with groups who will help strengthen our association and provide members with added benefits. Advocacy still tops the list of reasons why dentists continue to join the ADA, but third-party payer issues come in a solid second. At the February board meeting, the Board of Trustees voted to enter into a business agreement with a company named Bento, headquartered in Boston.

Bento is a start-up technology company dedicated to disrupting the traditional third-party administrative process. The barriers that exist in today's dental insurance marketplace create frustrations for the majority of us on a daily basis. In many cases, this system drives wedges between us, the providers, and our valued patients. Bento's business model is focused on eliminating the hoops that providers and patients must jump through to complete necessary transactions for the delivery of dental care.

Bento has developed a software application that will allow prospective patients to find a dentist, set up appointments, understand the costs and pay for dental services by using a mobile app on their phones. If this new service can gain traction in the marketplace, it is easy to envision a much smoother process whereby dentists and patients will experience a more streamlined system. Once this product is up to scale, Bento's platform will be able to eliminate the insurance reimbursement gauntlet and provide efficiencies that will ultimately benefit patient care.

The marketing agreement that the ADA and Bento have entered into will benefit both parties. The ADA expects to help its members eliminate existing administrative hurdles that have placed a stranglehold on the present system. Bento will in turn be backed by the ADA brand and work with our association to develop a superior provider network.

Bento is working through a pilot phase in its development and is focused on Boston, Miami and the Silicon Valley area of California. They are presenting employers in those areas with dental plans that are built on a discount plan model. There are three options available to employers: Platinum, Gold and Silver based on different levels of fee discounts. At first glance, Bento may appear to be a variation of the same old third party plans we have been complaining about for years but the savings in administrative costs are expected to offset the contracted discounted fees making this a more attractive option.

ADA members are in no way obligated to join a Bento provider network. We know that there is a segment of our members that is completely fee for service and would not consider participating in a discount plan. We also know that a majority of practices in the country participate in at least one plan and this group may be likely to join the Bento network if administrative headaches are minimized and Bento is able to attract more employers into its plans. The ADA board wrestled with the issue of discounted fees as we examined the value of partnering with Bento and came to the conclusion that the potential for streamlining the third-party reimbursement process and directing more of the dollars to patient care far outweighed the reduced fee concern. All of us view the fee for service practice as the gold standard for the payment of dental services but in today's marketplace as the pool of cash paying patients shrinks, it is evident that innovative alternatives to the existing dental care delivery system must be considered if our members expect to be successful in the future.

"Bento's business model eliminates the hoops providers and patients must jump through to complete necessary transactions."

If you'd like to find out more about Bento, its website is **www.bento.net**.

Entering into a partnership with Bento is one of the ADA board's first efforts directed at addressing goal number four of our new strategic plan, Common Ground 2025. This new goal is focused on the public and third-party issues that are plaguing the ability of our members to deliver quality care and receive reasonable compensation for services rendered. The vision of the ADA BOT is to partner with groups such as Bento to help members compete more successfully in the marketplace, deliver better care to our patients and ultimately create a greater value associated with being an ADA member.

Thank you for your loyalty to the ADA and rest assured that the ADA board is doing its best to make you proud of your association.

DENTISTRY NEEDS A REVOLUTION IN RESPIRATORY PROTECTION

Dr. Henry Botuck

The Covid-19 pandemic shows that respiratory protection has been neglected, ignored, and devalued by dentistry for the past fifty years. Change is necessary. We are foolish if we go back to practicing as we did before this latest pandemic. It is not just Covid-19 that should be of concern. For it is not the only communicable disease that can be transmitted days before a person becomes overtly symptomatic.

In the practice of dentistry (using the high-speed handpiece) and dental hygiene (using the ultrasonic scaler), we can create 100,000 aerosols per cubic foot. And that will continue to be the case for the foreseeable future. These aerosols contain different blends of blood, bacteria, viruses and fungus. They can float for hours in the air of our operatories. As they dry out they become droplet nuclei that can be aspirated deeply into the lungs. We are immune to some viruses and bacteria. And, some can cause very, very, serious illness. Do we want to continue to play Russian roulette with our health? Which one is going to get you, on which day?

We've known about the potential health problems associated with aerosols for years and years, but it seems that everyone expected someone else to find a way to mitigate the threat. Who should have addressed the problem? The Boards of Dentistry? The ADA? The AGD? The ADHA? The schools of Dentistry and Hygiene? None of them stood up. But with this wake-up call, all of us in dentistry need to refocus. The ADA, AGD, and the ADHA need to beat the drums in support of change. To do otherwise is to again wait for OSHA to dictate what can and should be done. The profession needs to lead and set the standard of care. Let OSHA follow.

DENTAL SCHOOLS

Dental schools have a big role to play. Students must be required to use the rubber dam on every patient possible. Routine use of the rubber dam must become the new "standard of care". Students must have someone to suction, using the HVE during aerosol producing procedures. I can well imagine the problems this will cause in terms of allocation of resources for the schools. But, dental school administrators will just have to figure out how this can be accomplished, because it is a MUST do. The potential effects of aerosols on student health have been neglected for too long. Not just the student's health, but also the health of the instructors in the clinic, and all of the patients in the clinic. Everyone there shares the risk.

BOARD OF DENTISTRY

State Boards will need to support this new standard by requiring that applicants for licensure use a rubber dam during cavity preparation on Board examinations. Proficiency of rubber dam placement should be part of the requirements for passing the examination.

The Board of Dentistry must require, by regulation, that when dentists and hygienists create aerosols, they have someone at the chair to hold the HVE and do the suctioning. It is impossible for someone to use the ultrasonic or highspeed handpiece and effectively manipulate the HVE at the same time. I have seen hygienists attempt to do this. It just doesn't work well. (I say that regulation is necessary because we can't rely on dentists to do this voluntarily. We wouldn't be wearing masks and gloves if it weren't for OSHA.)

There is a suction device that I have seen that is attached to the HVE and is imbedded in a bite block. But this is not designed to catch aerosols. It basically is a powerful saliva ejector that also catches some aerosols. You can't rely on it to catch enough of the aerosols to make a sufficient difference. And, by the way, saliva ejectors are useless in catching aerosols.

PRIVATE DENTAL OFFICES

Dental offices should routinely use the rubber dam wherever possible. Most of us have gotten away from using them since dental school. The use of the dam is very important to the reduction of saliva contaminated aerosols and infection prevention. The rubber dam and the HVE are the keys to controlling aerosols. Lest you feel that the dam will become a disruptor of your appointment schedule, I have seen it actually blend with the flow of the appointment easily and effectively. The dentist anesthetized the patient. When the anesthesia took effect, the assistant placed the dam and called the doctor. She was terrific. The dentist then came in to prepare the tooth. It was done so smoothly and efficiently that treatment didn't skip a beat.

RESPIRATOR/MASKS & PAPR

When they become available again, every dentist and team member should wear an N95 respirator/mask in the office. The N95, in and of itself, is not a perfect solution. It will protect us only from 95% of the aerosols (5% of 100,000 = 5,000). But, if the number of aerosols is reduced before they can reach the dentist's or hygienist's face, then it is another roadblock against potential infection. To this end, a face shield is also of value in protecting us from the larger droplets coming from the patient's mouth, but not the aerosols.

There is a specific protocol necessary before anyone can use an N95 mask/

respirator. If you have lung problems, you may not be able to use one. I have used one at the chair for the past twelve years without a problem. Since it is your health that we are talking about, the alternative is a hooded Powered Air Purifying Respirator (PAPR). It is like the hood used with a hazmat suit. This may be the only way for those who cannot wear an N95 to stay safe while practicing dentistry. I have tried one and found it comfortable enough. Dental schools may need to make the ability to wear an N95 or a PAPR as a prerequisite for acceptance into the program. The dentist and hygienist must be able to protect themselves from aerosols. This is the real world, folks! There are other Covid-19s lurking out there!

HAIR COVERING & GOWNS

A non-mesh hair covering is necessary for all team members at the chair. That way, the dentists, hygienists, and assistants don't bring those bacteria and viruses home with them.

Gowns, preferably disposable ones, should open from the back so that they can be removed without contaminating the clothes underneath. (After the back of the gown is opened by an assistant, or by the dentist pulling on the gown to break the ties, the gown is pulled off of one shoulder by the opposite gloved hand. That gloved hand then grabs the other glove and sleeve together, and pulls them off the arm while continuing to hold them. The gloveless hand now goes inside the sleeve of the other arm and pulls the gown down until it reaches the glove. Put a thumb inside the glove of the covered hand and pull off both sleeve and glove. Everything is then wrapped into a nice ball from the clean side, and trashed. All this goes on from the clean side of the gown so that the underlying clothing is not contaminated in the process. Taking the gown off from the usual front opening allows the contaminated side to brush against the clean clothing underneath.) If using a laundered gown, once it is taken off, it stays off. You will contaminate your clothing when putting it back on. It should not be re-worn until after laundering.

ENGINEERING CONTROLS

Aerosols are the enemy. Covid-19 is not the only dangerous pathogen that we have encountered or will encounter in the future. So, we need to be proactive and find additional engineering ways to control aerosols in the dental office. Office design will need to change to take aerosols into account. Remember that your team at the front desk and your patients are breathing the air without masks. They need protection. Aerosols are a potential danger to them also.

Ultraviolet germicidal irradiation (UVGI) is a proven way to kill pathogens. UV light of a specific wave length can produce hydroxyls that have been shown to kill pathogens. This sanitizing method can be integrated into heating and ventilation systems. The hydroxyls formed will kill the viruses and bacteria in the recycled air, thus killing those pathogens missed by the HVE. But it may take a few hours to recycle all of the air in the office. It is not the first line of defense, but the clean-up squad. Unlike ozone, hydroxyls are not harmful to our lungs. (Dental and hygiene schools, with multiple chairs spewing aerosols into the air, take note.)

CONCLUSION

Unfortunately, there is no single way to protect us from the aerosols that we produce. So, we need to put ALL of these procedures into place. Hopefully, there are other procedures and technologies down the line that we will be able to add to this basket of preventive measures. But for now, these are all we have. *And we need to use all of them.*

I wrote about the dangers of aerosols in letters to the editor published in the VDA Journal in 2008 and 2017. Maybe this time these words will be taken seriously. There will be other pandemics. Count on it! And, maybe, just maybe, if you have these measures in place you won't need to close your office for the next one.

MALIGNANT HABITS:

AN ADDICTION WITH POTENTIALLY FATAL CONSEQUENCES

Dr. Marvin E. Pizer with K. E. Danty*

I. To Cure a Malignant Habit:

I am still bothered that the truly outstanding surgical textbooks under the heading of "PREVENTION" say little or have no significant mention of the highly suspected etiology of these oral and maxillofacial malignancies. How do we, or how can we, as OMS oncologists stop the malignant habits of these patients? How long do these malignant producing habits persist before the malignant tissue presents? This is a challenge and a problem that oncology must reckon with. If these malignant habits are not discarded, then the patient is on the road to a neoplastic disease!

Addiction has been defined at the N.I.H. "National Institute on Drug Abuse" as being "a chronic, relapsing disorder characterized by compulsive drug seeking, continued use despite harmful consequences, and long-lasting changes in the brain. It is considered both a complex brain disorder and a mental illness. Addiction is the most severe form of a full spectrum of substance use disorders, and is a medical illness caused by repeated misuse of a substance or substances." Addictions can also be non-chemical including addictions to substances, things or activities such as gambling, sex, tobacco, over exposure to actinic rays and inadequate diet. The term "Trigger" is also common in addiction's recovery and relapse prevention. In the various 12-Step programs these powerful cues are simply referred to as triggering exposures to "people, places, and things." Above all, an addiction is a form of obsessive-compulsive behavior where the will and reason are sapped and eroded over time by the seduction of one's "addiction of choice." This is basically the substance or behavior which keys up the optimal pleasure or maximum pain reduction, physical or psychological, in the brain and nervous system, and hence the extremely powerful, almost mesmerizing, compulsive effect.

II. Expanding the "Team Approach" to a "Communal Approach":

The last 25 years of my practice was limited to oral and maxillofacial surgical oncology. Since many of these malignant OMS patients are recorded in medical and dental journals, I have been able to read the history and results of many patients treated by our team approach of a radiation oncologist, medical oncologist and myself. We felt that most patients with malignant disease on the skin and intra-orally revealed what we thought was the origin of their malignant disease, and if not terminated by the patient, recurrence was likely and with even more life-threatening cancers with metastasis. What I did not know was how to effectively halt these habits. Harmful habits are never treated "too soon." The harsh exposure of the oral environment to diet, tobacco use, and other habits like alcohol, oral sex, traumatic occlusion, can and must be contained if our interventional procedures to contain the malignancy are to be effective. We do not know timewise how long it will take a malignant habit to reproduce a recurrence, as well as how much time the original malignancy was victimized by the malignant habits.

When faced with the shock and horror of a cancer diagnosis, some patients will be able to mobilize their life forces, and their "will to live." For example, they may be able to tap into a sense of higher purpose, a life goal, a religious conviction, or an attachment or responsibility to a beloved family member. If their support system of family, friends and coworkers is present and intact, our patient may be able to draw on its comfort and support in their recovery journey. But for others the systems may be non-existent or fragile. Prolonged addictive behavior can erode this safety network, driving friends and family away. There is also the function of aging or geographic mobility, where one's support system is weakened by the death or aging of significant others, or by the geographical distances among family members which has become more the norm in our American lifestyle.

III. "It Takes a Village":

It may take a village to "manage" an addiction. An addicted person is not just faced by the necessity of cessation of addictive behaviors, but also the necessity of cultivating a healthier lifestyle to replace them. One thing obvious from the experiences of Alcoholics Anonymous and Narcotics Anonymous, is that while not "curing" addiction, they reduce the chances that a person will relapse over time. The presence of a caring community of committed co-travelers in recovery creates a profound group effect that assists in maintaining the behaviors and affective states necessary for a recovery. This includes the presence of an emotionally and spiritually supportive group, as well as a personal "sponsor," one with more time, success and expertise in the process of addiction's recovery. This permits everyday assistance to the recovering person, from attending AA or NA meetings, to supportive check-in phone calls, to making medical appointments and showing up for rehabilitation.

A major factor in all recovery is the effect of stress triggering addictive behaviors. These might include marital, legal, employment problems or others. The basic challenges present in life can often "trigger" a relapse as the addiction has become the primary means of coping with distress or stress. Doctors who are

part of a Cancer Treatment Team should have one member always available if the patient needs professional reassurance and consultation, as some casual friends of the patient may offer poor advice and psychologically affect this patient in a negative manner. The patient should be praised for discarding his or her malignant habits and replacing them with new health-inducing habits and lifestyle such as exercise, sports and wholesome dietary choices. Seeing loved ones participating in good health habits, will double the patient's efforts, and feel that he has also contributed to the health habits of the family he loves.

"We do not know timewise how long it will take a malignant habit to reproduce a recurrence, as well as how much time the original malignancy was victimized by the malignant habits."

IV. A More Holistic Approach to Treatment and Prevention:

A major priority for the cancer surgeon and team is to reduce the risk of recurrence of malignancies and to increase the odds of recovery. To this effect we need to rigorously explore and help to coordinate those positive habits which will support the patient's recovery and decrease the odds of recurrence. This suggests a team role for an affiliated social worker, case-manager or nurse practitioner. Aspects might be:

A. Networking: Where a team case manager helps the patient to activate or build his or her supportive networks of family and friends, as well as encouraging formalized support groups such as AA, NA, cancer survivors groups, religious communities or others.
B. Promoting Holistic Treatment: Including diet, exercise and "healthy living" to replace addictive or unhealthy behaviors. This can be facilitated through an educational approach including offering supportive YouTube videos of educational and motivational talks, books, pamphlets and slides. Note that including significant others and family members can be very helpful in reinforcing positive behavioral and attitudinal changes.

V. Summary:

In summary, our efforts to limit, reduce or cease malignant habits must be instituted immediately! Anxiety and stress are often the most common factors for triggering relapse of malignant habits. This can be followed by a consequential irritation leading to recurrent malignancy. For both psychological relief, as well as physical pain relief, patients will often need support in replacing maladaptive addictive habits through developing and strengthening positive habits and lifestyle choices. The cancer treatment team has a supportive role to play in this. Starting to feel better, and feeling good, are the best reinforcements for positive changes! Ultimately a healthier lifestyle and expanded support community will help marshal hope for cancer patients and their families.

Editor's Note: Kenneth E. Danty is a counselor/therapist who has worked with people recovering from addictions and mental illness. On his journey, he also lived and worked with mentally handicapped adults in a number of community-based residential programs.

CHANGED FOREVER

Dr. Richard F. Roadcap

Call it what you will: embargo, shutdown, sabbatical, house arrest. None of us in practice now have ever experienced a practice scenario as occurs at this time. Since March 25 we've been enjoined by the Governor from routine dental practice until at least April 24. This missive comes on the heels of an email, dated March 16, from ADA President Dr. Chad Gehani which implored members to suspend all elective dental care, and provide only emergency procedures or procedures that, if delayed, would cause harm to the patient. The ADA's recommendation to postpone elective procedures for three weeks was supplanted nine days later by a mandate from Governor Northam to cease routine practice for nearly another month.

I'm blessed to have been in practice for over forty years, and perhaps can take the long view. For recent graduates, doctors purchasing a practice, or in a career transition, there is no "big picture." I don't recall an article by any of the practice management swamis advising us on protocols for the Coronavirus-19 global pandemic. Of course, there have been CE courses on pandemics and how they may transpire, but the subject remained an abstraction to most of us. For many VDA members surviving today, tomorrow, and next week eclipses any thoughts on the next generation of nano-particle composites, or the long term wear characteristics of Zirconia crowns.

Patient relations, patient safety, public perceptions, and our own personal health are all considerations. But no relationship has been more fraught with tension than that of the doctor and the doctor's staff. With few patients that can be treated legally, what should we do for our staff? The terms layoff, furlough, and dismissal have all come into play. I urge each reader to take advantage of the VDA's many online resources to help them determine what is in their best interest. I don't pretend to be an HR consultant, and would defer to the many experts in the field.

It's ironic, or maybe serendipity, that only weeks ago the Virginia General Assembly passed, and the Governor signed into law, legislation that defined teledentistry and allowed the Board of Dentistry to regulate its use in the treatment of our patients. I've received communication from at least two dental insurance carriers that suggest (but not guarantee) that services provided remotely by teledentistry would be reimbursed. Caution is advised. As Dr. Ursula Klostermyer reports in this issue, the Board hopes to develop regulations by this summer. Until then, virtual dental care delivery remains on hold.

My career began in the era when Hepatitis B was rampant among inmates and IV drug users (I once worked in a prison) and there was no vaccine. The first vaccine approved was Heptavax-B (Merck) in the early '80s. Derived from human blood products, it was widely administered. A panic ensued when HIV patients were first diagnosed in the US, and it was feared that the vaccine might transmit the virus that caused AIDS. Subsequent testing revealed that processing the vaccine killed the virus, but it was taken off the market when another vaccine made from recombinant DNA became available. Hepatitis B remains a concern for the small percentage of vaccine recipients who don't seroconvert.

My practice endured the appearance of bloodborne pathogens such as HIV and Hepatitis C, the onset of SARS, MERS, and H1N1 (so-called swine flu) epidemics, as well as the spread of methicillin-resistant *Staphylococcus aureus* (MRSA). My clinical career comes to a close as COVID-19 claims many lives, and many businesses remain shuttered. In the '90s it was feared Kimberly Bergalis would be the face of modern dental care, and now in the Roaring Twenties (to borrow a phrase from my fellow dental editor, Dr. Mike Diorio) it's feared the spiky hairdo of Coronavirus will haunt us forever.

In October 2012 I listened as a panel of experts, including the ADA's Dr. Marko Vujicic, expanded on the subject of "Has the Economic Downturn Changed Dentistry Forever?" A standing room only class in San Francisco listened intently as each panelist made a case that dentistry, and dental patients were no longer the same. The economy had bounced back, but dentistry and its patients, not so much. They confirmed a fundamental shift in the demand for dental care, which did not track changes in the economy. It's fair to say that the Coronavirus epidemic will change dentistry forever. But I'm not good at predictions, and the previous forty years have taught me that most forecasts and $5 will buy coffee at Starbucks. Most readers will have their own words, to paraphrase John Steinbeck, for the Spring of Our Discontent.

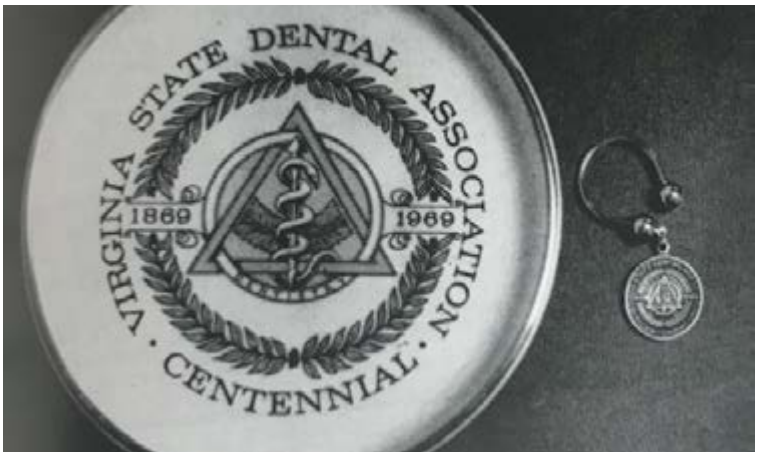
MYSTERY SOLVED

Dandridge B. Allen, DDS

I read with interest the account in the last *Virginia Dental Journal* by Dr. Harold Demsko and Dr. Scott Gerard of the "ash tray" commemorating the centennial of the VDA. I too have one of these. It belonged to my father, Dr. D. Blanton Allen, who was President of the VDA in 1958. I guess it could have been used as an ashtray but there are no recesses for a cigarette. I think as my father told me and as I use it myself, it was to place loose change and whatever else in it.

Excerpt from the Virginia Dental Journal, Volume 46 Issue 3, June 1969

The distinctive Centennial seal designed by Dr. George Duncan of Richmond, Virginia, is done in gold, lavender, and black on a handsome 6 ½ inch card or ash tray ($2.50) and embossed on a gold-plated keyring ($2.00). These are lasting mementos of this historic 100th Annual Meeting that can be useful as well as decorative in your office and home. They are available from your component Secretary-Treasurer or from the Central Office, 18 North Fifth Street, Richmond, Virginia 23219.



To learn more, visit **vdaexpert.com** or call **(804) 523-2194**

MANAGING WRITE-OFFS IN YOUR PRACTICE

Tom Bridenstine, VDA Dental Benefits Expert (DBE)

I have assisted several VDA members who have had to write-off charges because a dental insurer refused to cover a service. While occasionally writing-off relatively small charges may not impose much of a financial burden on a practice, a greater frequency of doing so or writing-off large charges may have a significant financial impact. In this article, I will provide some information and suggestions that may be useful when this situation occurs and that may potentially save your practice money.

Typically, when a dental insurer insists a practice write-off charges for non-covered services, the dentist or oral and maxillofacial surgeon is a participating provider with that particular dental insurer. It is important to first verify this is the case when you're notified of a mandatory write-off, to ensure you actually participate with that specific dental insurer, and not a leased network or a different insurer. To make this determination, review your provider contract/agreement, to include any amendments and any correspondence from the insurer, such as explanation of benefit forms. If there are questions, you can pursue the matter with the insurer, and I will gladly assist you.

It is also advisable to review your provider contract/agreement to determine what the document states about mandatory write-offs for non-covered services. Be advised that a section of Virginia's insurance statutes states the contract between a dentist/oral and maxillofacial surgeon and dental insurer can only contain fees and rates the provider must accept for services that are covered by the applicable dental plan – the patient's dental insurance plan. Generally, this means if the patient receives a non-covered service, their dental insurer should not be able to unilaterally dictate

the reimbursement level or amount, including partial payment. Keep in mind this applies to instances when the provider participates with the insurer.

In the event that you encounter this situation and would like assistance, please contact me and I will work with you to try to resolve the situation in your favor. Possible remedies include contacting the insurer to appeal the payment level, referring you to the Virginia Bureau of Insurance for assistance, or suggesting you contact an attorney for formal legal assistance.

As always, you may submit an inquiry to me at **vdaexpert.com** or call and leave a message at 804-523-2194. I look forward to helping you and your practice.

APPROVED: MEDICAID ADULT DENTAL BENEFIT

2020 LEGISLATIVE SESSION RECAP

Sarah Bedard Holland; CEO, Virginia Health Catalyst

The 2020 Virginia legislative session recently ended, and I could not be more proud to write that together we have improved the health, and oral health, of all Virginians. Thanks to the hard work of health advocates, providers, and partners like the VDA, beginning on January 1, 2021 adults enrolled in Medicaid will have a comprehensive dental benefit.

We all know the important role oral health plays in overall health, and now 670,000 Virginians will have access to oral health care that can improve their chronic care conditions, lower their health care costs, and create a more equitable health system. Funding for a comprehensive adult dental benefit would not be possible without the support of organizations like the VDA and clinicians from across Virginia.

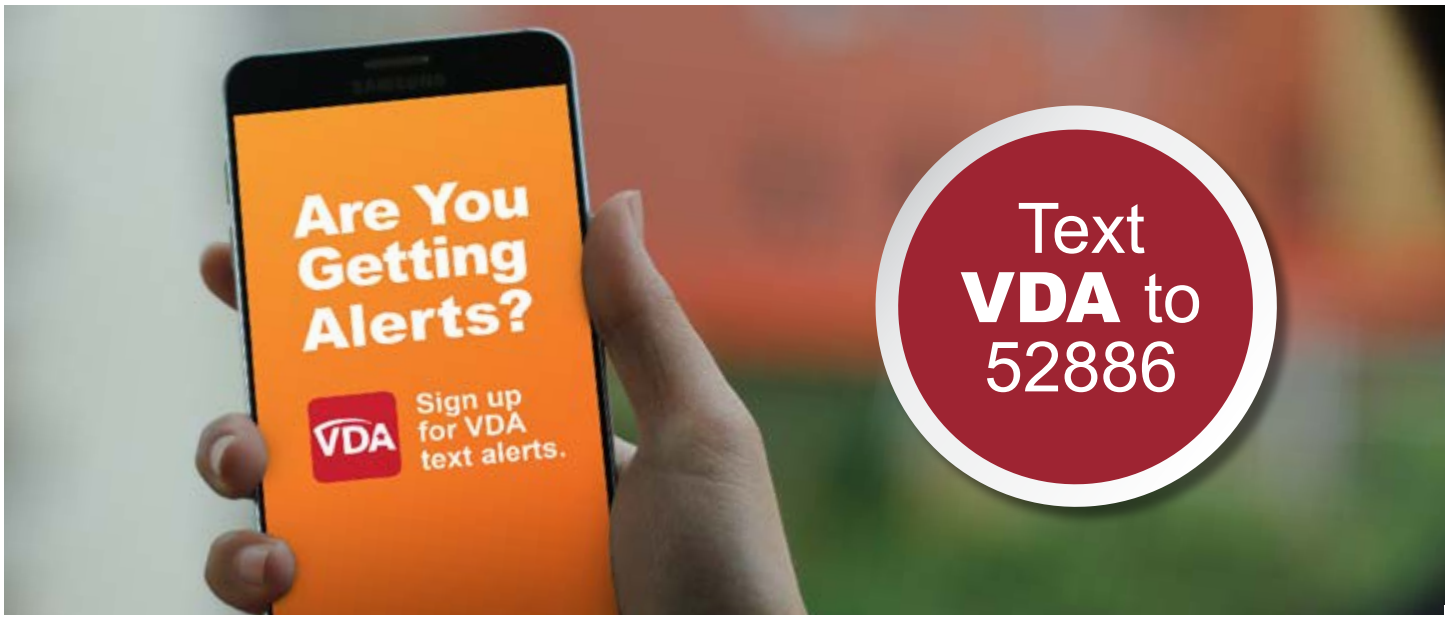
In addition to the strong support of advocates here in Virginia, the Virginia-specific report from the American Dental Association's Health Policy Institute helped to ensure legislators were informed of the cost and cost-savings of adding a comprehensive adult dental benefit.

What comes next

The adult dental benefit is intended to mirror the benefit currently available to pregnant women which includes preventive and restorative services with no annual cap. To further ensure the benefit meets the needs of patients and providers, using this guidance, members of the Dental Advisory Committee, a committee of dental providers and advocates who oversee the state's Medicaid dental program (membership includes Ryan Dunn, VDA's Executive Director) and other key Virginia stakeholders will work with the Department of Medical Assistance Services on final benefit design and rollout.

I hope all of us will work together to raise awareness of the benefit with both clinicians and community members. Together we will create materials for clinicians to ensure each provider in Virginia feels prepared for the changes and is comfortable billing Medicaid. With the support of clinics, providers, and community health programs, Virginia Health Catalyst will also work across Virginia to ensure Medicaid enrollees are aware of the new benefit and how oral health can improve their overall health. With close to a year to prepare for the dental benefit's implementation, I am confident we can have a smooth roll-out that meets the needs of both patients and providers.

I again want to thank the VDA, its leadership team, and its members for making a comprehensive adult dental benefit in Medicaid a priority this legislative session. If you have any questions, concerns, or would like to work closely with Virginia Health Catalyst as we create materials around the dental benefit please contact me at **sholland@vahealthcatalyst.org**.



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RETIREMENT: ANOTHER FINISHING LINE

VDA MEMBER FINISHES STRONG IN SMALL TOWN COMMUNITY

Theresa Stenger, Certified Marketing Director

Dr. David Harvey is certainly no stranger to seeing and crossing finishing lines. Take one look in his dental office and you'll find the medals to show for it. Since 2003, he's participated in over 30 full and half marathons - including a 50k on the New River Trail. In 2012, he was among the elite group of 30,000 runners from around the world who qualified and participated in the Boston Marathon (he qualified for three). Not everyone who runs marathons actually makes it to the finish line. Harvey did.

In 2019, when Dr. Harvey started thinking about retiring from his dental practice of 30+ years, he simply envisioned it much like any other finishing line.

Taking a road less traveled

For most dental school grads, finishing dental school often means looking at a number of career paths. The majority of students today opt for a general practice residency, working as an associate for a few years or even entering the military for a few years. Not Dr. Harvey. Owning his own dental practice was something he was looking forward to - even if he had to wait a few years to find the right opportunity. But opportunity quickly knocked. Shortly after graduation, he was introduced to Dr. Jackson, a dentist from a neighboring small town in southwest Virginia. Dr. Jackson was retired Navy and had been practicing dentistry in an unassuming brick building near the courthouse for much of his (over 40 years) career. Dr. Harvey was only a couple months out of dental school but after meeting Dr. Jackson, he knew the practice would soon be his. He purchased the practice on a Thursday and Dr. Jackson retired on Friday.

Practicing dentistry in Hillsville

Dr. Harvey was facing an exciting new journey in Hillsville. The small town in Carroll County was enveloped by views of the Appalachian Mountains. Other than being home to Virginia Tech coach, Frank Beamer, the town wasn't anything extraordinary. The population of Carroll County at the time was just under 30,000 – and under 3,000 in Hillsville. But the numbers didn't concern Harvey. He grew up in a nearby small town. He understood well the intrinsic values that come with being part of a small town. He liked being part of a laid-back, family-centered community. And he knew the southwestern corner of Virginia would give him ready access to rivers, trails and endless outdoor options. After all, these areas are considered choice destinations for hikers, kayakers, anglers and horseback riders – not to mention world-class triathletes, mountain bikers and runners. The weather is pleasant, the trail routes plentiful, and the views breathtaking. Yes, this area would fit perfectly with the lifestyle Harvey desired.

Repurposing and renovations

Within the first five years of working in Hillsville, Dr. Harvey recognized the need to expand his dental practice. Trying to meet the demands with just three operatories became a challenge. So, he took the plunge and not only doubled his staff, but he reconfigured and built out the 3-operatory practice to the now seven operatories (3 clinical and 4 hygiene). He also repurposed and renovated the building to include a beautiful staff lounge, ample storage areas and updated waiting room.

The final renovation came a few years later when Dr. Harvey and wife, Stephanie decided to convert the second floor into a modern loft apartment. This would allow the "soon to be" empty-nester couple the ability to sell their large family home in Carroll County and live in the loft four days a week. The commute to work couldn't be better – just 14 steps away. But, where would the couple choose to live the other three days, Thursday through Sunday?

Dr. David Harvey and his wife Stephanie

The decision was easy - Blacksburg

Yes, Blacksburg was calling their name. As a father of two Virginia Tech grads, the Harvey family were (and still are) devoted Hokie fans. After a short stint of house-hunting, the Harveys purchased a modern condo on Main Street in the heart of Blacksburg.

"We have the best of both worlds now," said Dr. Harvey. "Stephanie and I enjoy the small town community in Hillsville - and now get to enjoy the more urban environment of Blacksburg, as well. When we're not working, we're tailgating at Tech games, hitting the New River Trail, or hiking the Blue Ridge Parkway. And when friends visit, we're just a short drive to Chateau Morrisette Winery and Primland."

Now that retirement is on the horizon, the Harvey's are looking forward to having more time to explore Southwest Virginia and across the border to North Carolina. When asked what he'll miss most about dentistry, Harvey said, "I'll miss providing a much needed service in this underserved area. If the new owner has a heart for dentistry, they will have an immensely rewarding career – as well as profitable."

Dr. Harvey also very wisely pointed out that there's really no need to look back. "As a runner, you don't look back and wish you could run more of the course; you're focused on the finishing line – and the next race."

Editor's Note: The dental practice of David Harvey in southwest Virginia is currently up for sale. For dentists interested in getting a tour of the practice or additional information, contact Elizabeth Schroeder Craig of Leadership by Design – Practice Transitions at **Elizabeth@lbdtransitions.com** or call (804) 897-5900. You can also visit **www.lbdtransitions.com** for further details and photographs of the practice.

THE MILLENNIAL MINDSET

UNDERSTANDING EXPECTATIONS TO BUILD PATIENT LOYALTY

Laura Elizabeth Saunders

Millennials, those turning 24 to 39 this year, can be a difficult group of customers to truly understand.

Pew Research Center projected that 2019 would be the year that millennials would reach 73 million strong, overtaking baby boomers as the largest adult population group[1] in the United States. As of last year, millennials had an annual spending power of $600 billion and, according to Accenture, millennials will "truly come into their own by 2020, when we expect their spending in the United States to grow to $1.4 trillion annually.[2]"

So how can dentists tap into the largest adult population and begin to build loyalty among millennials?

Work to meet their expectations.
Millennials expect brands to know their expectations and follow suit, or they'll leave. Research conducted by Salesforce found that 76 percent of customers[3] report that it's now easier than ever to take their business elsewhere – switching from brand to brand (or provider to provider) to find an experience that matches their expectations.

Not sure if you're meeting your patients' expectations? Ask, and listen. Tune into any feedback your staff hears from patients. Take the time to review and, when appropriate, respond to Google reviews for your business online. Don't be afraid to ask your patients to fill out a short (please, no more than three or four questions) survey while they wait. A few suggested questions:

- Why did you choose this practice?
- What do you like most about your experience here?
- How can we improve your experience?
- How likely are you to recommend our practice to a friend or family member?

Customers are usually happy to share their experience and advice for improvement. Don't be alarmed if the feedback you receive falls into one of two categories: extremely happy or extremely unhappy, as those are the patients most likely to provide feedback.

Be welcoming & comfortable.
It may sound like a no-brainer, but making your patients feel welcome, safe and valued should be a pillar of your customer loyalty strategy, especially among millennials. In fact, six in 10 (62 percent) American adults are too afraid to visit the dentist, with millennials more likely to be afraid of the dentist[4] than any other age group, according to research commissioned by one oral care startup brand.

Start with an inviting atmosphere. Your front desk staff must be positive and welcoming, as should your space. You don't have to spend a fortune on high-end interior design, but you should invest in small touches – like plants, décor and comfortable furniture – to make your space feel more like a home office and less like an intimidating hospital.

Communicate clearly.
Communication is key in creating a safe, welcoming patient experience. Because a large percentage of millennials are likely to be afraid of the dentist, it may have been a while since they've had a dental exam of any kind.

Clearly communicate what you're about to do, before you do it, so patients understand what to expect throughout their visit. When you can, avoid medical jargon or at least clearly explain what you mean when describing complex topics or procedures. Patients that feel like they understand what's going on are far more likely to feel at ease – helping to ensure their experiences are more positive.

Be efficient & consistent.
Many patients will likely only visit your office twice per year for routine checkups and cleanings. That makes ensuring a consistently positive experience even more important. One difficult appointment – confusing medical bill or double-booking and long wait times – means 50 percent of that patient's experiences with you that year are negative.

If waiting a long time to be seen is part of your patients' routine, it's time to make a change to increase efficiencies around the office. Put processes in place that lower or alleviate long wait times. That could mean hiring additional staff or adding buffer time between appointments. Nowadays, everyone's schedule is packed, but a patient being seen 30 minutes later than their appointment time could mean a dad misses his daughter's school basketball game or a grad student is late to his night classes.

Make it easy.
Technology plays a large role in the daily lives of most millennials, from texting to email to social media.

Lean into solutions – technological or otherwise – that make it easy for your patients to remember their upcoming appointments. It can be as simple as your office calling and leaving a message to remind them of appointments a week or two out, or investing in a system that automatically calls, texts or emails appointment reminders. Always be sure you're following the appropriate guidelines

and that your patients have opted into these types of communication. The ADA has great resources on its website (**ada.org**) on the do's and don'ts around patient communication and technology.

Happy staff make for happy patients.
An organization's culture – specifically, how engaged its employees are in their work – is the primary driver for delivering an exceptional patient experience, according to Patients Come Second, a book by Paul Spiegelman and Britt Berrett, which leads with the notion that in order to care for and retain patients, leaders must first create exceptional teams.

If your staff is overworked or unhappy, the adage is true: it's contagious. Your patients will inevitably see and experience that and may even begin to feel like a burden to your staff – the opposite of the appreciation they should be feeling as a customer or patient.

Consider membership programs to meet patients' needs.
If a large portion of your patients either don't have or aren't satisfied with their dental insurance, they may be in need of other options. Dental membership programs have become standard at many dental offices as a way for dentists to assist patients without dental insurance.

If you're considering a membership program for your dental practice, the VDA has resources for members including a Wellness Template[5] to help dental offices set up programs for patients without dental insurance.

Promote sustainability & giving back.
You'll earn bonus loyalty points among millennials for sustainability and giving back to the community. In fact, four out of five millennial customers said they are more likely to purchase from a company that supports a cause they care about, according to research from Access Development.[6]

So, don't hesitate to promote your involvement in those types of initiatives. It can be as simple as sharing pictures on your website and social channels of your office volunteering or implementing sustainable packaging and other environmentally friendly programs around your practice.

It just makes sense.
Patient expectations in health care continue to increase and evolve. Understanding patients' expectations can enhance their satisfaction level one study in the U.S. National Institutes of Health's

>> CONTINUED ON PAGE 22

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"Clearly communicate what you're about to do, before you do it, so patients understand what to expect throughout their visit."

National Library of Medicine[7] found. And satisfied patients are the best long-term strategy for a profitable practice. In fact, it can cost five times more to attract a new customer than to nurture and retain existing ones, according to one Forbes article.[8]

If you're not already, invest in improving customer experience and loyalty among all your patients – including millennials. It's a good business practice across the board, especially as millennials' spending power, influence and lifetime customer value continues to make them an economic powerhouse.

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Editor's Note: Laura Elizabeth Saunders is a public relations and marketing specialist at The Hodges Partnership, a strategic communications agency in Richmond. Her work focuses primarily on communications audits to help companies better understand and communicate with target audiences, prospects and customers, marketing and communications messaging and strategy as well as research and technical writing.

SELFISH, OR SELF-CARE?

Dr. Bruce W. Overton; Chair, Caring Dentist Committee

I once had a dear friend and colleague who would give me sage advice, often times when I was in no mood to listen. Looking back, I was about 26 years younger than the man writing this article and would cheerfully work through my lunch hour time and time again to cater to the needs of my patients. My rationale would be, well, if I turn anyone down at this point in my career, there is a good chance no one would ever request my services in the future.

Back to my friend. This family dentist was one of my mentors, and much like a child who would balk at their parent's encouragement, I would pretend to listen to every word he said, and then do it my way in spite of myself. I will never forget the question he asked me, "Bruce, have you ever thought how many of these people who are sacrificing your lunch for, will attend your funeral?"

At the time, I heard his concern and knew he had only my best interest at heart. Much to my detriment, I chose to ignore his words of wisdom, and remained gung-ho during my practice workday. I would arrive to work early and stay late, repeatedly sacrificing my family and my own well-being.

It's a challenge finding the words to help a young, or not so young, colleague, so that they will not develop the same destructive habits. I remember in dental school, we were so task oriented, meeting deadlines and clinical requirements, studying for exams, lab projects, recruiting patients for board examinations, etc., that it would be difficult for this same energy not to be carried over into our professional practices. In spite of the excellent training we received in school, and any residency experience, I do not recall once taking a class in "Self-Care."

For some of us, if repeated poor choices become the norm for our practice day, this could deteriorate into issues such as depression, neuroses, and addiction, perhaps even worse. When individuals are in the throes of these diseases, they usually do not take very good care of themselves, or their loved ones. Seemingly simple things like taking care of one's emotional, mental, and physical health quickly go out of the window. Eventually, the once energetic clinician with the best of intentions will lower their standards, healthy boundaries, and expectations of how they should treat themselves, and how they allow others to treat them. This is why it is so important to learn how to practice self-care in order to ensure a balanced life, and professional fulfillment.

When we do not prioritize our own needs in order to lead a healthy life, we are sabotaging ourselves. We should not misconstrue pure selfishness with "healthy selfishness." The latter is self-care, and that is being true to ourselves, making our own well-being a priority and taking care of our needs so that we can be there for those we care about.

Declining an invitation or saying "no" to someone may be considered selfish, but if the reason is to establish and maintain personal boundaries, there is nothing wrong with this, as long as it is done in a considerate and respectful manner. We cannot say "yes" to everything, and unless we prioritize the things that are important, we will quickly end up in a straitjacket. When it comes to our own well-being, we must always be top priority; otherwise, everything else of importance might eventually be lost. If we abandon healthy boundaries, people may treat us as they wish. Other individuals may not be considerate of your boundaries, so only you can protect them.

Again, it is difficult fashioning the words to help our fellow dental professionals. Some may conclude that they are being lectured with a degree of condescension, as I once did, but I would rather share my mistakes to help a friend, than to see them suffer the same consequences of repeated self-destructive choices.

In the next issue, I will discuss further steps we can practice maintaining healthy boundaries and promote self-care. Until then, I wish you all peace, success, and a balanced journey.

BOARD OF DENTISTRY MEETING NOTES

MARCH 13, 2020

Ursula Klostermyer, DDS, PhD

The meeting started with two public comments:
Dr. Dipa Patel, the president of the Virginia Society of Oral & Maxillofacial Surgeons, stated in writing that the VSOMS is alarmed about the possibility of the laryngoscope being removed as a requirement for practitioners administering deep sedation for general anesthesia. She commented how important the ability to manage the airway is and how many complications can occur. Therefore, a provider who is not trained to properly use a laryngoscope should not be qualified to perform anesthesia.

Ms. Tracy Martin, a representative of the Virginia Dental Hygiene Association (VDHA), spoke in support of the petition to require dental assistants to be certified in infection control and radiology by completing the NELDA (National Entry Level Dental Assistant) examination. She remarked that, to protect dental patients, this should be done before they are allowed to practice in Virginia.

Board Discussion:
Dr. Barbara Allison-Bryan, Chief Deputy Director of, reported that the DHP agency is very organized and active in managing the COVID19 crisis. The General Assembly has shown an increased interest in health care. There were 50% more bills assigned to the DHP than ever before. Dr. Allison-Bryan talked about the permits to process and dispense cannabidiol oils and THC-A oil and the importance to the medical cannabis industry and patients. This included the expansion of the medical cannabis program and the medical use of cannabis flowers. The DHP will report its findings and recommendations to the Governor, the Attorney General and the Chairman of the House Commitee of Health, Welfare and Institutions. She mentioned that even though Governor Ralph Northam called for a State of Emergency, this does not translate into a postponement of CE requirements. Currently the CE year is from April1- March 31. The CE year will be changed to the month of birth together with the change of membership to the month of birth. **Please note:** there are various online CE courses available to fulfill the requirements.

Both Dr. Nathaniel Bryant and Dr. Augustus Petticolas complimented the recent Southern Conference of Dental Deans and Examiners as an outstanding well-organized meeting. The CE content was exceptionally good and the value of the exchange between the attending states was praised.

Ms. Elaine Yeatts mentioned that the sections in the Teledentistry bill will require the BOD to develop regulations. By this summer we can expect regulations as they will have to formulate training requirements for a digital scan technician.

The BOD voted to accept the petition and will initiate rulemaking tor the educational requirements for Dental Assistants to be certified in infection control procedures and radiation health and safety part I and II. As a next step the VDA shall share the proposed paragraphs with the dental community and encourage comments.

The BOD reviewed the suggestions made by the Regulatory Advisory Panel regarding Sedation Regulations:
While general dentists perform mostly moderate sedations with a King (Laryngeal) Tube, oral surgeons perform mostly deep and general sedations with a laryngoscope. When a dentist with less extensive training and practice performs sedation and a complication happens – the patient's well-being is placed at risk. Anyone who performs sedation should be able to safely and effectively place a laryngoscope. In case of emergency it was suggested that a dentist should be advised not to attempt to place a laryngoscope. It was recommended that they apply CPR, call 911 and rely on the EMT who has more experience in placing the laryngoscope. Therefore, the BOD will return this issue to the regulation committee for review. The Board decided that there should be a two-part process for issuing a permit to a practice: the first part would depend on the educational credentials of the applicant; the second part would be an inspection of the location/practice. Both parts must be completed for the license to be granted. There will be an option for announced and unannounced inspections.

The Examination Committee gave recommendations for Clinical Competency Examinations. They require a minimum passing score of 75%. They do not accept examination results where the passing grade received was based on competency scoring for parts of the examination. This action would affect acceptance of the CRDTS and WREB examinations. Competency scoring, as used by these testing agencies, means the grade for parts of the exam are determined by reviewing the scores given by each examiner, then adjusting the examiner scores to compensate for a low score to arrive at the final score for that part of the exam. All points were approved by the BOD.

At the December 2018 meeting the Board charged the Regulatory-Legislative Committee with proposing an amendment to the definition of "Dentistry" in response to public comment asking that HbA1c testing be included in the scope of the practice of dentistry.

Dentists are not expected to diagnose diabetes, but in-office monitoring of a patient's blood glucose levels on an ongoing basis or immediately prior to treatment are appropriate activities. Findings from monitoring the patient's glycemic control may prompt a dentist to amend the patient's oral care treatment planning (American Dental Association 2019).

There are several factors associated with increased risk of diabetes, some of which may already be in their dental records, such as: obesity, ethnicity, a sedentary lifestyle, or family history. The BOD voted and approved amending the Definition of Dentistry to add the following: "Dentistry" includes blood glucose or HbA1c screening which may be done prior to comprehensive, complex or long-term treatment. This topic will go though the normal regulatory amendment process and will include public comment periods in the future.

Disciplinary reports: the BOD gets lots of complaints but refuses or closes cases without violations in about 95% of cases.

Ms. Sandra Reen, Executive Director of the Board of Dentistry, introduced to the Board members the EBAS test (Ethics and Boundaries Assessment Service), which could be a possible option for requests of reinstatement for licenses.

Editor's Note: Dr. Klostermyer, a VDA member, practices prosthodontics in Richmond. Information is presented here for the benefit of our readers, and is deemed reliable, but not guaranteed. All VDA members are advised to read and comprehend all Board of Dentistry regulations and policies.

ETHICS: THE ORIGINS AND TODAY

Dr. Corey C. Burgoyne, VDA, Ethics and Judicial Affairs Committee

The origin of ethics in healthcare is attributed to Hippocrates, a Greek physician who lived around 400 B.C. The code of ethics we have today is founded in the Hippocratic Oath. The Hippocratic Oath is an ethical code that has been adopted as a guide to conduct by the medical profession throughout the ages and is still used today. From the original translation referencing Apollo to the modern version used today in dental school graduations, the message remains the same: to be good, fair, truthful, self-govern, and do no harm. The common thread among all the writings attributed to Hippocrates is the reverence of virtues and the earnestness in the desire to help others.

As members of the dental profession and its specialties, we commit to abiding by the Principles of Ethics and Code of Professional Conduct. We entered the profession to help others and do good (beneficence), and we commit to the principles to be fair (justice), to be truthful (veracity), to do no harm (nonmaleficence), and to self-govern (individual autonomy). We strive to uphold these values and commitments to our profession, to society, and to our patients. Individually, a person holds moral principles of right and wrong behavior. Collectively, a profession holds ethical standards defined by a set of moral principles or a theory or system of moral values. The personal moral behavior coupled with the ethical system of the group guides our profession to be one of trust, integrity, and good stewardship.

Although, Hippocrates lived over 2000 years ago, his foundations are echoed in the 5 principles of the Code of Dental Ethics.

Nonmaleficence

Nonmaleficence is the concept expressed by the Latin phrase, primum non nocere, "first, do no harm." Patients seek the care of a provider and enter in a relationship of trust allowing a doctor the privilege of physical contact to evaluate and treat them. The doctor, in turn, practices with the intention to do no harm through proper training, self-awareness of personal limitations, knowing when to refer, and when not to delegate. We strive to avoid harm and promote good.

Beneficence

Dental professionals are committed to helping and benefitting others. Beneficence is the concept of doing good. The commitment to public service and the healing arts, is what makes health care unique from other professions. We hold a position where we can promote goodness and wellbeing in others.

Autonomy

Autonomy refers to being able to think and act on one's own moral choices. We are tasked with educating our patients properly about their conditions and treatment options, so that they may make decisions about their own body. The well-informed patient can choose an option within the standard of care that is offered to them. On the other hand, a provider may be in the position to choose not to treat a patient if the patient chooses a course of treatment that is in conflict with the standard of care. This falls within the realm of the provider's moral autonomy.

Justice

Justice is the concept of equality and fairness. Justice refers to treating individuals equally and the equal distribution of services. All humans, as our forefathers established, are granted life, liberty, and the pursuit of happiness. In a profit driven, private practice setting, economic equality may not be feasible, even though it is a noble and inspirational goal. In the human context, we, as a profession, try to overcome inequalities by treating every person with kindness, respect, and courtesy. We also tackle the inequality of access to care through extensive volunteer opportunities and donated dental services, such as the Mission of Mercy projects, where we can dedicate services, supplies, and time to our fellow Virginians.

"We commit to abiding by the Principles of Ethics and Code of Professional Conduct."

Veracity

Veracity is the habit of being honest and truthful. Patients and providers each bear the responsibility of being truthful in order to establish a relationship that will work towards the betterment and wellbeing of the patient.

As we embrace the responsibilities of health care professionals and persevere through the challenges that we will face throughout our careers, we have a long (over 2000 years) history of role models and established, yet dynamic, systems in place to guide and inspire us. The Virginia Dental Association and the living documents in the Principles of Ethics and Code of Professional Conduct serve as our application and reverence to the Hippocratic Oath and our commitment to our profession and our patients.

DID YOU KNOW?

A SERIES FROM THE VIRGINIA BOARD OF DENTISTRY

Unlawful Disclosure of Confidential Information

Did you know that any person found guilty of the unlawful disclosure of confidential information possessed by a health regulatory board shall be guilty of a Class 1 misdemeanor?
§ 54.1-2400.2. (J) of the Virginia Code.

Patient Information and Records

Did you know that a dentist shall maintain complete, legible, and accurate patient records for not less than six years from the last date of service with some exceptions including the records for minor children, records being transferred to another practitioner, or in some cases records may need to be maintained for a longer amount of time due to federal or contractual obligations?
18VAC60-21-90 (A) (1) (2) (3) of the Regulations Governing the Practice of Dentistry.

Reportable Events

Did you know that a treating dentist shall submit a written report to the board within 15 calendar days following an unexpected patient event that occurred intra-operatively or during the first 24 hours immediately following the patient's departure from his facility, resulting in either a physical injury or a respiratory, cardiovascular, or neurological complication that was related to the dental treatment or service provided and that necessitated admission of the patient to a hospital or in a patient death? Any emergency treatment of a patient by a hospital that is related to sedation anesthesia shall also be reported.
18VAC60-21-100 of the Regulations Governing the Practice of Dentistry.

Utilization of Dental Hygienists and Dental Assistants II

Did you know that a dentist may utilize up to a total of four dental hygienists or dental assistants II in any combination practicing under direction at one and the same time?
18VAC60-21-110 (A) of the Regulations Governing the Practice of Dentistry.

2020 VIRGINIA MEETING

Virginia Dental ASSOCIATION

Save the Date

Sept. 23-27, 2020
Norfolk, VA

THE MAIN | HILTON NORFOLK

Speaker Highlights

Dentistry is changing, with new technology, new federal and state policies, and new advances being adopted by dentists across the country. Join our speakers at the largest annual meeting of dental professionals in the Commonwealth to hear about some of those changes and a dentist's perspective on where the most value is for your practice and your patients. More speakers will be announced in the months to come.

Dr. John C. Cranham

Speaking Topic: Digital Dentistry – Protocols for Success

Dr. Cranham is an internationally recognized speaker on the Esthetic Principles of Smile Design, Contemporary Occlusal Concepts, Treatment Planning, Restoration Selection, Digital Photography, Laboratory Communication, and Happiness and Fulfillment in Dentistry.

Dr. Mark E. Hyman

Speaking Topic: Dentistry's Top Game Changers – 2020

Dr. Hyman is a renowned dentist in Greensboro, NC, and a public speaker/thought leader whose work is characterized by his warmth, enthusiasm, sense of humor, and passion for dentistry. For the past 17 years, *Dentistry Today* magazine has a selected Dr. Hyman as one of the Top 100 speakers in dentistry. He has earned national and international recognition for his innovative and engaging teaching.

We are looking forward to the 2020 Virginia Meeting in Norfolk and in anticipation of the 150th Anniversary, the Council is finalizing plans to make this a great event. In light of recent disruptions to your practices, we are asking a few questions to help us provide the most value to attendees.

Take the Survey

LOOKING BACK ON

The History of the VDA Headquarters

The Growth of Virginia's Premier Dental Organization Traced Through the Places the VDA Called Home

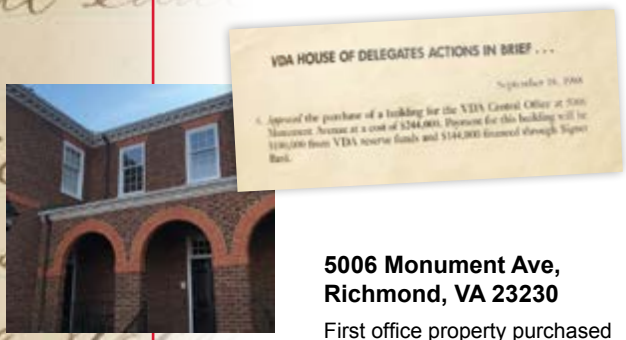
Elise Rupinski, VDA Director of Marketing and Programs

5002 Monument Ave., Richmond VA 23230
(rented space)

2015 Staples Mill Rd., Ste 331 Richmond, VA 23228
(rented space)

18 N. 5th St. Richmond, VA 23219
(rented space)

◂ 1980-1988 ◂ 1970-1980 ◂ 1966-1970



5006 Monument Ave, Richmond, VA 23230

First office property purchased by the VDA. A House of Delegates resolution denotes the decision to purchase this property.

7525 Staples Mill Rd. Richmond, VA 23228

Owned by the VDA, this office was destroyed by fire on July 29, 2010. Lightning struck the roof of the building as the last employees were leaving for the day. The building was a total loss.

SEPT MAR
1988- 2001 ▸

MAR JUL 29
2001- 2010 ▸

On November 18, 1870, Dr. George F. Keese wrote to the Editor of the American Journal of Dental Science about a meeting earlier that month in Richmond where nine dentists formed the Virginia State Dental Association (now known as the VDA). Dr. Keese shared "… the members returning to their homes enthused and feeling in their heart of hearts that a brighter era was beginning to dawn upon the dental profession in our State, and that the time was speedily coming when the days of 'quacks' shall have been numbered. We earnestly hope at our next meeting to find a much larger number of the dentists of the state assembled; the old veterans coming to give their expertise to the younger practitioners, and the latter coming with ambition and zeal to push forward the good work which has been commenced in our midst." After capturing the sentiments of the group as the VSDA formed, Dr. Keese would go on to serve as the Secretary of the association for fifty years.

It was not until 1964 that it was determined that the VSDA would hire a full time staff person, Mrs. Leona Bailey, who served as Executive Secretary. The very first office of the VSDA was in Mrs. Bailey's home. In time, as the association's membership grew, as did the need for professional office space and a larger staff to serve the dentists of Virginia. Following Mrs. Bailey, the VDA has been fortunate to have visionary Executive Directors in Mrs. Pat Watkins, Mr. Bill Zepp, Dr. Terry Dickinson and now Mr. Ryan Dunn who have all played an important part in the organization's long history. Through time, growth and even a devastating fire, the VDA Central Office has evolved and changed to best serve VDA members. Please enjoy a look back at the many places that the VDA has called home.

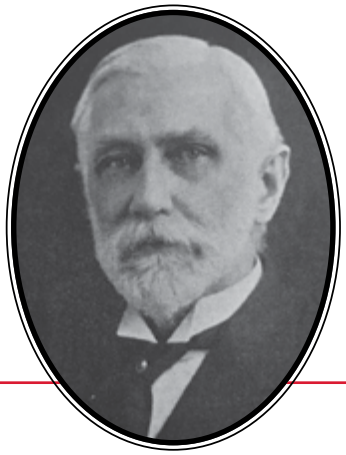
REFERENCE:

1 - Powell, H.W. *100 Years of Dentistry in Virginia* (1969), 7.
2 - Powell, H.W. *100 Years of Dentistry in Virginia* (1969), 58.
3 - Powell, H.W. *100 Years of Dentistry in Virginia* (1969), 57-58.

Home of Mrs. Leona Bailey, Executive Secretary

1964 was the first time the VDA (then known as the VSDA) had a paid staff person. The office was located out of Mrs. Bailey's home for two years.

1964-1966



1870

No Central Office or Paid Staff

Dr. George F. Keese serves as the Secretary of the VSDA from 1870-1920

1870-1964

Medical Society of Virginia
2924 Emerywood Pkwy #300
Richmond, VA 23294

Following the fire, the Medical Society of Virginia generously offered up space for the VDA.

JUL 2010 - AUG 2010

7201 Glen Forest Dr.
Richmond, VA 23226

The VDA rented temporary office after the fire while the search for a new permanent home was conducted.

AUG 2010 - APR 2011

3460 Mayland Ct.
Ste. 110
Richmond, VA 23233

Current home owned by the VDA.

APR 2011 - Present

★

VDA's 150th Anniversary Gala

Saturday, Sept. 26, 2020
Hilton Norfolk | The Main

Part of the 2020 Virginia Meeting

2020

PATHOLOGY PUZZLER

DR. JOHN SVIRSKY

Instructions:
What is your most likely diagnosis for each of the following? Answers are revealed on page 43.

1

This was an unusual presentation in a nineteen-year-old white male. The lesion appears to go from the dorsal tongue (Figure 1) to the right ventral tongue (Figure 2-3). The appearance was that of a necrotic lesion and had induration to palpation. There was no history of any foreign object penetrating the tongue.

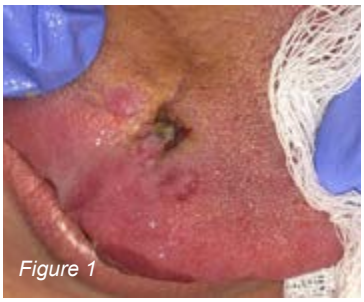


Figure 1

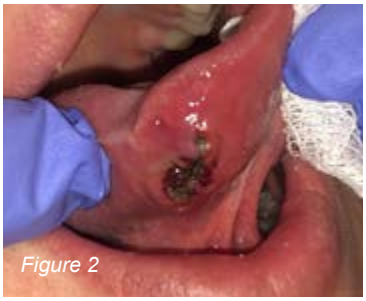


Figure 2

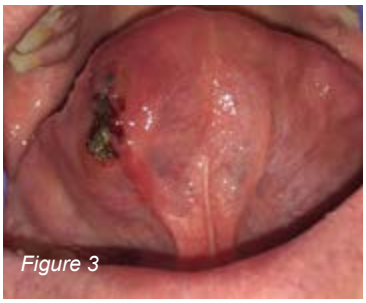


Figure 3

2

A seventy-year-old white male presented with lesions of his left ventral-lateral tongue of three-week duration (Figure 4-5) that were mildly symptomatic with spicy and acidic foods. He did not recall having anything like this before the current outbreak.

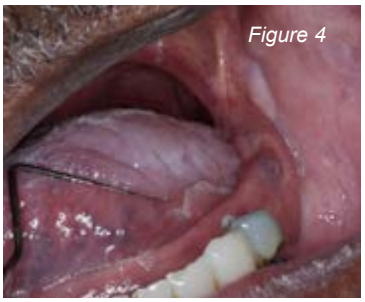


Figure 4

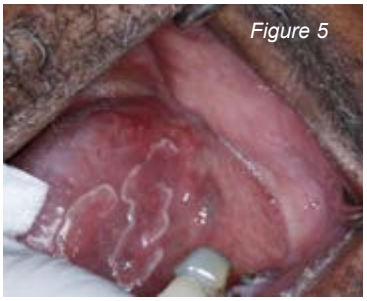


Figure 5

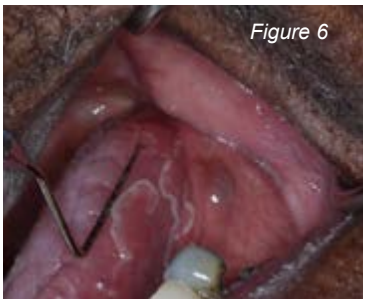


Figure 6

3

A seventy-five-year-old white male presented with an asymptomatic mass below the tragus of the right ear in the parotid gland region (Figure 7). It was approximately three centimeters in greatest dimensions, firm and not sensitive to palpation. It had been there over a year and was slowly increasing in size.

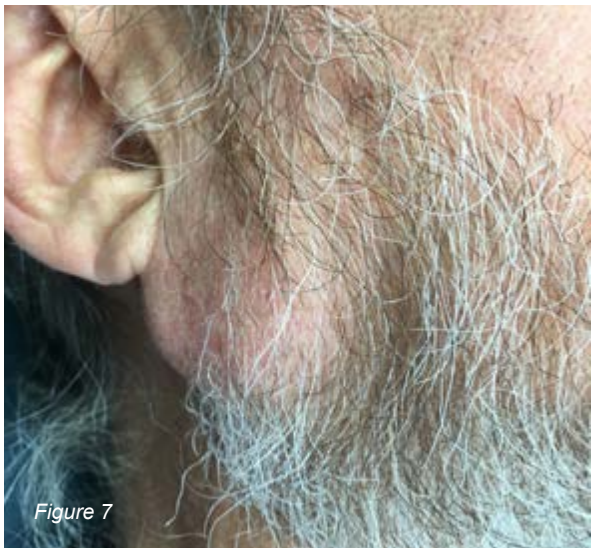


Figure 7

4

A sixty-year-old white female presented with an extremely painful lesion of the right buccal mucosa (Figure 8) of one-month duration and getting larger and increasing in severity. The left buccal mucosa was also painful with a hint of lichen planus (Figure 9). She had been diagnosed with lichen planus in the past and treated successfully with Clobetasol gel and dexamethasone.

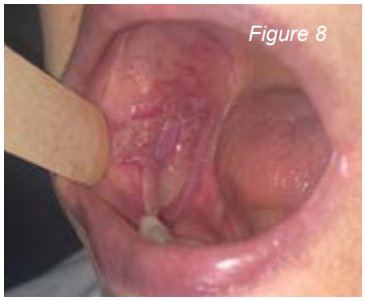


Figure 8

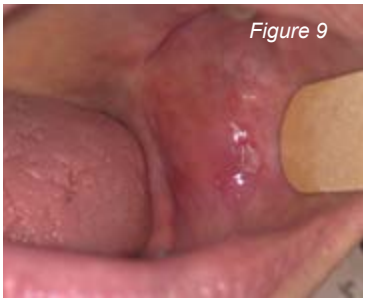


Figure 9

5

A white lesion of the right lateral tongue in a 58-year-old white female has been there over a year and seems to have increased in size (figures 10-11).

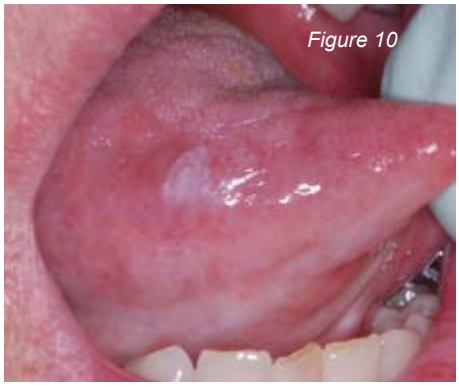


Figure 10

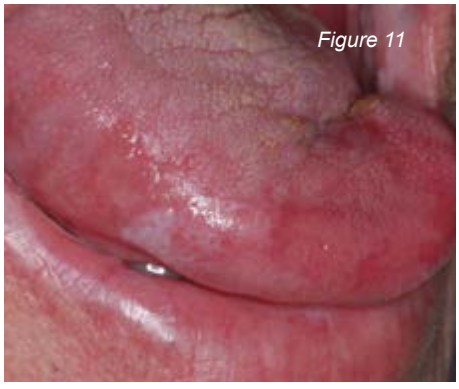


Figure 11

VDA MAKES THE RIGHT MOVES FOR VIRGINIA DENTISTS AND PATIENTS

HOW OUR TELEDENTISTRY BILL BECAME A LAW

Laura Givens, VDA Director of Legislative and Public Policy

What exactly was the problem?

Due to the pace of innovation in oral health care over the last several years, the VDA leadership recognized there was no teledentistry statute in Virginia and that it was in the interest of patient protection to take the lead on defining this practice.

What was the first step the VDA took?

The VDA leadership began discussing this issue last spring and it was very clear that, should we desire to successfully pass a bill that would positively serve patients in Virginia, dentists across the state would need to quickly and effectively contact their legislators to stress the importance of this legislation and ask for their help. The Board of Directors voted unanimously in September to approve moving forward.

What resources did you call in to start?

VDA leaders, staff and lobbyists worked with general counsel to begin drafting the core language of the bill.

The bill's language was vetted through the Department of Health Professions early on as their input and agreement to the language was imperative. Updates were continuously shared with them to ensure that the language would work for their agency.

Developing the bill

There were hundreds of hours spent in meetings and on conference calls (both internal and external) with numerous stakeholders over the course of nine months. Many meetings were held into the late hours of the night and on weekends. The VDA staff, leadership, lobbyists and general counsel worked around their busy schedules to have important internal conversations as well as many discussions with outside stakeholders.

What were some of the roadblocks?

There was significant opposition at the outset and the VDA team, lobbyists, general counsel and leaders had ongoing discussions with all groups who had questions and concerns with the language in the bill.

How did you engage stakeholders and members?

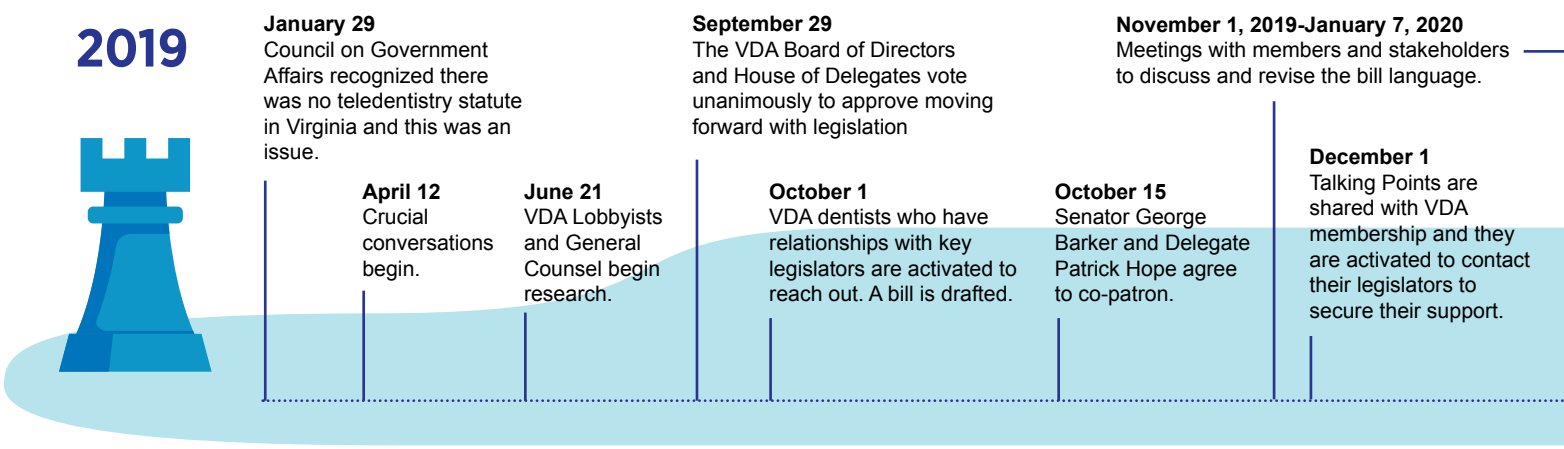
Despite significant opposition at the outset, dentists from across the Commonwealth took action. Hundreds of communications to legislators were initiated from fall 2019 through the 2020 legislative session. The VDA approached specific dentists who have ongoing relationships with legislators who needed to be contacted first. Also, new relationships had to be formed with the 23 freshmen members of the legislature. Most legislators were called or visited either during the VDA's Lobby Day on January 17th or at home in their districts. When the hearing on SB122 was held on January 17th in the Senate Health subcommittee, it was standing room only with supporters of our legislation packing the room.

What worked?

VDA engagement with legislators early and often was what made this happen. Personal phone calls, in-person meetings and emails from VDA dentists, VCU dental students, VDA lobbyists and staff to legislators was key as always.

What didn't work?

As is typical in a fast-moving session, it can be difficult communicating each change that takes place through the legislative process with all members. We heard from some members that



they wanted to be more engaged in the process and we'll be evaluating ways to make that work better in the future.

Why was this a win for dentistry/ patients in Virginia and beyond?
The core issues addressed in the legislation help ensure patient safety. The legislation is a critical first step in fostering innovation and patient protection as technology evolves across the profession. Other state dental associations are looking to Virginia for guidance as they pursue similar legislation.

What are the next steps?
We must thank our incredibly supportive patrons, Senator George Barker and Delegate Patrick Hope. They realized the importance of this bill from the beginning of our discussions. As it passed in the House Health, Welfare and Institutions Committee, Delegate Hope said, "This is really groundbreaking, what we're doing here. This could serve as a model for the rest of the country."

This legislation will likely need to be updated in future General Assembly sessions. There are tangible benefits in this legislation but there is work to be done going forward. Now that it is clear that the Board of Dentistry can regulate these practices, it is IMPERATIVE more than ever that dentists and their patients report any concerns or anomalies to the Board of Dentistry as those cases could impact future changes to the teledentistry statute.

How to file a complaint with the Board of Dentistry?
One can easily file a complaint through the Board of Dentistry's website at the following link:

https://www.dhp.virginia.gov/PractitionerResources/Enforcement/FileaComplaint/

They provide an online form as well as downloadable forms to submit via direct mail or fax. They also provide a phone number should you want to verbally file a complaint.

BY THE NUMBERS

600+
PHONE CALLS, EMAILS & SOCIAL POSTS

50+
LEGISLATORS AT THE VDA RECEPTION

150
DENTISTS PARTICIPATED IN LOBBY DAY

96%
OF THE GENERAL ASSEMBLY HAD A CONSTITUENT TAKE ACTION THROUGH OUR ADVOCACY PLATFORM

2020

December 15
The bills are assigned numbers! SB122 and HB165.

January 8
The General Assembly Session begins.

January 16-17
VDA holds a legislative reception and Lobby Day

January 21-23
Bill advances through the House and Senate committees.

January 27
HB165 passes unanimously (99-0).

January 28
SB122 passes Senate unanimously (40-0).

March 2
HB165 is approved and signed by the Governor!

March 10
SB122 is approved and signed by the Governor!

July 1
The bill will become effective into law.

VDA'S LEGISLATIVE RECEPTION & LOBBY DAY

JANUARY 16-17, 2020












150 YEARS OLD AND STILL NIMBLE

Ryan Dunn, VDA Executive Director

For 150 years, the VDA has been speaking for dentistry in our Commonwealth. The association has gone through world wars, recessions, depressions and helped our members navigate countless other challenging circumstances in the past. As I write this, we're in the midst of an unprecedented public health crisis, while our members find themselves unable to practice the profession they love and to look after the health of their patients in the way they've devoted their careers to do.

With no playbook or path to follow, the VDA has been devoted to answering the needs of our members. We are working tirelessly to allow our members to return safely to practicing dentistry as soon as possible. While there are still unknowns around exactly what that return looks like, I can share what will continue to guide our advocacy on your behalf.

We're fighting for dentists to be in control of their destiny, to show that they can, in coordination with the ADA and Virginia Department of Health, develop the proper guidelines to keep patients, staff and themselves safe while providing what we all know is a vital health care service for Virginians.

I have been inspired to see our members rising to this occasion, offering solutions, serving as leaders in your communities by organizing donations of scarce safety equipment and volunteering with the Virginia Medical Reserve Corps, helping your colleagues who need assistance, and having the courage to let others know when you need help yourselves.

You have also continued to do what you do best, treating patients with emergency situations and keeping thousands of patients from visiting a hospital. I've been heartened by stories of dentists taking on emergency cases of patients from colleagues who are at higher risk of contracting Coronavirus.

Over the last month, the VDA Foundation has worked with dentists around the Commonwealth to donate more than 82,000 gloves, 24,000 masks, and more than 1,100 gowns and lab jackets.

"It's times like this that being a part of organized dentistry can have the greatest impact"

You have also responded when we needed a strong message from dentists. Virginia's Congressional delegation received more than 10,000 messages through the ADA's advocacy platform in support of provisions important to dentistry in the federal relief package. Your messages carry weight because you are trusted leaders in your communities and because of the decades of work you have done explaining the importance of oral healthcare to policymakers at all levels.

We have been and will remain in regular contact with the Governor and his administration throughout this crisis, showing them how dentists can be part of the solution and that dentists can develop the right parameters to safely treat patients with this new challenge from Coronavirus.

Our association has also recognized that we need to be nimble and rapidly adjust to the needs of our members. We're providing, for the first time, one-on-one labor and employment advice for members through a partnership with O'Hagan Meyer, Q&A's and daily updates around financing options, policy changes, practice management and a host of other subjects on our COVID-19 Hub online. We have also accelerated our shift to offering member-exclusive online CE. We're using our communications channels in different ways and working to elevate the voices of our members in the media. If you haven't yet, text "VDA" to 52886 to enroll in text messaging for urgent alerts and breaking news.

Please stay engaged. It's times like this that being a part of organized dentistry can have the greatest impact.

ANOTHER BATTLE, WON!

BUT ARE WE WINNING THE WAR?

Dr. Bruce Hutchison; Chair, VDA PAC

The VDA confronted the dental industry and looked to the legislature for a definition of teledentistry. Thanks to the hard work of many VDA member dentists and our wonderful lobbyists, Chuck Duvall and Tripp Perrin, we have defined teledentistry in Virginia and leveled the playing field for dentists and those doing the business of dentistry in our state.

Now, only dentists licensed in the state can do dentistry, in person or via electronic means. That means the Virginia Board of Dentistry has the ability to ensure the same standard of care for dentists working electronically and not actually physically seeing the patients. Treatment of a patient in Virginia must be done by a dentist licensed in Virginia, period. That dentist can now be held accountable for their treatment of a patient.

We have won that battle. We have won the battles against insurance companies on non-covered services and selling provider lists to other insurance companies without your knowledge. However, the war goes on.

Things are changing in Virginia. Like it or not, in last year's state House and Senate races, tens of millions of dollars came pouring in from outside the state to influence political races. All that for jobs that pay $18,000 a year!

Why is that important? Your Political Action Committee, VDA PAC, has been one of the leading healthcare PACs in Virginia for many years. We've earned the respect of both parties in statewide and local elections.

"Please join me in fighting for our patients and fighting for our profession. Make a difference!"

As money in politics in Virginia has increased dramatically over the past few years, contributions to VDA PAC from our member dentists have declined. We aren't keeping up, we are falling behind the rest…and, in politics, if you don't play the game on offense, you will most certainly be run over by the opposing team.

Have we, as a profession, lost the will to determine our own path? It's hard to argue otherwise. If our VDA PAC fails to grow, our voices will not be heard so easily and our fate will be determined by others who are interested enough to pour their money into our system. We must grow the VDA PAC and here are the reasons:

- Insurance companies are NOT going to back down.
- Insurance companies will interfere even more with your way of practicing dentistry.
- The sanctity of the doctor-patient relationship will be eroded.
- The Pew Foundation, who wants to push mid-level providers as a solution to access to care, will see this as a reason to come to Virginia.

Supporting the VDA PAC is one substantial way to help win the next battles (and even avoid them altogether). Are you in? Have you written a check? Will you write a check this year and every year to support your profession? Do it TODAY. Write the check, become involved in determining your own professional path and DON'T let someone else use their influence to take away your profession.

The Choice is yours.

GIVE to VDA PAC at **https://www.vadental.org/advocacy/vda-pac**

Guaranteed- I'm in, I wrote my check, and I'm ready to protect this great profession that I love. We all need to get involved. Even $100 or $200 from every dentist would be a great start. More is better, but let's start somewhere. Our profession needs you!

Please join me in fighting for our patients and fighting for our profession. MAKE A DIFFERENCE!

Let's WIN THE WAR!

AN ACTIVE YEAR

A REPORT FROM THE VDA'S COUNCIL ON GOVERNMENT AFFAIRS

Dr. Roger A. Palmer; Chairman, VDA Council on Government Affairs

The Council on Government Affairs has had a very active year and below I have highlighted our biggest issues.

Teledentistry: The Council, along with the VDA Board of Directors, our lobbyists, our attorney, Ryan Dunn and Laura Givens, had a bill written, passed by the General Assembly and signed by the Governor. This involved literally hundreds of hours of meetings and conference calls. Essentially, our Teledentistry Bill requires that dentists using Teledentistry methods in their practice be held to the same standards as we all are in our offices.

Opioid Prescribing: Effective on July 1, 2020, all prescriptions for opioids must be electronically transmitted. The VDA has obtained a reduced rate from iCoreRx ($45/month + $9/month if you want PMP access). The Board of Dentistry has the authority to grant a one-time, one-year hardship exemption for this. This regulation is going to be very expensive over a dentist's career. It also has the potential to reduce access to care if dentists do not continue prescribing opioids or stop doing procedures that may require opioids.

Opioid Continuing Education Requirements: It has been suggested that a petition be submitted to the Board of Dentistry to reduce the Opioid CE requirement from two hours to one hour after the first two-hour course. This would make it easier to fulfill the requirement at a study club or component meeting. Most of us are prescribing very few, if any, opioids.

Dental Medicaid Expansion for Adults: An expansion of Medicaid coverage for adults for dental treatment has been proposed. There are several ideas being passed around. One is to model it after the expansion to cover pregnant women. A yearly maximum may be necessary because of budget issues. Our president, Dr. Elizabeth Reynolds, has written a letter to the Senate budget committee members requesting that the program be meaningful and that private practice dentists be part of the formulation of the plan. There has not been a fee increase for the Smiles for Children program in at least 13 years. Adults are much more difficult to treat and often have complex medical issues. There are a number of private practice dentists on the Dental Advisory Committee for DMAS and we have asked to be part of the formulation of any expansion plan.

Amalgam Separator Regulation: Effective July 14, 2020. As of July 14th, of this year, most dental offices will have to install an amalgam separator and register it with the Virginia DEQ. Some dental specialties are exempt. Check the VDA website for more information. Both Dental Recycling North America and Solmetex have special pricing for VDA members. I have included the link for registration with DEQ.

https://www.deq.virginia.gov/DentalRule.aspx

Solmetex™
Clearly the leader in amalgam separation

DRNA™
Dental Recycling North America

Dental Benefits Expert: The VDA now has a Dental Benefits Expert to help with insurance issues. You may submit your inquiries at vdaexpert.com.

Deferred Compensation Plan: Several years ago, the VDA was able to get a bill passed to enable dentists to defer some of their Medicaid payments into the Virginia Retirement System. We thought that this would encourage more dentists to participate in the Smiles for Children Medicaid dental program. In a significant number of Virginia communities, there are few, if any, dentists treating Medicaid patients. If the adult dental benefit for Medicaid comes into fruition, we will need more dentists. This program was never implemented for various reasons. There is a petition on the VDA website for you to sign if you are interested in this program.

If you have questions or concerns about any of the above, please contact me or Ms. Laura Givens at the VDA office.

WHAT IS THE SECURE ACT?

MAJOR IMPLICATIONS FOR QUALIFIED RETIREMENT PLANS AND IRAS

David Kupstas, FSA, EA, MSPA; ACG Lead Actuary

Just about every dentist who has retirement savings of any kind will find something of interest in the new Setting Every Community Up for Retirement Enhancement (SECURE) Act signed into law near the end of 2019. There are major changes for Individual Retirement Accounts (IRAs) as well as employer-sponsored qualified plans such as 401(k)s, profit sharing, cash balance, and defined benefit.

Let's start with a few key changes to IRAs:

- The required beginning age for distributions has changed from 70½ to 72. This change went into effect after December 31, 2019. This rule also applies to qualified plans.
- It used to be that an employee had to stop making contributions to a traditional IRA after age 70½. That rule is no longer in effect. Employees may continue making contributions after age 70½. However, any contributions made after age 70½ will reduce the Qualified Charitable Distributions (QCDs) intended to be made (QCDs are distributions of up to $100,000 made directly from an IRA to a charity in satisfaction of the required minimum distribution rules. Interestingly, the earliest age for making QCDs stayed at 70½.).
- The "stretch IRA" has been curtailed. Prior to the SECURE Act, any beneficiary of a deceased person's IRA could "stretch" the payments out over that beneficiary's lifetime. Now, all beneficiaries except certain ones must withdraw the funds within 10 years. The ones who may continue to take longer are spouses, beneficiaries within 10 years of the decedent's age, minor children, and disabled or chronically ill beneficiaries. The new rules apply to deaths occurring after December 31, 2019, and to both traditional and Roth IRAs. Those who were counting on the stretch IRA as an estate planning tool will want to revisit those plans with their advisors as soon as possible.

For the remainder of this article, we will focus on a few changes affecting qualified plans.

Later Deadline for Adoption of Plans

Besides their usefulness in helping employees save for retirement, qualified plans are appealing to practice owners for the tax benefits. Rather than paying half their surplus income to the tax man, owners can potentially set aside large sums of money in qualified plans for later withdrawal when their tax bracket may be lower. Prior to the SECURE Act, a plan had to be signed into place by the last day of the plan year for which it was to be in effect.

"The required beginning age for distributions has changed from 70 1/2 to 72. This change went into effect December 31, 2019."

This was problematic for two reasons. One, the business' tax picture may not have been clear by December 31, making adoption of a plan by that date a risky proposition. Two, IRAs and Simplified Employee Pensions (SEPs) could be established after the year had ended. Some practice owners may have thought the rule was the same for qualified plans.

The good news is now the rule is the same. Starting with the 2020 tax year, employers will have until the due date of the business tax return to set up a qualified plan. This will alleviate the pressure at the end of the year. Still, employers must not dilly-dally and wait until the last minute. Installing a plan requires careful design and forethought. An effective plan cannot be slapped together in a day or two.

Part-Time Employees in 401(k)s

When it comes to qualifying for plan participation, 1,000 hours of service is generally the magic number. While there are exceptions, normally employees who never complete 1,000 hours of service in a year do not participate in qualified plans, while those who do complete 1,000 hours of service do participate.

Under the SECURE Act, an employee who completes more than 500 hours of service in three consecutive years must be allowed to contribute to the company 401(k), if there is one. This rule applies only to salary deferrals from the employee's own paycheck. These part-time employees do not have to receive contributions from the employer, such as match or profit sharing. This rule doesn't take effect for a while, sort of. Years of service prior to 2021 are disregarded, so the earliest a part-timer would enter a plan under this rule would be 2024. But employers should be aware that hours for part-time employees must be tracked carefully starting in 2021.

Safe Harbor 401(k)s

Safe harbor 401(k) plans are popular nowadays. They allow an employer to

avoid burdensome ADP nondiscrimination testing in exchange for providing a certain contribution to employees. Among the drawbacks was having to commit (at least tentatively) in advance to the safe harbor contributions and having to provide a notice to employees.

Now, an employer does not have to provide annual notice of one of the two safe harbor contribution types, the 3.00%-of-pay nonelective contribution. The employer can postpone making the decision to adopt a safe harbor all the way up to 30 days before the plan year ends. Even better news, if it turns out that's not enough time, the safe harbor nonelective provisions can be adopted all the way up until the end of the following plan year. There is a tradeoff for deciding so late – the contribution has to be 4.00% of pay instead of 3.00% – but the result of this change is the employer gets two more full extra years to make this important decision than it had before.

Other Changes

The SECURE Act brought other changes, including:

- Expansion of multiple-employer plans
- Higher salary deferral cap when there is automatic enrollment
- Increased tax credit for startup costs for small employers
- Increased penalties for late returns and notices
- Lifetime income disclosures

If you would like information on any of the SECURE Act provisions, feel free to contact us.

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>> PATHOLOGY PUZZLER CONTINUED FROM PAGE 32

PATHOLOGY PUZZLER ANSWERS

CASE 1:
My thoughts on the first case clinically were a necrotic lesion most likely fungal, traumatic or malignant. There was no history of trauma. Since the patient was only 19, cancer was not high on my differential. Unfortunately, the biopsy came back as undifferentiated malignancy. The special studies revealed a poorly differentiated carcinoma. This cancer was unusual in many ways including the young age, anterior tongue location and penetration of the growth from ventral to dorsal tongue. Genetic work up is now performed when unusual tumors arise that will hopefully allow the oncologist to find a modality to arrest the growth.

CASE 2:
I was surprised that the patient did not have any history of similar lesions in the past. These lesions are a classic presentation of erythema migrans/ geographic tongue. He did not need any "real "treatment. However, since he was complaining of symptoms, he was given "magic mouth" wash.

Magic Mouthwash (1 part viscous lidocaine 2% + 1 part Maalox + 1 part diphenhydramine 12.5 mg per 5 ml elixir)
Disp: 240 ml bottle
Sig: Rinse and expectorate 5 ml prn - up to 4 times/day

CASE 3:
This firm mass of the parotid until proven otherwise is a salivary gland tumor. The history of slow growth and the parotid location make a salivary gland tumor the most likely diagnosis. Eighty percent of parotid tumors are benign with 90% of those being pleomorphic adenomas. The second most common benign tumor of the parotid tumor is the Warthin Tumor (associated with a male predilection and smoking). In this case the histology was a pleomorphic adenoma and the patient was successfully treated conservatively.

CASE 4:
The clinical previous history of lichen planus with the presentation of marked painful ulcerative lesions of the right and left buccal mucosa is consistent with chronic ulcerative stomatitis. In this case the patient was treated with plaquenil 200 mg BID, Clobetasol gel, magic mouth wash and lidocaine viscous 2% to be applied directly to the affected areas. Patients will be evaluated in one month and typically respond within that time.

Hydroxychloroquine (Plaquenil)
200mg tablets
Disp: 60 tablets
Sig: Take one tablet by mouth bid

Clobetasol propionate 0.05% gel (Temovate)
Disp: 30 gram tube
Sig: Apply to affected area bid (Ignore external use only)

Lidocaine (Xylocaine) viscous 2%
Disp: 4 oz.
Sig: Apply to affected area q4h prn pain

CASE 5:
The white lesion clinically has a leukoplakia appearance with a hint of erythroplakia. However, the front of the lesion has a suggestion of the stria of lichen planus with a plaque-like appearance. Lesions of the tongue are typically plaque-like, especially the dorsal tongue. The biopsy revealed the diagnosis of lichen planus. The most common locations for lichen planus are the posterior and inferior buccal mucosa and vestibule followed by the tongue.

FACTORS INFLUENCING MOTIVATION TO SEEK ORTHODONTIC BRACES

Tyler Wood, DDS; Bhavna Shroff, DDS, MDentSc, MPA; Caroline K. Carrico, PhD; Steven J. Lindauer, DMD, MDSc

ABSTRACT

Objective: To investigate factors motivating patients to seek orthodontic treatment.

Methods: Patients from practices in Virginia were asked to complete a survey about factors that motivated them to seek orthodontic treatment. Repeated measures ANOVA was used to determine factors associated with the decision to initiate treatment.

Results: Health benefits, referral by a dentist, or the desire of child/parent to seek treatment were ranked as the highest factors. Insurance was not found to be a barrier to access care.

Conclusions: Initiation of treatment is motivated by several factors but not influenced by insurance type.

BACKGROUND

Aesthetics is important to both children and adults. The perceived smile attractions and the need for orthodontic treatment differ between patients, parents, and providers.[1,2] Much research has shown that aesthetics is often a driving motivator for orthodontics, but it is not the sole determinant in the decision to seek treatment. Other motivations for parents seeking treatment for their children include: parental responsibility, perceived oral health needs identified by a dental professional, and prevention of future problems such as masticatory issues, temporal mandibular joint (TMJ) problems, and speech difficulties.[2–4]

Parents often determine whether or not a child receives orthodontic treatment and how to finance treatment. The importance of self-image to the parents based on their past experiences and upbringing may be a factor in their desire for their children to undergo treatment and to provide the financial means to receive it. Many families may feel that they cannot afford treatment, but still feel that it is important and desired. Shaw believes that with a high demand for orthodontic treatment, the need perceived by parents and children is enough to justify payment for treatment, even though parents may not understand the long term medical benefits from orthodontic treatment.[5]

The idea that straight teeth may significantly increase the chances of employment, finding a mate, or making one seem more attractive, intelligent and successful may be instilled in children by the parents' orthodontic experiences. This belief could also be a driving influence for the idea that dedicated funds will be found to pay for braces regardless of how great or how little the long term perceived medical benefits actually are.[5–8]

The objectives of our study were to assess the factors that influence adults to seek orthodontic treatment for themselves or their children. We wish to understand the roles that peer influence, past experiences, and insurance benefits play in the desire to seek treatment.

MATERIALS AND METHODS

Two parallel paper surveys were created to assess the motivating factors to seek treatment with braces for patients and parents' children. The study specifically asked about fixed bracket appliances, termed "braces", and did not include clear aligners. The study was approved by the Institutional Review Board. Surveys were distributed to pediatric and orthodontic clinics to get a representation of adult orthodontic patients, parents of children who were orthodontic patients and parents of children who may yet

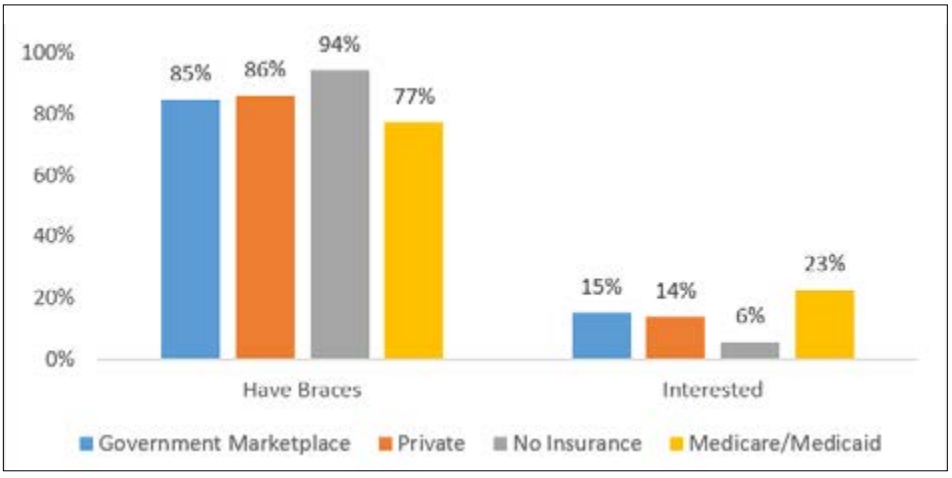

Figure 1

undergo orthodontic treatment. The surveys contained similar questions to gain comparable data and were only modified to reflect whether the survey was being completed at a pediatric clinic or an orthodontic clinic. Surveys had participants rank the importance of each factors on their decision or desire to receive braces.

The inclusion criteria included patients and parents who were 18 years or older. These participants were instructed to fill out the survey in regard to their own orthodontic treatment, or for their children. Those who were not interested in braces for themselves or for their children were excluded from the study.

Three hundred and twenty surveys were distributed among three Orthodontic clinics and three Pediatric clinics in the state of Virginia. Surveys were filled out either by adults seeking treatment for themselves or parents of patients being seen in the clinic. Using a 7-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree", participants were asked to rank 13 statements regarding what influenced their decision to seek braces for themselves or their child. The 13 statements were then collapsed into 6 categories and participants were asked to rank the 6 different statements ranging from most important to least important. Surveys also contained demographics and 2 questions regarding insurance benefits. Surveys were collected and the data was entered into Research Electronic Data Capture (REDCap). REDCap (Research Electronic Data Capture) is a secure, web-based application designed to support data capture for research studies[9]. Dates and times of data entry were marked for reference on surveys. Quality control of data entry was checked by submitting 10 percent of the time stamped paper surveys at random to be cross checked with the data entered into REDCap.

Responses on the Likert scale were scored as -3 ("Strongly Disagree") to 3 ("Strongly Agree") and analyzed as numeric. Questions that asked for respondents to rank statements from most important to least important were scored with 1 indicating the "most important" factor and 6 indicating the "least important" factor giving a lower number in table III greater importance. Repeated measures ANOVA was used to test for differences in rankings and agreement scores between the motivating factors. Post hoc tests were adjusted for multiple comparisons using Tukey's HSD. Significance level was set at 0.05. SAS EG v6.1 (SAS Institute Inc., Cary, NC, USA) was used for all analyses.

RESULTS

Of the 320 surveys, 200 were completed and returned giving an initial response rate of 62.5%. After excluding those who were not interested in treatment (n=30), those who did not answer a majority of the survey questions (n=5), and those who did not meet the age criteria (n=1), a total of 164 responses were included in subsequent analyses. This gave us a final response rate of 51.25%.

Respondents were predominantly female (80%), between the ages of 35 and 55 (79%), and Caucasian (69%). Those responding regarding children had roughly equal number of male and female children (48% male; 51% female; 1% with multiple children of each gender), between the ages of 10 and 15 (71%). All demographics given in Table I.

The 3 highest mean agreements were respectively a child's desire for orthodontic therapy, a patient wanting treatment for themselves or parent's desire for a child to undergo treatment, and the past positive experiences of a family or friend with treatment. (Table II). Respondents disagreed the most with their decision to seek therapy being influenced by their peers. (Table II)

Someone suggesting braces (including a dentist, respondent himself/herself, or a respondent's child) and the health benefits of improvement of chewing and talking were ranked first and second most important factor, respectively, for seeking treatment (Table III). Insurance benefits and a positive experience with braces (self, another child, family member) were ranked third and fourth respectively and personal regret and peer influence were

Table I: Respondent Demographics

Demographic	n	%
Age*		
18-24	5	3%
25-34	20	12%
35-44	71	44%
45-54	56	35%
55-64	9	6%
Gender		
Male	33	20%
Female	129	80%
Race/Ethnicity		
White	112	69%
Black or African American	33	20%
Hispanic or Latino	7	4%
Asian	9	6%
Other	1	1%
Marital Status		
Married	105	66%
Single	32	20%
Widowed	2	1%
Divorced	14	9%
Separated	5	3%
Insurance Type		
Government Marketplace	26	16%
Private	95	58%
No Insurance	18	11%
Medicare/Medicaid	25	15%
Child's Age		
3-5	2	1%
6-9	15	11%
10-12	35	25%
13-15	63	46%
16-18	23	17%
Child's Gender		
Male	69	48%
Female	73	51%
Both (multiple children)	2	1%
Braces		
Have braces	140	85%
Interested in braces	24	15%

**Age refers to age of adult patients or parents of children who are patients*

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Table II: Agreement with Various Motivating Factors (-3= strongly disagree; 3=strongly agree)

Motivating Factor	Mean Agreement	Tukey's HSD*
My child wants braces	2.7	A
I want my self/child to have braces	2.4	A, B
A family member or friend had a positive experience with braces	2.2	A, B
A dentist suggested braces for myself/child	2.2	A, B
I don't want my child to regret not having braces	2.0	A, B, C
Braces will improve chewing and talking	2.0	B, C
I had a positive experience with another of my children having braces	1.9	A, B, C
There are health benefits besides aesthetics for braces	1.7	B, C
I had a positive experience receiving braces myself	1.7	B, C
I am satisfied with my/my child's smile	1.4	C
My own/child's insurance benefits play a role in my decision to seek braces	-0.1	D
I regret not having braces myself as a child	-0.1	D
My decision for braces is influenced by my peers	-1.5	E

**Mean agreement for factors without the same letters are statistically significantly different*

ranked significantly lower as fifth and least important. These rankings combined respondents who were currently undergoing orthodontic treatment and those merely interested in pursuing it in the future.

Responses to the statements regarding personal positive experiences, positive experiences of a family or friend, or another child's positive experiences were all significantly positively correlated with desire for braces for a patient or child. The highest correlation was between desire for treatment for a patient or child and family or friends positive experiences ($r=0.58$, $P<0.0001$). Other correlations are given in Table IV.

The distribution of various insurance types was compared for active patients (who are currently in treatment) and prospective patients (who are interested in pursuing treatment in the future.) No difference was noted between these groups ($P=0.4929$) (Fig.1). Among patients who had braces, the distribution of insurance was not significantly difference which may suggest that insurance was not a barrier to accessing treatment.

DISCUSSION

This research is consistent with the findings that there is lack of agreement on the role that peer influence plays on children's and parents' motivations to seek treatment. Parents and children place aesthetics and social parameters higher than overall health.[10,11] Teasing from peers is a common consequence of malocclusion and provides motivation to seek orthodontic treatment.[12] Other researchers have found that aesthetic importance was based on a child's own impressions, rather than the impressions of others.[13] Within this study there was some disagreement about the role of social influences. Respondents ranked peer influence among the lowest of reasons for getting braces but had a high correlation between the desire to seek treatment and the past positive experiences with treatment of a family member or friend. These associations may show some subconscious peer influences on acquiring braces and possibly the difference between peer pressure (which may have a negative connotation) and peer influence (which may be more positive in connotation).

Of particular interest was the relationship between the desire for braces of a patient or child and a parent, family member or friend, or another child having a positive experience with orthodontics. This was assessed through the correlation between the desire for a patient or child to receive treatment and either the positive past experience with orthodontic treatment of the parent, a family member or friend, or another child. The significant correlation between all three statements relating to past positive experiences of one's self, a family member or friend, or another child and the desire for treatment agrees with other literature that it is crucial that an orthodontist's patients have a positive experience both in the office and with their results.

As noted above, this study showed the importance of past orthodontic experiences within a family and the effect it had on the desire for treatment. On the other hand, our study showed that a parents' regret of not receiving treatment is one of the least motivating factors to seek treatment. This seems to be contrary to studies in the United Kingdom which found that parents who had any regrets about their past history were more interested in seeking orthodontic care for their children.6 This difference may be due to region, or parents' regrets about not receiving braces may merely be less of a motivating factor to seek orthodontics. It would prove interesting to specifically study the correlation between parents who never received treatment in the past as well as those who would also be interested in receiving treatment now and their desire for their children to receive treatment.

The resources available to pay for orthodontic treatment vary around the world, whether it be cash, insurance, or government subsidy. Treatment is often reserved for the upper and upper middle class.14 An example is given in Norway of using an index to place children into categories of very great, great, obvious, and little/no need. Patients who are deemed to have very great, great, or obvious need are granted some amount of public subsidies.15 Another study in Norway showed a large percentage of parents believe they cannot afford orthodontic treatment and that the cost often outweighs the benefits of treatment.16 In the United States there are methods to make payments for orthodontics. In this study, we determined that insurance did not cause

Table III: Ranking of Most Important Factors for Obtaining Braces

Motivating Factor (*P-value<0.0001)	Mean Rank (1=Most Important)	Tukey's HSD*
Someone suggested braces (a dentist/myself/my child)	1.83	A
Health benefits and improvement of chewing and talking with braces	1.92	A
A positive experience receiving braces myself, or another child, familymember, receiving braces	2.79	B
My insurance plan's inclusion of benefits for braces	3.21	B
Personal regret about not receiving braces myself	4.20	C
Others are receiving braces (peer influence)	4.61	C

**P-value from overall repeated measures ANOVA testing for differences in rankings for the various motivating factors; Items with different letters were found to be statistically significantly different based on Tukey's-adjusted pairwise comparisons (adjusted p-value<0.05)*

a significant barrier to receiving treatment. If insurance was a barrier to treatment, we would expect to see more of one type of insurance among those merely "interested" in orthodontics and not currently in treatment. This is consistent with the findings of Shaw (1981) and the belief that the need perceived by parents and children would be enough to justify the use of resources for payment.5 Though we found insurance not to be a barrier to receiving orthodontic care, it was noted that it did play more of a role in the decision to seek treatment for those that have insurance than it did for those with no insurance.

Due to the nature of survey research, these results are not without limitations including non-respondent bias and observational in nature. Additionally, our study was limited to the Central Virginia region. Further research should be conducted on a larger scale. Some of the survey questions may also be leading in nature. For example, when ranking the statement "Health benefits and improvement of chewing and talking with braces" may be considered a leading question since parents always want what is best for their children. In future studies it would be beneficial to distinguish between "peer influence" and "peer pressure," the latter having a more negative connotation.

CONCLUSION

- The recommendation for orthodontic treatment by a dentist, the parent or a child was a primary motivator for seeking orthodontic treatment.
- Past positive experiences of a parent, a family member or friend, or another child influence one's desire to seek braces for themselves or their child.
- Insurance is not a significant barrier to getting braces.

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Table IV: Correlation between past experiences and desire to seek treatment with braces for oneself or one's child (-3=strongly disagree; 3=strongly agree)

Statement	Mean Agreement	SD	Correlation with "I want my self/child to have braces"	P-value (r>0)
I want my self/child to have braces	2.3	1.2	-	-
A family member or friend had a positive experience with braces	2.2	1.1	0.58	<0.0001
I had a positive experience receiving braces myself	1.6	1.8	0.39	0.0004
I had a positive experience with another of my children havingbraces	1.9	1.7	0.35	0.0021

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VDA SERVICES CAN HELP MEMBERS SAVE

Elise Rupinski, VDA Director of Marketing and Programs

What's the issue?

Beginning July 1, the law mandates the use of only electronic prescriptions for all controlled substances in Virginia.

Read the new regulation in its entirety at **https://bit.ly/39SY3xJ** - Code of Virginia § 54.1-3408.02 (Effective July 1, 2020).

What is the VDA is doing to help members?

VDA Services is pleased to announce the endorsement of iCoreRx, empowered ePrescribing from iCoreConnect. iCoreRx enables ePrescribing for all medications, including controlled substances and provides one-step, real-time access to the Virginia Prescription Monitoring Program (PMP).

iCoreRx + PMP

In order to help VDA members comply with this new regulation, the VDA Services Board of Directors conducted a thorough review of the ePrescribing marketplace. The Board is confident in its selection of iCoreRx as a complete and HIPAA-compliant ePrescription tool. This one-stop solution provides auto-filling of patient information, contra-indications, patient drug history, a drug database directory and more. iCoreRx is cloud-based, so providers have the flexibility to ePrescribe from anywhere at any time.

Practitioners that prescribe Schedule II-IV drugs need to access the PMP to prescribe those controlled substances. iCoreRx, with the added PMP tool, streamlines your prescription check process. It interfaces with practice management systems, bringing all your patient's data to a single screen for easy access.

iCoreConnect President and CEO Robert McDermott explains, "iCoreRx, when combined with the added PMP functionality, simplifies mandatory prescription checks through a single screen interface with a provider's practice management system. It eliminates manual data entry and displays patient information alongside the PMP data."

What do members have to say about iCoreRx?

"iCoreRx provides a solution for the upcoming mandatory ePrescribe regulation that's simple to implement no matter what digital record system you use!"

Dr. Frank Iuorno,
VDA President-Elect

"VDA Services has worked with iCoreConnect since 2015 when the Board endorsed the company's HIPAA-compliant email and referral network, iCoreExchange. The company is great to work with and has helped many VDA members. I am pleased we are able to expand our partnership to include ePrescribing through iCoreRx."

Dr. Steve Radcliffe, President,
VDA Services Board of Directors

Your Member Perk:

In addition to bringing members a complete ePrescription solution, VDA Services worked to secure an exclusive member benefit on pricing. VDA members save $30/month on iCoreRx and $16/month on the PMP integration tool. That equates to up to $552/year in savings for VDA Members – more than annual VDA dues.

Get started:

Be sure your practice is prepared for Virginia's new ePrescribing regulation. To learn more about iCoreRx or to schedule a free demo, contact the iCoreRx team at 888-810-7706 or visit them online at **www.icoreconnect.com/rx.**

Editor's Note: VDA Services is a service mark of the Virginia Dental Association. VDA Services is a program brought to you by the Virginia Dental Services Corporation, a for-profit subsidiary of the Virginia Dental Association.

EFFECTS OF MECHANICAL INSTRUMENTATION WITH COMMERCIALLY AVAILABLE INSTRUMENTS USED IN SUPPORTIVE PERI-IMPLANT THERAPY: AN IN VITRO STUDY

Aim: Implant restorations have transformed the world of dentistry with new implant systems on the market and new prosthetic designs introduced in recent years. With higher prevalence of dental implant placement, it is important to understand maintenance regarding peri-implant therapy. This particular study analyzes short- and long-term effects of mechanical instrumentation for biofilm and calculus removal on both smooth and rough surfaces on dental implants. The study evaluates the effectiveness of artificial calculus removal, in a simulated environment, using commercially available dental instruments and how they may affect the surface structure of the implant.

Methods: Fourteen titanium Straumann SLActive tissue level implants and fourteen titanium Zimmer tapered screw vent implants with roughened surfaces were used in the study. Artificial calculus was created by using a 1:1 ratio of cyanoacrylate and toluidine blue dye and applied to the coronal third of each implant. One clinician used the following commercially available dental instruments to remove the artificial calculus: stainless steel curette, plastic curette, titanium curette, metallic ultrasonic tip, plastic ultrasonic tip, a titanium brush, and a glycine powder air polishing device. All curettes were mentioned to have a 70 degree contact angle and consistent 6-N force. The ultrasonic tips and air abrasion polisher were set to manufacturer recommendation for use on dental implants. The maximum working time for each instrument mentioned was 10 minutes.

In the study, five strokes of each dental instrument were said to be equivalent to one maintenance visit. Analyses of simulated maintenance visits consisted of one group of implants receiving the equivalent of routine implant maintenance for one year, while another group received routine implant maintenance for five years. Three surface areas from the mid portion of each implant were selected at random among the implants that were instrumented. Atomic force microscopy, stereomicroscopy, and scanning electron microscopy were used to assess remaining residual artificial calculus and implant surface damage.

Results: In the category of effectiveness of mechanical instrumentation, metallic ultrasonic tip and air abrasion were the most effective instruments with 0% average percentage of residual artificial calculus. This is followed by titanium brush with 2.89%, ultrasonic with plastic tip with 4.9%, stainless steel curette with 15.4% and titanium curette with 20.1%. Plastic curettes failed to remove any hardened deposit.
In the category of instrument efficiency, metallic ultrasonic tip was the most efficient instrument with a mean working time of 171 seconds. Stainless steel curette followed with 225 seconds, ultrasonic with plastic tip in third with 257 seconds, titanium brush with 279 seconds, and titanium curette with 326 seconds. Air abrasion was efficient with roughened surfaces with 302 seconds of working time, and took maximum amount of working time to clean machined surfaces. Plastic tip curettes were mentioned to be the least efficient requiring maximum amount of working time. Plastic and titanium-like remnants were observed to be present on both forms of implant surfaces.

Conclusions: This particular study suggests that the optimal instrument for maintenance on implant surfaces depends on the type of implant surface. In a general observation, it was noted that mechanical instrumentation of artificial calculus by all instruments, with the exception of plastic curettes, were clinically effective on thread-free surfaces. The air polishing device was the only instrument to preserve surface integrity of both surface types while demonstrating clinically effective maintenance in both short term and long-term simulations.

Reference: Sirinirund B, Garaicoa-Pazmino C, Wang H.-L. Effects of Mechanical Instrumentation with Commercially Available Instruments Used in Supportive Peri-implant Therapy: An In Vitro Study. Int J Oral Maxillofac Implant. 2019; 34(6): 1370–1378.

Submitted by: Rebekah Collins, DMD; Resident, Advanced Education in General Dentistry, Virginia Commonwealth University

TEN YEARS FOLLOW-UP RETROSPECTIVE STUDY ON IMPLANT SURVIVAL RATES AND PREVALENCE OF PERI-IMPLANTITIS IN IMPLANT-SUPPORTED FULL-ARCH REHABILITATIONS

Aim: Titanium implants have been used to support dental prostheses since the time of Brånemark. Research reveals that peri-implantitis is a leading cause of implant failure and need for removal. This retrospective study was done in Milan, Italy to evaluate the both the survival rate and the prevalence of peri-implantitis in patients with Full Arch Implant Supported Rehabilitations (FAISRs).

Materials and Methods: The records of all patients at Instituto Ortopedico Galeazzi who were treated with FAISRs between January 1, 2004 and December 31, 2017 were assessed. Patient criteria were as follows: more than 18 years old, received a FAISR supported by a combination of 2 tilted and 2 upright rough or moderately rough implants, received provisional prosthesis within 48 hours of surgery, gave consent for records to be used for research, and had complete clinical and radiographic records with at least one radiograph per year for each implant.

Cumulative implant survival rate percent (CSR%) was measured. Peri-implantitis prevalence was also measured at the implant level and the patient level. Implant survival was defined as the implant still present, stable, and supported a functional prosthesis. Peri-implantitis was defined as bleeding or suppuration and bone resorption of at least 2 mm. Survival analysis performed using life tables and Kaplan-Meier analysis. Data was recorded for 96 FAISRs each supported by 4 implants, in 77 patients. This accounted for 384 total dental implants. Follow up time was up to 13.7 years from time of provisional prosthesis placement. All implants were at least 11.5 mm and had moderately rough surface.

Results: The CSR% after 10 years of implants free from peri-implantitis was 86.92% at the patient level. No statistically significant difference was noted in survival between the maxilla and the mandible for survivability. There was a statistically significant difference noted between the two arches for implant level analysis of peri-implantitis. After 5 years, peri-implantitis prevalence was noted at 4.6% at the implant level and 12.7% at the patient level, though after 10 years, the proportion of implants without peri-implantitis was significantly higher in the mandible. Most of the implants affected were mandibular restorations and tilted implants. With only eight implant failures recorded, a CSR% of 96.11% was found for immediately loaded FAISRs. After 10 years the proportion of implants free from peri-implantitis was 86.92% while proportion of patients free from peri-implantitis was 60.69%. Neither smoking nor periodontitis were noted as a significant risk factor for peri-implantitis. Conclusions: Ten-year survival rate for FAISRs was high. Although peri-implantitis happened frequently in the examined population, implant loss was rare.

Reference: Francetti L, Cavalli N, Taschieri S, Corbella S. Ten years follow-up retrospective study on implant survival rates and prevalence of peri-implantitis in implant-supported full-arch rehabilitations. Clin Oral Implant Res. 2019; 30(3):252–60.

Submitted by: Tyler Wood, DDS; Resident, Advanced Education in General Dentistry, Virginia Commonwealth University

SHOULD THE RESTORATION OF ADJACENT IMPLANTS BE SPLINTED OR NON-SPLINTED? A SYSTEMATIC REVIEW AND META-ANALYSIS

Aim: Dental implants, while frequently used to restore edentulous spans, are subject to many complications that can increase the failure rate. Managing risk factors that increase the risk of complications is essential to success, and it is unclear in the literature whether or not to splint implant restorations. This article aims to provide a systematic review and meta-analysis to assess marginal bone loss, survival rate, and prosthetic complications of splinted vs. non-splinted implant restorations.

Methods: The systematic review was conducted using the Cochrane criteria and the meta-analysis was conducted using the Preferred Reporting items for Systematic Reviews and Meta-analyses (PRISMA) statement. Inclusion criteria included randomized controlled trials, prospective studies, retrospective studies and clinical human studies. The aims of the studies included comparing crestal bone loss around splinted and non-splinted implant restorations, comparing survival rates of implants using splinted vs. non-splinted implant restorations, and comparing prosthetic complication of splinted vs. non-splinted implant restorations. These studies were required to have a follow-up of more than 6 months and had to be published in the English language.

Exclusion criteria included articles that did not meet the inclusion criteria and studies that included splinted full arch restorations.

An electronic and manual search was conducted for research articles until November 2017 and analyzed using PICO (population, intervention, comparison, outcome) questions.

Results: The researcher's search yielded 894 references, which were then narrowed to 19 studies applying the inclusion/exclusion criteria. One was a randomized clinical trial, 7 were prospective studies, and 11 were retrospective studies. Marginal bone loss was evaluated in 9 studies. Quantitative analysis yielded no significant difference in marginal bone loss between splinted and non-splinted restorations.

Studies reported 75 implants failed, of which 24 were splinted and 51 were non-splinted. Quantitative analysis showed statistically significant higher survival rate of splinted implants than non-splinted.

Ten studies provided data for prosthetic complications. The most common complication for splinted implant restorations were ceramic chipping and screw loosening and ceramic chipping for non-splinted implant restorations. Quantitative analysis showed no statistically significant difference in prosthetic complications for splinted vs non-splinted implant restorations.

Conclusion: While there was no significant difference in marginal bone loss and prosthetic complications between splinted and non-splinted implant restorations, there was a significant decrease in implant failure rate for splinted restorations.

Reference: De Souza Barista et. al. Should the restoration of adjacent implants be splinted or nonsplinted? A systematic review and meta-analysis. J Prosth Dent. 2019: 121(1):41-51

Submitted by: Jahanzabe Siddiqui, DDS; Resident, Advanced Education in General Dentistry, Virginia Commonwealth University

CONTROLLING DENTAL CARIES IN EXPOSED ROOT SURFACES WITH SILVER DIAMINE FLUORIDE: A SYSTEMATIC REVIEW WITH META-ANALYSIS

Aim: he aim of this study was to evaluate the effect of silver diamine fluoride (SDF) in preventing and arresting dental caries in exposed root surfaces of adults.

Methods: The studies included in this review had to meet the following PICO criteria. The population was adults of any age with exposed root surfaces at the beginning of the study. The intervention was topical SDF solution of any concentration or frequency which was applied by any health care worker at any setting. The comparisons were no intervention, placebo and any cariostatic agent or dental restorative material. The outcome was the development of new dental caries and the arrest of existing caries in exposed root surfaces within at least 12 months after product application. In April 2016, 8 databases and 5 registries were searched without language or date publication restrictions. All studies were organized into one core database using EndNote X7. Two authors examined the title and abstracts to decide which articles should be read in full. Once articles had been selected, they were read independently by 2 authors and assessed for risk of bias using the Cochrane risk of bias tool. Any disagreements between the 2 authors for inclusion of a study or risk of bias were resolved by a third party.

The following things were calculated: 1) caries prevention 2) prevented fractions for comparison between placebo and SDF 3) caries arrest. Caries prevention was calculated as the difference in mean caries increment between SDF and control groups and caries arrest was calculated as the difference in mean number of arrested lesions between the SDF and control groups. Prevented fractions were calculated as mean caries increment of the control group minus mean caries increment for SDF divided by mean caries increment of the control group. All analyses were done in Stata 14.

Results: The three trials included 4 reports that randomized 895 older adults who were analyzed at 12, 24, and 30 or more months of follow up. All subjects had similar mean age, low caries experience, and consumed fluoridated water and both test and control groups received individualized oral hygiene instruction. Two trials had 2 intervention groups: 1) one compared yearly SDF applications with or without participation on a biannually oral health education program to a placebo and 2) another compared yearly SDF applications followed or not by potassium iodide application to a placebo. Another trial compared yearly SDF applications to quarterly applications of 1% chlorohexidine varnish (CHX) and 5% sodium fluoride varnish (FV).

Active caries was described as being able to penetrate the lesion with light force using a explorer. Inactive caries was described as a smooth, hard surface that was brown or black in color.

For caries prevention, the meta-analysis of three studies with 24 months of follow up comparing SDF to placebo shows that SDF applications significantly decrease the number of new root caries lesions. There was no significant difference observed in caries increment when SDF was compared to SDF followed by potassium iodide (KI). In the study that compared SDF to CHX and FV, CHX had a higher preventive effect than SDF at the 12 month follow up but no difference between the two after 12 months nor between SDF and FV at any point in time.

For caries arrest, there were significantly higher mean numbers of arrested lesions observed in the test groups than in the placebo group.

Conclusion: This systematic review shows that yearly application of SDF to exposed root surfaces of adults is effective against the initiation and progression of dental caries and that the longer they are exposed the greater the preventive effect. This review also shows that the preventive effect of SDF is similar to that of 5% sodium fluoride and 1% chlorhexidine varnishes.

Reference: Heloisa Oliveria B, Cunha-Cruz J, Rajendra A, Niederman R. Controlling Dental Caries in Exposed Root Surfaces with Silver Diamine Fluoride: a Systematic Review with Meta-analysis. JADA. 2018; 149(8): 671-679.

Submitted by: Elaine Wu, DMD. Resident; Advanced Education in General Dentistry, Virginia Commonwealth University

FISSURE SEALANTS: CLINICAL OBSERVATIONS UP TO 13 YEARS

Aim: The aim of this study was to clinically evaluate the retention and caries prevention of a glass ionomer material for fissure sealants, after being placed on newly erupted permanent molars, over a period of time.

Methods: This was a prospective observational study and children were treated at the Clinic for Paediatric and Preventive Dentistry of the University of Belgrade between January 2004 and December 2015. Subjects were selected on the following criteria: a recently erupted permanent molar with sound pits and fissures; hypoplastic teeth, teeth with a suspicious lesion or evident caries, teeth with a completely or partially retained sealant or a restoration were excluded from the study. The subjects were separated into three groups based on caries risk, based on the guidelines of the American Academy of Pediatric Dentistry. Those that were low risk had no caries in the past 24 months. Those that were medium risk had caries in the past 24 months and/or poor oral hygiene. Those that were included in the high-risk group had >1 caries in the past 12 months, active white spot lesions, greater than 3 sugar containing snacks or beverages per day, defective existing restoration and/or orthodontic appliances.

Based on the guidelines above, 480 patients were included, and all had their dental exam done by one examiner. Two clinicians, who were standardized for the fissure sealing, performed the procedure. In every patient, dental plaque was removed from the tooth, rinsed with water, then dried and isolated using cotton. The enamel was conditioned with 10% polyacrylic acid for 20 seconds, rinsed with water and dried gently using an air syringe. The glass ionomer material used was Fuji VII, which was mixed for 10 seconds at high speed, then syringed directly onto the tooth, pressed into the fissure system with a finger, and any excess material was removed with a carving instrument. Varnish (GC Fuji Coat LC) was applied afterward and light cured for 10 seconds. If occlusal adjustment was needed, it was performed, and varnish was applied again. Post op instructions were given to not eat for an hour afterwards and instructions for how to improve oral hygiene were also given.

These sealants were evaluated with a mirror and explorer at 6 months, then at 12 months, and then once a year after that by the same examiner who performed the dental exam. The outcomes that were being measured were retention of the sealant and absence of caries. Complete retention of the sealant was recorded if the whole occlusal surface still had the sealant. Partial retention of the sealant was recorded if 2/3 or 1/3 of the occlusal surface still had the sealant. Complete loss was recorded if no sealant was observed on the occlusal surface. If a sealant was lost on a high-risk caries patient, the tooth would be resealed and excluded from the study. Evidence of caries was evaluated using the WHO criteria: 1) no evidence of caries, 2) caries evident or restoration on occlusal surface 3) restoration or caries evident on surface other than occlusal. Once a tooth had caries, it was restored and excluded from the study.

A series of descriptive statistical analyses were done: 1) Kaplan-Meier analysis to estimate survival curves for time to sealant failure 2) log-rank test to analyze survival rates between subgroups 3) chi-square test for comparisons of frequency distribution, significance was set at $p < 0.05$, and 4) retrospective power analysis using gsDesign Package in R showed that the sample size of 562 teeth was sufficient for targeted effect with 80% power at the significance level 0.05.

Results: A total of 1736 glass ionomer sealants were placed in 480 patients (243 boys and 237 girls), of these 1533 were in first permanent molars, 203 were in second permanent molars and 857 were on maxillary teeth and 879 were on mandibular teeth. By the end of 13 years only 33 children were available for follow up and the mean follow up time was 5 years. By the end of the 8th year, there were no completely retained sealants and by the end of the 13 year follow up, 76% of sealants were lost. Retention was significantly better in second permanent molars compared to first permanent molars and there was no effect of arch (maxillary or mandibular), or left and right, on sealant survival. At the one and 13 year mark, 99% and 65% of occlusal surfaces were caries free respectively. This observational study found that there was no influence of a patient's caries risk on caries occurrence ($p>0.05$, chi-square test).

Conclusion: The results demonstrate that 1) glass ionomer materials have low retention rates but prevented caries in 65% of newly erupted permanent molars after 13 years of placement, therefore retention of a sealant is not a prerequisite for caries prevention and 2) caries risk does not influence retention or the caries preventive effect of a glass ionomer material for fissure sealing.

Reference: Markovic D, Peric T, Petrovic B. Glass-ionomer. Fissure Sealants: Clinical Observations up to 13 years J Dent. 2018; 79: 85-89.

Submitted by: Elaine Wu, DMD; Resident, Advanced Education in General Dentistry, Virginia Commonwealth University

OUTCOME OF ENDODONTIC MICROSURGERY USING MINERAL TRIOXIDE AGGREGATE OR ROOT REPAIR MATERIAL AS ROOT-END FILLING MATERIAL:

A RANDOMIZED CONTROLLED TRIAL WITH CONE-BEAM COMPUTED TOMOGRAPHIC EVALUATION

Endodontic microsurgery is a dental procedure option to treat cases with recurrent apical periodontitis following root canal therapy. Using a microscope, ultrasonic tips and biocompatible root end filling materials have been shown to increase the success rate of endodontic surgery to 93.5% while the success rate for the traditional surgical technique was found to be 59%.

The purpose of this prospective randomized controlled study was to evaluate healing after endodontic microsurgery by comparing mineral trioxide aggregate (MTA) vs EndoSequence root repair material (RRM) as root end filling materials in a 2-dimensional PA radiograph and 3-dimensional CBCT imaging. There are many materials that can be used as a root end filling material. Ideally, those materials have to be biocompatible, dimensionally stable, bactericidal/bacteriostatic, easy to handle, and provide an excellent seal.

MTA has been the material of choice for root end surgery. It is a biocompatible material and has an excellent sealing ability. However, MTA is somewhat difficult to handle because of its granular consistency, and it has been shown to cause discoloration of the tooth structure.

Recently, RRM has been used in endodontics to overcome the limitation that MTA has. It is a bioceramic material that is available as a premixed putty. Studies have shown that both MTA and RRM have similar characteristics.

There were 243 teeth with recurrent apical periodontitis that were included in this study. All teeth were assigned randomly to either the MTA or the RRM retrofill group. Patients were invited back for 6, 12- and 24-month follow-ups. A routine clinical examination with a PA radiograph was conducted in each follow-up appointment. Teeth were evaluated for symptoms, tenderness to percussion, palpation and periodontal probing. All patients had a CBCT scan taken before the procedure and at least once after the procedure. Endodontic microsurgery procedures were performed by postgraduate residents under the supervision of a faculty member. The minimum follow-up period for all cases was 12 months. Clinical examination at the follow-up visits was performed by one operator. Three calibrated examiners reviewed all the radiographic images. Cases were categorized into healed and non-healed. Cases classified under complete or incomplete healing on PA evaluation, complete healing, and limited healing on CBCT evaluation with absence of clinical signs and/or symptoms were regarded as healed (successful), whereas those classified as uncertain or unsatisfactory on PA radiography and unsatisfactory healing on CBCT imaging with or without clinical signs and symptoms were labeled as non-healed (failure).

From the 243 cases that were treated with microsurgical procedures, only 122 teeth were examined at follow-up. A total of 57 teeth were examined from the MTA group and 65 teeth from the RRM group. Two teeth were eliminated because of procedural errors as seen on the follow-up examination which brought the total number of teeth evaluated to 120 teeth. The success rate as evaluated by using a PA radiograph was 93.3% (94.7% for MTA, 92% for RRM). The success rate as evaluated by using a CBCT scan was 85% (86% for MTA, 84% for RRM). Few studies have compared evaluations of PA versus CBCT images for healing after surgery and the result here was that CBCT scans showed a lower healing rate than PA radiographs in the timeframe that was investigated. Overall, endodontic microsurgery is a predictable procedure using either MTA or RRM as root end filling materials. The statistical analysis showed no difference between the 2 materials. Microsurgical classification, root canal filling quality, root-end filling material depth, and the presence of a root fracture were found to be significant outcome predictors.

In this prospective randomized controlled study, there was no significant difference in the outcomes of endodontic microsurgery when using either MTA or RRM as root-end filling materials.

Reference: Safi C, Kohli MR, Kratchman SI, Setzer FC, Karabucak B. Outcome of Endodontic Microsurgery Using Mineral Trioxide Aggregate or Root Repair Material as Root-end Filling Material: A Randomized Controlled Trial with Cone-beam Computed Tomographic Evaluation. J Endod. 2019;45(7):831-9

Submitted by: Sarah Alkanderi, BDM; Endodontic Resident, Virginia Commonwealth University

OUTCOME OF PARTIAL PULPOTOMY IN CARIOUSLY EXPOSED POSTERIOR PERMANENT TEETH: A SYSTEMATIC REVIEW AND META-ANALYSIS

The maintenance of pulpal health is the primary goal in treating deep carious lesions. Sometimes, pulp exposures are inevitable, and a more conservative approach in managing such cases, i.e. vital pulp therapy, is preferable over root canal treatment (RCT). Vital pulp therapy includes direct and indirect pulp caps, partial pulpotomies, and full pulpotomies. The diagnosis of each case dictates the choice of treatment selected. In a partial pulpotomy, amputation of 2-3 mm of pulp tissue is done, and this has been shown to have a higher chance of healing when compared to direct pulp cap procedures. The purposes of the present systematic review and meta-analysis were to evaluate the success rate of the partial pulpotomy procedure in permanent posterior teeth with carious pulp exposures, and to assess confounding prognostic factors affecting partial pulpotomy procedures.

PubMed, ScienceDirect, and Cochrane databases were searched from January 1950 to November 2018. Eligible randomized controlled trials and prospective clinical studies were meta-analyzed to evaluate the success rate of cariously exposed vital human permanent posterior teeth treated with a partial pulpotomy. A minimum of a 6 month follow-up period and a sample size of at least 10 teeth were required for inclusion. Additionally, a minimum of an 80% follow-up rate was required to satisfy the inclusion criteria. Finally, only studies reporting the clinical and radiographic outcomes of partial pulpotomy procedures were included. The following information was extracted from each study: study design, diagnosis, level of pulp amputation, pulp capping material, time of follow-up, time for hemostasis, hemostatic solution, patient's age, sex, apex status, sample size, number of dropouts, success rate, time before final restoration, and type of final restoration. With regard to the quality assessment of the included studies, the Newcastle-Ottawa scale was used to assess the prospective cohort studies and the Cochrane Collaboration tool was used for randomized controlled trials.

Of the 218 studies initially identified, 11 studies were included in the final analysis (5 randomized clinical trials and 6 prospective clinical studies). In general, the randomized controlled trials displayed low risk of bias based on the Cochrane Collaboration's tool. For assessment of prospective cohort studies, the included studies displayed good or fair quality according to the Newcastle-Ottawa scale. The results of the meta-analysis demonstrated a success rate of 98% [confidence interval (CI): 0.94-1], 96% (CI: 0.92-0.99), and 92% (CI: 0.83-0.97) after 6 months, 1 year and 2-year follow-ups, respectively. Based on the meta-regression analysis, the preoperative pulpal diagnosis, was the only significant factor associated with the success rate at the 1-year follow-up period. No significant differences were found between MTA-like materials and calcium hydroxide (CH) as a partial pulpotomy medicament.

Based on the results of this systematic review and meta-analysis, a partial pulpotomy is a sound treatment option for cariously exposed posterior permanent teeth. It demonstrated a high success rate of 98%, 96%, and 92% after 6 months, 1 year and 2 years, respectively. The preoperative pulpal diagnosis is the only significant prognostic factor, and cases diagnosed with irreversible pulpitis resulted in a less favorable outcome.

Reference: Elmsmari F, Ruiz XF, Miró Q, Feijoo-Pato N, Durán-Sindreu F, Olivieri JG. Outcome of Partial Pulpotomy in Cariously Exposed Posterior Permanent Teeth: A Systematic Review and Meta-analysis. J Endod. 2019;45(11):1296-1306.

Submitted by: Lolwa Alyahya, BDS; Endodontic Resident, Virginia Commonwealth University

IMPACT OF A RETAINED INSTRUMENT ON TREATMENT OUTCOME: A SYSTEMATIC REVIEW AND META-ANALYSIS

The prognosis of endodontic therapy is dependent on the level of disinfection of the canals, and the sealing of the canals from re-infection. Procedural accidents can occur that may affect the prognosis. These procedural accidents include ledge formation, artificial canal creation, root perforation, and extrusion of irrigating solution periapically. If any one of these errors compromises the disinfection of the canal or the sealing of it, it is likely to increase the risk of a poor outcome. Among the most troublesome of procedural errors is the fracture of root canal instruments.

Endodontic files, finger spreaders, spiral fillers, Gates-Glidden burs, and ultrasonic instruments are among those that have found their way ledged into a canal. There is a perception since the advent of rotary nickel titanium (NiTi) files that these files separate more often than stainless-steel hand files but there is no supporting evidence. The prevalence of retained fractured stainless steel (SS) files has been reported to be 0.5%-7.4%. Fractured NiTi instruments incidents reports range from 0.4%-3.7%. Fracture of instruments results from incorrect use or overuse of the instrument in most cases. Usually there are signs of defects that are evident before a separation occurs such as unwinding, torsional fracture, or flexural fracture. Studies show that a cognizant, experienced operator will have less file separations.

How much effort should be expended in retrieving the file or bypassing it all together is dependent on a myriad of factors. How much disinfection occurred apical to the separated instrument? Can the file be retrieved without critical tooth structured being removed? Will errors result such as perforations or another file fragmentation at the cost of trying to remove the original separated file? Is it a strategic tooth in the overall treatment plan such as an abutment? All these risk factors need to be considered before any attempt is made to retrieve the file. This systematic review and meta-analysis was done to determine the influence of a retained instrument fragment on the prognosis of the root canal treatment.

Two case-control studies were included in this meta-analysis that met the inclusion criteria. They both looked at two groups: cases with pre-op lesions and without. In general, studies have shown that cases with pre-op lesions have a decreased healing success rate. According to this meta-analysis in the first group with no lesions there was a success rate of 95% for fractured instrument cases, and 95% for the control. In the second group with pre-op lesions the healing success rate was 88% with fractured instruments. The healing success rate for the second group controls was 89%.

According to the case-control studies, leaving a fractured instrument does not significantly affect the prognosis. Pre-op lesions do decrease the overall prognosis but depending on how much disinfection occurred apically to the separated instrument will determine the overall success. It is very important to note that in these case-control studies the endodontic procedures were performed at an endodontic private practice and a controlled setting at a university. Therefore, to directly extrapolate these findings to general practice conditions remains to be determined. When endodontic therapy is performed to a high technical standard, the influence of a periapical lesion on the prognosis is slight, but if the technical standard is compromised, the presence of a lesion can reduce the success rate considerably.

Reference: Panitvisai P, Parunnit P, Sathorn C, Messer H. Impact of a Retained Instrument on Treatment Outcome: A Systematic Review and Meta-analysis. J Endod. 2010;36(5):775–780

Submitted by: Benjamin Brown, DMD; Endodontic Resident, Virginia Commonwealth University

DIAGNOSIS OF VERTICAL ROOT FRACTURES IN RESTORED ENDODONTICALLY TREATED TEETH: A TIME-DEPENDENT RETROSPECTIVE COHORT STUDY

A vertical root fracture (VRF) is defined as a complete or incomplete, longitudinally oriented fracture of the root, which is usually directed in the buccolingual plane. This fracture usually initiates in the tooth root and may extend coronally. In most instances, a VRF leads to tooth extraction. Clinical studies of endodontically treated teeth have shown a variable prevalence that ranges from 3.69% to 20% for VRFs. The wide range of reported prevalence in the literature is likely due to the ambiguous clinical presentation, leading to difficulty in diagnosis. There have been several factors shown to have an effect on development of VRF in root-filled teeth. These include root morphology, root canal anatomy, amount of remaining dentin following root canal preparation, iatrogenic errors, post placement, and use of the tooth as an abutment. A VRF may be initiated prior to or during root canal therapy or restorative treatment. However, it is usually diagnosed years after the treatment when a significant amount of bone loss has already occurred. The purpose of the current retrospective study was to determine the length of time from endodontic treatment to diagnosis of VRFs, and to examine the related clinical and diagnostic features of VRFs in endodontically treated teeth restored with a crown and no post.

The study included 294 teeth that had been endodontically treated between the years of 2009-2015. All patients presented with signs/symptoms of VRF at varying intervals following initial endodontic treatment. Teeth that had been retreated, received a post/core restoration, never received full-coverage crown, or served as abutments were excluded. The collection of patient/tooth-related data included the age, sex, tooth type, history of root canal treatment, date and technique of root canal obturation, and details of the post-endodontic restoration. The presenting clinical features recorded were pain on palpation, pain on percussion, presence of sinus tract/swelling, and presence of a deep, narrow periodontal pocket. Radiographs were taken and evaluated for different patterns of bone loss around the teeth. A definitive diagnosis of VRF was made after surgical flap elevation using a microscope.

Of the 294 teeth undergoing surgical flap elevation, 289 teeth (97.6%) were confirmed to have VRF. The 289 teeth with VRF were extracted and further evaluated for exclusion criteria, leaving 197 teeth for statistical analysis. The mean age of patients was 54 and the mean post-operative time before diagnosis was 4.35 years. Mandibular molars represented the highest occurrence of VRFs (34%), followed by maxillary premolars (22.8%). Clinical findings most associated with VRFs were pain on percussion (60%), pain on palpation (62%), presence of deep/narrow pocket (81%), and sinus tract (67%). The most common radiographic appearance was described as the "halo"-type radiolucency (observed on the lateral aspect of the affected root and extending apically and to the opposite side of the root). The next most common radiographic characteristic was a uniform widening of the periodontal ligament space.

Treatment features associated with VRFs included overfilled root canals (79.2%) and use of lateral compaction obturation technique. Female patients were 1.95 times more likely to present with VRF and patients over the age of 40 were 6.3 times more likely.

Although a definite identification of a VRF is challenging in most clinical situations, an accurate diagnosis is usually possible based on the associated signs and symptoms. Within the limitations of this retrospective study, it can be concluded that the mean postoperative time period before the presentation of VRFs in endodontically treated teeth with crowns and without posts is 4.35 (±1.96) years. The presence of deep, narrow periodontal pockets and halo-shaped radiolucency are strongly suggestive of VRFs in crowned endodontically treated teeth. Posterior teeth, female patients, older patients (>40 years), and overfilled canals are all potential risk factors for the presentation of VRF within 5 years postoperatively.

Reference: PradeepKumar AR, Shemesh H. Diagnosis of Vertical Root Fractures in Restored Endodontically Treated Teeth: A Time-dependent Retrospective Cohort Study. J Endod. 2016;42(8):1175-80.

Submitted by: Erik Foisy, DMD; Endodontic Resident, Virginia Commonwealth University

SURVIVAL RATES OF TEETH WITH PRIMARY ENDODONTIC TREATMENT AFTER CORE/POST AND CROWN PLACEMENT

Following non-surgical root canal therapy (NSRCT) it is well documented that a quality coronal restoration is needed for the long-term functionality and survival of the endodontically treated tooth. The final restoration will provide a coronal seal as well as provide a foundation that will allow long term function of the tooth for the patient.

This article aims to assess survival rates of teeth receiving primary endodontic treatment via NSRCT followed by post and core placement and subsequent crown placement. Specifically, the authors were interested in how a delay in the placement of the post/core and delay in crown placement would affect survival. To complete their investigation, records from Delta Dental of Wisconsin between January 1, 2000 through December 31, 2013 were examined. The search resulted in 476,479 NSRCT procedures being completed in the time frame. Of those that underwent NSRCT, 160,040 teeth received either a core or post /core followed by a crown during the time frame studied. Data such as tooth type, patient age at time of treatment, provider type, core material used, crown material used, time elapsed from NSRCT to post/core placement and time elapsed from post/core to crown placement were analyzed. Additionally, untoward events with the associated tooth were examined. An untoward event being defined as either non-surgical retreatment, surgical retreatment or extraction of the initially treated tooth within the time frames being analyzed. Any tooth that did not have an untoward event was considered 'survived'.

A survival rate of 99.1% at 1 year, 96.0% at 3 years, 92.3% at 5 years and 83.8% at 10 years for all tooth types was found. With regard to time elapsed from NSRCT to post/core placement there was little difference in survival when the post/core was placed from 0-14 and 14-60 days after the NSRCT. However, when the post/core was placed greater than 60 days from NSRCT there was a statistically significant increase in the rate of failure. The authors attribute this significance to the temporary restoration material and its ability to withstand bacterial leakage, washout, occlusal loading and the ability for gutta percha to resist bacterial penetration when exposed to the oral environment. Furthermore, the authors found that the time elapsed from post/core placement to crown placement to be a statistically significant factor with regard to survival. When the crown was placed 0-14 and 15-60 days after post/core placement there was little difference in survival, however, when the crown was placed more than 60 days after post/core placement the increase in failure rate was statistically significant. Following endodontic treatment there is an emphasis on placement of a full coverage restoration and many prior studies have found that endodontically treated teeth have a higher failure rate when no full coverage restoration is provided. The authors speculate that the decreased survival rate of NSRCT teeth with delayed crown placement may be due to exposure to masticatory forces, parafunctional habits and trauma that may create stresses that increase the susceptibility to fracture of the tooth resulting in an unrestorable status.

Additional findings of this article included failure rates of anterior teeth being highest followed by molars and lastly premolars. Teeth treated by endodontists had higher survival rates when compared to teeth treated by another provider. Additionally, this study corroborated findings of previous studies indicating that teeth treated with post/core have a higher incidence of failure. This may be attributed to the pre-operative loss of tooth structure which necessitated the post and the subsequent transference of forces to the root structure leading to fracture. Prefabricated posts had lower failure rate as compared to indirectly fabricated metal posts.

Limitations of this study included the inability to assess the pre-operative status of the tooth, both pulpal and peri-radicular. Other unknown variables included the amount of pre-operative tooth structure present, the final restorative status of the tooth (such as a bridge abutment), was this a terminal tooth and what type of tooth opposed the tooth in question. Additionally, 'survival' only means that the tooth had no untoward events that were claimed to the insurance and would not accurately include teeth erroneously charted or submitted for claim. Also, patients that presented to a provider for an untoward event that did not participate in the Delta Dental network would not be included. These limitations would indicate that the survival rate is likely overexaggerated.

In conclusion, this study found that the time elapsed from NSRCT to post/core placement (>60 days) as well as the time elapsed from post/core placement to placement of a full coverage restoration (>60 days) did have a statistically significant decrease on the long term survival of the treated tooth.

Reference: Yee K, Bhagavatula P, Stover S, Eichmiller F, Hashimoto L, MacDonald S, Barkley G. Survival Rates of Teeth with Primary Endodontic Treatment after Core/Post and Crown Placement. J Endod 2018;44(2):220–5.

Submitted by: Jeremy Hargrove DMD; Endodontic Resident, Virginia Commonwealth University

AAE POSITION STATEMENT: MAXILLARY SINUSITIS OF ENDODONTIC ORIGIN

This position statement released by the American Association of Endodontists outlines and defines Maxillary Sinusitis of Endodontic Origin (MSEO). Although a clear relationship between sinus disease and dental infections has been demonstrated in both the medical and dental literature, MSEO often goes undiagnosed by medical and dental professionals. This failure in diagnosis may result in persistent sinus disease, failure of medical therapies, and potential for worsening of symptoms with greater morbidity.

The relationship between dental pathology and maxillary sinusitis has been documented in the literature as early as 1943. Maxillary sinus pathology has been found in cases of infection of the maxillary posterior teeth 60%-80% of the time. Furthermore, a dental etiology for maxillary sinusitis has been found between 40%-72% of the time. Despite this high reported prevalence of MSEO, it has been often undiagnosed especially on periapical radiographs. Surprisingly, even published practice guidelines from The American Academy of Otolaryngology for treatment of maxillary sinusitis lack any mention of a potential odontogenic source. Only 11 of 85 sinusitis guidelines published between 1998 and 2010 mention an odontogenic cause of sinusitis and none recommended a referral to an endodontist for evaluation.

Odontogenic sinus infections typically produce a minimal, asymptomatic, local reaction in the sinus mucosa and periosteum for months to years. However, this altered mucosa is less resistant to infection than intact mucosa, and is an important factor in the progression to rhinosinusitis. Periradicular inflammation may progress beyond the antral floor depending on the dental pathogenicity, anatomic factors, extent of mucosal edema, and sinus ostial patency. This may lead to partial or complete obstruction of the maxillary sinus, consistent with sinogenic sinusitis. More severe cases may result in spread to the nasal cavity, ethmoid, and frontal sinuses, and may be life threatening if orbital cellulitis or cavernous sinus thrombosis develop. Causes of odontogenic sinusitis are varied and include endodontic disease, periodontal disease, root fractures, dental implants, extractions, oro-antral fistulae, and extruded materials. It is important to distinguish the specific odontogenic cause of maxillary sinusitis and treatment methodology differs greatly based on diagnosis. The term MSEO was coined in this document to specifically refer to sinusitis secondary to periradicular disease of endodontic origin.

Diagnosis begins with a thorough medical and dental history. Symptoms include no symptoms, congestion, rhinorrhea, retrorhinorrhea, facial pain, and foul odor. However typical endodontic symptoms like swelling, periradicular sensitivity, or a draining sinus tract are often not found as the infection is draining into the sinus. This lack of odontogenic symptoms causes physicians to often overlook a dental cause of sinus symptoms. Suspicion of MSEO should be raised if the patient displays repeated episodes of unilateral sinus infections, especially if previous therapy was unsuccessful.

Radiographic examination is vital for diagnosis of MSEO. Although periapical (PA) radiographs are the most widely used imaging modality in endodontics, the posterior maxilla presents significant interpretation challenges due to superimposed anatomic structures being present. Limited field of view CBCT significantly improves the ability to detect odontogenic sources of sinusitis. CBCT has been found to demonstrate a prevalence of sinus mucosal changes associated with dental infections of 77%, versus 19% using PAs. Furthermore, PAs only show 40% of apical periodontitis lesions in the posterior maxilla and 3% of apical infections extending into the sinus that were seen on CBCT. Distinct radiographic changes in the maxillary sinus can occur with periapical inflammation. Periapical osteoperiostitis is expansion of the sinus periosteum into the sinus caused by adjacent apical periodontitis and results in a thin dome of bone forming under the sinus, creating a halo appearance. Periapical mucositis is localized mucosal tissue edema in the sinus membrane caused by direct contact with apical periodontitis. On CBCT, this appears as mucosal thickening or dome-shaped soft tissue expansion into the sinus directly adjacent to infected root apices. Complete sinus obstruction may also result from MSEO and can be seen on CT imaging.

While radiographic imaging is vital in detecting MSEO, a diagnosis must be based off a thorough clinical endodontic examination evaluating for any pulpal necrosis or periapical disease, including possible failure of previous treatment. A vital pulp, even with irreversible inflammation, typically does not cause significant sinus disease. Only teeth with an infected, necrotic pulp or failing previous treatment may cause MSEO.

Treatment of MSEO involves removal of pathogenic organisms, their by-products, and pulpal debris from the infected root canal system. Treatment options include non-surgical root canal therapy, periradicular surgery, intentional replantation, or extraction. Persistence of MSEO after non-surgical therapy could be due to deficiencies in restorative or endodontic treatment such as missed

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RADIOGRAPHIC ASSESSMENT OF BONE HEALING USING CONE-BEAM COMPUTED TOMOGRAPHIC SCANS 1 AND 5 YEARS AFTER APICAL SURGERY

Healing after apical surgery is assessed based on clinical and radiographic evaluations at recall examinations. Radiographic healing is most widely assessed using periapical radiographs. Through the use of cone-beam computed tomography (CBCT), studies have documented discrepancies in the healing outcomes of 2-dimensional (2D) and 3-dimensional imaging (3D). Periapical radiographs appear to often overestimate healing in comparison to CBCT imaging. This prospective study aimed to compare radiographic healing using CBCT at 1 and 5 years after apical surgery.

Apical surgeries were performed by the same clinician using modern microsurgical technique (ie use of surgical operating microscope, microsurgical instruments, ultrasonics and bioceramic retrofill materials). Patients were recalled at 1 and 5 years after surgery and CBCT scans were taken to assess healing. 3D healing was categorized as “fully healed”, “partially healed” or “not healed”. Parameters included: healing at the resection plane, the apical area, the cortical plate and overall bone healing. Three evaluators independently reviewed CBCT scans and rated the radiographic healing.

CBCT imaging at 1 and 5 years after surgery was available for analysis in 41 patients/teeth with 47 treated roots. All healing parameters had higher rates of “fully healed” cases at 5 years compared to at 1 year. “Fully healed” rates at 1 year were (61.7%) at the resection plane, (34%) at the apical area, (19.1%) at the cortical plate and (19.1%) overall bone healing. “Fully healed” rates at 5 years were (72.3%) at the resection plane, (72.3%) at the apical area, (42.6%) at the cortical plate and (38.3%) overall bone healing. The apical area was found to have the largest improvement in “fully healed” cases from 1 to 5 years. At 5 years, the cortical plate and the overall bone healing parameters had significantly lower “full healed” rates.

This study is currently the only long-term analysis of CBCT healing at 1 and 5 years after apical surgery. The results indicate the continued improvement in periapical healing over time. The majority of cases showed healing at the resection plane and the apical area at 5 years. However, healing at the cortical plate appears to lag behind. Longer follow-up periods are recommended for future study.

Reference: Von Arx T, Janner S, Hanni S, Bornstein M. Radiographic Assessment of Bone Healing Using Cone-beam Computed Tomographic Scans 1 and 5 Years after Apical Surgery. J Endod. 2019; 45(11):1307-1313.

Submitted by: Raymond Pandez, DDS; Endodontic Resident, Virginia Commonwealth University

>> CONTINUED FROM PAGE 60

canals or due to periodontal disease. Use of systemic antibiotics to treat MSEO is typically not indicated unless there is a spread of systemic infection and should not be considered in lieu of endodontic therapy. Many cases of MSEO may be managed by endodontics alone, but some cases may require concomitant therapy with an ENT specialist. Thus, these cases should be followed by routine clinical and radiographic recall. Close collaboration and an open referral system between ENT surgeons and endodontic specialists are essential to provide appropriate patient care for MSEO.

Reference: AAE Position Statement: Maxillary Sinusitis of Endodontic Origin April, 2018, AAE.org (https://www.aae.org/specialty/wp-content/uploads/sites/2/2018/04/AAE_PositionStatement_MaxillarySinusitis.pdf)

Submitted by: Inderpal S. Sappal, D.D.S.; Endodontic Resident, Virginia Commonwealth University

REGENERATIVE ENDODONTICS VERSUS APEXIFICATION IN IMMATURE PERMANENT TEETH WITH APICAL PERIODONTITIS: A PROSPECTIVE RANDOMIZED CONTROLLED STUDY

Treating immature teeth with pulp necrosis and apical periodontitis has been a challenge for endodontic treatment of these teeth because of the thin root wall and open apex. These cases typically present due to trauma, caries, or a developmental malformation, such as dens evaginatus or dens invaginatus. Necrosis of the pulp results in arrested root development. Conventionally, for an apexification procedure the clinician will either use long term calcium hydroxide paste use or will place an apical barrier with the aim to achieve immediate closure of the apex. While success rates are reported between 74% and 100%, apexification procedures often result in abnormal root morphology.

Regenerative endodontic treatment (RET) is a newer treatment modality utilized for these types of cases. This involves minimal instrumentation, copious irrigation, and placement of an antibiotic paste or calcium hydroxide as an intracanal medicament followed by a subsequent appointment to induce bleeding to allow for the formation of a blood clot inside the root canal. “Success” of RET has been defined as the disappearance of the periapical lesion and continued root development. This study aimed to compare the outcomes of RET and apexification on immature permanent teeth with pulp necrosis and apical periodontitis.

There were 118 patients (ranging from 8 to 16 years old) recruited and randomly assigned to RET and apexification study groups. Teeth included in this study had to exhibit the following charactistics: pulp necrosis, radiographic evidence of an immature root with a single canal, open apices larger than 1 mm in diameter, and the presence of periapical radiolucency. The involved teeth had either dens evaginatus or a history of trauma. All clinical procedures were performed by an experienced endodontist who also had special training in pediatric dentistry. Periapical radiographic and limited field of view cone-beam computed tomographic (CBCT) images were obtained before treatment and at the 12-month follow-up and used to quantitatively analyze the root development. Treatment success was defined as the elimination of symptoms, the disappearance of the apical radiolucency along with an increase of root length or a decrease of the apical foramen, or both.

A total of 103 teeth were used for data analysis, as others were lost to follow-up. This included 69 RET cases (21 central incisors and 48 premolars) and 34 apexification cases (13 central incisors and 21 premolars). At the 12-month follow-up, all the teeth survived (100% survival rate) and were asymptomatic (100%). The periapical lesions disappeared in all cases (100%). In the RET group, 81.16% and 82.6% of the cases achieved an increased root length and root thickness, whereas 65.21% cases showed closure of the apex. In the apexification group, only 9 cases (26.47%) showed an increase in root length, whereas no cases showed an increase in root thickness, and 28 cases (82.35%) showed closure of the apex. Dens evaginatus cases showed better prognoses than trauma cases upon RET treatment. This was an interesting finding, although not surprising as in trauma cases, root resorption may be induced and may cause damage to the Hertwig epithelial root sheath as well as the apical papilla, resulting in failure of the regenerative therapy. The overall success rate was 89.8% in the RET group and 97% in the apexification group.

In this study, RET and apexification procedures achieved a comparable outcome concerning the resolution of symptoms and apical healing. RET demonstrated a better outcome than apexification regarding increased root thickness and root length. Etiology did have an impact on the outcome of RET, as dens evaginatus cases showed better results than trauma cases after RET.

Reference: Lin J, Zeng Q, Wei X, Zhao W, Cui M, Gu J, Lu J, Yang M, Ling J. Regenerative Endodontics Versus Apexification in Immature Permanent Teeth with Apical Periodontitis: A Prospective Randomized Controlled Study. J Endod. 2017;43(11):1821-7.

Submitted by: Madison Saunders, DDS; Endodontic Resident, Virginia Commonwealth University

Practices for Sale

Mid-Sized Town in Virginia: Thriving oral surgery practice for sale! The practice was established over 15 years ago and has many loyal referral sources. The office is up to date and very spacious. It covers 3,400 square feet and has 3 surgical operatories, a designated consult room, and ample office/storage space. It is equipped with digital x-ray, a CBCT scanner, and uses WinOMS. This very successful practice is heavily focused on implants and third molar extractions. It's located in a stand-alone building in a busy part of town. It's also in close proximity to two major hospitals and many medical and dental practices. The real estate is available as well.

Falls Church: Long established general practice for sale. Four equipped operatories with two more plumbed. Digital X-Ray and new digital pan. Current owner has slowed down recently making this a great opportunity for a motivated buyer to grow a practice with a smaller investment. Seller willing to stay on to help with the transition. Real estate for sale as well.

Southern Virginia – Near NC Border: Well established, general practice consistently grossing over $500,000. Practice has 5 operatories, digital x-ray, a digital pan, and uses Dentrix. It is in a stand alone building off of a main, busy road. Real estate for sale as well. Seller retiring.

Norfolk Area: Well established general practice consistently generating around $150,000 on 3 days per week. Referring out most endo and extractions. Great opportunity for a confident buyer who wants to grow a practice with a smaller investment. Motivated seller that is ready to retire. Would also be a great merger opportunity as lease is expiring soon.

Roanoke Area: Established general practice outside of Roanoke, consistently grossing around $300,000/year. 4 operatories with digital x-ray and digital pan. In a stand-alone building with real estate available as well. Office space is 1500 square feet with another 1500 square feet open in the basement of the building.

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WHAT IS PEER REVIEW?

Dr. Paul Olenyn; Chair, VDA Peer Review Committee

Have you ever had a complaint brought against you or you just don't know what to do a about a disgruntled patient? The American Dental Association (ADA) has numerous policies and recommendations regarding the practice of Dentistry, but it does not have defined recommendations involving the treatment of our patients. However, in the course of treatment, disputes can arise.

Peer Review is dentistry's means by which disputes can be resolved! The VDA's Peer Review Committee follows the guidelines set forth by the Peer Review Recommendation Program and is charged with determining the relative standard of care. Standard of care is the degree of skill exhibited by similar dentists. Any specialty treatments are held to the standard of specialists. VDA members have access to our Peer Review Committee. This is an excellent resource and benefit for members that provides a means for dispute resolution. Peer Review is a three-step process consisting of mediation, review and appeal. Both parties must agree to the process. The first step involved is the mediating dentist communicating with both parties, usually by telephone. Rendered treatment is reviewed and the mediator tries to see if the two parties can come to an amicable solution.

If mediation is unsuccessful, the two parties can request a formal review by a panel of dentists. Both parties (dentist and patient) must agree to Peer Review. The panel consists of general dentists who have been elected by their peers and have a minimum of five years of experience. Usually, a non-dentist is on the panel as well, acting as a patient advocate. After careful review of the treatment rendered, patient records and a clinical examination, the panel will render its recommendations. They will also interview both parties. These recommendations are confidential and non-binding, but they may be appealed by either party for further review. Peer Review tries to prevent a case from becoming a formal complaint. At any point in the process, if an attorney or the Board of Dentistry is contacted, the committee can no longer be involved.

So, whether you have a patient complaint, or want to talk to a colleague about a potential problem, feel free to contact the VDA offices and they will direct you in this matter. No other area of dentistry is as involved in the act of defining a standard of care for the practice of Dentistry.

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THROUGH MARCH 1, 2020

Tidewater DENTAL ASSOCIATION

Dr. Scott Flood – Virginia Beach – Virginia Commonwealth University School of Dentistry 1995

Dr. Bernadine Martin – Chesapeake – Howard University College of Dentistry 1990

Dr. Chester Mayo – Virginia Beach – University of Louisville School of Dentistry 2015

Dr. Jasmine Schneider – Norfolk – East Carolina University School of Dental Medicine 2019

Dr. Leslie Teherne-Fayton – Suffolk – Meharry Medical College School of Dentistry 2014

Dr. Ernesto Vera – Virginia Beach – New York University College of Dentistry 2008

Dr. James Vick – Norfolk – University of Texas School of Dentistry at Houston 1996

Peninsula DENTAL SOCIETY

Dr. Vivek Narra – Hampton – Rutgers School of Dental Medicine 2019

Dr. Ceonna Parran – Hampton – Tufts University School of Dental Medicine 2019

Dr. Jana Rubanyi – Williamsburg – University of California at San Francisco School of Dentistry 2004

Southside DENTAL SOCIETY

Dr. Youn Jung – Richmond – New York University College of Dentistry 2012

Richmond DENTAL SOCIETY

Dr. John Freeman – Henrico – Tufts University School of Dental Medicine 2019

Dr. Mary Pettiette – Richmond – Louisiana State University School of Dentistry 1986

Dr. Kristianne Sinclair – Richmond – Virginia Commonwealth University School of Dentistry 2011

Piedmont DENTAL SOCIETY

Dr. Thomas Hebdon – Chatham – Marquette University School of Dentistry 2013

Dr. Maura Patrick – Danville – University of North Carolina School of Dentistry 2007

Dr. Sahar Rafiq – Roanoke – Indiana University School of Dentistry 2017

Southwest Virginia DENTAL SOCIETY

Dr. Cameron Egan – Christiansburg – Roseman University of Health Sciences 2015

Dr. Que Le – Blacksburg – Virginia Commonwealth University School of Dentistry 2018

Dr. Olivia Stallard – Wise – Nova Southeastern University College of Dental Medicine 2019

Shenandoah Valley DENTAL ASSOCIATION

Dr. Ilaf Almawaldi – Winchester – State University of New York Buffalo School of Dental Medicine 2008

Dr. Carla Chavez – Charlottesville – University of North Carolina School of Dentistry 2015

Dr. Toan Duong – Charlottesville – Virginia Commonwealth University School of Dentistry 2016

Dr. Sarah Heeter – Charlottesville – University of Missouri-Kansas City School of Dentistry 2018

Northern Virginia DENTAL SOCIETY

Dr. Nora Al-Faysale – Fairfax – Loma Linda University School of Dentistry 2017

Dr. Hanjin Cho – Fairfax – New York University College of Dentistry 2013

Dr. Caitlin Hulver – Alexandria – West Virginia University School of Dentistry 2013

Dr. Megan Keynton – Falls Church – University of Louisville School of Dentistry 2018

Dr. Porshca Kinlaw – Prince William – Howard University College of Dentistry 2018

Dr. David Ku – Fairfax – Texas A&M University Baylor College of Dentistry 1988

Dr. Eric Lee – Stephens City – University of Louisville School of Dentistry 1991

Dr. Allison Lonneman – Arlington – University of Kentucky School of Dentistry 2018

Dr. Kian Momeni – McLean – Howard University College of Dentistry 2016

Dr. Vogtle Ninh – Ashburn – University of Maryland Dental School, Baltimore College of Dental Surgery 2012

Dr. Justin Nguyen – Fairfax – Harvard University School of Dental Medicine 2014

Dr. Ifeanyi Okoye – Fairfax – Boston University Goldman School of Dental Medicine 2016

Dr. Aman Sachdev – Fairfax – State University of New York at Buffalo School of Dental Medicine 2011

Dr. Kiran Toor – Woodbridge - Tufts University School of Dental Medicine 2019

Dr. Scott Trapp – Fairfax – University of Iowa College of Dentistry 1991

Dr. Annie Walker – Falls Church – University of Colorado Denver School of Dental Medicine 2019

IN MEMORY OF DR. JAMES R. SCHROEDER

Dr. Clay Hendricks

Dr. James R. Schroeder

Dr. James R. Schroeder, a dentist, educator, consultant, and mentor passed away on January 11, 2020. Jim, as many of us knew him, was a leader in many areas of the Richmond community and championed a combination style of leadership, friendship, and compassion.

Jim spent his life developing relationships and helping people, and I would suggest that each of us who knew him is a golden thread woven together by Jim, into a blanket that surrounds and covers us. A blanket that brings us security, friendship, warmth, guidance, love and especially hope.

Payment in life to Jim was all about relationships, and indeed his cup runneth over – truly runneth over.

Whether young or old, you wanted to be around him – to feel the warmth of that golden blanket – to laugh, to get guidance, or just talk. These times always restored me, and I know many of you agree.

Jim helped us hold our world together, when storms were about us, externally or internally. If my son Harlan, Jim and Jan's Godson, had concerns about some major issue that life put before him, my reply was "just call Jim."

How many times have variations of that phrase been voiced by all of us, over the past years? I would say thousands upon thousands. "Just call Jim" or "I should call Jim" or "You need to call Jim."

Whether his reply was a text, email, phone call, or meeting – he helped us quiet the storm.

Remember, what Jim did in his life echoes into the future, and as we carry his name and memory forward, he is walking with us.

Editor's Note: Dr. Hendricks, a VDA member dentist, practices in Virginia Beach.

IN MEMORY OF:

Name	City	Date	Age
Dr. Daniel Mark Babcock	Yorktown	12/29/19	69
Dr. William Howard Becker	Princeton, NJ	10/20/18	94
Dr. French Hale Moore, Jr.	Abingdon	2/24/20	88
Dr. Paul Bernard Muldoon	Mineral	2/12/20	83
Dr. Gerald David Roberts	Dade City, FL	1/12/20	92
Dr. Phillip C Scheider	Manassas	1/15/20	67
Dr. James R Schroeder	Midlothian	1/11/20	70
Dr. Lawrence D Singer	Alexandria	4/10/19	50
Dr. Patricia L Speer	Norfolk	12/11/19	64
Dr. E Robert Whittington	Herndon	1/17/20	82
Dr. Ramon A Woodall	Sedona, AZ	4/6/12	77
Dr. Edward P Woodworth	Fredericksburg	12/24/12	81

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6613 - Part Time Associate Dentist
Williamsburg, VA
General Dentist /Working visa and green card sponsorship available. Join a busy growing practice where you will have a full schedule, work with a great dentist and enjoy great support from experienced staff and efficient office systems. This is a great match for a dentist with a friendly personality, a commitment to continuous improvement and strong clinical skills and great attention to details. Looking for a licensed dentist who has the experience, and clinical skills to perform all aspects of general and cosmetic dentistry. Surgical extractions, and dental implants are a definite plus. Must have great communication skills and committed to the best for their patients. Must be outgoing and confident. Income potential is HIGH and the opportunity to grow along with the practice's growth.
Apply directly or contact us at
www.amadordentistry.com
Contact: Maria E Amador 757-220-9492
amadordentistry@gmail.com

6616 - General Dentist - FT or PT
Christiansburg, VA
Full or Part Time Opportunity If you're looking to make your professional mark on a community and help continue to lead a well-established and successful dental practice, this is your chance. Build valuable relationships with your patients and be involved with the greater community of Christiansburg, VA while providing top-notch dental care. Our talented and dedicated support team will work alongside you to help ensure your success. You'll enjoy the following: • Base salary with performance incentives to earn more. • Sign-On Bonus • Relocation package • Full time benefits include yearly CE allowance, paid professional liability, 401K with company match and group health/wellness plans. • Full-service center to support you in your mission for providing great care: Marketing, Revenue Cycle, IT, Human Resources, Accounting, Call Center and Leadership Teams Candidates must be licensed to practice in the State of Virginia with no board reprimands or issues. Equal Opportunity Employer/Drug Free Workplace www.puredentalbrands.com
Contact: Brad Cabibi 561-866-8187
bradcabibi@puredentalbrands.com

6619 - General Dentist
Richmond, VA
Seeking a caring and experienced dentist to join a new state-of-the-art dental practice in a rapidly growing area of Richmond. The candidate must be motivated, possess a positive attitude, and work well with others. The candidate must be a licensed practitioner and have extensive experience in all disciplines of general and cosmetic dentistry. Preferably, the candidate is proficient in molar root canals and surgical procedures. The candidate will receive a competitive compensation base and will be eligible for additional commission and incentives. Will work alongside a highly skilled team and will be using top-of-the-line equipment. The income potential is extremely high, and the candidate will be the long-term staple of this growing dental practice. Initially, the position will be three days a week but will have the opportunity to grow as the practice grows. If interested in this exciting start-up opportunity, please submit your resume.
Contact: Taylor 804-510-9905
rvaofficehire@gmail.com

6623 - Associate Dentists needed
Virginia Beach, VA
A full time (4 days a week) associated Dentist is needed for a busy paperless practice in Virginia Beach. All aspects of general dentistry, cosmetics/restorative dentistry, endodontics and pediatric dentistry are available for a team oriented and motivated dentist to join our enthusiastic team. One year of clinical experience or Advanced Education in General Dentistry is preferred. Please send your resume.
Contact: Martina 757-497-8611
brightsmilesvabeach@gmail.com

6628 - Associate Dentist
Verona, VA
Dental Health Associates is a rapidly growing Dr. owned and managed multi-office group practice in the heart of the Shenandoah Valley in Virginia. We strive for excellent comprehensive full mouth Dentistry. We have a strong commitment to CE, training and mentorship. Seasoned Dentists, AEGD/GPR graduates or new Dentists are welcome to come grow with us. Opportunities throughout the Shenandoah Valley in Lexington, Staunton, Harrisonburg, and Dayton. Excellent compensation and benefits package including Malpractice, Medical, 401K matching and CE stipend. A route to ownership/partnership is available. Meet us at www.mydentalhealthassociates.com
Contact: Dennis Calvano 540-569-2523
drcalvano@mydha.net

6629 - Pediatric Dentist
Verona, VA
Dental Health Associates is a well-established, Community focused Practice looking for a great Pediatric Dentist - Are you a pediatric dentist who is looking for a practice with a high standard or care, that takes great care of their patients and has a practical approach to how we offer dentistry? Are you looking to work in a fun culture with a supportive team? Do you want to work with people with strong values that are passionate about what they do? Are you looking to not only work with purpose but also have a system in place that allows for you to make good money doing it? This may be the job you are looking for…Dental Health Associates is a rapidly growing Dr. owned and managed multi-office group practice in the heart of the Shenandoah Valley in Virginia. We have a strong commitment to CE, training and mentorship. Excellent compensation and benefits package including Malpractice, Medical, 401K matching and CE stipend. A route to ownership/partnership is available. This is great opportunity to get into a growing group! Interested Pediatric Dentist apply to: drcalvano@mydha.net
Contact: Dennis Calvano 540-332-2613
drcalvano@mydha.net

6632 - Central Virginia Dentist
Central Virginia - Charlottesville Area
Our office is looking to hire a long-term Dentist with the possibility of ownership. We are looking for the right person to help grow our practice. Please send your resume to
cvilledentalmanager2019@yahoo.com

6636 - Associate Dentist
Charlottesville, VA
Would you like to be a part of a growing practice that offers state of the art procedures and products? Would you enjoy living in a vibrant college town? Aesthetic Dentistry, located in Charlottesville, Virginia is searching for a skilled and experienced dentist to join our professional team. The ideal candidate is committed to the highest quality of patient care across all age groups with proficiency in complex dental procedures and in performing routine checkups. Those qualified and in search of a long-term career in dentistry should apply.
Contact: Laura Scherer 434-984-3455
manager@cvillesmiles.com

6637 - Part time General Dentist
Stafford, VA
We are happy to announce an opening for a Part time Dentist to help our growing practice. We are mostly a fee for service practice offering comprehensive Dentistry. We are looking for a Dentist with at least two years of general dentistry experience or has done general dentistry residency. If you are a caring, conscientious dentist who does quality work and want to join our team and grow with us, please email your resume.
Contact: Dr. Rai 703-3629611
sraidds@gmail.com

6642 - Community Dental Clinic Staff Dentist
Martinsville Community Dental Clinic
As the staff dentist for the Martinsville Community Dental Clinic you'll enjoy a stable and rewarding opportunity providing care for patients in need. The Piedmont Virginia Dental Health Foundation's staff Dentist meets the dental health needs of a diverse population by overseeing dental students as an Adjunct Faculty Member of VCU School of Dentistry. Job benefits: Employee Retirement Plan Excellent Health & ADA Disability Insurance Malpractice Insurance 2 weeks vacation 10 Holidays Moving Expense Allowance ADA/VDA Membership Dues 1-year Country Club Membership or YMCA/ Athletic Facility Membership Tuition & Travel Payment for 15 hours of CE at local and state meetings Eligible for SIGNIFICANT Virginia Dental Loan Repayment Program
Contact: Mark Crabtree, DDS 276-632-9266 **drcrabtree@piedmontdental.org**

6646 - Living the Dream...
Newport News/Yorktown, VA
Successful office located in the heart of Kiln Creek. Kiln Creek is located between two cities - Yorktown and Newport News. Enjoy country club living just moments from the office. Not only a prime location in great surroundings, it's close to shopping and the airport. If you are ready to join an amazing team in a prime location this is the office for you. Up to date equipment, all new computers and freshly renovated front office. The patients are friendly and feel right at home. We are continuously growing with patient referrals being our best source. Our reviews say it all. Benefit package - Amazing opportunities - Long term.
Contact: Sharon 757-875-2273
sharon@thecaringdentist.com

6647 - Associate Dentist
Springfield, VA
Privately-owned general practice searching for a dynamic, self-motivated associate to join our group and provide comprehensive care. We see patients of all ages as a family dental practice and have served our communities since 1963, so we need someone who wants to find "a home". Ideal candidate will have 3 or more years' experience as you will need to hit the ground running! Endo and surgical extraction experience is a must. Implant experience would be a plus. We provide a comprehensive contract with benefits and have an experienced, enthusiast staff that makes coming to work a joy.
Contact: 703-451-8332
admin@wsdentalarts.com

6648 - Associate Dentist
Louisa, Virginia
We are a large, well established family dental office in Louisa, Virginia. We are looking for a caring, compassionate FT/PT dentist to join our family. The candidate must be a licensed dentist who is willing to work with patients of all ages.
Contact: John Andre 804-314-7165
johnjandre59@gmail.com

6656 - Endodontist
Hampton Roads
Excellent opportunity available in a brand-new state-of-the-art practice located in the fast-growing area of Hampton Roads. This opening is available to recent graduates who are looking to become an associate with a rapid track to partnership/ownership. Our private practice is equipped with digital imaging, ASI carts, surgical microscopes with camera and video capability, TDO management software and brand new Planmeca CBCT. We are looking for an ambitious and personable candidate who is willing to work in a team environment. We are offering a very attractive financial package.
Contact: Dr. Kathie Carson 757-942-8737
drkathiecarson@carsonendo.com

6665 - Dentist
Tidewater
Could this fantastic unique opportunity be yours? Seeking a compassionate, self-motivated dentist to join our dental family. We are a well-established, ever-growing, state-of-the-art private practice located in beautiful Tidewater Virginia between Williamsburg and Virginia Beach where patient care is our top priority! Our dedicated team is experienced and knowledgeable. Future buy in is available.
Contact: Sue Heriford | 757-560-0560 |
suffolksmiles@gmail.com

6666 - Associate Dentist
Tidewater
One-of-a-kind excellent private practice with a fantastic dental team in Southeast Virginia looking for an associate dentist. We have all kinds of lasers, 3D cone beam, all electric handpieces, Sonicfill, digital radiography, Nomad and all the BEST to bring the Best care to our patients. We are passionate about professional development through continuing education so we have dedicated $10,000 solely for your professional development. Our in-office Study Club offers a most unique experience for growth with mentoring in specialty areas.
Contact: Sue Heriford | 757-560-0560 |
contemporarydental21@gmail.com

6669 - Career Opportunity for Dentist
Peninsula/Hampton Roads
Busy Group Practice with two office locations in Yorktown and Williamsburg seeking the right individual(s) to join our dental practice with potential for ownership after associate position/ transition. Currently, four dentists with approximately 20 staff (including hygienists) and approximately 10,000 patients. Yorktown (10 ops) and Williamsburg (6 ops). Providing all phases of care/ restorative, prosthetics, endo, surgery, preventative, conscious sedation, etc... GP residency preferred / not required.
Contact: Ted A. Blaney, DMD 757-870-5373
tablaney@aol.com

Practice Transitions

6644 – Price Reduction!
Great Practice Opportunity
Henrico, VA
SIGNIFICANT PRICE REDUCTION - Growing practice with great potential located near multiple schools, businesses, major roadways and development projects. Newly renovated, 4 ops (3 finished, 1 partially completed). New patient and revenue growth up over 30% from 2018. Doctor at practice is transitioning to another office in the near future so we are motivated to sell. Exceptional opportunity to own a practice for basically the cost of equipment and supplies, Perfect for someone who want to own without taking on significant debt. Email for additional information!
Contact: McKenzie Woodard
804-387-7108
mmrwoodard@gmail.com

6655 - Trusted Family Dental Practice for Sale
Southwest Virginia (Near NC border)
Consistently grossing around $500,000 in three days a week with no marketing -5 treatment rooms -Digital x-ray & digital panorex -Dentrix software -Computers in every room -Electric handpieces, Velscope & intraoral camera -State of the art chairs & equipment -Established patient base that have been with the practice for generations -Convenient location on a main, busy street -Real estate available as well Contact Kathryn Sievers at BridgeWay Transitions for more information.
Contact: Kathryn Sievers 703-946-0718
kathryn@bridgewaytransitions.com

6667 - Dental Practice for Sale
West End Richmond
This beautiful TURN-KEY opportunity is located in one of the most convenient and desirable areas of RVA - West End Richmond. The practice has eight (8) equipped dental operatories, over 2,600 active patients, and located on busy Patterson Avenue. Operating out of 3,450 sq. ft. of leased space, this practice generates over 720K per year (2019) in collections and surrounded by a densely populated residential community. This opportunity is truly a “stand out” and hits on all four major economic pillars in terms of capacity, location, revenue, and patient base. Complete confidential Buyer Registration Form at **www.lbdtransitions.com** for details.
Contact: Elizabeth Schroeder Craig
804-897-5900
Elizabeth@lbdtransitions.com

6668 - NEW PRICE! PRACTICE FOR SALE
Richmond, VA
Located in the Greater Richmond area (Varina) - this practice has terrific earning potential! This small but growing office is located near Richmond’s popular Rocketts Landing and up and coming neighborhoods. Be well-positioned to be considered as the “practice of choice” as multiple residential development projects are underway. Dental office is newly renovated, 4 operatories (3 finished, 1 partially completed). New patient and revenue growth over 30% from prior year.

Complete the Buyer Registration Form for details at www.lbdtransitions.com. Near the popular Virginia Capital Trail - **https://www.virginiacapitaltrail.org**
Contact: Elizabeth Schroeder Craig 804-897-5900
Elizabeth@lbdtransitions.com

JOBS: Office Staff

6633 - Dental Hygienist
Charlottesville - Waynesboro
Sapon and Swisher Dental PLLC, in Charlottesville and Waynesboro Va., is looking to hire a part-time or possible full-time Hygienist. We take pride in our office for providing excellent patient care and using the state-of-the-art equipment. Our offices are seeing a great number of new patients and the workload is flexible. We have a great team in place and look forward to hearing from you.
Contact: Brad Swisher 434-566-9868
brad@swisherdentistry.com

6645 - Front Office/ Reception/ Insurance
Richmond, Virginia (Glen Allen)
I am looking for a motivated, reliable, fun, hardworking team player to come aboard and grow with me long term. I am a young, highly motivated and hardworking dentist that focuses on quality and patient experience. Role includes most front office work (answering phones, scheduling patients, collecting payments, sending and posting insurance claims.) We are one of the first offices using FUSE software, a new cloud based dental software that is very intuitive, especially for the technology minded individual. We are open 2-3 days a week right now, with solid growth potential. Read our reviews and give me a call if you think your personality will align with ours and our patient care!!
Contact: Evolve Dental Care - James Oliver 804-564-7776
evolveyoursmile@gmail.com

Products

6658 - Brand new 2019 insurance book by Dr. Charles Blair
Fairfax
Brand new 2019 insurance book by Dr. Charles Blair, the “go to” guide for insurance administration, original price $150, now $50. You can get a picture of that book if you text to 9789689518. Thanks a lot.
Contact: Dan | 978-968-9518

Office Space: Sale/Lease

6626 - Equipped Operatories for Rent
Fairfax, VA
Two fully equipped dental operatories available for rent in Fairfax/Fair Oaks area. Great opportunity for a young or retired dentist. 4,200 per month includes electric, water and business insurance. Availability date is March 1st. Please contact by email or leave a massage at 703-352-8904
Contact: 703-352-8904
dds4u@mindspring.com

6631 - Four operatories space available
Hampton Roads
Dental Health Associates is a rapidly growing Dr. owned and managed multi-office group practice in the heart of the Shenandoah Valley in Virginia. We strive for excellent comprehensive full mouth Dentistry. We have a strong commitment to CE, training and mentorship. Seasoned Dentists, AEGD/GPR graduates or new Dentists are welcome to come grow with us. Opportunities throughout the Shenandoah Valley in Lexington, Staunton, Harrisonburg, and Dayton. Excellent compensation and benefits package including Malpractice, Medical, 401K matching and CE stipend. A route to ownership/partnership is available.
Meet us at
www.mydentalhealthassociates.com
Contact: Russ 757-788-9877
taylorrs2@hotmail.com

6649 - Office Space to Share
Fairfax, VA
Looking for the right dentist to share a 2,000 sq. ft. office in Fairfax. X-ray and panorax machines, lab, sterilization area, staff lounge and 2 fully equipped operatories. Great location with plenty of free parking. Flexible lease options available.
Contact: 703-352-8904
dds4u@mindspring.com

6651 - OFFICE CONDO FOR SALE
Gloucester Point, VA
Ideally located brick office/condo. Former oral surgery; 1400+/- sf; 3 operatories down, reception, waiting and recovery. Second story office, full bath and kitchen. Perfect for secondary office or new practice with close proximity to Virginia Peninsula also to the north. Nitrous oxide line in place
Contact: Linda 804-642-2106
linda@vacosold.com

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Hampton, Virginia

Hisham M. Barakat, D.D.S.
has acquired the practice of
Ashley S. Nguyen, D.D.S.
Alexandria, Virginia

We are pleased to have assisted in these transitions.

Practices For Sale

Excellent Opportunity in Norfolk
This 2,040 sq. ft. practice is located in a stand-alone professional building with plenty of parking and great road-side visibility. The office has 6 ops, digital X-rays, and utilizes Dentrix. The practice has an abundant patient base of over 6,600 patients and averages 59 new patients a month. The majority of patients are PPO with some Medicaid. Real estate is also available.
Opportunity ID: VA-5987

Grossing Over $1.3M in Alexandria
This opportunity is in a great location of Old Town Alexandria, which is nationally recognized for its rich history and beautifully preserved architecture. The 2,500 sq. ft. office is located in a free-standing building with excellent road-side visibility. This 4-op office has digital X-ray, Pan, and utilizes Dentrix software. The practice has approximately 1,400 active patients who are all FFS. If you are ready to practice in a town filled with old world charm, call AFTCO today!
Opportunity ID: VA-5960

Fantastic Opportunity South of Richmond
This is a well-established general practice that is located south of Richmond. The office is in a multi-tenant professional building with 4 equipped ops and an additional op that is plumbed. The office is digital and utilizes SoftDent software. The practice is currently open 4 days a week, and it is grossing over $400K. The seller is relocating to another area, so he is motivated to sell.
Opportunity ID: VA-5957

Just Listed - South of Roanoke Practice
This practice opportunity is located in a free-standing professional building right off of the I-81 corridor. The practice is digital and has Eaglesoft software. It is 100% FFS with 1,875 patients and averages 25 new patients a month. This opportunity has tremendous growth potential with low overhead. There is also room for expansion and the possibility of a real estate purchase. Seller is very motivated to sell. **Opportunity ID: VA-5917**

Go to our website or call to request information on other available practice opportunities!

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