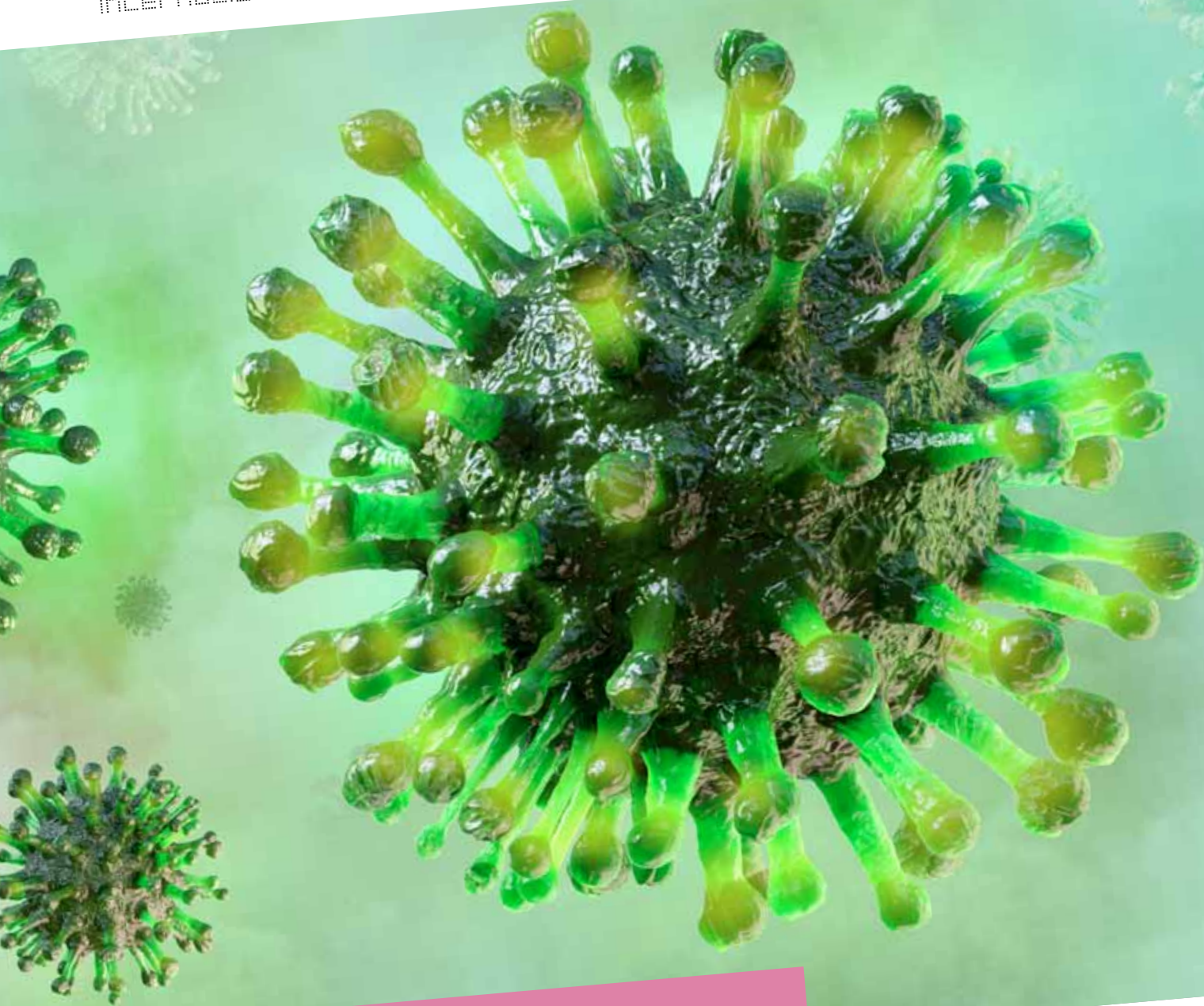


2021

IC[®] Digest

Journal of the European Section
International College of Dentists



**Fellowship, Science,
Humanitarianism and
Recognising Service**

**Covid-19
pandemic
and the future**

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INTERNATIONAL COLLEGE OF DENTISTS

Mission

The International College of Dentists is the preeminent global dental honor society recognising outstanding professional achievement and meritorious service while advocating for humanitarian and educational initiatives.

Motto

Recognising service as well as the opportunity to serve.

Core Values

Leadership: Uphold the highest standard of professional competence and personal ethics.

Recognition: Recognise distinguished service to the profession and the public worldwide.

Humanitarianism: Foster measures for the prevention and treatment of oral disease by encouraging and supporting humanitarian projects.

Education: Contribute to the advancement of the profession of dentistry by fostering the growth and diffusion of dental knowledge worldwide.

International Professional Relations
Provide a universal forum for the cultivation of cordial relations within the profession and to assist in preserving the highest perception of the profession worldwide.

CONTACT INFORMATION

Nairn Wilson

nairn.wilson@btinternet.com

+44(0)7815997086

European Section Website

www.icd-europe.com

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Postmaster

To update postal addresses and for information on the European Section of the International College of Dentists, please contact:

The Registrar, European Section of the International College of Dentistry, Mauro Labanca, Corso Magenta 32, 20123 Milano, Italy, mauro@maurolabanca.com

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Looking forward

Hopefully, by the time you read this editorial you will have been, or are about to be vaccinated against Covid-19. Thank goodness for the wonders of modern biomedical science.

The global impact of the pandemic, which remains to be fully realised, has been immense, with dentistry having suffered as much, if not more than other professions. Patients, practices, dental schools, dental organisations, including ICD, dental industry etc and, regrettably, the patients the profession exists to serve have all been hugely adversely affected. I like to think, however, that we are about to come out the other side of a hopefully never to be repeated pandemic experience, wiser, stronger, better people, albeit battered and bruised.

We must show 'true grit' by wasting no time getting back on track and looking forward to forge new arrangements, approaches and attitudes to oral healthcare locally, regionally and globally. No going back to pre-pandemic circumstances and arrangements now; the world has changed; patients have new needs and expectations and

the profession to help get dentistry out of the Covid 'hole' and on a new course fit for future purpose. No small 'ask' but if we as Fellows of the ICD don't put our shoulders to the wheel now, our profession may be left bogged down, with the rest of healthcare disappearing over the horizon. In the new 'norm' dentistry should be asserting its rightful place as a key, integral element of healthcare provision – oral health having been convincingly shown, in recent years, to be irrefutably important to general health and wellbeing.

So, let's all look forward and prepare ourselves for hopefully much better times to come. Salvation will not come to dentistry; dentistry must seek and find it.

Fellows of the College should exercise their leadership

oral healthcare must be provided in different ways. One of the few positive benefits of the pandemic will hopefully be a widespread shift in thinking, based on the long-overdue universal acceptance that prevention has much more to offer than the treatment of disease. Securing and maintaining health, including oral health, and reducing susceptibility to disease, including 'unknown' diseases, should be the new goal. That said, there will be no transformative thinking or new arrangements until the mountainous backlog of unmet patient needs has been dealt with and ways have been found to at least reduce oral health inequalities back down to pre-pandemic levels, if not under control and reducing in the new 'norm'.

Individually and collectively Fellows of the College should exercise their leadership, professionalism and standing in

Congratulations

Congratulations to Editorial Board member Miguel Pavão who was elected President of the Portuguese Dentists Association – the OMD, in June 2020. Every success to Miguel as President of his national association.

Associate Editor/Assistant Webmaster

The Section's Executive Committee is seeking expressions of interest in the position of Section Associate Editor-in-Chief/ Assistant Webmaster to work with the current Editor (Professor Nairn Wilson) and Webmaster (Dr Walter van Driel) during 2021/2022, with a view to becoming Section Editor-in-Chief and Webmaster from June 2022 for a period of at least five years. Expressions of interest in the separate roles of Section Editor-in-Chief and Webmaster, together with joint applications for the two roles will be considered. All expressions of interest should be addressed to the Registrar, Professor Mauro Labanca (mauro@maurolabanca.com) by the end of May 2021. Information on the roles and responsibilities of Associate Editor/ Assistant Webmaster and Editor-in-Chief/ Webmaster may be obtained by contacting either Nairn Wilson (nairn.wilson@btinternet.com) or Walter van Driel (wdriel@xs4all.nl).

Nairn Wilson, Editor-in-Chief

Message from the International President



**Professor Akira Senda - FICD
FACD – International President
of ICD**

On behalf of the International College of Dentists (ICD), I would like to thank all European Section ICD Fellows for their commitment and continuing dedication to the College.

Many Fellows in the European Section of the College will be continuing, as best they can, to manage the far-reaching consequences of the Covid-19 pandemic, including disruptions to their clinical practice and other professional activities, let alone their personal lives. I would like to express my sincerest sympathies. In these exceptional times, I ask that you assist colleagues who are struggling to cope with the effects of the pandemic.

The College has been badly impacted by the global crisis. Many events, projects and meetings, including the 2020 International Council Meeting – the most critical meeting in the ICD calendar, had to be cancelled, postponed or rearranged online. At the time of writing this message, the College was uncertain if it would be able to hold its already postponed Centennial Celebrations in Nagoya, Japan in September 2021. Regrettably, the postponed meeting has now been cancelled. Celebrating the 100th Anniversary of the College at its birthplace in Japan was one of the goals of my presidency. By the time this message is published, further information regarding the cancellation of the Centennial Celebrations will have been provided by the ICD World Headquarters.

While we continue to experience unprecedented circumstances, as we walk through the long pandemic tunnel, there is now at least light at the end to guide us through. The ICD, despite the setbacks of the last year, will emerge to both celebrate its illustrious, first 100 years and to address future challenges. As demonstrated during the pandemic, the College has great resolve and remains positive about its future. As I maintain, we all are member of 'One ICD Team' under one umbrella, and we have 'One Dream'. Let us go forward and work together, maintaining and wherever possible strengthening communications between Fellows, Sections and the World Headquarters, to realise the 'Dream'.

The outcomes of the virtual 2020 International Council Meeting are reported elsewhere in this issue of ICDigest

2021. I would, however, like to comment on several matters:

- Our former Secretary General, Dr. Jack Hinterman, retired after ten years of unswerving, diligent service to the College. He made outstanding contributions, with many achievements as both Editor and Secretary General. I would like to express special thanks and appreciation to Jack for his support and guidance.
- I would like to congratulate Dr. Joseph Kenneally on becoming the new Secretary General of the College. Joe has extensive experience of serving the College, notably as International President and President of the USA Section. I anticipate Joe, following a seamless transition with Jack, providing expert leadership to the World Headquarters team and support for all Sections, Regions and Fellows worldwide.
- I also wish to congratulate Ms. Chelsea Segren on having been promoted to the position of Director of Operation of the College and awarded Honorary Fellowship of Section XX.
- Finally, I would like to single out Speaker Dr William Cheung for special thanks for his excellent chairmanship, together with all the World Headquarters staff for their meticulous work, precise planning and facilitation of the business of the College.

I very much regret that circumstances necessitated the European Section meeting planned for Porto 2021 being postponed. I would have greatly enjoyed the opportunity to meet as many Fellows of European Section as possible at this event. Hopefully, I will be able to attend annual meetings of the European Section in the future.

With renewed thanks to all Fellows of the European Section for their commitment and continuing dedication to the College, which we contribute to as members of 'One Team'.

I wish you all a healthy, happy and pleasant remaining 2021. In the meantime, please stay safe with your family, colleagues and friends.

In Fellowship,

Akira Senda

News from the Districts 2021

The news from the Districts feature was revived in the 2020 edition of ICDigest. This was well received and hence has been restored as a regular feature of ICDigest.



Michael Thomas - FICD
Member ICDigest Editorial Board

Twenty-twenty has been a challenging year as a result of the worldwide Coronavirus pandemic. There have been no reports of local meetings having been held in the European Section - Section V of the College. Several Districts were, however, able to report on the activity of Fellows and how they have been able to respond to the pandemic. In Slovenia- District 14, dental offices were closed during the spring outbreak of the pandemic because of a lack of availability of suitable personal protective equipment (PPE), especially surgical gowns, FFP3 masks, face shields and goggles. Emergency dental services were provided in certain dental offices geographically distributed across Slovenia where the dental teams were equipped with suitable PPE. These clinics were staffed by dentists from both the private and public health systems. Elective dental treatment was postponed and hence the waiting times for procedures increased and this continues as an ongoing problem and concern amongst the dental community, in particular as the pandemic continues. A similar situation occurred in Bulgaria, with an initial lockdown of dental care provision during spring 2020. As supplies of appropriate PPE were re-established, there was a gradual return to more normal levels of dental activity.

In Sweden, District 3 of the European Section, most dental offices have been working throughout the pandemic, with vulnerable patient groups having been advised not to attend for elective items of dental care. In Norway, a national lockdown commenced in March. When the return to work occurred there was an increased emphasis on basic hygiene protocols and measures to help control the spread of the disease.

Similarly, in Denmark there was a national lockdown during the spring of 2020. Guidelines were issued once dental clinics were able to reopen regarding the use of enhanced PPE and cleaning procedures between patients. In District 3, there has been a gradual return to a more normal level of dental care provision as the year ends.

Earlier in the year, before the pandemic broke, in District 1 - Austria, ICD Fellow, Dr Hani Farr was honoured by the Austrian government for his efforts over 20 years in leading charity projects in remote areas of countries such as Mexico, the Philippines and the Dominican Republic where there is poor access to medical and dental services. The honorary title of Medizinal Rat, first level medical officer, was bestowed on Dr Farr at an official ceremony in the City Hall, Vienna (Fig. 1) by the President of the Republic of Austria, Dr Alexander Van der Bellen. In total, six doctors were honoured of which Dr Farr was the only dentist. The projects for which Dr Farr was honoured were implemented with support from the European Section of the College. These projects involved both the provision of dental services and preventive and educational measures for children and teenagers similar to those provided in schools and kindergartens in Austria. Dr Farr's achievements were also recognised by the Austrian Chamber of Medicine.



Fig. 1: Dr Hani Farr (on the right) at the awards ceremony in the City Hall, Vienna.

In July 2020, Miguel Pavão, was elected as President of the Portuguese Dental Association, polling over 72% of the votes from the 4748 dentists taking part. Miguel is the founder and President of the non-governmental organisation 'Mundo a Sorrir' (Smiling World) and has been involved in many voluntary schemes promoting oral health in Portugal and Cape Verde. His victory in the election recognised his dynamism and his awareness of his colleagues. This resulted in such a showing of unity amongst the electorate.

In District 9, Israel and Malta, there was a lockdown in the provision of dental care at the start of the pandemic with only emergency care being provided under specific circumstances. Similarly, in District 4, England, Scotland and Wales, all dental practices were closed between late March and early June with Urgent Dental Centres being set up for emergency dental care. It took some time to establish these centres, however, resulting in a very limited number of patients having been able to access care during the lockdown period. There has been a gradual recovery to a more normal level of dental care provision since then, with different guidance having been issued in England, Scotland and Wales. Given the guidance practices have gradually been able to adapt to the new ways of working, including introducing mitigating factors to reduce the suggested 60 minutes so called 'fallow time' between patients following an aerosol generating procedure. The annual dinner for District 4 was cancelled. Similarly, in District 10, Italy, contact amongst Fellows has been by virtual communication only, with no meetings being scheduled.

Dr Shelagh Farrell, Past President of the European Section and Fellow in District 4 was honoured with the inaugural award of the Faculty Medal of the Faculty of General Dental Practice (UK). This award, the highest bestowed by the Faculty, was in recognition of Shelagh's exceptional contributions to the general dental profession and the Faculty. In making the award at a Faculty, pre-pandemic, Annual Dinner the Dean of the Faculty, Dr Ian Mills (Fig. 2) gave the following citation: "Shelagh has



Fig. 2: Shelagh Farrell receiving her award from the Dean of FGDP (UK), Dr Ian Mills.

made an extraordinary contribution to her patients, her peers and the wider dental profession, and her influence in particular in the establishment and evolution of the Faculty of General Dental Practice over the last twenty-seven years cannot be overstated. Shelagh is a remarkable individual, with unlimited energy, passion and enthusiasm, and I am delighted that she is the first recipient of the Faculty Medal."

In District 15, Central and North-eastern Europe, Serhiy Radlinsky, Regent, advised that Ukrainian dentists, in response to the military aggression in Donbass, which has been going on for six years, organised a mobile dental clinic on a volunteer basis to provide assistance to the military defenders of the country and the local population including children. The project is located 25 km from Donetsk, the occupied centre of Donbass, and includes five dental chairs and a dental laboratory that was created by funds raised by the dental community. Only coordinators work locally, but doctors, assistants and dental technicians come from different cities of Ukraine to work as volunteers for typically short periods of time. In this centre dental care ranging from professional dental hygiene to implantation surgery is available. An interesting feature of the project, which is called Dental Trident, is that a wooden church in the Carpathian tradition was built as a waiting room as part of the original project (Fig. 3). The centre is open for visitors around the clock, so the doors, which have no locks, are never closed. The initiator of this project is a European Section inductee for Fellowship of the College, Dr Myron Uhryn. There are a lot of volunteers, so the project offers



Fig. 3: Wooden church built as a waiting room for the Dental Trident project.

excellent opportunity for interaction between doctors and assistants from different dental schools and different cities in Ukraine to develop treatment protocols to predictably and consistently restore the oral health of the patients served by the centre.

In November 2019, the Universidad de Sevilla and its Faculty of Dentistry hosted a scientific meeting and charitable reunion for the benefit of the Philip Dear Foundation. This event was organised by District 12 of the European Section. The meeting greatly surpassed the expectations of its organisers, Dr Antonio Castaño Seíquer, Dr Santiago Jané Noblom and Dr Vicente Lozano de Luaces, with more than 200 participants. Following a welcome from Dr Santiago Jané, Dr Isabel Maura asked the question, "How far do we go in the treatment of our pediatric patients with ASD in our dental practice?". She described a practical approach for the dental care and management techniques for these patients to achieve best possible clinical outcomes. Next, Dr. Luis Jané gave a presentation on a dental clinic in a "slum" of Calcutta, including his moving experiences in this environment. This was followed by Dr Josep M. Ustrell discussing different concepts in professional ethics. Dr Gloria Cansina then presented current issues in bacterial resistance to antibiotics. She discussed the growing risk of existing antibiotics losing their effectiveness. Dr Hanni Farr, from Austria, spoke next on the relationship between periodontics and endodontics. Dr Vicente Lozano then took the attendees on a virtual trip of India, showing some of the worthy projects of the Fundación Vicente Ferrer. Next, Dr. Guillermo Galván gave an abundantly illustrated visual presentation on the link between dental aesthetics and function and the need for a multidisciplinary approach. Finally, Dr José M. Malfaz spoke about the importance of radiological diagnosis in dental traumatology and the opportunities new technologies offer. The meeting was closed by Dr Antonio Castaño, local host of the event. Many assistants and bachelors and masters degree students of the Universidad de Sevilla were present.



Fig. 5: Colleagues in Russia who received copies of ICDigest 2020.

Following the scientific meeting the reunion continued in the 'Real Círculo de Labradores' of Seville with an entertaining cocktail party. Dr Jaime Gil, President of the International Federation of Esthetic Dentistry flew



Fig. 4: Attendees at the annual meeting of District 8, Ireland, enjoying dinner.





from Bilbao just to attend this event. Dr Gil Alcoforado, President of the European Section, sent a letter that was read by Dr. Lozano. And, Dr. Ustrell, Vice Dean of Dentistry at the 'Ciencias de la Salud' Faculty in Barcelona, an active Fellow of the ICD and President of the Spanish Section in the Pierre Fouchard Academy was present also. The meeting was closed by Dr. Santiago Jane, Regent for Spain, who thanked Swedent-Martina and Lacer, the attendees for their presence and the Editor of *Odontologos de Hoy* for invaluable help in promoting the event.

In the heady days in February before the pandemic, District 8 -Ireland, held its annual meeting in Kilkenny. During the afternoon, in the beautiful Lyrath Estate Hotel, presentations were given by Fellows involved in projects with the homeless in Dublin and orphans in Belarus. Also, the 19 attendees were given a presentation on training in oral care for staff in residential homes. The evening was spent in the Michelin starred restaurant, Campagne where the meal and the service were superb (Fig. 4).

Colleagues in Russia, who donated to the Philip Dear Fund, received 500 copies of ICDigest 2020 for distribution at their CPD courses (Fig. 5). ICDigest 2020 included an article by Natalia Lopukhova (Fig. 5, front row, second from the left) on dental tourism.

Concluding remarks

The primary objective of the ICD remains "to advance the science and art of dentistry for the health and welfare of the public internationally". Activities in the Districts of the European Section of the College have been curtailed in 2020 by the Covid-19 pandemic. Several events did, however, take place prior to the pandemic and there has been an encouraging level of communication within and between the Districts and Fellows, with much hope placed on a positive change in circumstances in 2021. ■

Humanitarian Activities 2019-2020

Despite the Covid-19 pandemic many humanitarian activities supported at least in part by the Philip Dear Foundation have achieved remarkable, inspirational things during 2020.



Walter van Driel - FICD
European Section President-elect and Webmaster

In addition to the activities reported in this update, Frans Nugteren has been able to continue the much-needed dental care for homeless in The Netherlands – in his own words “business as normal”! Also, it is understood that many Fellows of the Section have generously provided unfunded emergency dental care services to patients in need, donated, amongst many other things, personal protective equipment to local hospitals, or found other ways to contribute locally, nationally and internationally to the response to the pandemic. It is hoped that colleagues such as Vincente Lozano de Luaces, who had to temporarily suspend care to ‘dalit’ patients in South India, will be able to return to their highly commendable humanitarian activities in 2021. With oral health inequalities having grown during the Covid pandemic, no better time to contribute to the Philip Dear Fund, or to find new ways to expand the humanitarian activities of the European Section of the College.



Mariana Dolores
Mundo A Sorrir

News from Mundo A Sorrir (Smiling World)

Working with children

Learning to Be Healthy (Aprender a Ser Saudável), established

in 2010, is a pioneering and innovative project in Portugal. Volunteers form multidisciplinary teams drawn from dentistry, nutrition, play and exercise. The programme functions in the areas of prevention and training, with a focus on oral health. Its aim is to introduce children to healthy habits. This programme is intended for

children of primary school age. It is important, however, to engage parents and teachers to have healthy habits established in schools and at home. The programme comprises oral hygiene instruction, including tooth-brushing, and educational games about healthy eating. Over the past 10 years Aprender a Ser Saudável has benefitted 22,825 children, provided 54,787 toothbrushes and toothpastes, delivered 1,231 training sessions and carried out 4,514 oral examinations. Since June 2019, and despite the global pandemic, Aprender a Ser Saudável has reached out to 3,000 children.

Working with the elderly

Door to Door Smiles (Sorrisos de Porta em Porta) is a project focused on the elderly. The aim of the project, which is run in the central region of Portugal, is to improve the oral health of elderly residents in nursing homes and day care centres and amongst those with home support. In addition to direct support for elderly individuals, this programme provides training sessions for carers, including instruction on the early detection of oral cancer.

This project has benefitted 1,266 elderly people and provided 45 training sessions to carers in 65 institutions. Since June 2019, Sorrisos de Porta em Porta has benefitted 433 elderly individuals.



Social Clinics

In the Oral Health Support Centre programme (CASO) oral health is a tool for social inclusion. By providing oral health care we give people in need more opportunities to find employment, to increase their self-esteem and to have better quality of life. With four clinics in different cities in

Portugal, the programme has helped over 7,000 individuals, including more than 450 people since June 2019.

The CASO clinics have remained open throughout the Covid-19 pandemic, with treatment limited to 'tele-apointments' and emergency care only when circumstances precluded other forms of care.



São Tomé and Príncipe

Healthy Smiles (Saúde a Sorrir) was established in São Tomé and Príncipe to improve access to oral health care for the population of the districts of Lembá, Caué, Cantagalo and Pagué, through the creation of care units and the provision of training to oral health providers. This programme also includes a preventive component in schools, improving oral health literacy and the promotion of healthy habits in primary school children.

The project in São Tomé and Príncipe has benefitted 27,875 children since 2013, provided 1,001 training sessions to 56 health professionals who have learned about preventive measures and performed 32,328 oral examinations and 5,457 dental treatments. Since June 2019, the programme has benefitted 4,700 individuals. This was achieved by five volunteers. Three volunteers who travelled out in February 2020 had to return early because of the pandemic.





Cape Verdi

The Healthy Smiles project in Cape Verdi, established in 2005, aims to improve the oral health of the socioeconomically compromised and most vulnerable members of the populations of the São Vicente and Santo Antão Islands. This programme is focused on the prevention of oral and dental disease and promotion of healthy habits in schools. Treatments are provided in care units.

This project in Cape Verdi has benefitted 25,428 children, provided 431 training sessions, and performed 12,689 oral examinations and 9,505 dental treatments. A total of 16,234 hygiene kits have been handed out. Since June 2019, four volunteers have benefitted 800 children.



Guinea-Bissau

In February 2020 Mundo A Sorrir was delighted, despite many challenges, to be able to open a new clinic in Guinea-Bissau. This clinic, which was a special project for Mundo A Sorrir, provides access to quality medical and dental care to the community. The memorable opening of the clinic was attended by Phillip Dowell representing the International College of Dentists.

During its first month, the clinic treated 75 patients. Arrangements are being made to reopen the clinic following the Covid-19 pandemic.

Since 2005 Mundo A Sorrir has run a Healthy Smiles project in Guinea-Bissau, with three main areas of activity: prevention, medical assistance, and training. The programme includes various activities, such as health literacy in primary schools and training sessions to oral health professionals. Since 2005, 6,124 children have benefitted, 770 training sessions have been provided and



10,976 oral examinations and 10,911 dental treatments have been undertaken. A total of 30,027 hygiene kits have been handed out.

Having trained local community promoters, they are now the ones instructing and motivating the children. This measure has greatly improved the children's oral health and been a huge help to maintain activities during the Covid-19 pandemic. By involving locals, we can benefit many more children!

Covid-19 pandemic

Because of the Covid-19 pandemic, Mundo A Sorrir has had to adapt to a new reality and rethink all its projects. As an organisation that values people and their lives, Mundo A Sorrir, through great effort and dedication, has found solutions to maintain its entire team. Adaptation has resulted in a more technological approach -more videos, more digital conferences, and more online appointments to sustain its activities. Besides activities in hospitals and dental clinics, the organisation felt the need to protect communities and minimise the risk of infection with the coronavirus by, for example, providing face masks. Where clinical facilities have been reopened, all health professionals have appropriate personal protection equipment.



Hani Farr - FICD

Continuing humanitarian activities of ICD Europe in the Philippines

Thanks to the generous support of the European Section of ICD and considerable time, effort and energy, I have been able to continue free dental services in the Gawad Kalinga (GK) Hope Village in the remote Negros Island in the Philippines. In February 2019 almost 400 local students and teenagers celebrated oral hygiene days, with great motivation and enthusiasm, recognising the support provided by the European Section of the College.

In addition to dental services and oral hygiene days, I was able to provide education and various measures to promote the prevention of oral and dental diseases.

Since the beginning of the project eight years ago, the oral hygiene and attitudes to a dental care have improved significantly. Even small children are now motivated and eager to adopt a preventive approach to maintain their oral health. As in previous years I provided brochures, educational materials and many other sources of information on oral hygiene to the school. Students and teenagers have received a dental kit, comprising a toothbrush and tooth-

paste obtained by donations from the European Section of the College and the Section's District in Austria.

Teachers and local volunteers received extensive teaching on the anatomy of oral cavity, tooth structure, risk factors for dental caries, healthy eating, oral hygiene techniques especially before sleeping, and regular dental assessments. As the school is growing and its infrastructure is limited, the hygiene facilities provided in 2015 are no longer sufficient. A second hygienic facility is planned, with the generous support of the European Section of the College.

The inspiration for the GK Hope Village project came from the caries prophylaxis programme 'Apollonia 2020' introduced in all schools and kindergartens in lower Austria more than 20 years ago. The project has achieved many positive results in the eight years since it was established. With further support, I hope that the project will continue to transform the lives of the villagers.





George Papavasiliou
Phophi Kamposiora -
FICD

Update on Axion Hellas

At exceptional times such as 2020 'giving' is needed most. As always at 'Axion Hellas', we had planned our activities early in the year. Three amazing trips, two smaller ones and our major excursion in May. We had been to some of the islands in the past and we were expecting to see old friends, but there were also new ones to discover and more people to help.

In early March, Greece went into total Covid-19 lockdown. The lockdown lasted until early May. Even then it was impossible to plan and execute any trips. Safety of the participants and the people in need is always our major concern. So, everything was canceled.

Then the Ministry of Health and the Greek National Health Organization (GNHO) invited Axion Hellas to help with the creation of a database on the spread of the pandemic to the remote islands, where there are no major medical facilities. The task was to visit 15 islands, with a sailing distance of over 1,000 miles in only 6 days. As a doctor and a captain, I was included in a small team of Axion Hellas and GNHO's volunteers.

It was an amazing journey. We were accompanied by the Vice Minister of Health and the President of the GNHO. We traveled fast in order to cover the distance. It was hard work visiting three to four islands every day. Team spirit and teamworking were at their highest level especially after the third day when everybody was affected by the constant traveling under difficult conditions.

We concluded our mission, which involved more than 1000 tests. This created a baseline database which subsequently helped the islands to 'open' to tourism. Axion Hellas's tested infrastructure and our relationship of trust with the islanders, helped us to execute such a mission.



As we emerge from a second lockdown, we are very optimistic about conquering the pandemic soon, specifically given discussions to help with the vaccination of our friends on the islands.



Robert Morris

Volunteerism and Covid

This report focuses on our efforts in Saigon in 2020.

Our project (www.maitamhouseofhope.com) was founded in 2005-2006 as a funding site, in cooperation with John Toai, a Vietnamese priest of the Italian Order of Missionaries of the Infirm (founder: St Camillus). The author and his wife Jill Morris provided the initial start-up seed money for the center/orphanage for innocent victims of HIV/AIDS-infants, young children and widowed mothers. John Toai is the founder of Mai Tam.

Mai Tam House of Hope has stabilised, is sustainable and functioning with a high-level of management, assuring appropriate social needs to all clients, including housing, healthcare, and educational opportunities through the tertiary level. A limited number of clients live in three buildings in Saigon based on age and gender, while other clients are cared for in the community, at home or in extended family homes.

Mai Tam House of Hope has progressed to a level at which the Directors can organise projects of 'giving back' to society, where the HIV/AIDS clients, many now young adults, go into distressed and underserved communities to provide basic foods to the desperately poor, e.g. farmers and fisher persons suffering at the hands of ecological disasters in the Mekong Delta, or refugees on the Vietnam-Cambodian border. We find this an extraordinary





Giving Back. Local project in the Mekong Delta, involving Mai Tam House of Hope clients distributing donated rice to the needy.

nary achievement—a wonderful example of volunteerism by children that we as professionals can learn from and follow.

A link to a recent promotional video on this subject can be found on YouTube.

The basic social data for the project remains stable. Some 85 infants/children with HIV/AIDS or affected by HIV/AIDS are housed, together with some 20 HIV/AIDS positive widowed mothers. Another 280 plus clients are treated within the community and live at home or with relatives. All clients attend school or are home schooled.

In the exceptional time of Covid, Mai Tam House of Hope has fended off the ravages of both HIV/AIDS and Covid-19. Through the extraordinary effort of its directors and volunteers at the local level, Mai Tam is now in a stage of development to 'give back' to those with less, while still seeking out and saving innocent child victims of HIV/AIDS. The Centre has extended itself into the community to provide for others less fortunate. Despite receiving worldwide support, funding is distressed in this time of Covid. The author and his wife will continue their efforts as long as is possible. To quote Saint-Exupéry, "One step forward, always one step forward, never back"!

Support Mai Tam at: www.maitamhouseofhope.com ■

The Philip Dear Foundation

The Philip Dear Foundation (PDF) is a charitable fund for educational and humanitarian purposes which the European Section established in June 2005 to celebrate its 50th anniversary and to commemorate Philip Dear, considered by many to be one of the key Founding Fathers of the European Section.

Anyone wishing to make a donation, or give notice of a legacy to the PDF, possibly in memory of a family member, friend or colleague, in the event of some monetary good fortune, or simply out of personal generosity to allow the Foundation to expand and enhance its activities, may do so by contacting the Treasurer of the European Section, Maren de Wit (medewit@witmede.nl), or by making an electronic transfer to ICD European Section NL22 ABNA 0414 5452 81. It is always enriching to give!

Twenty years partnership between universities of the Republic of Moldova and the USA

Nicolae Testemitanu State University of Medicine and Pharmacy and the University of North Carolina



Diana Uncuta - FICD

Associate Professor, Doctor
Habilitation in Medical Sciences,
Master in Public Health, Chair
of the Department of Stomatological Propaedeutics, Nicolae Testemitanu State University of Medicine and Pharmacy, Republic of Moldova



A Memorandum of Intent, signed on April 22, 1999, established the ongoing collaboration between the Faculty of Stomatology of the Nicolae Testemitanu State University of Medicine and Pharmacy, Republic of Moldova and the Adams School of Dentistry, University of North Carolina, Chapel Hill, North Carolina, USA. The aims of this successful, 20 year-old collaboration have been: to provide support in the field of scientific and academic research, to increase the level of cultural awareness and understanding of common values through art, humanitarian sciences and education, and to promote the level of life through academic mobility of university professors and students.

One of the objectives of the collaboration has been the provision of free dental care by Moldovan-American teams to orphaned and other disadvantaged children in various centers and orphanages in the Republic of Moldova.

Between 2000 and 2006 dentists from Moldova and the USA volunteered to provide free dental care in the Municipal Dental Center in Bălți for one or two weeks each year. Each week at least 250 children from socially vulnerable families and orphanages were treated.

Stephen Mackler, Robert Kriegsman and Burton Horwitz were the first volunteer dentists from the USA. These colleagues have subsequently made numerous repeat visits to the Republic of Moldova for volunteer dental missions. Other dentists involved in the provision of free dental care in Bălți have been military dentists from the USA Army

National Guard and the Bilateral Affairs Office, as well as dentists from the Chișinău Military Hospital and Moldova Republican Dental Polyclinic.

Residents and students of the Faculty of Stomatology Nicolae Testemitanu State University of Medicine and Pharmacy have made important contributions also. The dental students forming part of the Moldovan-American volunteer teams have been supervised by Moldovan and USA teachers. During the initial years of the collaboration, coordination, translation and logistics were provided by the author – Dr. Diana Uncuța.

As part of the collaboration, dental treatments and oral hygiene lessons have been provided for orphaned children from the Bălți 'Casa Copilului' orphanage, socially vulnerable children from the Ungheni, Jewish Community in Bălți, children with hearing disabilities from Chișinău, orphans in Ialoveni, and children in social care in Strășeni. Emphasis has been placed on prevention and educating the children in oral hygiene procedures.

In 2009 an 'Update in Oral Medicine' videoconference was organised. Speakers included Valerie Murrah, Head of the Department of Oral and Maxillofacial Pathology, Adams School of Dentistry, University of North Carolina University and Diana Uncuța – the author. Professors from the USA participated in the Medespera Congress in 2018 and in the International Congress of Stomatologists held in the Republic of Moldova in 2019.



Volunteers caring for one of the children who have benefitted from the collaboration.

All activities linked to the collaboration were supported by Ion Ababii and Emil Ceban, Rectors of the Nicolae Testemitanu State University of Medicine and Pharmacy, the Ministry of Health, Labor and Social Protection of the Republic of Moldova and the Deans of the Faculty of Stomatology and Professors Pavel Godoroja, Ion Lupan, Sergiu Ciobanu, Oleg Solomon. Visitors to the Nicolae Testemitanu State University of Medicine and Pharmacy have included Professors Miller, Reside, Olmsted, Moriarty, Hershy, Koroluk, Mackler, Horwitz, Siegel, Mora and Thomas, dental hygienists Sally Hewett, Leeann Keefer, Laura Kyle, Mary Mckenzi and Beatrice Sinigur and dental assistants Kelli George and Laura Ingle, together with dentists from the USA - Overman, Peterson, Beydoun, Swinney, Vakil, Patterson, Mumford, Pimenta, Ginnis, Arm, Williams and Grant.

Between 1999 and 2019 courses have been run by dentists and students from USA at the University Stomatological Clinic of the Nicolae Testemitanu State University of Medicine and Pharmacy. The topics covered in these courses have included dental trauma in children, dental treatment under general anesthesia in hospitals, Periodontics, Orthodontics, Oral Medicine and the educational programmes at the University of North Carolina School of Dentistry.

Overall, more than 5,000 children have been treated free of charge as a result of the collaboration. The consumables and dental materials have been provided by USA partners.

About 20 students, residents and 15 teachers from Nicolae Testemitanu State University of Medicine and Pharmacy have visited the University of North Carolina School of Dentistry. More than 50 students and 30 teachers from the University of North Carolina have benefited from the exchange experience. All of this has been made possible thanks to all those who have volunteered their time and generous financial support from the International College of Dentists. ■



A group photograph from one of events organised as part of the collaboration.

Is antimicrobial resistance the next big problem for dentistry?

If the ever-growing global issue of antimicrobial resistance is unchecked, it is expected that within thirty years more people will die from resistant infections than will die from cancer. The answer to this complex problem will be less straight forward than simply a vaccine.



Wendy Thompson
NIHR Clinical Lecturer
in Primary Dental Care,
University of Manchester



Susie Sanderson - FICD
Past President British
Dental Association,
Dentolegal Consultant,
Dental Protection MPS



Jalpal Patel
Dental Leadership
Transformation Fellow
with Health Education
England

Twenty-twenty will be remembered as the year in which a deadly virus spread globally and rapidly caused over a million deaths, significant damage to national economies and devastating effects on those in lower socio-economic communities. Normal life came to a standstill for people across the world. At the time of writing, the early vaccination programmes for Covid-19 are underway; there is light at the end of this currently dark tunnel. Over time, economies will recover, our lives will go back to a new sort of normal and the annual rate of deaths and morbidity from Covid-19 will stabilise.

This is in sharp contrast to the anticipated impact of drug-resistant infections, where microbes (bacteria, fungi and viruses) are becoming resistant to the full range of antimicrobials. If the ever-growing global issue of antimicrobial resistance is unchecked, it is expected that within thirty years more people will die from resistant infections than will die from cancer (Fig. 1). The answer to this complex problem will be less straight forward than simply a vaccine.

Antimicrobial resistance is such a threat to public health

that it has been compared to the risk posed by climate change and global terrorism. Antibiotics underpin modern medicine and surgery, allowing complex and necessary procedures such as cancer treatments and organ transplants. With little prospect of new classes of drugs on the horizon, a post-antimicrobial era is anticipated in which effective antimicrobials are no longer available. Antimicrobial resistance is a universal issue that could affect anyone. Everyone is vulnerable.

Resistance is driven by the overuse of antimicrobials in both people and animals (including for food production) as well as in the environment (Fig. 2). Exposing people to antimicrobial drugs when not necessary (e.g. 'just in case' or to meet patient demands) increases the risk that they will fail for that person when they are necessary (e.g. to treat sepsis).

Antimicrobial resistance is a slow-motion pandemic, where the pace and range of infections that do not respond to antibiotics increases year on year. The WHO Global Action Plan on antimicrobial resistance aims "to

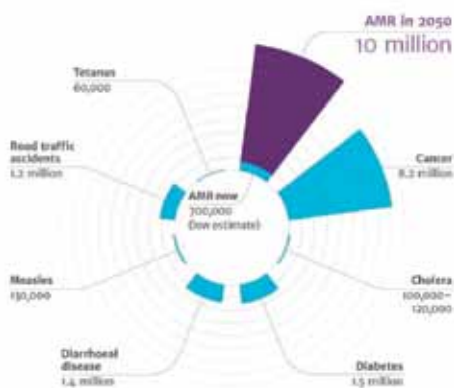


Fig. 1. Deaths attributed to antimicrobial resistance (AMR) in 2016 and 2050, compared to other major causes of death in 2016. Re-printed with permission of the O'Neill Review on Antimicrobial Resistance.

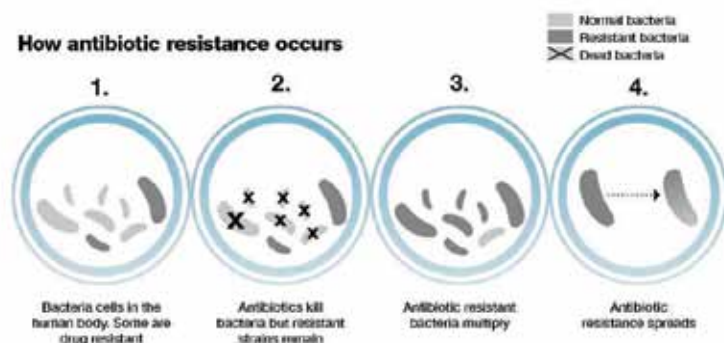


Fig. 2. How bacteria become resistant to antibacterial (antibiotic) drugs. Reproduced with permission of Public Health England (PHE).

ensure, for as long as possible, continuity of the ability to treat and prevent infectious diseases with effective and safe medicines that are quality-assured, used in a responsible way, and accessible to all who need them."

Problem for dentistry

Dentists are responsible for about 10% of antibacterial (antibiotic) prescribing for humans globally. Despite efforts to reduce antibiotic use, too many antibiotics are still being prescribed by dentists: studies in the United Kingdom and United States have found around 80% unnecessary or inappropriate dental antibiotic prescribing. The dental profession has a clear responsibility to commit and contribute to global, national and local efforts to safeguard the effectiveness of antibiotics for future generations.

The failure of antibiotics to treat an oral infection can pose a life-threatening risk. The spread of dental infections toward vital structures in the head and neck may occur rapidly. Yet dental infections are generally amenable to treatment by a dental procedure (such as extraction of the tooth) to remove the source of the infection without the need for antibiotics. For pain in the absence of infection (such as irreversible pulpitis), antibiotics are never appropriate. Dentists are surgeons, skilled and equipped to diagnose and provide definitive treatment for acute dental conditions. Remote management (where patients are not seen face to face) or care provided in non-dental settings (such as the emergency department) are not usually the most effective or safest solutions for patients as dental procedures may not be provided.

In addition to antibiotic resistance, other adverse reactions such as allergy/anaphylaxis and *Clostridoides difficile* (*C. difficile*) infections caused by dental antibiotics are important patient safety risks which can be life threatening. The potential benefits of using antibiotics must, therefore, be balanced against the risk of adverse outcomes.

Best practice

No one-size-fits-all solution exists for tackling antibiotic resistance. Patterns of antibiotic resistance differ between countries (Fig. 3) and a range of other issues (including access to dental care) influence what constitutes appropriate dental antibiotic prescribing. Factors important in some low-middle-income countries, such as the widespread availability of substandard antibiotics for people to purchase in local shops, may be less relevant in some high-income countries. Addressing antibiotic resistance requires tailor-made solutions crafted for the local context.

Patterns of resistance for other combinations can be found at <https://resistancemap.cddep.org/AntibioticResistance.php>.

The FDI World Dental Federation has published a white paper which provides a framework for dental teams to develop local solutions by:

- preventing dental infections,
- optimising antibiotic prescribing (stewardship) and
- raising awareness about antibiotic resistance.

Accompanying the white paper is an online library of resources from around the world that provides examples of material that may be adopted/adapted to meet local needs.

Preventing infections

Preventing infections reduces the need for antibiotics and makes an important contribution to combatting antibiotic resistance. Preventing dental infections by reducing sugar consumption, rewarding excellence in oral hygiene and introducing fluoridation programmes, together with early diagnosis and treatment of disease, are important ways of preventing dental caries (Fig. 4) and periodontal disease, which in turn reduce the risk of dental infections.

Antimicrobial stewardship

Antimicrobial stewardship means optimising prescribing ►

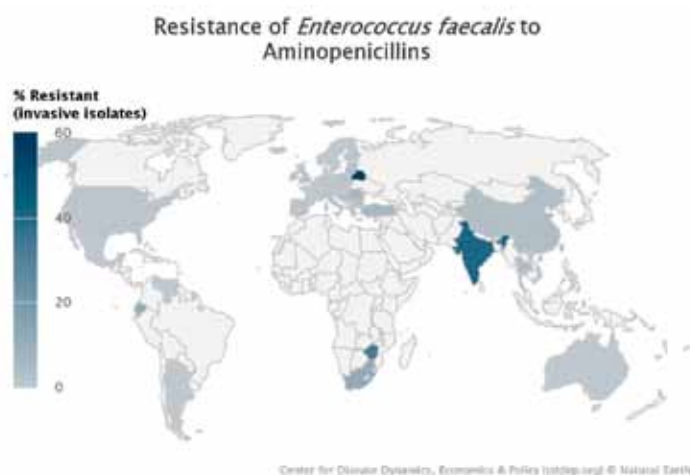


Fig. 3: Global heatmap showing the pattern of antibiotic resistance for a particular drug/bug combination (*E. faecalis* resistance to aminopenicillins such as amoxicillin). Reproduced with permission of: Centre for Disease Dynamics, Economics & Policy.



Figure 4: Combat antibiotic resistance by preventing tooth decay. Reproduced with permission of FDI World Dental Federation.

so that dental procedures are delivered whenever possible and antimicrobial drugs are only used when necessary. Antimicrobial stewardship programmes are interventions aimed at promoting the use of antimicrobials appropriately, i.e. in accordance with guidance. National guidance based on locally relevant factors (such as local patterns of antibiotic resistance, availability of high-quality antibiotics and access to dental care) sit at the heart of efforts to optimise antibiotic prescribing. In some cases, significant investment and resources may be required to develop and implement national guidelines which are fit for the local context, rather than based on research and data from other countries.

Awareness raising

Members of the dental team hold a high degree of respect within local communities, and there is a responsibility to use this privileged position to raise awareness about antibiotic resistance among the general population, as well as with patients. Dental professionals are skilled communicators who are well placed to deliver these public health messages; demonstrating judicious use of antibiotics is an important part of this messaging. An excellent way for people to highlight their commitment and raise awareness about antibiotic resistance is provided by the Antibiotic Guardian pledge scheme (www.antibioticguardian.com).

Taking the lead

The FDI white paper encourages national dental associations (NDAs) to make a clear and public commitment to tackling antibiotic resistance, including advocating for dentistry to be explicitly included in the National Action Plans for tackling antibiotic resistance (as per the WHO global action plan). The influences on dental antibiotic prescribing are different from other aspects of primary healthcare, and this has been clearly demonstrated during 2020. While restricted access to healthcare professionals during Covid-19 lockdowns led to a reduction in antibiotic use by most primary healthcare professions, a sharp increase by dentists has been noted in several countries.

In the absence of the opportunity to carry out dental procedures, difficult decisions were required about how best to balance the risks and benefits for patients. Dentists in England followed guidance from the authorities, and antibiotic prescribing increased in most parts of England reaching a peak in June 2020, just before dental practices re-opened to treat patients face to face. Ensuring access for all to dental care is vital to optimising antibiotic use and national dental associations should highlight the importance of including it within the National Action Plans and local antimicrobial stewardship programmes.

Conclusion

Antibiotics are essential to modern medicine and can be lifesaving drugs. Everyone is vulnerable to antibiotic resistance and everyone has a role in tackling it. Minimising resistance and ensuring the judicious use of antibiotics is the joint responsibility of everyone working in the healthcare sector. The risks of antibiotic use for patients need to be balanced against the benefits. There is no one-size-fits-all solution to tackling antibiotic resistance as factors influencing it are so different between places and over time. The dental profession's role in tackling antibiotic resistance is further defined in the FDI's white paper (including its online library of resources from around the world). ■

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Post-Covid leadership in dentistry

Much has been written about the impact of the Covid-19 pandemic on the operation of dental practices. The effects on leadership and the associated challenges have, in contrast, received little coverage, despite offering the biggest opportunities.



Simon Gambold - FICD
Director at engagetheteam.co.uk. Graduate of the Babson Business School at Harvard.



Many practices have seen their whole process change. Patients journeys have been digitised and dental teams have, amongst other things, changed their working hours and treatment patterns.

We have seen a terrific response from dental team members, but the ongoing uncertainty has left many in vulnerable situations. It is at times like this that leaders are looked to for comfort, support and a clear view of what lies ahead.

Principals of a practice and associate dentists share a leadership role in the eyes of dental team members and have opportunities to develop leadership skills to provide the right working environment for their team and patients alike. By practicing leadership skills daily, dentists can create a happier, more productive workplace – a workplace that is enjoyable to be in and one that is a great experience for patients, whenever they visit or contact the practice.

Actively engaging and motivating colleagues encourages enthusiasm as well as an environment for eliciting great ideas. Furthermore, a motivated team will input more, cooperate more and achieve more. Key to engaging team members is helping them understand how their work contributes to the overall mission. This helps foster a belief that individuals are part of something bigger and critically that they trust the leader of the team.

Trust can only be built through the actions leaders take,

not just by what they say. They must also 'walk the talk'. Being open to ideas, having honest conversations, encouraging new ideas and discussing mistakes in terms of how things can be remedied is a more valuable framework than simply asking who screwed up!

Leaders imbue a unique gift. They can help others to be more successful than they believe they can be. Everyone has a voice in their heads telling them they cannot do something, asking whether they are good enough and giving excuses to avoid trying something new. Great leaders create the environment that allows members of their team to try, to fail in safety and try again – the best way to learn!

Contrary to popular myth, leadership can be learned. By practicing the essential skills, leaders can become better, helping team members be successful and creating a more rewarding environment. There are some simple steps to follow, steps that can be executed in a few hours a week.

Key elements leadership

The key elements of a leadership journey are:

1. Creating a compelling future – *Setting the vision*. Where do we want to be in five years? What can we do that will inspire us and others?
2. Engaging in meaningful work – *Our purpose*. What is it we will do over and above providing oral care that supports the communities we serve?
3. Being clear about standards and principles – *Setting standards and agreeing values*. How we will treat each

4. Creating a 'high performance', safe culture – *Holding the team to a higher standard*. Being strong on performance, yet safe and kind-hearted to the people around you.
5. Creating positive relationships – *Connection*. Aim to be the 'oil' that connects and lubricates relations with all the practice stakeholders: team members, patients, suppliers, owners/investors and the local community.
6. Prioritising personal and professional growth – *Development*. Creating personal development plans for you and your teams, reviewing progress and securing the training needed, not just for clinical activities.

Much research has been done to demonstrate the relationship between engaged teams and productivity, profitability, creating outstanding customer experiences and building a great place to work.* The evidence reveals a focus on leadership skills which motivate employee engagement, drives performance and customer and team satisfaction. As engagement builds so team members become more motivated to 'go the extra mile', both for colleagues and customers. As a result, accidents at work and sickness absence reduces, collaboration and productivity increases, creating a virtuous circle that drives positive benefits for patients and other stakeholders alike. I see this happen in many of the practices I work with. However, the busier and larger a practice becomes, the

As practices came out of Covid-19 lockdown they had to re-invent their processes and accelerate the change to a digital customer journey that many had started but not fully engaged with. Patients now have a socially distanced experience that maximises the available technology whilst maintaining the unique patient interaction with the clinician and the dental team. Many dentists report that they are enjoying the extra time with patients and have come up with various ways to compensate for the lower productivity that Covid-19 restrictions have brought, including, for example, longer opening hours and providing various treatments in a single appointment.



Key future success

For leaders, notably Fellows of the International College of Dentists, the key to future success comprises:

Mindset: We must engage our teams in the new world, we need to ensure we start with the right mindset. We need to have a clear-eyed optimism to take the business forward, whilst being realistic about the challenges and what we can achieve. We need to retain focus, ensuring that issues we cannot influence, do not derail us. We should focus on those issues we can influence, and especially those we can control, ensuring our time is spent productively.

Practice: As we develop our clinical skills, so we need to develop our leadership skills. We must 'walk the talk'. People need to see what we do, not just what we say. And whilst we must be tough on standards of performance, we must also be considerate to the team members we work with. People will respect being held to account for something they committed to if we in turn are considerate of them when they need time for personal and family related issues. It is important to pay attention and listen - 'wait for the silence to end'. In other words, let them finish speaking and pause before responding. "How can I help?" is a very good introductory phrase. They may have a problem that they already know the answer to. Just give them time to get there and permission to apply their solution. Remember the team comes first, before even your patients, if they are not engaged, not happy, it does not matter how good your rapport is with patients they will undo the good work. Engaged, they will build on it and support the vision you have set out.

Trust: Why should your team follow you? What will you do for them? It is important to understand their priorities and goals, by understanding them, you are more likely to get them onboard as engaged team members.

Then you can hold them, and yourself, to a higher standard, lifting the performance of the team. Just as we do when facing a higher calibre player in sport, we lift our game. Finally do what you say you are going to do; I am always surprised by how often we fail here. Of course, we cannot always meet deadlines, but flagging up challenges and asking for more time work better than just not delivering.

Team potential: – What's holding them back? Our job is to remove obstacles, provide resources, give permission. Once we have teased out the ideas, they can execute. But we must let go – It's OK when they do it differently! Getting the right people in the right role is important, but their attitude is the most important part of our success, something to remember as we recruit.

Our Brand: How patients feel as they leave the practice is what I call our brand. Brand follows culture, which is driven by the team's behaviour, so getting them engaged pays dividends. A team that exhibits enthusiasm, a welcoming, friendly and supportive environment will succeed. Let's reflect on our behaviour, how the interactions with team members went. What could we do differently next time?

Communication: Time and time again we see a lack of communication, both to team members and patients. Communicate clearly, consistently and regularly, even if it seems like you are repeating yourself. It may take two or three goes for them to hear us properly, there is so much going on! People can be nervous and fill the vacuum with their own concerns if we are not clear with them. Always give time to discuss the new. Is what I've said clear? What are their questions and concerns?

A happier workplace

Now in 2021, we can step back from the day-to-day changes in the practice routine and focus more on our leadership journey. By taking time to create a personal development plan for our leadership skills, we are making an investment in ourselves, that will pay dividends. Next, we can set regular team meetings where we recognise outstanding team members, express our thanks, update everyone on progress, share experiences and ideas and use the power of the team to discuss and agree next steps in our plan. Whether we are running a practice, a team or just learning the ropes, we can practice leadership skills to build teams around us who will be productive, deliver a great experience and as a bonus enjoy a happier workplace.

In the post-Covid world we can make time to talk to each of our team members, understand their perspective, ambitions and concerns. We can spend time building cohesion, helping them contribute more and as a result get more back. The result could be not just a more productive practice and a better patient experience but also a happier workplace for both us and our teams. Let's give it a try! ■

Footnote

**Organisations with a high level of engagement report 22% higher productivity, according to an analysis of 1.4 million employees conducted by the Gallup Organization. Benefits include lower absenteeism and staff turnover, so lower recruitment costs. Higher scoring organisations report 48% fewer safety incidents and 41% fewer quality incidents.*

The Harvard Business Review/ADP Research Institute study by Marcus Buckingham and Ashley Goodall: 'The Ingredients of Engagement' in 2018, which looked at 1,000 organisations in 19 countries, and 'Working as part of a team and trusting the leader', the CBI Report in 2019 show organisations with highest employee engagement have 41% less absenteeism and 22% higher profits than those with the lowest.

The way ahead: Delivering Optimal Oral Health for All

Almost a decade after the publication of the landmark Vision 2020 report by FDI World Dental Federation (FDI), oral health is still not integrated into global health and development agendas or recognised as a priority by governments and individuals. The global burden of oral diseases remains unacceptably high, despite the fact that they are largely preventable, and major inequalities in oral health persist.



David M Williams
Barts and The London
School of Medicine and
Dentistry Queen Mary
University of London



Michael Glick
University at Buffalo
State University of New
York

Recognising this harsh reality, the FDI Council charged Professor David Williams, Professor of Global Oral Health at Queen Mary, University of London, UK and Professor Michael Glick, Professor of Oral and Diagnostic Sciences, School of Dental Medicine, University at Buffalo, USA with producing a strategic plan that would address the challenges outlined above.

Vision 2030: Delivering Optimal Oral Health for All (Vision 2030, <https://www.fdiworlddental.org/vision2030>) is the result; it owes much to the efforts of a Working Group of distinguished clinicians and academics convened by Professors Glick and Williams. The members of the Group are acknowledged at the end of this article.

Strategic challenges

Vision 2030 confronts the strategic challenges that will face the dental profession and the oral health community over the next decade and it proposes strategies for how

these can be turned into opportunities to improve oral health, reduce oral health inequalities and contribute to reducing the global burden of oral diseases. Central to these strategies are the integration of oral health in policy initiatives, such as the United Nations (UN) Sustainable Development Goals (SDG) and Universal Health Coverage (UHC); adapting to societal transformations, such as ageing populations; and shaping an oral health workforce which is fit for purpose. The Vision 2030 report aims to assist the profession in realising delivery of optimal oral health to all – with no person left behind.

Forward-looking report

FDI's vision is that by 2030 oral healthcare will be empowering, evidence-based, integrated and comprehensive. This forward-looking report therefore outlines how the oral health community can tackle actual and anticipated transformational changes and trends in the global healthcare environment and seize opportunities to become productive members of a healthcare team which delivers person-centred care. It makes the case for oral health to be included in Health in All Policies and any ensuing health and healthcare debate. The report specifically:

1. highlights major global emerging changes to the healthcare enterprise;
2. outlines how these changes will affect oral healthcare over the next decade;
3. presents strategies and solutions pertinent to the oral healthcare profession;
4. supports and complements other major global health and development agendas, including SDGs; the NCD movement; UHC, and global population ageing;
5. argues for effective population level prevention and emphasizes the importance of professional resilience;
6. advocates for the delivery of oral healthcare and oral

Vision 2030 Working Group

Acknowledgments and affiliations

Co-chairs

- Prof. Michael Glick, Professor, Department of Oral Diagnostic Sciences, University at Buffalo, State University of New York, New York, USA
- Prof. David M. Williams, Professor of Global Oral Health, Institute of Dentistry, Barts and The London School of Medicine and Dentistry, Queen Mary University of London, London, UK

Members

- Prof. Ihsane Ben Yahya, FDI President Elect (Sept 2019–Sept 2021), FDI World Dental Federation, Professor of Higher Education in Oral Medicine and Oral Surgery, Faculty of Dentistry, HASSAN II University of Casablanca, Head of Oral Surgery Clinical Department, Consultation Center and Dental Treatment, CHU Ibn Rochd, Casablanca, Morocco
- Dr William W. M. Cheung, Vice Chair, FDI Education Committee, FDI World Dental Federation, Adjunct Associate Professor, University of Pennsylvania School of Dental Medicine, Honorary Clinical Associate Professor, University of Hong Kong Faculty of Dentistry, Managing Director, Dr. William Cheung & Associates, Hong Kong SAR, China
- Mr Enzo Bondioni, Executive Director, FDI World Dental Federation, Geneva, Switzerland
- Mrs Pam Clark, Officer of the Order of Australia, Ambassador, Association of International Dental Manufacturers, Industry Affairs, Cattani Australasia, Appenzell, Switzerland
- Prof. Stefan Listl, Professor and Chair, Department of Dentistry Quality and Safety of Oral Health Care, Radboud University – Radboudumc Nijmegen, the Netherlands, Head of Section for Translational Health Economics, Department of Conservative Dentistry, Heidelberg University Hospital Heidelberg, Germany
- Dr Manu Raj Mathur, Head of Health Policy, Additional Professor, Public Health Foundation of India, Gurugram, India, Senior Lecturer, University of Liverpool, Liverpool, UK
- Prof. Peter Mossey, Professor of Craniofacial Development, Associate Dean of Internationalisation, School of Dentistry, University of Dundee, Dundee, UK
- Prof. Hiroshi Ogawa, Head and Professor, Division of Preventive Dentistry, Graduate School of Medical and Dental Sciences, Niigata University, Member of the Public Health Committee, FDI World Dental Federation, Director WHO Collaborating Centre for Translation of Oral Health Science, World Health Organization, Niigata, Japan
- Dr Gerhard Konrad Seeberger, FDI President (Sept 2019– Sept 2021), FDI World Dental Federation, Geneva, Switzerland, Dr. Gerhard & Tommaso Seeberger Private Dental Practice, Cagliari, Italy
- Dr Michael Sereny, Dental Practitioner, Praxis Dres. Sereny, Hannover, Germany

healthcare professionals as active members of the overall health-care team and

7. assists FDI and its member organizations in shaping longer-term advocacy strategies and policies.

Three pillars

The Vision 2030 report is constructed around three pillars, each with a major goal:

- Pillar 1: Universal coverage for oral health. By 2030, essential oral health services are integrated into healthcare in every country and appropriate quality oral healthcare becomes available, accessible and affordable for all.
- Pillar 2: Integrating oral health into the general health and development agenda. By 2030, oral and general person-centred healthcare are integrated, leading to more effective prevention and management of oral diseases

and improved health and well-being.

- Pillar 3: Building a resilient oral health workforce for sustainable development. By 2030, oral health professionals will collaborate with a wide range of health workers to deliver sustainable, health-needs-based, and people-centred healthcare.

These pillars are supported by a strategy for education that will create a responsive and resilient profession, with the knowledge and skills to lead systems reforms. By 2030 healthcare professionals will have the knowledge, skills and attributes to contribute appropriately to the effective prevention and management of oral diseases and collaborate across health disciplines to improve health and well-being. Their education and training in public health will

► Continued on page 29

The Council of European Chief Dental Officers

This article describes how and why the Council of European Chief Dental Officers (CECDO) was formed in 1992. It then summarises its aims, activities and achievements and lists its Past Presidents.

A number of ICD Fellows are and have been members of the CECDO.



Kenneth Eaton - FICD
Adviser to the Council of
European Chief Dental Officers

Introduction - The early days

In 1992, when the United Kingdom (UK) held the Presidency of the European Union (EU), the Chief Dental Officer (CDO) for England - Dr Brian Mouatt - had the idea of founding a Council for European Chief Dental Officers. He put this proposal to the Department (Ministry) of Health and pointed out that as the Chief Medical and Chief Nursing Officers of EU Member States met every six months, in the Member State that held the Presidency of the EU, to share knowledge and common challenges, it was logical that the CDOs should do the same. The Minister of Health agreed and gave permission for an inaugural meeting of European CDOs to take place in London as part of the UK's programme for its Presidency. Funds were available from the budget for the UK's Presidency and were supplemented with sponsorship from various organisations, including the British Dental Association.

It was possible to pay for all the expenses (travel and hotel accommodation) of two representatives from each of the then EU Member States. The meeting took place in Church House, Westminster, next door to Westminster Abbey. Delegates were accommodated at the Royal Hampshire Hotel in Leicester Square, which was in walking distance of Church House. This hotel is in the building, which had previously housed the Royal Dental School. Apart from the scientific and business meetings, the programme included a lunch in the House of Lords. During the meeting, Dr Brian Mouatt was appointed as the first President of the CECDO, Dr Ingrid Morris as the Secretary and Dr Jos van den Heuvel as the Treasurer. The second meeting of the CECDO was held in the spring of 1993 in Copenhagen. Meetings have been held since then every six months, usually in the Member State that holds the Presidency of the EU. When this has not been possible, they have been held in other states.

Sadly, in summer 1994, Ingrid Morris died of cancer. Also, in 1994 the informal group of European CDOs became a legal association with a constitution under Dutch law, with the name Council of European Chief Dental Officers. The first Executive Board consisted of Dr Brian Mouatt, Chairman, Dr Eeva Widström, Secretary and Dr Jos van den Heuvel, Treasurer and Dr Kenneth Eaton was appointed as adviser.

Who are CDOs?

A CDO can be defined as the senior adviser on dentistry to



Executive with Adviser and Assistant in 1994.



Secretary, President and Treasurer 1994.



CECDO meeting in Berlin, October 2010 (Acknowledgement © Pietschmann/BZÄK, 2010)).

a national government. In some countries, such as Ireland, the Netherlands, The Nordic Countries and the United Kingdom (UK), they are dentists who have full-time appointments as civil servants. In some others, such as Italy and Slovenia, they may be senior dentists who are not civil servants but have been asked to be advisers by health ministries. In other countries, such as Austria and Spain, they are full-time civil servants but are not dentists. One is an epidemiologist, and another is a lawyer. The current CDOs for Belgium and Germany hold appointments within their national dental association. They therefore have very different backgrounds.

The CDOs of all European Union Member States and European Economic Area States (Iceland, Liechtenstein and Norway) together with Switzerland and the UK are full members. CDOs from other European countries and Israel are also invited - a CDO from Israel being a Past-President.

Why was there a need for CECDO?

Prior to the establishment of the CECDO, many CDOs across Europe did not know each other, and there was no forum to meet, especially as a group. There was also very little common understanding of the significant differences that existed in the provision of oral health services across Europe.

However, after the initial meetings, it quickly became clear that there was strong support to address these differences and learn from each other. To encourage productive debate and effective learning, it has always been best to exercise compromise when giving one's point of view about a specific topic. This is particularly evident given the stark differences in the planning, infrastructure and legal arrangements that exist across Europe.

The aims of CECDO

The Council aims to provide a forum for the exchange of views on oral health matters which affect principally the

European Union (EU) and European Economic Area (EEA) members. It exists to offer advice to national Governments, to the Commission and other interested parties on matters affecting European oral health through the creation and maintenance of a contact organization for European Chief Dental Officers (CECDO).

Specifically, it aims to facilitate:

- Promotion of oral health through a preventive approach with an emphasis on reducing inequalities.
- Integration and implementation of oral health into general health and social care policies.
- Universal access for all people to good quality oral care services according to need
- Workforce planning for oral health care professionals.
- Improvement in the quality of data to enable evidence-based policy development.

Exchange of information

Throughout its existence CECDO has carried out surveys on a wide range of topics including workforce planning and clinical guidelines. It has produced reports, such as the 1994 report on dental specialties and continuing professional education, which summarised the findings of the May 1994 meeting in Athens¹ and discussion documents such as *Working for Oral Health in Europe in 2000*². Some of its members have collaborated and published papers in the scientific literature on the different systems for the provision of oral health in European countries. Details of these reports and references for the wide range of papers can be found on the CECDO website (www.cecdo.org) together with a large database which provides information on numbers in each country's oral healthcare workforce, dental specialists, dental schools and undergraduates, typical fees for treatment and dental caries epidemiology.

Until 2014, CECDO met at six monthly intervals, independent of similar meetings for European Chief Medical



Paul Boom, Corrado Paganelli and Shlomo Zusman.

Officers (CMOs) and Chief Nursing Officers (CNOs). Since then most of the six-monthly meetings have been combined with those of CMOs and CNOs with some sessions for all three groups and some for the individual groups. Recently Chief Pharmacy Officers have also taken part in the six-monthly meetings. Each meeting has a theme, based on a pressing health problem, which effects all healthcare professions. For example, the theme for the most recent combined meeting, held in Zagreb, was care of the elderly. The meetings consist of presentations by invited 'experts' followed by discussions and small group work. The CECDO also has a business meeting during the six-monthly meeting, during which plans for the future and reports from each country are made.

Social activities

The social aspects of CECDO have been viewed as key to its long-term sustainability, and a strong emphasis has been placed on organising social activities that showcase the culture, history, and architecture of the country hosting the meeting. They also provide an opportunity for CDOs to get to know one another better, in an informal setting. An important aim is understanding how dentistry fits within the culture of a country.

Working with other organisations

In 2011, in collaboration with the Association for Dental Education in Europe (ADEE) and the European Association for Dental Public Health (EADPH) the CECDO founded the Platform for Better Oral Health in Europe (PBOHE). The Oral Health Foundation and the Pan European Federation of the International Association for Dental Research have subsequently also become full members of the PBOHE. Its main aim is to raise the profile of oral health in Europe through lobbying the European Commission and Members of the European Parliament and collaborative working with a wide range of other healthcare professions and organisations in European Commission and other projects. Several other organisations such as the European Federation of Periodontology and the European Dental Hygienists Federation are Associate Members of the PBOHE. CECDO also maintains close links to the World Health Organisation.



Shlomo Zusman and Paula Vassallo.

Where have CECDO meetings been held?

Since its inaugural meeting in London, in 1992, the CECDO has met in all European Union Member States, except for Bulgaria, Lithuania and Luxembourg. It has also met in Iceland, Israel, Norway and Switzerland. Its meeting in October 2020 was to have been held in Berlin, but because of the Covid-19 pandemic, took place as a virtual conference by Zoom. Prior to the Covid-19 pandemic, the CECDO Board met annually in Vienna. However, its most recent meeting have been by videoconference.

ICD Fellows and CECDO

A number of ICD Fellows have played an active role in CECDO. Professor Corrado Paganelli has been CDO of Italy for many years and was the CECDO President in 2015 and 2016. Dr Paula Vassallo, CDO for Malta was CECDO President in 2013 and 2014 and Chair of the PBOHE in 2015 and 2016. Professor Kenneth Eaton has been the Adviser to CECDO since 1994 and was the first Chair of the PBOHE from 2011-2014. Professor Egita Senakola has represented Latvia at CECDO since Latvia joined the European Union. The list of Past -Presidents of CECDO is in Table 1.

What has CECDO achieved?

Establishing the organisation was an accomplishment in itself, it would not have been formed without the strong support of the UK Government in 1992. Dentistry is a very small profession and can sometimes struggle to maintain or establish priority on national political agendas. Thus, supporting the development of a network of individuals involved in the strategic planning of oral health services

CECDO Presidents

1992-1995	Brian Mouatt (UK)
1996-1999	Jos Van den Heuvel (The Netherlands)
1999-2000	Robin Wilde (UK)
2001-2003	Eeva Widström (Finland)
2004-2006	Elpida Pavi (Greece)
2007-2008	Simona Dianišková (Slovakia)
2009-2010	Shlomo Zusman (Israel)
2011-2012	Paul Boom (The Netherlands)
2013-2014	Paula Vassallo (Malta)
2015-2016	Corrado Paganelli (Italy)
2017-2018	Margie Taylor (Scotland)
2019-2020	Lena Vilstrup (Denmark)
2021	Gabriele Sax (Austria)



Three Past Presidents (from the left) Corrado Paganelli, Paula Vassallo and Paul Boom, with the Adviser and author, Ken Eaton standing between Paula Vassallo and Paul Boom.

has been fundamental in raising awareness of dentistry within some individual Ministries of Health, and at a European level. The creation of the PBOHE has enabled the CECDO to have far greater influence at a European level. ■

References

- ¹ Council of European Chief Dental Officers (1994). *Dental Specialities and Continuing Professional Development-First Report of Council of European Chief Dental Officers*. available at www.cecdo.org
- ² Council of European Chief Dental Officers (2000) *Working for Oral Health in Europe- A Discussion Document*. Available at www.cecdo.org

► FDI Vision 2030, continued from page 25

enable them to contribute more effectively to the population-level prevention of oral disease. It will also enable them to play a central role in dealing with future public health emergencies.

This report also emphasizes the responsibility of individual oral healthcare professionals to maintain an appropriate level of competency throughout their professional lives, and the necessity to shoulder a leadership role within the healthcare community and society more widely. The report is intended to be updated at regular intervals based on local and global requirements, emerging health issues, and the achievement of key performance indicators. It is not intended to be prescriptive, but instead to provide guidance contingent on local needs, conditions, and circumstances.

Achieving these goals and meeting the challenges outlined in Vision 2030 will not be easy and will call for oral healthcare professionals to exhibit resolve and both personal and professional resilience. However, the health gains in terms not only of improved oral health, but of

improved general health and well-being are considerable. Vision 2030 is a call to action to the profession, but it also proposes the means by which the goals set out can be achieved. It is now for all of us in the profession to respond. ■



The Working Group of the FDI Vision 2030.

Ukrainian dentists and the International College of Dentists

Cooperation between Ukrainian dentists and the International College of Dentists (ICD) began with the arrival of Professor Paul Becker in Ukraine in 2005. Professor Becker worked in the Department of Paediatric Dentistry of Odessa National Medical University (ONMedU) for three years.



Oxana Denga - FICD

Head of the Department of Paediatric Dentistry, Odessa National Medical University and Head of the Department of Epidemiology and Prevention of Basic Dental Diseases, Paediatric Dentistry and Orthodontics, State Institute of Stomatology and Oral and Maxillofacial Surgery, National Academy of Medical Sciences.



With the support of Professor Becker successful applications were made for ICD grants to provide lecture programmes for employees of ONMedU, the Institute of Stomatology and Oral and Maxillofacial Surgery of the National Academy of Medical Sciences (ISMFS NAMS) of Ukraine and other Ukrainian universities. Lecturers included Professor Lisa Papagiannoulis of the Department of Paediatric Dentistry, University of Athens, School of Dentistry (Prevention and treatment in Paediatric Dentistry), Professor Sabine Merechaux of Geneva Medical University (Treatment of caries and its complications in children), Professor Corrado Paganelli, Direttore della Scuola di Specializzazione in Ortognatodonzia, University of Brescia (Treatment of dentofacial anomalies), Professor Jan van Hove from The Netherlands (Periodontal diseases) and Professor Ionis Fakitsas, Head of the Department of Oral and Maxillofacial Surgery at the Naval Veterans Hospital, Athens, Greece (Surgical treatment of oral failure). Professor Becker lectured on dental fluorosis and its epidemiology. During this period, a number of Ukrainian dentists, including the author, were inducted as Fellows of ICD.

Thanks to ICD grants in 2008, ONMedU student Denga Anastasia completed internships at the Academy of Post-graduate Education in Athens and in the Department of Paediatric Dentistry and Orthodontics, Faculty of Dentistry, Geneva Medical University.

Subsequently, the author won a grant at the ICD competition in Italy (Brescia) in 2011 to run an educational program in dentistry for Ukrainian universities.



Professor Oxana Denga (Ukraine), Professor Paul Becker (USA), Professor Bill Davidson (USA), Dr. Anastasia Denga (Ukraine) at the International Conference on Modern Problems of Dentistry held in Odessa, Ukraine.



Marjolijn Hovius (The Netherlands) President of the International Association of Dental Hygienists lecturing at an ICD supported event in Odessa, with the assistance of an interpreter - Dr. Anastasia Denga (Ukraine), on the right.

Over the years of cooperation with ICD, ISMFS NAMS and ONMedU have held annual scientific and practical conferences on various topics in dentistry. ICD representatives attended and participated in all these events. ■

Revisiting evidence-based dentistry twenty years after its inception

Despite its introduction more than two decades ago, evidence-based Dentistry (EBD) is only just beginning to shape clinical dentistry. So now seems an appropriate time to examine how EBD has influenced the dental profession in the past and how it might help develop the profession in the future.



Kamran Ali – University of Plymouth, UK



Elizabeth Kay – University of Plymouth, UK

Since its inception, EBD has gained substantial recognition in the world of academic and clinical dentistry, and it is believed that if the dental profession pursue it with perseverance and commitment, the benefits to patients' wellbeing could be substantial.

The need for evidence-based decision making in clinical dentistry has been highlighted during the Covid-19 pandemic. Despite a plethora of local, national, and international guidelines, there is still no universal consensus on the precise steps that need to be taken to make clinical settings safe for practitioner and patient, nor do we yet know exactly what the risks are. This is because the rapidity of global spread of Covid-19 did not provide enough time to gather sufficient evidence to guide clinical decisions. Guidelines had to be formulated swiftly and were largely based on expert opinion and indirect evidence. As more evidence has been gathered frequent updates have been required. The 'info-demic' from multiple sources during the pandemic perhaps sometimes added to the confusion and panic. The phenomena of multiple 'solutions' appearing when little is known about a situation underscores the need for robust evidence to support clinical dentistry. The

number of alternative options for action in a particular set of circumstances is very often inversely proportional to the degree of understanding of the condition. It is extremely difficult to make good decisions in the absence of thorough understanding of pathological processes and profound knowledge of a disease and its natural history.

How EBD started?

Historically, healthcare delivery has been dictated by the clinical judgements and experiences of the senior members of the profession who, for centuries, have passed their dogmatic lessons to new entrants in the profession. Since the latter half 20th Century, the medical profession has recognised the importance of using data derived from clinical research and has begun to apply the resultant information to clinical decision-making. This approach was formalised by Guyatt at McMaster University who coined the term Evidence-based medicine (EBM) in 1970's which can be defined as "the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based medicine means integrating individual clinical expertise with the best available

external clinical evidence from systematic research”.¹

Since its introduction, EBM has continued to evolve and has now assumed a dominant role in healthcare delivery globally. However, the dental profession did not become fully involved until the end of the twentieth century. The Centre for Evidence-based Dentistry (CEBD) and the American Dental Association (ADA) were amongst the first organisations to introduce EBD with an aim to provide personalised dental care based on scientific evidence. The ADA defines EBD as “an approach to oral healthcare that requires the judicious integration of systematic assessments of clinically relevant scientific evidence, relating to the patient’s oral and medical condition and history, with the dentist’s clinical expertise and the patient’s treatment needs and preferences”.

Subsequent progress

Evidence-based practise is now a well-recognised and established construct in clinical dentistry and dental education and is likely to play an increasingly significant role in shaping the provision of dental care. The dental profession has accepted the importance of analysis of data and contemporary clinical protocols are usually (although not always) underpinned by scientific evidence. More recently, a noticeable rise in dental research based on randomised controlled clinical trials has been observed. Similarly, papers based on systematic reviews and meta analyses are being published regularly in journals relevant to dentistry. And currently, at last, research studies incorporating patient-reported outcome measures (PROMs) with active public-patient involvement are also featuring in dental research. In addition, dental institutions now seem to be more proactive in undertaking joint research with medical colleagues and researchers with expertise in clinical trials, qualitative methods, health economics and evidence-based healthcare, to the benefit of the research output. Simultaneously, the teaching of the principles and practice of EBD has become established in undergraduate and postgraduate dental curricula. Future generations of dentists will therefore, hopefully, be better equipped to use an evidence-based approach to inform both their clinical dentistry and service delivery.

Optimise outcomes

EBD is basically about doing the right thing for our patients and most dentists in the contemporary era recognise the need for evidence-informed decision making to optimise outcomes for the patient. Clinical management protocols which are not based on evidence can compromise patient care and patient’s best interests, while use of an evidence-based, patient centred approach enables dentists to enhance and safeguard their clinical practice in several ways, namely:

- Improved safety, effectiveness, and predictability of therapeutic approaches.
- Enhanced confidence in the treatments provided for both patients and dental professionals.
- Greater cost effectiveness and efficiency, thereby saving time and money for both dentists and patients.

- Better grounds for defence against investigations related to litigation and alleged clinical negligence.

Unfortunately, EBD is often perceived to be difficult, and busy clinical practitioners sometimes do not fully appreciate its relevance to the day to day lives they inhabit with their patients. It is impossible for an individual practitioner to read and critically analyse all the emerging research which may influence their clinical practice. Although dentists in developed countries tend to follow guidelines from the professional dental organisations in their own countries, they generally do not routinely use a systematic approach to search and evaluate the evidence which underpins the use of the diagnostic tests, new materials, equipment, preventive strategies and treatment modalities that they employ in their practices.

PICO

How to search for best evidence to support clinical decision-making in Dentistry?

Evidence-based healthcare informs clinical decision-making (diagnosis, treatment, prevention etc.) by simultaneously utilising scientifically derived data, the expertise of the clinician, and the patient’s values. The integration of these components is aimed at optimising the outcomes from the clinical management of patients and improve the patient’s quality of life to the maximum extent possible. EBD should, therefore, be an integral part of a life-long learning cycle for dentists.

Clinically relevant questions can be answered through exploration of the evidence, and thus we can ensure that we provide the best standards of care for our patients. To practice EBD, practitioners need to seek out research, which is relevant to the patients they see, the things they do, and the outcomes they wish to achieve. Then, each piece of research needs to be scrutinised to determine the relevance of the following parameters to the dentists own practicing circumstances. So, one would consider the:

P: Population (Are the patients in the study sufficiently similar to the dentist’s patient population?).

I: Intervention (Is the process under study the same or similar to something the dentist does?).

C: Comparison (What is the treatment or intervention compared against?).

O: Outcome (What happens as a result of the intervention, and does it benefit the patient?).

Intervention may be replaced by ‘Exposure’ if the question of interest relates to the aetiology of a disease or the association with risk factors in a particular clinical condition. Using the PICO format, the next step is to search for best studies to answer a given question. Well conducted systemic reviews and meta analyses of systematic reviews represent the gold standard in the hierarchy of evidence. This is depicted in Fig. 1. Professional guidelines based on systematic reviews and meta analyses provide a similar level of evidence. On the other hand, professional guidelines or regulations based on expert opinions and reports represent the lowest level of evidence in the pyramid.

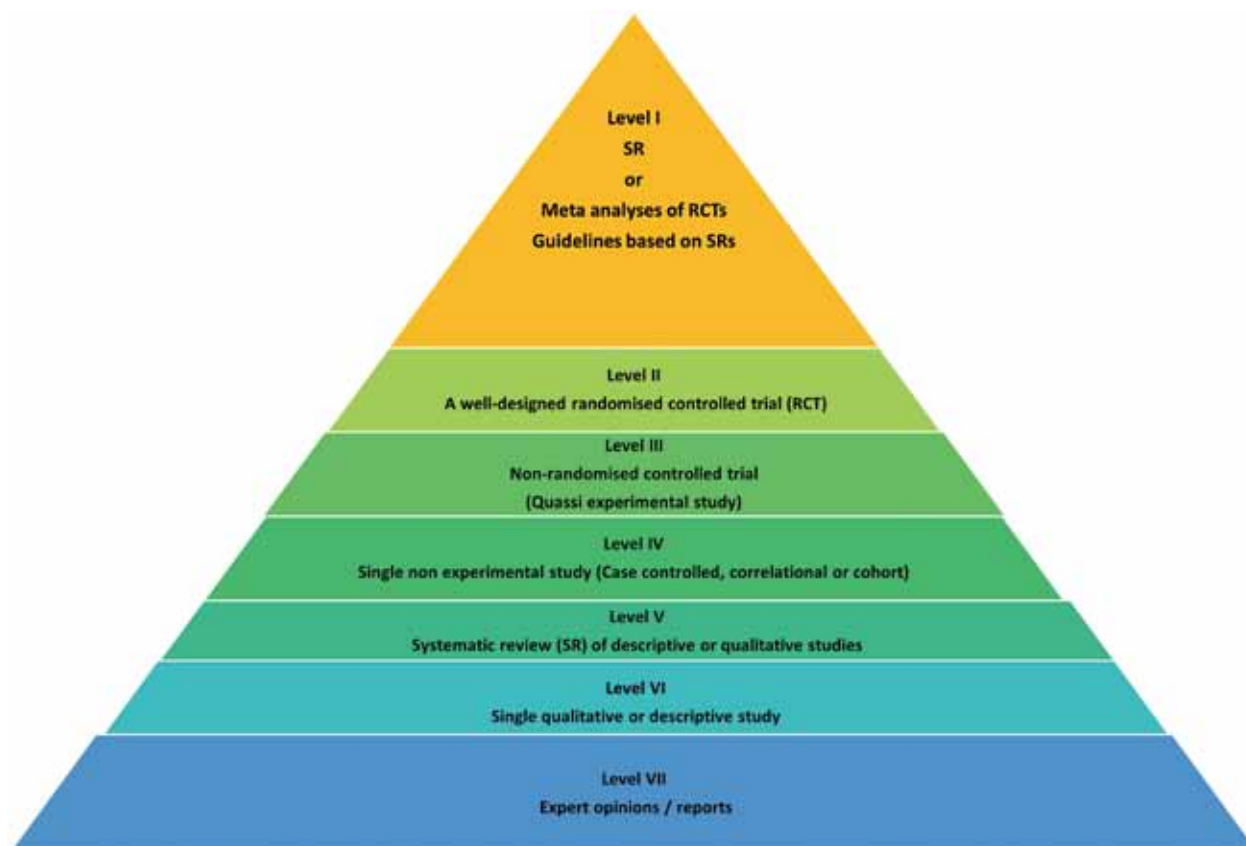


Fig. 1: Hierarchy of evidence

Reviews of relevant studies should involve critical appraisal of the evidence for its validity (closeness to the truth) and usefulness (clinical applicability). Clinicians can then triangulate the available evidence with their clinical expertise. Finally, appropriate clinical audit would allow clinicians to evaluate their performance and examine the appropriateness of a given strategy in their own clinical setting.

Given that it is beyond the scope of this article to provide details of search strategies to retrieve evidence-based information to answer clinical questions, readers are signposted to bespoke resources and online platforms for dentists. These are outlined in the next section. Dentists can access online training packages to enable them to appraise and evaluate evidence in their topics of interest without impacting on their clinical commitments.

The future

Dentistry is a demanding profession with growing patient expectations. Rapidly increasing risks of litigation continue to impact on the provision of general dentistry. Use of an evidence-based approach in clinical dentistry is the most effective strategy available to help dentists address these challenges. Further research will serve to answer clinical questions emanating from existing challenges and new developments in dentistry. To give a few examples of questions that need to be answered for the dental profession, perhaps dental research should be focussing on issues such as the value and feasibility of digital dentistry; effective protocols for management of peri-implantitis; effectiveness of pulpotomy in adults; evidence-based strategies for prevention of dental disease, and the success

of guided bone regeneration in the management of periradicular lesions. All of these issues remain surrounded by uncertainties and the dental profession needs the solutions. Of course, there are myriad other questions that need to be answered through systematic analysis, but these are perhaps the ones which are challenging today's practitioner.

There are, of course, barriers to the further implementation of evidence-based practice in dentistry. These include the lack of widespread accessibility of relevant literature and the shortage of adequate training in the appraisal of research. However, time constraints and financial considerations remain the most dominant influences which seem to limit widespread application of EBD.² It is, therefore, imperative that we use effective strategies to disseminate emerging evidence to all stakeholders in accessible and synthesised formats. Use of social media platforms can be effective to engage with busy dental practitioners. This also allows them to benefit from peer support and the sharing of personal experiences can add to a practitioner understanding of potential outcomes and patient scenarios. Given that the bulk of dental services are delivered by dentists in general practices, general dental practitioners (GDPs) are the key stakeholders in how clinical dentistry is delivered. GDPs should expect researchers to furnish evidence to support their clinical practice. Also, general dental practices in community settings offer an ideal environment to explore the effectiveness of new treatments.

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Repair vs replacement of dental restorations

Current knowledge and understanding of the management of deteriorating dental restorations encourages dentists to shift, if not already doing so, to considering minimally invasive repair procedures in preference to restoration replacement. The repair of restorations is a safe, effective and minimally invasive means of extending the longevity of the restoration without unnecessarily sacrificing intact, healthy tooth tissue and is in the best interest of patients in terms of biological cost and cost effectiveness. The complete replacement of a deteriorating restoration should be only considered as a last resort when there are no other viable options.



Igor Blum – Reader in Primary Dental Care and Advanced General Dental Practice, Faculty of Dentistry, Oral & Craniofacial Sciences, King's College London, London, UK. Clinical Lead & Consultant in Restorative Dentistry, King's College Hospital, London, UK.

Introduction

The management of deteriorating restorations, i.e., restorations with localised defects, is a common occurrence in clinical practice. Consequently, clinicians spend much of their chair-side time managing defective restorations. In fact, it has been reported that over half of all direct restorations placed in adults in general dental practice worldwide are replacements of existing restorations, rather than new restorations placed in the treatment of primary lesions of caries. Globally, the cost of restoration replacement runs to billions of Euros.

Complex medical histories

Changes in global demographics and patterns of dental disease have resulted in ageing populations of patients, often presenting with complex medical histories, who maintain their dentitions for longer. These changes pose an ever-increasing challenge to general dental practitioners in the management of deteriorating restorations. This trend is set to continue.

Typically, the approach adopted in the management of a restoration with early signs of deterioration involves monitoring, possibly following some refurbishment, and imple-

menting an appropriate regime of preventive measures. If these measures fail and the restoration develops localised defects clinically or radiographically, the application of minimal intervention approaches to treatment, i.e., restoration repair procedures, are recommended rather than replacement of the restoration. These procedures have been shown to provide a safe, viable, conservative, inexpensive and atraumatic approach to the management of defective restorations. Thus, the application of restoration repairs, i.e., partial replacement of the restoration allowing preservation of that portion of the restoration which presents no clinical or radiographic evidence of failure, has grown substantially and is likely to continue to increase in general dental practice. Teeth with repaired restorations are more able to withstand loading in function and have a better long-term prognosis than teeth which have had one or more replacement restorations.

Decision-making process

The decision-making process in reliably assessing a deteriorating restoration remains complex and problematic, given ongoing debate and an ever-expanding evidence base on criteria for intervention. The decision to repair or

replace an existing restoration may be highly subjective on the part of the dentist: factors, amongst others, such as the age of the patient, caries risk, the size and location of the restoration and the size and nature of any defects can influence how quickly, if ever existing restorations are subjected to some form of intervention. A dentist's decision making may vary over time, as can decision making between dentist. Illustrative examples of this can be seen in both UK and US settings where patients who change dentists have been found to be more likely to experience restoration replacement than those who do not. As such, there is considerable potential for over-treatment. The risk of iatrogenic effects with over-treatment, specifically the needless replacement of existing restorations, are significant, and inherently associated with an inevitable increase in the size of the cavity. When a cavity is enlarged during the replacement of a restoration, there is unnecessary loss of intact, healthy tooth tissue, resulting in weakening of the remaining tooth structure, and potentially irreversible harmful effects to the dental pulp. These detrimental effects lead to the restored tooth accelerating down the restorative 'death spiral', with increasing cost consequences. The effects on the dentition may be many and varied, including the need for endodontic intervention or the premature loss of the restored tooth, resulting in progressive deterioration in occlusal function and dental attractiveness, adversely influencing quality of life.

Restorations

Resin-based composite restorations are widely accepted as the evidence-based, minimum intervention restorative material of choice for the direct restoration of teeth, driven, in part, by patient demands for aesthetic restorations. Advances in adhesive technologies, refinements to state-of-the-art resin composite materials, and the need to phase down the use of dental amalgam, in accordance with the Minamata Convention are amongst the many factors accounting for the ever-increasing popularity and use of direct resin composite materials. Consequentially, the remainder of this article focusses on the management of deteriorating direct composite restorations.

In common with all dental restorations, composite restorations suffer one or more forms of deterioration in clinical service. The most commonly cited defects encountered with composite restorations include secondary caries as diagnosed clinically, marginal defects, marginal discoloration and staining, bulk discoloration and fracture of the restoration, fracture of adjacent tooth tissue, and wear of the restoration. Irrespective of the nature of any deterioration or defect, it is important to diagnose and eliminate the causation. For example, when a patient presents with a bulk fracture of a composite restoration, specifically soon after restoration placement, it is important to diagnose and eliminate the reason for the fracture – inadequate depth of preparation, excessive occlusal loading, placement error, or combinations of these common predisposing factors. This is necessary to avoid recurring bulk

fracture, let alone a more extensive subsequent fracture including remaining tooth tissue. Bulk fracture of a composite restoration that has been in clinical service for many years is likely to be the result of stress fatigue within the composite material. If the bulk fracture is limited (less than half of the restoration) repair may be indicated; however, the integrity of the remaining portion of the restoration should be carefully assessed.

Whilst some restorations will inevitably require replacement, employing state-of-the-art adhesive technologies and procedures, many deteriorating yet serviceable restorations may be given extended longevity through effective repair procedures, especially if the defect is localised and accessible. For example, many non-carious marginal defects can be simply managed by refurbishment – a procedure that should normally pre-empt and delay repair, let alone replacement. Refurbishment procedures typically involve removal of overhangs, surface recontouring, removal of discoloration and smoothing or glazing of surfaces, including sealing of pores and small gaps by means other than adding new restorative material. (Figs. 1 and 2).



Fig. 1: Stained margins visible around composite restorations.



Fig. 2: Removal of stained margins by refinishing and polishing of the restoration (refurbishment).

Caries adjacent to the margin of a composite restoration (secondary caries) should be treated as a new primary lesion. As with all patients who present with a new lesion, preventive measures should be initiated, followed by

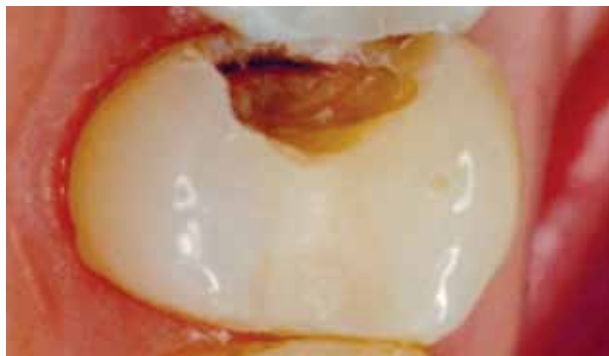


Fig. 3: Clinical appearance of first premolar with removed distal portion of three surface composite restorations due to secondary caries at the distal floor.



Fig. 4: Restoration following repair procedure.

operative intervention as, and when, the lesion has been found to be active and progressing through dentine, or cavitation has occurred. Operative intervention should be minimally interventive, coupled with partial replacement of the adjacent composite restoration which may be undermined by caries, or hinders the access required for necessary caries removal and the placement of an effective repair (Figs. 3 and 4). The portion of the composite restoration which presents no clinical or radiographic evidence of failure should be left in place, unless there is good clinical indication to resort to total restoration replacement with its various consequences. With a tendency to practise 'defensive dentistry' in a society which is increasingly litigious, it is regrettable that restorations affected by early forms of secondary caries, which are amenable to repair, may continue to be managed by total replacement.

A growing body of evidence from long term clinical studies and a recent systematic review concluded that deteriorating composite restorations managed by repair procedures did not present a significant difference in longevity in comparison to the replacement technique in permanent teeth. In fact, most of the repaired restorations were considered clinically acceptable after 12 years of clinical service. Furthermore, a prospective cohort practice-based study found that teeth with repaired restorations were less likely to require endodontic treatment or extraction than those with replaced restorations. It is clearly preferable, therefore, to perform restoration repair techniques as an alternative to restoration replacement wherever possible to preserve healthy tooth tissue distant to the site of defect. Available evidence should encourage dentists during restoration decision-making processes to consider and preclude repair techniques before resorting to replacement.

Advantages of repair

The advantages of performing repair techniques include:

- preservation of tooth structure;
- increased longevity of the restoration;
- reduction on potentially harmful effects on the dental pulp;
- reduction in chair-side treatment time;

- reduced costs to the patient;
- good patient acceptance;
- no need for local anaesthesia, provided the repair is not extensive and
- Less risk of iatrogenic damage to adjacent teeth.

Contraindications to repair include patient reluctance to accept a repair as an alternative to restoration replacement, irregular attenders, high caries risk patients, presence of extensive caries undermining most of the existing composite restoration, and history of failure of a previous repair.

Clinical procedure

The clinical procedure for performing a composite restoration repair is outlined below:

- Administer local analgesia, as indicated clinically.
- Clean the tooth or teeth to be repaired, together with the adjacent teeth, using pumice.
- Remove the defective part of the composite restoration and any associated secondary caries.
- Ensure adequate moisture control -rubber dam isolation preferable.
- Pulp protection, if indicated, according to contemporary regimes.
- Bevel the margins of the preparation, as indicated clinically, and place a long (1.0 mm wide) deep bevel on the margin of the composite resin to be repaired. Appropriately prepared bevels increase the available surface area for bonding and facilitate a more aesthetic clinical outcome, as the composite resin to be used for the repair will blend in more effectively with the existing composite resin and remaining tooth tissues.
- Acid etch the composite resin substrate together with the adjacent tooth tissue preparation margins for 15–30 seconds, wash thoroughly and dry the area using a three-in-one syringe. In addition to producing a favourable substrate surface for bonding, acid etching has a favourable cleansing effect.
- An adhesive bonding system should be applied to the acid-etched composite substrate and adjacent tooth tissues and preparation margins, according to the manufacturer's directions for use.

- A composite resin restorative material, compatible with the adhesive bonding system, is applied using an incremental technique to repair the defect, with each increment being fully photopolymerised. The same type and brand of composite material should be used as the composite substrate, provided this information is known to the practitioner.
- The repair is then carefully contoured and finished using contemporary composite finishing systems, which allows the repair to be integrated imperceptibly into the restored tooth unit.
- The occlusion is then checked to ensure that the repaired restoration will not be subjected to adverse occlusal loading.

Alternatively, a composite repair can be performed using sandblasting with silica-coated particles. This technique has been described in the dental literature.

Criteria for repair of restorations

Dentally motivated patients who attend on a regular basis, and maintain a good standard of oral health, have been deemed good candidates for restoration repair procedures. Patients who have complex medical histories or limited capacity to co-operate may also be viewed as suitable

candidates for the repair rather than the replacement of deteriorating restorations, in particular if operating time needs to be kept to a minimum. In contrast, patient reluctance to accept a repair as an alternative to restoration replacement, irregular attenders, high caries risk patients, presence of caries undermining the restoration, history of failure of a previous repair should be viewed as contraindications for repair. In addition, repairs should not be contemplated if there is uncertainty as to the procedure to be followed to ensure a satisfactory clinical outcome.

Conclusion

Effective clinical assessment and minimally invasive management of deteriorating restorations increases the longevity of both the restoration and the restored tooth. Repair options should be applied wherever possible. Restoration replacement should be considered as the last resort when there are no other viable alternatives.

Acknowledgment

Figures 1-4 have been provided by courtesy of Dr. Siegwand D. Heintze, Ivoclar Vivadent. ■

References are available upon request.

► Evidence-based dentistry, continued from page 33

Useful sources

In addition to peer-reviewed professional journals and national professional bodies in individual countries, there are numerous online sources which can be accessed by dentists to find the most up to date evidence to underpin informed clinical decision-making. Some of these are listed below. Dentists must, of course also ensure compliance with the guidelines by the regulatory and professional bodies in their own countries /regions.

Evidence search and analysis

Cochrane Oral Health

<https://oralhealth.cochrane.org/resources>

PubMed Systematic review search

<https://www.ncbi.nlm.nih.gov/pubmed/clinical>

ECRI Guidelines Trust - <https://guidelines.ecri.org/>

Journals

Journal of Evidence-based Dental Practice

<https://www.sciencedirect.com/journal/journal-of-evidence-based-dental-practice>

Evidence-based dentistry

<https://www.nature.com/ebd/>

Organisations

Centre for Evidence-Based Dentistry (CBED)

<http://www.cebd.org/>

Centre for Disease Control - Oral Health Division

<https://www.cdc.gov/oralhealth/index.html>

National Institute of Health Research

<https://www.nihr.ac.uk/news/nihr-launches-new-centre-for-engagement-and-dissemination/24576>

National Institute for Health and Care Excellence (NICE)

<https://www.nice.org.uk/>

ADA Centre for Evidence-based Dentistry

<https://ebd.ada.org/en>

Scottish Dental Clinical Effectiveness Programme (SDCEP)

<https://www.sdcep.org.uk/>

Dentists should be proactive in developing appropriate linkages and collaborations with research bodies so that they can contribute to future research. Such an approach would ensure that the research questions posed and the type of research carried out to answer those questions, would be directly relevant and of benefit to dental practices and typical patients. ■

References

¹ Sackett DL. *Evidence-based medicine. In Seminars in perinatology* 1997 (Vol. 21, No. 1, pp. 3-5). WB Saunders.

² Feres MF, Roscoe MG, Job SA, Mamani JB, Canto GD, Flores-Mir C. *Barriers involved in the application of evidence-based dentistry principles: A systematic review. The Journal of the American Dental Association.* 2020 Jan 1;151(1):16-25.

European Society of Endodontology

Saving teeth through education, research and clinical practice

Endodontology is the branch of dental sciences dealing with health, injuries to and diseases of the dental pulp and the periradicular region, and their relationship with systemic well-being and health.



Gunnar Bergenholtz
Past President of the
European Society of
Endontology



Claus Löst
Past President of the
European Society of
Endontology



Dag Ørstavik
Past President of the
European Society of
Endontology



Paul Dummer
President of the
European Society of
Endontology

On 24th April 1982 a group of twelve enthusiasts (Fig. 1), participating at the congress of the American Association of Endodontists in Phoenix, Arizona, USA, formed the first pan-European endodontic society, the European Academy of Endodontology.

At the following council meeting held during May 1983 in Madrid, Spain, the Academy was renamed the European Society of Endodontology (ESE). Shortly afterwards, the inaugural Biennial Congress of the ESE was held at the Lido in Venice, Italy in conjunction with the 4th Congress of the



Fig. 1: Founding members of the European Academy of Endodontology (EAE), renamed the European Society of Endodontology (ESE). From the left: Rafael Miñana (SP), Henning Rocke (D), Fred Harty (UK & Australia), Gilbert Crussol (F), Peter Guldener (CH), Arnaldo Castellucci (I), Aviad Tamse (IL), Giorgio Lavagnoli (I), Chris Stock (UK), Basil Tsatsas (GR), Ralph Mutschelknaus (D), Cesar Almeida (P).



The European Society of Endodontology logo

Italian Society of Endodontics. Two years later the ESE logo was officially approved.

In these early years, the Society was made up of approximately 100 'Active' members. The main activity was to organise biennial congresses, hosted and managed by a national endodontic society. During the 3rd Biennial Congress in Madrid, the ESE Research Prize was established and awarded for the first time. Since 1995 this award has been named the Wladimir Adlivankine ESE Research Prize, named after the Secretary and Treasurer of the ESE from 1987 to 1995. In 1992, the Society developed undergraduate curriculum guidelines in Endodontics and in 1994 quality guidelines for endodontic treatment. Both these documents have been revised several times over the years. The latest versions are available online:

Curriculum guidelines: <https://onlinelibrary.wiley.com/doi/10.1111/iej.12186>

Quality guidelines: <https://onlinelibrary.wiley.com/doi/10.1111/j.1365-2591.2006.01180.x>

In the first 18 years of its existence the ESE was managed by an elected Executive Committee that represented the Active members. Following much work by Paul Wesslink (ESE Secretary 1995-2001) and Gunnar Bergenholtz during the 10th Biennial Congress in Munich (2001) the ESE adopted a new status as the 'umbrella organisation' for endodontic societies within Europe and in Israel and Lebanon. The new



Fig. 2: Executive Board in 2009. From the left: Paul Dummer (Editor), Dag Ørstavik (Treasurer), Gunnar Bergenholtz (President), Claus Löst (Secretary), Hakki Sunay (Co-opted).

federal structure of the ESE was supported by an Executive Board under the leadership of Chair of the Board, Gunnar Bergenholtz (2001-2009), a position that was changed in 2006 to ESE President. Subsequently, Claus Löst (2010-2016), Dag Ørstavik (2017-2019) and Paul Dummer (2020-2022) were elected as Presidents. The Executive Board consisted up to 2010 of a Secretary, Treasurer and Editor (Fig. 2), which was overseen by a General Assembly of elected representatives from national member societies.



Fig. 3: Executive Board in 2015. From the left: John Whitworth (Chair: Education & Scholarship), Sue Bryant (Administrator), Leo Tjäderhane (Chair: Research), Claus Löst (President), Hakki Sunay (Treasurer) and Paul Dummer (Secretary).

In 2001, the 'Active' member category was replaced with a new category of 'Certified' individual member, and a points-based scoring system for evaluating applications was devised to ensure that only those with sufficient experience, knowledge and skills were accepted.

By 2011, the Society had established several committees—Research, Education & Scholarship, Clinical Practice and Membership – and in the same year, the position of Editor was rescinded, and the Chairs of the Research and Education & Scholarship Committees joined the Board. An ESE Administrator was appointed to help manage the increasing workload that occurred as a result of the expanding scope and activities of the Society; for example, in 2013, the Society assumed the responsibility for organising the biennial congresses. The Society also created an accreditation process to evaluate the quality of three-year postgraduate training programmes in Endodontology. To date, seven programmes have been accredited – Eastman, London, UK; KCL, London, UK; Liverpool, UK; ACTA, Amsterdam, the Netherlands; Beirut Arab University, Beirut, Lebanon; Universitat Internacional de Catalunya, Barcelona, Spain; Universidade de Lisboa, Lisbon, Portugal.

In October 2014, the first biennial Research and Postgraduate Student meetings were organised in Amsterdam, followed by meetings held in Amsterdam again at ACTA during October 2016. In 2018, these meetings were incorporated into an overarching 'Clinical Meeting', rebadged in

2020 as the biennial ESE Autumn meeting – which went fully virtual in October 2020 because of the COVID-19 pandemic. In 2018, an Interim Chief Executive Officer post was created to drive forward the increasing workload of the Society and replace the post of Secretary that was found unsustainable. A new position of President Elect was also created. In 2018 Vittorio Franco became Treasurer. The Chairs of the Clinical Practice and Membership Committees became full members of the Executive Board (Fig. 4). New membership categories were created – Specialist, Guest, both of which require formal applications and the submission of evidence.

From 2020, the General Assembly approved a revised structure for the Executive Board with the ongoing post of Chief Operating Officer replacing the Interim CEO post. The roles of President and President Elect were approved with a two-year term of office. A new committee, Benefits of Endodontics, was created with Lise-Lotte Kirkevang as Chair. Kerstin Galler was also elected Chair of the Research Committee. Representatives of individual members from the Specialist, Certified and Postgraduate Student membership groups are now invited to attend the General Assembly. New membership categories were created – Guest Specialist, Guest Certified and Dental Nurse.

Over time, the number of affiliated societies has increased. In 2020 the ESE had 36 member societies from 33 countries. The Society thus represents over 7500 society members. The number of individual members also increased over time and



Figure 4: Executive Board in 2018. From the left: John Whitworth (Chair: Education & Scholarship), Hal Duncan (Chair: Membership Committee), Gianluca Gambarini (Chair: Clinical Practice Committee), Dag Ørstavik (President), Vittorio Franco (Interim Treasurer), Leo Tjäderhane (Chair: Research Committee), Sue Bryant (Administrator), and Paul Dummer (Interim CEO & President Elect).

there are now over 500 individual specialist, certified and postgraduate members who belong to the affiliated national societies as well as a smaller number of Guest Specialist and Guest Certified members who live and work outside the European region. The Society is delighted that Gunnar Bergholtz, Claus Löst and Dag Ørstavik have been elected as Honorary Members. The full list of member societies can be found at: <http://www.e-s-e.eu/about-the-e-se/fullmember.php>

Currently, the European Society of Endodontology is registered as a non-profit making organisation in Norway (Forening) with the address: Postboks 1237 Vika, 0110 Oslo, Norway. It is governed by a General Assembly made-up of country representative from each member society as well as individuals representing the various categories of individual members. It is managed by an Executive Board that currently consists of President, Paul Dummer; President Elect, John Whitworth; Treasurer, Vittorio Franco; Chair of Education & Scholarship Committee, John Whitworth; Chair of Research Committee, Kerstin Galler; Chair of Clinical Practice Committee, Gianluca Gambarini; Chair of Membership Committee, Hal Duncan and Chair of Benefits of Endodontics Committee, Lise-Lotte Kirkevang.

For many years, the Society has adopted the International Endodontic Journal (IEJ) as its professional journal, with all individual members receiving its publications. The IEJ is published monthly and strives to publish original articles of the highest quality to disseminate scientific and clinical knowledge; all manuscripts are subjected to peer review. Original scientific articles are published in the areas of biomedical science, applied materials science, bioengineering, epidemiology and social science relevant to endodontic disease and its management, and to the restoration of root-treated teeth. In addition, review articles, reports of clinical cases, book reviews, summaries and abstracts of scientific meetings and news items are accepted. The IEJ remains essential reading for general dental practitioners, specialist endodontists, research, scientists and dental teachers: <https://onlinelibrary.wiley.com/journal/13652591>

Purpose of the ESE: Mission, aims and objectives

The ESE exists to enhance the development of Endodontology for the benefit of patients, general dentists, endodontists, educators, researchers and those in training, and to represent Endodontology and Endodontists within Europe and beyond. Details of its purpose, aims and objectives can be found here:

http://www.e-s-e.eu/about-the-e-se/constitution_and_bylaws_2020_final_12082019.pdf

The ESE has a long history of supporting the specialty by providing funds as well as academic and clinical expertise. This support can be summarised as:

Support for research

- Annual research grants (approx. €30 000 per annum).
- Annual Young Investigator research grants (approx. €10 000 per annum).
- Original scientific research posters and prize (at biennial congresses).

- Wladimir Adlivankine ESE Research Prize (at biennial congresses).
- Biennial Autumn meetings.

Support for education

- Annual education grants (approx. €30 000 per annum).
- Annual Young Educator grants (approx. €10 000 per annum).
- Education Prize (at biennial congresses).
- Education symposium/workshop (at biennial congresses).
- Special interest group in the Association for Dental Education in Europe.
- Teaching resources – case-based teaching, case-difficulty assessment tools.
- Undergraduate curriculum guidelines.
- Minimum criteria for training specialists in Endodontology within Europe.
- Accreditation of three-year postgraduate programmes.

Support for clinical practice

- Quality guidelines for endodontic treatment.
- ESE Position Statements on key/controversial issues in Endodontics.
- Awareness campaigns on key topics, e.g. antibiotic prescribing.
- Clinical posters and prize (at biennial congresses).
- Clinical videos and prize (at biennial congresses).
- Patient information.
- ESE Videos for patients – see ESE YouTube channel - <https://www.youtube.com/channel/UCd30Wm7rDe2GTJvY-GOUdS4A>.

In summary, the ESE is a dynamic and successful society that supports the specialty within Europe and beyond. Its key activities include:

- Cutting-edge biennial congresses and biennial autumn meetings to promote high quality research, education and clinical practice.
- Accrediting three-year postgraduate training programmes in Endodontology.
- Awarding grants and prizes in education, research and clinical practice.
- Producing treatment guidelines.
- Organising and running 'awareness campaigns'.
- Releasing Position Statements on key / contentious issues in Endodontics.
- Creating a Specialty of Endodontology in Europe.
- Developing patient videos for use by national societies and individuals.
- Developing an improved website for the Society's activities, for interaction with societal and individual members and for presentation of endodontic news.

Unfortunately, the ESE biennial congress in Helsinki, Finland on 8-11 September 2021 has been postponed as a result of the COVID-19 pandemic. News on the biennial congress in 2022 will be announced shortly on the ESE website:

<https://esebiennialcongress.com/>

Follow the ESE on Facebook, LinkedIn and Twitter. ■

The use of L-PRF in dental practice

For many years, autogenous bone grafts have been the gold standard for bone regeneration. In the last twenty or thirty years, various efforts have been made to develop materials as a good alternative to autogenous bone grafts.



Gil Alcoforado - FICD
Rector Instituto, Uni-
versitário Egas Moniz,
Portugal



Isabel Alcoforado
Private practice,
Lisbon, Portugal



Nelson Pinto
Faculty of Dentistry,
Universidad de Los
Andes, Chile

Many tissue engineering procedures have used graft materials which are osteo-conductive, given their inert matrices, serving only as scaffolds for the recipient's living cells. Platelet concentrates were developed in the hope of introducing osteo-induction into the surgical procedures.

Four major families of platelet concentrates are used in oral regenerative therapies: PRP (platelet-rich plasma), P-PRP (pure-platelet-rich plasma), LPRP (leukocyte-platelet-rich plasma and L-PRF (leukocyte-platelet-rich fibrin) (Ehrenfest et al., 2018).

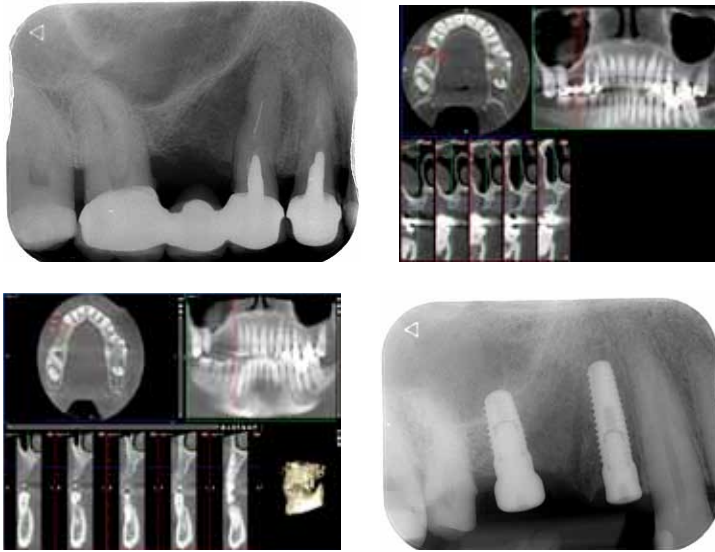
PRP was first used in the 1990's to replace fibrin adhesives. Fibrin adhesives were made from donor plasma, extracted from the patient's blood (Salgado-Peralvo et al., 2018). The quantity of fibrin within the plasma was reduced making treatment outcomes unpredictable.

Platelet-rich fibrin (PRF) concentrate, a second generation of platelet concentrate, was introduced in France by Choukroun et al. in 2001 and renamed L-PRF by Dohan Ehrenfest et al. in 2009. L-PRF consists of a fibrin matrix that is enriched with leukocytes, platelets and an abundance of growth factors and cytokines (Ratajczak et al., 2018). A significant proportion of the population affected by chronic, complex wounds such as diabetic foot ulcers, venous leg ulcers and pressure ulcers, which can remain open for years, despite appropriate care, can benefit from the regenerative potential of L-PRF

membranes - Natural Guided Regeneration-Therapy with L-PRF introduced by Pinto et al. (2012-2018).

L-PRF is entirely autogenous, being formed by centrifugation without the addition of any additives. It has osteo-inductive properties, continuously releasing cytokines and growth factors which stimulate the surgical site for >14 days. Peripheral blood is collected from the patient and immediately processed. During centrifugation, the coagulation cascade is activated forming a strong fibrin clot that can be collected from the middle of the tube between the red blood cells fraction and a small amount of plasma on top. After careful removal of the L-PRF clot with tweezers, it can be compressed into membranes which are rich in fibrin, platelets (> 80% of that present in the initial blood sample), white blood cells (> 75% enriched), growth factors, cytokines, and other components conducive to tissue repair (Erhenfest et al., 2010; Li et al., 2013; Castro et al., 2019). The procedure may be viewed here: <https://www.youtube.com/watch?v=JFEIs7jE00U>

L-PRF's biological properties have been described in several studies which demonstrate that it can act against wound bacteria, given its antimicrobial effects (Castro et al., 2019). The angiogenic capacity of L-PRF has been demonstrated, both in vitro and in vivo, reinforcing the clinical potential of this easy-to-use platelet concentrate (Ratajczak et al., 2018). Recently, the osteo-inductiveness



Figs. 1: top left, 2: top right, 3: bottom left and 4: bottom right

of L-PRF has been combined with the osteo-conductiveness of a xenograft, which acts as a scaffold. This gave birth to the L-PRF Bone Block which has dramatically simplified different surgical procedures, including sinus lifts and guided bone regeneration procedures. This combination produces a strong plastic mass which is easily handled and applied in sinus lifts and other regeneration procedures, adapting to the morphology of the defect to be treated. Indications for L-PRF have expanded over time given its simple handling, low cost and favorable healing effects.

The qualities and benefits of L-PRF are illustrated in the following indications:

Endo-perio lesion

A patient presented with an extensive endo-perio lesion with severe bone loss, including all the buccal plate and most of the septum distal to tooth 15 (Figs. 1 and 2). Teeth 14 and 15 were extracted, followed by an extensive curettage of the infected/inflamed tissue. In such cases, with acute infections, we tend to avoid placing granulated xenografts. We decided to apply only L-PRF membranes, followed by careful closure of the wound. After six months, we determined from radiographs and CBCT images that there was more than enough bone to place implants (Fig. 3 and 4). Implants were then successfully placed without the need for any more additional grafting, except for a limited sinus lift achieved using osteotomes applied apical to the distal implant.

Closure of an oroantral communication

As can be observed in the CBCT reproduced in Fig. 5, tooth 17 had apices protruding into the sinus, with a loss of continuity of the sinus bone floor. This was related to an endodontic infection. Associated sinusitis was evident also, most probably dentally related. The decision was taken to extract the tooth taking special measures. Antibiotic therapy was initiated 48 hours prior to the surgery.

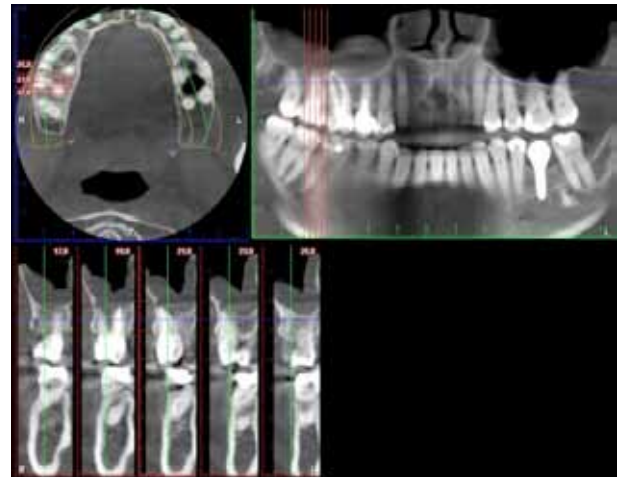


Fig. 5: Preoperative images

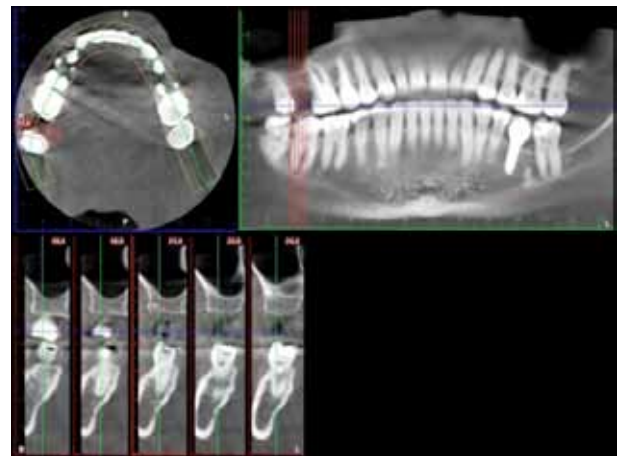


Fig. 6: Eight month follow up images

The extraction was performed, followed by a thorough curettage, care being taken not to enter the sinus. L-PRF membranes had been prepared prior to the procedure. Three L-PRF plugs were packed inside the alveolus which was then covered with L-PRF membranes. The CBCT eight months later revealed a completely healed site and a healthy adjacent sinus (Fig. 6).

Saving 'hopeless' teeth

Given the unpredictable outcomes of treatments for peri-implantitis, there has been renewed interest in the preservation of teeth with extensive periodontal breakdown. Such teeth are considered by most clinicians to be 'terminal teeth' best extracted. L-PRF can, however, offer some hope in such cases.

A patient was referred to us by an orthodontist to ascertain if we could save tooth 32 (Fig. 7). In such cases, the patient must understand that the prognosis for the tooth is poor. Despite the prognosis, the patient consented to treatment aimed at saving the tooth.

Following initial periodontal therapy, we asked a specialist endodontist to undertake endodontic therapy. We then proceeded with periodontal surgery. After removing all the granulation tissue, we observed that there was no bone around the apex of the tooth (Fig. 8). We prepared



Fig. 7



Fig. 10



Fig. 8



Fig. 9

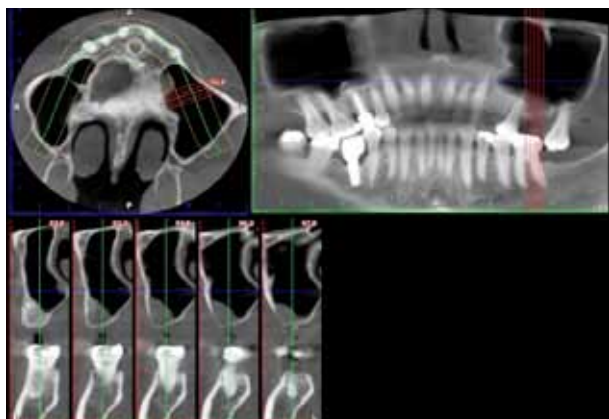


Fig. 11

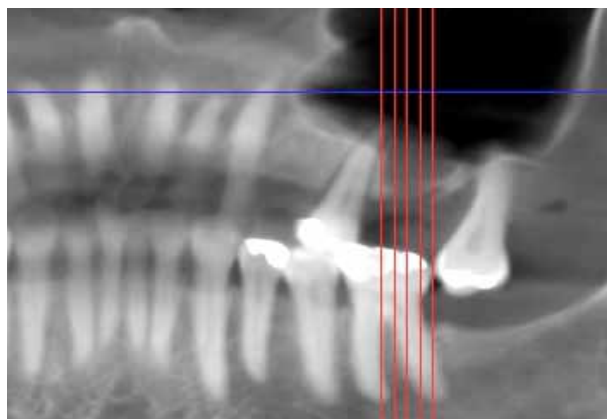


Fig. 12



Fig. 13

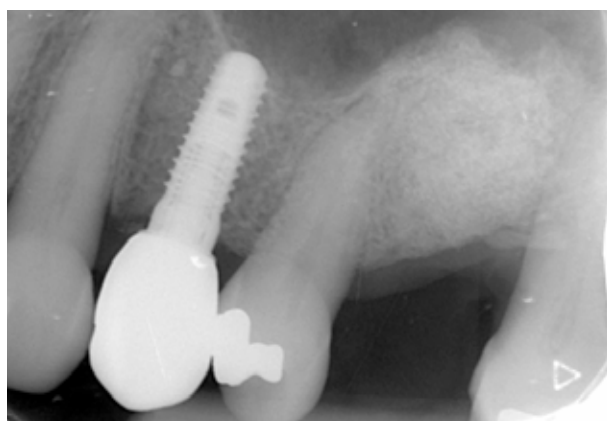


Fig. 14

the site with the aid of a microscope and applied amelogens on the exposed root surface and L-PRF with a granulated xenograft, covered by several L-PRF and one collagen membranes (Fig. 9). At one-year post-operative review, there were no periodontal pockets and no inflammation (Fig. 10).

Lateral-window sinus lifts

We have found L-PRF useful in lateral-window sinus lifts, given the ease of application of L-PRF Block and opportunity to close any small perforations which may occur in the Schneiderian membrane. In this case illustrated in Figs. 11 and 12, the sinus floor was extremely thin and in part non-existent. Sinus augmentation was performed with attention to a septum. In addition, the periodontal defect mesial 27 was also treated using L-PRF Block (Figs. 13 and 14).

Peri-implantitis

Another application for L-PRF is the treatment of peri-implantitis.

This patient illustrated in Fig. 15 presented with acute infection around an implant which had been placed more than twenty years ago. After lifting a flap, removal of all the granulation tissue and detoxification of the surface of the implants (Fig. 16), several L-PRF membranes were applied to the defect. Healing was uneventful (Fig. 17). The patient was rehabilitated with a new prosthesis (Fig. 18).



Fig. 15



Fig. 16



Fig. 17



Fig. 18



Fig. 19



Fig. 20

Management of periodontal lesions

Recently, L-PRF has been used in the treatment of periodontal lesions, either alone or in combination with enamel matrix derivatives. The patient illustrated in Fig. 19 underwent traditional periodontal treatment focusing on the removal of the etiological factors. At reevaluation, it was decided to regenerate some residual oblique bone defects, including the one seen in Fig. 19. With a flap elevated, root planning was performed under a microscope. This was followed by the application of a L-PRF Block, filling the bone defect. Within two months, as shown in Fig. 20, the defect had healed. There was no inflammation or pocketing on probing.

Other indications for L-PRF include regeneration after apical surgery, plastic periodontal surgery for root coverage and augmentation of the width of gingival tissues and filling sockets after the extractions. The indications for L-PRF have expanded over time with very good results. Research data which is about to become available will lead to further uses for L-PRF in everyday practice.

References available on request ■



2020 International Council Meeting

The International Council, the governing body of the College, convened via Zoom on 29 October 2020. A precise of the summary of the meeting is as follows:

Alternative pathways to Fellowship

Covid-19 restrictions had denied Sections the opportunity to induct and honour new Fellows, according to custom and practice. Some Sections had inducted and honoured new Fellows in the absence of a ceremony. The Council agreed new wording for the Standing Rules to clarify how Fellows may be inducted and receive their College Key, Certificate, lapel pin etc without attending a ceremony. Additionally, the College has developed guidelines and best practices to help Sections implement alternative pathways to Fellowship, in the event of extraordinary circumstances that precluded convocation ceremonies in the future.

Centennial Celebrations postponement and Officer extension

The Council ratified the decision to reschedule the College's Centennial Celebrations to September 20-22, 2021. The College's Executive and College Centennial Committees decided were tasked to continue monitoring the Covid-19 pandemic globally, together with guidance and recommendations of public health experts. The aim is to determine the best possible arrangements for all Fellows to experience and participate in the Centennial Celebrations in a way that truly embodies the spirit and achievement of this important milestone in the history of the College.

Region 43 Hispaniola

The Council approved a proposal to reactivate Region 43 'Hispaniola' to represent the Active Fellows in the Dominican Republic and Haiti.

Recalculation of Councillor representation

Given the membership challenges facing Sections during

the Covid-19 pandemic, the Council approved a recommendation from the College Membership Committee to defer the re-calculation of 2020-2021 Councillor representation per Section until the end of December 2021. This will allow Section representation on Council to be re-calculated based on Active Fellows in good standing at the end of 2021.

Awards and announcements

Retiring Council Awards were presented to Dr Christine Benoit and Dr Keith Suchy of the USA Section. Dr Benoit remains Chair of the College's Project Committee and a team member of the College's Understanding Antibiotics Program. Dr Suchy continues in his role as International Treasurer for the College.

The Presidential Citation Award was presented to Dr Raghu Puttaiah of the USA Section for his significant contributions as former Scientific Director of the College's Dental Safety Program.

The Distinguished Service Award was presented to Dr Clive Ross, Past International President and Councillor, in recognition of his lifetime achievements and services both to the College worldwide and the Australasia Section.

New Secretary General of the College, Joe Kenneally, advised the Council that the College's World Headquarters team members are working remotely from the United States, Israel and the United Kingdom. The vision for the future of the College world headquarters will be an expanded staff, accessible 24/7 to all Fellows through a virtual office platform. The contact information for headquarters team members and the College's operations centre can be found at: www.icd.org/headquarters ■

Letter from the President



Gil Alves Alcoforado - FICD
President of the European Section

Dear Fellows,

When I was inducted as President of the European Section of the Academy in June 2019 by my predecessor, Immediate-Past President Argirios Pissiotis, I had no idea what awaited me.

My Portuguese team and I started work in December 2017 on the preparation of hopefully a most enjoyable and memorable Annual Meeting of the Section in the city of Oporto. When I presented the proposals for the meeting to the Section's Board of Regents a year later, I felt well prepared to host the Annual Meeting in Oporto in June 2020.

I was not, however, prepared (nobody was, I assume) for what 2020 had in store for us. As you know, in March last year we had to postpone the meeting in Porto to 2021 given restrictions and risks associated the Covid-19 pandemic. I do not have to describe the effect this exceptional global crisis has had on our personal and professional lives, let alone, amongst many other things, plans to hold meetings and other events.

In December 2020, the Section's Executive Committee discussed the implications of the continuing pandemic online. Having explored all possible options and the relevant financial implications, the Executive Committee decided to further postpone the meeting in Porto until 9th to 12th June 2022. This decision was confirmed later in December at a virtual meeting of the Section's Board of Regents Meeting, at which all the Districts of the Section were represented.

The payments made by Fellows to attend the meeting in Oporto in June 2020, as originally planned, will be transferred and held in credit for the rescheduled meeting in 2022, unless any Fellow wish to do otherwise.

The programme for the 2022 meeting in Oporto will have the same structure as announced for Porto 2020 in last year's ICDigest. I will look forward to organising this meeting and to welcoming you to Porto.

The presidency of the Section will move to Dr Walter van Driel at the conclusion of the meeting in Porto. Dr van Driel, who will be the 2022-2023 President of the Section, will preside at the 2023 annual meeting to be held in Amsterdam.

Be safe and stay healthy.

Memoriam Dr Gil Alcoforado Snr

It is with deepest regret to announce the death of Dr Gil Alcoforado Snr in Lisbon, Portugal at 102 years of age.

Gil Alcoforado Snr was one of the first Fellows to be inducted in the newly created European Section of the ICD in 1955. He was a Past-President of the European Section (1992) who organised three ICD Annual Meetings; his first in Lisbon (1985), the second in Funchal, Madeira and a third in Vilamoura, Algarve. Gil Alcoforado Snr leaves behind his wife Malène, two Children, Maria João and Gil (current President of the European Section), five grandchildren (two of whom are dentists) and nine great-grandchildren.



Future Annual Meetings of the European Section International College of Dentists



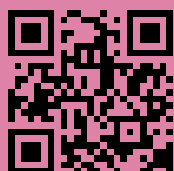
2022 Porto, Portugal 9-12 June 2022



2023 Amsterdam, The Netherlands 21-25 June 2023



2024 Jerusalem, Israel 17-20 June 2024



See www.icd-europe.com for further information on the Annual Meetings of the Section.