2020-06-02

Taking The Lead

Hanks, Sally

Journal of the Irish Dental Association
Irish Dental Association

IDA
irish dental association

JIDA
Journal of the Irish Dental Association
Iris Cumainn Déadach na hÉireann

Volume 66 Number 3
June/July 2020

DENTAL RECALL

Anterograde amnesic effects of IV sedation with midazolam in patients having oral surgery procedures

CONTENTS

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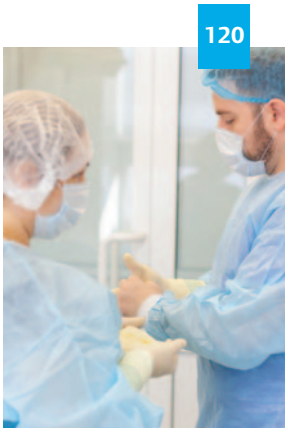

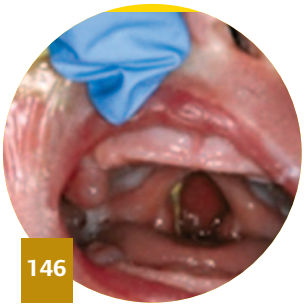

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EDITORIAL

Dr Ciara Scott
Honorary Editor

A safe landing in sight

As the lockdown begins to lift, there is much for dentists to reflect on and learn from.

Living in lockdown raised various analogies with cabin fever; our busy worlds were suddenly constricted by staying at home. In some ways it was like preparing for a storm, taking stock before battening down the hatches. In other ways, it was like sailing into the doldrums: one day making steady progress, the next disabled to a halt, not knowing when we would get moving again. The doldrums are lit by sunshine, starry nights and phosphorescence. The stillness is broken by flying fish and dolphins. Searing heat is disrupted by intermittent rain showers, inevitably bringing rainbows, another symbol of hope and gratitude during this crisis. Slowing down brings the opportunity for rest and repair. But it can also be a restless calm. On alert, constantly watching the horizon and checking forecasts for when and where the new wind will come from. After endless anticipation, a new wind can bring sudden and unexpected demands and a flurry of activity to set sail in a new direction.

Leaders in the profession

Warm weather brings animals out of hibernation, so it seemed fitting that spectacular weather coincided with our return to activity. Those first few weeks out of hibernation are the most demanding, but unlike the queen bee, we have not had to re-establish our 'hives' alone. Martin Cormican has become a familiar name on the daily Governmental Covid-19 briefings. I'm very grateful to him for the support he has given the profession and for taking the time to explain the broad stakeholder approach to developing our return to work guidelines in this issue. Many members of the profession and the staff at IDA House have worked tirelessly through this crisis to develop and deliver guidance documents and webinars. We have presented some of this work in the Members' News section. I also thank Rosemarie Maguire, who has shared her experience on our My Profession page.

We have seen lots of different levels of leadership within the profession during this crisis in how we have led ourselves and our teams within broader models of care and healthcare organisations. I was really interested to read about Sally Hanks' research to explore and understand this. The last time I met Sally, I was an SHO in Derriford Hospital in Plymouth and she was working as a civilian dentist at the Royal Navy base. She was so enthusiastic about the role that I jumped at the opportunity to work there after her. Her enthusiasm about her work is still infectious. I am thankful to her for sharing a synopsis of her research with us in this issue and expect readers will also find this very insightful and valuable.

Change and opportunity

There is no doubt that Covid-19 will change how we work for the foreseeable future and change brings opportunity. Many of us have explored new ways of working and new ways of learning. I have enjoyed the RCSI series 'Conversations that Matter', where leaders from the Health Service Executive, the Health Management Institute of Ireland, and The King's Fund have discussed healthcare leadership and management in this crisis, recognising the need to utilise this period of rapid change to disrupt and re-organise services. We know that many of the old models of care do not work for patients or the profession, and the IDA News section also provides an update on this, as former Dean of the RCSI John Marley shares his views in his letter.

In this issue, Síle Lennon and Hal Duncan also introduce us to valuable new ideas. Their Clinical Feature outlines the recent position paper and supporting research on new techniques for vital pulp treatments for permanent teeth. Caroline O'Dwyer and colleagues have shared their audit on measuring patient experiences with IV sedation. We also have an unusual case presentation, reported by Charlotte McCarra and Kirsten FitzGerald. Thank you to all the authors who publish their work in the *Journal of the Irish Dental Association (JIDA)*. We are also delighted that the Dental Health Foundation, Dental Protection and a number of dental businesses have shared news and advice in this issue.

We have also embraced change at the *JIDA*. The *Journal* is usually delivered to all dentists in Ireland and this is the first issue that will be in digital format only. We aim to make the content and format as relevant and valuable for our readers as ever, and welcome your feedback and ideas. I would also like to acknowledge Mark Kelly's longstanding contribution to the Editorial Board and welcome Mirza Shahzad Baig, who has recently replaced him.

For those interested in learning more about leadership values:

- LIFT Ireland provides excellent free resources and roundtables for individuals to engage with their own leadership values – https://liftireland.ie/online-leadership-sessions/; and,
- the RCSI Institute of Leadership has free access to a range of podcasts and webinars – https://www.rcsi.com/dublin/coronavirus/healthcare-professionals/conversations-that-matter.

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Prof. Leo Stassen
IDA President

Meeting this challenge

Covid-19 has been a huge challenge to dentistry, and members and staff of the Association have worked tirelessly on behalf of our profession.

The Health Protection Surveillance Centre (HPSC) has advised us that it is safe to return to dental practice, based on information from the Expert Advisory Group, and the Dental Council has accepted that advice. The only difficulty for us is that it is a risk-based assessment. The Association's Quality and Patient Safety Committee has published very useful information on practice organisation, return to work, and a disinfection control policy. It is hoped that this will help us start up safely as Covid-19 has not gone away. We still need to adopt a risk mitigation approach and be vigilant about social distancing, and protecting patients, our staff and ourselves.

This Covid-19 pandemic has been a huge challenge to all of us and has affected millions of people and killed nearly 500,000 people worldwide. "Challenges are gifts that force us to search for a new centre of gravity, don't fight them. Just find a new way to stand" according to Oprah Winfrey. This is very important advice and what we must do. Dentistry is excellent at adapting.

Dentists are fortunate in that they tend to be very adaptive and also very innovative.

Many of our independent dental practices have been devastated. Providing dentistry on the Medical Card/DTSS or PRSI/DTBS schemes with the new rules, drop in footfall, PPE and environmental cleaning will make it increasingly difficult to treat these patients. It is a matter for each dentist to decide individually if they join, remain or leave these schemes. The Association asked the Minister of Health, the Department of Health and the Health Service Executive (HSE) to look at the extra difficulties and costs associated with the pandemic on an interim basis.

The new Government will hopefully discuss with the Association permanent solutions with new funding for these patients to help dentists and ensure that they are not left subsidising the State at a personal loss with the cost of changes in dental practice that Covid-19 has brought. No other healthcare worker or anybody would be asked or even expected to work at a loss.

PPE for dentists

The Minister for Health has recently advised the Association after considerable discussion that at last there will be PPE available for dentists and he has supported our request that he writes to the Minister for Finance and tries to ensure that we can access it VAT free. PPE is only a small part of what we need. Our big problem is the social distancing, drop in footfall and all the changes we need to introduce to deal with the potential risks to practices.

In the Dental Hospital, the number of patients on a clinic has been reduced to 10 from 40-50 and this has huge implications for future patient care. The Association has sought to get support for dentistry in all aspects of patient care and we are mindful of the need to assist with the well-being of dentists and their teams also. As mentioned previously, the Government needs to listen and work with the dental profession to ensure the oral health of the Irish people and try to remove some of the inequalities that exist.

Talk to each other

We have also tried to maintain CPD through webinars and to give support to the Regional/Branch Committees. One good thing to come out of this is that a lot of dentists are actually talking to each other and this augurs well for our future. Most Regional Committees are up and running and hopefully others will follow suit if we get sufficient volunteers so please stand up and be counted! Together, independent practice and HSE dentists have a chance but if we don't remain with a similar vision for oral and dental health, we will be going nowhere.

Rescheduled AGM

The presidential role has been very busy and the operation of committees has changed (Zoom/teleconference, etc.) but in all honesty, although tough at times, it has been very rewarding to try to help us weave our way through the mire. The teams in IDA House and on our many committees have worked extraordinarily hard in very stressful and difficult circumstances. Thank you to one and all.

"At times our own light goes out and is rekindled by a spark from another person," says Albert Schweitzer. That quote is so typical of how the committees, Association staff and you have worked in all my time involved with the IDA. We all need to be very grateful for the work done on our behalf.

We have lost our Annual Conference from May. Our AGM will be moved to September 26 next in the Charlemont Hotel in Dublin. The constitution states that members must be actually present. There is no facility for a virtual or hybrid AGM. We will need to propose a change to the constitution to deal with the pandemic and other such emergencies.

The Presidency cannot change until the AGM and therefore with the support of the Management Committee (our board) and to be fair to the President-Elect, I have asked Dr Anne O Neill to take over as Chair of the Management Committee and Council. It will still be necessary for all Management Committee members to stay in their present roles. I wish Dr O Neill a more relaxed Chair/Presidency. She has the ability, common sense and attitudes to take us further along our path.

"Good fortune is what happens when opportunity meets with planning," said Thomas Edison. The Association continues to plan on the behalf of dentistry, our patients and you. One day at a time. Thank you one and all for your help and support.

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Dear Editor,

It is clear it will not be back to 'business as normal' for dentistry following the current 'wave' of Covid-19 infection. There will be the 'new normal', which will have to accommodate to further 'waves' of viral infection, and we will have to safely navigate between our patients' need as well as that of our staff and the community need for assurance of safety.

The challenge can be met but only with purposeful and co-operative changes in managing the expectations of all the stakeholders from the Department of Health, the dental associations, dental schools and postgraduate centres of education, as well as the Dental Council of Ireland.

"The fierce urgency of the now", as Martin Luther King referred to, demands that we give serious consideration as a group to how we will manage not only the significantly reduced patient access and throughput in our own surgeries but also in the dental schools, in order to deal with the exigencies of cross-infection control in this anxious new world. How do we mitigate the enormous impact on the business and practice of dentistry while maintaining safe, effective and efficient care?

How do we do this while maintaining educational standards through attainments in the "craft surgical speciality" of dentistry for both our undergraduates and postgraduates when these current attainment levels drop? How do we ensure that any "new attainment bar" that is set (most likely lower) will equip them for their future, while ensuring that already costly courses are not extended, dumbed down or overpriced?

The urgency to which we must apply ourselves to these problems is all the more real when viewed in the context of a healthcare system which lacks a dental foundation training programme to assist the safe beginner to develop in a nurturing environment, lacks legislation to ensure CPD is mandatory, and lacks State-funded higher specialist and consultant training in all dental specialties. We have a lot to do, together, avoiding pedestrian thinking, because as Dr King also noted: "We are now faced with the fact that tomorrow is today".

John Marley
Consultant Oral Surgeon,
Belfast

Important message to members re medical card scheme (DTSS)

The Association has been in discussions with the Minister for Health and Department of Health officials over the last three weeks on a small number of urgent difficulties facing dentists.

In addition to pursuing the provision of personal protective equipment (PPE) and, separately, financial assistance for dentists, we have sought immediate interim changes in the operation of the DTSS (medical card scheme) and a commitment to resume discussions on an entirely new scheme and contract as soon as possible.

Three weeks after the Minister for Health promised the IDA that PPE would be made available to dentists, the HSE says it is still awaiting official direction from the Department of Health to release PPE to dentists. As of June 2, the Department of Health advised us it was still pursuing this matter.

Even though it was the State which abandoned discussions on a new medical card scheme in 2008, we have yet again been faced with further procrastination and delaying tactics as well as a litany of excuses as to why no proposals for urgent, interim changes cannot be tabled at this stage. The Association understands that many members take the view that pre-existing difficulties and inadequacies of the scheme and contract have been exacerbated with the advent of the Covid-19 pandemic.

Members are advised that the HSE insists that there can be no additional co-payments levied on medical card patients to meet additional costs a dentist may incur in providing care to medical card patients, that dentists are not entitled to limit the number of eligible patients each dentist holding a DTSS contract is obliged to see, that dentists cannot opt out of providing treatments covered by the Scheme, and that no increases in professional fees are to be paid by the State even though there have been no fee increases since 2007 and in fact fee cuts were introduced from 2011 onwards. In spite of the significant extra costs being incurred by dentists treating patients, no alleviating changes in the operation of the DTSS are likely to be sufficient or to be presented anytime soon by the State based on the responses we have received to date.

The State's interpretation of competition law precludes the Association, a registered trade union, from engaging in any form of collective bargaining or collective action on the part of self-employed members holding individual contracts with the State. The same applies to other trade unions such as the Irish Medical Organisation, Irish Pharmacy Union and the Irish Hospital Consultants Association where they are representing self-employed members.

It is therefore a matter for each individual member holding a contract with the State to decide on their participation in such schemes. Naturally, the State takes careful note of the numbers of dentists who decide to apply for or to remain as contract holders. While the IDA cannot and will not direct, recommend, signal or induce members to act as regards their holding of State contracts, we are entitled to advise our members of the need to regularly review their participation in third-party schemes and contracts and, acting individually, to consider whether their membership of schemes is in their best interests having regard to the economic viability of their practices, the best interests of their patients, and the professional and ethical obligations they owe to their profession and patients, including the guidance on ethical conduct published by the Dental Council.

Our legal advisers have also asked that we remind all dentists that they should not consult others in deciding on their participation or otherwise in the medical card scheme or any other third-party scheme in order to avoid the possibility of

criminal prosecution. Commentary on social media is also subject to competition law restrictions and members are asked to ensure they avoid making any comments on any media platform which could be construed as constituting anti-competitive behaviour.

For the reasons we state above, and particularly the increased costs of providing care and treatments to medical card patients in the post-Covid-19 world, each member may wish to conduct an independent review of their participation in the DTSS to ensure that it makes commercial sense for their particular practice. The Association reiterates that any decision should be taken on an individual basis and that no form of concerted or collective action should be contemplated or pursued in order to avoid any risk of legal prosecution. Members are advised to ensure that they are fully conversant with the full contractual provisions of the DTSS and to ensure they comply with those terms if they choose to continue to participate in the scheme or to honour their obligation to complete treatment plans they have commenced and to give 90 days' notice of resignation if they choose to leave the scheme.

The Association will continue to pursue immediate changes in the operation of the DTSS and, with the establishment of a new Government, a permanent replacement of the medical card scheme, which is clearly unfit for purpose and has been for many years, as we have repeatedly advised successive Ministers for Health.

CPD moves online

The CPD Committee has been working very hard to bring members relevant and up-to-date education and advice via online platforms over the last few months. The majority of our online support has been to assist members with dealing with Covid-19 and getting back to work. There is a very worthwhile webinar on 'Getting back to work protocols' for members, and we would encourage all members and team members to view it when deciding on how best to reopen for routine treatments. Further clinical presentations will be scheduled for the autumn programme.

The IDA hopes to hold some small hands-on courses for members regionally in the autumn – more details to follow.

If you missed the original streaming of any webinar, they are all available on the members' section of the IDA website in the CPD section to view at a time that best suits you.

Medical emergencies/BLS training this autumn

The IDA hopes to recommence face-to-face training with limited numbers in medical emergencies/basic life support (BLS) from October. Safe Hands will deliver the training in small groups, ensuring adequate safety measures and social distancing at all times. Dates and venues will be announced soon.

Colgate Caring Dentist Awards 2020

It is with great sadness that the IDA has taken the tough decision to cancel our Awards for 2020. 2020 has been a very challenging and tough year for the dental profession, and we in the IDA recognise this and decided that the best course of action at this time is to cancel the Awards.

We hope and trust that 2021 will bring a more positive outlook for dentistry, when we can again celebrate and enjoy all that is good about the profession in our annual awards ceremony.

September 26 confirmed as date for IDA AGM

The Association's AGM has been re-arranged to take place on Saturday, September 26, in the Hilton Hotel, Charlemont Place, Dublin 2, commencing at 10.30am.

The AGM had been scheduled to take place on Thursday, May 14, but was postponed with the cancellation of our Annual Conference.

The AGM is an important event where reports are presented to the membership, financial accounts are presented for adoption, resolutions and rule changes are considered, and changes in officerships, including the installation of a new President and other senior officers, are confirmed.

A formal notice will issue to members shortly along with the usual array of reports, nominating forms, motion forms, etc.

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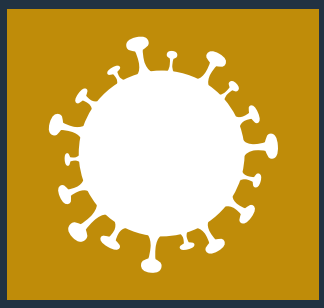

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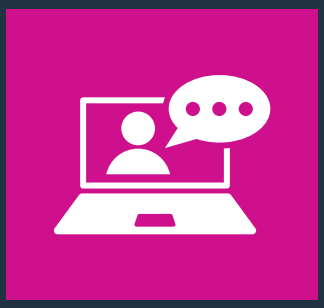

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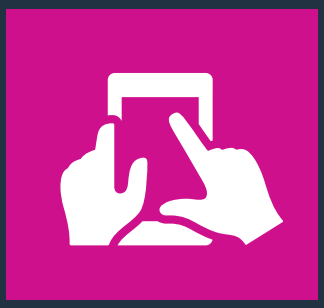

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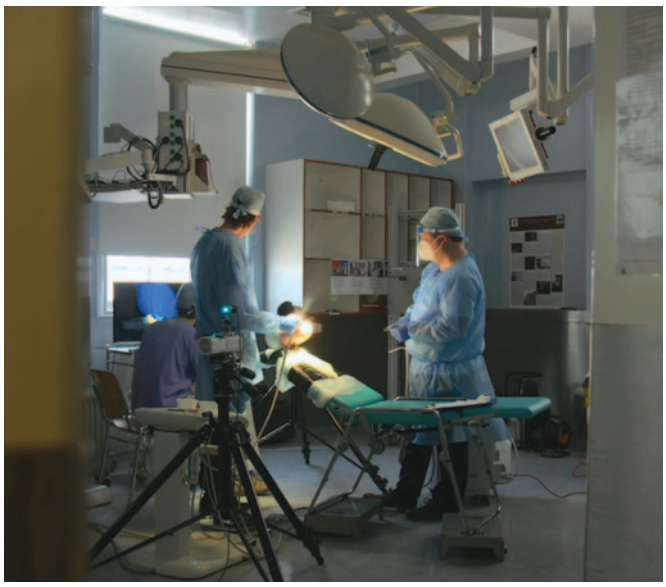

Drs Lewis Winning and Peter Harrison in the RTÉ Prime Time *report on their studies in collaboration with Dr Kevin Nolan and Prof. Ronan Cahill.*

Dr Gillian Smith appeared on RTÉ's Claire Byrne Live*, demonstrating to the public what dentistry will look like in the wake of Covid-19 restrictions.*

Members of the IDA have featured on national television recently, giving the dental perspective in programmes addressing the impact of Covid-19 on the workplace.

Drs Peter Harrison and Lewis Winning of the Dublin Dental University Hospital featured in an RTÉ *Prime Time* report on the challenges of physical distancing in various workplaces. They are collaborating with Prof. Ronan Cahill of the Mater Misericordiae University Hospital and Dr Kevin Nolan of the School of Mechanics and Material Engineering at UCD to investigate if Schlieren imaging technology can be used to image dental aerosols. Peter points out that the study is still very much at its preliminary stages: "However, it does appear that the technology can be useful for imaging dental aerosols. Unsurprisingly, we saw that a significant aerosol is created by dental handpieces; this may be oriented towards dental staff, highlighting the importance of staff use of PPE. However, it does appear that well-positioned, high-volume suction is highly effective at reducing the aerosol and negating most large droplet spread".

General practitioner Dr Gillian Smith also recently appeared on RTÉ, demonstrating to the public what dentistry will look like in the wake of Covid-19 restrictions on *Claire Byrne Live*.

Quiz

Submitted by Dr Ian Reynolds

A 20-year-old female patient was referred to the hospital setting for replacement of tooth 53. On periodontal examination, gingival recession of 2mm was noted at tooth 41. The insertion of the labial fraenum was noted to be aberrant (**Figure 1**).

Questions

1. Classify the recession lesion at tooth 41 and describe the local soft tissue anatomy that may impact on the decision whether or not to treat.
2. What clinical test could be performed to assess if the aberrant fraenum position is a potential contributory factor for the gingival recession noted in this photograph?
3. What treatment options are available to address the recession defect/aberrant fraenum?

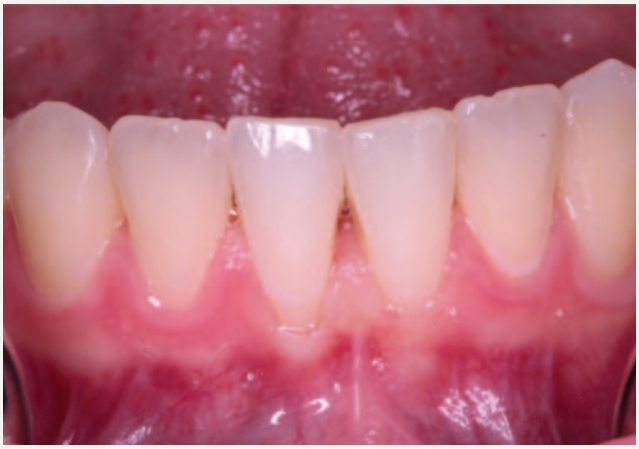

FIGURE 1: Pre-operative clinical photograph.

Answers on page 118.

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Irish dentist wins IADT prize

Dr Elaine Shore has been awarded a prize in the International Association of Dental Traumatology (IADT) Case Report Competition 2019-2020. Elaine is in her final year of the paediatric dentistry programme at the Dublin Dental University Hospital (DDUH), Trinity College Dublin, and submitted a case report entitled 'Unpredictable outcomes following avulsion of immature incisors', based on patient care provided in the Trauma Clinic at the DDUH. Dental trauma occurs commonly and appropriate early care maximises successful outcomes. Most care can be provided by dentists but a fraction of traumatic dental injuries require an advanced specialised service for complex care, which is provided in the Trauma Clinic.

The prize would have been presented at the World Congress on Dental Traumatology by the President of IADT, Anne O'Connell, in June. Due to Covid-19, The World Congress has been postponed to June 2021 in Lisbon.

IDA appoints Omega for income protection

The IDA is delighted to announce that Omega Financial Management has been reappointed as the preferred provider for income protection to IDA members. Following a very rigorous tendering process, the IDA used the services of an independent financial advisor to assess all proposals before deciding on Omega for a three-year term.

Omega Financial Management via DG Mutual has been providing day one income protection to IDA members since 2010. In addition to DG's unparalleled claims paid history, the company has demonstrated an exceptional level of support to Irish dentists by providing cover to members who were instructed by their GP to self-isolate on medical grounds in the immediate aftermath of lockdown restrictions. DG Mutual was not obliged to cover for isolation and did so as a gesture of goodwill until May 6. Hundreds of clients were covered and the total claims amount runs to a seven-figure sum. The response from the dental community has been overwhelmingly positive, with members citing their relief at having this level of support during such a challenging time, at the ease of the process and the speedy pace at which they received their benefits.

For information or to request a quote contact Omega Financial Management on 01-293 8554, or via email at info@omegafinancial.ie.

The risk manager

As dentists return to routine dentistry, Prof. MARTIN CORMICAN spoke to the *Journal* about the thinking behind the expert guidance they will be relying upon, and what the future might look like for dentistry post Covid-19.

Prof. Martin Cormican is an extremely busy man these days. As a member of the Government's Coronavirus Expert Advisory Group, a subgroup of the National Public Health Emergency Team (NPHET), he works with a multidisciplinary group of experts to monitor and review national and international research and developments in relation to Covid-19, providing expert advice to NPHET, the Health Service Executive (HSE) and others. The Group has played a key role in the advice and guidance on Covid-19 preparedness and response, including the preparation of guidance for dentists as they return to routine practice.

An enormous amount of work went on behind to scenes to produce this guidance. Martin explains that, as is the case with all infection prevention and control (IPC) guidance during the pandemic, the guidance for dentistry was prepared by the Antimicrobial Resistance Infection Control Division (AMRIC) of the Health Protection Surveillance Centre (HPSC), with input from a number of dental stakeholders: "We had really helpful conversations through the process with the Chief Dental Officer, Dr Dympna Kavanagh, and with David O'Flynn, the Dental Council Registrar. We also had conversations with HSE dentists, and with a dentist nominated by the Irish Dental Association".

Martin says that there were two documents, the second of which had even more extensive stakeholder engagement, including reference to international publications and guidance documents on dentistry, which were provided to the expert group by dental stakeholders: "We worked through all of those documents, and they were discussed with the representative nominated by the Irish Dental Association and with other dentists".

It's a lengthy and involved process, with particular challenges: "One of the challenges across the whole of the guidance development around Covid is that the evidence base in many cases is weak. If there is a clear evidence base then it's pretty straightforward because you go with the evidence. [With Covid] there isn't always a clear consensus of expert opinion internationally so you end up trying to make reasonable judgements in that setting".

Consensus

Martin says that all those involved worked very hard to reach a consensus on the guidance for dentistry, and he is satisfied that this was achieved on the vast majority of issues. One of the main sticking points, however, was addressing concerns regarding aerosol-generating procedures (AGPs). For Martin, this again is not an issue exclusively for dentistry, but he acknowledges that it was a crucial one to resolve: "The same issue has come up right across the board in healthcare services, and people take very different views on it. By and large, IPC professionals see AGPs as one element to be considered, whereas for people who are not IPC professionals, the emphasis on AGPs is much greater. It's not that IPC professionals discount AGPs, it's just that we see them as one element of a much bigger series of risks, in particular contact and droplet, which we would see as being the major issue for transmission of this virus. The issue around AGPs is the issue that we all had to work quite hard on to come to as near a consensus as we could".

> *One of the big things for me in developing the guidance was trying to find evidence that people who work in dental practice are at a higher risk of respiratory virus infection than the general population, and I wasn't able to find much evidence of that.*

He understands dentists' concerns, and says the aim was to address the whole spectrum of risk, again while working from a less than certain evidence base: "We do know that dental procedures generate a lot of aerosols and we know that aerosols can contain microorganisms. One of the big things for me in developing the guidance was trying to find evidence that people who work in dental practice are at a higher risk of respiratory virus infection than the general population, and I wasn't able to find much evidence of that. I believe that the kind of guidance we put into the document, if carefully implemented, goes a long way towards managing the risk. But there is no zero risk, and the biggest things in my experience that go wrong are not the high-tech things like aerosols. When I've seen colleagues get infected at work, it's almost always, in my opinion, more likely to be related to fatigue and distraction: you forget to wash your hands, or you forget to bin your gloves, or you touch your face. A huge part of infection control is the human factor. If we can do whatever we can to make sure that people avoid extremes of fatigue, and avoid distraction, and that they have time and opportunity to be careful and follow basic procedures, that's where 90% of the safety is".

Prof. Martin Cormican giving one of the many Covid-19 media briefings on RTÉ News.

Back to practice

In the early days of the crisis, most dentists chose to close their practices to all but emergency cases. The advice issuing from the Dental Council at the time was to operate as normal; however, in the absence of clear guidance, dentists were deeply uncomfortable with this. In a Liveline interview given at the time, Martin spoke about the fact that he had not wanted to close dentistry in the initial stages of the restrictions. Asked to elaborate on this, he points out that while the question was asked in the specific context of dentistry, his response was the same as it would be about almost any other healthcare service: "It's always necessary to consider the consequences. Closing down a service sometimes seems like the obvious way to manage your risk, but that has consequences for patients first and foremost, but also consequences for practitioners. Broadly speaking, across the whole range of measures that are taken in response to the control of infectious disease, I would always emphasise the need to consider what are the benefits of the measure, what are the consequences, and what are the potential harms, and try to make sure that those are balanced".

Dental practices are now reopening in line with the new guidance, and dentists are looking forward to a return to treating patients. However, all of this is happening alongside the very real fear of an increase in infection rates leading to another shutdown. Martin says that guidance in relation to specific essential services would depend on a range of factors, not just the reproductive index of the virus – the 'R' number with which we have all become so familiar: "Clearly, all of us are at risk of getting Covid in our ordinary lives, but the question for us as healthcare workers is: are we at an additional risk related to our work? The thing that I think is really important to watch out for is evidence of Covid infections in dental practice that appear to be related to workplace exposure. The nature of the work dentists do involves a lot of contact with oral fluids. Wearing gloves and hand hygiene is an important part of managing that risk. But when we get infection in healthcare workers, and we have seen a lot of infection in certain categories of healthcare workers, it's often very difficult to know what it was they got infected from. We say in the guidelines that it's really important that any cases of infection associated with dental work should be properly reported and recorded. And the reason for that is that we try to get an early signal if anything is going wrong. If the processes we've put in place

Prof. Martin Cormican

Martin graduated from NUI Galway Medical School in 1986. He trained in Ireland, the UK and the USA, and was appointed Professor of Bacteriology at NUI Galway and Consultant Microbiologist in 1999.

He is director of the Galway University Hospital National Microbiology Reference Laboratory services, and was recently appointed as National Clinical Lead for healthcare-associated infections (HCAIs) and antimicrobial resistance (AMR).

His research interests include antibiotic resistance and food-borne infection. With colleagues he established a Centre for Health from Environment at NUI Galway to promote research and advocacy on the central role of the environment in enabling people to live fulfilling and joyful lives.

for controlling the risk of infection in dental practices are working, and if dental services can be provided with safety for the patient and safety for those who deliver the services, then the reproductive rate is not the thing that would drive [a shutdown]".

He returns to his earlier comments about the importance of maintaining essential services during the pandemic, while seeking to balance the risks involved: "Even at the height of the pandemic, certain services which are essential didn't stop because they are so fundamental to the functioning of society that you can't stop them – you have to work with the risk. Oral health is so fundamental to general health that the long-term absence of dental services to me would be catastrophic. I'm not NPHET obviously, and the Government and NPHET may take a different view, but I would be very careful about shutting down essential services because all of that has consequences for people's health and well-being, and indeed for people's livelihoods. Finding a way to sustain both of those things in the pandemic would appear to me to merit a very high priority. One of the things said in conversations with stakeholders about this is that dentistry wasn't zero risk before Covid. There's an increment of risk associated with Covid, and how do we manage that? It's difficult I think, and we will continue to learn – our understanding of what we need to do next year will probably be better than it is now".

Lessons learnt

Martin says that much has been learnt from the discussions around the guidance for dentistry, particularly from his perspective as an IPC professional: "In the early stages of a newly emerging disease, it is very difficult for everybody, I think, to look at the risk and to try to focus on the evidence, because for all of us, particularly if we see colleagues or hear of colleagues getting sick, that has a very powerful effect on how we look at risk. Across the healthcare sector, if you're the person who's doing the procedure and your perception is that you are at risk, sometimes people in that situation find it very difficult to have an outsider from their profession like me saying, well, actually, I'm not sure I quite agree with your evaluation of risk. That's entirely understandable, and it's one of the challenges for me as an IPC professional. One of the things that was useful was the dialogue around that. I hope that it was clear to colleagues that even if we didn't always agree at the start, we were both concerned about the risk, and we were both trying to manage the risk, and none of us were discounting the risk".

> *"Oral health is so fundamental to general health that the long-term absence of dental services to me would be catastrophic."*

For the future, there's no doubt that it's still an evolving situation, and as we try to adapt to this 'new normal', Martin is keen that the fundamentals are not forgotten: "Based on previous experience with other pandemics, what tends to happen is that in the early stages, people sometimes overestimate the risk, and in the later stages they underestimate the risk and start to become too casual about it. What we're trying to do is get people to a stage where they're following a certain level of precaution consistently. That would be my big caution going forward: don't drop your guard because the basics of infection prevention and control apply to all patients at all times, and are probably the most important thing in keeping patients and healthcare workers safe. The additional things we do for those who we recognise as being at risk add value, but the biggest safety net for most of us most of the time, and for most patients most of the time, is that we're following the basic rules as consistently as we can.

"Covid is not going to go away. I don't foresee that we're going to have a Covid-free Ireland in the near to medium term. The challenge for us is going to be: how do we deliver healthcare services in an environment which has been changed by Covid?"

Taking the lead

Dr SALLY HANKS describes her approach to dental education, and how her research on leadership in general dental practice can help dentists to navigate the challenges of Covid-19.

Sally Hanks is passionate about teaching and learning. After a number of years in general practice, and then in special care dentistry, she took a part-time lecturing role at Bristol Dental School and discovered a love of dental education, and the feeling that she could make a difference to the lives and education of her students. She then moved to the Peninsula School of Dentistry at Plymouth University, where the focus on real-life, practice-based dentistry was very attractive: "The students get to see a patient from start to finish. The patients walk in as they would in real life into your practice. I really like that because that's what my career for the 20 years previous to this role had been".

Sally is now Head of Teaching and Learning at Peninsula, and Module Lead for Professionalism for both the BDS and the BSc in Dental Therapy and Hygiene. With approximately 90 students in each year group, Sally's is a busy role, and she sees dental education as a holistic process that's about far more than just teaching students to care for teeth: "Our job is to make the next generation of dentists better than we are, and to be always looking to improve the profession, not just each individual. It's also to support each of those students to be the very best they can be. I see education as a facilitator to supporting each individual on their own journey, to empower them to be able to make their own decisions and to be comfortable in that".

Ann-Marie Hardiman

Managing Editor, Think Media

She's very aware that academic achievement is only part of the process: "You have to have a minimum level of knowledge to do the job, but it's not all about that. If you got 100% in all of the assessments, but you couldn't reason, think critically, and apply what you know to new and evolving situations, then you wouldn't be able to treatment plan and problem solve – you wouldn't be able to look after patients".

Humane dentistry

One of the ways in which Peninsula has supported this integration of skills is with a dentistry humanities module in the final year, where students have the opportunity to work with actors, musicians, creative writers and artists. Sally says the results have been extraordinary: "We had some generic learning objectives from these sessions, such as: 'What have you learnt about yourself, or about interacting with other people?' What came back was the students learnt so much else outside that. They learnt a lot about resilience building, stress relief and stress management. Many of them carried on doing the subjects that they started, such as life drawing or creative writing or music. They found it really helped them to learn about themselves and about how to cope".

Sally is also responsible for the student and patient feedback processes at Peninsula, and it's something she sees as vital to the learning process, for students, patients and staff: "I know some of the things that students need to know when they come out at the end of their dental training. I know what it's like to be a dentist, and how to marry these things and create a really good education programme for students. But I don't know how it feels for students, and I don't know what that feels like for a patient".

The School uses a range of feedback strategies, from anonymous questionnaires and focus groups, to individual and direct feedback from patient to student, and from student to teacher: "We support the students in receiving that feedback and we support the patients in giving it. The ethos for the patients is we want our students to be great, not just good, and you can help us to do that by telling them little things that might make a difference. It's not about saying they're not doing well, it's about us saying: 'Your patient thinks that that could change, and that might help them even more'. For our student feedback it is very much that we need to listen and hear what's been received, regardless of what our intention was. Students can be very critical, and it's great that they can, but it'd be really good if they could learn to be critical in a constructive way. That's what we're trying to do with these strategies for patients and students: everybody should be able to give feedback in a way that's useful".

Radical change

Of course, the Covid-19 pandemic has meant radical changes to the way that Sally and her team do their jobs, and some of these changes will be at least semi-permanent, but Sally is extremely proud of how her team has handled the crisis: "My team has gone to extraordinary lengths to make sure that not only teaching and learning and the information is there for the students, but that you can still come and talk to us. It's an open Zoom policy rather than an open door policy!"

> *"You have to have a minimum level of knowledge to do the job, but it's not all about that."*

There have been positives too: "It's amazing the ideas that people come up with; being somewhere completely unfamiliar means you can think in a completely different way. It actually can be quite freeing: terrifying, but also freeing! We're doing things that we never thought we'd have to do, and we've found that sometimes they're just as good as, or have advantages over, what we've done before".

This is feeding into their plans for an eventual return to on-site work: "We can't turn dentistry into a distance learning course, nor will we try. Obviously, we

Passion for empowerment

Sally qualified from Bristol Dental School in 1993 and spent the first 10 years of her career in primary care dentistry, including roles in the NHS, private practice, hospital dentistry, and as a civilian dental officer with the Royal Navy. She then worked with special care patients and gained an Advanced Diploma in Hypnosis and Stress Management from the University of Stafford in 2010. Before joining Peninsula, Sally worked as a Restorative Clinical Lecturer at Bristol Dental School.

Having grown up on a farm, Sally loves the outdoors and is a keen gardener: "Being in lockdown, my veggie patch has got a lot bigger. I've done a lot of digging and that has been both good therapy and hopefully will be good for physical appetites as well!"

She misses socialising, but with gardening, walks on nearby Dartmoor, and working her way through the pile of books she ordered to get through lockdown, as well as remote teaching, she's keeping very busy: "I am very passionate about my work and the whole idea of empowering individuals to be the best they can be for themselves. I'm so lucky that a lot of the things that I enjoy doing are linked to aspects of my job".

have to work within Government and national guidelines, but we have been planning a strategy for how to support our students to get back to patient care safely. Our ultimate goal will be to make sure that the students get the experience and the training they need to enable them to get out and be really good dentists".

Leadership

While clinical practice is now only a small portion of Sally's work, her interest in it, and in what can make it better for those who are in general practice, has never waned, and led her to undertake a PhD in management and leadership in general dental practice. When an update to the General Dental Council learning outcomes was released, including a section on management and leadership, Sally found it difficult to find material to help educate her students in those outcomes: "I realised that for the dentist in dental practice, the real-life coal face of dentistry, management and leadership was something that hadn't been very clearly defined. So my whole ethos was, well, can I go and see it for myself? Can we see how leadership works in a dental practice? Will it be something we can see, and if it is, how can I then make it useful for supporting ongoing education?"

> *Okay, I am acting with my professional hat on, but I recognise that I am depressing this emotional response, which is also me.*

Sally opted for a methodology called video reflexive ethnography, which involved going out into dental practices and videoing dentists at their work: "The reflexive element is that after that, I watched the videos back with those dentists. That was key: it's not just being observed and someone else putting a meaning on that, it's working together to create new knowledge".

What she found was that leadership in dentistry is not just one thing, but is rather a complex and dynamic pattern of behaviours and processes: "It's not as straightforward as: if you're that kind of person, or if you do that, then that's great leadership. It's about relationships, emotional intelligence, self-awareness and awareness of others. In a practice, it's about the community of practice that you're working in".

Sally used this information to develop a conceptual model for leadership, comprised of six elements: three external (see page 111) and three internal. While the external elements range from the regulatory and legislative structures a dentist has to engage with, to their role as practice owner and employer, the internal elements cut to the heart of each practitioner's identity: "The three things that were internal to the dentist were their personal and professional identity, their capability and flexibility, and their relationships. By that I mean capability and flexibility in their thinking processes, in their emotional and mental processing, the ability to be agile in thinking, and in feeling".

For general dentists who may not be used to thinking of what they do as a constant balancing of these personal and professional selves, or who may feel the need to separate the personal from the professional in order to be a 'good' dentist, Sally's research shows that this is not necessary, nor is it really possible, or indeed desirable: "It's very easy to overlook the importance of who we are as individuals. We all bring something to each of the interactions that we have,

One of the dentists was faced with a child with wall-to-wall tooth decay. As an individual they felt really angry with the situation – as a clinician they were looking at that as: 'I've got to do something to help, and how am I going to use my professional skills to do this?'

whether that's with one person or with many people. That's what was really interesting in the findings of this PhD – that it is really important who the dentist is. Their identity, personal and professional, impacts on their leadership activities. That can be both frightening and reassuring. For those of us who prefer to be able to do a job without being part of it, then it's terrifying because you're in it whether you want to be or not. For those who want it all to be about who they are, there's the realisation that it's about other people as well".

Sally uses an anecdote from her PhD to explain: "One of the dentists was faced with a child with wall-to-wall tooth decay. As an individual they felt really angry with the situation, with the parents who had let that child get into that much pain. They felt really upset for that child. As a clinician they were looking at that as: 'I've got to do something to help, and how am I going to use my professional skills to do this?' As a business person, they were thinking 'I'm not getting paid for this because we don't get paid to treat children'. It is really important to recognise that individual emotional response in the professional environment, and say: 'Okay, I am acting with my professional hat on, but I recognise that I am depressing this emotional response, which is also me'".

The new normal

This has, of course, particular relevance at the moment, as dentists adapt to an entirely new world of practice in the wake of restrictions on how they can see and treat patients. It seems that in this new post Covid-19 world, it will be more important than ever to embrace the different aspects of our identities, whether in dentistry or any profession, and apply that awareness to make things better. Sally hopes her research will be helpful in this process: "Leadership levels on their own can be helpful to increase self-awareness, understanding that we will be impacted as an individual, and as a clinician, and as a business person. Our professional and our personal identity will be impacted, and our community of practice will be impacted because our communities are changing. Sometimes just being able to think, ok, that's impacted me on an individual level, and I know therefore it's going to have a reciprocal influence on all those other areas, just might help. This model has helped me and hopefully will help others".

Leadership and followership in a pandemic – where do you stand?

According to Dr SALLY HANKS, the Covid-19 pandemic has put dentistry into a spin. The profession looks totally different to how it did three months ago. The future is uncertain, unpredictable, unsettling, and as yet unwritten.

One thing that remains a constant, however, is the infrastructure of the leadership and organisation-level systems in which we as a profession take actions and make decisions. These levels play a huge part in our day-to-day activities, but for most of us they are not something we have ever thought about or needed to pay much attention to. Understanding where you stand in this infrastructure may provide dentists with stability to step forward into the unknown future of their clinical and business lives.

There are five organisational and leadership levels that link to varying aspects of dentistry and healthcare (**Table 1**).

If you are a principal or practice manager of a dental practice, you are working at the strategic or organisation level. You make decisions in line with boundaries determined at the grand strategic, systems level of leadership, that is, within national, sometimes international, and local regulatory and political governance structures. These do not only determine the decisions that you can make; you will also demonstrate followership towards them and those who make them. You may or may not have any influence over the outcome, but your reactions will impact on them in some way. Likewise, when you are then taking action or making decisions at the strategic, organisation or practice level, others will display varying means of followership towards you and your decisions.

Leadership has been defined in a multitude of ways, with the current view as a dynamic social construct that only occurs within a group of people, is context dependent and contingent on reciprocal influence processes.[1] Leadership includes recognising these reciprocal interactions and being able to manage and respond to them appropriately.

We are all in a leadership role when it comes to patient care.[1] We have a duty, therefore, to manage our personal decisions and reactions, and remind ourselves that they *will* impact on ourselves, others, and the system.

At the time of writing, dentistry is in a state of flux; far-reaching decisions are being made at grand strategic levels. When, where, and how dentistry can be performed is the remit of chief dental officers and governments, as decisions are made relating to standard operating procedures, aerosol-generating procedures and personal protective equipment (PPE). Actions and decisions at all the other levels are made in light of this. You may feel relieved that this has 'taken the pressure off' you to have to act or decide, or it may lead to anger, upset and anxiety on a personal or professional level relating, for example, to livelihood and business sustainability. You may have conflicting reactions depending on the level you are working at – you may be thankful on a personal level that you do not have to go and work in an upper respiratory tract without really understanding the risk, while at a strategic level you are anxious about how your business will survive. At the dyadic or tactical level, you may be upsetting some staff and patients, yet strengthening your relationships with others. At the operational level you will be making big decisions about the processes and procedures that are undertaken in the future. Will the waiting room need social distancing measures in place? What PPE or screening will different areas of the practice need? How will the surgery 'run' in the post-Covid era?

There may not yet be answers to many of the question you find yourself asking. You may feel conflicted, stressed or anxious about the actions and decisions that are being taken at the moment – and that may remain as all these reciprocal influence processes continue. Knowing where you stand within these levels may help you to make sense of what is happening. Things may not change, but you might understand more about what your next step might be.

Table 1: Organisational and leadership levels and how they relate to the hospital and dental practice setting.[1]

Organisational level	Leadership level	Healthcare	Dental practice
Grand strategic	Systems	(Inter)national, devolved local political and regulator (e.g., DoH, NHS, CQC, CMO)	(Inter)national, devolved local political and regulator (e.g., DoH, NHS, CQC, CDO)
Strategic	Organisation	Hospital	Practice or corporate body management
Operational	Team/group/ unit	Ward, team, department	Element of practice (e.g., reception, surgery)
Tactical	Dyadic	Relationship between colleagues	Relationship between colleagues
Individual	Individual	Individual member of staff considerations	Individual member of staff considerations

Reference

1. **Hanks, S.** 'Deconstructing, Contextualising and Assessing Management and Leadership Qualities in Dental Professionals: An Ethnographic Study of Principles in Practice'. PhD thesis, 2020. Available from: https://pearl.plymouth.ac.uk/.

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EDUCATION LOAN	4.97% (5.08% APR*)		
COVERED LOAN (SAVINGS HIGHER THAN LOAN)	4.97% (5.08% APR*)		
HOME LOAN	**LTV < 50%** 3.40% (3.45% APRC**)	**LTV < 80%** 3.60% (3.66% APRC**)	

*The APR (Annual Percentage Rate) included is an example only; all APR examples are based on a €10,000 loan over a period of 60 monthly repayments.
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Supporting dentists through Covid-19 crisis

Omega Financial Management's day one underwriter, DG Mutual, provided cover above and beyond client policies during the Covid-19 pandemic.

The last six weeks have seen a sudden and unprecedented depletion of private income (revenue) for Irish dentists due to Covid-19. Practice closures and major operational changes abruptly halted services as owners had to protect their health and that of their patients, family and colleagues.

For those with day one income protection policies, however, there was good news among the doom and gloom. Omega Financial Management's day one underwriter, DG Mutual, has provided cover above and beyond the terms of client policies at a significant cost to its business.

Goodwill

During the initial phases of the pandemic, when it was extremely difficult to identify where the virus was and who was carrying it, a number of Omega's dentist clients were instructed on medical grounds by their GP to self-isolate. DG as an income protection company was only obliged to pay those members who actually contracted the disease, not anyone who was told to self-isolate.

However, as a gesture of goodwill and support, DG agreed to pay those members who, on medical grounds, had to self-isolate, as long as this was fully backed up by medical evidence. This was an extraordinary stance for them to take, way beyond their obligations. As the weeks went on, there was a greatly reduced requirement from members to provide this service as fewer people were told to self-isolate by their GP. Consequently, on May 6, DG Mutual ceased this service to members.

The reason for this exceptional show of support is simple – as a mutual society, DG is not profit focused and exists to back the interests of its members rather than being commercially driven. DG's unparalleled claims paid record is testament to this member-centric ethos.

John O'Connor
Managing Director of
Omega Financial Management

When we have heard so many stories of insurance companies using grey areas to avoid paying out during this time, the benefits of mutual society membership have really shone through. With cases running into the hundreds, the overall tally for this period is already higher than the total amount of day one claims for 2019, and monetary payments will run to a seven-figure sum.

Members have expressed deep appreciation for this stance, which has taken some pressure off the difficult situation many have found themselves in. The claims process has been seamless and the majority were paid their first benefit within one to two weeks of submitting their form.

Dentists across Ireland had their work lives transformed when Covid-19 arrived in March, and in a time of great uncertainty, financial protection was greatly welcomed to help ease the burden.

Day one income protection – how it works

As the appointed provider for day one income protection for the IDA, Omega has been providing tailored income protection plans to hundreds of members since 2010. For those who have yet to take out income protection cover, here is a brief explanation of how it works.

Day one income protection provides a replacement income from the very first day of illness or injury so that members can concentrate on their recovery rather than their finances. A replacement salary starts from the first day of illness – no waiting period – and lasts as long as the person is unable to return to work. In the unfortunate event that a member is unable to return to work at all, the benefit lasts through to retirement age.

All accidents and injuries are covered, bar pre-existing injuries,* and new members are accepted up to the age of 54. Members can choose their own level of cover up to 66% of their salary (plus State invalidity benefit). Premiums are subject to tax relief at the marginal rate (up to 40%).

** It is important to note that cover for a period of isolation was discretionary and not part of the standard terms for day one income protection with DG Mutual. It ceased on May 6, 2020. Covid-19 is excluded for new applicants.*

Quintess offers air purification system

Quintess Denta is now offering the Jade Air Purifier to customers through its new sister company, Surgically Clean Air UK and Ireland. The company states that Surgically Clean Air's Jade Air Purifier is a medical-grade air system that is one of the most advanced on the market.

When choosing an air purifier, Quintess states that there are four pillars of air purification to consider:

Airflow: what is the ACH (air changes per hour) and have the machines been tested with filters in place? Some units are not tested this way and the figures are falsified as a result.

Noise: Decibel (dB) levels are critically important as the difference in number may not seem like much, but can often be the difference between having a vacuum cleaner on all day or a whisper-quiet unit in an office.

Technology mix: after you are happy with the above two, then ensuring that you know the mix of technology and size of filters is important. Quintess states that the Jade filters are 55,000cm.

Maintenance: how easy are they to maintain and what is their history in dental? Quintess states that the Jades and Surgically Clean Air have been available in dental practices for 10 years with over 20,000 units in practices. The company is based in Northern Ireland with UK service.

Speaking of her recent installation of the Jade Air Purifier, Dr Aislinn Machesney of Cornelscourt Dental Practice, Dublin, said: "The Surgically Clean Air 'JADE' purifier is a great solution and makes logical sense to me. They are certified to a high standard with excellent technology, a high filtration efficiency, attractive design and can clean a large volume of air quietly".

Funding business as usual

During normal times business owners grapple with the question of what happens if the cash tap is turned off; the Covid-19 crisis has thrown this into sharp relief and made this possibility a reality for many. The options available to business owners can appear to be limited, but they need not be. "We're still very much open to new business," says Joe Biesty, above, Area Sales Manager for Braemar Finance. "There are all sorts of ways for practices to get through the next few months and remain able to finance the new necessities, including PPE and practice refurbishments".

By way of example, Joe cites a customer who recently redesigned their workspace, including separate consultation rooms, to enable and ensure that social distancing measures can be effectively implemented. "Cashflow doesn't have to be a barrier to investment," explains Joe. "There are various products available that are suitable for almost any purpose. We also work closely with all dental equipment suppliers in Ireland and have a recognised and trusted reputation".

Three key products are:

- practice loans inject cash into a business when it's needed – this unsecured loan product can be used for a variety of purposes, including buying into or starting up a new business, a renovation, or simply to cover overheads;
- hire purchase agreements allow outright ownership of an asset at the end of the agreement term – in addition, the asset could potentially be claimed against taxable profit under capital allowances; and,
- leasing allows you to maximise the use of equipment without the responsibility of owning it, giving you the freedom and flexibility you need.

Why Braemar Finance?

As an established professions funder in Ireland and the UK with nearly 30 years' experience working with dental practices through all economic cycles, Braemar states that there is very little the company hasn't seen or experienced, although the current crisis is proving to be the exception to the rule. Braemar's team of finance specialists state that they understand how vital it is that you have what you need to both survive and thrive.

Preserve and protect

Belmont states that its products help to protect patients and staff.

Cleaning and disinfection of treatment centres will preserve them, as well as protecting patients and staff against infection. That is why Belmont has developed a range of care products, which the company states can be divided into two categories: chair maintenance and dental unit waterline protection.

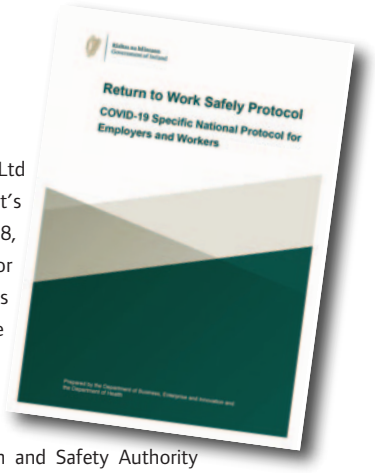
Chairs need to be wiped down between patients and such regular use requires a fast-acting upholstery cleaner that will not damage artificial leather. According to Belmont, B300 has reduced levels of alcohol so that over time it will prevent brittle, cracked surfaces. However, it is also bactericidal, yeasticidal and has limited virucidal impact, being effective against non-enveloped viruses, including norovirus. The company states that the perfect adjunct to this is B100, an intensive cleaner designed for occasional use to remove stains and discolouration.

The daily care of waterlines is another routine hygiene task that must be carried out. Belmont states that B700 is a tried and tested solution, maintaining the water flowing through the unit and minimising the potential for biofilm formation. B700 is supplied in a single-dose sachet and is also non-effervescent, which means it can be used instantly. Belmont advises that before starting to use B700, it is essential to test and 'shock' the system using the B900 kit. The company states that this will remove any existing biofilm. Thereafter, the advice is to perform this quarterly to prevent the build-up of future biofilm. The B900 kit contains a box of five shock bottles, tester strips and 10 dipstick slides for 'before' and 'after' evaluation.

Belmont has also put together a starter kit, B500, so dentists can test and treat waterlines with minimal investment.

The company advises that whether dentists have a new or older Belmont unit, they can contact their dealer to order products from the range and ensure that units look and function optimally.

Health and Safety Authority Covid-19 inspections



Dr Jane Renehan at Dental Compliance Ltd advises dentists that the Government's 'Return to Work Safely Protocol' (May 8, 2020) has significant implications for dental practice. Not only must dentists follow the dental guidance from the Health Protection and Surveillance Centre (HPSC) and Dental Council, but they must also take into account the expanded regulatory role of the Health and Safety Authority (HSA) in enforcing employee safety measures.

Dentists must demonstrate that they have taken steps to maintain preventive measures and suppress Covid-19 in the workplace. HSA inspectors will look at documentary evidence that a practice Covid-19 risk assessment was undertaken, and that subsequently these key protocols occurred:

- a lead worker representative was appointed;
- pre-return to work Covid-19 induction staff training took place;
- pre-return to work staff self-assessments were undertaken;
- consultation with staff occurred regarding safety plans;
- measures relevant to Covid-19, including social distancing, scheduling for patients and staff, provision of sufficient hand hygiene facilities, environmental cleaning, ventilation, etc., were attended to in order to ensure staff safety;
- a plan to manage a suspected Covid-19 individual during the working day was developed; and,
- protective measures where two-metre separation is not possible were implemented.

This list is not exhaustive and reading of the Government's Protocol is essential. These measures are in addition to the Dental Council Code of Practice Relating to: Infection Prevention and Control (April 2015)

HSA inspectors are familiar with the dental workplace having visited many practices over the years. Up-to-date safety statements, waste and sharps protocols, *Legionella* testing, chemical safety data sheets, infection control, staff training records, etc., may be included in any upcoming Covid-19 inspection.

Dr Jane Renehan at Dental Compliance.

Dr Jane Renehan at Dental Compliance Ltd reminds practice owners to update their safety statements and risk assessments to be aligned with the Covid-19 Return to Work Safely Protocol obligations, and to be HSA inspector ready.

Further compliance information can be obtained from the members' section on the IDA website – www.dentist.ie.

Oral health promotion more important than ever

DHF
Dental Health Foundation

Throughout the 'lockdown', the Dental Health Foundation (DHF) has fielded enquiries for oral health information. The DHF has been contacted by dental professionals regarding the need to promote toothbrushing and healthy snacking at home, and by the public for oral health advice. The DHF's resources are available through its website for free to those who request them.

The DHF states that it is the unifying voice in the field of oral health promotion, working with a wide variety of interested parties to champion for change, including the marginalised, community groups, schools, health professionals, etc. It states that its tools deliver oral health messages to engage and empower the public, extending beyond the dental practice. This is an essential stepping stone to improving overall health and patient satisfaction, and significantly benefits society, especially now, as dental practices adapt their operations during this pandemic.

The Foundation is also adapting, and is currently redeveloping its resources, which will be available online and by post for those without IT access. Its new website has a wealth of useful, practical tips from brushing and flossing, and being mindful of a balanced diet, to common risk areas like gum disease. It is user and mobile friendly, with easier navigation to improve information access and encourage behavioural change in preventing oral disease.

A recently published letter in the *British Dental Journal* states: "Oral hygiene should be improved during a Covid-19 infection to reduce the bacterial load in the mouth and the risk of a bacterial superinfection. We recommend that poor oral hygiene be considered a risk to Covid-19 complications, particularly in patients predisposed to altered biofilms due to diabetes, hypertension or cardiovascular disease. Bacteria present in patients with severe Covid-19 are associated with the oral cavity, and improved oral hygiene may reduce the risk of complications". Oral health promotion is more important than ever.

Business bounceback from Henry Schein Ireland

As practices start to reopen, this is going to be a very critical time for you, your practice, your team and, of course, your patients, so it's vital that you identify the strategies to allow your business to bounce back and recover profits lost during lockdown. Henry Schein states that the company's bounceback suggestions will give dentists lots of ideas for how to do this – including how to lead your team, how to communicate effectively with your patients, how to ensure that your practice is ready to reopen, what the new normal might look like, and how to look after the health of your business. This includes how to run virtual consultations, helpful marketing ideas, and a YouTube playlist to help recommission equipment and get it back up and running. The company states that its service team will also be on hand to help with any difficulties.

Henry Schein Ireland states that the company has tried to address many of the concerns that have been raised around infection control and aerosol-generating procedures, and how dentists can incorporate safer measures into their practice and workflow.

Siobhan Cleary, National Sales Manager.

There are many other ideas to help prepare for what will become the new 'normal' in the world of dentistry, and it's going to be quite different from how it was before. If you have any suggestions for anything else that will be of benefit to the dental community, please don't hesitate to get in touch.

In a world of uncertainty – predictable matters

Colm Moore, Moore Wealth Management.

The last two months have seen unprecedented upheaval in equity markets as investment managers tried to make sense of the future implications of Covid-19. The main market indexes dropped by over 30% in four weeks, wiping out five years of pension fund returns and all US job growth since 2010. There has been partial recovery of these losses fuelled almost entirely by economic stimulus measures. The result of these interventions is record unemployment and shuttered economies.

This leads many analysts to believe that there is a fundamental disconnect between markets and economic reality. Yes, markets are forward looking and it seems markets have optimistically priced in the availability of a vaccine and a normal reopening of the economy as a certainty, but is it?

The most popular pension funds in Ireland are in the ESMA risk ratings bands 4 and 5. ESMA is a European risk rating standard that uses a seven-point scale based on five-year annualised volatility. After recent events the most popular ESMA 4 funds in Ireland now average 1.10% returns over the last five years and ESMA 5 funds average 1.66%, which in both cases reflect zero return when inflation is factored in. This appears to be a risk without reward strategy that has people looking at alternatives for the future.

Investors looking for long-term, consistent asset-backed returns could benefit from exposure to the largest retail fund in Germany according to Certified Financial Planning firm Moore Wealth Management. With a focus on food and necessity retailers, this fund has a net asset value of €750m and has proven itself uncorrelated to equity performance in recent turmoil. According to Moore Wealth Management, clients have found this a perfect diversification asset for portfolios in challenging times.

Anchored by four of the five largest food retailers in Europe, Moore Wealth Management states that this is an excellent opportunity to achieve consistent long-term return built into your portfolio from a recession-proof sector in the largest economy in Europe for those looking for an alternative investment to the funds mentioned above.

New from VOCO

CediTEC and V-Print dentbase are now being offered by VOCO as a system that the company states unites denture bases, prosthetic teeth and luting materials, meaning that the entire prosthesis can be produced quickly and simply in just a few steps. According to the company, while CediTEC/DT provides the material for the prosthetic teeth as well as the luting material, the denture base is being launched on the market as dentbase, part of the V-Print range. VOCO states that the combination of milling and 3D printing technology not only simplifies the process but also offers the technician performing the work the option of reproducing the prosthesis at any time – and far quicker than with the classic method. From individual prosthetic teeth to tooth sections right up to complete dental arches for removable dentures, according to VOCO, CediTEC DT allows quick and precise production of customised prosthetic teeth using the CAD/CAM milling technique. The company states that when used as a system together with V-Print dentbase it is possible to produce high-quality dentures quickly and efficiently, and CediTEC is also compatible with other systems currently available on the market.

New flavour

VOCO states that its popular fluoride-containing varnish for desensitising teeth is now also available in cola lime flavour, making a total of six flavours: melon, mint, cherry, caramel, bubble gum and cola lime. VOCO states that Profluorid Varnish is ideal for treatment of hypersensitive teeth and in cases of sensitive root surfaces. According to the company, treatment following cleaning and polishing is also a sensible precaution in order to refill any eroded calcium fluoride depots. The fluoride content is 22,600ppm fluoride, and the white-transparent varnish has high moisture tolerance and excellent adhesion to dental hard tissue. VOCO Profluorid Varnish cola lime is available in the practical SingleDose and the 10ml tube.

Biodentine a new option to save more teeth

Septodont says that Biodentine, which was launched nearly 10 years ago, is a must-have product in any dental practice. Acknowledged by more than 600 publications worldwide, the company says Biodentine has saved millions of teeth around the globe as the all-in-one bioactive dentine substitute, which can be used whenever dentine is damaged – both for crown and root applications. Helping with the remineralisation of dentine, preserving pulp vitality and promoting pulp healing, Septodont says Biodentine fully replaces dentine with similar biological and mechanical properties.

Now, according to the company, a new door has opened for teeth showing irreversible pulpitis – a condition that until now was dooming the tooth to root canal treatment. Following the European Society of Endodontology (ESE) statement for managing exposed pulp, supported by three clinical studies run over the past three years showing 95% clinical success, and validated by Septodont's notified body, Biodentine can now actively be used for teeth showing signs and symptoms of irreversible pulpitis, as long as haemostasis can be achieved within five minutes.* The company says this could represent not less than 85% of cases.

Septodont says that thanks to its one-of-a-kind properties, dentists can extend vital pulp therapy using Biodentine to irreversible pulpitis conditions, which allows complete dentine bridge formation. The treatment is minimally invasive to preserve as much tooth structure as possible. The patient is immediately relieved from the pain associated with the inflammation. According to the company, the Bio 'bulk-fill' procedure of Biodentine enables the practitioner to use only one material to fill the cavity, making it easier to use.

**If haemostasis cannot be achieved after full pulpotomy, a pulpectomy and root canal treatment should be carried out, provided the tooth is restorable (ESE Position Paper, Duncan* et al., *2017).*

Quiz answers

Questions on page 102

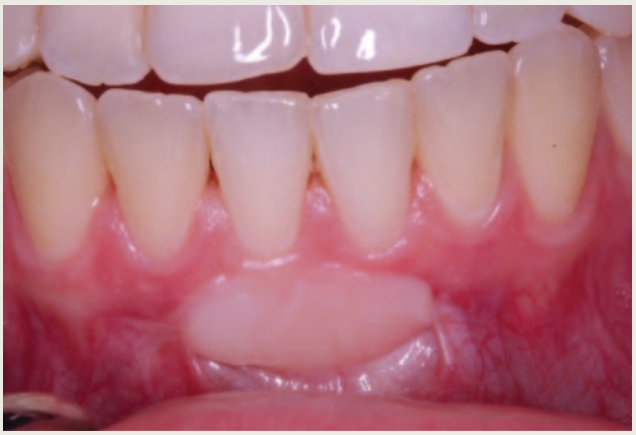


FIGURE 2: Postoperative clinical photograph – one year post surgery.

1. The patient presents with plaque and calculus accumulations at the gingival margin with associated gingival inflammation. The following soft tissue features are evident:
   - gingival recession Type I (RT1) of tooth 41;[1] and,
   - minimal band of keratinised/attached gingiva and aberrant fraenum attachment.[2]

   Other factors that may contribute to a localised gingival recession defect include thin gingival phenotype, previous orthodontic treatment, and personal habits such as nail biting.
2. The Friel test is a quick and simple clinical test when evaluating the extent and involvement of a fraenum attachment to the marginal gingiva. It is performed by stretching the associated lip in the region of the fraenum attachment to assess for blanching of the marginal gingival tissues.
3. Treatment options:
   - frenectomy +/- free gingival graft;
   - coronally advanced flap + connective tissue graft; and,
   - tunnel + connective tissue graft.

In this case, a simultaneous frenectomy and free gingival graft were performed to address the dual issue of the aberrant frenal attachment and lack of keratinised tissue in the region (**Figure 2**). It is important to emphasise the importance of oral hygiene maintenance to the patient to ensure long-term stability of the gingival tissues post treatment.

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2. **Cortellini, P., Bissada, N.F.** Mucogingival conditions in the natural dentition: narrative review, case definitions, and diagnostic considerations. *J Clin Periodontol* 2018; 45 (Suppl. 20): S190-S198.

MOORE
WEALTH
MANAGEMENT

Tailored financial planning from a different perspective

Creating Long Term Consistent Returns In Volatile Markets

In recent months we have seen major stock market volatility, with an associated negative impact on the values of pensions as well as personal and corporate investments. Investors are searching for safe and steady income producing assets uncorrelated to equities.

Certified Financial Planning Firm™ Moore Wealth Management believe they have found the solution in the largest food-retail investment fund in Germany with a portfolio value of €750m that can provide pension, personal and corporate investors with long-term, consistent returns during this period of high volatility and beyond.

The grocery and necessity retail sector is proving highly resilient and defensive as an asset class throughout the crisis. Supermarkets and drug stores have remained open as essential services during the pandemic and indeed have experienced unprecedented demand which is set to continue as trends move from eating out to eating at home.

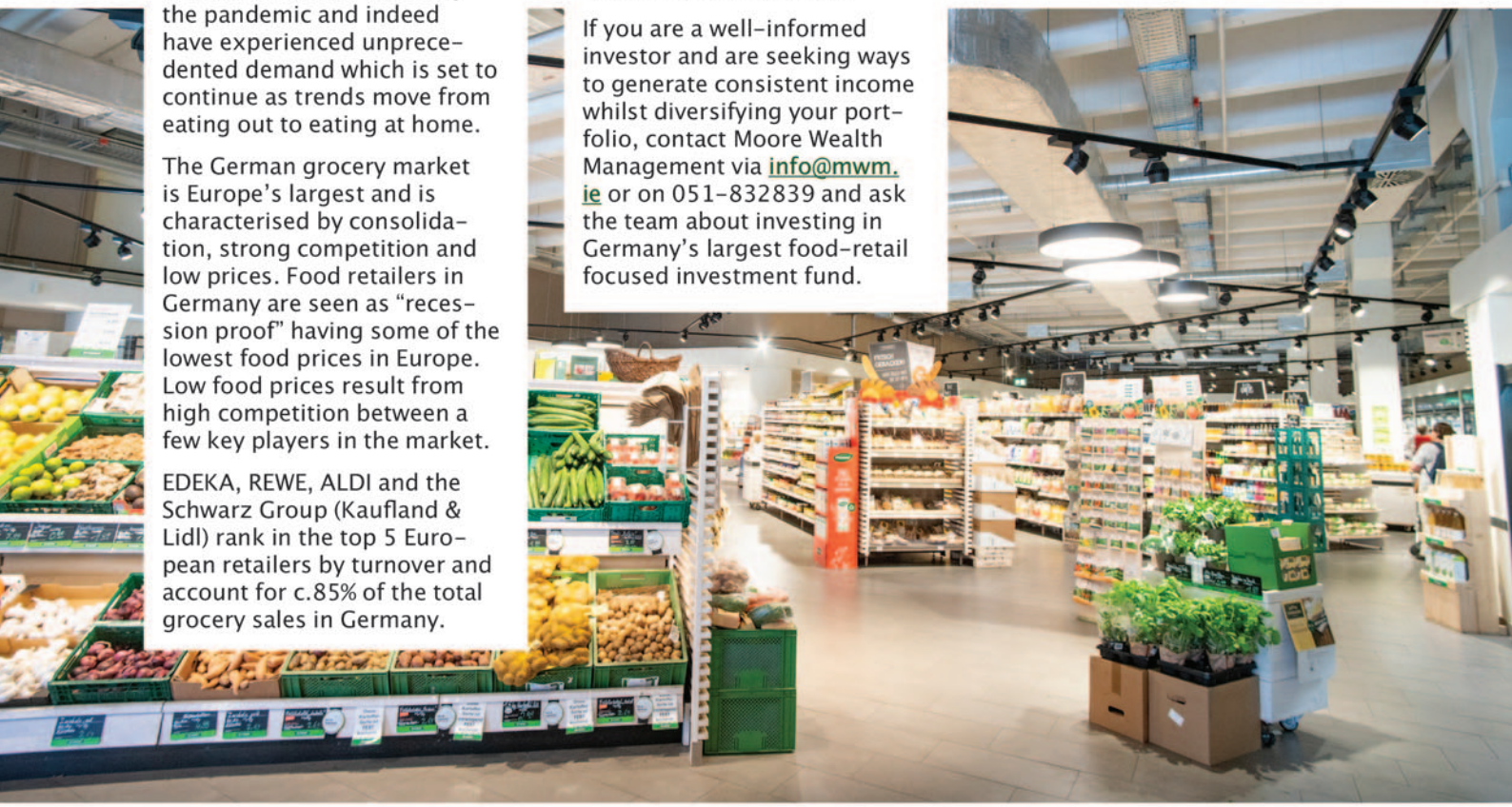
The German grocery market is Europe's largest and is characterised by consolidation, strong competition and low prices. Food retailers in Germany are seen as "recession proof" having some of the lowest food prices in Europe. Low food prices result from high competition between a few key players in the market.

EDEKA, REWE, ALDI and the Schwarz Group (Kaufland & Lidl) rank in the top 5 European retailers by turnover and account for c.85% of the total grocery sales in Germany.

Moore Wealth Management believe that the strong balance sheets of these tenants and the stable, sustainable returns provided by the grocery sector asset class provide a safe haven in troubled times.

If you are a well-informed investor and are seeking ways to generate consistent income whilst diversifying your portfolio, contact Moore Wealth Management via info@mwm.ie or on 051-832839 and ask the team about investing in Germany's largest food-retail focused investment fund.

Stable, sustainable returns provided by the German grocery sector asset class are a safe haven in troubled times



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IDA irish dental association

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MEMBERS' NEWS

Important notice

The Irish Dental Association (the Association) will from time to time issue guidance for members relevant to their professional practice and the business needs of members. The guidance is intended solely for the use of members of the Association and the Union, and should not be used or downloaded by non-members or third parties.

Any information provided by the Association should not be construed as representing a legal contract or professional legal or regulatory, unless specifically stated otherwise. Members or those using the guidance are advised to seek clarity as to the status of the information provided where any doubt exists.

The Association and its servants or agents shall not be liable and do not accept any responsibility, directly or indirectly, for any loss or damage occasioned by any person utilising this guidance or acting or refraining from acting as a result of the material in such guidance. Professional advice, including as appropriate legal, accountancy, taxation, actuarial and insurance advice, should always be sought independently.

COVID-19 dental surgery organisational preparation

The aim of this document is to provide Irish Dental Association members with information from the available literature and, chiefly, national guidance (including the Dental Council's Code of Practice Relating to Infection Prevention and Control Guidance (IPC Code), the Health Protection Surveillance Centre (HPSC) Guidance on Managing Infection Related risks in Dental Services V1.1 (15.05.2020) and the Department of Business, Enterprise and Innovation's (DBEI) Return to Work Safely Protocol as they pertain to organisational measures in minimising the risk of Covid-19 transmission within dental practices.

The Irish Dental Association assumes no liability or responsibility for this information's use or for any errors. Irish Dental Association members are reminded that it is impossible to entirely eliminate the risk of Covid-19 transmission.

Organisational measures: general

- Ensure that all staff are well informed on the revised Covid-19 guidance published by the aforementioned bodies. The Irish Dental Association's position is that aerosol-generating procedures (AGPs) do not need to be avoided, but where there is an alternative to AGPs it may be considered as

per the most recent guidance from the Dental Council and the HPSC (version 1.1 15.05.2020).

- All staff should be informed and trained in the appropriate use of personal protective equipment (PPE). Staff members performing and assisting in dental treatment should be trained in the correct donning and doffing of PPE.
- At present, there is no longer a need to restrict dental treatment to essential dental care. However, there is still a requirement to manage risk; therefore, active surveillance of patients for fever or respiratory symptoms before attendance and on arrival at the practice is recommended, along with the application of public health measures, including social distancing where possible. In addition, there is a need to observe strict adherence to infection prevention and control standards and enhanced environmental cleaning.
- All staff should be screened, where practical, for Covid-19, with their consent, at the beginning of each day, and consideration made to record their temperature with a no-contact thermometer, having explained to staff the reasons for doing so.[1,2] Each person should regularly self-monitor for symptoms throughout the day. Alternatively, a daily checklist may be implemented for each staff member recording: date, name, temperature reading, cough/fatigue/shortness of breath, and recent contact with a confirmed/suspected Covid-19 case.[3]
- If an employee develops a fever, a cough, shortness of breath or difficulty breathing OR if their temperature is greater than 38°C they must immediately put on a surgical mask and isolate from others.[4]
- Those staff members who show symptoms should stay at home and follow specific national guidance on exclusion from work in the context of the Covid-19 emergency.
- Where appropriate, staff members who fall into the high-risk category of developing severe symptoms if they contract Covid-19 should take extra precautions to minimise their staff and patient contact.
- Place signage at the entrance to the practice instructing patients to make initial contact with the clinic by phone and to minimise walk-ins.
- In line with the DBEI's Return to Work Safely Protocol, all staff must fill out a return-to-work form before they recommence employment. A risk assessment of the dental practice must be completed, with special attention to social distancing and the cleaning and disinfection policies for Covid-19. This should be documented and form part of the practice's safety statement.
- The general principles of appointment scheduling include:
  - minimising contact between patients and staff;
  - reminding patients of the restricted mobile phone use verbally and with appropriate signage;
  - promoting hand hygiene throughout the practice verbally and with laminated signage – make alcohol-based hand rub (minimum alcohol content of 70%) available at reception and within treatment rooms;
  - promoting respiratory hygiene and cough etiquette (signage, provide tissue and bins); and,[5]
  - conducting a regular inventory of available PPE.

Appointment scheduling

- Patient attendance should strictly be by appointment in order to minimise contact between patients and reduce footfall.[6]

All staff should be informed and trained in the appropriate use of personal protective equipment (PPE).

- Identify all patients who report acute respiratory illness (fever **and** at least one sign/symptom of respiratory disease, e.g., cough or shortness of breath) **or** patients with acute respiratory illness who have had close contact with a confirmed or probable case of Covid-19 in the last 14 days. These patients should be advised to contact their GPs, if they have not done so, and be directed to the HSE website for further information.[7] A risk assessment should also be undertaken to assess whether essential dental care can be deferred by other means.
- Schedule additional time for proper cleaning and disinfection of the surgery between patients and arrange appointments to limit contact among patients.[5]
- There is no requirement to vacate a room after an AGP is performed unless the patient is known or suspected to have a specific infectious disease such as Covid-19. In these cases, the room should be left for one hour before cleaning and disinfecting can be carried out.
- In suspected or confirmed Covid-19 patients, and where it is safe to do so, deferral of treatments (both AGPs and non-AGPs) until the isolation period has elapsed is recommended.
- If it is essential to perform AGPs on a patient with suspected or confirmed Covid-19, or on Covid-19 contacts, the procedure should follow HPSC guidance on PPE use for AGPs (gown, respirator mask, eye protection and gloves), and should be performed in a facility with appropriately controlled mechanical ventilation such as an operating theatre.
- If possible, patients at high risk of developing severe Covid-19 symptoms and who test negative in their Covid-19 screening questionnaire should be seen at a time that minimises the risk of exposure.
- Ask patients to phone reception upon arrival for further instructions and to wait in their car, if possible, until the dental team is ready to see them.
- Request that only the patient attends the practice unless a carer, parent or legal guardian is essential.

Organisational measures: preparation

Reception preparation

- Minimise face-to-face interaction with patients through the use of telephones and intercom systems where possible.

- The implementation of longer opening hours, staggered lunch breaks and weekend opening are ways of supporting social distancing and may be considered.
- If feasible, choose a specific staff member to take a leadership role for infection prevention and control, and support them with training and some protected time for this role.
- Where direct patient contact is required, reception staff must adhere to social distancing principles.[8] There is no specific evidence that Perspex screens between reception staff and patients reduce transmission of infectious disease. They are not required but there is a rationale for their use to reduce exposure of reception staff and they may reassure staff. If neither is possible and close patient proximity is unavoidable, surgical masks should be considered for reception staff.
- Consider floor markings to demonstrate the minimum requirement for social distancing.
- Clerical work involving paperwork or telephone interactions should ideally be done away from an environment with potentially high patient footfall such as reception.[8]
- Ensure that another Covid-19 verbal risk assessment is carried out confidentially and recorded.
- Promote hand hygiene at reception verbally and through laminated signage, with alcohol-based hand rub available.

Waiting room preparation

- Reduce the use of waiting areas by arranging for patients to attend the surgery directly at the appointed time, or by waiting in their cars until called, if possible.
- Remove all superfluous items that are difficult to disinfect, including wall decor, magazines, toys, beverage dispensers, etc.
- Ensure that the seating can be wiped down and disinfected.
- Aim to maintain a distance of two metres between patients in the waiting room and restrict face-to-face seating arrangements.
- Place laminated signage on hand hygiene, respiratory hygiene and social distancing principles.

Washroom preparation

- Use appropriate signage for washroom facilities to reinforce effective hand washing.
- Toothbrushing should be avoided within the facilities.
- Toilets should be cleaned at least twice per day and whenever visibly dirty.

Treatment room preparation

- Remove all non-essential items from walls and counter tops that will not be used for the duration of the planned procedure. These should be stored in closed cupboards or outside of the treatment room.
- Barrier film is recommended for any surfaces or tools that cannot be stored away and are difficult to clean (keyboards, dental curing light, etc.).
- Ensure that hand sanitiser is available for patients, with laminated signage on its use nearby.
- The surgery should be well ventilated.
- Place appropriate signage on the surgery door warning that when the door is closed during an AGP, all non-essential personnel should not enter.

Arrange for patients to attend the surgery directly at the appointed time.

Infection prevention and control during clinical assessment and treatment

- Frequent and careful hand hygiene by both patients and staff will reduce the likelihood of contracting Covid-19.[9] All dental staff and patients/carers should perform hand hygiene when entering and leaving the surgery. Hand hygiene must also be performed immediately before direct patient care and after any activity or contact that potentially results in hands becoming contaminated, including the removal of PPE, equipment decontamination and waste handling.
- Ensure that the treating team is prepared for the planned procedure and that all the required equipment is available, as leaving the surgery while treatment is in progress should be avoided.
- Record the temperature of all patients upon entering the surgery, ideally using a contact-free thermometer.[10,11] Any patient with a temperature of 38ºC or greater should self-isolate and contact their GP.[12]
- Ensure that staff members understand the distinction between routine cleaning required after all patients and any specific additional requirements after care of patients with suspected or confirmed infectious disease including Covid-19.
- PPE should be used as per the Dental Council's Standard Precautions when performing a procedure associated with contact with body fluids (oral fluids) and risk of splashing (gloves, plastic apron, surgical mask and eye protection).
- Removable dental prostheses should be disinfected with an appropriate disinfectant solution before being safely packaged and appropriately labelled for transport. Laboratory work should be disinfected before being placed in a patient's mouth.
- For environmental cleaning, the use of plastic apron and household gloves are generally appropriate.
- Limit the number of personnel (staff and patient's chaperone) in the treatment room where possible. The risk of aerosol exposure applies to all people in the room when an AGP is performed.
- The HPSC does not recommended the use of pre-procedural mouthwashes as there is no clinical evidence to indicate that they are effective in reducing the transmission of Covid-19 infection.
- In circumstances where gagging/coughing is anticipated, extra-oral radiographs may be considered as an alternative to intra-oral radiographs.[10]

- In multi-chair rooms, there should be adequate distance between chairs to allow for physical distancing. The use of screens as a barrier may be considered.
- The door to the surgery should be closed when treatment has started with signage outside that all non-essential personnel should not enter.
- Use of head covering and overshoes is not recommended.
- Ensure that the surgery is well ventilated throughout the day.
- Use of spittoons or cuspidors should be minimised where possible.

Aerosol-generating procedures (AGP):

- If an AGP is planned, adequate time should be scheduled to allow for proper cleaning protocols.
- AGPs should only be undertaken with an appropriate level of PPE, which includes a surgical mask or respirator mask, to a minimum standard of FFP2, should the dentist's risk assessment warrant it.[13]
- Rubber dam isolation with high and low-volume suction practised using four-handed dentistry is recommended where suitable.[14-16]
- 3-in-1 use should be minimised through the use of gauze or cotton pellets/rolls to wet/dry/clean surfaces.
- Strict adherence to the Dental Council's IPC code and environmental cleaning and disinfection should be maintained.

For further, up-to-date information, please visit these websites:

- Irish Dental Association
- Health Protection Surveillance Centre
- Dental Council
- World Health Organization
- European Centre for Disease Prevention and Control

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In addition, sources of information provided in this document may become outdated with new information over time. Adherence to recommendations by competent authorities should be based on the most current versions of advice. Members should bear in mind that it is not possible to entirely eliminate the risks of Covid-19 transmission. This information is intended to help dental practices to lower (but not eliminate) the risk of coronavirus transmission during the current pandemic. Dental practices should not presume that following the suggestions or information provided will insulate them from liability in the case of infection.

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Members should adhere to all guidance issued by competent authorities, including the Dental Council, the Health Protection Surveillance Centre (HPSC) and the Government.

Updated: May 19, 2020

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General advice on staff wearing of personal protective equipment (PPE):

	Waiting room /reception	Dental surgery non-AGP treatment	Dental surgery treatment involving AGPs
Good hand hygiene	Yes	Yes	Yes
Disposable gloves	No	Yes	Yes
Disposable plastic apron	No	Yes	Yes
Fluid-resistant surgical mask	Yes*	Yes	Yes instead of FFP2 *(see opposite)*
Filtering respirator (FFP 2)	No	No	Only if required after risk assessment
Face/eye (visor and/ or goggles) protection**	No	Yes	Yes

* Recommended where working in reception/communal area with possible or confirmed case(s) and unable to maintain two metres social distance

** Should be disposable, or if not, they must be disinfected according to the manufacturer's guidelines.

COVID-19 – IPC: cleaning and disinfection

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Updated: May 19, 2020

Clinical area

The Dental Council Code of Practice Relating to: Infection Prevention and Control offers comprehensive guidance and now contains an interim measure during the Covid-19 pandemic – attention should also be paid to section 2.4 Transmission Based Precautions of the Dental Council's Code of Practice and the recent national guidance including the Health Protection Surveillance

Centre (HPSC) Guidance on Managing Infection Related risks in Dental Services V1.1 (15.05.2020) and the Department of Business, Enterprise and Innovation's (DBEI) Return to Work Safely Protocol.

Further advice is contained on the IDA website under the sections on Covid-19 and the Infection Prevention and Control section, which has information on hand hygiene, decontamination in dentistry, and template policies and protocols.

Surgery cleaning/disinfection

Non-AGP treatment: Zoning separates the areas that are likely to become infected during patient treatment (dirty areas) from areas more remote from the patient (clean areas). It is important to disinfect all surfaces in the zoned area using appropriate wipes (that kill enveloped viruses), which both clean and disinfect, preferably after each patient. The zoned area includes the chair and dental cart/unit, dental light, curing light (not an exhaustive list) and for at least 1.5 metres of worktop in a radius from the patient. The dental chair should also be cleaned between patients according to manufacturer's instructions.

Barriers: should be used on all equipment handles, air/water syringe, curing light, cupboard/drawer handles and any other difficult-to-clean areas. All trays should be covered with an impervious barrier as well as a tray liner – alternatively, an impervious tray liner should be used. Head rests can be covered by a barrier.

If it is necessary to use the x-ray machine, the remote control can be covered with clingfilm or another suitable barrier. Intraoral films must be protected by a barrier. Phosphor plates and digital sensors must be covered with a suitable barrier. Remember to wipe down all touch surfaces on the x-ray unit after use, e.g., x-ray tube head, function control panel.

When changing barriers, care should be taken to avoid contaminating the surface that has been covered. All surfaces that are covered with barriers should be disinfected after each patient.

Treatment involving AGPs: The Irish Dental Association's position is that aerosol-generating procedures (AGPs) do not need to be avoided, but where there is an alternative to AGPs, it may be considered as per the most recent guidance from the Dental Council and the HPSC (version 1.1 15.05.2020). When AGPs are necessary, proper personal protective equipment (PPE) needs to be worn at all times. The surgery should have no clutter on the work surfaces, desk area, etc. Only the equipment and materials that are needed for the patient should be on the bracket table or work surface. All other materials and small equipment (e.g., curing light, etc.) should be stored in cupboards. Computer keyboards and mouse should have a barrier or be cleanable.

There is no requirement to vacate a room after an AGP is performed unless the patient is known or suspected to have a specific infectious disease such as Covid-19. In these cases, the room should be left for one hour before cleaning and disinfecting can be carried out. In suspected or confirmed Covid-19 patients, and where it is safe to do so, deferral of treatments (both AGPs and non-AGPs) until the isolation period has elapsed is recommended.

If it is essential to perform AGPs on a patient with suspected or confirmed Covid-19, or on Covid-19 contacts, the procedure should follow HPSC guidance on PPE use for AGPs (gown, respirator mask, eye protection and gloves), and should be performed in a facility with appropriately controlled mechanical ventilation such as an operating theatre.

Ideally, procedures should be carried out in a surgery with good natural ventilation or simple mechanical ventilation such as an extraction fan. After the patient has left the room all surfaces should be manually cleaned and disinfected, including the zoned clean areas. Windows can be opened in surgeries with no mechanical ventilation.

Further useful guidance is available in the documents below:

1. www.**hpsc**.ie/a-z/respiratory/coronavirus.
2. Dental Council Code of Practice Relating to: Infection Prevention and Control

Addendum to Covid-19 – IPC: cleaning and disinfection

Non-clinical areas

Hand touch surfaces of risk in your dental practice: where are they and how do you clean them?

In a dental practice, hand touch surfaces are a high-risk zone, because so many people touch them. They are also the ones people tend to forget about as they are in the public spaces: reception area, waiting room, handrails, door push plates/handles, the public toilets, water cooler dispenser handle, etc. Here are some quick and easy ways to manage these zones and reduce the spread of infection.

Key locations to focus on:

- doors and handles: entrance, washroom and surgery doors;
- reception desk including just under the ledge;
- internal and external handrails;
- public washroom, especially door handles, taps and toilet handle;
- credit card terminal;
- pens and clipboards; and,
- intercoms and doorbells.

Frequency: The more frequent the better, especially in high-traffic locations, but this requires an all hands on deck approach. The HPSC and the DBEI's Return to Work Safely Protocol recommend cleaning the non-clinical areas at least twice daily. Few dental practices will have onsite cleaning staff the whole of the working day. Note that cleaning should be scheduled at least twice a day in Covid-19.

Hand hygiene: Have a good station at the entrance with a good-quality hand sanitiser. This station is for everyone – public and staff. Locate a station at your reception. Ask all who attend to use sanitiser as they approach your staff.

Hand touch surfaces: Reception desk, waiting room hard surfaces (especially the edges), door plates/handles, taps in washrooms, front door, etc. Attention should be given to handles and arm rests of furniture.

Staff should complete scheduled cleaning of the most frequent hand touch surfaces using appropriate disposable wipes. Alternatively, a two-stage wipe down includes first using a mild detergent and water on a paper towel, followed by disinfectant on a second paper towel. New towels should be used for different areas.

Make it obvious to your patients that you are taking infection control seriously by showing that you have increased the cleaning of your public areas and increasing the hand hygiene stations.

Write all these changes up in a protocol and put it in your compliance file and your training file. That way, it can also help show your commitment to best practice should an inspector ask for it.

Finally, the best way to get your staff buy-in is to lead by your example.

Staff temperature screening – what should I know?

Practice owners need to be aware of the issues around staff temperature screening.

As dental practices begin to reopen and staff return to work, one of the risk assessment tools being considered is the use of temperature testing to determine if an individual staff member has a high temperature or fever, as this is one of the symptoms of Covid-19.

A recent article from ByrneWallace solicitors advises that staff temperature testing gives rise to a number of concerns for employers, including: the effectiveness of temperature testing in preventing the spread of the virus; compliance with data protection regulations; and, employment law issues.

Public health advice/rationale

The Irish Government published a Return to Work Safely Protocol on May 8, 2020. This document is intended to support employers and workers in putting measures in place that will prevent the spread of Covid-19 in the workplace.

The Protocol provides that employers must "implement temperature testing in line with public health advice", and workers must "complete any temperature testing as implemented by the employer and in line with public health advice". Therefore, it is clear that public health advice should guide employers on the use of temperature testing in the workplace.

At the time of writing, the HSE does not recommend temperature testing in the workplace, with the exception of certain healthcare settings. In March 2020, Dr Tony Holohan, the Chief Medical Officer, advised against this practice for the following reasons:

- it has not proved to be effective in past outbreaks (e.g., SARS);
- it has unintended consequences; and,
- people with fever are more likely to conceal this by taking an anti-pyretic (i.e., paracetamol) – this can give a false sense of security (showing a negative simply because the temperature has been suppressed).

Therefore, until a further update is issued by the HSE, the current position is that temperature screening is not part of the public health advice in Ireland at this time. According to ByrneWallace, this does not prevent employers putting such screening in place, particularly if it is made available on a voluntary basis; however, the absence of a public health recommendation may make it more difficult to justify and harder to implement on a mandatory basis.

Employer organisation Ibec recommends that the following questions should be reviewed in advance of the screening taking place to ensure that the rationale is robust:

- is the screening required/effective?;
- is the person conducting the screening competent to do so?;
- is the monitoring equipment calibrated?;
- who is managing the data?;
- are the principles of the General Data Protection Regulation (GDPR) being applied?; and,
- what actions will be taken as a result of screening?

Data protection

As temperature screening involves processing the personal data of individuals, employers must be aware of their obligations under data protection legislation. Body temperature is personal data concerning health and is therefore "special category" data under the GDPR.

Since this is a novel type of processing for most organisations, involving sensitive employee health data, advice from Arthur Cox suggests conducting a data protection impact assessment to set out the probable risks to staff privacy rights and the safeguards in place to mitigate these risks.

The advice from Arthur Cox points out that the Data Protection Commission (DPC) has not yet issued any guidance on how employers can adhere to the Return to Work Safely Protocol in compliance with data protection law. The Commission has issued guidance on data protection and Covid-19, which stated: "In circumstances where organisations are acting on the guidance or directions of public health authorities, or other relevant authorities, it is likely that Article 9(2)(i) GDPR and Section 53 of the Data Protection Act 2018 will permit the processing of personal data, including health data, once suitable safeguards are implemented". The Commission advises that employers should continue to exercise caution in considering temperature checking as a matter of course, and continue to keep abreast of public health advice in this regard.

Employment law issues

The implementation of temperature screening checks has the potential to give rise to a number of employment law issues. The article from ByrneWallace asks the following questions:

- what if an employee registers a high temperature – should he/she be asked to go home?;
- is he/she then on sick leave?; and,
- what should the employer do if an employee refuses to take the temperature test?

These questions, they advise, give rise to issues relating to: the right to work and the obligation to provide a safe place of work; the right to pay; the nature of an enforced absence; and, the recourse (disciplinary or otherwise) available to an employer if an employee refuses to submit to a temperature test. Navigating these issues can be challenging for employers and the issue is far from clear cut.

Crucially, employers introducing temperature testing should ensure that they have appropriate policies in place to notify and explain the practice to employees and others attending their premises.

Healthmail now available for IDA members

Following extensive lobbying and discussions by the Association, IDA members are now able to sign up to Healthmail. The IDA has partnered with Healthmail to provide a verification service for IDA members, which will speed up their application.

Healthmail is a secure clinical email that allows healthcare providers to send and receive clinical patient information in a secure manner. Users are issued with @healthmail.ie email accounts and this will allow them to communicate patient identifiable clinical information with clinicians in primary and secondary care. In the first instance, one healthmail.ie account will be issued per dental practice.

Importantly, Healthmail can be used to transfer prescriptions to pharmacies electronically, without the need for a signed paper copy, for the duration of the Covid-19 crisis.

HSA advice on control of *Legionella* during Covid-19

The Health and Safety Authority (HSA) has issued new advice on the control of *Legionella* bacteria during and after the Covid-19 pandemic. According to the HSA, as places of work reopen, employers must consider and control the risk of stagnant water systems, which can harbour *Legionella* bacteria. This is particularly relevant for dental practices. You can read the new advice on the HSA website https://www.hsa.ie/eng/topics/covid-19/.

Managing employees who are reluctant to return to work

Members have been in contact with the IDA about difficulties regarding staff return to work.

Recently, the IDA has been getting an increasing number of queries from members whose staff are concerned about returning to work due to concern about Covid-19 infection, or who are having difficulties due to childcare issues. Anxiety and stress among employees, and indeed among dentists, is understandable, as it is a very difficult time for people and there is a lot of uncertainty. Communication will be key in this regard in establishing what concerns, if any, employees have and implementing solutions.

According to the Small Firms Association (SFA), if an employee does not feel comfortable returning to the workplace, you should discuss their concerns and communicate the control measures/risk assessment that have been put in place.

Dentists will know that they need to operate within the most up-to-date guidance from the relevant authorities: the Health Protection Surveillance Centre (HPSC) and the Dental Council.

You should also ensure that you are following the Government's Return to Work Safely Protocol and put in place all of the requirements contained in this Protocol. The Health and Safety Authority (HSA) has produced a useful suite of return to work templates and checklists for employers to help them to implement the Protocol.

You may also need to complete some Covid-19 induction training and/or update other training for staff.

Roisín Farrelly
Employment and Communications Officer
Further information: roisin@irishdentalassoc.ie

Reasonableness

The core principle in employment law is reasonableness. If an employer takes action against an employee who refuses to return to work due to concern about Covid-19 infection or due to lack of childcare options, the question will be asked: was the employer's action reasonable? Similarly, the question will be asked: was the employee's objection to returning to work reasonable?

Anxiety/stress

With regard to staff anxiety about Covid-19 infection in the workplace, the dentist employer needs to be able to communicate to their staff that they are operating within the appropriate guidelines, have completed their requirements in terms of their duty of care to provide a safe workplace and mitigate risk to staff, and have implemented control measures. In such circumstances it is

unlikely that an employee's refusal to return would be considered reasonable or valid.

While an employer does have a duty of care to provide a safe place to work, a refusal to work by an employee without a valid reason could lead to withdrawal of pay or disciplinary measures. In addition, if you have offered an employee work and they refuse, this may lead to a voluntary resignation by the employee.

Childcare

Given the closure of schools and childcare facilities, and in circumstances where remote working is not possible, dentists may face the issue of employees who will not be able to attend work due to childcare requirements. Flexibility and proactive engagement with employees is recommended in these circumstances. Employers should explore all reasonable and practical solutions. Employers may be able to offer flexible working arrangements, changes to rostered hours or agree with employees that they take annual leave or unpaid leave. Some employees may look to commence maternity leave early or take parental leave or other forms of leave. All requests should be looked at reasonably, particularly in light of the latest Government measures to keep schools and childcare facilities closed.

The SFA advises that the employer and employee should consult and agree on an outcome until childcare reopens. At the time of writing, it is planned that childcare will resume from phase three (June 29, 2020); temporary arrangements between employee/employer could be made until that date.

The SFA states that employers can understand that their employee's priority in this situation is the health and safety and well-being of their children. While this situation is not classified as an absence, we recommend that all employers must look at this in a reasonable manner and take a considered and proportionate approach in facilitating the employees who are caring for their young children. Employers should speak directly to and engage with their employees about this to see what can be worked out to accommodate both parties at this time.

Employers can consider a range of working arrangements with their employees such as:

- remote working where possible;
- flexible working (compressed hours, job-sharing, part-time, career break, unpaid leave);
- availing of annual leave entitlements;
- work back the time at a future date;
- swapping shifts; and,
- staggered start/finish times, which will also minimise a crossover of large groups.

Vulnerable and high-risk employees

With regard to vulnerable and high-risk employees, you should follow the guidance from the HSE/HPSC. Ensure that employees do not return to work unless they are fit for work. You can request employees to declare whether they are in a risk group; however, the medical condition should only be discussed with a medical provider.

New appointment to Dental Complaints Resolution Service

The Irish Dental Association (IDA) is delighted to announce the appointment of Mary Culliton as Facilitator with our Dental Complaints Resolution Service (DCRS). Mary will take up her position from July 1, succeeding Michael Kilcoyne, who has acted as Facilitator with the service since 2012. Commenting on this appointment, IDA Chief Executive Fintan Hourihan said that the Association is delighted to have attracted such a high-calibre candidate to take on this position, and looks forward to working with Mary in building on the great success achieved with the Service over the past eight years. Mary has extensive experience in dealing with complaints and in working with health professionals, so the Association is confident that she can help to sustain the great progress achieved already.

Fintan also paid warm tribute to Michael Kilcoyne, who has been pivotal to the successful establishment of the Service and has gained the trust and confidence of dentists and patients alike through his shrewd and considerate handling of dental complaints. The success rate in resolving complaints is testimony to his skills but also reflects the huge savings in time, stress and expense for dentists and patients alike.

The DCRS is a unique service offered free to IDA members and is a highly regarded model for resolving complaints in a voluntary, free, friendly and prompt manner, which avoids the need for legal representation. The Association is rightly proud of the Service, which is admired by so many but is also supported strongly by the dental profession while enjoying very broad popular support.

Further information on the Service is available at www.dentalcomplaints.ie.

Mary Culliton

Mary is a highly experienced healthcare professional with significant experience in leading and managing teams. She has been a member of senior executive teams in the healthcare sector (both public and private). Mary understands the structures, systems and processes of the Irish healthcare system, and has been a driver of change, reflecting best practice in safety management and complaints handling in the sector. She has very considerable expertise and experience in the management of complaints and incidents, having led and implemented the development of the current policy for the management of complaints in healthcare in Ireland.

In addition, Mary has chaired and participated in many inquiries and reviews in relation to safety incidents across a range of public and private healthcare bodies including the Pharmacy Society of Ireland (PSI), the HSE and non-statutory agencies. Her hands-on experience gives her a unique insight into what people expect and need, and how organisations need to be open, transparent, truthful and responsive. She understands the challenge for health professionals in having their practice questioned and understands the devastation caused by vexatious complaints.

The Dublin Dental Hospital team of 1923, winners of the Hospital Cup

Back row (from left): S. Heachin; J. O'Connor; J.H. Wherry; A.P. Atkins; D. Martin; and, J.F. Stewart.
Seated (from left): P. Breen; W.H. Lowe; A.J. O'Neill; J.M. Shepherd (Capt.); N.A. Clarke; W.A. Cunningham; and, J.A.N. Dickson.
At front: L.S. Simon; and, H. Jeffers.

The 1959 winning team

Back row (from left): Dr N.J. Hogan; W. Southwell Mulvin; J. McKenna; F. Byrne; M. O'Hanlon; M. Dwyer; D. Buckley; and, Dr J.F. Owens, Dean.
Seated (from left): R. Meates; A.J. Stewart; J. Leonard; L. Convery (Capt.); C. Brady; J. King; and, J.V. Dickson.
At front: G. Cleary; and, B. Shanks.

The Magnificent Seven

Players from the Dublin Dental Hospital rugby squad that dominated the Hospitals Cup in the late 1950s and early 1960s recently reunited via Zoom to relive the glory days. Dr CONOR McALISTER was delighted to be on hand.

Following a win in the Hospitals Cup in 1923, the Dublin Dental Hospital rugby team did not have much impact on the competition for another 30 years. The mid 50s to early 60s was the 'golden period' for the team. Indeed, between 1955 and 1962, Dental contested seven out of eight finals.

From 1955, Dental lost three successive finals to the Mater, St Vincent's and Sir Patrick Duns. In the 1957 final, John McAleese scored a magnificent solo try after a mazy run from inside his own 25. However, referee Basil Brindley called back the play for an earlier knock on. In 1958, Dental played and beat the Richmond Hospital in the first round. It was decided, however, that the match should be replayed because Dental had played an ineligible player (a dental student in the pre-dental year). Dental prevailed again in the replay but were subsequently ejected from the competition.

The team of 1958 included a talented group of six players who had entered the dental faculty in UCD earlier that year. This group included Frankie Byrne, Gerry Cleary, Michael Dwyer, Joe (Blackie) King, John McKenna and the late Mick O'Hanlon. This group, along with Roly Meates who entered TCD around the same time, were to make up the magnificent seven who were part of the three-in-a-row winning Dental XV.

They were all part of the team, captained by Liam Convery, that beat the Mater by six points to three in the final in April 1959, which was played at Anglesea Road. Billy Mulvin and Frankie Byrne scored a try apiece and Frank Carney, then studying medicine, scored a try for the Mater. Frank Carney went on to figure prominently on the wing for Dental in the next two finals. Also prominent for Dental were Donal Buckley, Cormac Brady and Brian Shanks.

Swinging sixties

The winning team in 1960 was captained by Roly Meates. Gerry Cleary was unable to play in the final due to injury. Dental beat St. Vincent's by six points to three in the final, which was again played in April at Anglesea Road. Dermot Furlong kicked two penalty goals to one by Vincent's full back E. McCarville. Kevin O'Doherty, Caoimh O'Broin, Billy Doyle and Cormac Brady also featured prominently for Dental.

Dental completed the hat trick in April 1961 at Donnybrook. Gerry Cleary captained the team in the absence of Tony Brown, who was injured. All of the 'magnificent seven' again played. Other prominent players included Gerry Tormey (who toured South Africa with the Irish team in 1962) at out half, Dermot Furlong, Frank Carney, Frank Prendiville and Johnny Atkinson. Dental beat the Mater in a high-scoring game by 11 points to six. Blackie King and Frank Prendiville scored a try each and Dermot Furlong kicked one conversion and a penalty goal. The Mater scored two penalty goals in reply.

Later in 1961, the following year's competition was completed. Dental, once again captained by Gerry Cleary, contested the final at Donnybrook. Their glorious run was halted by St Vincent's on this occasion. The magnificent seven all played again in the final. Other players included Gerry Tormey, Brian Brereton, Ray Sullivan and the other Tony Browne, from Galway.

Winners again in 1960

Back row (from left): Dr J.F. Owens, Dean; F. Prendiville; M. Dwyer; M. O'Hanlon; W. Doyle; F. Carney; J. McKenna; L. Convery; and, Dr Hogan.
Seated (from left): C. O'Broin; K. O'Doherty; F. Byrne; R. Meates; C. Brady; A. Boylan; and D. Furlong.
At front: P. Condon; and, J. Atkinson.

Completing the hat trick in 1961

Back row (from left): Dr Brady; Cormac Brady; Charlie Coffey; Mick O'Hanlon; Kevin O'Doherty; W. Ross; Frank Carney; John McKenna; Dr J.F. Owens; and, Dr N.J. Hogan.
Seated (from left): Michael Dwyer; Frank Prendiville; Frank Byrne; Gerry Cleary (Capt.); Joe King; Roly Meates; and, Gerry Tormey.
At front: Kieran Cooke; and, Johnny Atkinson.

Still great

This great crop of rugby players went their separate ways when they graduated in 1962. Most took the boat and train to the UK as was customary for dental graduates in those days.

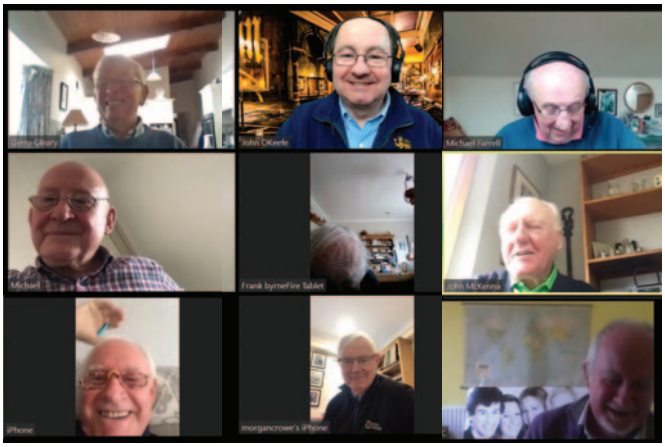
John McKenna subsequently captained London Irish in 1965/66. Teammates included Frankie Byrne, Mick Dwyer and Billy Doyle, who succeeded John as captain. John and Billy later emigrated to Canada. John McKenna won a cap for Canada when he played against England in 1967. He practised in Hamilton, Ontario, and his daughter Catherine is currently a minister in the Canadian Government.

Frankie Byrne practised in Dublin on his return from England and was capped for Ireland against France in April 1962. Gerry Cleary and Michael Dwyer went into practice together in Athy, Co. Kildare. They are still prominent and prolific winners at the Irish Dental Association Golf Society outings.

Blackie King practised in London and later Dublin, and now lives in Spain. Trinity man Roly Meates subsequently played for Wanderers and Leinster before coaching Trinity for 28 years. He was coach to the Leinster team before becoming Irish team coach from 1975 to 1977. Roly worked in practice in Dublin and as dental surgeon to the Guinness Brewery. Mick O'Hanlon eventually returned to practice with his father in Listowel, Co. Kerry. Sadly he died in 2018.

It was my great privilege to be part of a Zoom discussion with five of the magnificent seven during the Covid lockdown. I would like to thank my good friend John O'Keefe in Ottawa for facilitating and hosting a fascinating discussion. It was wonderful to watch this fine group of men, now in their early eighties, taking up from where they left off.

They were a bit hazy about the match details but had no trouble recalling the celebrations afterwards. One of many amusing stories concerned a minor altercation in the Lincoln Inn, which resulted in the Dean of the hospital, who shall be nameless, turning up for work the next day sporting a black eye!



All from left to right.
Top row: Gerry Cleary; John O'Keefe; and, Michael Farrell.
Middle row: Michael Dwyer; Frank Byrne; and, John McKenna.
Bottom row: Joe (Blackie) King; Morgan Crowe; and, Conor McAlister.

The Hospitals Cup

The Dublin Hospitals Cup rugby competition is the second oldest rugby competition in these islands. The London Hospitals equivalent is the oldest. A book about the Dublin competition is currently in preparation (the authors are Con Feighery, Morgan Crowe and Michael Farrell).

The Dublin Dental Hospital managed to win the coveted trophy on eight occasions from 1923 to 1980 despite fewer players relative to the other teams. Twenty years ago, the Dental Hospital team merged with the Federated Hospitals (TCD) team due to changing demographics in the dental student population.

On the record

Recording of consultations, by patients or practitioners, has become more common.

Remote consultations are not new to healthcare professionals but they have come to the fore in dentistry during the current Covid-19 pandemic. Social distancing measures have seen teledentistry become more common. This has meant that reliance upon some form of device has been used to facilitate the contact between clinician and patient. If face-to-face contact is not possible, then sharing information in this way is obviously helpful to both parties, and it may be that we may see the increased use of teledentistry continue in the future. It should be remembered however that technology not only allows information to be shared, it also allows it to be recorded.

Recordings by patients

A patient who wishes to record a consultation may ask for permission first. However, this is not always the case and patients do sometimes make covert recordings, so it is advisable to remember this and maintain a professional tone in your communications.

Patients can benefit from recordings in several ways. They may be a valuable *aide memoire* for understanding the diagnosis, remembering the advice given, reflecting on any treatment proposals that may have been discussed with the dentist, and having a record of the associated risks and benefits. They enable the patient to review the content of the consultation, consider the treatment options and then make an informed decision. Research shows that patients do not have the level of recall about the content of a consultation that dentists might think they have. This includes advice about self-care and potential further treatment. Obviously, advice that is not remembered is less likely to be followed.[1] In one medical study, it was noted that information about diagnosis is the best remembered while advice is less well retained.[2]

The Dental Council states that: "You must give patients enough information they need, in language they understand, so that they can make informed decisions about their care".[3]

A dentist may agree to a patient recording their consultation without hesitation. However, it is advisable to ascertain from the patient the reason behind their request. If the dentist feels uncomfortable, they should discuss this with the patient, explaining their reasons and indicating their preference for the consultation not to be recorded.

Dentists must remember that patients do not need their permission to record a consultation; they are only processing their own personal information and are exempt from data protection principles. Patients are within their rights to record the consultation and if they insist on doing so, the request cannot be declined.

Covert recordings

Nowadays, covertly recording a consultation is even easier due to the widespread use of smartphones to record relatively common events in everyday life. This may not be associated with any particular agenda but covert recording could also signal a lack of trust, which understandably will affect the dentist-patient relationship.

If dentists find out that a recording has been made, they may ask the patient to share a copy with them so that it can become part of their clinical records. The patient can be reassured that it will be securely stored and only used for that intended purpose. The dentist may also wish to discuss the concealment of the recording and investigate further if the patient has any underlying concerns with their care that can be alleviated through discussion.

It is important that dentists avoid acting in an overly defensive manner since this may only worsen the relationship further and serve to aggravate the

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situation. Focusing on good professional skills should be the priority of any dentist and therefore, if a consultation is carried out in a professional matter, there should not be any dentolegal issues that arise from it being recorded. A recording could even protect the dentist by accurately reflecting the information that was provided to the patient during the consultation, which they may have forgotten or recalled erroneously.

Recordings by dentists

Although patients do not need the permission of dentists to record a consultation, dentists require the permission of a patient to do the same and the data is subject to a number of protections. Patients should be given information as to the purpose of the recording, who it will be shared with, how long it will be kept, how it will be stored, and when and how it will be subsequently destroyed. Patients must also be reassured that they can withhold or withdraw consent, and that this will not affect the quality of their care.

In recent times remote consultations involving telephone and video communications have been substitutes for face-to-face consultations in general dental practice, playing a vital role in allowing access to dental care and advice. In future, it may be that this form of access for patients becomes more common as an expected adjunct to standard dental care. Access to dentists via teledentistry has become part of the professional landscape and therefore it is important that dentists are aware of the underlying dentolegal considerations, including the requirement to maintain detailed clinical records of the consultation, which should contain the patient's symptoms, the diagnosis, the advice given, and the supporting rationale for the immediate management and future dental care needed.

Dental Protection has some useful resources available regarding teledentistry[4] and remote consultations[5] on its website. If further information is required, please contact Dental Protection.

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Minimally invasive endodontics – pulp fact or pulp fiction?

Could pulpotomy offer a reliable treatment strategy to manage advanced pulpal inflammation as an alternative to root canal treatment?

Abbreviations: GIC: glass ionomer cement; RM-GIC: resin-modified glass ionomer cement; HSC: hydraulic silicate cement; VPT: vital pulp therapy; IPT: indirect pulp therapy; MTA: mineral trioxide aggregate; RCT: root canal treatment; DPC: direct pulp cap

Introduction

The European Society of Endodontology (ESE) recently published a position statement on the management of deep caries and the exposed pulp.[1] That statement outlined the development of vital pulp treatment (VPT) in cases with advanced pulpal inflammation. The following feature aims to outline the clinical steps involved in providing coronal pulpotomy to manage a mature permanent molar with signs and symptoms indicative of irreversible pulpitis. Traditionally, pulpotomy was regarded as a treatment reserved for traumatic pulp exposure.[2] It was subsequently accepted for the management of carious exposure in the primary dentition,[3] as well as in the immature permanent carious teeth,[4] and the advantages of this remain irrefutable. The shift towards adopting a biologically based approach to preserve pulpal health continues to gain support.[5] Bacterial penetration of the pulp tissue with discrete tissue necrosis are the histological indicators of an irreversibly inflamed pulp.[6] However, beyond the zone bounded by acute inflammatory infiltrate, normal or relatively uninflamed pulp is present.[6] By removing the severely inflamed tissue and providing an appropriate restoration, the regenerative capacity of the pulp can be exploited.[7]

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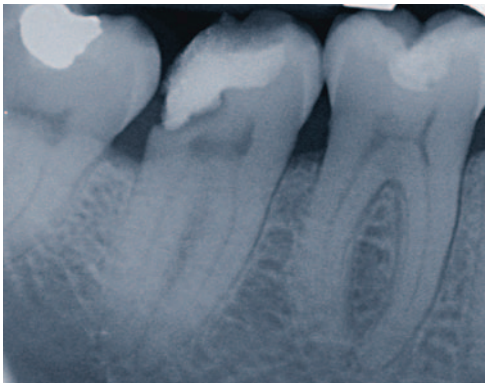

FIGURE 1: A periapical radiograph demonstrating deep caries affecting the LR7. A band of dentine is noted between the caries front and the pulp chamber.

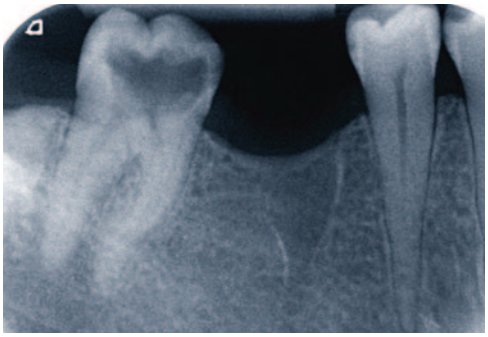

FIGURE 2: A periapical radiograph demonstrating extremely deep caries affecting the LR7. The carious lesion appears to extend to the pulp. Pulp exposure may be unavoidable.

Terminology

The radiographic appearance of deep caries is illustrated in **Figure 1**, and that of extremely deep caries in **Figure 2**. Extremely deep caries extends through the full depth of the dentine, where pulp exposure during operative treatment is inevitable.[8] Currently accepted diagnostic terminology describing the irreversibly inflamed pulp does not adequately inform the clinician regarding the spectrum of inflammation likely to be encountered, or the inherent reparative capacity of the involved tissues.[7] Root canal treatment (RCT) is regarded as the definitive treatment for irreversible pulpitis, or carious exposure. Novel classifications of pulpitis have been proposed recently, to guide the clinician towards potentially less-invasive strategies (**Table 1**).[9]

Diagnosis

Although the limitations in accurately diagnosing the level of pulp inflammation are well recognised, the distinctions between initial and severe pulpitis remain useful clinical tools to support the decision to initiate direct pulp therapy.[9] Interpretation of sensibility testing should focus on the threshold to the stimulus (normal, heightened, or diminished), as well as its sensitivity (character and duration), to guide the diagnosis. More severe symptoms include prolonged intense pain, which may be provoked or spontaneous. At the most severe end of the inflammatory spectrum, the reparative potential of the pulp may have been surpassed, in which case pulpectomy and subsequent RCT will be necessary.

Treatment procedure

Rubber dam isolation is essential to ensure a predictable outcome (**Figures 3** and **4**).[1,8] Non-selective (complete) caries removal is completed at the

Table 1: Novel classification of pulpitis (adapted from Wolters, *et al.*).[9]

Traditional classification	Reversible pulpitis		Irreversible pulpitis	
Wolters' classification[9]	**Initial pulpitis**	**Mild pulpitis**	**Moderate pulpitis**	**Severe pulpitis**
Clinical features	Heightened response to cold, not lingering, no spontaneous pain.	Heightened and lingering response to cold/heat/sweet stimuli up to 20s, resolve. May be percussion sensitive	Heightened prolonged reaction to cold, lingering minutes, may be percussion sensitive, spontaneous pain.	Severe spontaneous pain, warm and cold stimuli, range from sharp to dull throbbing, disturbed sleep often, percussion sensitive
Suggested treatment	IPT	IPT	Coronal pulpotomy – partial or complete	Coronal pulpotomy or RCT

s: seconds; IPT: indirect pulp therapy; RCT: root canal treatment.

FIGURE 3: Selected products, including OraSeal (Ultradent Products GmbH; Cologne, Germany) and Rubber Dam Liquid (Cerkamed; Stalowa Wola, Poland), enhance moisture control during the procedure.

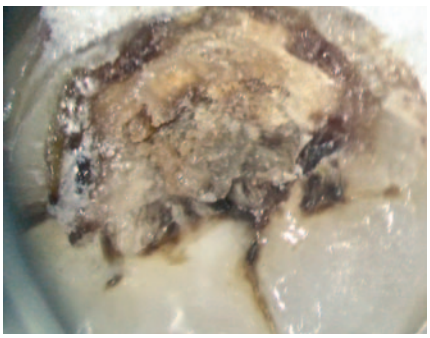

FIGURE 4: A cavitated, grossly carious lower molar, isolated with rubber dam and OraSeal.

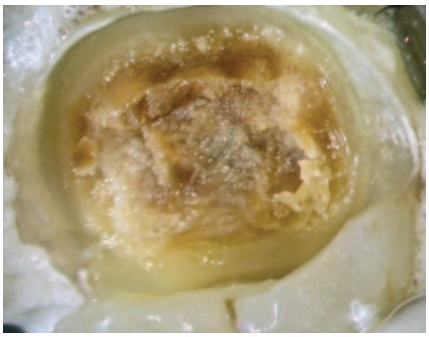

FIGURE 5: Non-selective caries removal to hard dentine at the cementoenamel junction.

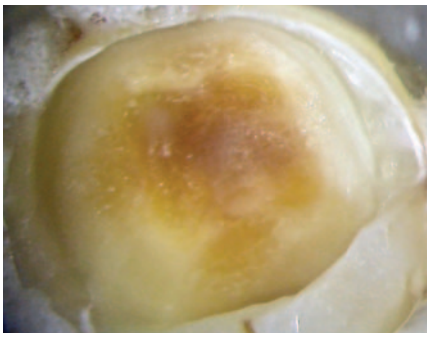

FIGURE 6: Selective caries removal to firm dentine overlying the pulpal aspect.

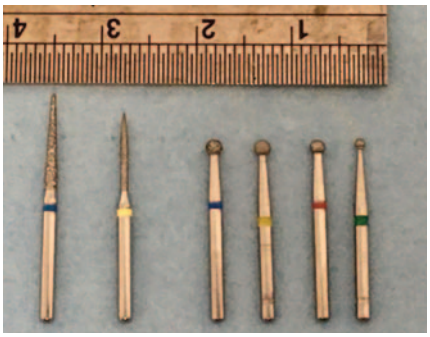

FIGURE 7: Left: Selection of burs useful for unroofing the pulp chamber. Right: Series of small-diameter, round burs suitable to use during partial pulpotomy or pulp amputation, ideally used with magnification and illumination.

periphery of the cavity to hard dentine (**Figure 5**), to provide an optimal environment for bonding and sealing of the cavity.[1]

Selective caries removal to firm dentine (**Figure 6**) is characteristically resistant to excavation using hand instruments. The assessment of the level of activity of the carious lesion is subjective.[8] Actively progressing lesions tend to be light brown in colour, contain a higher degree of moisture and are easily disrupted with a sharp probe.[8] As the level of activity reduces, the colour becomes darker and the moisture content reduces.[8] Non-selective caries removal poses a known risk of unintentional pulp exposure in the presence of deep caries.[10] Treatment strategies aimed at avoiding pulp exposure include one-stage selective caries removal, or two-stage stepwise excavation, usually to firm or soft dentine, respectively. Indirect pulp capping generally requires caries removal to hard dentine, with a reported exposure rate of 35.5%[10] now regarded as overtreatment.[11] Indirect pulp therapy (IPT) should be reserved for cases where caries has extended no deeper than the pulpal quarter and has been diagnosed as reversibly inflamed.[1] Strategies aimed at avoiding pulp exposure are recommended.[1]

In cases presenting with a history and clinical findings indicating moderate to severe pulpitis,[9] with a radiographic appearance of extremely deep caries, partial or full pulpotomy could offer a conservative alternative to traditional pulpectomy and RCT (**Table 2**). Magnification and illumination optimise visibility. Prior to unroofing the pulp chamber, under constant water coolant, new sterile burs should be selected (**Figure 7**). The use of rosehead burs, or ultrasonic tips is not recommended, as they are likely to damage the pulp tissues.

Table 2: Comparison of vital pulp therapy studies.

Author	Tx	Material	Numbers	Success rate (%)	Follow-up (months)	% recall
Asgary and Egbahl, 2013[17]	Pulpotomy	MTA, CEM	413	95; 92	12	84
Asgary, *et al.*, 2015[13]	Pulpotomy	CEM	205	77.5	60	67
Awawdeh, *et al.*, 2018[18]	DPC, pulpotomy	BD, MTA	68	92; 96	36	72
Barrieshi-Nusair and Qudeimat, 2006[19]	Partial pulpotomy	MTA	31	100	24	25
Galani, *et al.*, 2018[20]	Pulpotomy	MTA	27	85	18	96
Kang, *et al.*, 2017[21]	Partial pulpotomy	MTA	104	95	12	75
Linsuwanont, *et al.*, 2017[22]	Pulpotomy	MTA	66	87	48	82
Nosrat, *et al.*, 2013[23]	Pulpotomy	MTA, CEM	51	100	12	96
Taha and Khazali, 2017[15]	Pulpotomy	MTA	52	92	36	80
Taha and Abdelkhader, 2018[24]	Pulpotomy	BD	64	98	12	92

MTA: mineral trioxide aggregate; CEM: calcium-enriched material (alternative hydraulic silicate cement); BD: Biodentine; Tx: treatment.

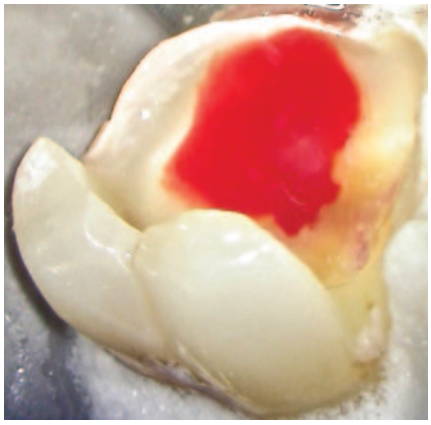

FIGURE 8: Pulpal haemorrhage after unroofing the pulp chamber.

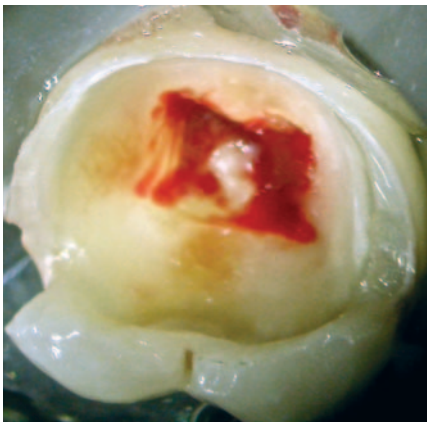

FIGURE 9: Further pulp amputation can be completed using sharp hand instruments to the level of the orifice to the root canal system. Magnification and illumination enhance operator vision.

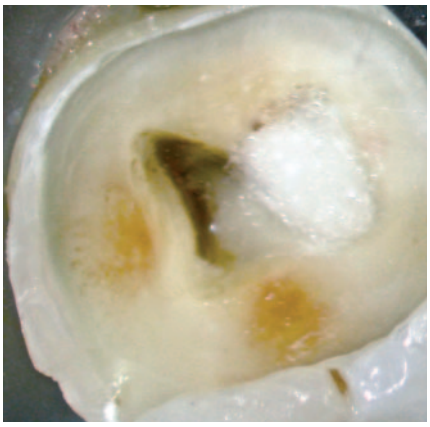

FIGURE 10: A cotton pellet soaked in disinfectant is applied to the orifice of the root canal system.

The volume of bleeding encountered once the pulp has been exposed can range from minimal to profuse (**Figure 8**). Careful handling of the pulp tissues is critical to provide a suitable wound surface. The inflamed pulp tissues visible throughout the pulpal floor (**Figure 9**) need to be further amputated to the level of the orifice to the root canals in a full pulpotomy. This can be achieved using small-diameter diamond burs under constant water coolant, or sharp hand instruments, to produce a clean cut surface to the pulp.

Antimicrobial irrigation using sodium hypochlorite will enhance antisepsis. Alternatively, a cotton pellet soaked with sodium hypochlorite can be placed over the pulp (**Figure 10**). The application of light pressure facilitates haemostasis. Consensus has not been reached regarding the timeframe within which haemostasis should be achieved. Control of pulpal bleeding is one of the final clinical criteria necessary to provide VPT (**Figure 11**). The pulp chamber and cavity must be clean of all traces of blood residue to eliminate the risk of tooth discolouration.

The superiority of hydraulic silicate cements (HSCs) over calcium hydroxide cement in direct pulp therapy has been demonstrated both histologically[12] and through clinical outcome studies (**Table 2**).[13-16] As such, these are now regarded as the materials of choice in the provision of VPT.[1] Once haemostasis has been established (up to five to six minutes, sometimes longer), the HSC (**Figure 12**) can be placed into the pulp chamber (**Figures 13** and **14**). The materials can be tapped gently into place using pluggers (**Figure 15**) or inverted paper points.

Although definitive restoration is recommended as a one-step procedure, significant questions remain to be answered regarding the best method to achieve this. Etching with 37% phosphoric acid has been shown to cause both structural and chemical changes to Biodentine (Septodont; Sant-Maur-des-Ditch Cedex, France).[25] Due to the extended setting time of ProRoot mineral trioxide aggregate (MTA) (Dentsply Sirona; Ballaigues, Switzerland),[26] wash-out of the material will occur during adhesive restoration unless a suitable liner is used. Interactions between MTA and various materials revealed that chemical-cured glass ionomer cement (GIC) absorbed water from the hydration of MTA, leading to increased porosity of the material.[27] Overlaying Biodentine with a resin-modified GIC (RM-GIC) was not shown to affect the setting reaction of the material.[28] However, *in-vitro* analysis has demonstrated significant reduction in the shear bond strength, as well as gaps at the material

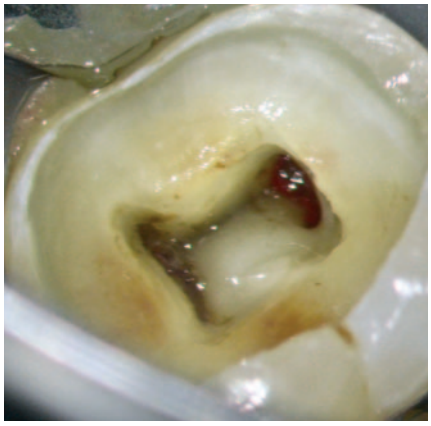

FIGURE 11: Haemostasis achieved over the mesial root canal system (a small bleed may occur on removal of the cotton pellet, which should arrest with gentle rinsing).

FIGURE 12: Two hydraulic silicate cements: ProRoot MTA (Dentsply Sirona) and Biodentine (Septodont).

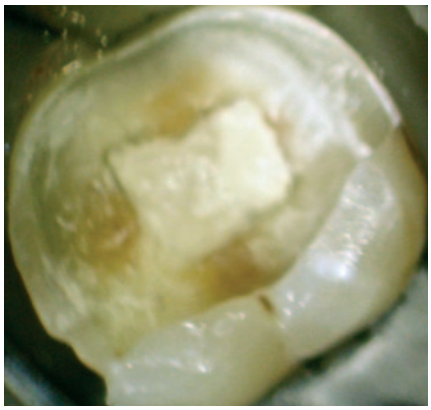

FIGURE 13: A hydraulic silicate cement (Biodentine) has been placed incrementally into the pulp chamber.

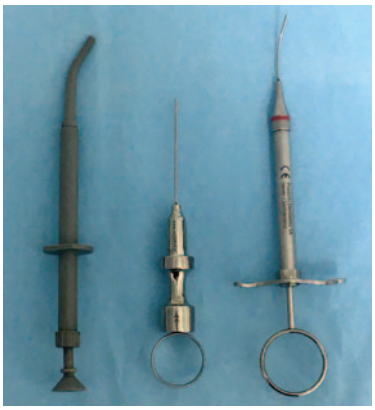

FIGURE 14: A selection of carriers suitable for hydraulic silicate cement placement (from left): Amalgam carrier, MTA+ Applicator (Cerkamed; Stalowa Wola, Poland), Micro Apical Placement (MAP) System (Dentsply Maillefer; Vevey, Switzerland).

FIGURE 15: Machtou Hand Pluggers (Dentsply Sirona; Charlotte, USA).

interface with GICs.[29] GICs are not advocated as the definitive restorative material over HSCs. The implications of providing immediate restorations over HSCs (**Figures 16** and **17**) have not been conclusively answered in the materials research to date. Alternatively, delaying the permanent restoration for up to two weeks after placing the HSC could allow sufficient maturation of the matrix to withstand contraction forces during subsequent adhesive restoration (**Figure 17**).[30,31]

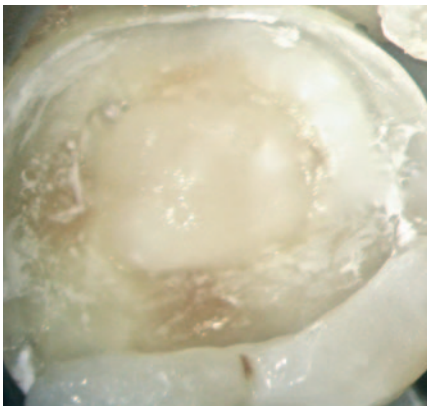

FIGURE 16: Glass ionomer cement overlaid onto the hydraulic silicate cement.

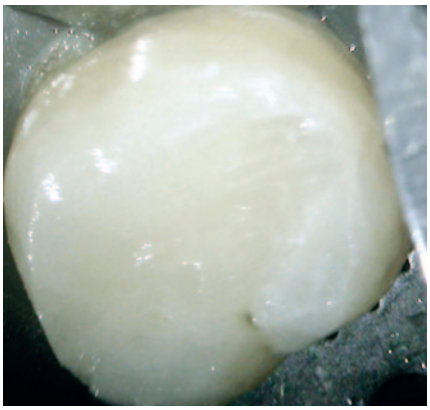

FIGURE 17: Completed composite restoration.

Follow-up

Clinical review should be carried out within six months, noting any symptoms and responses to sensibility tests.[1] After one year, a periapical radiograph is recommended in addition to the clinical examination, bearing in mind that no response to thermal stimuli could be expected in teeth that have had full coronal pulpotomy. The prognosis of coronal pulpotomy in the management of irreversible pulpitis is reported to range between 75% and 95%.[13,14,16] More high-quality comparable studies are necessary to clarify gaps in the research to date and practitioners are advised to keep updated in this rapidly evolving area.

Summary/key points

- A thorough, documented review of the patient history and interpretation of appropriate sensibility tests, as well as radiographs, remains key to guiding the clinician towards indirect or direct pulp therapy.

- The patient should be informed regarding the possibility and implications of pulpal sequlae, either intra- and/or postoperatively, before initiating treatment.
- An aseptic technique, using suitable antiseptic strategies and careful tissue handling, is essential to enhance the outcome of VPTs.
- Magnification and illumination are strongly recommended.
- If haemorrhage control cannot be achieved within a reasonable timeframe, consider a deeper level of amputation (in partial pulpotomy) or, during a full pulpotomy, extension to pulpectomy may be necessary.
- HCSs are the materials of choice for direct pulp therapy.
- Definitive restoration is recommended as soon as possible.
- Clinical review should be carried out within six months, supplemented with radiographic examination at one year (sooner, should symptoms arise).

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[1] If haemostasis cannot be achieved after full pulpotomy, a pulpectomy and a RCT should be carried out, provided the tooth is restorable (ESE Position Paper, Duncan et al. 2017)
[2] Taha et al., 2018

Prospective audit: anterograde amnesic effects of IV sedation with midazolam in patients having oral surgery procedures

Précis

An audit measuring the anterograde amnesic effects of intravenous sedation with midazolam in a cohort of patients.

Abstract

Statement of the problem: Concerns were expressed over the level of sedation patients were receiving for oral surgery procedures, with many patients claiming to have had a recollection of the procedure despite receiving IV sedation.

Purpose of study: To determine if patients who are undergoing IV sedation with midazolam in the Oral Surgery Department in the Dublin Dental University Hospital (DDUH) and at the National Centre for Coagulation Disorders are being adequately sedated.

Material and methods: IV midazolam was administered by the sedationists incrementally. Data was collected through specific questionnaires at two different stages. These assessed patients' objective and subjective recollection of events following their procedure under IV sedation. The patients were asked specific questions immediately postoperatively and subsequently at their review appointment. This assessed the patients' objective and subjective recall of the procedure under IV sedation.

Result: Immediately postoperatively, 23% of patients had no recollection of the procedure, 55% had only partial recollection of the procedure, while 22% of patients recalled the procedure. One week postoperatively, total amnesia increased to 32%, partial amnesia reduced to 46%, while those recalling the procedure remained the same at 22%. While 78% of patients had some degree of amnesia of the procedure there were 22% who did not have amnesic effects from the sedative.

Conclusions: There is large inter-individual variation in response to IV sedation with midazolam regarding the anterograde amnesic effects. The reason why a certain proportion of patients have full recollection of the procedure needs to be fully investigated, and any confounding factors identified. Improving anterograde amnesia will provide us with the ability to ensure patient comfort, which is crucial to improving patient care.

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Introduction

The control of pain and anxiety is an integral part of dental treatment.[1] One of the most important goals for a clinician is ensuring patient comfort during a procedure and, as a result, IV sedation is often used as an adjunct to treatment. Sedation is the depression of a patient's awareness of the environment and reduction in their responsiveness to external stimulation,[2] thus enabling dental treatment to be carried out in those with a dental phobia, dental anxiety, or those who are undergoing an unpleasant procedure.[1] There is a continuum of sedation levels, and in dentistry our aim is to achieve sedation at a level between mild and moderate.[2] It is a commonly used technique to provide anxiolytics to patients undergoing oral surgery procedures.[1-4] Patients are reassured that following IV sedation with midazolam they will have reduced anxiety, and feel more comfortable and relaxed, enabling them to proceed with treatment more easily. They are also advised that the majority of patients do not remember the procedure (amnesia) afterwards, and this is one of the benefits of midazolam.[5-7] Midazolam has a fast-acting, short-lived sedative effect when given intravenously, achieving sedation within one to five minutes.[8] The effects of midazolam typically last for one hour but may persist for six hours, including the amnesic effect.[5,8] Midazolam is currently the sedative agent of choice as it is safe and predictable, and has been shown to have a quicker onset of action, providing more profound amnesia compared to other sedative agents.[5,6,9]

'Anterograde amnesia' is defined as a lack of recall of events, or the inability to create new memories,[5] from the time of administration of a drug onwards. This has been proven to improve patient comfort and satisfaction postoperatively,[7] and is an accepted pharmacologic action of a number of commonly used intravenous sedative agents.[5,8] Research has shown that midazolam has a more complete amnesic effect compared to other benzodiazepine drugs.[1,5-7,10,11] One study observed complete anterograde amnesia for over an hour following sedation with IV midazolam;[12] on the contrary, Dundee and Wilson observed that the majority of the amnesic effect had worn off after 20 minutes.[5] A double-blinded, randomised controlled trial observed that the anterograde amnesic effects are dose dependent, with increasing the dose of midazolam being associated with a higher degree of anterograde amnesia.[13] Similarly, a clinical trial by Miller *et al.* supports this finding. In this trial, those patients who were administered a low dose of midazolam (0.07mg/kg) did not have sufficient amnesia compared to those administered 0.10mg/kg or greater of midazolam, who displayed adequate amnesia.[14]

Aims and objectives

A significant number of patients claim to have full recollection of the oral surgery procedure despite receiving IV sedation. In order to ensure patient comfort and optimise patient care, a prospective audit was carried out to investigate the percentage of patients who have full and partial anterograde amnesia after receiving IV sedation with midazolam at the Dublin Dental University Hospital (DDUH) and the National Centre for Hereditary Coagulation Disorders. As it is difficult to measure subjective findings, we have included an objective test to assess the degree of amnesia.

Materials and method

Benchmark/standard

To date there are currently no set standards for the percentage of patients that should experience anterograde amnesia following IV sedation with midazolam. For the purpose of this audit, the benchmark of 90% was used. This was an estimate from previous studies; however, these trials were not in the field of dentistry. This estimate was obtained from a double-blind, randomised controlled trial and case studies assessing anterograde amnesia in patients having IV midazolam for other procedures.[13,15] The randomised controlled trial had a confounding factor in that patients were having general anaesthetic (GA) following administration of the IV midazolam; however, their amnesia was assessed on the events prior to their GA.

Inclusion criteria

Patients with an American Society of Anesthesiologists (ASA) category of I and II, in the age group of 18-80 years, of either gender, undergoing oral surgery procedures consecutively under IV sedation with midazolam between January and March 2015 in the DDUH day theatre and The National Centre for Hereditary Coagulation Disorders were included in the study.

Exclusion criteria

Patients who fell into ASA categories III and IV, patients who were on narcotics, or those who were unable to communicate or had intellectual disabilities, were excluded. Patients who did not attend their review appointment were also excluded, as they did not fulfil the timeline requirement.

Materials

Questionnaire forms consisting of four questions were devised by the authors for data collection immediately postoperatively (**Appendix 1**) and at the review appointment (**Appendix 2**).

Method and data collection

This audit was approved by the DDUH Audit Committee. The sedationists were informed about the audit and gave their consent to participate. All consecutive patients who attended the oral surgery department and who met the inclusion criteria were informed about the audit. Written informed consent was obtained from those who were taking part. The necessary training was provided to all

Appendix 1: Questionnaire used for data collection immediately postoperatively.

Patient name	MRN
Today's date	Surgeon

1. Do you remember getting the local anaesthetic (injection)? (Y) (N)
2. Do you remember the procedure? (Y) (N)
3. Do you remember being asked to remember a word? (Y) (N)
4. Do you remember the name of the fruit you were asked to remember? (Y) (N)

Appendix 2: Questionnaire used for data collection at the review appointment.

Patient name	MRN
Today's date	Surgeon

1. Do you remember getting the local anaesthetic (injection)? (Y) (N)
2. Do you remember the procedure? (Y) (N)
3. Do you remember being asked to remember a word? (Y) (N)
4. Do you remember the name of the fruit you were asked to remember? (Y) (N)

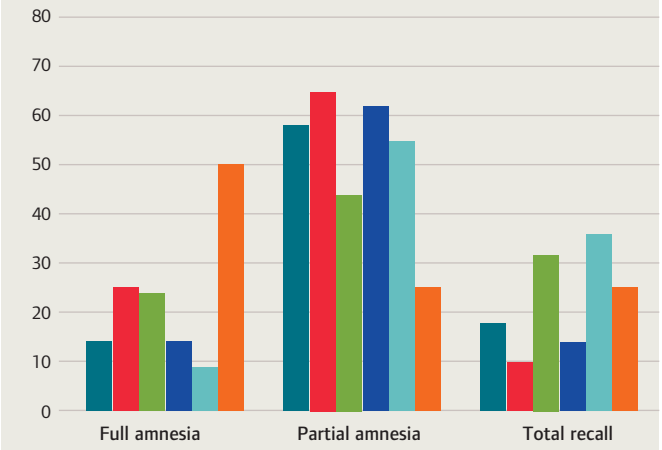

FIGURE 1: Immediate postoperative questionnaire results.

Operator A: A total of 28 patients were included in the audit. Immediately postoperatively, only 14% had full amnesia, and 58% had partial amnesia.

Operator B: A total of 20 patients were included in the audit. Immediately postoperatively only 25% had full amnesia, and 65% had partial amnesia.

Operator C: A total of 25 patients were included in the audit. Immediately postoperatively only 24% had full amnesia, and 44% had partial amnesia.

Operator D: A total of seven patients were included in the audit. Immediately postoperatively only 14% had full amnesia, and 76% had partial amnesia.

Operator E: A total of 20 patients were included in the audit. Immediately postoperatively only 9% had full amnesia, and 55% had partial amnesia.

Operator F: A total of four patients were included in this audit. Immediately postoperatively 50% had full amnesia, and 25% had partial amnesia.

theatre staff involved in collecting data prior to the commencement of this audit. The sedationists carried out their usual method of administering and titrating midazolam. All sedationists agreed that they continued incremental titration of the midazolam until clinically the patient was mildly to moderately sedated, enough to allow them to tolerate the procedure free from anxiety and in a comfortable manner.

The aim of the questionnaires was to assess anterograde amnesia with both objective and subjective measurements. The objective measure of sedation was investigated by asking the patient to remember the name of a fruit (pineapple) during the peak sedation time. The subjective measure was the patients' recollection of the procedure. Literature has shown that the peak sedation effect of midazolam is between five and 10 minutes after the final incremental dose.[7,8] As a result of this, the first time point for asking the patient to remember the name of the fruit was during this timeframe (at 10 minutes). This word was not mentioned to the patient again. Once the procedure was completed the patient was asked to answer the immediate postoperative questions (**Appendix 1**). The time interval varied depending on the length of the procedures but the patient was still sedated at this time. At the review appointment (generally one week postoperatively) the patient was asked to answer the same questions (**Appendix 2**).

Results

A total of 104 patients who underwent IV sedation with midazolam in the DDUH and the National Centre for Coagulation Disorders in St James's Hospital between January and March 2015 were included in this audit. This involved six sedationists who were each assigned a letter (A, B, C, etc.). All sedationists

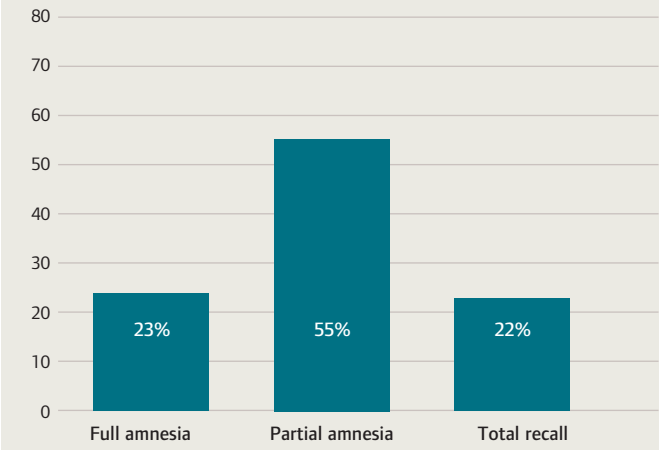

FIGURE 2: Immediate results – percentages based on all patients sedated.

Full amnesia:	23% (24 patients)
Partial amnesia:	55% (57 patients)
Total experiencing amnesia:	78% (81 patients)
Full recall:	22% (23 patients)

titrated midazolam until they were satisfied that adequate and safe sedation had been achieved for each patient. The dose varied from 2-7.5mg of midazolam with a large inter-individual response. There did not appear to be a linear correlation between the dose administered and the degree of amnesia experienced; however, as this was an audit rather than research, this was not investigated for other associations. Some patients had incremental midazolam titrated during the procedure, while others did not.

For the purpose of this audit, patients who did not recall the procedure or the name of the fruit were classified as having total amnesia. Those that could recall either the procedure or the name of the fruit, but not both, were classified as having partial amnesia. The benchmark was that 90% of patients should have some degree of amnesia, partial or total.[8] The results show that all patients had greater amnesia when they had completely recovered from sedation. The percentage of full amnesia improved significantly after recovery. **Figure 1** shows the immediate postoperative questionnaire results. The results shown in **Figure 2** were achieved immediately postoperatively as a percentage of the total number of patients involved in the audit. Results at the review appointment are illustrated in **Figure 3**, and those in **Figure 4** were achieved at the review appointment as a percentage of the total number of patients involved in the audit.

A total of 78% of patients included in the audit had some degree of anterograde amnesia. This fell short of the 90% benchmark. The sample size for operator F was not adequate for their results to be a true representation of the level of sedation achieved. Because of this, these results have been discredited.

Discussion

The control of pain and anxiety is an integral part of dentistry. As it is necessary to have a co-operative patient for an oral surgery procedure to be safely carried out,[6] the adjunctive use of IV sedation is routinely prescribed. Using IV midazolam to sedate patients is commonly employed as a safe and effective method to reduce anxiety prior to dental treatment.[16]

Sedation has been shown to reduce postoperative recall, which is important in patients with anxiety or dental phobia.[3,6] Many studies have shown that

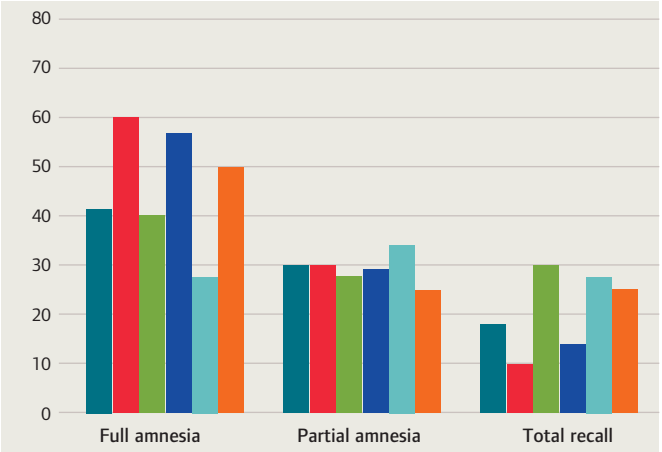

FIGURE 3: Review appointment questionnaire results.

Operator A: A total of 28 patients were included in the audit. Full amnesia increased from 14% to 41%. A total of 71% of Operator A's patients had some degree of amnesia. This fell below the benchmark by 19%.

Operator B: A total of 20 patients were included in the audit. Full amnesia increased from 25% to 60%. A total of 90% of Operator B's patients had some degree of amnesia. This met the benchmark of 90%.

Operator C: A total of 25 patients were included in the audit. Full amnesia increased from 24% to 40%. A total of 68% of Operator C's patients had some degree of amnesia. This fell below the benchmark by 22%.

Operator D: A total of seven patients were included in the audit. Full amnesia increased from 14% to 57%. A total of 86% of Operator D's patients had some degree of amnesia. This fell below the benchmark by only 4%.

Operator E: A total of 20 patients were included in the audit. Full amnesia increased from 9% to 28%. A total of 63% of Operator E's patients had some degree of amnesia. This fell below the benchmark by 27%.

Operator F: A total of four patients were included in this audit. There was no change in the degree of amnesia with 50% having full amnesia. A total of 75% of Operator F's patients had some degree of amnesia. This fell below the benchmark by 15%.

sedation with IV midazolam has the most potent amnesic effects in comparison to all other benzodiazepines.[3,10] Amnesia is essential to optimise patient comfort, especially when undergoing IV sedation due to dental anxiety,[6,16] and anterograde amnesia is proven to improve patient satisfaction postoperatively.[5]

While anterograde amnesia can be related to dose of midazolam administered, a challenge that we are faced with is the continuum of sedation from mild to deep, and it is not always possible to predict how an individual patient will respond.[2] Because of this, an accurate method of monitoring and evaluating the level of sedation is important.[2]

There are a number of confounding factors, which have not been accounted for here, and which may have influenced the results. The peak sedation level is measured subjectively by each sedationist carrying out the procedure, which has its limitations. In addition, the patient-operator relationship, length of procedure, and type and difficulty of the procedure being carried out can also influence the patient experience and amnesic effect. The skill of the clinician carrying out the surgical procedure may also have an impact. These can influence the patient perception of a procedure and the subjective recollection of the event. While inclusion criteria were set, the study had a wide age range. It is well known that the pharmacokinetics of midazolam renders elderly

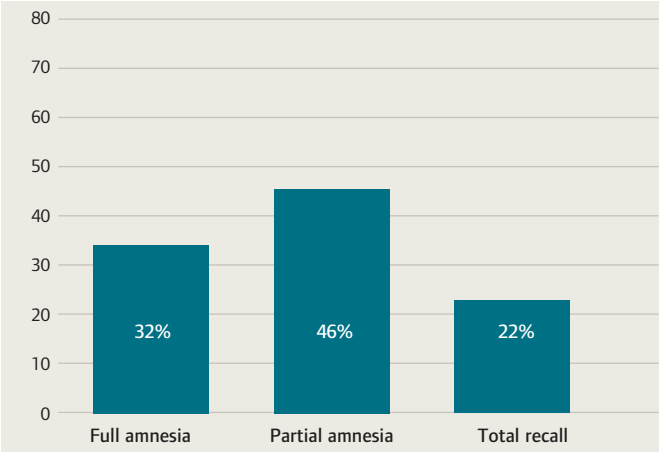

FIGURE 4: Review results – percentages based on all patients sedated.

Full amnesia:	32% (33 patients)
Partial amnesia:	46% (48 patients)
Total experiencing amnesia:	78% (81 patients)
Full recall:	22% (23 patients)

patients more sensitive to its effects,[17] and so further investigation should control for this variable. As this was an audit, further research is recommended to investigate the influences these factors may have.

It was observed that a percentage of patients who were optimally sedated (i.e., did not recall the word) did remember the end of the procedure. This correlated with an oral surgery procedure lasting longer than 50 minutes where the IV midazolam dose was not topped up once the procedure had commenced. This illustrates the short-lived effects of midazolam and the importance of further titration in longer procedures.

In this sample of patients, 22% remembered the word and the surgical procedure. Interestingly, all patients who could recall the word immediately postoperatively could also recall it at the subsequent review. This demonstrates that this cohort did not have the effect of anterograde amnesia. There was no correlation to BMI, dose administered or use of concurrent medications in this group; however, further research in a larger sample and investigation for confounding factors is required to try to establish a reason for this.

While immediately postoperatively many patients reported knowledge of receiving the local anaesthetic and the surgical procedure, the majority of these patients did not recall any part of the procedure at the follow-up review, thus supporting the successful anterograde amnesic effects of midazolam.

It is clear that objective measures are more reliable than subjective analysis for testing a patient's amnesia as many factors can contribute to subjective recall of the procedure. These include the length of the procedure, the type and difficulty of the procedure, and previous dental experience. The results found that recollection of the word 'pineapple' was consistent between immediately postoperatively and at the review, whereas recall of the procedure increased one week later. Whether this is a true account of the procedure or had external influences could not be accounted for in this study.

While 78% of patients in this sample had anterograde amnesia, we cannot explain why 22% of patients had recollection. This audit has comparable results to a similar study of patients undergoing oral surgery procedures following IV sedation with midazolam, where it was observed that the anterograde amnesic effect was unreliable, especially in lower doses.[18] However, the sample size in

that study was low, with only four subjects. Further research with a larger sample needs to be carried out in order to inform and improve future practice. A study carried out over a longer period and with several objective measures being recorded, as well as accounting for confounding factors between operators and patient, would provide more information and thus improve patient care.

Recommendations

At the end of this audit the following recommendations can be made:

1. The benchmark for future audits and research is that 80% of patients will experience anterograde amnesia.
2. Sedationists should ensure that they are maintaining an adequate level of sedation throughout the procedure by closely monitoring the patient's level of sedation and incrementally titrating midazolam as required, especially for procedures of long duration.
3. A larger-scale study should be undertaken to get a full representation of patients undergoing sedation and examine the degree of recollection and likely cause of this.

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CPD questions

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CPD

1. What is the most commonly used drug for IV sedation in dentistry?

- ○ A: Propofol
- ○ B: Midazolam
- ○ C: Clonidine
- ○ D: Lorazepam

2. IV sedation is routinely used for oral surgery procedures for:

- ○ A: Children
- ○ B: Adults
- ○ C: Both

3. What family of drug does midazolam come from?

- ○ A: Non-steroidal anti-inflammatories
- ○ B: Opioids
- ○ C: Benzodiazepines
- ○ D: SSRIs

4. IV sedation provides:

- ○ A: Anxiolytic effect
- ○ B: Partial amnesia
- ○ C: Analgesia
- ○ D: All of the above

Alveolar lymphangioma diagnosed in a white Irish neonate: a previously unreported finding

Précis

A case of alveolar lymphangioma in a white Irish neonate is presented. The relevant background, clinical presentation, diagnosis and management are discussed.

Abstract

Historically, alveolar lymphangiomas have been reported exclusively in the oral cavities of black infants. To the author's knowledge this is the first report of alveolar lymphangioma in a white Irish neonate. The paper presents multiple alveolar lymphangiomas found in the oral cavity of a white Irish neonate in a Dublin children's hospital. The child's medical background, differential diagnosis, management options and outcome are discussed.

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Introduction

Alveolar lymphangiomas are rare, benign soft tissue conditions of the oral cavity. First described by Levin in the 1970s, the lesion has exhibited a strong racial predilection, with an incidence of 2.2-4% reported in black neonates and no cases reported in white neonates.[1,2,3] Increasing immigration into Ireland may result in infants with this condition presenting to the general dentist. A case series of this condition in two healthy black neonates was published in this journal in 2009.[4]

Case report

History

A 15-day-old white Irish female neonate was referred from her paediatric neonatology team to the dental department of a tertiary care children's hospital regarding bilateral cystic swellings in the upper and lower jaw. She was born at term 37+4 weeks by spontaneous vaginal delivery. Maternal history was that of a healthy 40-year-old white Irish woman with a medical history of psoriasis and cholecystectomy. Paternal background was that of a white Irish male. The infant was noted to have dysmorphic features at birth, including frontal bossing, depressed nasal bridge and overlapping digits. A cleft of the soft palate was diagnosed by the neonatal team. From a respiratory perspective, the infant was diagnosed with obstructive sleep apnoea and nocturnal continuous positive airway pressure (CPAP) was required. As she was unable to feed orally, a nasogastric tube was inserted. There was a history of tonic clonic seizures at birth, which resolved. There was both central and peripheral hypotonia. Genetic testing detected a chromosomal imbalance including a gain on Xp22.33-Xp22.11 and a 14q deletion.

Clinical presentation

The patient's mother first noticed the oral lesions around the time of birth. No change was observed by her in the size, shape or location from birth to time of assessment at just over two weeks of life. Clinical examination revealed bilateral, soft, fluid-filled swellings at all first primary molar sites along the crest of the maxillary and mandibular ridges. All lesions were dome shaped, with the upper right lesion mobile. Fluid within the lesions had a clear yellow, straw-like colour. A cleft of the soft palate was also noted (**Figure 1**).

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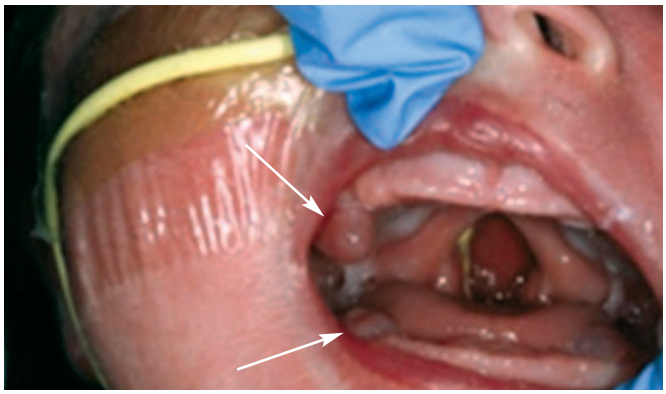

FIGURE 1: Photograph of right maxillary and mandibular ridge at initial presentation (15 days old) showing lesions on the central aspect of the alveolar ridge. A cleft of the soft palate is also apparent.

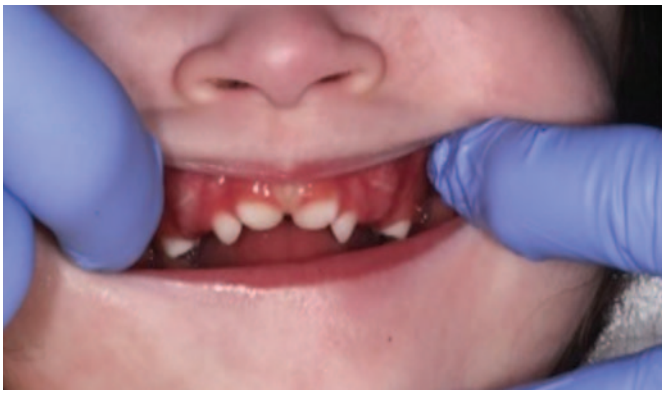

FIGURE 2: Review at 16 months showing resolution of maxillary right and left lesions, and eruption of maxillary first primary molars and incisors.

Table 1: Differential diagnosis considerations for alveolar lymphangioma.

Differential diagnosis	Clinical appearance/ characteristics	Location	Distribution
1. Eruption cyst	Bluish, fluctuant, dome-shaped swelling Crowns of teeth under lesions	Mandibular incisor region but can occur at any site of an erupting tooth	Unilateral, may cross midline
2. Extravasation mucocoele	Bluish, fluctuant, dome-shaped swelling	Lip, floor of mouth	Unilateral
3. Congenital epulis of newborn	Pink, firm, lobulated mass	Anterior maxillary gingiva	Unilateral

Table 2: Clinical criteria for diagnosis of alveolar lymphangioma.

Clinical diagnostic criteria	Description
1. Colour/shape/surface	Blue/dome-shaped/fluctuant
2. Site and number	Alveolar ridge, multiple
3. Distribution	Bilateral pattern
4. Size	Average 3-4mm diameter
5. Content	Fluid (clear/yellow)

Diagnosis

The clinical appearance excluded lesions of an inflammatory or infective origin, and the swellings were deemed to be developmental in nature (**Table 1**). A clinical diagnosis of alveolar lymphangioma was made (**Table 2**) and agreed by two consultant paediatric dental surgeons.

Management

A conservative approach was adopted, with clinical observation and photographic recording to allow for comparison at each review. Consideration was given to other treatment modalities including aspiration/drainage and excision, but these were deemed unsuitable at such an early stage on a background of a complex neonate. The patient was reviewed periodically. At one-week review there was a significant reduction in the size of the lesions at all sites but especially in the upper arch. The following review two weeks later showed further reduction in lesion size, with an epithelialisation of the outer layer apparent. The review period was extended and one month later there was almost complete resolution, with the lower left lesion remaining most prominent. The patient continued to be reviewed regularly and at six months there was a complete resolution of all lesions. Follow-up continued to monitor dental development, and at the recall at 16 months, a normally developing oral cavity was noted (**Figures 2** and **3**).

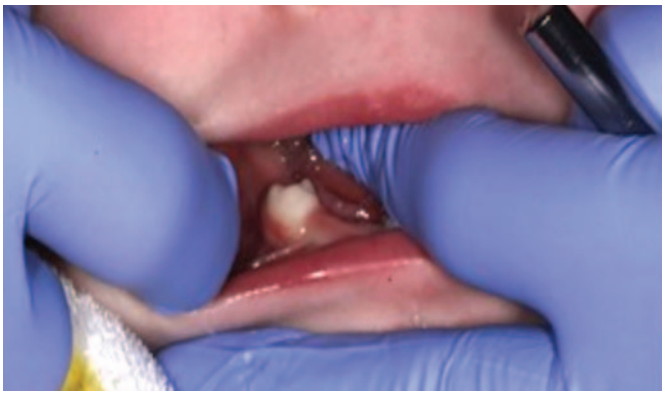

FIGURE 3: Review at 16 months showing mandibular first primary molar erupted and full resolution of lesion.

Discussion

Although some authors recommend excisional biopsy, these lesions are reported to spontaneously involute with time, and therefore no further investigations were undertaken.[2,3] Alveolar lymphangiomas have not been reported in the white population. In the black population there is a 2:1 male-to-female distribution.[2] Clinical presentation is similar to a mucocoele or an eruption cyst characterised by a bluish colour and domed, fluid-filled

appearance. They are characteristically located at the first primary molar site of the alveolar ridge and favour a bilateral distribution.[3] Those affected typically have multiple lesions, with the mandibular alveolar ridge a favoured site.[3] Aetiology is unknown; however, the strong racial predilection and site specificity are suggestive of a developmental, possibly genetic derivation.[3] Surgical management is generally unnecessary, but has been suggested where there are feeding difficulties.[5] Reported biopsies of such lesions have resulted in their collapse and release of a clear fluid.[2] Microscopic examination shows lymphocytic structures arranged in an alveolar pattern, supported by connective tissue.[6] Reassurance to parents is important, with monitoring necessary over time as regression may take several months.[2,3]

This case is an example of a documented lesion in an unreported population. Genetics may play a role, with the 14q deletion associated with distinctive facial features including wide-set eyes and microretrognathia.[7] Reported 14q oral features include a narrow arch and a high palate.[8] Genetic testing from this case reported that this oral finding had yet to be linked with the identified chromosomal deletion. The patient's medical background was complex with acute respiratory difficulties at time of initial referral, and therefore a conservative, non-surgical method was deemed most appropriate. A multidisciplinary approach with prioritisation of care was adopted. Involved teams included respiratory, ophthalmology, plastics, dental and dietetics. As with any patient with complex medical challenges, acute issues were first addressed, with stabilisation of her respiratory condition a priority. Close liaison with the medical team was vital to confirm the ongoing appropriateness of the conservative approach. Communication and reassurance to parents regarding the rationale for conservative oral management was explained. All lesions spontaneously regressed with no intervention needed.

Conclusion

This case represents a unique finding of multiple alveolar lymphangiomas in a white neonate. As with other case reports, the lesions' clinical features were sufficiently characteristic to permit an accurate clinical diagnosis without having to resort to invasive investigations. Although rare, such a lesion may present to general dentists in Ireland, necessitating a clear understanding of the condition's presentation and management.

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CPD questions

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CPD

1. What is the reported prevalence of alveolar lymphangioma?

- ○ A: 2-4%
- ○ B: 10%
- ○ C: 20%

2. What strong ethnic predilection does alveolar lymphangioma exhibit?

- ○ A: Caucasian
- ○ B: African
- ○ C: Asian

3. How does this condition typically behave?

- ○ A: Spontaneous involution and resolution with time
- ○ B: Increase in size with local invasion
- ○ C: Recurrence following removal

ABSTRACTS

Covid-19: its impact on dental schools in Italy, clinical problems in endodontic therapy and general considerations

Prati, C., Pelliccioni, G.A., Sambri, V., Chersoni, S., Gandolfi, M.G.

To the Editor – All the Italian schools and universities suspended teaching activity on February 24, 2020. The rationale for this decision was to minimise the transmission of the virus between persons of different areas in the hope of reducing the spread of the infection. Considering that SARS CoV-2 has been identified in the saliva of infected patients and that screening to determine the presence of the virus in Italy is carried out by sampling nasopharyngeal secretions, all medical doctors, nurses and dentists exposed to potential contact with this biological material are, at least in theory, exposed to an unknown risk of acquiring the SARS CoV-23 agent. Notably, the spread of the disease is increasing in other European countries including France, Germany, Austria and the UK. It is important to emphasise that prolonged, close face-to-face contact between patients and operators during endodontic treatment creates a high risk for cross-infection. The contact between the mouth of the patients and the production of aerosols through the use of high-speed handpieces would appear to create a substantial risk for contamination and spread of the virus within dental clinics. Thus, routine endodontic therapies and emergency treatments are high risk for virus contamination. Furthermore, it is likely that university dental clinics and dental hospitals, where patients, students and teachers share the same spaces, may potentially create a reservoir and 'hub' for the spread of the virus. To confirm this potential within medicine, the virus has infected a large number of hospital healthcare doctors and nursing staff.

The risk for dental personnel, dental nursing staff and for dental students is high and must be managed. University students are a population with a substantial number of 'potential contacts' that must be limited. Universities in high-risk areas should consider using online web-based teaching. The development of a simple laboratory test to detect and monitor Covid-19 in medical and dental personnel is necessary. The role of the dentist in the prevention and monitoring of viral infections should be redefined.

International Endodontic Journal 2020; 53: 723-725.

Dentistry and coronavirus (Covid-19) – moral decision-making

Coulthard, P.

Abstract

The coronavirus (Covid-19) has challenged health professions and systems, and has evoked different speeds of reaction and types of response around the world. The role of dental professionals in preventing the transmission of Covid-19 is critically important. While all routine dental care has been suspended in countries experiencing Covid-19 disease during the period of pandemic, the need for organised urgent care delivered by teams provided with appropriate personal protective equipment takes priority. Dental professionals can also contribute to medical care. Major and rapid reorganisation of both clinical and support services is not straightforward. Dental professionals felt a moral duty to reduce routine care for fear of spreading Covid-19 among their patients and beyond, but were understandably concerned about the financial consequences. Amidst the explosion of information available online and through social media, it is difficult to identify reliable research evidence and guidance, but moral decisions must be made.

British Dental Journal 2020; 228: 503-505.

Coronavirus Covid-19 impacts to dentistry and potential salivary diagnosis

Sabino-Silva, R., Jardim, A.C.G., Siqueira, W.L.

To the Editor – A novel coronavirus (Covid-19) is associated with human-to-human transmission. Covid-19 was recently identified in saliva of infected patients. In this point-of-view article, we discuss the potential of transmission, via the saliva, of this virus. Covid-19 transmission via contact with droplets and aerosols generated during dental clinical procedures is expected. There is a need to increase investigations to the detection of Covid-19 in oral fluids and its impact on the transmission of this virus, which is crucial to improve effective strategies for prevention, especially for dentists and healthcare professionals that perform aerosol-generating procedures. Saliva can have a pivotal role in human-to-human transmission, and non-invasive salivary diagnostics may provide a convenient and cost-effective point-of-care platform for the fast and early detection of Covid-19 infection.

Clinical Oral Investigations 2020; 24: 1619-1621.

Social capital and sleep quality in those who self-isolate

Xiao, H., Zhang, Y., Kong, D., Li, S., Yang, N.

Social capital is a measure of social trust, belonging, and participation. This study investigated the effects of social capital on sleep quality and the mechanisms involved in people who self-isolated at home for 14 days in January 2020 during the Covid-19 epidemic in central China. Individuals (n=170) who self-isolated at home for 14 days completed self-reported questionnaires on the third day of isolation. Individual social capital (Personal Social Capital Scale 16), anxiety (Self-Rating Anxiety Scale), stress (Stanford Acute Stress Reaction questionnaire) and sleep (Pittsburgh Sleep Quality Index) were measured. Low levels of social capital were associated with increased levels of anxiety and stress, but increased levels of social capital were positively associated with increased quality of sleep. Anxiety was associated with stress and reduced sleep quality, and the combination of anxiety and stress reduced the positive effects of social capital on sleep quality.

Medical Science Monitor 2020; 26: e923921.

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Lessons from lockdown

Dr ROSEMARIE MAGUIRE of the IDA Management Committee talks about what she and the IDA were doing during lockdown, and what can be learned from it.

What led you to get involved with the IDA?

I was working over in the UK and myself and my husband [fellow dentist Dr Gerald O'Connor] came back seven years ago. He was involved with the Quality and Patient Safety Committee and I was interested in knowing more about what was going on within Irish dentistry. I emailed Fintan Hourihan and asked was there anything that I could do and there was an opening in the GP Committee, so he suggested that I join that. I think it was quite important for me to get involved because I saw what happened with dentistry over in the UK, and I regretted not being a little bit more involved with the British Dental Association.

What form did that involvement take and how did it progress?

I was on the GP Committee and a vacancy came up for a GP representative on the Management Committee, so I put my name forward and was voted in. Dr Kieran O'Connor very kindly said that it wouldn't involve a huge amount of time, that it would be a couple of meetings a year and I thought I could definitely fit that into my schedule, and then Covid happened.

What is the IDA Management Committee doing to support dentists during Covid-19?

I think Covid-19 has hit the profession like a nuclear bomb. It was incredibly stressful for every possible sector within dentistry and the amount of work that was performed by the IDA, by the sub-committees, by the team in IDA House itself, was just phenomenal.

There's the direct support to members, which was the constant communication, trying to give people accurate information, keep them up to date with current research, develop documents to support them, and put out webinars to address their worries.

Then there was the support that was probably a little less obvious with regard to trying to arrange meetings with Government ministers, trying to put forward the case on the issues of dentistry to the Department of Health, and on the financial implications to Simon Harris and Paschal Donohue. That was going on in the background too and still is.

What work have you been doing yourself during lockdown?

The daily triaging of patients, seeing emergency patients where we had to. There were many, many meetings on Zoom with the IDA and all the different committees. I feel like I'm now a Zoom expert. On a personal level, I was doing a lot of CPD. Then we have three kids, so there was home schooling.

What advice would you have for GPs at this current time?

Stay calm – the panic and fear spread fast at the start of this pandemic. I know that probably because I felt a huge amount of anxiety myself. Dentistry is taking steps to return to a different normal. I'd encourage dentists not to rush going back to the way we were too quickly.

If you're a practice owner, sit down and look at your business model. Ask yourself what you need to change in order to provide the best possible care to your patients and for your business to be viable. Make a plan and there's no better time to inform patients of any changes that need to happen if your business is to survive.

It's difficult for associates as well. They need to think about their career. Do they need to upskill? Are they happy with the surgery they're working in and how Covid-19 was handled? Do they want to take the leap to becoming a practice owner? And if they do, how are they going to do that? Maybe consider reaching out to a mentor.

How can the Association and the profession learn from this crisis?

It's a difficult one, because I think perhaps we should have started to develop a plan earlier. I think when we heard the rumblings of Covid in China, we probably could have taken it a little more seriously. From a personal level, and I can only speak for myself, communication could be improved. I wish I'd done some more videos on social media just to keep people reassured.

Rosemarie is originally from Co. Fermanagh. She graduated from TCD in 2001 and worked in the UK for over a decade. She and her husband Gerald own Killiney Dental in Dublin and have three children: Tilly, Jack and Oscar.

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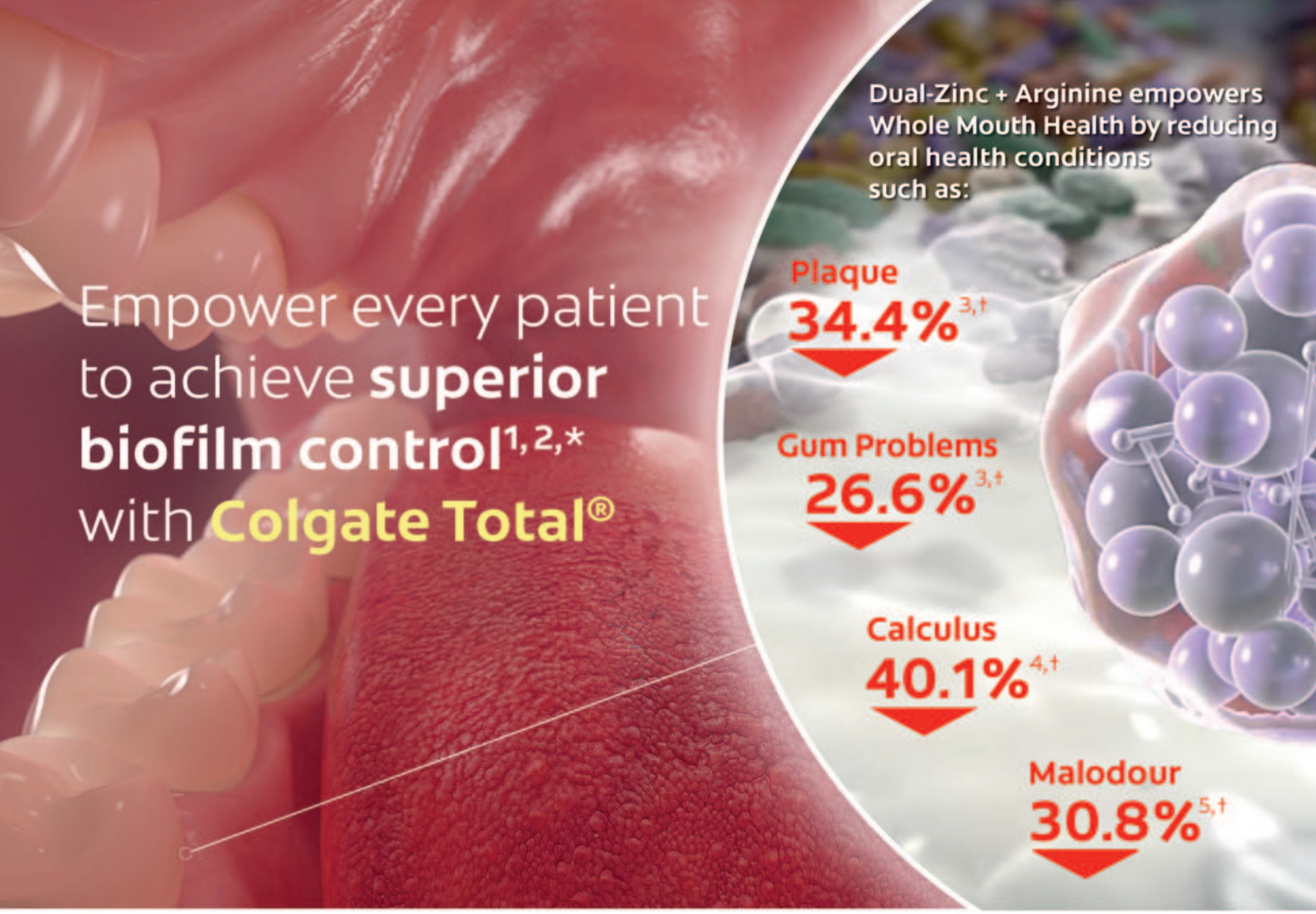

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References: 1. Manus L, et al. *J Clin Dent* 2018;29(Spec Iss A)A10–19. **2.** Daep C, et al. August 2019, data on file. **3.** Li X, et al. *J Dent Res* 2019;98(Spec Iss A):3444. **4.** Seriwatanachai & Mateo, September 2016, data on file. **5.** Hu D, et al. *J Clin Dent* 2018;29(Spec Iss A)A41–45. **6.** Sanz et al, *J Clin Periodontol.* 2017;44(Suppl 18):S5–S11. **7.** Prasad K et al. *J Clin Dent* 2018;29(Spec Iss A)A25–32.

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