Dental Category Newsletter

Summer 2021

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COVER STORY

2021 Virtual USPHS Category Days

Features

NEWSLETTER STAFF

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The USPHS Dental Category Newsletter is returning with the intent of being published two to three times a year and distributed electronically through the USPHS Dental Bulletin Board and agency distribution lists. The last issue of the newsletter was published in the Fall of 2019. If you have suggestions or comments about the newsletter, or would like to submit an article, please contact the co-editors CDR Titania Brownlee or LCDR Grant Abernathey.

2021 VIRUTAL USPHS Dental Category Days

By: CDR Melissa Parra

The annual USPHS Scientific and Training Symposium was cancelled for the second straight year due to the COVID -19 pandemic. However, the Dental Professional Advisory Committee (DePAC) proceeded with two virtual Dental Category Days that included six hours of continuing dental education (CE) on a broad range of topics each day. The 2021 Virtual USPHS Dental Category Days were held on May 12th and May 19th. The theme for May 12th was "Overall health begins with oral health," and the theme for May 19th was titled "It takes a village."

On May 12th, CDR Jason Single kicked off Dental Category Day with a call to order, followed by welcoming remarks and recognition of VIP guests by our Chief Professional Officer, RADM Timothy Ricks. The first presentation of the day was from CAPT Eric Jewell, who serves as the Indian Health Service (IHS) National Periodontal Consultant. CAPT Jewell's presentation was titled "Emerging Oral-Systemic Links, Including COVID." CAPT Jewell discussed the links between periodontal disease and systemic conditions. He also presented in detail how periodontal disease can influence and be influenced by other conditions through increased systemic inflammation as well as specific bacterial virulence factors. In addition, CAPT Jewell discussed possible links between periodontal disease and COVID-19.

The second lecture of the day was the 2020 David Satcher Keynote lecture presented by Dr. Manuel Cordero, DDS, MAGD, who serves as the Executive Director of the Hispanic Dental Association. Dr. Cordero's presentation was titled "Equal and Comprehensive Oral Health for All." Dr. Cordero discussed access to comprehensive oral health care for US inhabitants. Some points he covered were reengaging the private sector, tax incentives, and educational grants to train more auxiliary personnel to address unmet needs.

The third lecture of the day was from CDR Justin Sikes who serves as the Indian Health Service National Consultant for Oral and Maxillofacial Surgery and is the Oral and Maxillofacial Surgeon at Northern Navajo

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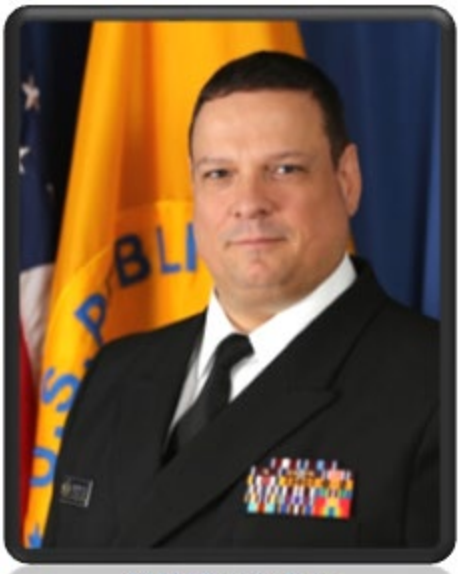

RADM Timothy Ricks

Chief Dental Officer Remarks
RADM Timothy Ricks

When I first joined the U.S. Public Health Service/Indian Health Service on 05 January 1999, I almost immediately found an environment where everyone worked together to improve the health of the Pyramid Lake Pauite Tribe that we serviced at our health center. I learned so much in those first few months about the interconnectedness of all of my fellow healthcare professionals and how when we worked together great things could happen. I worked with pharmacists, physicians, nurses, community health workers, and other clinic staff in developing policies, helping each other on quality improvement projects, and even working together to receive accreditation for the facility.

Collaborating with non-dental partners helped me as well as my dental program. Not only did I learn a lot from these partners, but I also could count on their support when I started community-based programs like the water fluoridation program on the reservation, a school and Head Start program, and an elder denture program. These non-dental partners helped spread the word of these events and really helped me understand the benefits of collaboration.

As your Chief Dental Officer, I have experienced the same benefits in collaborating with others, especially external partners. I have learned so much about some of the key oral health topics of our times – access to oral health services, oral health inequities, different alternative dental workforce models, global oral health issues, and more – through these partnerships, and in turn these key external partners have helped support and promote the U.S. Public Health Service and the agencies we serve. Did you know that many of the benefits we have – loan repayment programs, special pays, retirement pay, military-type benefits, agency funding – are often the result of advocacy from external partners?

At the beginning of the COVID-19 pandemic, through suggestions of a couple of our senior officers, I created a coalition that I thought might help in communicating oral health issues to oral health professionals. The COVID-19 Public-Private Partner Dental Coordination Group, now consists of 36 different dental organizations and 12 different federal entities, and played a key role, especially in 2020, in disseminating critical infection control and other pandemic information to more than 500,000 oral health professionals across the country, effectively breaking down the communication silos that we all have self-created over the years.

On May 12th and 19th, we held our first-ever USPHS Virtual Dental Category Days, and while we had some outstanding presentations and interesting topics, one takeaway from this meeting was the number of external stakeholders who participated. Leaders from organizations such as the American Dental Association, Academy of General Dentistry, National Dental Hygienists Association, American Academy of Periodontology, Hispanic Dental Association, American Association of Dental Boards, American Association of Public Health Dentistry, American Association of Women Dentists, National Dental Association, American Dental Assistants Association, and others (sorry if I missed a few) participated in Category Days to learn more about the USPHS Dental Category and to support our work. I am sincerely grateful to all of these external partners for their continuous support of the USPHS.

As we look ahead, I encourage all of you to think about which non-dental professionals would be great collaborative partners in your daily work. To become an effective leader, one must surround themselves with those who can help provide support, advocacy, and share knowledge and experiences. In your local facility, one thing you can do almost immediately is to forge a relationship with the rest of the healthcare team and strategize about how you can improve the health of your patients and community together. Another thing you can do is to get involved in your state oral health program or state oral health coalition (yes, you may need to get an outside activities request approved, but it is worth it!). I hope that you see value in collaborations with non-dental professionals, because at the national level these external partners have been critical in their support of oral health and the USPHS.

Dental Professional Advisory Committee

Chairperson Column

CDR Jason Single

CDR Jason Single

Greetings Dental Category!!!

I am excited to see the return of the Dental Category Newsletter! Over the past year, we have seen a lot of changes within our service and our missions. I want this newsletter to keep all of our Commissioned Corps Dental Officers informed and connected to each other. I would like to thank CDR Titania Brownlee and LCDR Grant Abernathey for taking on the roles of Editor and Co-editor. I also would like to encourage all of you to reach out to them with any suggestions for articles or other items of interest to be included in future editions.

This edition is coming out at a great time of the year. We recently concluded the 2021 Virtual Category Days that are highlighted in this issue. We have also just started our application cycle for DePAC Voting Membership. Please reach out the Membership Workgroup Chair, CDR James Dixon (j4dixon@bop.gov), if you have any questions about the application materials or process. CDR Dixon can also assist you with volunteering on one of our Workgroups or Subcommittees if you are not ready to apply as a Voting member this year.

We have also begun the 2022 DePAC Awards nomination cycle. This is the time to nominate an officer that has gone above and beyond for their duty station, their agency, or their category. A description, qualifications for each award, and application materials will be sent out over the LISTSERV. More information can be found in the Awards Section of the DePAC website.

When I started my term as the DePAC Chair in January, my vision was for our category to remain versatile and adaptable as we started to navigate this year. As we pass the halfway point of 2021, I am proud of the roles our Dental Officers have filled along the way. We have seen our officers deploy in non-dental roles in support of our missions. We have seen our officers trained to administer COVID tests and vaccines. We are showing that we are not limited to oral health, which highlights our value as a category in the United States Public Health Service.

It is an honor and a privilege to serve as your DePAC Chair for this Operational Year. We continually work hard to support and represent all of our Dental Officers. We want to ensure that we meet your needs and expectations, so please reach out to me (Jason.a.single@uscg.mil) or our Vice-Chair, CDR Darnell Thomas (darnell.thomas@ice.dhs.gov), if you have any suggestions or ideas for improvement.

I will conclude by thanking all of our officers for everything you do on a daily basis, and I look forward to seeing what our category can accomplish over the second half of the year!

Committed to the Mission of the Commissioned Corps of the USPHS:
Protecting, promoting, and advancing the health and safety of the Nation

Agency Update: Indian Health Service

Agency Dental Lead
Dr. Timothy Lozon

Similar to other agencies, the last year has brought challenges as well as opportunities for the IHS Division of Oral Health (DOH). Some of the major challenges – all related to COVID-19 – include access to dental care for American Indians and Alaska Natives; recruitment and retention of dedicated and passionate dental team members; and learning and networking through continuing dental education (CDE). What follows is a summary of actions IHS DOH has taken to address these challenges, while seeking opportunities to further meet the IHS mission: to raise the physical, mental, social, and spiritual health of American Indians and Alaska Natives to the highest level.

Access to Dental Care

- **IHS National Infection Control (IC) Committee** – Infection control and prevention is critical for patients to access safe and effective dental care. Realizing this central tenet prior to COVID-19, in 2017, IHS DOH identified Dr. Damon Pope (Damon.Pope@ihs.gov) to serve as the IHS National Dental Infection Control Consultant. Dr. Pope successfully leads a national committee, ensuring that IHS, tribal, and urbandental programs have the most up-to-date IC guidance and resources.
- **Minimally Invasive Dentistry –** To promote access to care, while limiting aerosol-generating procedures during the pandemic, IHS DOH invited several minimally invasive dentistry experts, including Dr. Jeremy Horst and Dr. Douglas Young, to present on minimally invasive dentistry techniques. Additionally, IHS DOH updated their Oral Health Program Guide, silver diamine fluoride (SDF) section, promoting this potential option to reduce the incidence and severity of dental caries.
- **Dental Support Centers –** Dental Clinical and Preventive Dental Support Centers (DCPSCs) positively impact (I/T/U) dental programs on multiple levels including access to care – through a variety of activities, including the following: dental continuing education; training and technical assistance; oral health education to patients; sealant and fluoride programs; outreach to senior centers and schools; and community-based prevention programs. Although IHS DOH has supported DCPSCs since 2000, due to limited IHS DOH funding, not all 12 IHS Areas were able to have a DCPSC. Fortunately, this imbalance changed in 2021, through a program increase, IHS DOH is now able to fund an additional DCPSC, bringing the total to 9 DCPSC that provide services to all 12 IHS Areas.

Recruitment/Retention

- **IHS Dental Scholarship Program –** The IHS Dental Scholarship Program provides funding for qualified American Indians and Alaska Natives to complete their dentistry training and assume a leadership role as a health professional in a Tribal community. Realizing the importance of mentorship for the scholars, in 2020, IHS DOH began to offer one-on-one job placement counselling. In addition, IHS DOH now holds quarterly IHS Dental Scholars mentoring calls, providing a forum for scholars to learn and ask questions about a wide variety of IHS-relevant dental topics, such as early childhood caries, medical-dental integration, and dental outreach programs.
- **USPHS JRCOSTEP –** This summer, IHS DOH plans to host four Junior Commissioned Officer Student Training and Extern Program (COSTEP) participants at four locations for a period of 31 days; with costs borne by IHS DOH since this is a pilot project. This project demonstrates IHS' commitment to improving the recruitment of Commissioned Corps dental officers and willingness to collaborate with Commissioned Corps Headquarters.
- **IHS Loan Repayment Program (LRP) –** The IHS LRP funds IHS clinicians to repay their eligible health profession education loans — up to $40,000 — in exchange for an initial two-year service commitment to practice in health facilities serving American Indian and Alaska Native communities. Opportunities are based on Indian health program facilities with the greatest staffing needs in specific health profession disciplines. LRP participants are eligible to extend their contract annually until their qualified student debt is paid. During the pandemic, IHS DOH has continued to promote the IHS LRP through recruitment and retention activities.

Continuing Dental Education

- **IHS Dental Updates Meeting –** Although IHS wasn't able to hold an in-person meeting in 2021, IHS DOH held its first-ever Dental Updates virtual meeting from April 13-15, 2021 and had at least 1,200 dentists, dental hygienists,

dental health aide therapists, and dental assistants in attendance; far exceeding the previous high of 516 at the 2009 conference in Albuquerque, NM. Program highlights included multiple presentations on infection control best practices in the era of COVID-19 as well as breakout sessions targeting dentists, dental hygienists, therapists, and assistants. The meeting sessions were recorded, and while RADM Tim Ricks is the USPHS Chief Dental Officer, USPHS dental officers can access and receive CDE credit for these presentations as well as other courses available on the IHS Dental Portal.

- **Oral Health Literacy –** Over the last year, IHS DOH has continued to promote the IHS Oral Health Literacy Initiative. This initiative started in 2019 with the goal of giving I/T/U dental programs the resources they need to improve oral health literacy among American Indians and Alaska Natives. In support of this goal, DOH has released a series of informational messages on the IHS dental LISTSERVs about oral health literacy concepts and how to apply these concepts to their clinical setting to improve the quality of care. Recent messages include the following topics: an update on sugar consumption; informed consent process; communicating with patients about COVID-19; talking with patients about dental fillings; and how to contribute to Healthy People 2030 Health Communication Objectives. If you're interested in learning more about any of these topics, please contact CDR Nathan Mork (Nathan.Mork@ihs.gov).
- **Virtual Concepts Courses for Dental Directors and Area Dental Officers (ADO)** – The IHS offers training for both ADOs and dental directors through Concepts Courses. The ADO course is designed to teach prospective, new, and seasoned dentists key concepts regarding dental public health, personnel management, clinical efficiency and effectiveness, program budget management, time management, and how to work within the system by building and developing partnerships, collaborations, and valuable relationships with fellow ADOs, Area Office staff and Headquarters staff. Similarly, the dental director course covers key concepts relevant to managing a dental program. Although these courses are generally in-person, during the pandemic, IHS DOH has continued to offer these valuable learning experiences through a virtual platform.

Dental Category Day 2021 (cont.)

Medical Center in Shiprock, NM. CDR Sikes presentation was titled, "Considerations in Treating the Bisphosphonate and Anticoagulated Patient." CDR Sikes gave an overview of the pathophysiology of disease processes commonly encountered within the IHS. He provided detailed information in how to evaluate and treat the anticoagulated patient and how to evaluate and treat the patient on bisphosphates.

The day ended with the 2020 Dental Category Awards Presentation hosted by LCDR Tiffany Smith.

On May 19th, CDR Jason Single kicked off the second Dental Category Day with a call to order followed by welcoming remarks and recognition of VIP guests by RADM Timothy Ricks. The first lecture was from CAPT Renée Joskow who serves as the Chief Dental Officer for the Health Resources and Services Administration, and is responsible for overseeing oral health programs across the agency, including oral health integration. CAPT Joskow's presentation was titled, "Bi-directional Integration: Leveraging Efforts for Maximum Impact."

RADM Ricks was the voice of the presentation due to CAPT Joskow having laryngitis. CAPT Joskow's presentation pointed out the opportunities that exist to leverage the existing workforce, workflows, and expertise to optimize health through a patient-centered lens, although the medical, behavioral, and dental healthcare systems of care are mostly separate. Her presentation detailed promising practices and new research that demonstrates how preventive interventions and health screenings in various healthcare settings can reduce morbidity and mortality. Furthermore, information was presented that widespread adoption requires interoperable infrastructure and reliable communication pathways coupled with interprofessional collaboration to transform health care and improve health outcomes.

The second lecture of the day was the 2021 David Satcher Keynote lecture presented by Dr. Kathy O'Loughlin, DMD, MPH, who serves as the Executive Director of the American Dental Association (ADA), the nation's leading advocate for oral health. Dr. O'Loughlin's presentation was titled "Never Defeated." Dr. O'Loughlin summarized the ADA response to the COVID-19 pandemic and three lessons learned from the crisis. She described the role of organized dentistry in responding to the public health crisis, identified the ADA's role in guiding the profession through the pandemic in order to assure full

access to care for patients over the last year, and identified three "lessons learned" that will enhance the health of the public going forward if the profession has the will to make change happen.

The third lecture of the day consisted of a panel titled "Lessons Learned from COVID" that included speakers Kathy Eklund, Dr. Mike Monopopoli, Dr. Ifetayo Johnson, and Dr. Joel Knutson. The panel began with Ms. Eklund, who is the Director of Occupational Health and Safety, and the Forsyth Research Subject & Patient Safety Advocate at The Forsyth Institute. Her presentation was titled "Infection Control Tips in the Era of COVID." Her portion of the panel discussion addressed the major changes in infection prevention & control interim guidance from the CDC, OSHA and several professional organizations. The second panelist included Dr. Mike Monopopoli and Dr. Ifetayo Johnson. Dr. Monopopoli works across the DentaQuest Enterprise and with external entities, including federal and state government agencies, academia, other health organizations, and community groups to establish, promote and provide support to partnerships and collaborations that can influence positive oral health policy nationally. Dr. Monopopoli's presentation was titled "Structural Racism" and it identified persistent inequities in oral health access to care and oral health status that have been exacerbated by the COVID-19 pandemic. Many points covered included the role that structural racism plays in the persistence of those inequities. Dr. Joel Knutson was the final panelist, presenting the third lecture. His presentation was titled "Teledentistry Review, Update from an IHS Perspective." Dr. Knutson is the Dental Informatics and Electronic Dental Record Project Officer for the Indian Health Service Division of Oral Health. He reviewed historical use of telehealth encounters in the dental profession, teledentistry codes in CDT, beneficial uses of teledentistry and the future of teledentistry.

The day ended with the 2021 Dental Category Awards Presentation hosted by LCDR Joseph Grant followed by RADM Ricks providing closing remarks.

2021 DePAC Dental Award Recipients

- **Ernest Eugene Buell Dental Award**
  CDR Laura Hain, USCG Sector North Bend, Deputy Area Regional Dental Consultant - North Bend, OR
- **Rush Lashley Dental Award**
  CAPT Kevin Zimmerman, IHSC Detention Center, Solo Chief Dentist - Eloy, AZ
- **Senior Clinician Dental Award**
  CAPT Shani Lewins, USCG Great Lakes Region, Area Regional Dental Consultant - Selfridge, MI
- **Dental Responder of the Year Award**
  CAPT Renee Joskow, HRSA Chief Dental Officer - Rockville, MD
- **John. P Rossetti Dental Mentor of the Year Award**
  CAPT Daniel Barcomb, USCG Base New Orleans, Area Regional Dental Consultant - New Orleans, LA
- **Herschel S. Horowitz Oral Health Research and Policy Award**
  Dr. Fred Hyman, FDA Division of Dermatology and Dentistry Center for Drug Evaluation and Research - Rockville, MD
- **Jack D. Robertson Dental Award**
  CAPT Angie Roach, IHSC Port Isabel Service Processing Center, Solo Chief Dentist - Los Fresnos, TX

Congrats to our 2021 DePAC Award Recipients!!!

New DePAC Voting Members Profile

CDR Brian Talley

CDR Brian Talley

Commander Brian Talley is a newly appointed DePAC voting member who began his three year term in January 2021. He is currently serving as Chair of the Awards Workgroup, a member of the Mentoring & Retention Workgroup, as well as a DePAC Mentor.

CDR Talley received his Doctor of Dental Medicine degree in 2002 from the University of Mississippi Medical Center and was subsequently commissioned as a Dental Officer in the United States Public Health Service. Assigned to the Indian Health Service in Montana and Colorado, CDR Talley served six and a half years before being honorably discharged.

He then practiced general dentistry in Colorado and Mississippi for a year and a half before pursuing advanced training in pediatric dentistry. In 2012, CDR Talley completed his advanced training at Children's Hospital Colorado and earned diplomat status with the American Board of Pediatric Dentistry in 2013. Following two years of private pediatric dental practice in North Carolina, he chose to return to where his passion for pediatric dentistry was first fostered. Dr. Talley was recommissioned as a USPHS officer in February 2015. Currently, he serves as the pediatric dentist for the Jicarilla, Southern Ute and Ute Mountain Ute Tribes as well as Pediatric Dental Consultant for the Albuquerque Area Indian Health Service. Additionally, he serves as the National Pediatric Dentistry Co-Consultant for the Indian Health Service Division of Oral Health.

Outside of work, CDR Talley enjoys spending time with his family and enjoying the many recreational activities Southwest Colorado offers.

Junior Officer Spotlight

LCDR Joseph Grant


LCDR Joseph Grant

Lieutenant Commander Joseph Grant III currently serves as the DePAC Executive Secretary. He has previously worked on several workgroups of the DePAC including the Communications Workgroup, Recruitment Workgroup, the Minority Issues Subcommittee, and served as Co-Webmaster of the DePAC webpage.

LCDR Grant was born and raised in New Orleans, Louisiana. He holds two bachelor degrees; one in Biology and a second in Communications. LCDR Grant is a graduate of Howard University College of Dentistry Class of 2011. Upon graduation, he was commissioned in the US Navy Dental Corps. He served in the US Navy for over six years. His tours of duty included three years in Okinawa, Japan attached to 3rd Dental Battalion, one year at the US Naval Academy in Annapolis, and two years as a Dept. Head onboard the USS New York (LPD-21). LCDR Grant was honorably discharged from the US Navy in 2018 and commissioned in the US Public Health Service in March 2019.

LCDR Grant is currently detailed to the US Coast Guard Yard in Baltimore, MD, where he serves as the Deputy Area Regional Dental Consultant. He has many collateral duties in addition to serving as the Senior Health Services Officer and Infection Control Coordinator. Additionally, he serves as the Chair of the USCG Yard's Leadership Diversity and Advisory Council (LDAC). The Coast Guard Yard's LDAC is an organization committed to increasing cultural intelligence, building awareness around diversity and inclusion strategic goals, and identifying the unique value of the US Coast Guard Yard's total workforce.

LCDR Grant is currently pursuing a Master of Public Health at Morgan State University in Baltimore, MD, with the intent to strengthen his understanding of population oral health and its relationship to the overall health of the community. When not at work, LCDR Grant enjoys hunting, sports, and spending time with his wife of 21 years and their three children.

CDR Amber Foster in COVID-19 personal protective equipment.

Put to the Test

By CDR Amber Foster

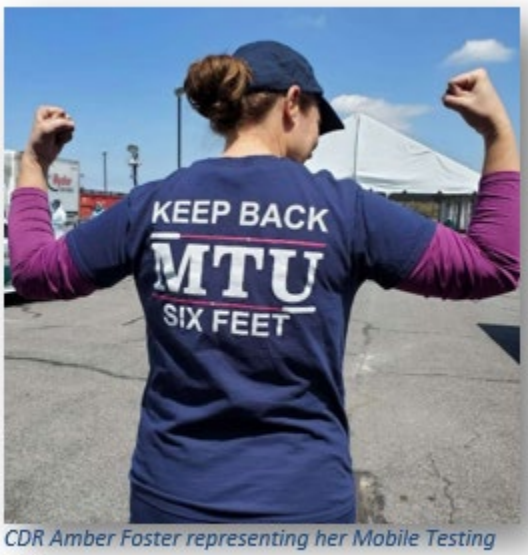
Since graduating from dental school in 2009, I had called Alaska home. I cannot express how excited I was to move to New York City in July 2018 for an orthodontic residency after serving nine years in the USPHS. Little did I know what was to come.

I attended LSU School of Dentistry, which is located in "Hurricane Alley". There, I experienced Hurricane Katrina during my first month of school and three additional evacuations for three additional hurricanes during my subsequent years of dental school. After I graduated, I was ready to get as far away from Hurricane Alley as possible. When I saw a position in Fairbanks, Alaska was available for my first duty station, I accepted the call.

I spent my first four years in Fairbanks, after which I was accepted into the 24-month Advanced General Practice Residency (AGPR) at Alaska Native Medical Center/Southcentral Foundation in Anchorage, AK. After completing the AGPR, I stayed on for an additional three years. After spending nine years in Alaska, I was presented with a new challenge; a 36-month residency in Orthodontics. This time the opportunity was somewhere with a new and completely different lifestyle than I had in Alaska, but I was eager to experience it. I was on my way across the continent to New York City!

My orthodontic program is located at Montefiore Medical Center in the Bronx, NY at the northern end of the borough adjacent to Westchester County. The immediate area surrounding the clinic was among the first in the country to have positive COVID-19 cases. The neighborhood is comprised of low-income, minority populations that have been disproportionately affected by the coronavirus, causing this area to remain a hotspot throughout this pandemic.

In response to the COVID-19 pandemic, our dental clinic, like most others, shut down in mid-March of 2020. All dental emergencies, including orthodontic emergencies, were routed to one central clinic location where oral surgery and GPR residents provided emergency care. Dental residents from all specialties, including pediatric dentistry, prosthodontics, GPR, oral surgery, and orthodontics were dispersed to different areas in the Montefiore Health System to help. Senior oral surgery residents were primarily working in the ICU alongside anesthesiology to help with intubations. Some dental residents, including those from orthodontics, were stationed in the emergency department to help triage. Multiple dental residents, including myself, were assigned to one of three Mobile Testing Units (MTUs).



CDR Amber Foster representing her Mobile Testing Unit.

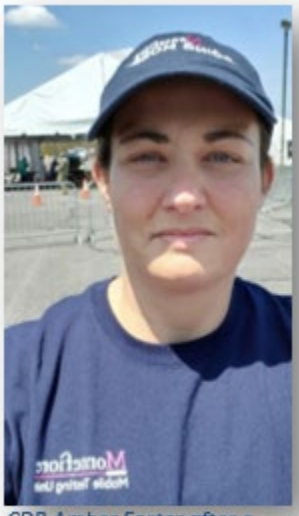
My assigned MTU was located at Lehman College in the Bronx. It was operated by the NY State Department of Health (NYS DOH), the Army National Guard, Montefiore Health System, and SOMOS Community Care. The MTU had one huge tent that operated two drive-through lanes. Within each lane, there was the green zone and the red zone. The green zone consisted of two verification checkpoints. Personnel at these checkpoints wore surgical masks and patients were instructed to keep their car windows up at all times. All paperwork was placed on the car windshield and verified. The red zone is where the nasal swabbing occurred inside the tent. The red zone had a three-person team working each lane in full protective gear. No other personnel

outside this three-person team were allowed inside the red zone at any time. In the red zone, one member verified the information on the slip and prepared a test tube and swab. The provider performing the swabbing confirmed this information before obtaining a sample. The third member of the team would take paperwork and the vial with the sample, bag it, and transfer all samples to a National Guard member for transport to the lab. The MTU prohibited walk-up appointments. As many area residents do not own their own vehicle, most had to take a cab or ride-share to be tested.

CDR Amber Foster with her colleague.

I was on the second rotation of dental residents and felt very fortunate that my site ran so smoothly, as most kinks in the process had been sorted out before I arrived. Upon reporting for duty, residents were screened, which included answering questions regarding possible symptoms and a temperature check. There were designated PPE tents with a staff member assigned to make sure everyone at the site was properly gowned. I was given a gown, a set of gloves which were then duct taped to my gown, a second set of gloves, an N95 mask, and a face shield. If you were doing the swabbing, you were given a full body suit rather than a gown. Due to improper training and reuse of PPE, some COVID-19 test site personnel contracted the virus. However, due to all the safety precautions including PPE training in donning, and particularly doffing, along with new PPE every shift, no testers contracted the virus at our site. I started working at the testing site in early April during the height of the pandemic and worked three days a week for five weeks. Upon completion of my shift, I was tested. I received nasal swab and antibody testing: thankfully all returned negative.While the job was not a very physically demanding job, it kept me very busy and surprised me with a considerable amount of exhaustion at the end of each shift. Once donned up, I was not to leave the red zone until the end of my shift, meaning no bathroom breaks. It was spring, so often the weather was cold, rainy and windy. My site had heaters inside the tent, but I know that some of the other MTU sites did not have such a luxury. It was a struggle keeping items on the tables from blowing away and avoiding touching my face when a strand of hair was blowing in it. Every day I worked was incredibly busy. My lane alone often tested 150-200 patients in a 5-hour shift. Despite being demanding, it was also very rewarding with many patients having signs in their cars thanking the workers for all they were doing.

CDR Amber Foster with her COVID-19 Team.



CDR Amber Foster after a demanding shift combating COVID-19.

While I had a duty to work at the MTU, it did not relieve me of my obligations to my residency program. Although we did not have clinical obligations, we were still required to maintain 4-8 lectures per week via an online platform. I also had to study for my written board exam, which had been postponed due to the pandemic. It was ultimately rescheduled to early June through an online proctoring examination site. At times, I found it difficult to manage stress levels, but online exercise programs and walks in a nearby park helped. The COVID-19 pandemic has been a very challenging chapter for all of us in the dental profession. Initially, I found it intimidating to be present in New York City at the start of the pandemic, but in the end, it was more rewarding than I had ever anticipated. In addition to the completion of my program, I was able to witness and serve alongside the front-line workers whose resolve safeguarded so many lives. Between my time spent combating COVID-19 at the MTU and my education in orthodontics, it's safe to say that my time in NYC has been fulfilling in more ways than one.

Clinical Update

Therapeutic Treatment of Diabetic Patients with Periodontitis

CAPT Eric Jewell, DDS, MS, USPHS

Periodontal disease is a microbe-induced inflammatory disease causing destruction of the supporting structures of the teeth. Periodontal pathogens contain virulence factors that locally cause cells to produce mediators of inflammation, known as pro-inflammatory cytokines. Although these cytokines are produced at the gingival level, they enter the blood stream to disseminate throughout the body, thereby increasing systemic inflammation.[1] Approximately 30% of adults in the United States are afflicted with moderate, and 10% with severe forms of periodontal disease.[2]

Diabetes is a disease characterized by alterations in carbohydrate, protein, and lipid metabolism with the primary manifestations being abnormally high blood glucose levels and systemic inflammation. Insulin, the body's method of regulating blood sugar, is deficient or absent. The body may also become resistant to insulin, reducing its effect. Of the different types of diabetes, Type 2 accounts for over 90% of cases. Type 2 diabetes is an important public health issue, with approximately 347 million adults suffering its effects worldwide - that works out to about 10% of the world's adult population. In addition, the World Health Organization estimates that the prevalence may double by the year 2030.[3]

Numerous studies demonstrate the link between diabetes and increased severity of periodontal disease.[4,5,6] More recent evidence has also indicated that periodontal disease may in fact worsen glycemic control in people with diabetes.[7,8,9] The relationship between diabetes and periodontal disease involves dysregulated secretion of mediators of inflammation and tissue breakdown. Hyperglycemia increases cytokines such as TNFα, IL-6, and increases advanced glycation end products (AGEs) which affect nearly every cell in the body, and lead to further upregulation of cytokine production. Diabetes also inhibits neutrophil function, increasing the severity of periodontal destruction.[10,11] In turn, periodontal pathogens cause an increase in pro-inflammatory cytokines such as IL-6, TNFα, and C-reactive protein (CRP) which increase systemic inflammation, and may contribute to insulin resistance, and exacerbate the diabetes process.[11,12] Reducing circulating levels of these pro-inflammatory cytokines through periodontal therapy may help improve insulin sensitivity and thus metabolic control.

Diabetic patients are 3x more likely to develop periodontitis than non-diabetic patients[6], so one of the first considerations in treating patients with diabetes is to help mitigate the disease. Below are recommendations:

- Ask patients about HbA1c or fasting blood glucose, or look at their recent lab results if the patient doesn't know.
- Educate patients about blood sugar control – diabetes is considered to be well controlled when fasting blood glucose is <126 mg/dl or 7% HbA1c. If the patient is poorly controlled, talk to their Physician, or send them to a Physician if they haven't seen one in a long time.
- Educate your patients about ways to mitigate diabetes such as monitoring blood glucose levels, losing weight, eating a healthy diet, and increasing physical activity.
- Stress hormones increase blood glucose as part of the fight or flight response, so encourage them to find ways to reduce stress.
- If your patient smokes, encourage them to quit or help them get into a smoking cessation program.
- Another way to help mitigate diabetes is to practice excellent oral hygiene and see their dental team regularly. Oral hygiene instruction is key in helping patients develop good habits. Use disclosing solution to show them the extent and location of plaque. Show the patient how you want them to brush, and then have them demonstrate it back to you. If possible, find something positive to say about their OH, then show them what needs improvement. Provide the patient with written instructions to compliment what you discussed.
- Repetition is also key in driving the message home – educate at each visit.

Reducing oral inflammation has a positive impact on blood sugar control and is primarily achieved by eliminating the periodontal infection.[14] The first step is always non-surgical mechanical removal of plaque and calculus with ultrasonic and hand instruments. Scaling and root planing (SRP) is painful in the presence of deep periodontal pockets and inflamed tissue. Use of local or topical anesthetic is instrumental in achieving the best results while maintaining patient comfort. Plan to extract periodontally hopeless teeth during the SRP appointment to most effectively remove the infection in that quadrant or quadrants. Consider the use of systemic antibiotics during initial SRP in patients with 2 or more sextants with a CPI score of 4. Some periodontal pathogens are able to invade surrounding tissues, and may act as a reservoir of infection even after

removal of plaque and calculus. Systemic antibiotics can optimize healing by eliminating these invading pathogens.[15] Doxycycline works well in patients with poorly controlled diabetes, and should be given as 100mg BID for 2-3 weeks. SRP should be completed during the 2-3 weeks that the patient is taking the antibiotic. Other antibiotic options are amoxicillin 250mg + metronidazole 250mg TID, or Augmentin 500mg TID.

Over the next 6-12 weeks after SRP, the connective tissue and epithelial attachment to the teeth will reform. The speed at which this takes place largely depends on the initial level of inflammation, so in diabetic patients with severe inflammation it may take closer to 12 weeks. At this point, it is essential to perform a periodontal re-evaluation to determine additional treatment needs, which may include referral to a Periodontist for surgical treatment, use of topical/local antimicrobials, or simply a periodontal maintenance program.

Topical antimicrobials include toothpastes containing stannous fluoride, mouth rinses such as chlorhexidine, or over-the-counter antiplaque/antigingivitis rinses. Topical antimicrobials are safe and effective in reducing plaque and gingivitis.[16] Local antimicrobials deliver high levels of antimicrobial compounds directly to a site. These include Periochip® (2.5mg chlorhexidine), Atridox® (10% doxycycline gel), and Arrestin® (minocycline microspheres 1mg). Although effects of local antimicrobials are modest, they can be useful when a patient has just a few sites that do not respond well to standard therapy, and are most effective for single rooted teeth.[17]

Other strategies involve modulating the patient's inflammatory response with enzyme suppressors and nutritional supplements. A commonly used enzyme suppressor is sub-antimicrobial dose doxycycline (SADD). At sub-antimicrobial doses (20mg BID), doxycycline suppresses collagenase, which is responsible for breaking down collagen in periodontal structures, leading to periodontal destruction. SADD can be taken for long periods, however safety beyond 12 months, and efficacy beyond 9 months has not been established. This low dose doxycycline is an effective tool in the management of severe periodontitis, and does not result in antibiotic resistance.[18,19] If your pharmacy cannot easily obtain doxycycline in 20mg, another option is to prescribe 50mg tablets of doxycycline hyclate, and have the patient split the tablets.

Nutritional supplements may also be beneficial for periodontal patients. Vitamin C is important for healthy connective tissue, and vitamin D is important for bone maintenance and immune function. Calcium is also important for bone maintenance and density. Other helpful supplements include low dose aspirin, and Omega 3 fatty acids (fish oil). Aspirin triggers formation of Lipoxins, which are anti-inflammatory compounds that are also important for resolution of inflammation (pro-resolution). Omega 3 fatty acids are important in the formation of resolvins and protectins, which are also pro-resolution compounds.[20]

All patients who have undergone SRP should, <u>at minimum</u>, be placed on lifelong periodontal maintenance. It has been shown that patients who do not comply with recalls are 5 times more likely to experience tooth loss than those who do.[21] Periodontal maintenance visits should include periodontal charting, subgingival scaling, and should emphasize oral hygiene instruction. The recall frequency will depend on how well the patient's diabetes is controlled, additional risk factors the patient has, and level of oral hygiene. A good interval to start with is every 3 months. The recall frequency can then be fine-tuned over time based on the above factors. Patients with excellent oral hygiene can be scheduled as far out as 6 months. Even patients without the greatest oral hygiene habits can still be well maintained as long as they return for their recall appointments.[22,23]

In summary, periodontitis is a bacterially induced inflammatory disease while diabetes is a disease characterized by abnormal carbohydrate, protein, and lipid metabolism leading to elevated glucose and systemic inflammation. Although periodontitis is often thought of as a disease localized to the oral cavity, it does have systemic effects that are mediated through inflammation. Inflammation is what links these two diseases together. Diabetes worsens periodontitis, and periodontitis worsens diabetes. It has been demonstrated that better control of diabetes can improve periodontal status, and likewise periodontal therapy can improve diabetes. We must remember that we are treating a whole patient, not just their mouth.

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Gaylord National Resort & Convention Center

201 Waterfront Street, National Harbor, Maryland

February 7-10 In-Person/February 22-25 Virtual

Award Nominations and Call for Abstracts – June 1st, 2021!!

"Healthcare Transformation Starts with Medical Education and Training"

CONGRATULATIONS PY 2021 PROMOTIONS

To CAPTAIN/O-6:

- William Lopez (effective 7/1/21) – IHSC
- Nathan Mork (effective 1/1/22) – IHS
- Carol Wong (effective 5/1/22) – USCG

To COMMANDER/O-5:

- Titania Brownlee (effective 7/1/21) – USCG
- Laura Hain (effective 7/1/21) – USCG
- Thuc Ngo (effective 7/1/21) – IHS
- Melissa Parra (effective 7/1/21) – IHSC
- Ann Truong-Huffines (effective 7/1/21) – BOP

To LIEUTENANT COMMANDER /O-4:

- Dmitry Keysalov (effective 1/1/21) – USCG
- David Lam (effective 3/1/21) – USCG
- Paul Tran (effective 7/1/21) – BOP
- Vy Vy Vu (effective 7/1/21) – IHS

WELCOME TO OUR NEW ACCESSIONS

- **LT Schick Karl-USCG**
- **LT Sotayo Olayinka-BOP**
- **LT Keith Quinn-USCG**

Online Oral Health Resources & Continuing Education Opportunities

Agency/Organization	Description
American College of Dentists	CE - Dental Ethics Course
ADA	CE – online continuing education opportunities
Centers for Disease Control and Prevention (CDC)	Resource - Oral Health Resources
Colgate	CE – Free Live and On-Demand Webinars for continuing education
Health Resources and Services Administration (HRSA)	Resource - HRSA Home page
Hu-Friedy	CE – online continuing education opportunities
IHS Division of Oral Health	Resource - Early Childhood Caries Initiative CE – online CE opportunities
Inside Dentistry	CE - online continuing education opportunities
National Institute of Dental and Craniofacial Research	Resource - Dental Providers Oncology Pocket Guide. Reference on treating pts before, during and after cancer treatment CE - Practical oral health care for patients w/ developmental disabilities
National Maternal & Child Oral Health Resource Center	Resource – OH Resource Center
Naval Postgraduate Dental School	Resource - Clinical updates archives CE - Correspondence Course Program
Northwest Center for Public Health Practice	CE - Basic Public Health principles study modules
Ohio Department of Health, the Indian Health Service, and the Association of State and Territorial Dental Directors	Resource - Safety Net Dental Clinic Manual
Oral Cancer Foundation	Resource - oral cancer photos
Proctor & Gamble	CE – online continuing education courses