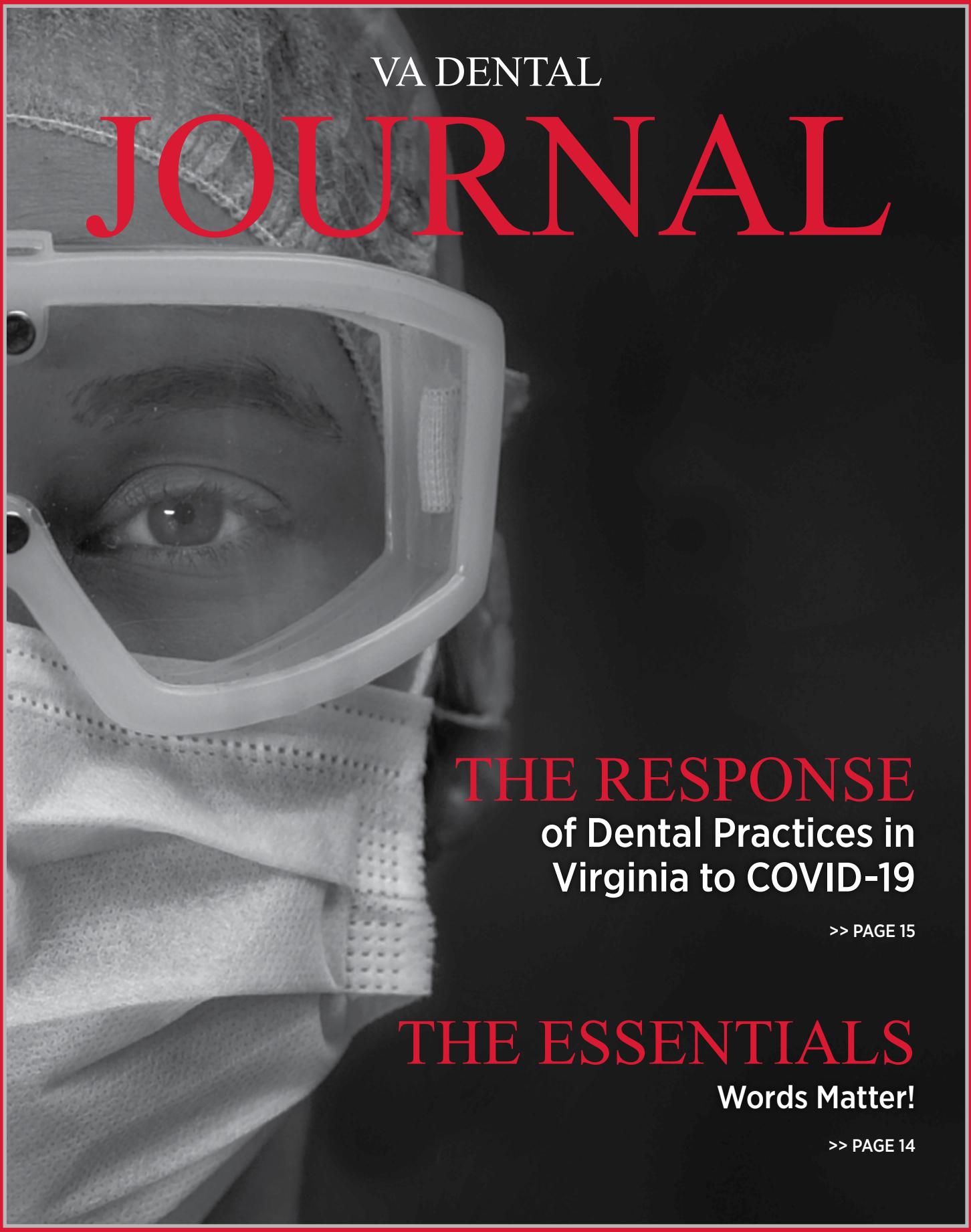
VOLUME 98, NUMBER 1 | JANUARY, FEBRUARY & MARCH 2021

VA DENTAL

JOURNAL



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of Dental Practices in Virginia to COVID-19

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THE ESSENTIALS

Words Matter!

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The Silver Scroll is awarded to the editor whose publication demonstrated the most overall improvement over the prior year of publication.

VA VDA DENTAL JOURNAL

VOLUME 98, NUMBER 1 • JANUARY, FEBRUARY & MARCH 2021

VIRGINIA DENTAL JOURNAL	(Periodical Permit #660-300, ISSN 0049 6472) is published quarterly (January-March, April-June, July-September, October-December) by the Virginia Dental Association, 3460 Mayland Ct, Ste 110, Richmond, VA 23233, Phone (804)288-5750.
SUBSCRIPTION RATES	Members $6.00 included in your annual membership dues. Members – Additional Copy: $3.00 Non-Members- Single Copy: $6.00 Non-Member outside the US: $12.00 Annual Subscriptions in the US: $24.00 outside the US: $48.00
POSTMASTER	Second class postage paid at Richmond, Virginia.

MANUSCRIPT, COMMUNICATION & ADVERTISING	Send address changes to: Virginia Dental Journal, 3460 Mayland Ct, Ste 110, Richmond, VA 23233. Managing Editor, Shannon Jacobs 804-523-2186 or **jacobs@vadental.org**

HYBRID GOVERNANCE

A PROPOSED MODEL OF COMMUNICATION FOR THE VDA

Dr. Frank Iuorno, Jr.

This year, we have been celebrating the 150th anniversary of the Virginia Dental Association. In 1870, nine dentists met in Richmond to form the VDA and to "promote amongst them mutual improvement, social intercourse and good will." Among the VDA's early accomplishments were the establishment of the state's Dental Practice Act, the Virginia Board of Dental Examiners and representation on the Board of Health. But did you ever wonder how an association like the VDA would be formed today or how it would function?

Most likely, a small group of dentists would convene virtually (or in person if COVID-19 would just simply disappear), discuss commonalities and goals and then calls for interest would cry out over the internet. In fact, despite the pandemic, most of our new study clubs, professional networks and support organizations are now founded in the digital ethos… think Alignable, DentalTown, or LinkedIn. And while COVID-19 has presented its share of challenges, the silver lining is that it has created a normalcy to digital communications out of necessity. So, I'll ask the question: what if we used this to the advantage of the Association? Perhaps by using a digital communication platform, it would allow members the ability to offer constructive feedback in real time and allow for councils/committees to collaborate more easily around everyone's very busy schedule. Every member would have an equal voice and every member's opinion could be heard.

Given new modalities of communication, the hierarchy of governance could be streamlined considerably. Consider a hybrid model. By using a "flattened" governance structure, and assuming robust engagement, we could decrease our reliance on large councils and committees meeting at odd times taking members away from family and practice since issues can be deliberated in private communication forums among members at their convenience.

Our younger members expect a strong voice immediately upon joining the VDA, but it takes too much time away from young families and too long to climb the ladder of governance to sustain engagement. This is where opportunity lies! As part of an initiative to engage our young members in meaningful conversation, the VDA will be launching private discussion forums for discourse. This is one new tool we're trying out to improve our members' experience and allow more participation.

"Given new modalities of communication, the hierarchy of governance could be streamlined considerably."

For example, our Council on Government Affairs monitors legislative efforts at the state and national level and proposes legislation. Advocacy efforts are perhaps the most important functions of organized dentistry. If any member is interested in learning more about what our Council is doing, the private communication forum would allow access to council discussion and a means to voice opinions. Come and go whenever you wish. Each forum will be monitored by a member of the corresponding council or committee to ensure professional conduct and productive discussion. Let us see if this reduces the hierarchy and flattens our governance for the betterment of our members.

Our goal is to speak the language of a new generation of members and open a channel of communication that seems to resonate with younger members. I am certain that new dentists appreciate the efforts of organized dentistry and have a lot to add to our discussions. They also value the time spent together for what it is truly worth…that of establishing "social intercourse and good will." The one thing you cannot get from an online chat or Zoom call is a hug…a handshake…a glass of wine among friends. And if we have learned anything from the past nine months, it is that in-person personal relationship development is so very important to the balance of our overall happiness and success. We all miss our time together. So, let us try to work smarter throughout the year, and savor the time when we can get together next fall at the Virginia Annual Meeting even more.

Dr. Meha Enin has acquired the practice of Dr. Teena Sareen in Manassas, VA

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ELEPHANTS FIGHTING

Dr. Richard F. Roadcap

A recent patient broached the subject of COVID-19 testing, and I commented the rapid "Sofia" antigen test was not as reliable as the gold standard "PCR" test. The patient, who was retired and did not have a background in healthcare, asked "Do you mean the polymerase chain reaction test?" Not only is the topic of the pandemic on the tip of the tongue, medical jargon is the subject of everyday conversation. Our patients can say "Pfizer" and "Moderna" as if they were the names of grandchildren. Their heightened awareness obliges us to spend hours sifting through newsfeeds that don't make us a better dentist.

A silver lining to the dismal public health events of 2020 may be improved dentist-physician communication. For most of my career, these last three words have been considered an oxymoron, in the manner of "jumbo shrimp" or "mature teenagers." Many efforts at interprofessional communication have fallen short, as dentists and physicians fall back upon the education and training that's kept them apart. Even before they enter college, prospective dentists and MDs are partitioned in the classroom, and that separation often continues for life. I won't try to bring up the subject of educational reform, as that is beyond the scope of most practicing dentists. In this issue, third-year dental student Vanessa Sturz does an excellent job of outlining VCU's efforts to bring clinical dental education and medicine under the same roof.

No, practicing dentists (certainly mid and late career) just want to talk to their patient's MD. Even with dentistry's splendid record of practicing safely, and the meticulous screening done in most offices, we still want to know when to proceed and when to defer treatment. Co-morbidities were more prevalent than ever before the pandemic, yet many physicians don't understand the nature of our treatment and can't assess the risks of routine dental care. Subjects that often fall victim to poor communication include:

- Antibiotic prophylaxis
- Platelet inhibitors (e.g., clopidogrel) and anticoagulants (e.g., warfarin, Eliquis®)
- Medications designed to treat osteoporosis, including bisphosphonates such as Fosamax® and denosumab, a monoclonal antibody

A study in Japan[1] found poor communication between dentists and physicians led dentists to request discontinuation of drugs used to treat osteoporosis, resulting in increased fractures with no reduction in medication-related osteonecrosis of the jaw (MRONJ). Two faculty members at the University of Pennsylvania School of Dental Medicine (Akintoye, Hersh) responded, in a letter, to this study saying, "Just as 'two fighting elephants cause the grass to wither', lack of communication between physicians and dentists managing osteoporosis patients may hamper patient care outcomes."

Likewise, a recent study in Europe recommended that physicians ask, in writing, for a dental evaluation prior to starting so-called bone-modifying agents.[2] The authors advised completion of invasive dental procedures before therapy started. I've never been asked for my opinion before a patient began Fosamax® or other drug intended to treat osteoporosis. On numerous occasions I have been asked by an orthopedic surgeon to examine a patient prior to joint replacement surgery. In most instances the patient is in need of routine dental procedures that need not delay surgery; however, fulminant dental infection should be prevented at all cost. All we can do is advise physicians of our findings and allow them to determine if they should proceed.

More than once I've had a patient appear for a non-invasive procedure and tell me their physician had stopped anticoagulant therapy prior to the appointment, without seeking my opinion. A teachable moment ensues, with the opportunity to educate both patient and MD on the unnecessary, and perhaps risky, change in medication. Published research in both medicine and dentistry has shown that continuing anticoagulants when patients undergo dental surgery is safe in the vast majority of cases.[3] The authors of one study, in their discussion, offer the comment "In brief, there is an immense need for cooperation between physicians and dental surgeons. Although they both admit lacking full knowledge concerning oral anticoagulation in dental surgeries, dentists and physicians tend to mutually criticize."[4]

Both professions have suffered from the COVID-19 pandemic, and many elective medical and dental procedures were postponed in the first half of 2020, until it could be demonstrated that they could be performed safely. Dentistry's years of using, and perfecting, PPE can teach medicine how to practice with safety. Medicine can teach us how to screen and triage patients who may not exhibit any symptoms of a deadly upper respiratory disease. Malcolm Gladwell, in his 2008 book *Outliers*, says plane crashes usually involve the same ingredients: an exhausted crew, bad weather, poor communication, and one or more sources of stress. (Watch Gladwell talk about the importance of good communication.)[5] Maybe the pandemic's gift will be the

>> CONTINUED ON PAGE 13

A BLESSING IN DISGUISE

Marvin E. Pizer DDS, MS, MA, FICD with K.E. Danty*

For the record, I am a Jewish person, and my faith has always been present in some form in my work-life, whether in finding a moment of comfort before making a major life-affecting surgical decision, or yes, even in deciding the billing. I retired after practicing more than 69 years of oral and maxillofacial surgery (OMS) which included dentoalveolar surgery, exodontia, facial injuries, benign tumors, cysts, biopsies and a few malignant tumors. My last 29 years were limited to surgical oncology of the head and neck.

In recent years the hyper-nationalism, racism and sectarian divisions have been more than disturbing; and the reemergence of anti-Semitism on the national stage has been particularly distressing! As an elderly (94 y.o.) resident of an "assisted living" facility that is in the midst of what is now an eight-month Covid-19 lockdown, I have had much time to stew about today's events, but also their "dark" precedents in the 1930s and '40s. Also, into my solitary room have come memories of a time in the 1970s when I was asked to help create a cancer-treatment program in the Virginia hill counties of Appalachia; it was formally called the "Appalachian Mouth Cancer Detection Clinic Project." Then too, there were powerful specters of extreme poverty, racism, and yes, anti-Semitism.

OUR TRAVELING MEDICINE SHOW

In 1970 the President of the Virginia State Dental Association asked if I would chair the State of Virginia Cancer Committee. One of the members of the committee, Dr. Jack L. Russell, was an ex-military officer with a superb knowledge of dentistry. He approached me, and also other members, about the terrible need and privations in the Virginia areas of the western hill country called Appalachia. This was an area of coal miners and their families, farmers and factory workers, all with scant medical care; and from what Jack said, they could have an abundance of oral and facial cancers. Jack had a deeply loving heart and cared so much about people - and Jack really engendered a deep sense of responsibility to ameliorate their sufferings - and in a deeply moral way, he placed a "spiritual monkey on our backs," so we couldn't refuse! Our committee gave him permission to evaluate this area of Virginia, and he did so effectively. Jack warned me, after visiting Appalachia, that there was one hang-up. He cautioned me I might not get back safely with my son Todd who was to accompany me! He told me that the hill people were extremely prejudiced against Black people and Jews. Brutal lynchings had happened in the area to Black people, but they could also take the same pleasure in hanging a Jew. Why me, I thought, they'd likely never even met a Jew? But Jack said there was a noose on a tree where this might well happen. The only way I could do this work, he said, was for my son and I to hide our Jewishness and Jewish faith. This disturbed me then, and continues to nag at me a bit now, especially given our own present times of heightened anti-Semitism. But I decided to go, and to take my 15-year-old son with me as my driver and surgical assistant as Todd had helped me in my surgical practice in Alexandria. So, we went with our Jewishness in disguise, so to speak, as this was our passage to the hill country and the only way to help without being potentially harmed ourselves. Jack also had told me that I should not wear a business suit and tie as the people there would think I was a government agent on a mission to discover and report their backyard patches of marijuana or whiskey stills. We also faced a wall of suspicion from some local dentists and physicians who were distrustful of the "foreigners" - these "doctors from Richmond."

Besides the eight members of our committee, we enlisted the aid of dentists employed by the Health Department of the State of Virginia. We also had some wonderful nurses from the American Cancer Society, and help from the American Red Cross and local associations. All together around 25 of us would travel from town-to-town, through five counties of Southwest Virginia, over a one-week period, to search for malignancies of the head and neck. We would be staying overnight in motels. We were quite a "traveling medicine show." Three tents would be set up for oral and facial examinations in the small towns and I would use the operating areas of the local Health Departments for necessary surgeries. We would also visit individual houses and see possible cancer patients on the far peripheries, in the hill country. Enlisted was Dr. Richard Elzay, the Chairman of the Department of Oral Pathology in the School of Dentistry, Medical College of Virginia. He would be our eyes and ears in the field determining what was possibly malignant and needed to be operated on.

Dr. Jack L. Russell was responsible for advertising our program on local television and radio stations, and also through service organizations like the Optimist Clubs. Over the one-week project, our group evaluated 984 patients in our mobile tents and clinics. We also successfully operated on 31 cancer patients, some for more than two and half hours, over a six-day period. The medical director for these communities did the follow-ups, checking for infections, removing sutures and doing post-operative care. Our work eventually

"Still, I sometimes wish that their children and their other descendants might know of the loving care that I, a person of Jewish religion, had given to their elders despite the walls of prejudice."

became nationally known and I ultimately did return the next year to orchestrate a second week of our program.

What was Appalachia like? The air was thick and contaminated from white, densely toxic coal smoke. You could look up and not see the sky. As the houses got closer to the mines, their painted white exteriors were discolored and turned grey. Many who worked in the mines were also ill from "Black Lung Disease," from inhaling coal dust. (In the 1970s there was about a 10-year lifespan of working in the mines because of "Black Lung Disease.") The people were also very poor and emaciated - the mothers were so painfully thin, with surprisingly very few children. I felt so sorry for their children! In the town's tents were set up for dental examinations; but up in the hills we went out looking for cancer patients. Some of us were fearful of walking up to the houses, as many had large barking dogs. I was told that one team member was greeted at a front door by a man with a shotgun and had to convince him that he wanted to see family members who might have life-threatening oral cancers. They had no plumbing, and only outhouses. Amazingly these folks must have developed a great level of immunity to their environments. The State of Virginia physicians who later removed the sutures on our operated patients, almost unbelievably found no infections.

REFLECTIONS:

The needs of the Appalachian people took my heart away. I am so grateful that I had been specifically trained for this life-saving type of mouth and facial cancer surgery. One modern version of the Hippocratic Oath for physicians - also for oral and maxillofacial surgeons - includes, "I will not permit considerations of religion, nationality, race, gender, politics, socioeconomic standing, or sexual orientation to intervene between my duty and my patient." This certainly reflects a true inner creed for me, especially to offer care to people in difficult economic privation or need. But more than just an altruistic duty, I found that I also admired and genuinely cared for these hill people. I had come to know them and see the beauty of their qualities, their endurance and quiet strength. I truly did not want any of them to die of cancer. But, sadly, I did not believe that they could ever "fully" know me. The hatreds and prejudices drunk in their childhood prevented this, also likely some of the teachings in their houses of worship. Still, I sometimes wish that their children and their other descendants might know of the loving care that I, a person of the Jewish religion, had given to their elders despite the walls of prejudice. I still feel that God wanted me to do this work; you know that, somewhere in your Being.

The great 12th century Jewish scholar Maimonides, a noted physician and Rabbi, described a "ladder" of giving, each rung defining a different level of virtue: the lowest rung is giving begrudgingly and making the recipient feel disgraced or embarrassed, the highest level is helping a person to become self-reliant. But there-is-also a station of giving when you know the individual who is benefiting, but the recipient does not know your identity. I still wrestle with the need to publicly take a stance against anti-Semitism, and to reveal the goodness of my people to others. But this also needs to be balanced with the "call" to ameliorate suffering, and in some cases to prevent death. Sometimes one must just give one's blessing in "disguise," so that the blessing can be received.

* Kenneth E. Danty happily assisted his dear friend Dr. Marvin Pizer in placing his memories and recollections to paper. Ken 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.

USELESS MEASURES?

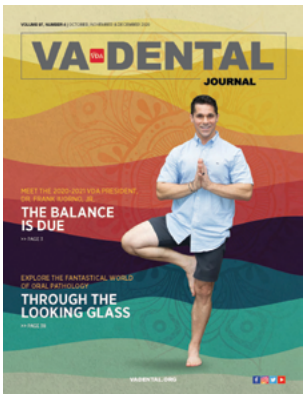
E. Thomas Elstner, Jr. DMD

I applaud Dr. Rizkalla's efforts to control the spread of the novel COVID-19 virus. While studying the article I was reminded of the old days when we used dycal and copalite to protect our treated teeth. Subsequent scientific studies found these practices and many others we routinely performed to be of little or no value. I would caution readers on the use of UV light in their operatories. They may soon find serious degradation of all your artificial materials to include your chairs, counter tops, and anything else made of plastic composites (look into the use of 303 to protect these items but with little success.) The use of HEPA air filters is also without merit. The filters don't block 100% of the virus - sure the size of the inoculum does come into play, yet they are really of little value. Chairside evacuators may be of little or no use, as well. The use of UV air treatment may be of great help.

My treatment rooms are all equipped with Laminar Air Flow which passes over the patient and out of the space. I also have installed two iWave-R devices that kill over 99% of pathogens in my HVAC system. Check out their website.

I again thank you, Dr. Rizkalla, for such an effort. My fear is that publishing such an article may sway the "Standard of Care" in the direction of costly and useless measures.

I invite your response after you have investigated the selectivity and specificity of your measures.



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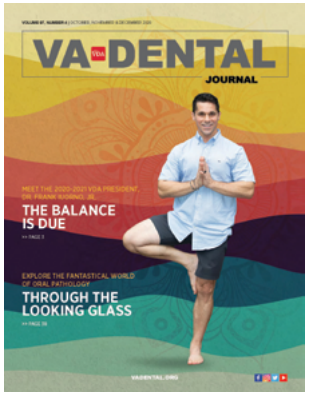
HARDBALL

Lonny D. Grimmer, DDS, MAGD

I agree wholeheartedly with Dr. Iuorno's comments and think the "old guys" in the organization have been dragging their feet for far too long on a number of things. I'll be turning 59 soon, but I consider myself a "young guy" still, and definitely feel we need to take a more modern, active approach, especially when talking about going after insurance companies to make sure we are reimbursed fairly at fair market value. I love that the ADA is suing Delta Dental!

Also, I come from a business background, dentistry is my second career, and I often was involved in very heated negotiations on a corporate level, and I can tell you that the business world only understands and reacts to one thing.... hardball. So, I applaud President Iuorno's attitude and resolve to stop "playing nice".

Thanks for a great periodical.



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MEDICAID BENEFITS FOR ADULTS

Sarah Bedard Holland; CEO, Virginia Health Catalyst

Next Steps in the Adult Dental Benefit Rollout

This year, Virginia's legislators showed their commitment to the health and well-being of Virginians by funding a comprehensive dental benefit for adults enrolled in Medicaid – twice! You may recall that the benefit was included in the budget passed earlier in 2020; however, Governor Northam unallotted all new funding in the spring because of the COVID-19 pandemic. After reconvening for a special legislative session where tough budget decisions were made, legislators chose to reinstate the funding for an adult dental benefit in Medicaid! Over 800,000 Virginians will now have access to dental services for the first time. Thank you to all the VDA members who helped make this benefit a reality!

VDA President Dr. Frank Iuorno Jr. views the dental benefit as an opportunity to address the specific needs of Virginians now during the COVID-19 pandemic, "As we continue to see research that shows links between COVID-19 outcomes and utilization of dental services, this could not come at a more important time."

What comes next

The adult dental benefit will begin on July 1, 2021. Right now, the state agency responsible for Medicaid, the Department of Medical Assistance Services (DMAS), is working on the benefit design in partnership with dental providers from across the state. We expect the benefit to be like the benefit already available for pregnant women enrolled in Medicaid, but more information will be available soon on the benefit specifics. VDA staff and members, along with organizations like Virginia Health Catalyst are assisting DMAS to ensure the benefit created meets the needs of patients and providers.

How Catalyst will support VDA members

At Catalyst, we remain dedicated to making sure VDA members feel comfortable and ready for the rollout of the dental benefit in July 2021. We are working closely to support the VDA and its leadership to create the resources and materials needed for all dentists in Virginia. You'll find a complete list of our resources on our website (**https://vahealthcatalyst.org/adultdentalbenefit/**), and more will be added as benefit specifics become available.

I am excited about an upcoming series of webinars Catalyst will host to share information and answer questions regarding the benefit. These will take place monthly beginning in January and will provide a forum for providers to learn more about the benefit design, its implementation plan, and have any questions answered.

Securing an adult dental benefit has been a long journey and we have a lot of work ahead to ensure the benefit rollout is smooth and meets the needs of providers, patients, and everyone in the health care community. I hope each of you will feel comfortable reaching out to me directly at **sholland@vahealthcatalyst.org** if you have any questions or concerns.

We've got your back — **Then. Now. Always.**

While 2020 was filled with new challenges, your local, state and national ADA were there every step of the way. Your membership gave you members-only access to practical tools and guidance you can't find anywhere else, including:

Protocols for a positive COVID-19 test on your staff

Step-by-step guide to providing COVID-19 testing for your patients

Ready-to-use patient communication resources

Continue accessing these resources and the new tools and guidance we'll release as science evolves this year.

"As the science evolves, I know that the ADA will continue to advocate on behalf of our profession, our patients, and the public."

– DR. MIA GEISINGER

"You have clearly demonstrated to me that the ADA is an essential organization. ... orthodontists like me need you, dentists need you and the profession needs you! Thank you for your tireless efforts supporting us during this pandemic."

– DR. DAVID E. HARMON

Renew your membership

ADA.ORG/RENEW2021

ADA

WHY BE AN ADA MEMBER?

Gary D. Oyster, D.D.S.; ADA Trustee, 16th District

Since this is my first article since becoming the trustee for the 16th district, I will present a brief look at my involvement with organized dentistry. I have been an active ADA member for 48 years and have participated at the local, state, and national levels. My primary participation has been in the area of political advocacy but advocating for members and patients' needs is a big part of political advocacy.

My general practice is located in Raleigh, N.C., and I live in Franklinton, N.C. I have been married to Sharon for 41 years and have a son Josh who is 36 and lives in Raleigh. Since I am still practicing, I am very aware of the challenges and rewards of owning a dental practice.

First of all, the ADA needs to be a strong membership organization. For dentistry to remain considered essential, receive PPE, and have protection from frivolous lawsuits, we must have a strong organization. As ADA President Dr. Klemmedson recently stated, "There is no doubt we're in a resurgence and with this resurgence comes another R word-resilience. We continue to plumb the depths of our resilience, drawing strength and support from one another thanks to our ADA dental family."

The ADA mission is to help dentists succeed and support the advancement of the health of the public. I will share several of the subsidiaries of the ADA that are helping achieve this missionary statement.

ADA Business Enterprises Inc. - acronym ADABEI. Its mission is to create member value and increase member engagement, help create financial sustainability for the organization, and develop an organization with adequate capacity to meet member needs.

ADA Business Innovation group - acronym ADABIG. It is the holding company for the ADA Practice Transitions. The goal of this group is to help dentists make the process of joining, expanding, or leaving a practice more predictable and successful.

The newly formed ADA Science and Research Institute- acronym ADASRI. Science and research have always been an important aspect of the ADA. This institute will provide scientific support through the development of science-based resources for the ADA.

"The ADA mission is to help dentists succeed and support the advancement of the health of the public."

Common Ground 2025 is the ADA strategic plan which has a membership goal, a financial goal, an organizational goal, and a public goal. The membership goal has a growth aspect and a retention aspect. The financial goal is to increase dues and non-dues revenue by 2-4% annually and helping keep unrestricted reserves of at least 50%. The organizational goal is to improve organizational effectiveness at the national and state levels. The public goal is for the ADA to be the preeminent driver of trusted oral health information for the public and the profession.

The 2020 ADA HOD passed resolutions with policies on the use of silver diamine fluoride, temporary expansion of scope during public health crises, point of care testing, vaccine administration by dentists, teledentistry model, several resolutions concerning dental insurance, and a policy on elder care. These are just some of the resolutions passed. We must always remember policy positions taken by the ADA are always subject to changes when made into laws by the state and federal legislatures. That is why the advocacy arm of the ADA is critically important so that we have input into the legislative process.

Legislative law changes and insurance rule changes are constantly challenging the doctor- patient relationship. That is why being a member of the ADA is important. Only by having a strong national organization can we have input into these potential changes. Contact me at: **oysterg@ada.org**.

AT THE INTERSECTION OF MEDICINE AND DENTISTRY:

HOW VCU REDEFINES THE COMPREHENSIVE CARE MODEL

Vanessa Sturz, Associate Editor; VCU School of Dentistry, Class of 2022

While seeing 500-600 patients per day during a pandemic, VCU School of Dentistry (SOD) has set its sights on an even loftier goal, redefining the comprehensive care model.

Soon VCU SOD will share two floors of dental clinics in an expansive, state-of-the-art outpatient care building on VCU's medical campus. In addition to the relocation of clinical space, VCU SOD is joining VCU Health System and moving to EPIC electronic health record so that there will be a physical shared space with the medical teams at VCU as well as a virtual.

I recently had the opportunity to speak with VCU Dean Dr. David Sarrett, who pointed out that VCU's dental school will be the first in the nation to have a shared space in an outpatient facility as well as one of five other dental schools to have a shared virtual space for patients' records.

In speaking with Dr. Sarrett, it seems as if the possibilities for collaboration are endless. The shared EHR will allow for checking a patient's medication list, most recent HbA1c, or INR rather than relying on a medical consult or for the patient to supply that information. There will also be the ability electronically to refer within VCU from dentist to physician and physician to dentist. Finally, the ability to have electronic health and dentistry information in one database could allow for research studies and grant applications through data mining.

The most valuable collaboration Dr. Sarrett anticipates may not be quantifiable. He shared with me an important article that has influenced his thinking on the benefits of a shared physical space with medical professionals. The article is titled "Observation of interprofessional collaborative practice in primary care teams: An integrative literature review"[1] and the authors found that constant opportunity for informal interactions between medical professionals was the key component to collaborative care. Dr. Sarrett believes that informal encounters in the café that will be located in the building, in addition to conversations on the staff elevators, may be the most valuable component that this shared space will add to the comprehensive care model.

Areas where VCU's Innovative Model Will Likely Impact the Community Dentist

1. The EHR will have periodontitis as a diagnosis that the physician will see when the patient's record is accessed. I can't imagine the long-term impact this may have on physicians when they think about dental diseases. This includes the impact that it will have on residents (training on-site) who will potentially go on to a private practice with this comprehensive care model as part of their training. When a dentist is looking at their next office space, perhaps they should consider a space within a medical building offering several services like cardiology, OB/GYN, or primary care.
2. Due to the state's current coverage of dental care under Medicaid, an extraction and one x-ray film is usually covered. There is a plan for Virginia to expand its dental coverage under Medicaid to possibly cover endodontics, prosthodontics and restorative needs. Virginia's Medicaid program, DMAS (Department of Medical Assistance Services), reported in a January 29, 2020 report that Virginia currently has 1.5 million people receiving Medicaid benefits.[2] The increased dental coverage and increased referrals from medical providers may position the clinic to have more patients than it has providers. Will this alter the way the average Virginia dentist may think about accepting Medicaid insurance? How many more patients will become engaged in their dental care through increased access? Do we have enough trained dentists in Virginia to handle this possible influx of patients?
3. When a dentist thinks of a medical referral, they often think of sending out for a medical consult on a patient regarding premedication or contraindications to dental treatment; however, this new model may reverse the direction of the referral from the medical provider to the dentist. The collaborative model at VCU will lead to more physician education regarding dentistry (most likely through these informal collaborations/interactions) and the innovative research being done involving systemic inflammatory diseases such as diabetes, cardiovascular disease, and depression, and how periodontal treatments such as scaling and root planing may improve disease management outcomes for patients.

I wrote about this topic, not just to highlight the achievements of VCU, but to

begin the discussion that is increasingly becoming more important, which is, how will more comprehensive care models change the way dentistry is thought of by the medical community and by patients? How will these changes mold and shape the future of dentistry? Active discussions and engagement by all dentists on this topic are essential.

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>> CONTINUED FROM PAGE 5

opportunity for medicine and dentistry to share our thoughts in an open manner and ensure a safe landing for our patients.

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THE ESSENTIALS

Ryan Dunn, VDA Executive Director

As I write this, Virginia has just announced additional restrictions on social gatherings and imposed a curfew from midnight until 5 a.m. as part of an effort to combat a national surge in the spread of coronavirus. At this time, Virginia has not returned to any of the restrictions it put in place in early 2020, and thanks to the tireless efforts of our government affairs team, we have been able to provide assistance from the state in the form of access to scarce PPE, access to relief funds to help practices weather the pandemic, and protection from liability for dentists as they provide essential dental care during the pandemic.

"Words matter, and the way we talk about the care we provide matters."

This March and April, we experienced what, for many of you, was the longest absence from the profession you love. The longest time away from the patients who trust you to care for their oral health. The most challenging decisions you've had to make regarding your business and your team members.

In that time period, the VDA leadership was singularly focused on helping members understand the threat the virus posed and developing science-based recommendations for how to safely return to seeing patients.

Throughout, we continued to profess that dentistry and the services our members and their teams provide to patients is essential healthcare. Oral health is closely tied to overall health, and with the stress of the pandemic, we have seen an increase in stress-related oral health issues, which the VDA and our members have been working to help patients recognize so that those issues can be treated.

The ADA House of Delegates has adopted a resolution that oral health is an integral component of systemic health and explains dentistry is essential health care because of its role in evaluating, diagnosing, preventing or treating oral diseases, which can affect systemic health. While you all know this already, I hope you take the time to carefully consider the resolution and understand that your patients may not. Words matter, and the way we talk about the care we provide matters, particularly in a year in which the profession has been disrupted by the pandemic.

The resolution states the ADA will use the term "essential dental care" — defined as any care that prevents or eliminates infection and preserves the structure and function of teeth and orofacial hard and soft tissues — in place of "emergency dental care" and "elective dental care" about care that should continue to be delivered during global pandemics or other disaster situations.

Recognition of that essential dental care and the professionalism of our members as they adhere to ADA, VDA and CDC guidelines is a major reason policymakers in Virginia have not revisited restrictions on practices. It's the reason members of the press have helped elevate the voices of dentists as they explain why it's safe and important to not postpone dental appointments during the pandemic. And it's why we're continuing to fight for dentists to have the ability to both administer the COVID-19 vaccine and to have priority access to the vaccine for themselves and their team members.

You are essential. What you do is essential. And as you turn the page to the New Year, you can rest assured that the VDA will continue to make sure all Virginians understand why dental care is essential.

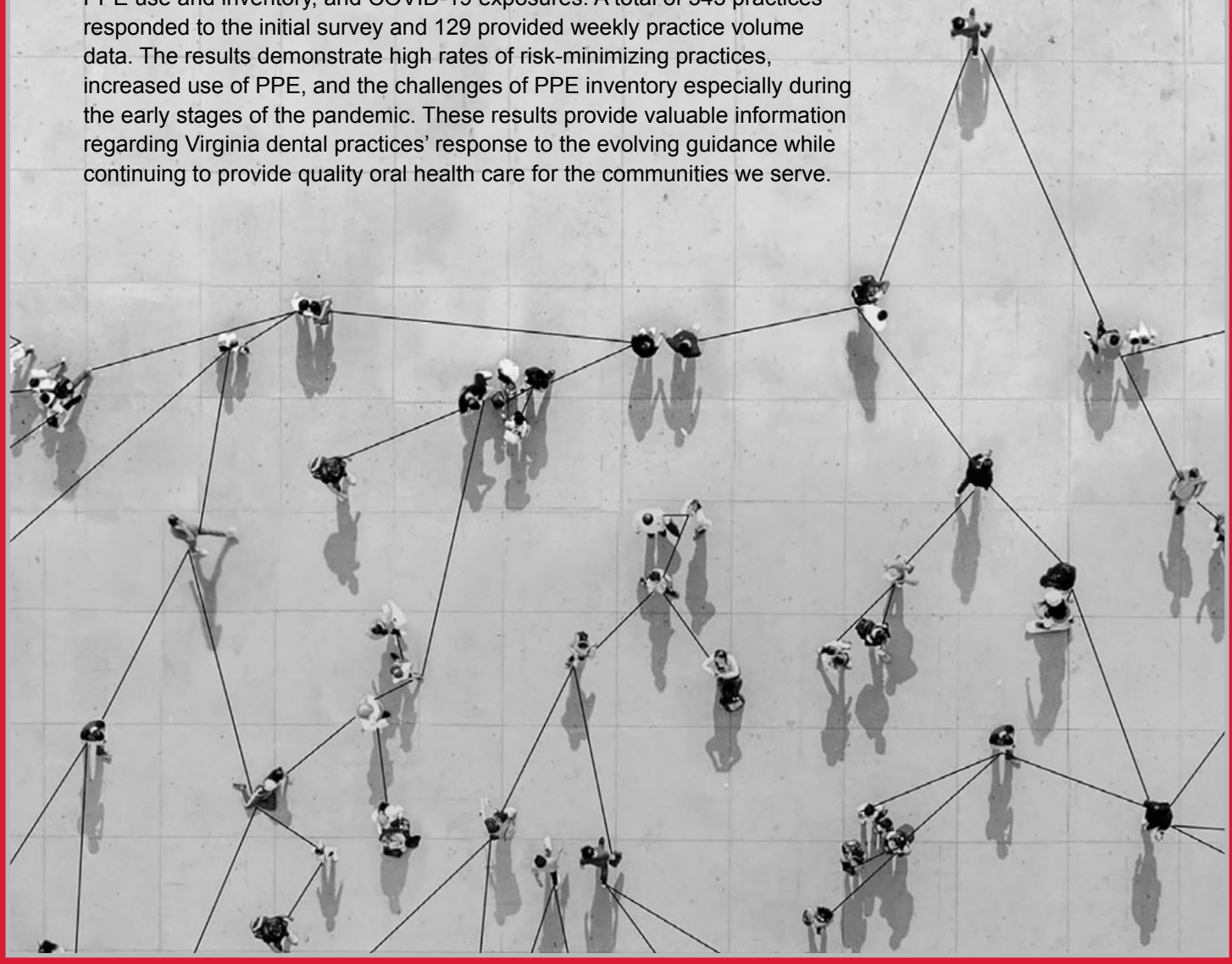
THE RESPONSE

of Dental Practices in Virginia to COVID-19

Dr. Caroline K. Carrico, Kaavya Shetty, Dr. Frank P. Iuorno, Jr., Dr. Tegwyn H. Brickhouse

Abstract

The COVID-19 pandemic presented increased risks and challenges for dental practices. To gauge the response and challenges of dental practices in Virginia, a 13-week survey was implemented which measured practice characteristics, screening and risk-minimizing procedures, practice volume, PPE use and inventory, and COVID-19 exposures. A total of 343 practices responded to the initial survey and 129 provided weekly practice volume data. The results demonstrate high rates of risk-minimizing practices, increased use of PPE, and the challenges of PPE inventory especially during the early stages of the pandemic. These results provide valuable information regarding Virginia dental practices' response to the evolving guidance while continuing to provide quality oral health care for the communities we serve.



Introduction

The first COVID-19 outbreak emerged in late December of 2019 in Wuhan City, China. The virus rapidly spread globally and by late January, the World Health Organization declared it as a public health emergency of international concern.[1] Initially named 2019-nCOV, the virus was commonly known as SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) or COVID-19.[2] According to the World Health Organization, COVID-19 appeared to be transmitted more easily than the original SARS-CoV and the mortality rate with COVID-19 is much higher than the original virus outbreak in 2003.[3] The most common transmission route for COVID-19 was through direct transmission (sneezing, coughing, and droplet inhalation) as well as contact transmission through oral, nasal, or eye mucous membranes. Additionally, some studies suggested that this strain could be airborne through aerosols produced during medical and dental procedures. New research indicates: "Dental care settings invariably carry the risk of 2019-nCoV infection due to the specificity of its procedures, which involves face-to-face communication with patients, and frequent exposure to saliva, blood, and other body fluids, and the handling of sharp instruments" (Peng et al). These microorganisms can be transmitted mainly through the airborne spread, and secondarily via oral fluids, or contaminated surfaces, which is why there is a high risk of infection between patients and dentists.[1,2]

The airborne spread of SARS-CoV (severe acute respiratory syndrome coronavirus) is well-known in scientific literature; therefore, many papers report that during dental procedures aerosols and droplets are produced that are contaminated with the virus, leading to the growing concern regarding infection in many dental practices.[1] Specifically, with the use of high-speed dental handpieces, it is difficult to avoid the mixing of aerosols with a patient's saliva. Additionally, human coronaviruses (SARS-CoV, MERS-CoV, and HCoV) persevere on surfaces such as glass, metal, or plastic for days. A recent study regarding the transmission of COVID-19 in dental practices mentioned that few staff at Wuhan University, in China, were infected with COVID-19. The source of transmission, whether from patient treatment or community transmission, was uncertain.[2] Learning more about the transmission and risks of COVID-19 has helped to mitigate the spread in dental practices.

Of dentists surveyed by the ADA Health Policy Institute, during the first week of examining the impact of COVID-19 on dental practices, 76% closed their practices (primarily due to state mandates) but were treating emergency patients, while 19% of practices were shut down completely. As new information was published regarding COVID-19, dentists were able to understand how to best run their practices while maintaining the correct safety precautions. As of week 9 of the survey, 98% of dental offices were open at 71% of pre-COVID-19 patient volume.[4] To address COVID-19, many dental practices have increased the use of personal protective equipment (PPE), along with screening staff and patients prior to entering the practice. The National Institute for Occupational Safety and Health recommended protective equipment such as N95 masks or equivalent, face shields, etc, since the most common route of transmission of COVID-19 was through respiratory aerosols. PPE minimized the possibility of exposure through infected blood or secretions.[2]

"Dental care settings invariably carry the risk of 2019-nCoV infection due to the specificity of its procedures, which involves face-to-face communication with patients."

Although dentistry has been at the forefront of bloodborne and airborne pathogen transmission prevention since 1982, guidelines for dental practices to ensure the safety of the staff and patients have continued to evolve.

Table 1: Characteristics of Participating Practices

	All Respondents (n=343)		At least 1 week of tracking (n=129)		
	n	%	n	%	P-value
Practice Type					0.4609
General Dental	241	70%	91	71%	
Periodontal	18	5%	6	5%	
Prosthodontic	3	1%	2	2%	
OMFS	11	3%	1	1%	
Orthodontic	12	3%	4	3%	
Endodontic	15	4%	7	5%	
Pediatric Dental	27	8%	12	9%	
Multi-specialty	11	3%	3	2%	
Other/Missing	5	1%	3	2%	
Practice Layout					0.5871
Individual patient rooms	227	66%	83	64%	
Open bay	33	10%	15	12%	
Combination	73	21%	27	21%	
Other/Missing	10	3%	4	3%	

*P-value from chi-squared test to determine if the practices with at least one week of tracking data were significantly different from those who only responded to the initial questionnaire

The American Dental Association (ADA) and Centers for Disease Control and Prevention (CDC) posted interim guidance amid this pandemic, which affected dental practices in a variety of ways.[5,6] A recent national survey found both a low prevalence of COVID-19 and testing positivity rates among practicing US dentists.[7] A better understanding of the transmission risks of COVID-19 is crucial to patient safety and access to oral health care. This national study also showed that dentists have enhanced their infection control practices in response to COVID-19.

The goals of this study were to provide state-level knowledge of dental practices, to illustrate the response to early guidance amidst the pandemic, and to ascertain the use of PPE and supply volumes, patient volume, and confirmed cases of COVID-19 among dental practices in the Commonwealth.

Methods

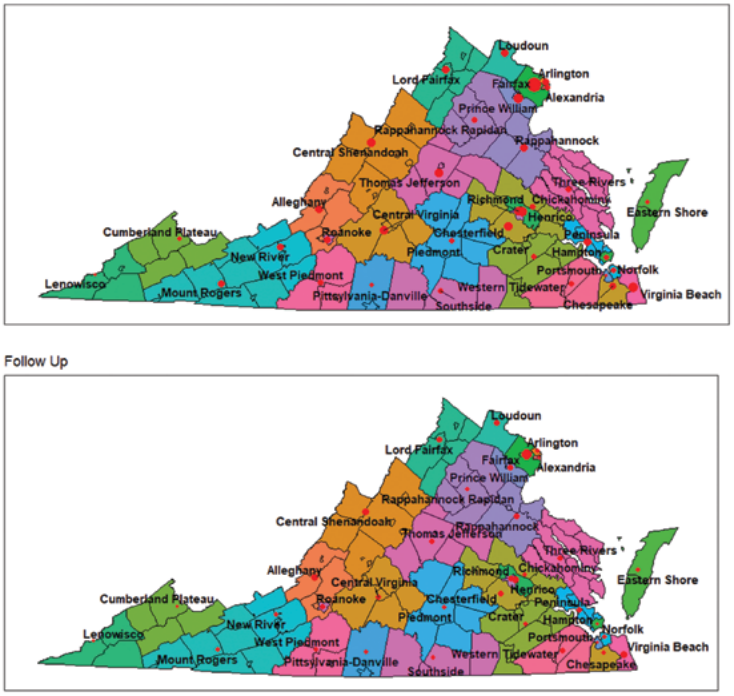
The survey was administered using REDCap (Research Electronic Data Capture) electronic data capture tools hosted at Virginia Commonwealth University. REDCap is a secure, web-based application designed to support data capture for research studies.[8] An initial email containing a unique link to the electronic survey was sent to all providers in the VDA database on May 19, 2020. The email asked the provider to forward to one person in the practice who would complete the survey each week. This allowed for tracking responses across the study period while remaining anonymous. A reminder was sent on May 26, 2020 to the providers who did not respond, although they may have been represented by someone else in their practice. The initial questionnaire included information primarily related to the practice (Appendix 1). The second portion of the questionnaire (Appendix 2) asked questions regarding practice volume (providers, staff, patients) along with PPE use for particular procedures, PPE inventory, and COVID-19 exposures. Procedures were defined based on their risk for aerosol production as low risk, lower risk, moderate/high risk, and very high risk. Low risk involved no close contact including extraoral radiographs or oral health instructions. Lower risk included close contact but no use of air or water syringe like oral exams, fluoride application, simple extractions, or orthodontic appliance adjustment. Moderate/high risk included close contact with controlled aerosol production such as manual scaling, polishing, or restorative procedures with rubber dam. Very high risk included close contact with aerosols including ultrasonic scaling, use of highspeed handpiece, and surgical extractions. Full details are available in survey in Appendix 2. Beginning May 26, this second questionnaire was sent out weekly to those who had completed the initial questionnaire. A final invitation for the initial questionnaire was sent to providers who had not responded on June 6. For the duration of the study, the invitation to the second questionnaire was sent weekly on Monday mornings until Monday, August 10. On June 24, the questionnaire was shortened and is provided in Appendix 3. Due to the difficulty in defining and identifying “persons under investigation” for COVID-19, this question was removed from the survey. Patient volume questions were simplified to

Table 2: Covid-19 Related Practice Characteristics

	All Respondents (n=343)		At least 1 week of tracking (n=129)		P-value
	n	%	n	%	
Screening Personnel					0.9237
No	13	4%	5	4%	
Yes	327	97%	123	95%	
Missing	3	1%	1	1%	
Screening Personnel Questions					
Have you, a family member, or other recent acquaintances tested positive for or been diagnosed as having COVID-19 or any other communicable disease?	301	89%	109	84%	0.1042
Do you or any recent acquaintances have a fever (99.6 or higher)?	296	87%	112	87%	0.9613
Do you or any recent acquaintances have a dry cough?	287	84%	109	84%	0.8782
Do you or any recent acquaintances have shortness of breath, trouble breathing, or tightness in the chest?	282	83%	107	83%	0.9140
Other	71	21%	37	29%	
Personnel PPE Training					0.7826
Yes	263	77%	101	78%	
No	61	18%	21	16%	
Unsure	18	5%	7	5%	
Personnel Hand Hygiene Training					0.5683
Yes	283	83%	107	83%	
No	45	13%	15	12%	
Unsure/Missing	12	4%	7	5%	
Offering Teledentistry					0.1966
Yes	79	23%	35	27%	
No	262	77%	94	73%	
Screen Patients					0.1840
Yes	305	91%	117	91%	
No/Missing	2	1%	3	2%	
Not Currently Treating Patients	27	8%	9	7%	
Risk Minimizing Practices					
Patient waits in car until notified	283	84%	107	83%	0.8796
Patient wears mask in office	312	92%	118	91%	0.8967
Remove all toys, magazines, etc	325	96%	122	95%	0.2077
Social distancing in waiting area (maintain 6ft)	313	93%	118	91%	0.4701
Hand sanitizer available	332	98%	127	98%	0.8402
Frequent cleaning of surfaces and high touch areas with disinfectant	334	99%	127	98%	0.5966
Other	139	41%	62	48%	
None	0	0%	0	0%	

*P-value from chi-squared test to determine if the practices with at least one week of tracking data were significantly different from those who only responded to the initial questionnaire

Figure 1: COVID-19 Participating Practices



Health District	Initial Questionnaire	At least 1 Week of Tracking Data
Fairfax	56	23
Henrico	20	8
Virginia Beach	20	9
Prince William	18	5
Central Shenandoah	17	9
Richmond	15	6
Thomas Jefferson	15	4
Central Virginia	14	3
Chesterfield	14	5
Alleghany	12	7
Lord Fairfax	12	5
Loudoun	12	5
Peninsula	12	4
Rappahannock	12	5
Arlington	9	2
Mount Rogers	8	2
Roanoke	8	4
Chesapeake	7	2
New River	7	2
Rappahannock/Rapidan	6	2
Three Rivers	6	3
Chickahominy	5	2
West Piedmont	5	2
Crater	4	2
Western Tidewater	4	3
Alexandria	3	0
Hampton	3	0
Norfolk	3	1
Piedmont	3	1
Southside	3	1
Eastern Shore	2	1
Cumberland Plateau	1	0
Pittsylvania/Danville	1	1

weekly totals instead of inputting the number of patients per day. Responses were summarized using descriptive statistics (counts and percentages). Differences in the practice characteristics between those who only completed the initial questionnaire and those who also completed the weekly tracking questionnaire were compared using Chi-squared tests. To calculate the number of patients being seen, the weekly totals were standardized to the number of days the practice reported being open and how many providers were present each day. This allowed for comparing patient volume across practices of varying size. The trend of patient volume across the study period were estimated using repeated measures analysis to control for repeated measures on the same practices. These models were also used to test for differences in patient volume between general dentistry and multi-specialty practices. Data was analyzed in SAS EG v.8.2 and maps were created using R v.3.6.1. Significance level was set at 0.05.

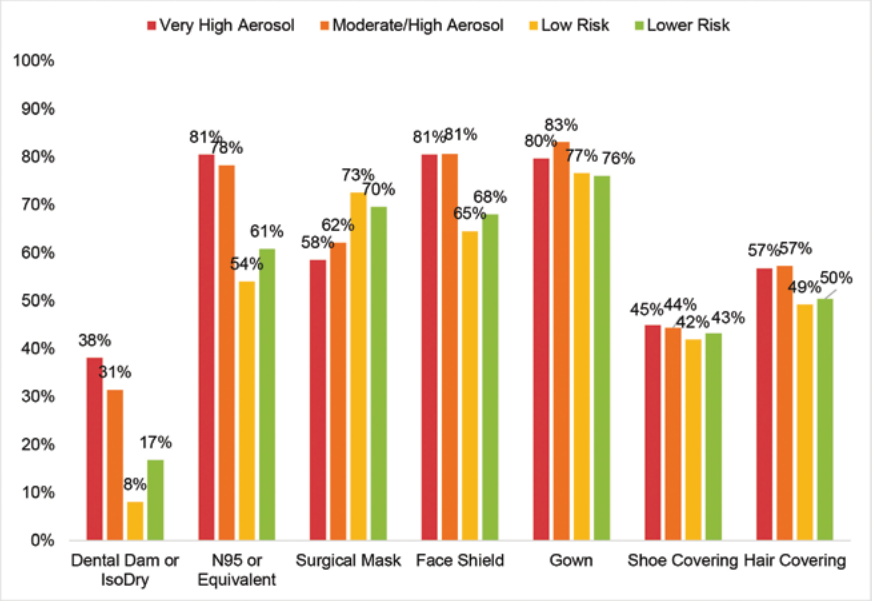
Results

A total of 343 practices completed the initial questionnaire and 129 practices completed the initial survey along with at least one week the follow up survey with patient volume data. A summary of the practice characteristics can be found in Table 1. General Dentists had the highest percentage of participation (70%), and 66% of practices have individual patient rooms which aid in mitigating the risk of exposure. A summary of the participating practices by their corresponding health district are given in Figure 1. The health district with the highest initial participation was Fairfax County (56), followed by Virginia Beach and Henrico with 20 practices each. In terms of practices with at least 1 week of tracking data, Fairfax still had the highest participation with 23. For Virginia Beach, 9 provided weekly tracking and 8 for Henrico. Central Shenandoah also had 9 practices provide at least 1 week of tracking data. There were two districts with no participating practices, Lenowisco and Portsmouth. Additionally, some districts with preliminary data did not have any practices participate in weekly tracking such as Alexandria, Cumberland Plateau, and Hampton.

Table 2 displays the new protocols that are now in place due to the guidance for COVID-19 on dental practices. As shown in Table 2, virtually all practices are screening patients and staff. Seventy-seven percent of the respondents have implemented PPE training and 83% include renewed hand hygiene since March. Most dental practices have physical patient encounters with added precautions and 23% of practices offer teledentistry. Table 2 also indicates that the vast majority of practices have adopted various risk minimizing strategies such as restricted waiting room access, in-office mask requirements, and frequent disinfection protocols. Out of the 343 respondents, 96% removed all toys and magazines and 99% had increased cleaning procedures on surfaces and high touch areas.

PPE use by the amount of aerosols produced is summarized in Figure

Figure 2: PPE Use by Procedure Type Among Practices with Weekly Tracking (n=129)



2. For each of the 129 practices, the most recent week of data was used to report PPE use. The percentages were calculated after removing those who said "Not applicable" which ranged from 4 practices for lower risk procedures to 11 for very high aerosol procedures. As seen in Figure 2, the majority of dental practices have adopted the use of additional PPE with the use of N95 masks or equivalent, face shield, and gowns being the ones that are most frequently used. However, nearly 20% of practices did not report utilizing an N95 or equivalent mask for very high-risk aerosol procedures.

"The response to our survey noted enhanced infection control practices in the majority of practices, and the adoption of increased levels of PPE for aerosol procedures."

Throughout the weeks, the highest items of PPE in inventory were face shields, surgical masks, gloves, and disinfectants. The items with lower inventory were N95 and equivalent, and surgical gowns, which fluctuated throughout the 13-week study period, with many practices reporting no inventory during the study period. The KN95 equivalent masks initially were lower inventory but increased steadily as the pandemic progressed, a reflection of the national response to the pandemic. Due to limited supply of N95 and KN95 masks, many providers developed a process to sterilize N95/KN95 masks. Of the respondents, 19% indicated that they were sterilizing and reusing and 63% indicated that they were not able to sterilize N95/KN95 masks for reuse. An additional 19% were unsure.

Practices were categorized as general dentistry or specialty and multi-specialty practices. All patient volume was standardized to the number of reported providers in office on a given day and the number of days the practice was open during the week to compare data from the initial and shortened form of the survey. Changes in the patient volume across the 12 weeks was not significantly different between the two practice types (p-value=0.2868). There was a significant increase in the number of patients per day per provider across the 12 weeks (p-value=0.0087). Throughout the study, specialty and multi-specialty practices saw on average 2 more patients per provider per day than general dentistry practices (16.6 vs 14.6, p-value=0.0586). The estimated trend in patient volume is presented in Figure 4.

Table 3 displays the number of reported confirmed cases of COVID-19 during the 12-week study. Overall, hygienists (n=23) and hygiene assistants (n=21) reported the highest levels of COVID-19. Due to the evolving knowledge of the pandemic, in combination with the Governor's orders for the state of Virginia, health privacy laws, and COVID reporting regulations for employers, the transmission source of COVID-19 confirmed cases was not obtained in the survey.

Discussion

This study is the first to assess, at a state level, the characteristics of the response to COVID-19 in dental practices. This survey of dental practices gathered information primarily related to the practice characteristics (Appendix 1) and then a weekly assessment (Appendix 2) related to practice volume (providers, staff, and patients), PPE use and supply, and COVID-19 confirmed cases. This study is useful in understanding the future needs and responses to the pandemic and making comparisons to national surveys.[4,7] The response to our survey noted enhanced infection control practices in the majority of practices, and the adoption of increased levels of PPE for aerosol procedures (Figure 2). Similar to national data, Virginia's patient volumes have continued to rise since the early stages of the pandemic. Nationally, as of the week of August 24, 48% of practices were open and business as usual, with 50% of practices open but lower patient

volume than usual. Virginia reported 61% of practices open and business as usual, with 39% open but lower patient volume than usual.[4] Our state specific data also reported similar changes to infection control procedures and office protocols in addition to the challenges in obtaining PPE that were reported nationally.[4]

Results from this study also demonstrate the initial PPE shortage that was observed in many healthcare settings. Data from American Dental Association show that in May surgical masks (62.3%) and face shields (58.8%) had the highest rate of 14-day inventory in dental practices. Meanwhile many practices reported having less than 14-day inventory of N95/KN95 masks (30.9%) and gowns (32.0%). There was also a number of practices that reported not having any inventory of particular items, with the highest being surgical gowns (16.7%) followed by N95/KN95 masks (15.2%). However, by the week of August 10th, most practices showed an upward trend in the amount of PPE in inventory, with surgical masks (70.0%) and face shields (76.4%) remaining highest rate of 14-day inventory followed by N95/KN95 (58.0%) and gowns (52.5%). There were still a few practices that lacked PPE inventory, especially surgical gowns (7.6%). The patterns observed on the national level were reflected in results from this study in the state of Virginia.

The limitations of this survey include a low response rate, possibly due to getting back to work, and new regulations and guidance. The HPI survey reports similar response rate issues with their highest response rate the week of March 23rd, and then falling to 20% of their initial response rate. This Virginia survey measured confirmed COVID-19 cases among dentists, dental hygienists, staff, and patients. It did not measure and track COVID-19 exposures or ask about testing of staff and/or patients. The state labor regulations related to the reporting of confirmed COVID-19 cases in the workplace were implemented at the very end of data collection; therefore, we were unable to measure confirmed transmission in the dental practice setting. There is also the limitation of self-reporting. Despite these limitations, this survey provides valuable information related to dental practices in Virginia and how they have responded to the evolving guidance for the COVID-19 pandemic, and how they mitigate risk of transmission in the dental office and provide access to quality oral health care for the communities we serve. Given these efforts of the dental profession, according the American Dental Association Health Policy Institute, fewer than 1% of dentists nationwide were estimated to be COVID-19 positive as of June 7, 2020.

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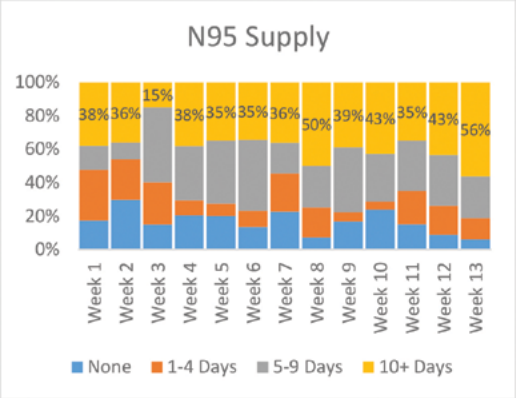
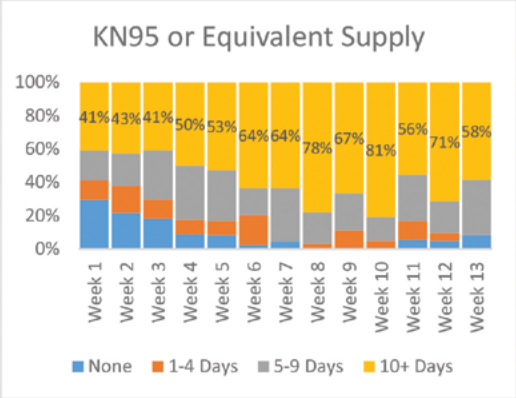
Table 3: Number of Reported Confirmed Cases of COVID-19 by Position

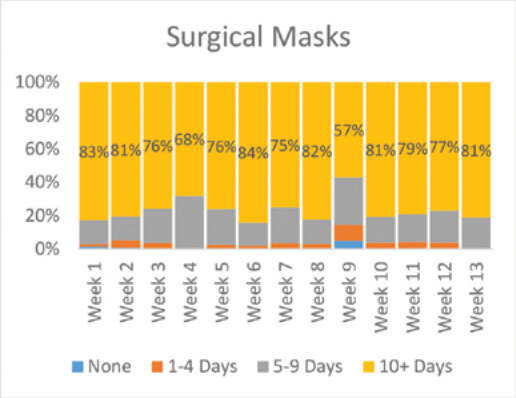
Week	Dentists	Hygienists	Dental Assistants	Hygiene Assistants	Admin Staff	Patients
May 11-May 16	0	0	1	10	0	3
May 18-May 23	0	1	2	10	0	3
May 25-May 30	0	0	1	0	0	3
June 1-June 6	0	1	2	0	0	0
June 8-June 13	0	0	0	0	0	2
June 15-June 20	0	0	0	0	0	4
June 22-June 27	0	0	0	0	0	1
June 29-July 4	0	10	0	0	0	0
July 6-July 11	0	0	0	0	1	1
July 13-July 18	0	1	1	1	1	5
July 20-July 25	0	10	0	0	0	5
July 27-August 1	0	0	0	0	0	2
August 3-August 8	0	0	0	0	0	0
Total Reported Cases	0	23	7	21	2	29

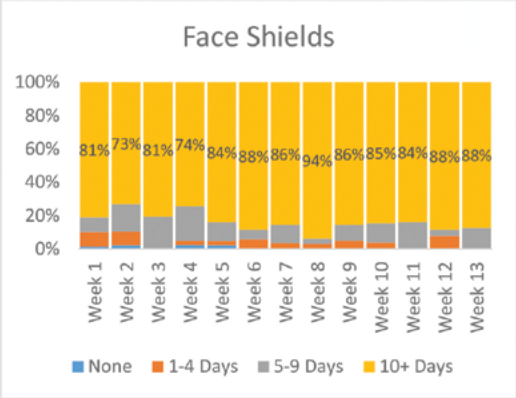
*A perceived data entry error of 706 patients reported positive in Week 4 (June 1-June 6) was removed from the data

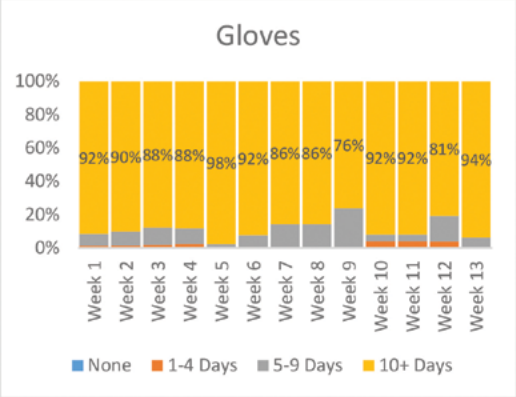
Figure 3: PPE Supply by Item and Week

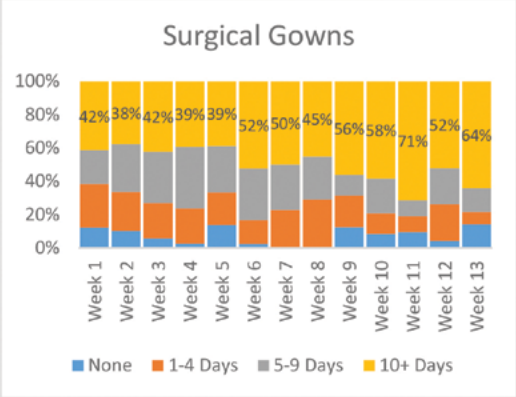












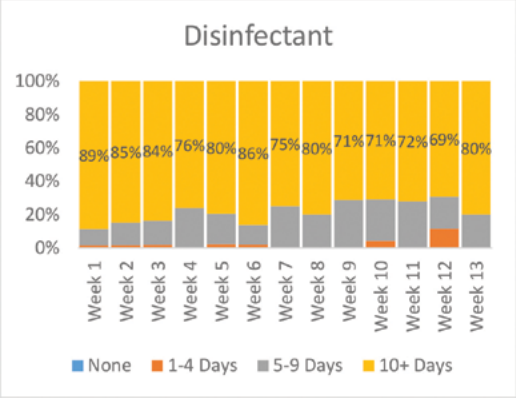
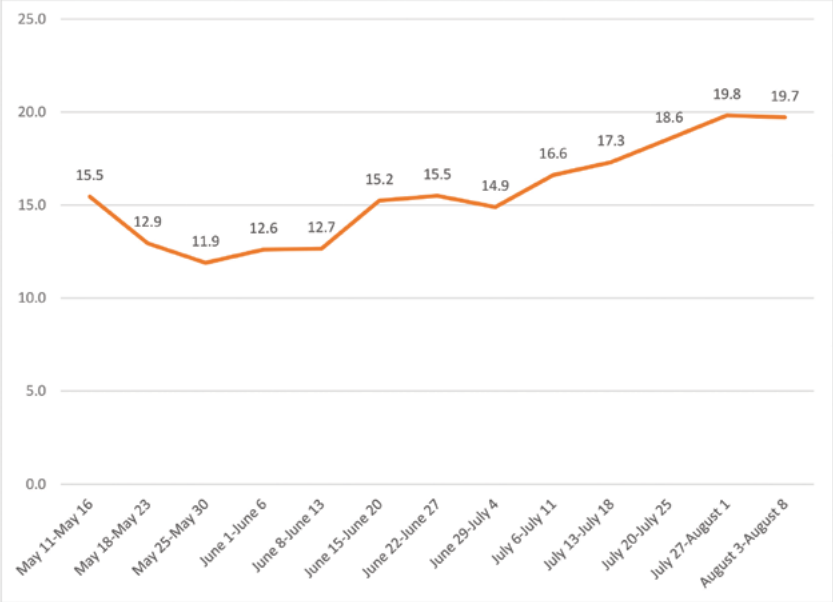


Figure 4: Estimated Trend in Patient Volume for 12-Week Study Period



*Patient volume estimated from repeated measures ANOVA model adjusting for repeated measures on practices

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Appendix: https://bit.ly/3oxvduk

The authors would like to thank the providers and their staff who participated in this survey over the 12 weeks. We would like to thank our research assistant Spiro Stilianoudakis for mapping the data. Funding to support the REDCap data collection platform is from VCU's CTSA grant (UL1TR002649).





2021 VIRGINIA MEETING

Virginia Dental ASSOCIATION

SAVE THE DATE

Registration opens
June 2021

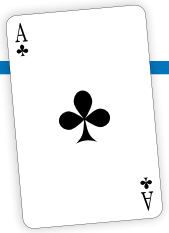
September 15-19, 2021
Williamsburg, VA | Williamsburg Lodge

THROUGH THE LOOKING GLASS

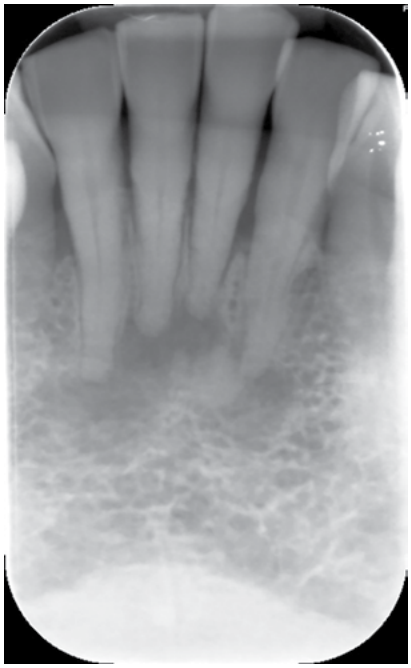
WITH DR. SARAH GLASS

EXPLORE THE FANTASTICAL WORLD OF ORAL PATHOLOGY

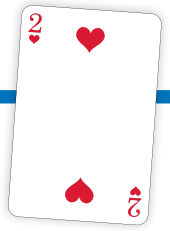
Virginia dentists know their oral pathology thanks to the charismatic Dr. John Svirsky and his years of pathology puzzles. He inspired me to pursue oral pathology, and in his honor, I would like to share my fantastical world of oral pathology with you.



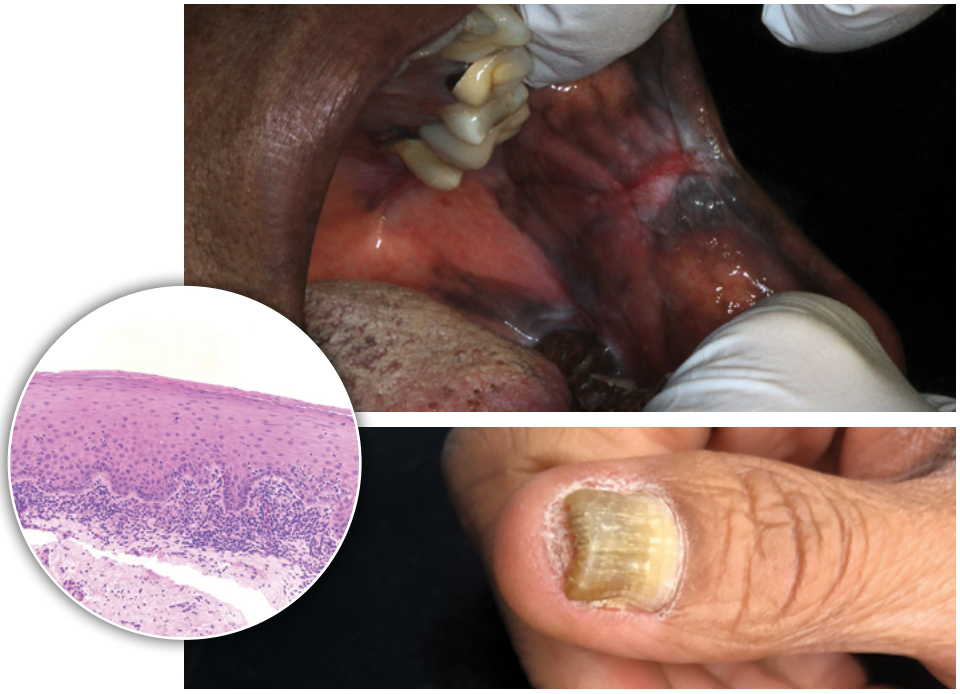
You notice an asymptomatic lesion on mandibular anterior periapical radiographs of a 45-year-old black female patient. All teeth test vital. What is your diagnosis?

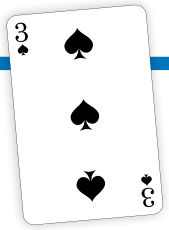


Editor's Note: Dr. Sarah Glass is a board certified Oral and Maxillofacial Pathologist. She works as an assistant professor at VCU School of Dentistry, and her job responsibilities include teaching, working in the biopsy service, and seeing oral medicine patients.

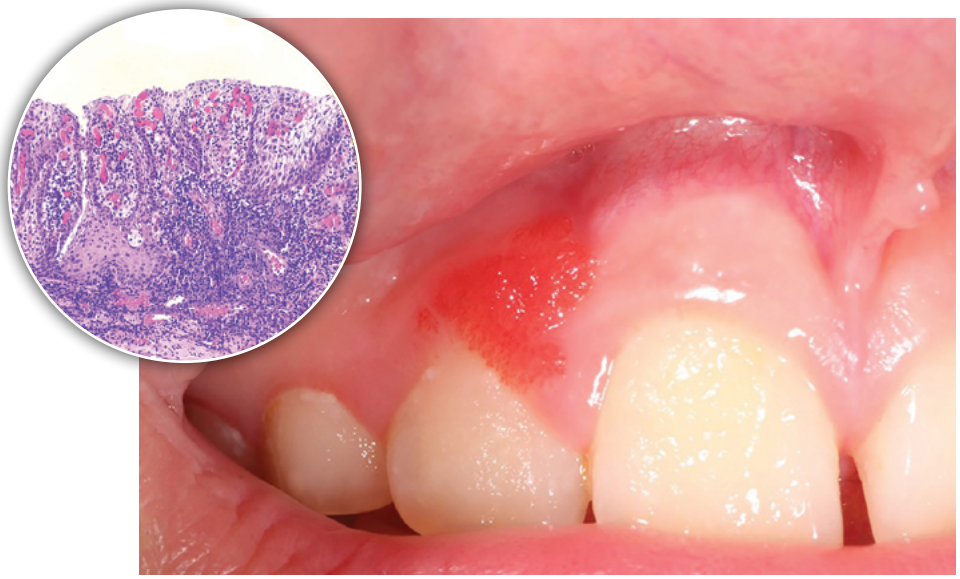


A 53-year-old black female presents in pain with generalized ulcerations. She states the brown color in her mouth is new. You also notice her nails have some unusual ridges. You perform an incisional biopsy and discover what?





A mom brings her 9-year-old daughter to see you. She is concerned about a bright red area on her daughter's gingiva. You try cleaning the area really well and review oral hygiene instruction. The lesion persists despite improved oral hygiene. What do you suspect is going on?



>> ANSWERS ON PAGE 32

ARE YOUR PRACTICE'S SOCIAL MEDIA ACCOUNTS SECURE?

Sean Ryan, VP of Media Relations at The Hodges Partnership

Social media can benefit your practice, from enhancing relationships with current patients to attracting new ones.

But engaging with patients and promoting your practice on Facebook, YouTube and Twitter, among other platforms, also can attract unwanted attention from unseemly characters.

According to the Protenus Breach Barometer, more than 41 million patient records in the healthcare sector were breached in 2019, up from 15 million in 2018 and 5.6 million in 2017. Each full health record breached for a medical practice, according to the 2019 IBM Ponemon Report, costs the organization on average *$429 per record*.

Dental practices have not been spared.

In 2019, two separate ransomware attacks on IT vendors working with dental practices affected about 200 practices. Granted, ransomware attacks and hackers infiltrating medical records are different from taking advantage of your social media channels. But there still is plenty of risk for exposure.

"Essentially, of all of the types of cyber security attacks, social media tends to be the least reported – except if they affect high profile people – and the hardest to track and remediate," said Karen Cole, CEO of Assura, Inc., a consulting firm based in Richmond that specializes in cybersecurity. "Hackers can use weaknesses in social media to attack a practice's brand and credibility or to obtain contact or patient information to target other victims, primarily for financial gain."

Cole said that it's important to understand how social media breaches are performed and the impact to the organization.

"We have seen compromised accounts allow hackers to divert followers, such as patients, to duplicate or other fake social media accounts in order to trick them into sharing protected health information that can be easily sold on the black market," she said. "Selling health data on the black market is big business."

Cole, who co-founded Assura, Inc., in 2007, shared the following tips to reduce the risk of social media cyber threats.

Never Share Social Media Administrator Accounts

While it may be simplest to have one account – with one username and one password – that can be problematic.

"Hackers can use weaknesses in social media to attack a practice's brand and credibility or to obtain contact or patient information to target other victims, primarily for financial gain."

Cole advises that each social media account administrator has their own account and that their access is immediately removed when they leave the organization or at least reviewed annually. If that's not possible, using social media

Karen Cole

aggregation platforms such as Hootsuite or Sprout Social, or a module built into a CRM/Customer Engagement platform, can allow users to post to multiple platforms at the same time and deliver a layer of abstraction between the people who are authorized to post and the actual social media accounts.

"We see many medical practices make this mistake when the practice administrator or a few key employees share the master account credentials to make it easier to post information," Cole said. "However, with more than one individual using the same account, it is easy for passwords to be compromised and for unauthorized individuals to gain access and very difficult to identify who was responsible for the breach."

Turn On Two-Factor Authentication

Sometimes called "two-step verification," this is an important and often forgotten step for each social media platform. Users are granted access only after presenting two or more pieces of evidence. Cole suggests using two-factor authentication with apps like Google Authenticator,

Microsoft Authenticator, Duo, Authy or others. She adds that text messaging as a second factor is better than nothing, but attackers have been known to social engineer mobile providers so that the text messages are redirected to a device that the attacker controls.

Having two-factor authentication could help prevent what Cole says is a very common occurrence: when disgruntled employees or customers gain access to the social media account.

"There have been numerous instances of compromise resulting in defaced social media pages or brand damaging messages sent to followers," Cole said. "This type of attack is further exacerbated when access information to the social media account is changed by the hacker forcing the practice to waste time and jump through hurdles on social media service platforms to prove who they are and to regain access to their own accounts."

Make Sure to Monitor Your Accounts

A simple but key ingredient is keeping a watchful eye on your social media accounts. That means to regularly look at the posts, the mentions and the comments rather than "set it and forget it." If anything looks off, you may be able to get ahead of it before your followers notice and start contacting your office, Cole said.

Social media can provide new, engaging and affordable ways to market your practice. Take the time to take the necessary precautions to avoid opening your practice to unwelcome guests.

Editor's Note: Sean Ryan is the VP of Media Relations at The Hodges Partnership, a strategic communications firm in Richmond.

KNOWLEDGE WITHOUT APPLICATION IS USELESS

Elizabeth Schroeder Craig

My father, Dr. Jim Schroeder, had a passion for the dental profession, growth, lifelong learning, and faith. This passion and commitment to living out the purpose driven life provided him with a firm foundation for his next chapter as the founder of Leadership by Design.

Leadership by Design provided eight years of adventure in dental practice transitions, team management, and leadership coaching. January marks a year since his passing. It was an honor to work by his side and a privilege to continue the work he began more than 30 years ago.

There were many "life lessons" my father enjoyed sharing with clients, family, students, and colleagues. One such lesson involves the importance of listening to (and acting upon) our inner wisdom and knowledge. His lectures at VCU School of Dentistry would often begin and end with the gentle reminder that "knowledge without application is useless."

The past year has certainly provided an abundance of opportunity to witness the impact of his influence on clients, family, students, and colleagues who have taken heed of his lessons. The challenges of the never-ending pandemic season required all of us to pull out our trusty (and likely somewhat, rusty) "toolbox" and apply tools in both creative and innovative ways.

Opportunities in the impossible

The extreme power exerted by forced disruption can also disguise great opportunity in the impossible. One of my father's greatest strengths was his ability to cultivate leaders and equip them with tools they would need to survive and thrive during difficult times of adversity.

He often stressed the importance of further developing our gifts and strengths, an essential component for maintaining a healthy foundation.

Amidst the chaos, many of you were able to exercise your greatest strengths and apply old (and new) tools in ways we never even thought possible. What I personally found most inspiring is the steadfast resilience, creative solutions, and positive outcomes that so many of our past and current clients achieved within their practices.

Legacies are what we leave behind

There is an undeniable bittersweet irony that following my father's passing in January 2020, all of us were required to access our full set of tools - and develop new ones. Legacies are what we leave behind - to family, friends, work colleagues, neighbors, communities, our history, belief systems and values, business practices, prejudices, name, reputation and teaching.

- *"Legacy is also exemplified by what others are like as a result of being led"*
- *"Legacy" is not about titles or positions (these do not "make" the leader), but credibility, influence, positive role modeling, passion, and integrity"*
  The Relevant Christian

I can't help thinking that a small part of my father's legacy was the many lessons that lie deep within our toolboxes. Thank you for sharing your stories and for including us in your past, present, and future transitions.

Editor's Note: Elizabeth Schroeder Craig is the owner of Leadership by Design – Practice Transitions. If you have questions regarding a practice transition, you can reach her by phone 804-787-4829 or email **elizabeth@lbdtransitions.com**. **www.lbdtransitions.com**

EXPANDING THE DENTAL WORKFORCE

Misty L. Mesimer; RDH, MSCH, CDA

Germanna Community College is pleased to share exciting news about its dental programs. GCC has hosted a partnership dental hygiene program with Northern Virginia Community College since 1998. In 2012, GCC began offering a certificate in dental assisting and within a few years expanded offerings to include duties identified as a Dental Assistant II by the Board of Dentistry.

Most recently, Germanna has been approved by the Virginia Community College System and State Council for Higher Education in Virginia to offer an Associate Degree in Dental Hygiene. The college continues to seek approvals from the Southern Association of Colleges and Schools Commission on Colleges and the ADA Commission on Dental Accreditation. GCC hopes to launch the new program in January 2022. They will no longer partner with Northern Virginia Community College but offer a standalone program where students can complete all recognized allied dental credentials within 3 years. Students who complete the dental assisting program can matriculate to the dental hygiene program where transfer credit from the dental assisting curriculum will free time to complete the DA II courses along with their hygiene curricula.

All of these exciting programs will coincide with the opening of a new dental clinic in the Frank and Nancy Turnage Health Science Building at the Locust Grove Campus and continued partnership with the Lloyd F. Moss Free Clinic.

Germanna Community College has supported close to 200 students becoming registered dental hygienists, 100 students becoming certified dental assistants, and an additional 30 to become Dental Assistant IIs. The college is proud to partner with the Lloyd F. Moss Free Clinic for space necessary to complete these educational programs. On average, this partnership provides $330,000 worth of free dental care to the community. The faculty and staff at Germanna believe in providing a quality workforce so that dentists can focus on the art and science of dentistry and providing the highest level of care to the citizens of the Commonwealth.

Germanna is one of the twenty-three community colleges in Virginia that comprise the Virginia Community College System. It is a two-year public institution of higher education established in 1970. As a comprehensive community college, Germanna provides quality, accessible, and affordable educational opportunities for the residents of the City of Fredericksburg and the counties of Caroline, Culpeper, King George, Madison, Orange, Spotsylvania and Stafford. The College is governed by policies set by the State Board for Community Colleges with support and advice from the Germanna Community College Board. Primary funding for the College is provided by the state, supplemented by contributions from seven counties and one city and by student tuition. As a public, comprehensive community college, Germanna provides accessible, high quality educational and training opportunities that address our communities diverse and changing learning needs.

For more interest in the programs, please contact Program Director, Misty L. Mesimer, RDH, MSCH, CDA at **mmesimer@germanna.edu** or 540-423-9823.

Editor's Note: Misty Mesimer is the Dental Assisting Program Director and Dental Hygiene Program Local Coordinator for Germanna Community College

DID YOU KNOW?

A SERIES FROM THE VIRGINIA BOARD OF DENTISTRY

Patient Records

Did you know that a patient's record cannot be withheld because the patient has an outstanding financial obligation?
18VAC60-21-90 (D) of the Regulations Governing the Practice of Dentistry.

Failing to Cooperate with an Investigation

Did you know that it is unprofessional practice for a dentist to commit any act that violates provisions of the Code that reasonably relate to the practice of dentistry, including but not limited to failing to cooperate with an employee of the Department of Health Professions in the conduct of an investigation or inspection?
§ 54.1-111.A (7) of the Code of Virginia and 18VAC60-21-70 (A) (5) of the Regulations Governing the Practice of Dentistry.

Continuing Education Required for Prescribers

Did you know any dentist who prescribes Schedules II, III, and IV controlled substances after April 24, 2017, shall obtain two hours of continuing education on pain management, which had to be taken by March 31, 2019? Thereafter, any dentist who prescribes Schedules II, III, and IV controlled substances shall obtain two hours of continuing education on pain management every two years. Continuing education hours required for prescribing of controlled substances may be included in the 15 hours required for renewal of licensure.
18VAC60-21-106 of the Regulations Governing the Practice of Dentistry.

Delegated Duties of a Dental Hygienist

Did you know duties delegated to a dental hygienist under indirect supervision shall only be performed when the dentist is present in the facility and examines the patient during the time services are being provided?
18VAC60-21-120 (D) of the Regulations Governing the Practice of Dentistry.

Definition of Moderate Sedation

Did you know "moderate sedation" means a drug-induced depression of consciousness, during which patients respond purposefully to verbal commands, either alone or accompanied by light tactile stimulation? Reflex withdrawal from a painful stimulus is not considered a purposeful response. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained.
18VAC60-21-10 (D) of the Regulations Governing the Practice of Dentistry.

VIRGINIA BOARD OF DENTISTRY NOTES

DECEMBER 11, 2020

Ursula Klostermyer, DDS, PhD

This meeting was held in a virtual format. During the time allotted for public comments, Dr. Richard Archer, Senior Associate Dean for Clinical Education at VCU, spoke about the differences of the regional board exams. ADEX is accepted in most states, including Delaware and New York.

Matthew Glans, from the American Academy of Dental Sleep Medicine (AADSM), had sent a letter for the public hearing that AADSM has put together some data and information, which is supposed to help dentists appropriately practice dental sleep medicine within their state's scope of practice of dentistry. AADSM would welcome the opportunity to work together with the Board to refine the information presented, which might be helpful for the Board and their work.

Dr. Thomas Elstner wrote a letter stating that he sees during the current COVID crisis the dental hygienists community in Virginia is not working to full expectations. He states that all dentists and hygienists should work to let the residents of Virginia receive the stellar care they have been accustomed to. For that, Dr. Elstner suggests a minimum time of practice each month or quarter to maintain their skills and the care for the citizens of Virginia.

Dr. Nathaniel Bryant reported from the American Board of Dental Examiners. The pass rate, when comparing the manikin or clinical patient exam style, is very similar in outcome. Multiple different teeth from all quadrants will be used so that the exam candidates cannot finagle, and the student will receive the teeth the day of the exam. Regarding the dental hygiene exam, there has been positive feedback on the scalable typodont hygienist exam, which is in the process of being developed. With the update of the exam, grading system studies show that the pass/fail rate is very similar from the former exam style. The ADEX exam is accepted in Virginia.

Dr. David Brown, Director of the Department of Health Professions, sent a report. The marijuana bills were being reviewed. Governor Northam recently legalized marijuana in the state of Virginia. The THC content is clearly much more potent than the marijuana used during the mid-century and end of last century.

Dr. Bryant gave an update regarding the Pfizer COVID vaccine. Emergency use authorization will be issued the week of December 14. Health providers, who are "central care providers", lifesaving care providers, and the elderly will benefit from it. CVS and Walgreens should go into the long term care facilities and distribute the vaccine. Dentists and hygienists do not count as central care providers and will not be first in line of distribution.

However, today (12/15/2020) the VDA reported that dentists and hygienists are included in the priority access group for the Coronavirus vaccine in Virginia!

https://www.vadental.org/news-details/2020/12/15/dentists-and-hygienists-to-be-included-in-priority-access-group-for-coronavirus-vaccine-in-virginia

Hanukkah just started, Christmas is close – depression and anxiety starts to rise in a good year during this time. This year an increase is to be expected. Dr. Bryant gave good advice to be aware of: take care of yourself and other people.

Ms. Elaine Yeatts, Senior Policy Analyst, reported that all of the regulatory actions are in the Governor's office awaiting answers.

She talked about the amendment allowing dentists to administer Botox and dermal fillers. There were plenty of comments on the BOD site in support, but also objections. Providers need appropriate additional training. It is a procedure that carries risk. Dr. Perry Jones commented that some people had a good point. For example, Dr. Robert Strauss writes that Botox is being injected extraorally and intraorally. Dr. Strauss feels that intraoral injections might be acceptable, but that general dentists might not be qualified to give extraoral injections. There may be legislation required, as general dentists should be educated and certified to administer Botox.

Dr. Bryant commented critically regarding the administration of Botox. What does this procedure entail? What could be possible complications in the clinical setting? Dr. Jamiah Dawson feels that the community is too busy with the ongoing pandemic crisis and that this topic should be taken up at a later point.

One board member asked if hygienists could administer Botox under supervision of a dentist. All board members feel that more research and information needs to be collected to make a final decision.

To save resources, the BOD suggests the petitioners, whether supporting or opposed, should submit more information such as training and certifications, and discuss their concerns more extensively in the comments section. They should include it in packages so that the BOD does not have to do more research on their own, using their resources wisely. After more information is submitted, the regulatory and legislative committee will get involved.

The adoption of amendments for the Board action on Practice by Public

>> CONTINUED ON PAGE 32

>> CONTINUED FROM PAGE 31

Health Dental Hygienists under remote supervision was concluded and the motion passed unanimously.

The proposed regulation on administration of sedation and anesthesia was discussed. This change suggests moving from a two-person monitoring team to a three-person monitoring team for the management of IV moderate conscious sedation. Members of the Board state that children are the most vulnerable during procedures like this. Maybe 3 people will be suggested for pedodontic patients while a 2 people team for adults would be acceptable. Moderate and minimal sedation has to be clearly stated.

The regulation states "…required staffing. At a minimum, there shall be a three-person treatment team for moderate sedation. The team shall include the operating dentist, one person to monitor the patient as provided in 18VAC60-21-260 K and one person to assist the operating dentist as provided in 18VAC600-21-260 J, all of whom shall be in the operatory with the patient throughout the dental procedure. If a dentist, an anesthesiologist, or a certified registered nurse anesthetist administers the drug as permitted in subsection A of this section, such person may monitor the patient. " The motion passed on a 9 to 1 vote.

Further it was discussed that the "monitoring of the patient undergoing deep sedation of general anesthesia is to begin prior to the administration of any drug and shall take place continually during the administration, the dental procedure, and recovery from anesthesia." The word "CONTINUALLY" could be from 30 seconds to 30 minutes and it was suggested to keep the accepted standard-of-care 5 minute interval. This should be written more exactly. The 5 minute rule should return in the requirement. The motion passed unanimously. It will be changed.

Regarding other topics of Board discussion and action, Board of Dentistry Executive Director Sandra Reen stated a guidance document should be developed to require the same content and scoring methods nationwide within the different testing agencies, because, as of now, a comparison is not easy as all the testing agencies are not comparable. The aim should be an equal content of the exams and a comparable scoring nationwide. The BOD will likely ask VCU School of Dentistry to assist with this topic. A motion was passed directing the Exam Committee to go deeper into the topic and place a timeframe regarding the ADA exam.

Dr. Augustus Petticolas mentioned in the bylaws guidance document 60-14 that in case of a catastrophic emergency, a plan would be necessary for these kind of disaster situations, as good communication is of the essence. Ms. Reen discussed the Policy on Recovery of Disciplinary costs and points to guidance document 60-17. Due to a solid financial situation of the Board, Ms. Reen suggests that disciplinary fees be reduced. This could be adjusted on a yearly basis.

The Disciplinary report and Executive Directors report were being postponed to the next meeting. The meeting was adjourned at 1:15pm.

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.

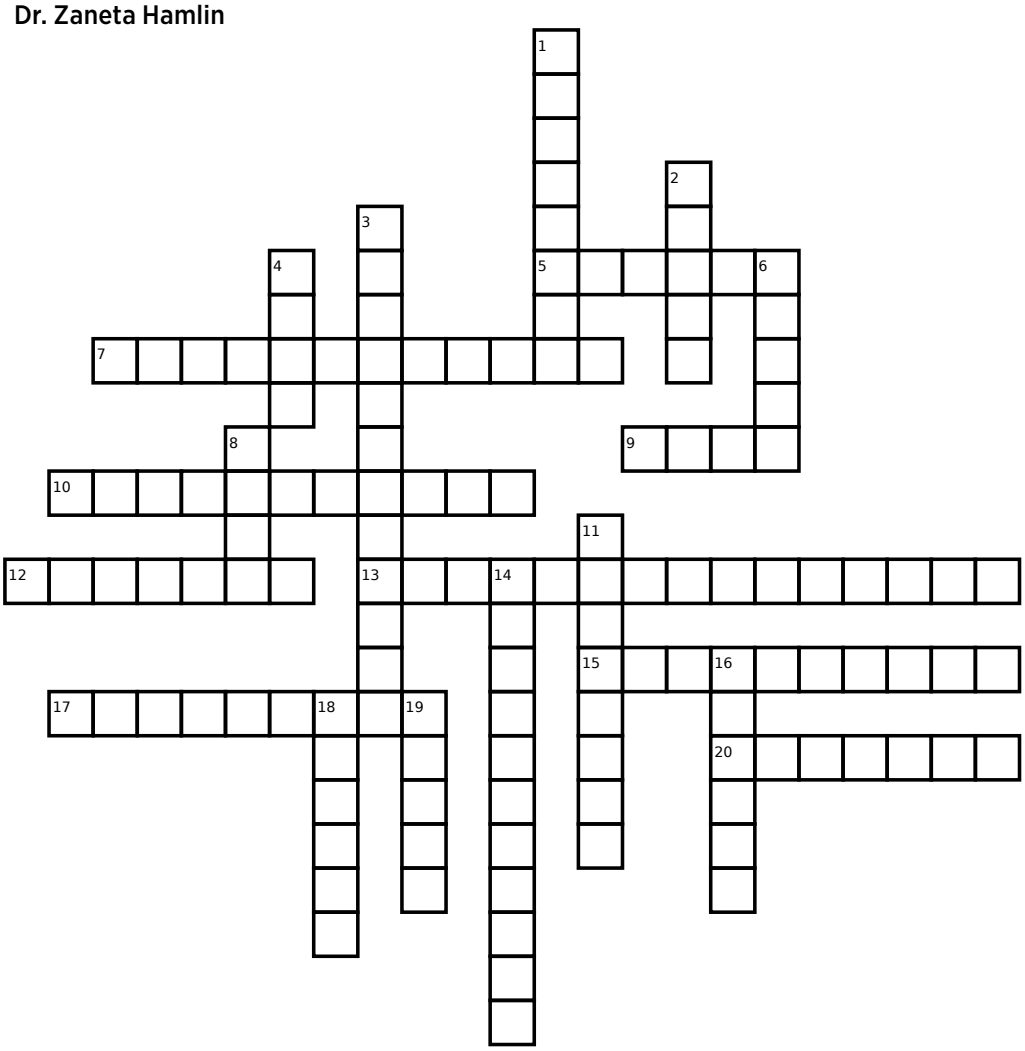
>> THROUGH THE LOOKING GLASS ANSWERS CONTINUED FROM PAGE 25

1. A diagnosis of **periapical cemento-osseous dysplasia** can be made on clinical and radiographic exam. This benign fibro-osseous lesion can mimic periapical pathology on initial presentation and evaluating tooth vitality is crucial. Over time, the lesions will become mixed then radiopaque. Take care to avoid surgical procedures in the sclerotic/ radiopaque stage due to an increased risk of osteomyelitis.
2. Your patient is diagnosed with **lichen planus** on biopsy of both the oral cavity and nails. In patients with darker skin, inflammation from lichen planus can cause post-inflammatory melanosis where the tissue becomes brown from melanin. Topical steroids can help manage this chronic condition.
3. This is a fairly recently described entity called **localized juvenile spongiotic gingival hyperplasia**, and it is not related to oral hygiene. An isolated, well-defined red lesion on the maxillary gingiva in a young patient is the most common presentation. There are reports of spontaneous regression.

DENTAL DETECTIVE SERIES

CROSSWORD

Dr. Zaneta Hamlin



DOWN

1. A primary molar is usually replaced with this
2. Netfix royal family series
3. Change in shape/appearance
4. Pinot _____
6. Number of divorces Ross had on “Friends”
8. Literally - just write YODA
11. Alex Trebek
14. Irrational aversion to being happy
16. William & Mary is the _____ oldest college in Country
18. Orthodontist, yogi, VDA
19. Number of US presidents from VA

ACROSS

5. Fracture of the midface
7. Bordered by James City County and York County
9. “And still, I _____”
10. Root end surgery
12. Mixture of metals used for fillings
13. 2020 Peoples Choice Award Style Icon
15. Virginia is also known as the “Mother of _____
17. Franklin County aka “_____ capital of the world”
20. Sean _____

>> ANSWERS ON PAGE 61

IF YOU CONTRIBUTE TOO MUCH TO A 401(K),

YOUR MONEY WILL BE CHEERFULLY REFUNDED

David J. Kupstas, FSA, EA, MSPA; Chief Actuary, ACG Worldwide

If your practice sponsors a 401(k)-retirement plan, your third-party administrator likely was in touch with you as 2020 ended to obtain data on your employees and contributions to the plan. One thing the TPA will be checking for is whether any employee contributed too much money to the plan from his or her paycheck. These contributions are known as "salary deferrals." If an employee deferred too much, a common fix is for the excess amount to be refunded to the employee.

What does "contributing too much" to a 401(k) plan mean? It could mean that the dollar limit on deferrals was exceeded. This is called an "excess deferral." On the other hand, an "excess contribution" occurs when the ADP test fails. The ADP test measures whether Highly Compensated Employees (HCEs) have deferred too much compared to Non-Highly Compensated Employees (NHCEs). Safe harbor 401(k) plans do not need an ADP test and therefore will not have excess contributions, but such plans could still have excess deferrals.

Excess Deferral Means Contributing More than the Dollar Limit

The calendar year 2020 limit on salary deferrals was $19,500 per employee. Employees age 50 and up could defer an extra $6,500 "catch-up contribution." There is not a separate $19,500 limit for each plan the employee participates in. Rather, an employee gets a single $19,500 limit to use in one plan or to spread out among all the 401(k) plans the employee is in.

Excess deferrals often occur when an employee works at more than one place in a year. Being unfamiliar with the rules, an employee might defer $10,000 into the 401(k) at your practice, then switch jobs and defer another $10,000. For that matter, the same thing could happen if the employee works at two places at once. Neither company has any way of knowing what the employee contributed at his other job. It is up to the employee to notify one company or the other (or both) of an excess deferral and the desire to correct it.

If the employee worked at only one place during the year and there was an excess deferral, it means someone was asleep at the switch. Most payroll systems should cut off an employee's deferrals when the limit is reached. If a payroll system is not being used, there is a greater risk of excess deferrals.

"Most payroll systems should cut off an employee's deferrals when the limit is reached. If a payroll system is not being used, there is a greater risk of excess deferrals."

The employee should notify a plan no later than March 1 following the calendar year for which the excess deferral was made. Withdrawal of the excess deferral must be made by April 15. The distribution must include earnings (either positive or negative). If the withdrawal is not made timely, the excess deferrals will be taxed twice – once in the year made and again in the year distributed.

Failed ADP Tests Give Rise to Excess Contributions

We will spare you all the details in this article of how the ADP test works. In a nutshell, an actual deferral ratio (ADR) is determined for all employees. The average of the ADRs for all of the HCEs and NHCEs, respectively, is called the actual deferral percentage (ADP) for that group. The ADP for the HCEs cannot be significantly higher than the ADP for the NHCEs.

Consider a plan under which the ADP for NHCEs is 6.00%. Under ADP test rules, the ADP for HCEs could be no more than two percentage points greater than the NHCE ADP, or 8.00%. Suppose the HCE ADP for a plan with two HCEs is 10.00%, as follows:

Participant	Pay	Deferral	ADR
Dr. Adams	$225,000	$18,000	8.00%
Dr. Baker	$150,000	$18,000	12.00%

Sum of ADRs	20.00%
Number of HCEs	2
ADP (ADRs ÷ # of HCEs)	10.00%

It is determined from running the ADP test that total excess contributions are $6,000. Adams and Baker deferred the same dollar amount ($18,000). Therefore, they will each be refunded $3,000 of the $6,000 total excess contributions. Suppose in another plan Dr. Charles had deferred $18,000, Dr. Davis had deferred $14,000, and there was $6,000 total to be refunded. Charles would receive a refund of $5,000 and Davis would receive $1,000 so that the deferrals for both would end up at $13,000.

If an employee age 50 or over has not already made $6,500 in catch-up

contributions, the amount owed as a refund may be treated as a catch-up contribution, eliminating the need for a physical refund.

In addition to the excess contribution itself, earnings on the excess contribution must be refunded.

Timing and Taxation of ADP Refunds

Refunds of excess contributions plus earnings must be made to HCEs within 12 months after the close of the plan year in which the excess contribution arose. The corrective distribution is included in the employee's income in the year the refund was issued. If the refund is made more than two-and-a-half months after the close of the plan year, a 10% excise tax is levied on the employer (not the employee).

In the typical plan operating on a calendar-year basis, two-and-a-half months after year end is March 15. Therefore, this is a very important date in the 401(k) world. In order to avoid penalties for late refunds, practices with 401(k) plans will want to respond to year-end data requests made by TPAs and recordkeepers well in advance of March 15.

ETHICS IN THE ERA OF COVID-19

A. Garrett Gouldin, D.D.S, M.S.

Tremendous weight has been put on the ADA Code of Ethics as the core guiding principles for ethical behavior within the field of dentistry - and rightfully so. The Code falls under the deontological or duty-based school of ethics, where the primary focus is adherence to moral duties and rules. But there are two other divisions of ethics to consider: consequentialist (teleological) ethics and virtue ethics. Consequentialist moral ethics focuses on the consequences your action may have, whereas virtue-based ethics focuses on the question of what kind of person you want to be, with integrity as a primary value. While our Code is solid, dentists may experience situations where two or more of the principles (patient autonomy, non-maleficence, beneficence, justice and veracity) are in conflict with one another, or even when circumstances require us to override a particular principle.

For example, it is not difficult to imagine a scenario when a patient decides on a treatment option that is inexpensive in the short term, but that is difficult for the dentist to accept because it is likely to be more costly for the patient in the long run, from a health and financial perspective. This presents an ethical dilemma due to the principles of patient autonomy (self-governance) and beneficence (do good) being at odds. Here, the dentist might depart from the Code and call to mind a more virtue-based approach, and decide to amplify his/her kindness and generosity character traits, taking additional time to explain the nuances of the treatment plan alternatives in an effort to ensure complete informed consent.

A non-dental example from contemporary bioethics involves an aspect of COVID-19 vaccine testing. Controlled Human Infection (CHI), otherwise known as human challenge studies, have been deemed ethical behavior, regardless of the risks the studies present to the participants. CHI is the deliberate exposure of healthy volunteers to SARSCoV2 to test a vaccine at a time when there is no definitive available treatment, but while there is a risk of serious illness or death. The recent consensus by a working group at the World Health Organization is that CHI is ethically acceptable if (1) the risks to participants are low and therefore acceptable, (2) the scientific quality of the research is high, (3) the research has high social value, (4) participants give full informed consent, and (5) there is fair selection of participants. All five conditions are necessary premises in the argument that such research is acceptable. In this instance, instead of relying solely on the universal rule of non-maleficence (do no harm), the deciding body seemed to turn to the consequentialist approach, perhaps asking, “Is my behavior making the world a better place?”

The ADA recently put forth a document entitled “Guidance on Continuing to Practice Ethically during COVID-19”. The document alludes to occasions when the five principles in our Code of Ethics may need to be superseded, especially during such unprecedented times as during a pandemic. Aristotelian ethics supports this idea that the best course of action depends highly on the details of a particular situation, rather than simply applying a rule or principle. This brand of wisdom is referred to as prudence. There is no ethical rule book, but by aligning our deontological ADA Code of Ethics and the five principles nested within, alongside the concepts of consequentialist and virtue ethics, we do have the tools to respond ethically, patient by patient.

Virginia Dental Association

Do you have a story to share with the media?

The VDA can help!

Has your office helped organize a charitable community event? Do you have a public health message that you'd like to get out in your community? Do you have an area of expertise you'd like to share when a member of the media is looking for an expert in your area?

The VDA can help. Elise Rupinski and Paul Logan have worked with the team at The Hodges Partnership to develop relationships with reporters around Virginia. We can help you with:

- Honing your personalized pitch to the news media
- Finding the right reporter or producer at the right outlet for your story
- Developing and providing background to reporters before your interview
- Anticipating what questions a reporter may ask
- Telling your story in a way that connects with the right audience
- Amplifying your news after it's published

Even if you don't have a story to pitch right now, if you have an area of interest and would like to be a local contact for media inquiries on oral health issues, go ahead and reach out to Elise and Paul at rupinski@vadental.org and logan@vadental.org.

YOUR VIEWS

Visit the dentist

During the pandemic, many of us have changed our usual behaviors, perhaps putting off trips, canceling kids' play dates or even pretending that our latest birthday didn't actually happen. There is one routine, however, that we should not risk suspending: regular visits to the dentist.

Oral health is as important as the well-being of the rest of our bodies. The health of our mouth is directly connected to the health of our heart, kidneys, lungs and brain. As a dentist for the past eight years, I am seeing the effects in my patients who put off their regular dental visits such as wear and tear on teeth, borne by these stressful times.

Dentists understand our obligations to the safety of patients, and we have instituted a variety of new protocols and procedures that keep offices clean and safe. Patients are screened days in advance and upon arrival. In deference to social distancing, we no longer have active waiting rooms. Our already detailed cleaning regimens have been enhanced, as has the use of personal protective equipment.

The reasons why you should regularly go to the dentist have not changed during the pandemic, in fact there are accelerated stress-related risks for patients. Once there's a reason to smile mask-free, let's make sure all of us are ready to do so.

Dr. Zaneta Hamlin, D.D.S., Norfolk

Dr. Zaneta Hamlin shared the importance of visiting the dentist during the pandemic in the Virginian-Pilot.

Dr. Sam Galstan described how the VDA is focused on training and educational opportunities for dentists to reduce opioid prescriptions in a 2019 interview with WRIC in Richmond.

Dr. Sarah Wilson discussed the dangers of e-cigarettes on WFXR-TV in the Roanoke market.

HELP US HELP YOU AND YOUR PRACTICE!

Laura Givens, VDA Director of Legislative and Public Policy

We need support from all VDA members to help in the effort to protect dentistry! **If you haven't already contributed to the VDA PAC for the 2021 year, please make your contribution today!** You can contribute when paying your VDA dues or contribute through the VDA website at **https://www.vadental.org/advocacy/vda-pac**. Contact Laura Givens at 804-523-2185 or **givens@vadental.org** for more information on how to become more involved in VDA PAC efforts. YOU can make a difference by effectively advocating for your profession!

We would like to thank all 2020 VDA PAC contributors for your generosity! Below are our highest-level contributors. Please visit **https://www.vadental.org/advocacy/vda-pac** to find a list of all contributors.

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Join the Tooth Party!

Advocate for Your Profession and Patients

2021 ISSUES THAT COULD AFFECT YOUR PRACTICE

Dr. Bruce Hutchison, VDA PAC Chair

The VDA Political Action Committee (VDA PAC) gives us the stature and access to effectively educate policymakers on oral health issues. It has traditionally been one of the strongest PACs in Virginia because our members recognize the importance of a legal and regulatory environment that allows them to focus on caring for their patients.

Every seat in the House of Delegates is up for election this year, along with the Governor, Lieutenant Governor and Attorney General.

"The VDA is your voice in Richmond, and every dentist in Virginia benefits from their advocacy. A healthy PAC is a key part of why the VDA has been seen as a serious, trusted voice in the legislature."

Our PAC contributions have dipped in recent years and are trending downwards, even as the threats to our profession are multiplying. These are just a few of the issues knocking on the door that could impact your practice:

Malpractice

Already for the 2021 session, Senator Bill Stanley has introduced legislation to eliminate the medical malpractice cap. The VDA has fought for this cap and will continue to do so, but needs a strong, fully funded PAC in order to be effective.

Scope of Practice

Well-funded national foundations are pouring millions of dollars into state campaigns that undermine a dentist's scope of practice, pushing for mid-level dental providers who would work independently of a licensed dentist. Some form of this type of practice is already allowed in 12 states and there are 20 states expected to have legislation on the issue in 2021. A strong PAC is needed to educate lawmakers in Virginia around patient safety implications related to changes like this.

Teledentistry

Direct-to-Consumer companies are using states as laboratories to explore new business models, seeking ways to bend the law and play by different rules than the standard of care that's required of licensed dentists in brick-and-mortar practices. In 2020, the VDA spearheaded a legislative effort to define teledentistry and give the Board of Dentistry purview over teledentistry, however, the fight is not over, and we must remain vigilant and protect patient safety as the tactics of these companies evolve.

Third Party Payers

Each of us individually does not have the platform to be able to effect change with third party payer policies, but the united voice of dentists can be a strong force for change. A healthy PAC can be the difference between policies that treat dentists fairly and streamline their interactions with third party payers or policies that allow them to come between dentists and their patients and drain time and resources from your practice.

Healthy Business Environment

Even as the VDA fought successfully for dentists to have access to additional relief at the federal and state level, most dentists in Virginia saw patient volume decline and expenses go up in 2020. The PAC is our strong voice with legislators to ensure they understand the impact their decisions have on the ability of oral health care providers to keep their doors open and provide essential dental care in their communities.

The VDA is your voice in Richmond, and every dentist in Virginia benefits from their advocacy. A healthy PAC is a key part of why the VDA has been seen as a serious, trusted voice with the legislature. When I receive my dues insert, I will be once again proudly marking my contribution to the VDA PAC, and I hope you will as well.

THE EFFECTIVENESS OF ELECTRONIC PULSED SOFT TISSUE VIBRATION COMPARED WITH TOPICAL ANAESTHESIA IN REDUCING THE PAIN OF INJECTION OF LOCAL ANAESTHETICS IN ADULTS: A RANDOMIZED CONTROLLED SPLIT-MOUTH CLINICAL TRIAL

Salma RG, Alsayeh A, et. al. Int J Oral Maxillofac Surg July 2020. doi: 10.1016/j.ijom.2020.07.010

Administration of local anesthesia is a critical step in performing any dentoalveolar procedure and tends to be a significant source of patient anxiety. Once effective analgesia is obtained, the majority of patients tend to tolerate treatment without issue. For optimizing patient care and subjective experience throughout the process of local administration, several techniques have been previously investigated. These include topical anesthetics, cryoanesthesia, laser treatment, TENS (transcutaneous electric nerve stimulation), tissue vibration, hypnosis, buffering local solutions, and nitrous oxide among others. As vibration devices have been minimally researched, this study aimed to compare pain during needle insertion and solution infiltration when using a vibration device as compared to topical anesthetic. A prospective randomized controlled clinical trial was performed on patients at the Riyadh Elm University Dental Hospital using a split-mouth design. All patients were 18 years of age or more, ASA class I, pain free, had received dental local anesthetic in the past, and were indicated for bilateral same-jaw posterior extractions. The patients underwent local injections with subsequent exodontia across two visits, one of which was performed after 2 minutes application of topical benzocaine, while the other side was administered with hand-held vibration device (DentalVibe) without topical. A total of 332 injections were given to 166 patients. Pain of penetration and mid-injection pain were measured using visualized analogue scale. Changes in heart rate during penetration and during injection were measured using pulse oximetry. Median pain scores were about 43% less at penetration and 67% less during infiltration with use of the vibration device compared to topical anesthesia. Heart rate change was 43% lower for insertion and 33% lower for injection with use of the vibration device. Stimulation of mechanoreceptors via vibration leads to transmission of signals through large Aβ fibers which may suppress afferent activity from small Aδ and C fibers responsible for transmission of pain as explained by the gate-control theory. Vibration devices may be an effective means to improve patient comfort during administration of local anesthesia.

Sean Eccles, DDS; Resident, Oral and Maxillofacial Surgery, VCU Medical Center

DENTAL IMPLANT PLACEMENT IN ALVEOLAR CLEFT PATIENTS: A RETROSPECTIVE COMPARATIVE STUDY ON CLINICAL AND AESTHETIC OUTCOMES

Alberga JM et al. Int J Oral Maxillofac Surg. 2020; 49(7): 952-959

The alveolar cleft patient is a unique type of patient for anyone in dentistry to treat. Their development and anatomy offer unique challenges for every specialty in dentistry. Alveolar clefts are typically reconstructed between the ages of 7-11 with autogenous bone graft, but an edentulous defect usually remains. The aim of this retrospective study was to assess clinical and aesthetic outcomes and patient satisfaction following implant placement in cleft patients. Patients were evaluated from a period of 2001 to 2016. Seventeen cleft patients were evaluated alongside 17 control non-cleft patients receiving implants at the same site. Controls that required bone grafting prior to implant placement were selected to match the operated site of cleft patients. Age could not be matched. After implant placement, the authors compared plaque index, bleeding index, probing pocket depth, marginal bone level changes, pink aesthetic score of gingiva and overall patient satisfaction with treatment. Of these values, only bleeding upon probing and presence of plaque occurred more >

EFFECTS OF LEUKOCYTE–PLATELET- RICH FIBRIN (L-PRF) IN DIFFERENT INTRAORAL BONE GRAFTING PROCEDURES: A SYSTEMATIC REVIEW

Dragonas P, Katsaros T, Avila-Ortiz G, Chambrone L, Schiavo JH, Palaiologou A. Int J Oral Maxillofac Surg. 2019; 48(2): 250-262

This systematic review aimed to assess the effects of leukocyte–platelet rich fibrin (L-PRF) on bone regeneration, soft tissue healing, and postoperative complications in patients undergoing bone grafting procedures including ridge preservation, ridge augmentation, and maxillary sinus augmentation procedures. L-PRF is composed of a dense fibrin scaffold that allows for the aggregation of platelets and leukocytes which release cytokines and growth factors involved in the healing process. L-PRF can be easily obtained in an office setting by centrifuging venous blood in a tube without anticoagulants, resulting in three distinct layers: red blood corpuscles at the bottom, an intermediate layer that represents the L-PRF, and platelet-poor plasma on top. L-PRF has gained wide scale use in an office setting due to its autologous nature, biological properties, ease of preparation, and low cost.

In vitro and animal studies have shown that L-PRF improves soft tissue wound healing by promoting angiogenesis and cell proliferation. L-PRF has been utilized widely in implant related procedures to enhance and accelerate tissue healing. It can be incorporated as a clot, mixed with a bone graft, or as a membrane. While some studies have shown that the addition of L-PRF in maxillary sinus augmentation and ridge preservation procedures accelerates new bone formation and reduces alveolar bone resorption, others have failed to report any significant gains in similar applications.

Based on the results included in this systematic review, the use PRF in extraction sockets was associated with a modest beneficial effect by decreasing alveolar ridge remodeling and postoperative pain when compared to natural healing. The addition of L-PRF to Demineralized Freeze-Dried Bone Allograft (DFDBA) was associated with more favorable results in terms of horizontal bone loss when compared to DFDBA alone following tooth extraction. In contrast, the use of L-PRF in maxillary sinus augmentation procedures was not associated with more favorable outcomes, and its use in ridge augmentation procedures could not be assessed adequately as the data was too varied. In terms of soft tissue healing, the use of L-PRF in post-extraction sockets of third molars was associated with favorable outcomes in terms of decreased postoperative inflammation and pain. A reduction in post-operative pain was also associated with L-PRF use in ridge preservation procedures. Despite the current common use of L-PRF as an autologous adjunct to bone grafting procedures, more randomized controlled studies are necessary to fully evaluate its efficacy.

Dr. Lauren Kaplan; Resident, Oral and Maxillofacial Surgery, VCU Medical Center

significantly in cleft patients (P=0.02 and P< 0.001 respectively). Implant survival rate as 95% in the cleft group and 100% in the non-cleft group. There was no significant difference in patient satisfaction or esthetics between the two groups either.

The authors found that overall, anterior implant placement in the site of repaired alveolar clefts can be quite successful with satisfactory aesthetics. They were surprised that there was poorer hygiene (e.g. higher plaque index) in cleft patients as this was not seen in similar studies. The authors believed that although gingival esthetics may be somewhat decreased in cleft patients, overall patient satisfaction was similar likely due to patient expectations. They found that cleft patients tended to have more realistic expectations due to the comprised baseline situation and were therefore satisfied even when esthetic outcomes were worse. Furthermore, due to soft tissue scarring of the lip, these patients typically had a lower smile line. The biggest limitation of this study was the small sample size. Despite the small sample size, this article makes a compelling case for implant therapy in the cleft patient. With proper planning, implant placement can be a rewarding experience for both the patient and the provider.

Dr. Michael McAdams; Resident,Oral and Maxillofacial Surgery, VCU Medical Center

BLEEDING RISK IN THROMBOCYTOPENIC PATIENTS AFTER DENTAL EXTRACTIONS: A RETROSPECTIVE SINGLE-CENTER STUDY

Sandhu S, Sankar V, Villa A. Oral Surg Oral Med Oral Path Oral Radiol. 2020; 129(5): 478-483

One of the most common complications after dental extractions is bleeding. Practitioners across the world must be cautious when treating patients with a past medical history significant for thrombocytopenia. If a patient has such history it is standard to evaluate a patient's platelet count prior to the procedure. The most common accepted platelet count threshold prior to dental extractions before prolonged bleeding is expected is 50,000/uL based off general surgery guidelines and expert opinions. This study was done to evaluate the risk of postoperative bleeding after dental extractions in patients with thrombocytopenia of moderate (50,000/uL-100,000/uL) and severe (≤50,000/uL) levels and to determine if prophylactic platelet transfusion helped avoid postoperative bleeding.

The study was performed as a retrospective cohort study to identify all patients with a platelet count ≤100,000/uL who underwent dental extraction in the Oral Medicine and Dentistry Clinic at Brigham and Women's Hospital from 2003 to 2019. A total of 89 patients were identified with moderate to severe thrombocytopenia undergoing dental extractions. Of note, the inclusion criteria also incorporated patients on anticoagulation with an INR within the effective therapeutic range. The outcomes were assessed by post-extraction bleeding complication that occurred 24-48 hours after the procedure. The bleeding complications were classified as minor if they required topical thrombin or topical anti-fibrinolytic agents such as aminocaproic acid 0.25 g/mL or tranexamic acid 0.1 g/mL to stop bleeding from extraction sites, and were classified as major if post-extraction platelet transfusion was needed for hemostasis. Only patients with a platelet count <30,000/uL received prophylactic pre-procedure platelet transfusion. Of the 89 patients, the median age was 56 years, 55% were male, 14 were smokers, and 21 alcohol users. The causes for thrombocytopenia were hematologic malignancy, metastatic solid tumors, hepatic disorders, iatrogenic, platelet disorders and congenital. The median number of extractions completed were 2 and they were performed with local anesthesia with 2% lidocaine with 1:100,000 epinephrine; sockets were packed with absorbable gelatin sponge and placement of resorbable sutures.

Post-extraction bleeding complications occurred in 4 patients (4.4%). Three patients had minor bleeding complications and one patient (1.1%) had a major bleeding complication. The platelet count at the time of extraction did not have a statistically significant result with a P=0.42. Patients who had surgical extractions were deemed at a higher risk of bleeding complications when compared to those who underwent simple extractions with a P<.01. Moreover, patients with multiple extractions (2 or more) were significantly associated with an increased risk of bleeding post-extraction with a P<.01 and prophylactic platelet transfusion was not associated with a decline in bleeding complication with a P=0.79.

The evidence provided by this study indicates that with atraumatic technique, post-extraction management of the socket by packing Gelfoam and suturing, good communication with the dental team, patient, and medical care team, extractions can be completed on patients successfully with moderate to severe thrombocytopenia without significant postoperative bleeding regardless of pre-operative platelet count.

Michael Theiss, DDS;
Resident,Oral and Maxillofacial Surgery, VCU Medical Center

SURGICAL OPTIONS IN OROANTRAL FISTULA MANAGEMENT: A NARRATIVE REVIEW

Parvini P et al. Int J Implant Dent. 2018; 27(4):40

A relatively common complication in extraction of maxillary molar and premolar teeth is the development of an oroantral fistula (OAF), defined as a pathological, abnormal communication between the oral cavity and the maxillary sinus. With these, the maxillary sinus is permanently open, allowing the oral flora to pass directly into the sinus causing inflammation. Proper management of OAFs is imperative in reducing potential comorbidities. Without treatment, fistulas often lead to chronic OAFs, which usually induce chronic inflammatory thickening of the sinus membrane. This abstract will discuss a few popular options commonly used that were highlighted in the narrative review text.

In managing closure of an OAF, the dentist must be able to assess his abilities and choose appropriate therapy accordingly. It is often better to implement simpler techniques suitable to the dentist's skill set than to involve more complex methods and put other structures at risk. Technique used for closure always depends on the indication as well as experience of the practitioner. Often in small OAFs less than 5mm, immediate closure implementing Gelfoam® with a figure eight suture can provide closure. If adequate closure cannot be obtained, alternative procedures are indicated.

One of the most common techniques used is the buccal advancement flap. The simplicity, reliability, and versatility of this design makes it suitable for many situations. Design of the flap starts with a broad based, trapezoid mucoperiosteal flap with two vertical releasing incisions. The flap can be advanced over the defect, often using horizontal periosteal incisions to increase flap coverage. Reapproximation of the flap with the vertical incision sites in combination with palatal tissues creates closure of the OAF. However, reduction in vestibular height takes place in many designs, making it difficult to wear a prosthesis in the future.

Palatal flaps can be suitable for larger defects, offering rich vascularization, excellent thickness, and easy accessibility. They are particularly well suited for late repair of OAFs. There are many different forms that are classified by thickness and by direction of movement. One example is the palatal mucoperiosteal rotation flap. In this design, the base of the flap should be broad enough to cover the defect and is usually performed lateral to the vascular supply 3mm apical to the marginal gingiva. The flap is raised anterior to posterior and rotated to cover the defect. Suturing with tension-free closure is very important in order to avoid compromising the vascular supply.

Another more involved, yet effective option to regenerate bone is the use of guided tissue regeneration. One example utilizes an absorbable gelatin membrane, an allogenic bone graft material, and a non-resorbable expanded polytetrafluorethylene (ePTFE) membrane. A flap is raised allowing placement of the gelatin membrane over the communication with its edges on bony margins. Allogenic bone graft material is put on the membrane, followed by placement of the ePTFE membrane. The flap is sutured to cover all components with mucosa. After 8 weeks, the ePTFE membrane is removed and the flap is replaced. This method allows for promotion of a selective cell population and subsequent regeneration of bone. The main disadvantage of this modality is the need for a second surgery to remove the ePTFE membrane.

Dr. Kipley Powell; Resident, Oral and Maxillofacial Surgery, VCU Medical Center

IDENTIFICATION OF SPECIFIC PANORAMIC HIGH-RISK SIGNS IN IMPACTED THIRD MOLAR CASES IN WHICH CONE BEAM COMPUTED TOMOGRAPHY CHANGES THE TREATMENT DECISION

Szalma J, Vajita L, Lovász BK, Kiss C, Soós B, Lempel E.. J Oral Maxillofacial Surg. 2020; 78(7): 1061-1070

Panoramic radiography (PR) and cone beam computed tomography (CBCT) provide information necessary to guiding treatment decisions in the management of impacted mandibular third molars. Signs which correlate with high risk of inferior alveolar nerve injury have been identified in both imaging modalities. PR imaging often serves as the screening tool of choice given the lesser degree of radiation and more ubiquitous availability. However, CBCT use has become increasingly prevalent as an imaging adjunct. Pre-operative identification of high-risk radiographic signs combines with literature reports and surgical experience to ultimately guide treatment selection between extraction versus coronectomy. The purpose of this study was to investigate how the use of CBCT imaging results in changes in treatment decision between extraction and coronectomy after initial treatment planning based on PR, and whether or not the amount or type of sectioning to be completed during extraction would be affected.

Ten surgeons initially analyzed 40 impacted third molars which were pre-selected to demonstrate at least one recognized high risk PR sign (darkening of the root, interruption of the white line, diversion of the inferior alveolar canal, narrowing of the inferior alveolar canal, or 2 or more signs occurring simultaneously (total of 400 treatment decisions). Treatment decision was theoretically determined between extraction and coronectomy, and type and extent of sectioning was estimated. The same 40 impacted third molars were then reviewed on CBCT imaging, and the same treatment decisions were repeated.

Extraction decision was unchanged in 289 of 400 treatment decisions, and the decision was modified from extraction to coronectomy in 19 cases. Conversely, coronectomy was modified to extraction in 53 cases and remained unchanged after CBCT analysis in 39 decisions. In total, 72 (19 + 53) of the 400 decisions changed after CBCT analysis. No significant changes were made regarding theoretical sectioning technique.

Overall, CBCT findings more often led to a decrease in coronectomy decisions (i.e. surgical plans for coronectomy based on PR risk factors were subsequently changed to extraction). While there is value in adjunctive CBCT imaging, this study demonstrates that even in impacted third molars with high-risk PR findings, CBCT use results in the decision to perform coronectomy rather than extraction only 4.75% of the time, and more often confirms the choice of extraction or alters the choice from coronectomy to extraction.

Christopher Ray, DDS; Resident, Oral and Maxillofacial Surgery, VCU Medical Center

MARGINAL BONE LOSS ONE YEAR AFTER IMPLANTATION: A SYSTEMATIC REVIEW OF DIFFERENT LOADING PROTOCOLS

Sommer M. Zimmerman J, Grize L, Stübinger S. Int J Oral Maxillofac Surg. 2020; 49(1): 121-134

The ability to restore areas of human tooth loss is one of the mainstays of dental treatment. There are many options in order to restore edentulous areas. The use of endosteal implants to restore edentulous spaces has become an increasingly popular treatment option. These can be placed as single tooth implants or can be used for retention of fixed and removable dentures. The marginal bone loss (MBL) is defined as the amount of bone loss immediately around the implant also known as peri-implant bone loss. Prevention of MBL is one of the most important factors in the success of prosthetic rehabilitation with implants. Increased MBL can lead to poor aesthetic outcomes and patient dissatisfaction as well as overall implant failure. For this reason, it is important to look at the factors that influence MBL.

The study aimed to compare different loading protocols and their influence on MBL. The loading protocols included were immediate, immediate non-occlusal, early, and conventional. The systematic review >

COMPARISON OF POSTOPERATIVE OUTCOMES BETWEEN ENVELOPE AND TRIANGULAR FLAPS AFTER MANDIBULAR THIRD MOLAR SURGERY: A SYSTEMATIC REVIEW AND META-ANALYSIS

Zhu J, Yuan X, Yan L, LI T, Zhang Y. J Oral Maxillofac Surg. 2020; 78(4): 515-527

Access to impacted third molars is crucial for a safe and successful extraction procedure to proceed. The two most common flap designs include the triangular flap and the envelope flap. This meta-analysis aimed to compare postoperative outcomes between envelope and triangular flaps following extraction of impacted third molars. The authors compared multiple variables associated with each flap design including procedure time, pain, trismus, alveolar osteitis incidence, wound dehiscence, and swelling. Eighteen studies were included all of which reported on complications during and following mandibular third molar extractions performed with use of either the triangular flap or envelope flap. Envelope flaps took less time to perform and were associated with less postoperative pain and trismus, however triangular flaps were associated with a decreased incidence of alveolar osteitis.

This study found that envelope flaps can save 1.23 minutes of operative time per site when compared with triangular flaps. Envelope flaps induce less soft tissue trauma, causing less inflammatory mediators to be released and therefore resulting in less postoperative pain. Triangular flaps resulted in a lower incidence of alveolar osteitis given the greater ability for primary closure. Although five studies reported on wound dehiscence, there were no significant differences between both flap designs. Outcomes for both flap designs were based on extraction of third molars classified as Gregory class A or B. Class C impactions, third molar impactions with the occlusal plane below the cervical line of the second molar, were not included in this meta-analysis. No significant differences were identified between both flap designs in regard to dehiscence and swelling. Limitations of this study include a small sample size, the inability to complete a bias assessment, and inconsistency in measurement of postoperative swelling.

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included 22 randomized control trials with inclusion criteria of follow up at one year after implant placement. Marginal bone loss was measured at one-year follow up with intraoral periapical radiographs. Immediate loading is defined as loading within 48 hours of implant placement. Early loading is defined as loading greater than 48 hours but earlier than 3 months after implant placement. Conventional loading is defined as implant loading any time after 3 months of implant placement.

The study found an estimated MBL of 0.390 mm for immediate non-occlusal loading, 0.457 mm for immediate loading, 0.488 for early loading, and 0.852 for conventional loading implant protocols. The conventional loading protocol showed significantly higher MBL than the other protocols. These results were deemed statistically significant. However, the values of MBL between conventional loading protocol and the other protocols are similar, thus it cannot be determined if the results are clinically relevant. There was not enough data to assess whether there was a relationship between MBL and the success rates of the implant prostheses. The conclusion drawn from this systematic review and meta-analysis is that the immediate loading protocol is a reasonable alternative to the conventional loading protocol with regards to outcomes 1 year after implant placement. The study leaves many avenues for further research on this topic. There is a need for randomized controlled trials, which compare these loading protocols with long-term follow up. It would be beneficial to develop studies that correlate the success and survival rates of implants and prostheses in order to reach clinically relevant conclusions.

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CLINICAL AND RADIOGRAPHIC OUTCOMES OF THE USE OF LOW-LEVEL LASER THERAPY IN VITAL PULP OF PRIMARY TEETH

Fernandes AP, Lourenço Neto N, Teixeira Marques NC, Silveira Moretti AB, Sakai VT, Cruvinel Silva T, Andrade Moreira Machado MA, Marchini Oliveira T. Int J Paediatr Dent. 2015; 25(2):144-50

Dental caries is considered the most common chronic disease among children worldwide and is a major public health issue. If dental caries in primary teeth are not treated in a timely manner, children may have premature tooth loss, which may lead to space loss, poor esthetics, phonetics or functional occlusion. When caries lead to exposure of the coronal pulp of primary teeth, vital pulp therapy is performed while the radicular pulp is still healthy in attempt to preserve the tooth. Formocresol has historically been considered the gold standard material for pulpotomies for the past 60 years due to its ease of application, fixative ability, and bactericidal action. However, formocresol is known to have adverse effects including carcinogenicity, mutagenicity, and cytotoxicity.

Low-level laser therapy (LLLT) is being researched as a new alternative pulp therapy treatment. LLLT exerts anti-inflammatory action by boosting collagen synthesis, reducing inflammatory exudation, and enhancing revascularization and epithelization. LLLT additionally provides pain relief and increases the pain threshold by increasing endorphins and decreasing bradykinin. However, there a few previous studies on the effects of LLLT on pulp therapy and more clinical trials are needed to determine if LLLT is an alternative to formocresol. The main purpose of this study was to compare clinical and radiographic success rates of LLLT and formocresol being used for pulpotomies on primary molar teeth.

The study design was a split-mouth, randomized, controlled clinical trial. The study included 5-8-year olds with at least two bilateral carious primary molars that were indicated for pulpotomy. The children were well behaved with positive Frankl behavior and did not have any medical conditions that would contradict pulp therapy. The teeth that were selected had to have vital pulp tissue and restorable crowns. Any tooth with a fistula, pulp degeneration, swelling, pain or mobility were excluded. 50 children were screened and 36 of them met the criteria for a total of 106 teeth. The selected teeth were randomly selected for LLLT group or formocresol group. The same pediatric dentist who recruited the children performed all of the pulpotomies. Laser irradiation was set to manufacturer instructions and consisted of an irradiation time of 40 seconds rotated over the pulp stumps during application of each tooth. For the formocresol group, a cotton pellet soaked in 1:5 dilution of formocresol was placed on the pulp stumps for five minutes. The pulp chambers in each tooth of both groups was filled with zinc oxide-eugenol and restored with a stainless steel crown. A postoperative radiograph was taken following completion of procedures. All children were recalled after 6-12 months for clinical and radiographic assessment.

The 6 month follow up consisted of 51 teeth in each of the LLLT and formocresol groups available for both radiographic and clinical examination. Both groups had a 98 percent success rate following examination. Radiographic success rates were 100 percent for the LLLT group and 98 percent for the formocresol group. Ultimately, there was no significant difference between each of the groups. For the 12 month follow up 51 teeth were still available for radiographic and clinical examination. At the 12 month follow up there was no significant differences between the LLLT and formecresol groups, however, there was a decrease in clinical success for both groups to 96.1 percent.

Although the mechanism is not well known, LLLT has shown to be successful in multiple applications, including pulpotomy procedures. LLLT technology facilitates a devitalization reaction through biomodulation on dental pulp cell development, reactional dentin biostimulation, and a less-intense inflammatory process. When LLLT is applied to the dentin pulp interface following tooth preparation, there appears to be regeneration of dental structure, reduction in hypersensitivity to dentin, and elimination of pain caused by dental procedures. While formocresol has also shown to promote a similar devitalization cycle, there are unfavorable histological responses in the remaining radicular pulp when using formocresol and formocresol usually leads to premature exfoliation. Additional studies need to be performed in order to determine if LLLT has similar premature exfoliation of primary molars. Differences in outcomes of LLLT between studies has been shown to be attributed to differences in laser parameters. In the present study LLLT was used at 810nm wavelength, 4J energy, and 40 second application time under continuous mode. While LLLT showed successful results, this study's findings do not support that LLLT is better than formocresol pulpotomies. Further studies are necessary with longer follow up periods of greater than 12 months and larger sample sizes are needed before LLLT can be definitively determined equivalent or more successful alternative to formocresol pulpotomies.

Dr. Andrew Crowell; VCU Pediatric Dentistry Resident

CLINICAL COMPARISON OF THREE ESTHETIC FULL-COVERAGE RESTORATIONS IN PRIMARY MAXILLARY INCISORS AT 12 MONTHS

Gill A, Garcia M, An SW, Scott JA, Seminario AL. Pediatr Dent 2020; 42(5):367-72.

Early childhood caries is one of the most prevalent diseases present in 18 to 36-month-old children. Treatment for this age group generally involves stabilization, sedation, or general anesthesia. Parents are increasingly becoming more aware of esthetics, and because of this they are asking for tooth-colored restorations. There are several tooth-colored restorative options, specifically for primary incisors, and each has strengths and weaknesses. The three tooth-colored restorative options outlined in this article are composite strip crowns (CSCs), preveneered stainless steel crowns (PVSSCs) and zirconia crowns (ZC). CSCs are technique sensitive and practitioners have difficulty controlling hemorrhage and saliva. However, they have multiple shade selections, making them especially esthetic, and they can fit in a crowded dentition. PVSSCs tend to be less sensitive to hemorrhage or saliva affecting the resistance, retention or color of the crown and less chair time is needed. The difficulties with PVSSCs include greater tooth reduction, compromised ability to fit into crowded dentition, and fracture of the inflexible resin veneer. Finally, ZCs have proven to be successful due to durability, strength, bio-compatibility, and color stability. Zirconia crowns are difficult due to the crown preparation because of the inability to crimp the crown margins for mechanical retention, and compromised ability to fit in crowded dentition.

The goal of this randomized controlled trial was to compare the 12-month clinical outcomes and parental satisfaction of composite strip crowns, preveneered stainless steel crowns and zirconia crowns for treatment of primary maxillary incisors. The patients were recruited from a university pediatric dental clinic between the years 2015 and 2017. The criteria for patient recruitment included healthy patients (ASA 1), aged five years or younger, and in need of at least one preformed crown on the anterior primary teeth undergoing general anesthesia for treatment and 76 children initially met these criteria. Four pediatric dentists were calibrated on tooth preparation and crown placement of PVSSCs and ZCs though an online training as well as a hands-on training. The four pediatric dentists performed CSC preparation and placement according to standard of care at the university clinic.

The crown variables assessed in the study were: crown fit assessment, proximal contact, color, retention, facing integrity, marginal adaptation and gingival status. The failures were recorded according to the presence of secondary caries as detected visually, trauma as recalled by parents, and pulp pathology as detected clinically and radiographically. Parental satisfaction was assessed using a questionnaire that asked parents to rate the overall appearance of their child's teeth as very satisfied, somewhat satisfied, somewhat dissatisfied and very dissatisfied. Parents assessed shape, color, alignment, spacing, crowding of teeth and/or speckled/irregular appearance. The data was entered into RedCap for analysis. Forty-seven children (135 teeth) were enrolled into the study at baseline. There was a significant difference between primary anterior crown types for color, retention, facing integrity and marginal adaptation. CSC presented with the lowest clinical success rate for these clinical outcomes. Facing integrity was found to be the highest for zirconia crowns, followed by preveneered stainless steel crowns and composite strip crowns. PVSSCs and ZCs both have high retention rates, 100 percent and 95 percent, respectively. CSCs had a higher rate of gingival inflammation than PVSSCs and ZCs. Regarding parental satisfaction, the dissatisfied parents were most concerned with the color of crowns, specifically of PVSSCs and CSCs. This study concluded that all crowns were clinically acceptable at 12 months, zirconia crowns and preveneered stainless steel crowns had better color, retention, facing integrity, and marginal adaptation than composite strip crowns at 12 months and parental satisfaction was high with PVSSCs, ZCs and CSCs with the main concern being color.

Dr. Kathryn Dundervill; VCU Pediatric Dentistry Resident

DOES ACHIEVEMENT OF HEMOSTASIS AFTER PULP EXPOSURE PROVIDE AN ACCURATE ASSESSMENT OF PULP INFLAMMATION?

Mutluay M, Arikan V, Sari S, Kisa U. Pediatr Dent. 2018; 40(1) 37-42

There have been considerable published articles that show radiographic findings, sensitivity tests, and clinical signs are not reliable information sources to determine pulpal status. Furthermore, there is no quantitative marker for primary molar pulp inflammation. The literature has also suggested that bleeding at the exposure site indicates pulpal disease processes, making it a good marker to evaluate pulpal status. Other researchers dismiss the exposure site as a valid predictor, saying that only the bleeding at the site of amputation should be considered. The purpose of this study was to determine whether hemostasis at the exposure site mirrored the inflammatory status of the pulp at the level of the canal orifice in primary molars with carious exposures. This was accomplished by measuring cytokine levels (IL-1B, IL-2, IL-6, IL-8, IL-10, TNF-a, and PGE2) using Enzyme Linked-Immuno-Sorbent Assays (ELISA) at all sites where samples were collected. The null hypothesis is cytokine levels at the exposure site were not different from cytokine levels at the canal orifices.

Cytokines are small polypeptides that are released and secreted by leucocytes and other inflammatory cells. They are known to play an important role in not only the intensity but also the duration of the immune response. In human teeth, cytokines are released in the inflammation process of both healthy and infected pulps, thus the question of using cytokines markers to diagnose pulpal pathological status as been raised. To assess these markers at the exposure site, a blood sample was collected by placing a sterile cotton pellet on the site for 45 seconds. Group A were those primary molars that achieved hemostasis at the exposure site within 5 minutes, and group B were those primary molars in which hemostasis could not be achieved at the exposure site within 5 minutes. Each groups A and B, both had 20 primary mandibular molars as their sample size (a total of 40 primary mandibular molar teeth), all of which could achieve hemostasis at the canal orifices. The next step was to assess the inflammatory cytokine markers at the canal orifices. To accomplish this, access to the pulp chamber with coronal pulp removal was achieved, and a sterile cotton pellet was placed in the pulp chamber adjacent to all canal orifices for 45 seconds. Teeth that could not achieve hemostasis were excluded from the study.

The results showed IL-6 levels at the exposure sites were significantly higher in Group A when compared to Group B. However, there were no statistically significant levels in any of the other cytokines at the exposure sites. IL-6 causes an upregulation of adhesion molecules and induces angiogenesis's, which in turn, leads to an increase in vascular permeability with inflammatory edema. Therefore, the ability to achieve hemostasis at the exposure site (Group A) in teeth with higher levels of IL-6 could be explained by the chronic inflammation of the coronal pulp in these teeth. The results also showed no significant differences in the levels of cytokines at the canal orifice level between groups A and B, along with no good correlation of cytokine levels at the exposure sites and at the canal orifices. These results indicate there is no direct relationship between bleeding at the exposure site with the pathologic status of the pulp tissues at the level of the canal orifice.

In conclusion, the results of this study refute the notion that hemostasis at the exposure site should be used when deciding a pulpotomy indication and that using it as criterion for diagnosing during vital pulp amputation and direct pulp capping can be misleading. Furthermore, based on the results from this study it can also be suggested that carious exposed primary molars, where hemostasis cannot be achieved, can have healthy radicular pulps and may be suitable for a vital pulpotomy.

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ORAL HEALTH-RELATED QUALITY OF LIFE IN PRESCHOOL CHILDREN AFTER SILVER DIAMINE FLUORIDE VERSUS ATRAUMATIC RESTORATIVE TREATMENTS

Rodrigues GF et al. Pediatr Dent. 2020; 42(5)373-379

In this study, the oral health related quality of life (OHRQoL) was compared and measured before and after silver diamine fluoride treatment and atraumatic restorative treatment in preschool children. Using the Early Childhood Oral Health Impact Scale (ECOHIS), the impact of oral problems on preschool children can be assessed. Silver diamine fluoride (SDF) is a noninvasive cariostatic agent for caries management. It is a treatment option for young children as it can stop the progression of caries and only needs to be applied with a microbrush. SDF does darken the lesion, so the guardian does need to be advised before treatment. Atraumatic restorative treatment (ART) is a minimally invasive treatment that requires no rotary instruments or anesthesia remove the decayed tissue and then seals the cavity with high viscosity glass ionomer cement.

This was a randomized controlled clinical trial that included children aged two to five that were in good health and had at least one primary molar with caries to the dentin on the occlusal surface. These children were all patients at the Federal University of Rio de Janerio Pediatric Dentistry Clinic. In order to examine children for the decayed, missing, or filled primary tooth (dmft) index, examiners were calibrated on both theoretical and practical levels. They were first showed clinical photographs and then evaluated children who were not participants of the study. To assess the OHRQoL, guardians were interviewed by trained interviewers before treatment at the baseline appointment (T1), 15 days after treatment (T2) and three months after treatment (T3). All interviews were face to face, except for T2, which was completed via telephone. The validated B-ECOHIS questionnaire was used for interviewing and contained thirteen questions. Guardians answered with a numbering scale that correlated with how often they felt something. Zero equals never, one equals rarely, two equals sometimes, three equals often, four equals very often, and five equals I don't know. So, the higher the score, the greater the negative impact on OHRQoL. Children were then randomly allocated to either SDF group or ART. The data was entered into SPSS Statistics 24.0 Software for analysis.

Overall, 118 preschoolers with a mean age of 3.54±1.01 years old. Both the SDF and ART groups had 59 participants each. Before treatment all guardians answered the questionnaire. After 15 days at T2, 118 answered and after three months (T3) 11 guardians answered. Most guardians that answered were usually the participant's mother and most of the time they had a level of education above primary school II. The dmft of all preschoolers was 6.39±3.53, and the SDF group was 6.32±3.62 and the ART group was 6.46±3.46. In addition, 58.5% had anterior tooth decay. At baseline (T1), the total B-ECOHIS did not vary between girls and boys or between children younger or older than four years. At T1, the more prevalent impact was that of upset parents (33.3%), guilty parents (42.6%), and pain in the teeth, mouth or jaw (18.5%). After treatment, fewer of these impacts were reported in T2 and T3. In the analysis of repeated measures, both SDF and Art showed a reduction in the total values of B-ECOHIS, considering all evaluated time points. This significant decrease in total B-ECOHIS, indicates a positive impact on OHRQoL. Both types of treatment showed an improvement in OHRQoL in the short term, but there was no data supporting that one was better than the other in terms of B-ECOHIS values. Even with the darkening of SDF, it was not a factor that directly affects the quality of life of preschoolers. When the authors analyzed all the three points of time in the study, there was no statically significant differences concerning the family function in the SDF group, however in the ART group there was a significant reduction. Both treatment groups positively impacted OHRQoL without any differences between them, however the instrumentation used in this study was unable to effectively measure subtle differences.

This study is relevant for clinical use when treating preschool aged children. Both SDF and ART both improved the quality of life of these children. This shows the importance of doing treatment on children, even if they are unable to cooperate for full operative procedures. If a child is too young to cooperate, non-invasive procedures such as SDF and ART should be considered to stop caries progression, improve their quality of life, and maintain their caries until they can cooperate and properly be treated.

Dr. Jennifer Levine; VCU Pediatric Dentistry Resident

MANAGEMENT OF AFTER-HOURS PEDIATRIC DENTAL EMERGENCIES AMONG PEDIATRIC AND GENERAL DENTISTS

Brecher EA, Keels MA, Best AM, Quiñonez RB, Roberts MW. Pediatr Dent. 2020; 40(5): 352-358

Management of dental emergencies after-hours often leads to high costs in the emergency department and questionable prognosis due to limited access to care. There are very few situations in dentistry that require the use of an emergency department. Emergency departments nationally are overburdened and do not have the equipment and personnel to treat dental emergencies that could be better treated in a dental office. A patient's dental home holds a great responsibility of providing guidance and resources regarding dental trauma. Although the International Association of Dental Traumatology and the American Association of Pediatric Dentistry outline accessible guidelines, protocols relating to management of after-hours dental emergencies vary depending on the practice nation-wide.

The goal of this article was to assess how pediatric dentists and general dentists handle these situations after-hours, depending on perceived urgency and factors that led to their perception of the emergencies in North Carolina. All pediatric dentists and general dentists with an active license to practice in North Carolina received a survey electronically assessing their protocols for dental emergencies for pediatric patients. The participants included practitioners who treated children under 12 years old. The study did not include full-time faculty members, Indian Health Service dentists, residents, military, retired, or locum tenens dentists. The study characterized practitioners based on whether they were pediatric dentists or general practitioners, gender, type of practice (solo, group, public health), years of experience, location, volume of patients per day, and number of after-hours cases. Participants answered questions about how they would manage 18 emergency cases.

A total of 821 general practitioners and 82 pediatric dentists in North Carolina met the inclusion/exclusion criteria and completed the entire survey. In summary, the participants believed that 9% of the emergency cases required referrals to the emergency department, 56% of the cases should be seen by the dentists the same day of the incident, and 35% of the cases could be deferred with proper guidance. General dentists had a higher tendency of referring to the emergency department than pediatric dentists. General dentists also deferred less treatment compared to pediatric dentists. Dentists with less than 5 years of experience referred to the emergency department more frequently than those with more experience. Practitioners with a greater volume of pediatric patients per day tended to defer more treatment. There was also a significant difference in urgency depending on the type of dentition (primary vs. permanent). General dentists perceived injuries to the primary dentition as more urgent compared to pediatric dentists; however, there was no significant difference of perceived urgency of permanent dentition.

The evidence gathered by Brecher et. al. highlights the fact that the participating pediatric dentists and general dentists manage dental emergencies in the pediatric population differently. This is especially true when managing injuries to the primary dentition. Additionally, practitioners with more experience and greater volume of daily pediatric patients were more comfortable deferring treatment compared to those with less years of experience or less exposure to pediatric patients. This article references a previous survey study that showed only 33% of general dentists felt well equipped to treat children through their clinical training. Pediatric dentists rely greatly on general dentists to feel comfortable and be prepared to manage pediatric patients due to the large disproportion of specialists compared to general practitioners. It is critical that all practitioners who commit to the care of pediatric patients obtain adequate training in dental emergencies to ensure the well-being of the patients and reduce the burden in emergency departments.

Dr. Laura Satoski; VCU Pediatric Dentistry Resident

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Robbie Schureman, VDA Foundation President

Since being created by the VDA in 1996, the Virginia Dental Association Foundation (VDAF) has typically served thousands of patients annually through its key programs – Mission of Mercy (MOM), Donated Dental Services (DDS), and Give Kids A Smile. Through the support of the VDA and its members, our ability to help care for those in need across Virginia has grown exponentially.

As a long-time member of the VDAF's Board of Directors, it is my great honor in 2020 to now serve as its President. For over 20 years, the VDAF has sponsored programs to provide free dental care to low-income Virginians who have no other means of accessing necessary dental treatment. Thanks to numerous supporters and the tireless efforts of hundreds of VDA members, the VDAF has been able to serve over 72,000 Virginians since its inception through its core Mission of Mercy (MOM) and Donated Dental Services (DDS) programs alone.

In 2020, our free dental outreach programs are more important than ever. Data from several sources show a dramatic increase in the number of households struggling merely to put enough food on the table. Nearly 26 million adults — 12 percent of all adults in the country — reported that their household sometimes or often didn't have enough to eat in the last seven days, according to Census Bureau's Household Pulse Survey data collected November 11–23. And given that cost is the primary reason most adults give for not visiting a dentist, the barriers to dental care are only growing more insurmountable for many Virginians during the pandemic.

To help meet this growing need, the VDAF has doubled down with our efforts to provide free comprehensive care through Donated Dental Services (DDS) and began offering smaller mini-MOM clinics while our larger, traditional MOM projects are on hold due to public health concerns. We have also continued our work with partners to offer continuing education for dental providers in treating Individuals with Special Health Care Needs – pivoting to a new virtual platform.

We commend the VDA for its incredible response to the pandemic and its support of the dental community during this challenging year. The VDA's leadership led the way in recommending the closure of regular operations at the beginning of the pandemic, fought for accessibility of PPE for its members, provided expert legal and other guidance to members navigating murky waters, and much more. We at the VDA Foundation are proud to be a part of the larger VDA family.

The VDAF could not offer the life-changing dental care it does without the donated services of VDA member dentists. And we know that this opportunity to share their talents with those in need is incredibly important to our gifted and generous volunteers. It is this very partnership between our two organizations that is our most significant bond – and one that offers us the opportunity to enable Virginia's most vulnerable citizens to become healthier and happier.

However, the Foundation's ability to continue meeting the needs of the vulnerable Virginians who rely on us has been limited by the constraints of the current public health emergency. We have pivoted to meet the need in new ways, but our core programs are funded almost entirely by restricted grants. In order to be able to offer new programs to meet our communities' changing needs and to build a more sustainable financial base, the VDAF has begun an effort to cultivate more individual donors through a monthly giving program: **the Smile Sustainers Circle.**

On behalf of the VDAF and its Board of Directors, **we ask that each member of the VDA consider supporting our dental outreach programs by becoming a monthly donor.** In this way, even members who are unable to volunteer to care for the underserved through the MOM or DDS programs will also be able to participate in changing lives throughout the Commonwealth. And if we are not there to help, who will?

If we can add 100 new monthly donors who give $50 per month by May 1, this would create a total of $5,000 per month in new revenue for the VDAF's charitable programs.

Please join us and monthly donors like Dr. Carrington Crawford by pledging to become a monthly donor today. A monthly donation of $25, $50 or more can make life-changing but otherwise costly dental care available to those who would not otherwise be able to access it. Visit **https://www.vdaf.org/donors.html** and make your pledge today, and thank you.

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ABINGDON RESIDENCY PROGRAM REVAMPS MOM, TACKLES ACCESS

Richard F. Roadcap, DDS; Editor

Four residents. Eight operatories. And, perhaps, the first bricks-and-mortar effort to add practicing dentists in the counties that lie west of Roanoke and Martinsville. Since 2000 a number of universities have looked at increasing the dentist-population ratio in Southwest Virginia, which is one-half that of the rest of the state. Virginia Tech, VCU, the University of Virginia, and most recently, Bluefield College have all made proposals for addressing the access-to-dental care problem that persists and increasing the dental workforce there. None came to fruition. In an area with a shortage of jobs, and an excess of chronic illnesses, the traditional dental education model has not provided doctors to communities in need.

The Appalachian Highlands Community Dental Center opened this year with its first three AEGD residents. Additionally, a fourth resident is assigned to South Holston Dental Designs, located midway between Abingdon and Bristol on US 11. Sponsored by Ballad Health's Johnston Memorial Hospital, the recent dental graduates were drawn from three different dental degree programs. Drs. David Marshall, Sarah Bach, Kayla Ramplin, and Daniel Kuyk are gaining clinical expertise and academic training, while providing dental care to uninsured residents of southwest Virginia. Dr. Marshall attended VCU, Drs. Bach and Ramplin the University of Maryland, and Dr. Kuyk received his dental degree from the University of Alabama – Birmingham. JMH's residency program is the first Commission on Dental Accreditation (CODA) approved program to receive initial accreditation in the US that uses a private practice as its primary training site. Residents rotate between Dr. Scott Miller's office (South Holston Dental Designs), and the clinic on Campus Drive in Abingdon. Although AHCDC is, according to its mission statement, a "safety net" clinic, the entire spectrum of general practice procedures will be offered to patients.

As a non-profit 501(c)3 healthcare facility, fundraising is essential to its mission and sustainability. Mission Dental Virginia was created as a non-profit corporation for the purpose of providing charitable dental services for the uninsured and underserved residents of the area.[1] Donors can support the clinic financially or with gifts-in-kind through MDV. The hospital's charitable arm, Ballad Health Foundation, supported the clinic this year with a $41,000 donation made possible with local fundraising events. Also, the Virginia Healthcare Foundation gave $50,000 for the purchase of dental equipment. A fundraiser scheduled for May of this year fell victim to COVID-19 restrictions and was rescheduled to 2021.

Pandemic concerns also led to the cancellation of 2020's scheduled Mission of Mercy projects, including a project in Franklin and the Special Olympics in Richmond. Large gatherings created a great risk of SARS-CoV-2 transmission. In October, AHCDC hosted a three day "Mini-Mission of Mercy" limited to oral surgery procedures. Beginning Thursday October 22, patients arrived at the clinic and were processed at three stations: COVID-19 screening, health history screening, and dental triage. Once a (surgery) treatment plan was presented, patients were admitted one at a time through the back door. A panoramic radiograph was taken of each patient, and the patient assigned to a resident for treatment. Thanks to a generous corporate donor, a Vatech Cone Beam CT was available if a three-dimensional image was necessary. Clinic faculty was on hand to supervise treatment, and patients were discharged through the front door by way of an empty waiting room. Treatment continued all day Friday (October 23) and again on Saturday morning.

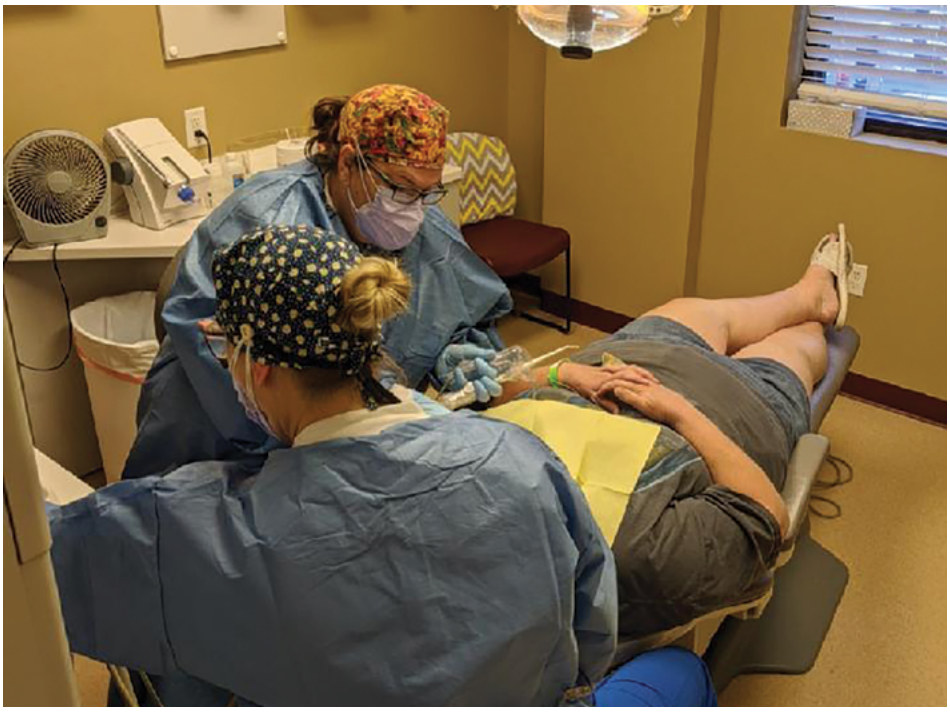
> ***"The local dental community has stepped up to support the clinic and a number of local dentists donate their time and talents in the residents' education."***

Organizers had hoped to treat at least 100 patients, and by mid-day Saturday 115 had received oral surgery care. More than 360 extractions were performed, and nearly $100,000 in free dental care was delivered in the two- and half-day project. The local dental community has stepped up to support the clinic and a number of local dentists donate their time and talents in the residents' education. Five dentists participated in their first MOM project this October, and five local dentists serve as faculty at AHCDC.

The protocol for this project may serve as a template for future MOMs in an environment where aerosols must be contained. The risk of COVID-19 transmission may preclude arena-style events in the near future, but this year's Abingdon project demonstrates how dental care delivery to the underserved in a community can take place.

The clinic draws its inspiration, in part, from The Foundry Dental Center[2] in Bessemer, Alabama. Foundry Clinic Director and founder Michael McCracken, DDS, PhD, has been instrumental in advising the start-up of AHCDC. The Alabama dental clinic also trains AEGD residents and acts as a safety net clinic, focused on providing dental care for the uninsured and patients in recovery from substance abuse. Dr. McCracken also serves as faculty at AHCDC. This model of education banks on the efforts to integrate dental residents into the community in the hope that they will establish practices in underserved areas, like southwest Virginia.

Since its inception in 2000, the Missions of Mercy has never intended that charity would serve as an answer for communities like Abingdon (or Franklin) as they seek to improve access to dental care. Instead, its hope was for each locale to develop a sustainable model of dental care delivery that would thrive after the last volunteer heads home. Appalachian Highlands Community Dental Clinic seeks to recruit new dental graduates and provide them with the clinical proficiency and business acumen that will allow them to prosper, and place dentists in communities in great need.



References:

1. **https://www.balladhealth.org/news/dental-center-receives-grant-funding-prepares-grand-opening**
2. **https://www.foundrydentalcenter.com/**

Virginia Dental ASSOCIATION

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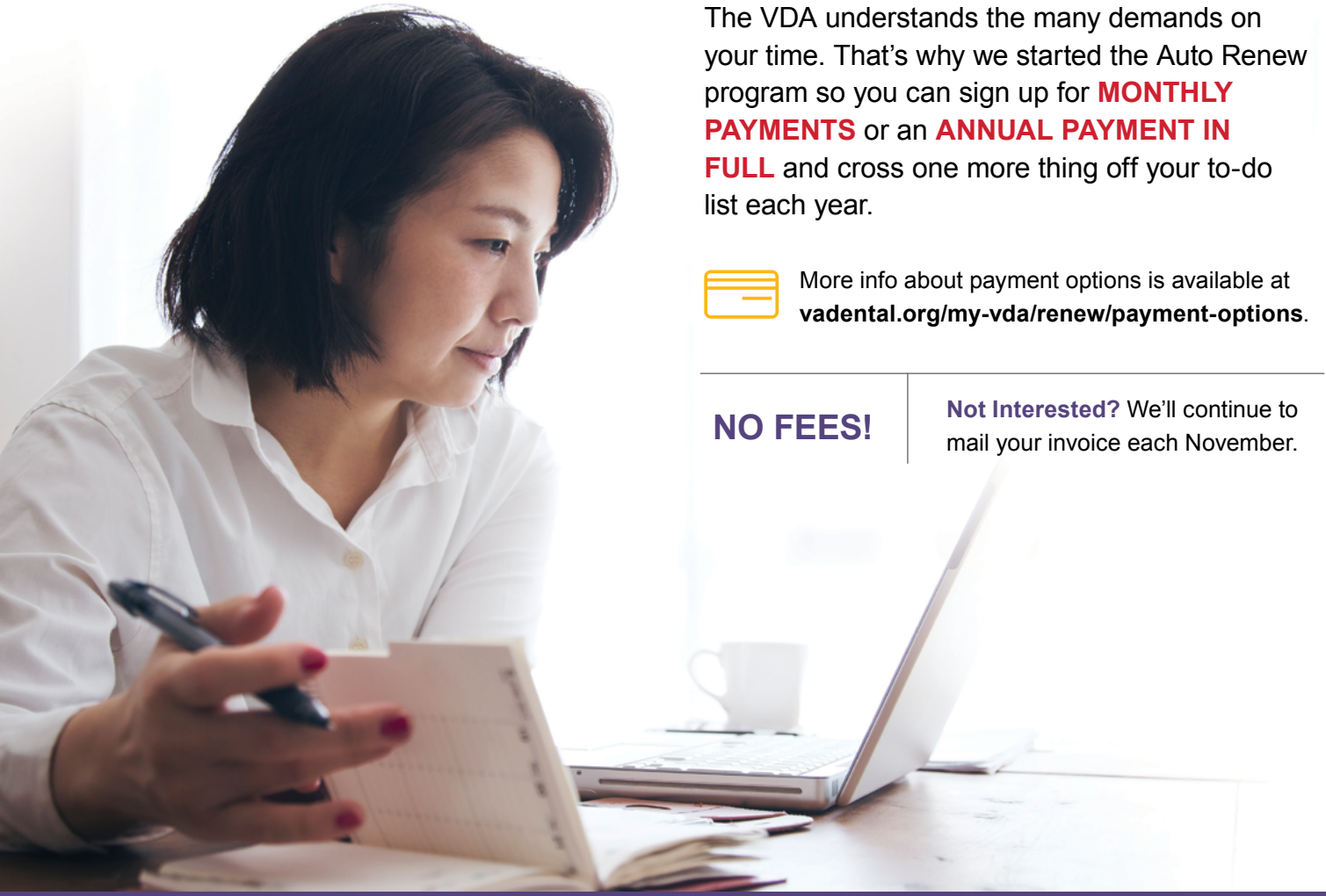

The VDA understands the many demands on your time. That's why we started the Auto Renew program so you can sign up for **MONTHLY PAYMENTS** or an **ANNUAL PAYMENT IN FULL** and cross one more thing off your to-do list each year.

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Virginia Dental Association

DR. C. SHARONE WARD

Leadership Award

Virginia Dental Association

DR. ERIKA A. ANDERSON

Presidential Citation

Virginia Dental Association

DR. WILLIAM V. DOUGHERTY, III

Presidential Citation

Virginia Dental Association

DR. FRANK P. IUORNO

Presidential Citation

Virginia Dental Association

DR. KIRK M. NORBO

Presidential Citation

Virginia Dental Association

MR. JIM SHANNON

Special Service Award

Virginia Dental Association

WELCOME NEW MEMBERS

THROUGH DECEMBER 1, 2020

Tidewater DENTAL ASSOCIATION

Dr. Roberto Aleman-Cordero – Prince William – Tufts University School of Dental Medicine 2020

Dr. Grace Choe – Norfolk – Medical University of South Carolina James B. Edwards College of Dental Medicine 2019

Dr. Kerin Gustafson – Virginia Beach – Boston University Goldman School of Dental Medicine 2020

Dr. Priscilla Johnson – Chesapeake – University of Michigan School of Dentistry 2013

Dr. Anderson Miller – Chesapeake – University of Maryland Dental School Baltimore College of Dentistry 2020

Dr. Christopher Maroon – Norfolk – New York University College of Dentistry 2018

Dr. Ross Rosenblatt – Norfolk – University of Pennsylvania School of Dental Medicine 2018

Dr. Ross Savage – Norfolk – University of Louisville School of Dentistry 2016

Dr. Arthur Shinder – Virginia Beach – New York University College of Dentistry 2020

Dr. Matthew Sorey – Chesapeake – University of Maryland Dental School Baltimore College of Dental Surgery 2019

Dr. Richard Sweeney – Suffolk – University of North Carolina School of Dentistry 2008

Peninsula DENTAL SOCIETY

Dr. Bekim Cela – Chesapeake – University of Connecticut School of Dental Medicine 2019

Southside DENTAL SOCIETY

Dr. John'e Epps – North Chesterfield – Meharry Medical College School of Dentistry 2006

Dr. Gale Jones – Chester – Howard University College of Dentistry 1987

Richmond DENTAL SOCIETY

Dr. Taibah Albaker – Richmond – Virginia Commonwealth University School of Dentistry 2021

Dr. Virginia Behlen-Lucas – Richmond – University of Alabama School of Dentistry 2020

Dr. Lacey Blackwell – Richmond – Virginia Commonwealth University School of Dentistry 2020

Dr. Khanh Dao – Henrico – Virginia Commonwealth University School of Dentistry 2020

Dr. Cody Emeigh – Fredericksburg – Midwestern University College of Dental Medicine, Illinois 2018

Dr. Nicholas Lynch – Richmond – Indiana University School of Dentistry 2020

Dr. Anthony Milanez – Richmond – University of Oklahoma College of Dentistry 1998

Dr. Jaime Patel – Richmond – New York University College of Dentistry 2019

Dr. Mitul Patel – Midlothian – Medical College of Georgia School of Dentistry 2020

Dr. Mariyam Shah – Glen Allen – University of Texas Health Science Center at San Antonio 2020

Dr. David Smiley – Richmond – Oregon Health Science University School of Dentistry 2020

Dr. Nathan Sprenger – Richmond – University of Colorado Denver School of Dental Medicine 2010

Dr. Ashley Thomas – Richmond – Virginia Commonwealth University School of Dentistry 2020

Piedmont DENTAL SOCIETY

Dr. Priyanka Dutt – Roanoke – New York University College of Dentistry 2014

Southwest Virginia DENTAL SOCIETY

Dr. Maha Khan – Blacksburg – Virginia Commonwealth University School of Dentistry 2020

Dr. Cory Kuyk – Bristol – University of Alabama School of Dentistry 2020

Dr. Ravi Lingineni – Christiansburg – University of Southern California 2017

Shenandoah Valley DENTAL ASSOCIATION

Dr. Christine Baker – Stephens City – University of Detroit-Mercy School of Dentistry 2009

Dr. Christopher Whynott – Ruckersville – University of Tennessee HSC College of Dentistry 2001

Northern Virginia DENTAL SOCIETY

Dr. Yousuf Al-Aboosi – Fredericksburg – Virginia Commonwealth University School of Dentistry 2016

Dr. Hanin Al-Rubai – Arlington – University of Maryland School of Dentistry 2020

Dr. Mehran Ariani – Fairfax – Howard University College of Dentistry 1994

Dr. Sarah Bach – Abingdon – University of Maryland Dental School, Baltimore College of Dental Surgery 2020

Dr. Ideen Bagha – McLean – New York University College of Dentistry 2020

Dr. Geovanny Balderas – Prince William – University of Pennsylvania School of Dental Medicine 2019

Dr. Hoyoung Choi – Prince William – Case Western Reserve University School of Dental Medicine 2011

Dr. Shahroz Daud – Woodbridge – Temple University The Maurice H Kornberg School of Dentistry 2020

Dr. Breanna Donald – Leesburg – University of Pennsylvania School of Dental Medicine 2016

Dr. Vishal Gohel – Alexandria – Boston University Goldman School of Dental Medicine 2017

Dr. Christopher Guirduis – Loudoun – University of Pittsburgh School of Dental Medicine 2020

Dr. Brittany Henderson – Springfield – Virginia Commonwealth University School of Dentistry 2019

Dr. Fariya Kahn – Fairfax – University of California at San Francisco School of Dentistry 2018

Dr. Mahmood Mahmood – Fredericksburg – Florida Institute for Advanced Dental Education 2020

Dr. Kirubeal Mulugeta – Arlington – Temple University The Maruice H Kornberg School of Dentistry 2020

Dr. Anusha Nagapuri – Herndon – State University of New York at Buffalo School of Dental Medicine 2020

Dr. Sana Nasir – Fairfax – New York University College of Dentistry 2018

Dr. Lyla Nassimi – Leesburg – Indiana University School of Dentistry 2020

Dr. Cynthia Park – Loudoun – New York University College of Dentistry 2018

Dr. Tarunashri Purihella – Vienna – University of Tennessee HSC College of Dentistry 2020

Dr. Veronica Ramirez – Arlington – University of Illinois at Chicago College of Dentistry 2020

Dr. Karoline Seekford – Leesburg – Virginia Commonwealth University School of Dentistry 2018

Dr. Vandana Sethi – Alexandria – Massachusetts – Berkshire Medical Center 2018

Dr. Meysam Shayegh – Roanoke – Howard University College of Dentistry 2020

Dr. Isaac Taddessee – Fairfax – Meharry Medical College School of Dentistry 2018

Dr. Nour Tellawi – Alexandria – University of Pennsylvania School of Dental Medicine 2020

Dr. Erica Vetter – Fairfax – University of Kentucky College of Dentistry 2020

Dr. Samuel Wolfe – Falls Church – Creighton University School of Dentistry 2019

IN MEMORIAM: DR. RONALD G. DOWNEY

Diedre Terlep, DDS

The Shenandoah Valley mourns the loss of retired member dentist and MCV graduate Dr. Ronald Gayle Downey, who passed away November 1, 2020 following a long illness. Dr. Downey practiced in Lexington for many years alongside his colleague and friend, Dr. Clay Devening who recalls, “He and I worked at building a team, as a priority, for being able to serve our patients to our very best. We felt our team was so helpful for our patient’s understanding of health and feeling of comfort.”

Dr. Downey was also a past-president and longtime board member of the Shenandoah Valley Dental Association. Past-president Dr. Alan J. Bream remembers Dr. Downey fondly as a person highly motivated in promoting quality dentistry, generosity, and kindness. “In my opinion, he was responsible for the reinvigoration of the SVDA into the VDA. He was generous to a fault and his dedication to the betterment of the profession is a gift to all of us as dental providers. He will be greatly missed.”

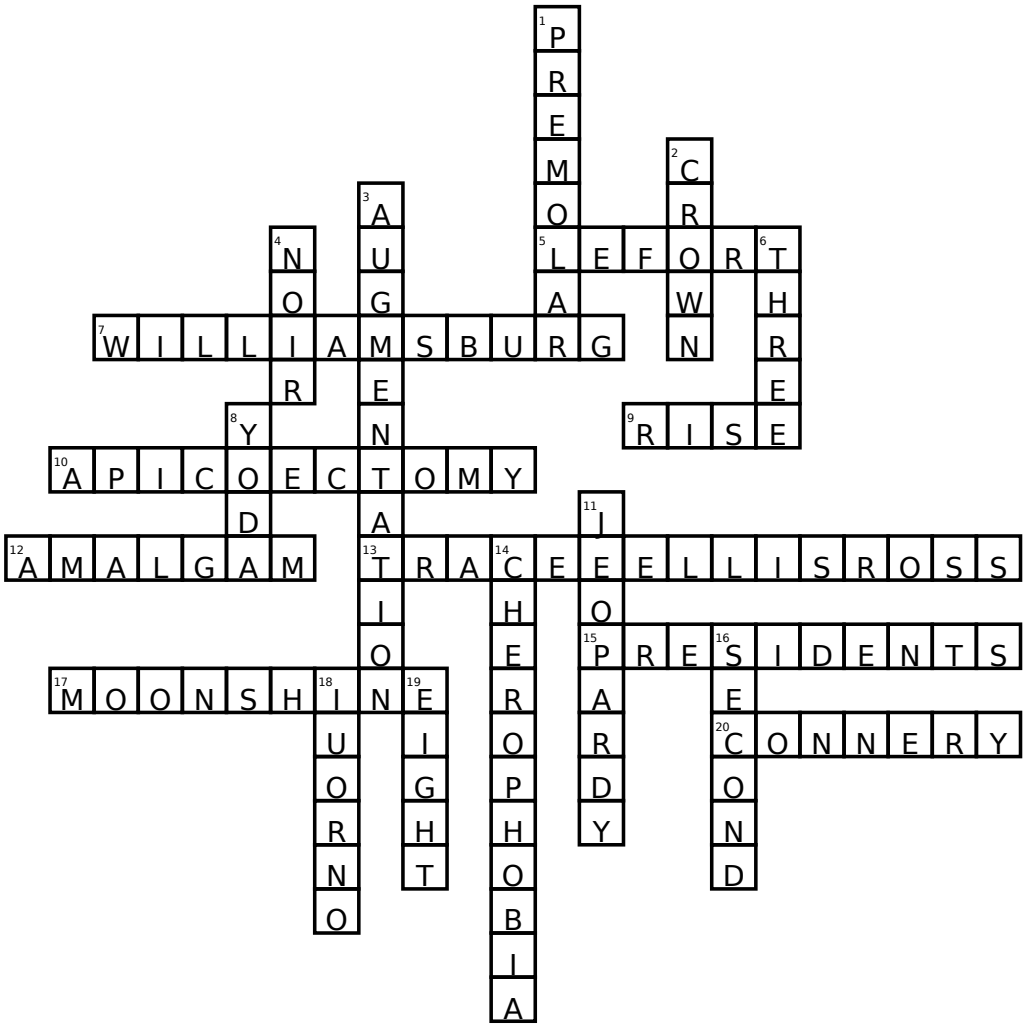
Dr. Downey’s story is inspiring to me as a young dentist and SVDA member. We look to our seasoned professionals for guidance and support, and I have personally found a wealth of support and encouragement in my career by being an active participant in our national and local organizations. I hope to continue to serve my community and my tripartite dental organizations with as much passion and enthusiasm as Dr. Downey.

Dr. Ronald G. Downey

IN MEMORY OF:

Name	City	Date	Age
Dr. Herbert R. Boyd	South Prince George	12/4/2020	95
Dr. Ronald G. Downey	Buena Vista	11/1/2020	73
Dr. Richard M. Goldman	Stafford	12/1/2019	82
Dr. William Winfred Joness	Roanoke	7/14/2020	88
Dr. E. Robert Whittington	Herndon	1/17/2020	82

>> CROSSWORD ANSWERS CONTINUED FROM PAGE 33



DOWN

1. A primary molar is usually replaced with this
2. Netfix royal family series
3. Change in shape/appearance
4. Pinot _____
6. Number of divorces Ross had on “Friends”
8. Literally - just write YODA
11. Alex Trebek
14. Irrational aversion to being happy
16. William & Mary is the _____ oldest college in Country
18. Orthodontist, yogi, VDA
19. Number of US presidents from VA

ACROSS

5. Fracture of the midface
7. Bordered by James City County and York County
9. “And still, I _____”
10. Root end surgery
12. Mixture of metals used for fillings
13. 2020 Peoples Choice Award Style Icon
15. Virginia is also known as the “Mother of _____
17. Franklin County aka “_____ capital of the world”
20. Sean _____

Classifieds

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VDA Classifieds allows you to conveniently browse and place ads on the VDA website and in this publication. VDA Members can advertise with VDA Classifieds for FREE. Nonmembers are also welcome to place ads for a fee. Please visit **vdaclassifieds.org** for details on advertising with us.

JOBS: Dentists

6824 - General Dentist - PT
Arlington
Established practice in Arlington seeks dentist to work Mondays. Digital x-rays, private treatment rooms with computers and chair-side monitors. Ethnically diverse population with large Latino patient base so ability to speak Spanish a plus. Opportunity to expand days. Candidate should have 5 years experience, a strong background in prosthodontics, perform simple extractions and endodontics. We seek an outgoing, personable dentist able to gain trust of our patients. For additional information and to schedule an interview please respond with a cover letter and resume.
Contact: Louis Fidel 703-575-9899
louis@fideldentalgroup.com

6829 - Associate Dentist
Williamsburg
Quarterpath Dental is a group practice, with state-of-the-art facilities, a terrific team, and has an amazing opportunity for a general dentist with the right personality and skills. The practice currently has two general dentists and one periodontist. The practice is consistently growing. Guaranteed base salary, no cap on max salary, 4-day work week. Many other benefits. Email your resume/CV and a short narrative about why you would like to join our team.
Contact: Arlene Ray 757-345-2295
arlene@quarterpathdental.com

6846 - Associate Dentist
Crozet
Crozet Family Dentistry is seeking a motivated, quality-oriented associate dentist for our office in Crozet, VA. We provide the ultimate in quality general dentistry to the entire family in a modern, technologically advanced setting with experienced support staff. Average compensation of full-time dentists in excess of $220,000/ per annum. Benefits include health insurance, malpractice insurance, simple IRA retirement plan, and continuing education. Visit our website at **www.crozetfamilydental.com**
Contact: Justin Gilbert 540-487-4871
justin@willisdentistry.com

6870 - Associate Needed
Newport News
Associate needed part time or full time. Reasonable benefits and salary. Interesting experienced dentist who can do rct, ext, and fillings. Call or leave message to the below.
Contact: Juli 757-593-5052
jjychung1961@yahoo.com

6873 - Dentist
Suffolk
Could this fantastic unique opportunity be yours? One -of-a-kind excellent private practice with a fantastic dental team 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! We have a 3D cone beam, all kinds of lasers, amazing top notch hygienists and assistants, implant system and ALL the Best to bring the best care to our patients! Our dedicated team is experienced and knowledgeable. Future buy in is available. Please contact us at the below phone number and send CV or resume to the below email. Thank you.
Contact: Susan 757-560-0659
suffolksmiles@gmail.com

6874 - Dentist
Tidewater Virginia
Could this fantastic unique opportunity be yours? One -of-a-kind excellent private practice with a fantastic dental team 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! We have a 3D cone beam, all kinds of lasers, amazing top notch hygienists and assistants, implant system and ALL the best to bring the best care to our patients! Our dedicated team is experienced and knowledgeable. Future buy in is available. Please contact us at the below phone number and send CV or resume to the below email. Thank you.
Contact: Susan 757-560-0659
suffolksmiles@gmail.com

6880 - Associate Dentist
Smithfield
Full time Associate needed in busy modern dental office. Join owner doctor in busy practice with 4 full time hygienists and 4 highly competent dental assistants. General practice offering all aspects of dentistry, including RCT, ortho, implants and extractions. Established patient base for an associate, be busy starting day one! Enjoy the benefits of working and/or living in a small historic town, coupled with the close proximity (within 30 mins) of the rest of Hampton Roads. Please send CV/resume to contact email.
Contact: Renee Fisher - Manager
757-357-4121
miltoncook@smithfield-dds.com

6882 - Part Time General Dentist
Suffolk
Our office is in search of a motivated doctor, to join our team. We are a very fast paced office seeing up to 30 patients a day. We are looking for part time possibly turning into full time. Generous percent paid. Please feel free to contact for more information. We look forward to hearing from you.
Contact: Charlott Lopez 330-801-5891
Charlott.malailua@gmail.com

6885 - Associate to Traditional Private Practice
Hampton Roads
Atlantic Dental Care has multiple opportunities for General Dentists. We are a unique group 100% owned by our dentists, preserving the private practice of dentistry. Our 130 dentists have a shared vision of delivering quality care in the communities (Williamsburg to Virginia Beach) we serve through our 80 locally owned offices. We are a group practice for dentists by dentists. Tired of working for someone else? Come join us and begin your pathway to ownership of your own practice. Benefits include 401k, health insurance, and HSA. Tired of working for someone else or a recent graduate, ADC is designed to provide you with the clinical and business mentoring to ensure your success. Meet us at **https://youtu.be/D1LBEvGglu8** and **http://www.atlanticdentalcare.net/**. Confidentiality Assured.
Contact: Marina 757-455-5554
atlanticdentalcare@cox.net

6894 - Associate Dentist
Virginia Beach
Established Dental Practice in Virginia Beach is looking to hire a Full Time General Dentist immediately who will be committed to our highest quality of patient care. We are a State-Of -The-Art Dental facility with emphasis in Cosmetic Dentistry, Implants, Invisalign and in 3D Technology. Great opportunity to earn high compensation and grow with the practice. Looking for a Full time Associate Dentist. Must have current VA license. Must have a current DEA. Must have a minimum of 3 years experience. Full Benefits including 401K, Malpractice Ins, Health Ins, etc... All candidates who are interested in this great opportunity please e-mail your CV for consideration. All information will be kept confidential. We look forward to speaking with you!
Contact: Shabana Zahir 757-353-7637
drshabana@gmail.com

6906 - Associate with Partnership Potential
Yorktown/Williamsburg
Quality focused, four-doctor practice with two offices and over 100 combined years of clinical experience is seeking an engaged and motivated full-time associate to join our team. We perform most all aspects of dentistry, from IV Sedation, Surgery, Implants and Invisalign, to Endo and Cosmetics. We have a friendly, dedicated staff of 20, and a personable, patient-centered approach to care. Candidates ideally should have 3+ years of experience and preferably an AGD/GPR. Our goal is to find the right person to round out our team, with interest in a Partnership position as senior docs transition to retirement. Please send inquiries and resume to:
Contact: Josh **cathyjosh@cox.net**

Practice Transitions

6830 - PEDO/GP Practice for Sale
Northern Virginia
Pedo/GP Practice in northern Virginia for sale. Practice active since 2004. Insurance-based, no HMO with 12 Operatories. Fully digital, well-trained staff, long-term lease, great location. Contact the below email for further info.
Contact: **dccitydentist@gmail.com**

6840 - Charlottesville General Practice for Sale
Charlottesville
Thirty-year general practice in historic Charlottesville for sale. Four operatories, two being hygiene rooms. Practice is in a designated growth corridor. New residential developments surround location. Reasonable rent and well maintained older and new equipment mix, including Planmeca digital pan, Dexis digital sensors, Kavo electric handpiece, and newer laptops in all operatories. Turnkey operation. Please respond to P.O. box 6248, Charlottesville, VA 22906

6849 - Roanoke General Practice for Sale
Roanoke County
Ultra-modern, large, spacious office, stand-alone brick building, preferred area of Roanoke County fronting major road with excellent visibility, efficient office designed by dental architect, 5 fully-equipped operatories w ADEC chairs and units with one room private for sedation, fully digitized and computerized with Carestream Panorex and Dentrix/Dexis software, practice growing with daily new patients, building also available for purchase and has additional 1300 sq ft for expansion or rental income, current owner looking to retire after long and successful career. Excellent opportunity!
Contact: US Dental Practices 203-744-9581 **dkny1962@rocketmail.com**

6879 - Dentist Retiring
Chesapeake
12 y.o. office, 4 chairs, plumbed for 6, digital X-ray, great visibility, excellent location serving Great Bridge, Grassfield and Deep Creek communities, excellent schools, $607K gross in '19 on 4 day/wk (Mon-Th, 8-5). CBCT, Great situation for implants, asking $325K.
Contact: **pjabla@verizon.net**

6886 - Private Practice Ownership
Hampton Roads
Atlantic Dental Care has multiple purchase opportunities for general dentists. ADC is a group practice 100% owned by its dentists. Our 130 dentists have a shared vision of delivering quality care in the communities (Williamsburg to Virginia Beach) we serve through 80 locally owned offices. We are a group practice for dentists by dentists. Tired of working for someone else? Come join us and begin your pathway to ownership as we preserve traditional private practice. Benefits include 401k, health insurance, 125 plan, and HSA. Whether you're tired of working for someone else, a recent graduate or student ADC has opportunities for outright purchase as well as mentorships. Meet the dentists of ADC at **https://youtu.be/D1LBEvGglu8** and **http://www.atlanticdentalcare.net/**. Confidentiality Assured.
Contact: Marina 757-455-5554
atlanticdentalcare@cox.net

6896 - Practice and Real Estate for Sale
Hampton
Great Satellite, Start-up Opportunity or Your New Forever Practice Home Practice located on a busy 4 lane roadway, with a highly visible corner lot in Hampton. Practice owner wants

to sell the real estate with the practice. Owner is flexible with financing both the practice and real estate. Also, willing to rent with option to purchase. Dental office is located on a large lot with room for expansion. Practice has been in this location for the last 31 years. Please email inquiries to the below.
Contact: Wayne Oplinger 570-760-1069
familydentistryusa@yahoo.com

6897 - General Dentistry Practice for Sale
Central Virginia
Doctor is retiring after many successful years at this well-established practice north of Richmond. Three fully equipped operatories in a beautifully appointed and impeccably pristine office with ample parking and outdoor cafes just around the corner. Average collections over $378k, open 4 days a week and approx 1100 sqft of office space. Complete our Buyer Interest Form for confidential details.
https://www.lbdtransitions.com/buyer-registration-form.html
Contact: Elizabeth Schroeder Craig 804-787-4829
elizabeth@lbdtransitions.com

JOBS: Office Staff

6821 - Dental Hygienist
Culpeper
We have an immediate opening for an experienced Dental Hygienist. Current position is part time; however, has strong potential to become full time. Dental hygienist duties and responsibilities include gathering patient information and updating health history, taking x-rays when necessary, preparing the work area for procedures, cleaning and polishing patients' teeth and gums, educating patients on good oral hygiene habits, sterilizing dental instruments and equipment, and restocking treatment areas. Dental hygienist requirements and qualifications include having an Associate Degree or bachelor's degree in dental hygiene from an accredited program and possessing a current state license and x-ray certification. Applicants must have excellent communication skills.
Contact: Dr. Scott Aylor 540-825-9288
saylor13@gmail.com

6833 - Registered Dental Hygienist
Fishersville
Willis & Associates Family Dentistry is seeking a full or part time Registered Dental Hygienist. If you are dedicated to providing the highest quality dental care, we would invite you to consider joining our team! Experience with Eaglesoft, digital radiographs, and intra-oral camera preferred, but not required. New graduates are welcome to apply! Benefits include very competitive pay, health/prescription drug insurance, paid time off based on tenure, paid holidays, simple IRA retirement plan, free dental services for you and your dependents. Visit our website at **www.willisdentistry.com**
Please provide CV or resume.
Contact: Justin Gilbert 540-487-4871
justin@willisdentistry.com

6875 - Dental Hygiene Assistant
Tidewater
Progressive state of the art general dentistry practice seeking top notch organized quick learner w/ the ability to initiate, follow protocol, take diagnostic x-rays & follow through with tasks. Must be dependable and reliable! This highly efficient dedicated Hygiene Dental Assistant desires to be actively trained for professional growth, works well independently as well as with a high-performance team & strives for exceptional patient care. Computer/Dental software skills a must, Dentrix and Dexis a plus! We love our beautiful practice & seek a new member that will give 100% every day. All PPE available, HVE, HEPA UVC air purifiers throughout office to keep all of our team and patients safe! Please submit your resume today to the below email. Thank you.
Contact: Susan
suffolksmiles@gmail.com

Office Space: Sale/Lease

6828 - Turnkey dental office for sale
Arlington
This beautiful dental office is in the Heart of Arlington Ballston can be a great place for someone who wants to start up with low budget or for a satellite office. It is 1,185 sf, new dental office. It's in a building that has over 500 apartments mixed of residential & commercial. It has three ops ready for work, but it plumbs to have four rooms. Fully equipped & ready to work. Please send an email or call for further information for this great opportunity.
Contact: Ahmed 619-278-9239
a.alsalim1981@gmail.com

6895 - Office Condo for Sale
Tyson's Corner
Office condo for sale. 1500 sq. ft. First floor. Not patients
Contact: 703-508-1468
nvperiodoc@yahoo.com

6896 - Practice and Real Estate for Sale
Hampton
Description: Headline: Great Satellite, Start-up Opportunity or Your New Forever Practice Home Practice located on a busy 4 lane roadway, with a highly visible corner lot in Hampton. Practice owner wants to sell the real estate with the practice. Owner is flexible with financing both the practice and real estate. Also, willing to rent with option to purchase. Dental office is located on a large lot with room for expansion. Practice has been in this location for the last 31 years. Please email inquiries to the below.
Contact: Wayne Oplinger 570-760-1069
familydentistryusa@yahoo.com

Virginia Dental Association
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Richmond, VA 23233

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carecredit.com/dental | 866-246-9227

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lbdtransitions.com | 804-897-5900

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protectorplan.com | 800-683-6353

ProSites
prosites.com/vda | 888-932-3644

RK Tongue, Co., Inc.
rktongue.com | 800-683-6353

Solmetex
solmetex.com | 800-216-5505

The Dentists Supply Company
tdsc.com/virginia | 888-253-1223

TSI
tsico.com/virginia-dental | 703-556-3424

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