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WFH Webinar: Dental Care for People with Bleeding Disorders during COVID-19 – What's Changed? June 3, 2020

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IMPACT OF COVID-19 ON DENTISTRY

Dr. Alison Dougall, BChD, MA, MSc, SCD

Social distancing

- Dental professionals have always been at risk of acquiring or transmitting many types of infections, therefore, the COVID-19 pandemic has been an immense focus for dentistry. Since HIV in the 1980s, the provision of dentistry has been transformed. Dental nursing assistants are experts in decontamination and disinfection and all dental staff wear extensive personal protective equipment (PPE) for protection against risk of bloodborne and saliva splatter infections.
- The challenge with COVID-19 is that social distancing is impossible in dentistry – by definition, a patient's mask must come off for dentistry work. During the pandemic, dental professionals have been providing dental care both face-to-face and via teledentistry (dental consultation by telephone, video-chatting or other telecommunication and information technology methods instead of in-person).
- It is known that the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is found in very high concentrations in the nose, throat, and saliva. Simply coughing or breathing heavily produces droplets and aerosol particles into the air. At this point, COVID-19 has made dentistry a high-risk procedure for both for dental professionals and patients. It has forced changes to the provision of care, including big gaps between appointments to carry out deep cleaning and sanitation of the treatment area.
- The pandemic led governments to mandate temporary closure of dentistry practices and many dentists stopped practicing pending information on the risks and how to be able to provide safe care. This had a huge impact on both the business of dentistry and on patient access to care; patients were suddenly only able to access to emergency care, which furthermore was limited to services such as dental extraction and procedures that do not generate aerosols into the atmosphere. These restrictions have significant impacts for individuals with bleeding disorders.

Current impact of COVID-19 on dentistry in Europe

- Europe has documented 1,917,491 cases of COVID-19 as of May 30, 2020. Every country has been affected. Currently, the countries and regions reporting the most cases are Russia, the United Kingdom, Spain, Italy, and Germany. Lessons for dentistry were learned from Spain and Italy, where significant numbers of dental staff have died of COVID-19 infection, underlining the need for highly protective PPE.
- During COVID-19 restrictions, patients with excruciating toothache could not go without dental care for very long; even individuals with medically complex conditions would break quarantine to seek urgent dental care. Dentists realized that they had to return to work to provide care but they had to be very careful in the way they did so. Dental practices are now reopening very slowly under very strict guidelines.

The new normal

- Dental care is becoming available again but will likely be different. Dental professionals now must wear additional and more protective PPE (i.e., better masks and gloves, fully waterproof gowns).
- Some dental professionals and teams may still be less available or unavailable. In Ireland, for example, some hospital dentists have been temporarily repurposed to perform COVID-19 swabbing and tracing or to serve in emergency centres. Some individuals with bleeding disorders may not be able to see the dental team they know, trust, and normally rely upon.
- Procedures that generate aerosol particles into the atmosphere – such as fillings, root canals and ultrasonic cleaning that rely on electric handheld dental tools – are limited in availability at the moment. There is more reliance on dental extractions and temporary procedures.
- Fewer dentists are open at the moment and fewer appointments are available, with large gaps between each appointment because of all the extra cleaning required between patients to disinfect and decontamination treatment areas.
- Patients may be required to wait in the car (or outside the clinic) to avoid having large groups of people assembled in waiting rooms. Furthermore, they may be asked to attend on their own – this may be difficult for people who are scared of going the dentist or who have childcare responsibilities.
- Patients may be asked to wear a face mask at the clinic to limit emission of airborne droplets and aerosol particles into the atmosphere, including during history taking. Immediately after removing their masks, patients will be given a strong mouthwash to reduce any viral load.
- Dental professionals adhere to universal precautions to prevent cross-infection. COVID-19 has resulted in higher costs (e.g., substantially increased PPE costs). Private dental clinics and

dentists will likely need to pass on part of these costs to patients. At the moment, some have to pay inflated prices for PPE, which add huge costs to the provision of dental care.

- Private dental clinics are experiencing difficulties as they reopen related to the supply chain of PPE and other equipment. Clinics may need to ration supplies slightly, or in some cases they may be running out. Therefore, there is a risk that those that re-open may have to close down temporarily if they perform too many of the aerosol procedures that require costly PPE, decontamination, and disinfection.
- Dental workers are at startling high risk of COVID-19 infection. Among professionals returning to work, dentists are at fourth highest risk, dental nurses are third highest risk, and dental hygienists are at highest risk. The profession has a duty to provide care and must continue to provide care, but the transition from urgent care to restoration of routine care must be taken step by step.

CURRENT IMPACT OF COVID-19 ON DENTISTRY IN SAUDI ARABIA

Dr. Zikra Alkhayal, BDS, MSc, FABPD

- Saudi Arabia along with other countries in the Gulf States region have put out all stops in a structured manner in their attempt to stop the spread of the coronavirus disease. The Saudi Arabia Ministry of Health reported its first confirmed COVID-19 case on March 2, 2020; as of May 31, there are 85,261 cases, with 62,422 recoveries and 503 deaths.
- Among the government's preventive and protective measures implemented in mid-March, Saudi regulators and health authorities recommended that dental offices and clinics immediately stop seeing patients except for emergency treatments. During this period, all other dental specialities were to be postponed until further notice to reduce the spread of COVID-19.
- During this period, teledentistry became important in diagnosis, management, prevention, and the provision of psychosocial support for patients through phone consultation.
- Fear of COVID-19 in dental practice grew as the pandemic spread since during treatment, the patient's mask must be removed and dental staff work up close to the patient's face, with their hands in the mouth.
- As of May 31, complete lockdown in Saudi Arabia has been lifted slowly. Dental practices have been allowed to reopen according to guidelines based on international standards; and in similar phases as occurring in Europe.
- Dental practice recovery in Saudi Arabia following the shutdown will likely be very gradual and it will be based upon risk assessment and risks vs. benefits of dental treatment so long as it is a high-risk method of COVID-19 transmission.

CURRENT IMPACT OF COVID-19 ON DENTISTRY IN BRAZIL

Dr. Elvira Correa Brazil, DDS, PhD

- Brazil's first case of COVID-19 was diagnosed in late February in the city of São Paulo. At this time, the disease was just beginning to spread into the interior of the country. As of May 29, 2020, the Ministry of Health reported over 30,000 deaths in Brazil; since then, the country has seen an increasing number of cases and deaths, which continue to rise every day.
- Despite having guidelines for dental treatment of patients with COVID-19 issued by the Ministry of Health and the Brazilian Society of Intensive Care in Dentistry, at the moment all public and private dental clinics are closed for routine care. Only emergency dental care is being provided for emergency cases, following strict guidelines on PPE use, measures to reduce or avoid dental procedures that generate aerosols, and requirements for disinfection and decontamination of treatment rooms and common areas.

HOW PATIENTS COPE: SELF- MANAGEMENT OF DENTAL COMPLICATIONS DURING CONFINEMENT

Dr. Alison Dougall, BChD, MA, MSc, SCD

- Despite the high risks of COVID-19 exposure and transmission, due to existing cross-infection precautions and expertise in dentistry, there have been few or no clusters of patient infection linked to dental practice. To limit the risks, the dental profession has swiftly embraced teledentistry as a way to provide treatment and advice to patients.
- Teledentistry can be used effectively to make a virtual diagnosis, identify emergency situations, and provide advice and a treatment plan from a distance (e.g., for pain management, antibiotic prescriptions or temporary fillings that can be self-administered at home). Teledentistry is especially useful for patients in lockdown or quarantine situations due to COVID-19 or other medical risks or circumstances.
- Making the right choice for pain management can be difficult. Generally, tooth pain can be managed by paracetamol/acetaminophen taken to maximum dose. However, it is not strong enough alone to relieve severe toothache. Alongside, since dental pain is inflammatory, the best medication to take is an anti-inflammatory drug, not an opioid. Patients with bleeding disorders should take the medication they normally take to manage joint pain, typically a selective COX-2 inhibitor (coxib). Other types of nonsteroidal anti-inflammatory drugs (NSAIDs) including ibuprofen should be avoided because they have a small inhibitory effect on platelet function.
- We have developed a resource on emergency dental treatment during the COVID-19 pandemic as required by people with inherited bleeding disorders for the Irish Haemophilia Society. The European Haemophilia Consortium has posted the resource on their website and WFH will do same. It offers an algorithm that can be used by the dental team to guide treatment, explain procedures to patients, and mentor dentists on how to perform procedures correctly in people with bleeding disorders.

RISK ASSESSMENT OF PROCEDURES

Dr. Zikra Alkhayal, BDS, MSc, FABPD

- People with bleeding disorders are a special group of dental patients but they are not prone to having more dental decay, oral disease or gum conditions. Nonetheless, many do not like to brush or floss their teeth, often because they worry about bleeding in the mouth – however, in fact, not brushing their teeth causes gum inflammation and bleeding.
- People with bleeding disorders often do not like going to the dentist due to fear of mouth bleeding with any kind of dental procedure. Many do not trust the dentist to know enough about treating patients with rare bleeding disorders. With COVID-19, the fears have heightened and there may be limited access to dental treatment. Therefore, it is especially important for patients with bleeding disorders to understand that dental neglect leads to oral disease.

Dental emergencies during COVID-19

- During the pandemic, dental emergencies that I have seen include dental pain varying from very simple pain resolvable with good dental hygiene and/or pain management. to severe pain with inflammation requiring antibiotics. I have also provided advice on bleeding following loss of baby teeth and with the eruption of permanent teeth. I have not seen much dental trauma, perhaps because patients are taking care to not have emergencies that require going to the hospital.

General considerations in dental management of bleeding disorders

- When managing dental treatment for patients with bleeding disorders, it is important to consider four main factors: the bleeding risk; use of antifibrinolytic and local hemostatic agents; clotting factor replacement therapy requirements (if any); and invasiveness of the planned dental procedure. Dentists need to know the patient's medical history and bleeding tendency (mild, moderate, or severe) and consult with the patient's hematologist on whether antifibrinolytics (tranexamic acid or epsilon aminocaproic acid), other local hemostatic measures, and/or clotting factor replacement therapy are needed for the procedure.
- A chart created by Dr. Alison Dougall to guide dental management of people with bleeding disorders classifies dental interventions into three categories presented by colour:
 - **Green (Go Ahead):** Examination/x-ray, fluoride application, fissure sealant, simple restoration, impression-making, dentures, periodontal probing, and some types of local anesthesia (intraalveolar, palatal and intrapapillary infiltration).
 - **Yellow (Ask/Think):** Sub-gingival scaling, stainless steel crown, rubber dam/clamp, pulp treatment, pulp extirpation, matrix band and wedge placement, and orthodontic treatment.
 - **Red (Stop/Consult):** Inferior dental block and lingual local anesthesia, dental extraction, oral surgery, implant placement, periodontal surgery, and root debridement.
- Another chart developed by Dr. Dougall provides detailed practical information within an algorithm to guide emergency dental treatment during the COVID-19 pandemic as required by

people with bleeding disorders. Four main types of procedures are considered emergency interventions: root canal or pulp therapy, drainage or incision of abscess, dental extraction, and dental trauma overleaf. For any of these emergency situations, the dentist must contact the hemophilia team for advice on the administration of antibiotics, analgesia, and appropriate hemostatic measures.

PREVENTION: WHY IT WAS IMPORTANT PRE-COVID-19, NOW AND FOR THE FUTURE

Dr. M. Elvira Correa, DDS, PhD

- Good oral hygiene helps prevent dental problems such as oral infection, disease, pain, and bleeding in mouth. During the COVID-19 pandemic, prevention has become even more important because almost all dental clinics are closed for routine care or only providing emergency care.
- Since COVID-19 is a new disease and there is limited information, it is important for patients to get reliable information from trustworthy sources and to keep in contact with their healthcare providers and dentists.
- Prevention in dentistry usually involves direct contact between dentists and patients and includes patient education and assessment of their oral hygiene habits and condition. With COVID-19 restrictions, the use of teledentistry and mobile applications can facilitate contact between patient and their dentists.
- In this COVID-19 era, people with bleeding disorders need to pay attention to maintaining their oral health: brushing their teeth twice a day with a fluoride toothpaste, flossing at least once a day, and being mindful to avoid habits or behaviors that may cause trauma or bleeding in the mouth or tooth fractures.
- Prevention in the COVID-19 era also requires changing our behavior patterns and preserving our health and well-being in general, such as wearing protective face masks, practicing good social etiquette when coughing or sneezing, and physical distancing. These important preventive behaviors will remain part of our lives for some time.

QUESTION AND ANSWER PERIOD

- Dr. Glenn Pierce, MD, PhD (United States)
- Dr. Alison Dougall, BChD, MA, MSc, SCD (Ireland)
- Dr. Zikra Alkhalaf, BDS, MSc, FABPD (Saudi Arabia)
- Dr. M. Elvira P. Correa, DDS, PhD (Brazil)
- Dr. Glenn Pierce, WFH VP Medical, gave special acknowledgement to the Hemophilia Alliance, an organization in the United States that provides funding for scholarships for individuals in the bleeding disorders community to attend WFH's in-person meetings and is now funding WFH webinars during the COVID-19 pandemic.

What are the COVID-19 infection risks for dentists and dental personnel and the COVID-19 infection risks for patient? What is being done to mitigate both of types of risk?

- The COVID-19 risks are there; however, dental personnel who have been working at the frontline with the correct PPE and correct protocols, the risk is small and likewise for our patients. Patients who require dental treatment at a clinic or hospital should expect to see new measures in place such as personnel wearing full PPE (visor/face shield, mask, goggles, gown, gloves, and head and shoe covers). Dentists, dental surgeons, and dental personnel died from COVID-19 infection early on when the problem was unknown. Now that more is known, dental units are operating differently to prevent cross-infection and there have not been any clusters of infection around dental clinics or emergency dental centres. However, patients are beginning to push for access to more services and getting impatient about procedures that cannot be performed at this time.

For severe bleeding, if the bleeding stops after receiving factor but resumes again after 2/3 days, what is the economic way to control it?

- Controlling several oral bleeds requires three components: treatment by the dentist, postoperative care by the patient, and appropriate hemostatic measures. The dentist performs local measures to control bleeding and stabilize the clot, using clotting factor replacement therapy beforehand if appropriate; the patient taking precautions such as eating a soft diet, not rinsing the site of dental intervention or bleed, and not smoking. In addition, the use of antifibrinolytics (tranexamic acid or EACA) post-operatively helps tremendously in controlling bleeding post-operatively.
- If bleeding continues or recurs, management may require a combination of the dentist removing the clot and repacking the site of the bleed, which may require more clotting factor replacement. However, more often than not, packing the clot and applying extreme pressure to the site can stop most oral bleeds without needing factor.
- It is important to emphasize that patients should not have a prolonged mouth bleed. Post-operative tranexamic acid (oral tablets, a mouthrinse or topical gel) will be the most economic way to control post-operative bleeding.

After the use of tranexamic acid for gum bleeding, some patients still experience repeat bleeding. How can this be controlled without factor/fresh frozen plasma?

- In Brazil, tranexamic acid is used: crush an oral tablet, add a little water to form a paste, apply it to the bleeding site, and maintain pressure for 30 minutes to control the bleeding. In some countries, 80% tranexamic gel is available that works very well; it is applied by putting a few drops on gauze and pressing it against the bleeding site.

- If bleeding in the mouth has not stopped after some time of trying to control it, the patient or caregiver must contact their dentist and hematologist; an in-person consultation might be needed. Don't wait to ask for help – don't stay bleeding at home.

Is it advisable for children with hemophilia to extract teeth or should they wait until the tooth falls out itself? What home remedies are good for stopping the bleeding if it occurs?

- Most of the oral bleeding problems in children with bleeding disorders are not due to loss of baby teeth but plaque – if you don't brush your teeth, there will be bleeding. It's very important to wait until the tooth falls out by itself and to know the timeframes for when teeth normally come in and fall out. Lower teeth begin to fall out at 6 years of age. Don't extract baby teeth unless they are causing major issues and pain.
- The basic home remedy for stopping bleeding from tooth loss is to apply pressure: place a slightly wet piece of gauze (or clean cloth) over the tooth socket and have the child bite on it for at least 20 minutes. Some people use a cold teabag in place of gauze. Ice is sometimes used to reduce swelling.
- Many patients with hemophilia have a supply of tranexamic tablets at home. This can be applied locally, which is very effective because of the direct antifibrinolytic action at the site of bleeding.

Should elective dental procedures be done during this period of time?

- If people with hemophilia have a tooth they are worried will deteriorate, the risks of having that done are fine – do not let that healthy tooth deteriorate. But anything that can wait, should wait in order to maintain social distancing where possible.
- Dental cleaning is best done at home at the moment. Brush and floss your teeth well and get plaque disclosing tablets from the pharmacy, which stain plaque which is then cleaned off. If you have active periodontal disease or an infected gum condition, hygienists with PPE are providing some treatment, generally with hand scaling.
- If you have a really severe gum condition, or if you have Glanzmann's disease or VWD type 3 and need to keep your gums and oral condition very healthy, don't stay away from seeking treatment.

Have any patients on emicizumab required dental treatment during the COVID-19 pandemic?

- Ireland has switched patients to emicizumab and many patients with inhibitors in Europe have switched as well. It shows great promise for being able to perform many types of dental procedures without risk; it gives people with 12-40% factor levels, which is safe for fillings and most cleanings. Data is limited at the moment but suggests that with local measures and antifibrinolytics, a simple dental extraction with proper local hemostatic measures by the dentist can be done with no factor replacement.

- For patients, this therapy is lifechanging because it takes away the worry of going to the dentist and having just ordinary procedures done. However, for wisdom teeth extraction or dental implantation, patients on emicizumab would still need hemostatic supplementation; recombinant activated factor VII (rFVIIa) for those with inhibitors or clotting factor.

During this time, is it safe for someone with chronic constant pain to use pain medication for an extended period of time? Can paracetamol/acetaminophen be used for 1-2 months at time?

- A patient should only be advised to remain with tooth pain for one month if they have had COVID-19 and need to quarantine. If a patient's pain is not controlled within 10 days, they should have a consultation because it can turn into an abscess or severe pain. In the short term, for some toothaches and pulp inflammation, a small dose of steroids can help. But patients should not be in pain for more than two weeks.
- Anyone with a bleeding disorder who has difficulty getting access to a dentist for urgent treatment should have their WFH national member organization (NMO) or hemophilia organization advocate on their behalf – having emergency treatment should be a personal choice rather than one determined by your bleeding disorder.

Are there security and privacy concerns with teledentistry?

- Teledentistry must have all of the normal confidentiality and consent protections and processes. All consultations need clinical notation, such as in an electronic patient record system. It is essential to respect all general data protection regulations (GDPRs) and make sure that there is a well-annotated and well-documented consent process and data-sharing agreement. A proper telemedicine or teledentistry program is needed.
- It also depends on each country and the methods being used locally by institutions; it's often up to users to establish whether the system provides the necessary protections. Some institutions have had these technologies for a couple of years and have all the protections in place; others are just now putting it in place.
- It can never be totally safe; it's essential to take the appropriate measures to make sure that it is as safe and ethical as possible. The benefits will outweigh risks. During COVID-19, teledentistry was much needed in providing dental education, consultation, and psychosocial care.

Can you discuss the use of hypochlorous acid and fogging machines to decontaminate dental rooms?

- Dental practices are looking at ways to improve patient and personnel safety in a timely manner. Some are using HEPA filter purifiers and air purification systems. Ireland has looked into fogging machines and hypochlorous acid to decontaminate treatment and surgery rooms. The advantage of hypochlorous acid is that very low concentrations are used but it is about three times as effective as bleach. It may be a way to decontaminate the air in 5 minutes instead of an hour. It is active against previous coronaviruses, norovirus, and COVID-19.

Is there a lower incidence of dental disease in patients on prophylaxis?

- Dental infections and dental disease are more related to oral hygiene than having a bleeding disorder. It depends on how well people maintain their dental and oral health.
- People on prophylaxis have the opportunity to have better oral hygiene because they have clotting factor products at home and have more confidence in case bleeding occurs. There is very little dental data considering how it is such a big issue for people with bleeding disorders. It's known that people with hemophilia have far worse gum disease than the general public. Tooth decay is very variable. Dental disease is a socioeconomic disease – socioeconomic status and whether someone can access and afford dental care are the predictors of tooth decay.

If person can't take paracetamol/acetaminophen, what other medications can they take?

- This is a difficult question to answer because ibuprofen is generally best for dental pain but ibuprofen and other NSAIDs should be avoided by people with bleeding disorders. Certain selective COX-2 inhibitors (coxibs) can be used.
- For children, paracetamol/acetaminophen can be used. In North America, children above 12 can be given codeine.
- Tramadol as a first-line opioid helps with dental pain but does not treat the inflammation.
- It is important to know the cause of the dental pain. There could be an infection which may need other or additional medications or dental treatment. Do not stay in pain for long, and do not take pain medication for long.
- The best pain relief treatment is to have the actual dental treatment needed since dentists can treat the dental issue and pain within one hour. Pain relief is an interim issue and it is important to seek treatment.

With special thanks to the Hemophilia Alliance.