IDA
irish dental association

JIDA
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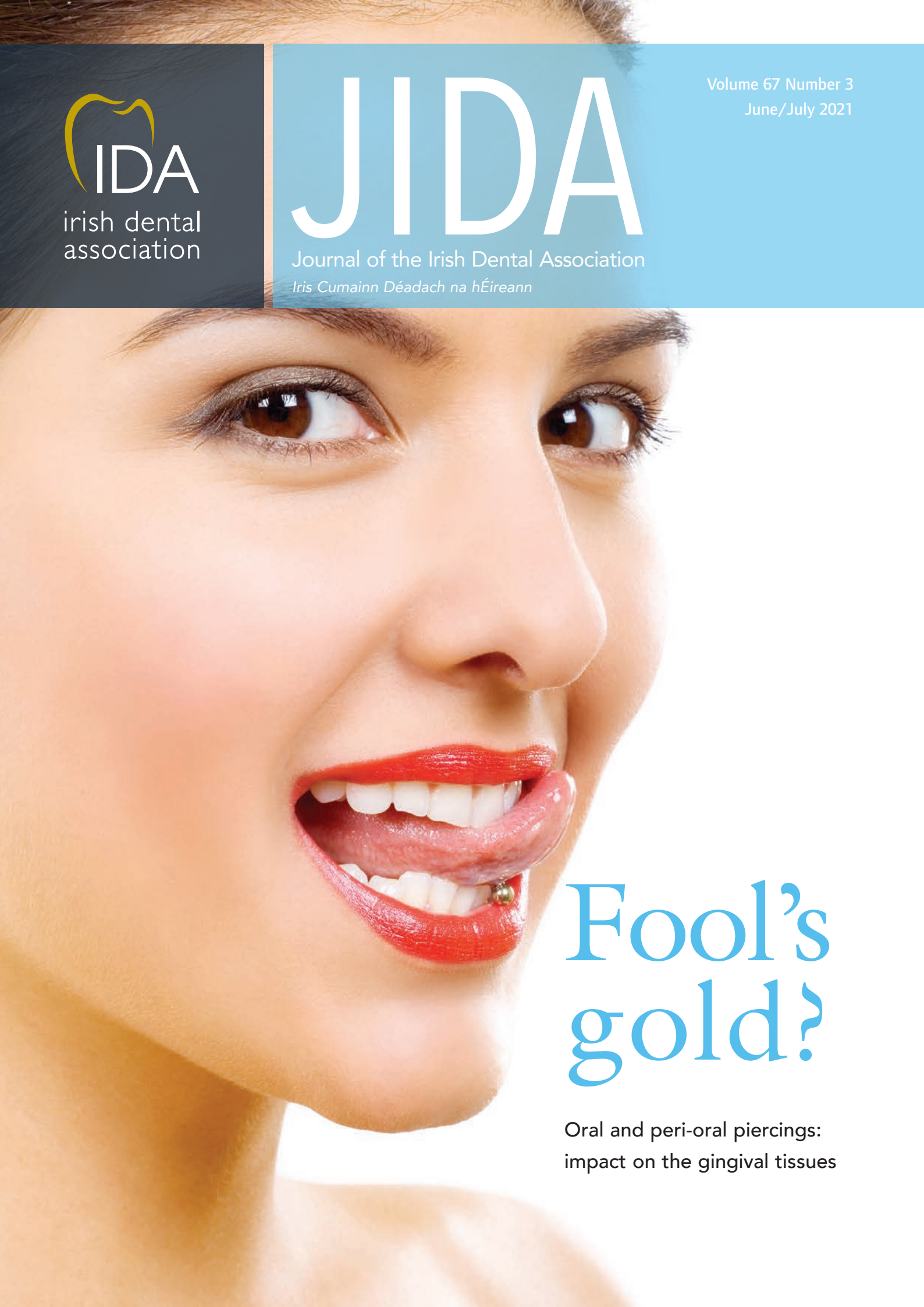

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1. Araujo M W B et al. Meta-analysis of the effect of an essential-oil containing mouth rinse on gingivitis and plaque. JADA 2015; 146:610-622

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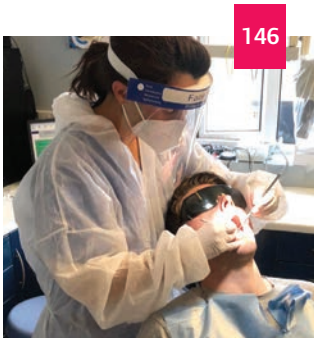

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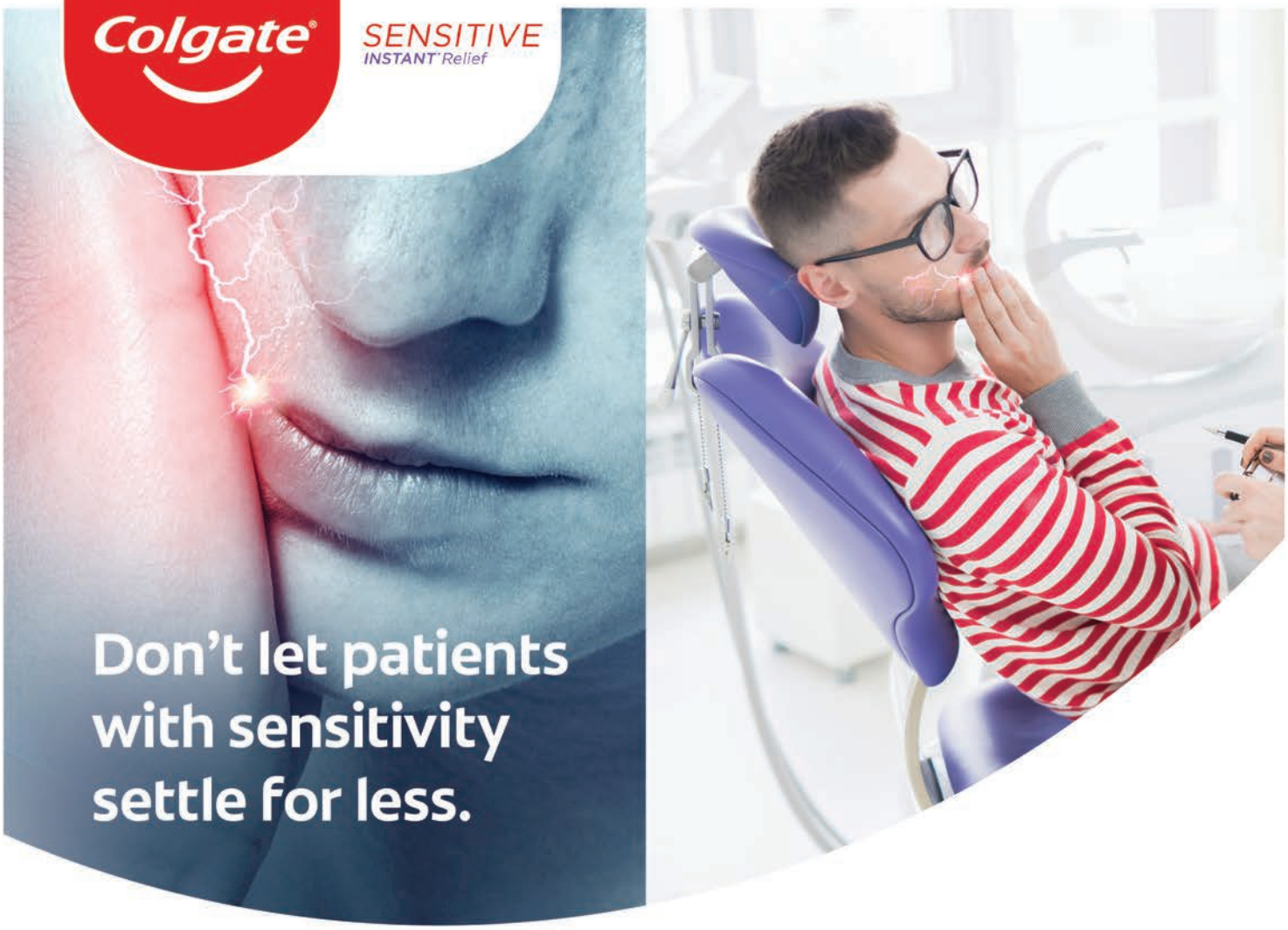

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Dr Ciara Scott
Honorary Editor

Oral health matters

In this edition of the *Journal*, a number of articles focus on the need to take patient circumstances and motivations into account in all aspects of dental care.

Last month, the World Health Organisation World Health Assembly approved a resolution to place oral health on the global health agenda. Among the goals are: "Promoting dental research to strengthen evidence on prevention, oral health disparities, [and] oral disease associations with other NCDs".[1]

Oral health matters. Tooth decay shares common risk factors with other non-communicable diseases (NCDs) and it is the one that presents earliest in life. In this issue, we highlight that the failing DTSS scheme spends over €10k a month on dental extractions. On p.133, Michael Crowe reviews a new book on nutrition and oral health, highlighting not only the effects of diet on dental health, but also the detrimental effect tooth loss can have on nutrition and health. It is well accepted that a purely treatment-oriented focus in dentistry does not reduce the burden of disease, and the oral health policy, Smile agus Sláinte, promotes preventive strategies. We share an abstract from recently published research from Cork, analysing the cost–benefit of community water fluoridation in Ireland, just one stream of prevention.

We also include highlights from our virtual Annual Conference. I would like to congratulate our incoming president, Dr Clodagh McAllister, and wish her well in her role. Our members' section includes extracts from Minister Stephen Donnelly's address to our AGM, outlining his key priorities for oral health in implementing Smile agus Sláinte. In their addresses to the AGM, our then President Dr Anne O'Neill and CEO Fintan Hourihan shared their perspectives on some of the barriers to change the profession has faced.

Agents of progress

Prof. Martin Seligman's address to the RCSI this month provides some insight into how action is stalled.[2] He spoke about his life's research to understand "Positive Psychology, Agency and Human Progress". He describes agency as having three components: the efficacy to believe we can accomplish goals; the optimism to believe we can accomplish goals into the future; and, the imagination to create a range of goals. Agency spurs progress. Without efficacy, optimism and imagination, organisations stagnate and collapse. Being agentic keeps us healthier and more resilient. We can lose agency, faith and hope after repeated efforts and failures, accepting the status quo rather than driving progress. Seligman describes this loss of efficacy as "learned helplessness". In workplaces that lack resources, support and respect, passion turns to burnout. Many of us have experienced the lack of agency regarding public dental services that has inhibited progress and had a negative ripple effect on professionals and patients.

Understanding our patients

The good news is that we can learn to be more agentic, and so can our patients. Understanding how people perceive their own health and make choices is an integral part of dentistry. Individual lifestyles are embedded in social and community networks, and living and working conditions, and are related to the wider cultural and socioeconomic environment.

In this issue, Dr Martin Foster shares his advice to actively listen to our patients to really understand their goals and expectations, to share the decision-making process and the responsibility for the outcome. While Martin's article focuses on aesthetic treatment goals, this is relevant to other aspects of care. Health behaviour is more complex than access to knowledge or access to care, and we know from experience that giving advice does not change behaviour. There is quite good evidence of the risks associated with oral piercings, but this often does not deter young patients. Dr Apryl O'Halloran and colleagues provide two case reports outlining management of gingival tissues damaged by oral piercings. In our second peer-reviewed article, Dr Miriam Crowley and colleagues outline the benefits of a multidisciplinary approach to the diagnosis and management of an unusual presentation of oral candida.

While randomised controlled trials are important to measure the effects of interventions, they often do not capture all of the individual patient and practitioner factors that can influence outcome. This is why I was so interested in Dr Catherine Waldron's research. In this issue, Catherine describes the importance of learning more about individual patients and their carers to personalise care and support positive interventions. She explains more about this on p.139 and in this issue's 'My Profession' interview. Our clinical feature on oral care for patients with cystic fibrosis helps us to understand the medical and dental needs for this patient group to personalise their care, and I thank Dr Fiona O'Leary and her colleagues for sharing their expertise.

Caring is at the core of our motivation and identity, but technical competence and skills are often given precedence in training rather than learning the language of caring. Professor Fergus Shanahan, in his book, *The Language of Illness*, says: "Caring is a simple concept, cherished by professionals but as a lived experience it is more complex".[3] He explains the paradox of caring and it is a worthy summer read!

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Dr Clodagh McAllister
IDA President

Stronger together

In this extract from her speech to the IDA AGM, our new President outlines her goals for the coming year and her firm belief that we have to work together as a strong professional group to improve the understanding of and appreciation for dental practice in Ireland.

It is an enormous honour to be the new President of the Irish Dental Association (IDA). I would like to thank the outgoing President, Dr Anne O'Neill, and the Council, for electing me to this position at this time of great transition and, I hope, great opportunity.

Commitment to IDA members

I have been a member of the IDA since 1999. Within that time, I have been a Board member for four years and have served as Honorary Secretary, roles which have given me a good understanding of the workings of the organisation.

As somebody with experience in both roles, I understand the needs of principals and associates, specialists and public service dentists alike. I feel that my ongoing work with the Dublin Dental Hospital gives me a keen understanding of the particular needs of students at undergraduate level but also the challenges that often have to be faced by newly qualified dentists.

My commitment to the IDA rests in my firm belief that we have to work together as a strong professional group to improve the understanding of and appreciation for dental practice in Ireland as an integral part of a functioning health system. We have to work together to support the well-being and conditions of all dental practitioners, and ultimately to ensure, as professionals, that Irish people have access to world-class and appropriate dental care, at all life stages.

I was involved in the last round of successful negotiations with the Department of Social Protection in relation to the restoration of treatments under the Dental Treatment Benefit Scheme as a member of the GP Committee. But I am acutely aware of the dire state of the Dental Treatment Services Scheme (DTSS), and have represented the IDA, along with Drs Anne O'Neill and Caroline Robins, at a recent Oireachtas hearing to express our disquiet, but also our solutions. Discussions with the Department of Health on this crucial issue are ongoing. However, the progress is glacial and the Department is sometimes unwilling to engage. Similarly, a joint consultative committee between the IDA and the HSE was unsuccessful because of a lack of co-operation and willingness on the part of the HSE.

I am acutely aware that this past year, coping with the huge challenges of Covid-19, has been extremely difficult for dentists throughout the country, not least because of the prohibitive cost of running practices in these highly unusual times. I have experienced it myself as the principal of a practice. I want to assure you that I will do my utmost to serve the needs of all practitioners: specialists and generalists alike.

Goals for Presidency

For the year ahead, I have set out a number of key goals. Firstly, I want to continue to support and facilitate the excellent operations of the IDA, ensuring that our high governance standards are maintained, while meeting the needs of our members. I want to work hard to ensure that the mental health and well-being of members is protected and supported.

I believe that communication is vitally important and I will be taking an active interest in the IDA's working group looking at ways to further engage both members and non-members. I will continue to work on increasing the IDA's membership, highlighting that we are an organisation with services that are relevant to all dentists, no matter where they are on their career paths.

With the IDA team, I will continue to lobby the Minister for Health to enter discussions with the IDA to address the ongoing crisis in the DTSS. I will work to ensure professional parity for dental practitioners. The Department of Health offered collective bargaining rights to the Irish Medical Organisation many years ago. However, it has steadfastly refused to offer the same rights to the IDA. We have sent a proposed framework to the Minister, similar to that afforded to the IMO, but as yet, there has been no response.

Sadly, despite repeated requests from the IDA, we have had no meaningful engagement in Smile agus Sláinte, the national oral health policy document. We encourage the Department of Health to allow the IDA to have proper input into any proposed oral health policies. It is only then that the core vision of the document – to develop a health service that supports us to have our best oral health, from birth to old age – can really be achieved.

I am honoured to be your President for the coming year, and I look forward to working tirelessly on your behalf.

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Date for your diary

Awards Ceremony
Saturday
December 4th
2021

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Costello Medal 2021

The Costello Medal winners for 2021 are Ciara Halton and Amelia Conlon Batey from the Dublin Dental University Hospital. Their winning entry was entitled 'What Do Irish Consumers Prioritise When Purchasing a Toothbrush? A Discrete Choice Experiment'.

Mouth Cancer Awareness Day 2021

Mouth Cancer Awareness Day 2021 will take place on Wednesday, September 15. This year will see the focus on alcohol and mouth cancer. More information will be available closer to the time on www.mouthcancer.ie.

Colgate Caring Dentist Awards 2021

The IDA is delighted that the Colgate Caring Dentist Awards will return for 2021. Applications are now open for patients to nominate their dentist and/or dental team. Remember the awards are nominated by your patients.

The IDA will forward promotional and informative videos and other material about the awards to dental practices over the coming months. Dentists can use these on their own social media platforms to highlight that the awards and their practices are open for nominations. There are a few videos now available with more to come soon. Nominating patients are in with a chance to win €1,500.

Get the tuxedos/party dresses dry cleaned and the dancing shoes polished for a night to celebrate on Saturday, December 4. Further details to follow.

To nominate a dentist or dental team for an award go to: www.colgatecaringawards.ie.

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Expressions of interest are invited for the position of

Honorary Editor of the Journal of the Irish Dental Association

Dentists with an interest in publishing and experience of editorial boards are invited to express interest in the above position.

The position is voluntary and requires some or all of the following:

- familiarity with peer-reviewed publishing of scientific content;
- knowledge of Irish dentistry and support for the objectives of the Irish Dental Association;
- commitment to the objectives of the Irish Dental Association;
- ability to chair and use the resources available on the Editorial Board for strategic planning; and,
- familiarity with governance procedures in general and best practice.

The Association provides support for the Honorary Editor through the work of the Journal Co-ordinator; the members of the Editorial Board take responsibility for some specific aspects of the work; and the publishers provide the professional services necessary to ensure a high-quality publication for Irish dentists.

Confidential enquiries are welcome to Fintan Hourihan at the Association (as below).

Expressions of interest should take the form of a letter and CV, which can be posted or emailed to the Chief Executive of the Association, Fintan Hourihan – fintan@irishdentalassoc.ie

Irish Dental Association
Unit 2, Leopardstown Office Park,
Sandyford,
Dublin 18.

Deadline is July 5, 2021

IDA awards Honorary Life Memberships

IDA President Dr Clodagh McAllister with Honorary Life Membership recipient Dr Seán Ó Seachnasaí, and fellow recipient Dr John O'Keefe (above).

Drs John O'Keefe and Seán Ó Seachnasaí were this year's recipients of Honorary Life Membership of the Irish Dental Association (IDA). The awards were presented virtually at the IDA AGM in May.

Dr Kieran O'Connor, in his citation, spoke of Dr John O'Keefe's contribution to dentistry: "John has been a researcher and lecturer at the University of Toronto and McGill University, and has authored hundreds of published papers and editorials. He has worked for the Canadian Dental Association since 1997, serving as Editor-in-Chief of the *Journal of the Canadian Dental Association*, and as Director of Knowledge Networks since 2011. John has a huge involvement in professional dental organisations and has been awarded numerous awards and fellowships, including the Canadian Dental Association Distinguished Service Award in 2017. But John's political and representative roles started in Ireland where he served as a member of IDA Council, Executive Committee, and as President of The Health Board Surgeons group.

"John has been a driving force in forging the growing friendship, co-operation and trans-Atlantic alliance between the profession here and in Canada. Above all John, you are a most extraordinary communicator, educator and ambassador for our profession and our country".

Presenting the award for Dr Seán Ó Seachnasaí, outgoing IDA President Dr Anne O'Neill said: "Membership of the Roll of Honour of the Irish Dental Association recognises members of the organisation who deserve recognition for the work they have undertaken on behalf of the Association. Today we honour Dr Seán Ó Seachnasaí, who has been a long-time member of the Association and a long-time supporter of the GP Group.

"Seán was nominated and accepted the position of President Elect of the Association in 2018. However, in early 2019 he advised the Management Committee that he would be unable to fulfil his term in office, and he did not enjoy reaching the position of President, in which I know he would have been proud to serve.

"While there are many compliments one may pay a dentist, the one that I think sums up Seán is that he goes that extra mile for his patients to make sure that they get the best possible care. This won him the Colgate Caring Dentist of the Year Award in 2018".

Free access to DCRS for Dental Protection members

Dental Protection has confirmed arrangements with the Irish Dental Association (IDA) to allow free access to the Dental Complaints Resolution Service (DCRS) for all Dental Protection members from July 1, 2021. Currently, IDA members are able to access the service at a 50% discount, with non-members paying full price.

Established in 2012, the DCRS helps to identify how best to resolve issues between dentists and patients who have a complaint about their dental treatment, without the need to involve solicitors. If a dentist is unable to resolve a patient complaint in the first instance, either party can suggest asking for the assistance of the DCRS, which will seek the agreement of both parties in order to assist with resolution.

Raj Rattan, Dental Director at Dental Protection, said: "We know that resolving dental complaints can be a long, costly and drawn-out process for dentists and patients, causing undue stress and emotional upset. Dental Protection greatly values the work of the DCRS and is delighted that the IDA has made their service accessible to our members in this way".

Fintan Hourihan, Chief Executive of the IDA, welcomed this new agreement as a positive move for dentists and patients: "The Dental Complaints Resolution Service is widely admired and has helped thousands of dentists and patients resolve complaints since its establishment as an informal and timely means of helping the parties find a solution where problems seemed intractable. The Association will continue to work closely with Dental Protection across many areas for the mutual benefit of our members in Ireland".

Webinars autumn 2021

Interested in giving a webinar? The IDA CPD Committee is now putting together the online CPD programme for autumn/winter 2021. To find out more, contact Elaine at: elaine@irishdentalassoc.ie

HSE Dental Surgeons Group

The HSE Dental Surgeons Group have decided that no dedicated seminar will take place for 2021. However, the Group's AGM will take place, with a clinical presentation taking place before the AGM on that date. More details to follow.

Retirement Seminar 2021

The IDA will hold a Retirement Seminar for members thinking of or close to retiring on Friday, October 8.

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*Compared to Invisalign aligners made previously from single layer .030 inch EX30 material

1. Data on file at Align Technology, as of January 29, 2020

Dentists' Retirement Savings Scheme seeks Trustee Directors

The Irish Dentists' Approved Retirement Savings Scheme is seeking to appoint Trustee Directors and wishes to invite expressions of interest from IDA members.

The Scheme is operated on a not-for-profit basis and is open to all IDA members. The Trustees believe that the Scheme, as currently operating, is a better pension arrangement than most of the Association's current membership realise. Most of the Association's members have individual personal pension plans, which tend to be significantly more expensive and consequently underperform group arrangements such as this Scheme. If the Scheme attracts more members, fees can be further reduced and therefore the Scheme would become an even more attractive proposition through time.

Below are the general responsibilities of a Trustee Director of an occupational pension scheme:

- attendance at two to four trustee meetings per year – meetings tend to take two hours maximum;
- complete Trustee training every two years – this is likely to be an additional half-day commitment every two years;
- familiarise themselves with Scheme documents; and,
- promote the Scheme where possible among fellow IDA members.

The following, although the responsibility of the Trustees, are led and assisted with by Acuvest and other providers:

- administer the trust in accordance with trust law, all other laws and the terms of the Trust Deed and Rules;
- act in the best interests of beneficiaries;
- act fairly between beneficiaries;
- act prudently and diligently;
- exercise care and utmost good faith in all trustee duties;
- seek professional advice, as necessary; and,
- supervise those to whom functions have been properly delegated.

For further information, members should contact Mr Edward O'Hanlon at: EdwardOH@acuvest.ie.

Support and advice with dental compliance

Health and safety inspections

The Health & Safety Authority is currently conducting inspections in dental practices around the country. To prepare for these inspections, and to ensure you are compliant with regulations, tune into the IDA webinar on the topic, which is available to purchase on our CPD platform.

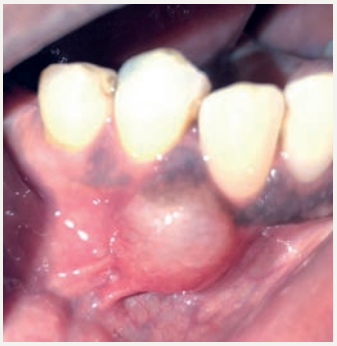
HIQA – oral radiation

Dr Andrew Bolas presents a very clear and concise webinar on the topic of 'HIQA and Oral radiation: How to best prepare for a HIQA radiation inspection'. Delegates will be brought through the online self-assessment that is required as part of the inspection process, highlighting what is required for each of the topics being inspected, from documentation to patient information. The information given will give practitioners the guidance to better prepare for the ionising radiation inspections.

Webinar open to all IDA members to purchase.

Quiz

Submitted by Dr Rachael O'Rorke.



FiIGURE 1.

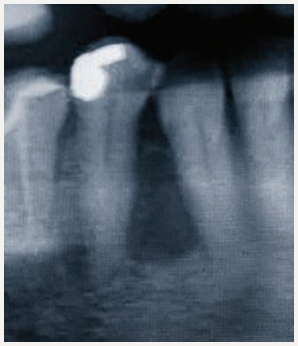


FIGURE 2.

A 52-year-old lady, who is fit and well and smokes three cigarettes daily, presents with a swelling in the gingivae between the LR3 and LR4 (**Figure 1**). It has been present for around four months, is not painful and has had no associated discharge. The adjacent teeth are shown to be vital (**Figure 2**). The lesion is excised under local anaesthetic and the histology report shows it to be a lateral periodontal cyst.

Questions

1. What special investigations would you carry out alongside your examination?
2. Describe the lesion seen in the radiograph.
3. What is a lateral periodontal cyst?
4. What is the origin of a lateral periodontal cyst?

Answers on page 163

Skudexa ▽ ® 75 mg/25 mg film-coated tablets (tramadol hydrochloride/dexketoprofen). Abbreviated Prescribing Information

Please consult the Summary of Product Characteristics (SmPC) for full prescribing information. **Presentation:** Film-coated tablets containing tramadol hydrochloride 75 mg and dexketoprofen 25 mg. Excipients with known effects: croscarmellose sodium and sodium stearyl fumarate **Use:** Symptomatic short term treatment of moderate to severe acute pain in adult patients whose pain is considered to require a combination of tramadol and dexketoprofen. **Dosage:** Adults: 1 tablet (75 mg tramadol hydrochloride/ 25 mg dexketoprofen), additional doses as needed with a minimum dosing interval of 8 hours. Maximum daily dose 3 tablets/day. Use lowest effective dose for the shortest duration necessary to control symptoms. Maximum duration of use is 5 days. Patients with mild-moderate hepatic dysfunction or mild renal dysfunction: maximum daily dose is 2 tablets/day. Elderly: initial dose is 2 tablets/day can be increased to a maximum of 3 tablets/day after good tolerance established. Use with caution in patients over 75 years. **Contra-indications:** Hypersensitivity to any component or other NSAID or excipients. NSAID induced attacks of asthma, bronchospasm, acute rhinitis, or nasal polyps, urticaria or angioneurotic oedema. Known photoallergic or phototoxic reactions during treatment with ketoprofen or fibrates. History of gastrointestinal bleeding or perforation, related to previous NSAIDs therapy. Active peptic ulcer/gastrointestinal/ haemorrhage or any history of gastrointestinal bleeding, ulceration or perforation, chronic dyspepsia, other active bleeding or bleeding disorders, Crohn's disease or ulcerative colitis, severe heart failure, moderate-severe renal dysfunction, severe hepatic dysfunction, haemorrhagic diathesis and other coagulation disorders, severe dehydration. Acute intoxication with alcohol, hypnotics, analgesics, opioids or psychotropic medicinal products. Concomitantly with MAO inhibitors or within 14 days of having taken them. Inadequately controlled epilepsy. Severe respiratory depression. Pregnancy and lactation. **Warnings and precautions:** *Dexketoprofen:* Caution in allergic conditions. Avoid use with concomitant other NSAIDs including COX-2 selective inhibitors. Gastrointestinal bleeding, ulceration or perforation which can be fatal, have been reported with all NSAIDs at anytime during treatment, with or without warning symptoms or a previous history of serious gastrointestinal events. When gastrointestinal bleeding or ulceration occurs withdraw treatment. The risk of gastrointestinal bleeding, ulceration or perforation is higher with increasing NSAID doses, in patients with a history of ulcer, particularly if complicated with haemorrhage or perforation, and in older people. Ensure cure of oesophagitis, gastritis and/or peptic ulcer before starting treatment. Consider combination therapy with protective agents (e.g. misoprostol or proton pump inhibitors), and in patients requiring concomitant low dose aspirin, or other drugs likely to increase gastrointestinal risk. Monitor patients with a history of gastrointestinal toxicity, particularly when elderly, for unusual abdominal symptoms (especially gastrointestinal bleeding) particularly in the initial stages. Caution in patients receiving oral corticosteroids, anticoagulants, SSRIs or anti-platelet agents. Caution in patients with impairment of renal function, receiving diuretic therapy or those who could develop hypovolaemia. Ensure adequate fluid intake. Caution in liver impairment. Appropriate monitoring and advice required with history of hypertension and/or mild to moderate heart failure. Special caution in patients with cardiac disease, especially episodes of previous heart failure. Only treat patients with uncontrolled hypertension, congestive heart failure, established ischaemic heart disease, peripheral arterial disease, and/or cerebrovascular disease after careful consideration. Similarly for risk factors for cardiovascular disease (e.g. hypertension, hyperlipidaemia, diabetes mellitus, smoking). Caution in haematopoietic disorders, systemic lupus erythematosus, connective tissue disorders, impairment of hepatic and/or renal functions, history of hypertension and/or heart failure, diuretic therapy, the elderly. Older people are more likely to be suffering from impaired renal, hepatic and cardiovascular function. Serious skin reactions (some of them fatal), including exfoliative dermatitis, Stevens-Johnson syndrome, and toxic epidermal necrolysis were reported very rarely. Particular caution is required in patients with congenital disorder of porphyrin metabolism, dehydration, directly after major surgery. Severe acute hypersensitivity reactions have been observed on very rare occasions. Discontinue treatment at the first signs of severe hypersensitivity reactions. Can cause asthma attacks or bronchospasm, particularly in subjects allergic to acetylsalicylic acid or NSAIDs. Avoid use in case of varicella. Do not use with warfarin, other coumarins or heparin. Can mask the symptoms of infectious diseases. *Tramadol:* Use with particular caution in patients with an addiction, head injury, shock, reduced level of consciousness of uncertain origin, disorders of respiratory centre or function or increased intracranial pressure. Use with caution in patients sensitive to opiates. Care should be taken in treating patients with respiratory depression, with concomitant CNS depressant drug administration or significant excess of the recommended dose as resulting respiratory depression cannot be excluded. Convulsions have been reported with recommended doses of tramadol, this risk may increase when exceeding the recommended upper daily dose limit (400mg). Seizure risk increases in patients taking other seizure threshold lowering medications. Only treat patients susceptible to seizures with tramadol if circumstances are compelling. Tolerance, psychic and physical addiction may develop. For patients with abuse/dependence potential only treat for short periods under strict medical supervision. Consider tapering dose gradually when discontinuing treatment to prevent withdrawal symptoms. CYP2D6 deficiency may reduce the analgesic effect, whereas ultra-rapid metabolisers of CYP2D6 incur risk of opioid toxicity even at commonly prescribed doses. Extreme caution and close monitoring for opioid toxicity required when administering tramadol to children for post-operative pain relief. Not recommended in children with compromised respiratory function. *Skudexa:* Not for use in children and adolescents. Concomitant use with sedative medicines such as benzodiazepines or related drugs should be reserved for patients with no alternative treatment options, using the lowest effective dose and an as short as possible treatment duration while following them closely for signs of respiratory depression and sedation. **Interactions:** Dexketoprofen: Other NSAIDs, anti-coagulants, heparins, corticosteroids, lithium, methotrexate, hydantoines and sulphonamides, diuretics, ACE inhibitors, antibacterial aminoglycosides and angiotensin II receptor antagonists, pentoxyfilline, zidovudine, sulfonylureas, beta-blockers, cyclosporin and tacrolimus, thrombolytics, anti-platelet agents and SSRIs, probenecid, cardiac glycosides, mifepristone, quinolone antibiotics, tenofovir, deferasirox, pemetrexed. *Tramadol:* MAOIs, coumarin derivatives (e.g. warfarin), mixed agonists/antagonists opioid receptors (e.g. buprenorphine, nalbuphine, pentacozine), SSRIs, SNRIs, tricyclic antidepressants, antipsychotics and other seizure threshold-lowering medication (e.g. bupropion, mirtazapine, tetrahydrocannabinol), sedative medicines such as benzodiazepines, centrally depressant medications or alcohol, cimetidine, carbamazepine, ondansetron (5-HT3 antagonist) and substances inhibiting CYP3A4 (e.g. ketoconazole, erythromycin). **Pregnancy and lactation:** Contra-indicated during pregnancy and lactation. Do not use in women attempting to conceive. **Side-effects:** *Skudexa: Common (≥ 1/100, <1/10): dizziness, nausea, vomiting. Uncommon (≥ 1/1000, <1/100):* thrombocytosis, laryngeal oedema, hypokalaemia, psychotic disorder, headache, somnolence, periorbital oedema, vertigo, tachycardia, hypertensive crisis, hypotension, abdominal distension, constipation, dyspepsia, raised LFTs, face oedema, hyperhidrosis,urticaria, haematuria, asthenia, chills, discomfort, feeling abnormal, BP increased, increased alk phos, increased LDH. For less frequent side effects and side effects associated with the individual constituentssee SmPC. **Pack size:** 15 tablets. **Legal category:** POM A **Marketing authorisation number:** PA 865/20/1 **Marketing authorisation holder:** Menarini International Operations Luxembourg S.A., 1 Avenue de la Gare, L-1611 Luxembourg. **Marketed by:** A.Menarini Pharmaceuticals Ireland Ltd. Further information is available on request to A Menarini Pharmaceuticals Ireland Ltd, 2nd Floor, Castlecourt, Monkstown Farm, Monkstown, Co. Dublin Co. Dublin, Ireland A96 T924 or may be found in the SmPC. **Date of preparation:** January 2020

▽ This medicinal product is subject to additional monitoring. This will allow quick identification of new safety information. Healthcare professionals are asked to report any suspected adverse reactions via HPRA Pharmacovigilance, Earlsfort Terrace, IRL - Dublin 2; Tel: +353 1 6764971; Fax: +353 1 6762517. Website: www.hpra.ie; E-mail: medsafety@hpra.ie. Adverse events should also be reported to A. Menarini Pharmaceuticals Ireland Ltd. Phone no: 01 284 6744.

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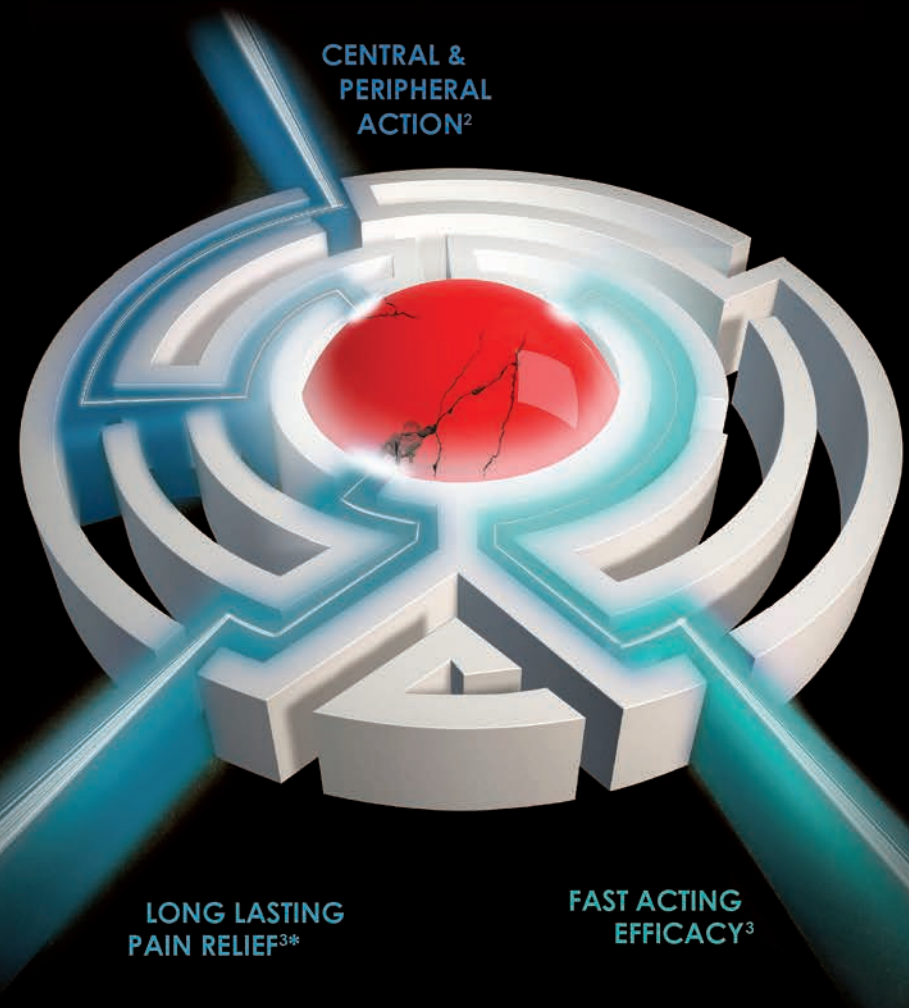

Multimodal analgesia with **central** and **peripheral** action.[2,4,5]

* In a model of acute pain (third molar extraction) Skudexa demonstrated a median duration of action of 8.1 hours post-dose[3]

References: 1. Skudexa Summary of Product Characteristics, October 2019 2. Moore RA et al. BMC Anaesthesiol. 2016; 16:9 3. Moore RA et al. The Journal of Headache and Pain. 2015; 16:60 4. McQuay HJ et al. Br J Anaesthesia. 2016; 116:269-276 5. Gay-Escoda C et al. BMJ OPEN 2019; 9:e023715. doi 10.1136/bmjopen-2018-023715

Date of item: January 2020. IR-SKU-19-2019

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Online success

'Online World: In-Person Dentist' was the Irish Dental Association's first ever fully online Annual Conference.

Embracing a fully online format for the first time, the IDA's Annual Conference took place from April 16-17, and featured an outstanding line-up of speakers from close to home and right across the globe. Delegates could log on to watch lectures at designated times, or at a time that suited them, while social events, networking and a virtual trade show were also available. What follows is a snapshot of the packed programme of speakers, who shared their wealth of knowledge and experience with their colleagues in Ireland.

A reason to smile

Prof. Helen Rodd reviewed the prevalence and aetiology of developmental enamel defects in children, before demonstrating techniques to improve the appearance. Enamel defects in the permanent dentition are very common, and there are multiple aetiologies, from hereditary (amelogenesis imperfecta) to environmental (fluoride exposure, illness in infancy, vitamin D deficiency). This means that the importance of a good patient history and clinical exam cannot be overemphasised. For treatment, Helen prefers a minimally invasive approach that does not destroy teeth at an early age. The options that she favours include tooth whitening, resin infiltration/remineralisation, microabrasion, and use of composite resin. She emphasised the psychosocial impact of these conditions, advising discussion of issues such as patient (and parent) expectations, symptoms, and using photos and shade guides before commencing treatment. Research into the oral health-related quality of life of children who receive treatment for these defects demonstrates a powerful justification for treatment, and high-quality and minimally invasive dental care is important to address psychosocial concerns.

Business development

Dr James Goolnik, a general dental practitioner in London who speaks frequently on dental business issues, continued on from his address to the Association's Practice Management Seminar in January. Reiterating the importance of regular staff appraisal (ideally every six months), he suggested the following questions for use at appraisal:

- what action have you taken on the issues we discussed at the last appraisal?;
- what is your best achievement/most satisfying outcome since the last appraisal?;
- what would you like to achieve in the next six months?;
- where is there room to improve in what we do?;
- what parts of your job do you enjoy most and least?; and,
- in what ways might you contribute more to the company?

Moving on to developing business, he said that we all know that there are three ways to increase revenue: attract more patients; grow the average patient spend; and, grow the frequency of purchase by patients. James said that two easy ways of improving revenue are to increase the average patient spend by selling toothbrushes, and to increase the frequency of dental hygiene visits.

Single and multiple gingival recessions

Prof. Anton Sculean, Professor of Periodontology at the University of Bern in Switzerland, outlined the simple treatment concept that he employs: a flap design that enhances wound stability. If recession is advanced, he likes to use biologic material to enhance periodontal wound healing/regeneration. To increase tissue thickness and improve wound stability, he uses a subepithelial connective tissue graft or soft tissue replacement grafts. Then he uses tension-free flap adaptation and suturing. Anton uses what is called the modified coronally advanced tunnel (MCAT). The procedure is performed with specially designed instruments. In one example, tissue was moved and then the graft pulled and fixed around the cervical part of the tooth. With a second suture, he moved the tissue coronally in order to completely cover the graft and the recession without tension. Mandibular cases are always more challenging, due to the pull of the muscles and thin tissues. For multiple defects, one approach that Anton uses is the MCAT again, where the graft is pulled through the tunnel, and sutured at every recession.

Hypnosis in dentistry

In a fascinating tour of the history of hypnosis, Scottish dentist Dr Mike Gow, a partner at The Berkeley Clinic dental practice in Glasgow, dispelled many of the myths surrounding the practice. These include people forgetting what happened under hypnosis, people losing control under hypnosis, people getting stuck in a trance, or revealing secrets. None of the above are true. Hypnosis in dentistry, in which Mike holds a master's degree, is useful for anxiety management and relaxation, phobia management, and as a complement to sedation. It can, he says, be very powerful when used with sedation. Additionally, stress is a big factor in bruxism and hypnosis can be helpful in treating it. Mike referenced a paper by Derbyshire *et al.* in 2004, which proved that hypnotically induced suggestion is real when used in acute and chronic pain control. He also stated that a dental operation was carried out under hypnosis for a television documentary. He didn't recommend that – but did repeat that he finds that hypnosis in combination with local anaesthesia is very powerful.

Ann-Marie Hardiman
Managing Editor

Additional reporting from
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Physical examination of the head and neck

Dr Theresa Gonzales cautioned against an overly myopic view when examining the head and neck. The dental field of vision can be very narrow and specific, and she advised starting with a wider view, including symmetry and range of motion, before taking a closer look. With a myriad of technology available to dentists, she reminded delegates that ultimately, all physical diagnosis comes down to hands on the patient. Inspection, palpation, percussion and auscultation are all important in assessing a potential lesion. She advised to always look again, and ask the patient how they feel to identify issues with swallow or sensation. She cautioned that patients are skilled at expressing how much pain they are in, but less so at correctly identifying the source of that pain, so advised looking at either side of the painful area, and at range of motion. As always, patient history is vital. She advised listening without interrupting, and encouraging the patient to "tell me more".

Ethics questioned

Susan Gunn advised dentists to think about their own ethics and their own recent decisions. Are you proud of them? Ethics are influenced by our family, gender, friends, age, culture, belief system and work. Sometimes an unethical decision is not illegal. She spoke about social media and how for all the good it has done in terms of connecting people, it has also laid bare some very unethical behaviour. She talked about professional practice ethical dilemmas such as paying personal expenses and marking them down as practice expenses, pocketing cash payments from patients, upselling products or services, flirting with employees or co-workers, and doing clinical work you are not skilled to do. Dentists have the opportunity to create an ethical culture in their practices, or an ethically compromised culture. She encouraged people to write down what moral principles they want to live by. She also recommended looking at other companies' codes of conduct. Everybody has their own ethics, but a code of conduct enables everyone in the practice to work from the same foundation.

Clear aligner techniques

Dr Sandra Khong Tai, Clinical Associate Professor at the University of British Columbia, addressed the Conference on the indications and treatment process for use of Invisalign. There are simple aligner treatments you can do as a general dental practitioner, she said, and outlined the indications for those simple treatments as:

- class 1 minor crowding;
- pre-restorative tooth movement; and,
- orthodontic relapses.

Sandra outlined three case studies – one from each of the above indications. In the class 1 minor crowding instance, she said this can be done with ten aligners. She stressed the use of the 'ClinCheck Plan' in all instances, but especially in pre-restorative tooth movement. In the case of orthodontic relapse patients, she said that patients frequently come back eight to 10 years after initial treatment. They don't have to go back into fixed braces and can be treated in five to 10 weeks by a general dental practitioner.

The face of dentistry today

When a dentist restores a patient's smile, they are changing facial aesthetics, according to Prof. Bob Khanna, so a move to providing other cosmetic procedures to the face is one to which dentists are ideally suited. Prof. Khanna's clinic provides advanced Botox and dermal filler treatments, as well as non-surgical facelifts. He argued strongly that understanding facial anatomy is crucial to carrying out successful and safe cosmetic procedures. He spoke about the loss of skeletal support in the face as we age, and the need to take a macroscopic view, looking at the entire musculoskeletal structure of each patient's face to achieve an appropriate, safe, and natural result. He drew on an extensive collection of clinical photographs (advising that good clinical photography is also vital in treating these patients) to show successful, and less successful, outcomes. As in dentistry, discussing the available options with the patient, and managing their expectations, are vital, particularly in the age of social media.

Rubber dam isolation – the method behind the madness

Dr Céline Higton's presentation went beyond the traditional lecture format, as she carried out a live demonstration of rubber dam isolation technique. She outlined the benefits of rubber dam, including safety, consistency, and the creation of an aseptic, dry environment. She emphasised the importance of communication with the patient, to reassure them and convince them to accept the rubber dam, and outlined solutions to common problems such as jaw ache or claustrophobia.

The most recent research on rubber dam use indicates that three factors that will help in achieving excellent isolation: the right materials and equipment; an effective strategy; and, good techniques.

She described the equipment that she recommends, including the importance of using the appropriate clamps for stability and good retraction. Placing rubber dam is an exact science, but by following the steps precisely, it can be a huge benefit to dental treatment. She asked delegates to remember why they are placing a rubber dam: to simplify the working environment; to improve access and vision; to retract soft tissues; and, for moisture control.

The joy of treating patients with special healthcare needs

Dr Allen Wong offered some frightening statistics on the disparities in healthcare for people with special needs. He argued for change, and that treating these patients can bring joy to the dental practitioner. For people with intellectual disability (ID), which was the focus of his lecture, he said that 85% have a mild disability and can be seen in the general dental surgery, and advised dentists to adapt what they do to welcome these patients. Treatment of patients with ID is not so different to treating the general population, with caries management by risk assessment, preventive treatment where possible, and minimally invasive dentistry the cornerstones of effective treatment. He emphasised the maxim 'nothing about us without us'; people with ID are often dependent on choices made by others, so the role of the dentist, with the person with ID and their carer, is vital to address dental disease.

Restorative focus

This year's conference welcomed several speakers on restorative dentistry.

Dr Monik Vasant, an aesthetic dental surgeon based in London, talked about how the key to achieving seamless restorative aesthetics is to take a minimally invasive approach, and believe in the bond! He outlined techniques for anterior restorations, stating that proper use of composite is vital. He advised understanding the chemistry, handling and shading system of the composite you use, emphasising that shading is more nuanced these days, with natural layering concepts available to achieve an aesthetically and clinically satisfying result. He also discussed the importance of preparation, in particular the use of rubber dam isolation with the appropriate use of clamps and wax floss ligatures. "The endless possibilities of composites" were demonstrated by a range of clinical examples of posterior and anterior cases where the minimally invasive approach achieved excellent results. He also listed the essentials for successful treatment: good clinical photography; good lighting; magnification; brushes; a rubber dam kit; composite; and, polishes.

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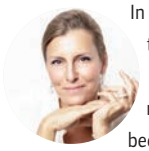
Dr Mauro Fradeani spoke about how when faced with compromised dentition, there must be a balance between aesthetics and function. He talked about tradition versus innovation. In the traditional approach, many teeth go through endodontic treatment. In the innovative approach, Mauro said he tries to keep the vitality of all the teeth. Then you can minimise the aggressiveness of the prep work, and have a chance to bond the restorations, using an adhesion procedure. He spoke widely on the vertical dimension of occlusion (VDO). If it is possible to increase the VDO, there are six main advantages: space for the restorative material; enhancement of aesthetics; rectification of the anterior teeth relationship; re-establishment of physiologic occlusion; minimisation/avoidance of the need for surgical crown-lengthening procedures; and, minimisation/avoidance of the need for endodontic treatment. He said that the main goal is to maintain the tooth structure, and the way to do it is: firstly, increase the VDO; secondly, reduce the ceramic thickness; and, lastly, preserve enamel in order to create the best bond possible.

Dr Chris Orr spoke about how to match up aesthetics and function. If dentists want their restorations to stand the test of time, then occlusion must be considered. He looks for what would be best for the mouth as a whole, not necessarily for each specific tooth. First comes assessment and diagnosis, and then treatment planning. You can't do a comprehensive treatment plan chairside; you need to gather information so you can do it later. In his treatment planning, he first thinks about the aesthetics, then considers what treatment is needed and what treatment or disease is present or previously occurred. He then looks at occlusion – how the treatment will impact function and how these changes can be managed. Chris is very interested in photography and said that there are some analogies between the art and dentistry: "Sometimes everything is perfectly lined up, and you get lucky … Sometimes in dentistry as well, you just get lucky. Other times, the good result that you see is to do with very careful planning".



In her lecture on additive prosthodontics, Dr Francesca Vailati said that instead of focusing on just a single tooth, dentists should focus on something she calls "global vision". She often sees restorative work that will cause bigger problems as the patient ages because the treatment focused on one or a few teeth, while not considering the whole mouth. Francesca said that patients (and even dentists) value front teeth more than the posterior ones. However, posterior teeth protect the anterior teeth and if a patient loses the back teeth, the front teeth will become overloaded. Francesca has a three-step approach: diagnosis; the project; and, finally, therapy. The project is a collaboration between dentist and lab technician. Therapy is never final, as this allows her to correct things that are not working. This process has a high rate of acceptance among patients because there is no pain. It takes less time because she just bonds on top of what is already there. It also costs less because she doesn't completely change the existing restorations.

Dentsply Sirona collaborations

Dentsply Sirona states that it recognises its responsibility to the environment and that it is focused on ways to become a more sustainable business through investment and innovation. In this spirit, Dentsply Sirona has announced its participation as a founding partner in the FDI's Sustainability in Dentistry initiative.

The FDI's Sustainability in Dentistry project was established to motivate and inspire commitment to reduce the collective CO2 footprint of dentistry, targeting practitioners, patients, and the supply chain itself. Don Casey, CEO of Dentsply Sirona, says: "At Dentsply Sirona, we are incredibly proud to be a founding member of the new cross-sector Sustainability in Dentistry partnership with the FDI. Our mission as a company is to improve oral health worldwide and sustainability is core to our strategy". The company is also collaborating with 3Shape, which produces 3D scanners and CAD/CAM software. The two organisations state that they have agreed to work on multiple strategic opportunities in order to improve digital dentistry and oral health. In the immediate term, the partnership will focus on a collaboration for better access of TRIOS users to SureSmile Clear Aligners.

Smart Integration Award

The company is also inviting female dental experts to apply for this year's Smart Integration Award. Dentsply Sirona states that the competition underlines its commitment to the advancement of women in dentistry by showcasing and honouring their novel treatment concepts and ideas for the future.

Heka UNIC from Quintess Denta

Quintess Denta states that Heka's UNIC range of dental treatment centres are created with well-being in mind, combine aesthetics with functionality, and create the perfect environment for a pleasant visit to the dentist.

According to Quintess Denta, the instrument table's handle is fully integrated with UNIC's display and touch pads. The company states that it is easy to find by both eye and hand, even when your attention is elsewhere. With a touch on the cuspidor touch pad, the suction stops, the operating light goes off and the patient's chair adjusts to the rinsing position. Meanwhile, according to the company, the glass fills with water. By touching the cuspidor touch pad again, the patient's chair returns to its previous working position.

Impression material from Coltene

Dr Mahesh Vasireddy is Principal Dentist at York Dental Practice in the UK. He is an experienced dental surgeon, with a special interest in endodontics and cosmetic dentistry. Mahesh believes in providing the highest standard of ethical dentistry and putting his patients first.

He explains why he likes using Coltene's Affinis Black Edition impression material: "I've sent my impressions to several labs – one said they were the best they'd seen! The reason is the black and gold colour combination, so drag or voids can be picked up straight away, with clear margins. I started using Affinis Black Edition heavy body, with Affinis Precious regular body a couple of years ago. These are fantastic, accurate impressions of a full arch prep or a single unit, with excellent colour contrast, that are easy to remove, meaning a comfortable experience for patients".

The Impact of Nutrition and Diet on Oral Health

Zohoori, F.V., Duckworth, R.M. (eds.)

Karger Medical and Scientific Publishers, 2019

Review by Dr M. Crowe

Dublin Dental University Hospital, Trinity College Dublin

The publication of this text is a valuable and timely contribution to the discipline of nutrition and oral health. The editors have compiled a wide range of relevant topics and produced an evidence-based monograph on nutrition that would be a welcome addition to the libraries of universities, dental and medical teams, and dietitians or nutritionists. It is particularly timely as there have been few recent updates to other textbooks on this subject in an era of widespread dietary misinformation.

The book is divided into four parts and the chapters are contributed by those with a particular expertise or relevant research interest.

The first part contains two background chapters that summarise general aspects of diet and nutrition in maintaining health and some specific oral conditions affected by both dietary excesses and deficiencies. Chapter 1 discusses the importance of understanding the differences between diet and nutrition, and provides a concise summary of both macro- and micronutrients. The second chapter provides a brief overview of the most prevalent oral conditions related to diet. In part 2 there are four succinct chapters, with comprehensive references, detailing the specific impact of macro- and microelements and vitamins on oral health. The role of these nutrients in the development and maintenance of oral structures, and the effects of deficiencies or excesses on the main oral disease conditions, is reviewed.

The third part of the monograph is the largest and explores how dietary consumption impacts on oral health. There are detailed chapters focusing on sugar, dairy products, probiotics, and the effects of acidic food and drink on erosive tooth wear. The latter part of this section includes a timely reminder of the potential impact of nutrigenomics and concludes with the role of diet in periodontal disease and nutrient deficiencies. The final part contains one of the most interesting chapters, which focuses on the impact of oral health status on nutrition. This includes diverse topics ranging from the role of effective masticatory function and deglutition to cephalic responses and impaired salivation or taste perception.

Concise and accessible

While no text can include all relevant areas, there are a few areas that would have been worth considering. Given the importance of preventive approaches, guidance on dietary intervention and the specific effects of food-derived constituents in modifying oral diseases would have been a useful chapter. The use of non-nutritive sweeteners and starch hydrolysates as food ingredients is still an area of clinical and applied research interest. Finally, a chapter on dietary assessment and nutritional screening would have been of practical benefit given the lack of training in this area for most dentists.

Overall, the editors have successfully maximised the relevant information in a concise, accessible format, while still providing a thorough update. This is a well-written, engaging and balanced publication that is essential reading for any student or professional interested in nutrition and oral health.

Annual review of your practice safety statement

As dental professionals mark 12 months since returning to routine dental practice, Dr Jane Renehan of Dental Compliance Ltd reminds dentists that the Government's Covid-19 Return to Work Protocol (May 2020) placed an emphasis on the significance of having an up-to-date practice safety statement.

The Government designated the Health and Safety Authority (HSA) to oversee and inspect implementation of the protocol in places of employment. Many dental practices have received a visit from a HSA inspector in the last year.

A safety statement represents the commitment by employers to safety and health in their workplace. It should influence all work activities, both clinical and non-clinical. Employers and their employees have a responsibility to manage hazards identified in their practice safety statement.

Jane advises: "Your safety statement will always be site specific to your premises as no two dental practices are the same. It should contain your unique action plan to safeguard the safety and health of employees, patients and others who attend your practice".

The safety statement demonstrates that an employer has put in place arrangements for the specific hazards identified on their premises. Each hazard is risk assessed and an action is recorded to eliminate or control the problem.

In summary, Jane recommends:

- employers should revisit their practice safety statement and associated risk assessments at least annually, or sooner if there is a significant change in circumstances;
- employers should ensure that the safety statement is brought to the attention of all employees at least annually;
- employers should train staff on how to manage the unique risks in their particular workplace; and,
- employees should be reminded that they have a legal responsibility to abide by this training, thus ensuring their own safety and that of others in the practice.

Coltene's collection

Coltene has a range of products available on the Irish market for dentists. The company states that its Affinis impression material is suitable for your laboratory-fabricated impressions and that it offers the ideal basis for teamwork between dentists and dental technicians. According to Coltene, the secret lies in the unique colour combinations. Coltene states that Affinis heavy body Black Edition provides excellent readability when used with gold- or silver-coloured Affinis Precious. The company believes that when you send detailed impressions to your laboratory, you will elevate the quality of the restoration and patient satisfaction.

There is also Coltene's Brilliant EverGlow. The company states that successful shade matching is key to a good final result and patient acceptance, and that for the ultimate natural-looking restoration, dentists should also use materials that have optimised their translucent properties. The company notes that one clinician said EverGlow "exhibits superb shade matching … the shades, opacities and translucencies mean layering and replication of the variances of enamel and dentine character can be achieved with ease".

Also from Coltene is Brilliant Crios reinforced composite bloc. There are a number of shades available in both high and low translucency, all of which blend well, according to Coltene.

Another product available from the manufacturer is the Brilliant Componeer, which it states is the solution to providing the convenience of single-visit restorative treatments and an end result that is stable, beautiful and good value. The product uses the same sub-micron filler technology as EverGlow, which the company believes is the latest innovation for dentists who want to deliver stunning, functional restorations chairside.

Ethics and aesthetics

When embarking on any programme of elective treatment, particularly cosmetic dentistry, communication and management of the patient's expectations are vital.

It is worth remembering that ever since the earliest days of dentistry patients have sought help with two main issues: the treatment of disease and the improvement of appearance, and not necessarily in that order.

In providing care it is obviously important to ensure that patient needs are met and that there is a shared approach to clinical decision-making. This can be tricky if the patient's wants and expectations are at odds with what is actually required to achieve an improvement in terms of oral health.

One of the biggest ethical challenges in providing dental treatment that is elective and 'wants based' rather than strictly 'needs based' is the necessity to ensure that any intervention proposed will do no harm.

Careful assessment

The key factors to take into account in meeting this challenge are firstly ensuring that there is a very careful and thorough case assessment so there is a clear record of the starting point. Patients often have selective memory. Once treatment is underway, they can all too easily forget what the initial position was.

To ensure that there is a complete understanding of the whole picture, the case assessment should take account of the various patient factors, such as history, motivations, expectations, and the goals the patient hopes the treatment will achieve. In addition, the full range of occlusal, biological and structural factors that form the clinical environment against which any treatment will be carried out, and the existing smile and facial characteristics, need to be taken into account as these will clearly influence the possible outcomes.

Dr Martin Foster BDS MPH DipHSM

Martin is Dentolegal Consultant at Dental Protection

As with treating disease, treatment that is primarily intended to improve aesthetics must be based upon a correct diagnosis of what the issue is if the appropriate options to achieve success are to be correctly identified.

Once treatment options have been identified, it is of critical importance that the patient receives comprehensive information and clear explanations detailing the comparative advantages, disadvantages and costings of each option. It must also be emphasised in all cases where cosmetic treatment is being considered that no treatment is always the first option.

Risk of harm

In terms of fulfilling the primary ethical duty of doing no harm, whenever there is no disease to address, there is inevitably going to be an inherent risk of doing more harm than good when any intervention is undertaken.

On the subject of risk, it should go without saying that a clinician should not embark upon any procedure unless they have the skills and competence to see it through successfully. It may be worth reflecting on the reality that elective procedures are not about fixing damage but are actually about trying not to damage something that is not broken. You do need to be sure you can do this. If in doubt, an onward referral or second opinion may be the best favour you can do your patient and yourself.

Understanding your patient

Cosmetic treatment involves what is going on in the patient's head as well as managing the operative clinical aspects. It is therefore necessary to understand where the patient is coming from. An experienced dentist should be able to carry out an intra-oral and extra-oral assessment effectively, but it can take a fair bit of additional effort to get inside a patient's thought processes and understand where they are coming from in terms of what they see as the problem and what a successful outcome will look like – for them. It is only when you understand the problem from the patient's perspective that you will be able to consider what solutions, if any, can be offered.

You may feel that the problem is obvious but remember you are seeing the situation as a dentist. A dentist will understandably default to dentist solutions

and you may be tempted to suggest a way forward that will not in fact address the patient's problem. So in terms of diagnosis, it is important to spend time actively listening to what the patient is really saying. Assume nothing, ask questions: what are their goals for their teeth/mouth/smile? What will success look like?

Are there any alarm bells ringing for you? If the patient expresses the view that once they have the work done they will get that job/partner/career/success in life that they should have, you may need to think twice about embarking on treatment. You may be able to effect some cosmetic improvement but revolutionising someone's existence is probably not an achievable treatment aim.

The patient may have their own ideas of what the optimum treatment plan is and what the outcome should be, and it is critically important to ensure that this is in alignment with reality. The important fact to bear in mind with any sort of cosmetic treatment is that even the most technically excellent result can give rise to dissatisfaction if it does not match the patient's perception of what success should look like. If there is any doubt as to what is expected, or whether or not you can reach the end result the patient is expecting, it is advisable not to set out on that journey.

A treating clinician has the advantage of understanding the whole process and what is achievable. The duty exists to ensure that the patient shares this understanding, whatever the treatment provided, and this is all the more so for elective procedures.

Consent and confirmation

It can be helpful to think of the consent process as a means of avoiding surprises. When obtaining consent for cosmetic treatment it is worth bearing in mind that patients seeking such treatment are motivated by the primary sensory input of vision. It is all about appearance, after all, so it makes sense to use visual aids, images, models, videos, before and after photos, and illustrated information to get the message across.

Remember also that your patients are real human beings, not computer-generated images, so it is wise to use realistic photos of what can actually be expected rather than images of impossibly perfect teeth radiating from beautifully photogenic faces. You can use clinical images from your own cases for patient education purposes but you should anonymise these and get the patient's permission first.

Having provided the patient with all of the information at your disposal, you need to check that they have retained and understood this. As well as a firm grasp of the treatment itself, the patient should be under no illusions about the fees and the timeframe. It is important to check that the patient has no unanswered questions.

We know that people process information in different ways. Providing the patient with a detailed, written, no-jargon description of what has been discussed can be hugely helpful for a number of reasons. Firstly, it allows the patient to have ready access to the details of the proposed treatment and to refresh their memory of the discussion and explanations provided. As well as this, there will then be a dated, clear statement of the information provided as a useful addition to the record of the patient journey. Importantly, it can serve as supporting evidence of a consent process being followed.

Make haste slowly

Given that many cosmetic procedures are elective, there is generally no clinical urgency. Although there may be a patient-generated impatience to get started, it is advisable to suggest a cooling-off period to allow the patient to reflect and confirm that they are in fact happy to proceed. Although more of a time commitment, it can be a good investment to give patients the opportunity to have a second consultation if they wish.

Treatment should not start until you are satisfied that both you and the patient are on the same page in terms of where you are headed, how you are going to get there, how long it will take and what it will cost.

If ever there was a situation to apply the old maxim "make haste slowly", embarking upon cosmetic treatment is definitely an example. Investing time and effort in careful clinical assessment, identifying the patient's wish list, exploring the options and developing a plan that both sides understand and agree on is time consuming.

On the other hand, taking short cuts with any of these will likely be a false economy and will cost more in time, effort and potential disappointment in the long run.

Problems arise when not enough time is given to clear communication at the outset, so before reclining the chair and working on what is in the patient's mouth, take the time to draw up a chair and work on what is going on in the patient's head. Above all, remember "first do no harm". If there is a risk of more harm than good then ethical sense should prevail over aesthetic sensitivities.

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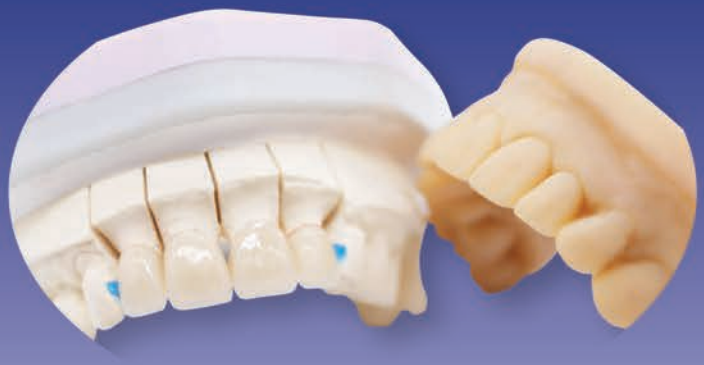

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Oral hygiene: supporting people with ID and their carers

Catherine Waldron PhD, who is interviewed on page 170 of this edition, outlines her research into oral health interventions for people with intellectual disability.

When providing dental care for a person with an intellectual disability (ID), it is important to consider the specific needs of the person and the evidence base for the advice we might provide. The oral health of people with ID is poorer than that of the general population. One of the most basic things we can focus on is ensuring that a person's oral hygiene is the best it can be. This can prevent the need for more invasive, expensive and time-consuming dental treatment in the future.

Toothbrushing is a skill. It needs to be done regularly and may require special tools. It can be difficult for some people to brush well enough to prevent gum disease and tooth decay.

Looking at the evidence

The PhD scholarship I was awarded provided me with the opportunity to make sure that we had the best quality evidence available to us in relation to oral hygiene interventions for people with ID. I undertook a Cochrane review, internationally recognised as the benchmark for high-quality information about

the effectiveness of healthcare interventions. However, I was also aware that a Cochrane review might not provide the full picture; many people with ID require help with their toothbrushing and so the behaviour and attitudes of the people who support them, the carers, might also be a factor. It was for this reason that I also undertook a realist review of carer-led oral hygiene interventions for people with ID.

The role of the carer in supporting, assisting or carrying out the toothbrushing was a crucial element.

The Cochrane review was the first Cochrane oral health review to focus on a population with ID. The main interventions identified in the review compared a conventional manual toothbrush to using a special manual toothbrush and to an electric toothbrush, or compared the provision of oral hygiene training to carers and to people with ID, to providing no training.

The behavioural change elements in the interventions were mapped using the COM-B framework (capability, opportunity and motivation) for understanding behaviour and behaviour change. The most common elements identified focused on improving capabilities using training, modelling or enablement in the skill of toothbrushing, and on opportunities such as setting specific times for toothbrushing, providing different oral hygiene aids, or changing the setting where the toothbrushing took place. Motivation was rarely used.

Findings

Briefly, the review found that the 'Superbrush' may have a greater effect on oral hygiene, but the benefits of using an electric toothbrush compared to a manual toothbrush were inconclusive. The role of the carer in supporting, assisting or carrying out the toothbrushing was a crucial element.

Training carers may increase their oral hygiene knowledge, behaviour, attitudes and self-efficacy, and reduce levels of gingival inflammation among the people they care for. Additionally, the review found that people with ID can acquire the skills to undertake some or all of the steps involved in toothbrushing and this may reduce their plaque levels. However, generally the quality of the data in the studies was poor, and the clinical relevance of the findings unclear.

Realist review

The purpose of the realist review was to consider how, why, when and for whom oral hygiene interventions work, rather than if they work. It was undertaken to identify the contexts and mechanisms that influence the outcomes, implementation and sustainability of carer-led oral hygiene interventions for people with ID, and found the following:

- the content and delivery of oral care training for carers, such as setting goals with achievable steps, and support from the organisation, with regular feedback to carers in relation to the impact of their input, all play important roles in the success of interventions;
- devoting time to the planning and design stages of interventions, involving the stakeholders and providing clear statements of how the initiative is expected to work and the behaviour change techniques being used, is important; and,
- the need for resources to ensure sustainability, in the form of staff and training, and for evaluation of the intervention, must be built into the budget.

The physical and emotional toll on carers when providing consistent care to people with ID, who may often not understand the need for the care and resist it, was startling in this review. We need to show understanding and empathy, and provide support to the carers we meet when providing dental care to the people they care for.

Although the findings predominantly relate to group interventions, many of the elements can be applied to individual interactions with people with ID and their carers in practice:

- set achievable goals;
- provide support and praise; and,
- refresh the health messages regularly.

Please find more details in the two reviews:

- Cochrane Review of Oral hygiene interventions for people with intellectual disabilities: https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD012628.pub2/full
- What is it about carer-led oral hygiene interventions for people with intellectual disabilities that work and why? A realist review: https://onlinelibrary.wiley.com/doi/abs/10.1111/cdoe.12564

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are being explored with the support of the professional representative bodies, the City of Dublin Education and Training Board, SOLAS and the Dental Council. An education stakeholder event led by the Deans of the two dental schools has been completed. A proposal to the HRB to review undergraduate education models across the EU is being finalised. We'll also be engaging with the Dental Council in this regard".

DTSS

The Minister said that he was aware of the issues with the Dental Treatment Services Scheme (DTSS), and expressed concern at the reduction in the number of dentists participating in the Scheme. He stated his commitment to ensuring the sustainability and viability of the Scheme, saying that he was "committed to a root and branch review of the Scheme as it simply has not kept pace with today's preventive approach to dental intervention", and that the oral health policy could provide a policy context for this review.

I'm anxious to ensure that there are no barriers to engagement between the Department and the IDA.

IDA President responds to Minister

Outgoing IDA President DR ANNE O'NEILL gave a wide-ranging response to the Minister's speech, an extract from which is included here.

"If we are truly interested in providing a patient-centred system to support oral health, we must keep the needs of the patient in focus when considering any changes to the existing system.

"The implementation of the Dental Health Action Plan of 1994 was hailed as a positive step in the recognition of the importance of oral healthcare. The Dental Health Action Plan, like Smile agus Sláinte, recognised the importance of child dental health and committed to expanding the resources available for the provision of child services to pre-school and post-primary school children under 16. So in this regard, the new policy reflects the ambitions of its predecessor. The principles of preventive and restorative care, which we see in the recent policy, are nothing new – the only new element is that the policy assumes that this care will now be readily available from private or independent practitioners.

"At present, the vast majority of areas within the HSE dental service are losing the battle to provide second, fourth and sixth class targeted services, and that struggle started long before Covid. The reason for this is the complete failure to provide adequate resources for necessary care. The imposition of financial restrictions across the HSE, repeated employment embargos and no development plans while waiting for the new oral health policy have all contributed to where we are now, and where we are now is not good. There were nearly 227,000 fewer attendances for dental care in the HSE in 2020

Minamata legislation. The European discussions on undergraduate education will not help them over the next 12 months when they need to have their toothache managed or are told their filling won't be funded."

Expertise of dentists

"Our members, both HSE and independent practitioners, have a vast knowledge of where patient interests lie, the barriers they face in accessing care, the types of treatments they are interested in, the knowledge they have in improving their own health and, more importantly, the habits they have that influence poorer oral health. We have, however, lost faith in the ability of the Department to listen to the profession and incorporate the learning into real and substantial change. Patients need access to care now. The provision of dental care requires access to dentists.

> *In February 2021 – a single month – the DTSS funded the extraction of 10,387 teeth.*

"Where dentists are contracted in their own surgeries to provide care through public funding (which is a key element in the new policy), the funding mod

Representation and respect

IDA CEO FINTAN HOURIHAN, in his address to the AGM, looked back on the challenges of the past year, and outlined the Association's plans for the future.

Our members deserve professional representation

The IDA was promised the same type of Framework Agreement to that agreed with the Irish Medical Organisation in 2014 to allow us to represent our members in general practice. To date, that promise has not been delivered by the Department of Health. The IDA has taken the initiative and presented an adapted version of the Framework Agreement to the Department. We insist that the threat of criminal prosecution against our members and the Association must be removed before we enter any talks on replacing the DTSS. Ultimately, the Association needs a strong membership to support our case with the Department of Health, but also to prove that the Association is the representative body, with so many members that it cannot be ignored if reforms are to be introduced successfully. It has never been more important to be a member of the Irish Dental Association, to play an active part, to make your views known, to support your representatives, and to stand together for a better future for dentists and their patients.

Greater advocacy

The last year has shown that we have many challenges to face in advocating for the profession to an ever-greater constellation of stakeholders. We have a plan to significantly enhance our advocacy work in the coming year and we will be seeking the active involvement of all our members. As an Association we need to build our capacity in terms of staff and volunteers, but also to engage members and take greater advantage of the expertise

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Oral care for patients with cystic fibrosis

Précis

This clinical feature outlines the systemic manifestations, pharmacological management and dental management of patients with cystic fibrosis.

Abstract

Aim: To outline the systemic manifestations and pharmacological management of cystic fibrosis. Oral manifestations and considerations for the provision of dental care are also addressed.

Methods: A literature search was conducted to identify medical and dental manifestations of cystic fibrosis. These findings were then used to provide recommendations regarding the provision of dental care for people with cystic fibrosis.

Results: Cystic fibrosis is a multiorgan condition. There are no known disease-specific contraindications for the provision of dental treatment. However, dentists can implement protocols to facilitate and encourage regular dental attendance.

Conclusion: Further research should be conducted to assess the oral health of people with cystic fibrosis, notably caries and periodontal status, so that, if necessary, appropriate care strategies and guidelines can be developed.

Introduction

Cystic fibrosis (CF) is a chronic condition caused by a mutation of the cystic fibrosis transmembrane conductance regulator (CFTR) gene. Ireland has the highest incidence of CF in the world, with one in 1,461 live births reported as CF positive and a carrier rate for the CFTR mutation reported at one in 19.[1] The pulmonary and gastrointestinal systems are primarily affected; however, disease manifestations are seen across multiple organ systems (**Table 1**).

Pathophysiology

Mutations of the CFTR gene affect chloride ion channel function, which leads to the dysregulation of epithelial fluid secretions. Hyperproduction of thick mucous secretions causes obstructions of organs. People with CF (PWCF) experience recurrent or chronic pulmonary infections due to impaired mucociliary clearance, which allows pathogens to accumulate.[2] Childhood pathogens responsible for pulmonary infections, such as *Haemophilus influenzae* and *Staphylococcus aureus*, are superseded by *Pseudomonas aeruginosa* in adolescence. This pathogen is the predominant cause of pulmonary mortality and morbidity in CF.[3]

Table 1: Manifestations of cystic fibrosis.

Pulmonary	Impaired mucociliary clearance Recurrent lung infection Diminished expiratory flow rate and volume Bronchiectasis Shortness of breath
Pancreatic	Pancreatic insufficiency Pancreatic cyst Pancreatitis Gastroesophageal reflux disease (GERD)
Gastrointestinal	Meconium ileus Distal intestinal obstruction syndrome Constipation Rectal mucosal prolapse
Hepatobiliary	Portal hypertension Cirrhosis Liver failure
Other	Salty skin and sweat Diabetes Osteoporosis Infertility

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Table 2: Causes of nutritional failure.

Laboured breathing
Inflammatory catabolism
Increased calorie requirements
Cystic fibrosis-related diabetes
Intestinal dysmotility
Pancreatic enzyme insufficiency

Table 3: Oral manifestations of cystic fibrosis.

Development defects of enamel
Tooth discolouration (tetracycline staining)
Xerostomia
Oral candida
Mouth breathing
Anterior open bite (associated with chronic nasal obstruction and sinusitis)

FIGURES 1: Routinely prescribed inhalation therapies.

FIGURE 2: CREON pancreatic enzyme replacement supplement.

Gastrointestinal (GI) complaints predominantly arise from mucous inspissation and dysmotility. Nutritional failure (**Table 2**) is a primary concern for PWCF, with multiple studies showing that nutritional status is a strong predictor of morbidity and mortality.[4] Pancreatic enzyme insufficiency affects approximately 85% of PWCF. It causes malabsorption and maldigestion of nutrients and fat-soluble vitamins A, D, E, and K.[5] CF-associated liver disease (CFLD) affects approximately 30-50% of patients, with symptoms generally developing before or during adolescence. CFLD is characterised by slow disease progression and manifestations can vary from mild asymptomatic high levels of liver enzymes to cirrhosis.[6] CF-related bone disease has been reported in up to 15% of PWCF. Causes include:[6]

- CFTR gene mutation;
- vitamin D deficiency;
- nutrition deficiency;
- diminished production of sex hormones;
- increased inflammatory cytokines; and,
- glucocorticoid therapy.

Oral manifestations

Oral manifestations of CF are outlined in **Table 3**. The dysfunction of the CFTR gene, recurrent systemic infection and long-term antibiotic use have all been linked to the formation of developmental defects of enamel.[7] Clinical consequences of such defects include:

- hypersensitivity;
- aesthetic concerns;
- increased risk of erosion; and,
- increased risk of caries.

Up to 81% of adults with CF experience gastro-oesophageal reflux disease (GERD),[8] which further increases the risk of erosion and caries. Current research provides conflicting results regarding the caries and periodontal risk status of PWCF. Studies indicate a lower caries prevalence in children with CF, which has been attributed to paediatric antibiotic treatment reducing levels of cariogenic

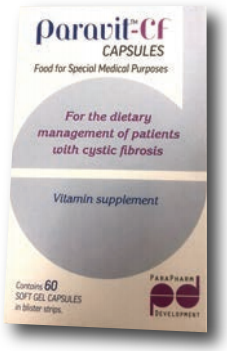

FIGURE 3: Paravit vitamin supplement often taken to combat malnutrition.

FIGURE 4: Desunin and Altavita D3, both used to prevent and treat vitamin D3 deficiency.

bacteria. Adolescents and adults show equal or higher caries incidence compared to non-CF patients.[9]

Multiple risk factors may predispose PWCF to oral candida. These include:

- impaired salivary gland function;
- inhalation antibiotic and steroid therapy; and,
- high carbohydrate diet.

Medical management

Medical treatment is a lifelong commitment involving a multidisciplinary team of healthcare professionals. Multifaceted developments in treatment have led to an improvement in quality of life and an increase in the median age of survival from 36.6 years to 44.4 years over the last decade.[10] Mainstay daily treatments for the symptomatic relief of CF include inhaled and oral medications (**Figure 1**), and airway clearance.

Malnutrition is prevented with pancreatic enzyme replacement supplements and increased calorie intake. Increased calories are met with nutritional supplements and grazing dietary habits, which in turn increase caries risk (**Figures 2**, **3** and **4**).

FIGURE 5: Kalydeco gene modulator therapy.

Gene therapy drugs such as Orkambi, Kalydeco and, more recently, Kaftrio, have significantly advanced CF treatment by targeting the underlying genetic mutation (**Figure 5**). Their indications and efficacy depend upon an individual's CFTR variant.[11]

Dental treatment

Dental treatment can be provided safely to PWCF in a general dental setting. Currently there are no disease-specific contraindications for the provision of dental care to these patients. However, dental practitioners should be aware of complications that may arise from comorbidities:

- vitamin deficiencies;
- liver disease; and,
- bone disease.

Prolonged postoperative bleeding can arise in cases of vitamin K deficiency and CFLD through disruption of hepatic synthetic function.[12] CF-related bone disease treated with bisphosphonate therapy is accompanied by the risk of medication-related osteonecrosis of the jaw post extraction.

Dental prescribing

Dental analgesia is essential for PWCF, with several studies reporting an explicit interaction between pain and a restriction to perform physiotherapy and exercise.[13] Local anaesthetic can be used in accordance with the usual precautions. In the absence of severe renal impairment and hepatic failure paracetamol is well tolerated for pain management. Non-steroidal anti-inflammatories (NSAIDs) such as ibuprofen have been used in the systemic pain management of CF; however, for the management of odontogenic pain they should be used prudently. Opioid analgesics for dental pain should be avoided due to their potential to cause pulmonary depression, reduced bowel movement and constipation. Caution should be exercised when prescribing antibiotics as allergic reactions are more common in PWCF than in the general population. This is due in part to increased exposure.[14]

Considerations for dental practice

As previously discussed, routine dental treatment offers few problems specific to CF. Nevertheless, dental practitioners can implement additional measures to facilitate and safeguard these patients. These measures include:

- appointment allocation to minimise patient-to-patient contact, e.g., first appointment of the day – this is particularly relevant amidst the ongoing Covid-19 pandemic and in an aerosol-laden environment;
- appointments for non-sibling PWCF should not be scheduled on the same day to minimise the risk of transmission of pathogens, notably *P. aeruginosa*, between patients;
- limiting treatment provision to a single allocated surgery;
- ensuring that all staff members do not have any transmissible illness, e.g., colds, coughs;
- enforcing meticulous cross-infection control and dental chair waterline disinfection;
- shorter appointment times and regular breaks during treatment; and,
- providing dental treatment with the patient in an upright or semi-upright position in the dental chair to facilitate the clearance of airway secretions (**Figure 6**).

FIGURE 6: Provision of dental treatment with patient in an upright position.

Continuity of care

Despite major advances in the medical management of CF, solid organ transplantation remains a viable treatment option for end-stage pulmonary disease. Dental assessment and appropriate treatment are considered in most transplant centres to be a compulsory prerequisite for solid organ transplantation. Continuity of dental care throughout a patient's life is incredibly important as an exacerbation or flare-up of an odontogenic or periodontal infection can lead to the postponement or cancellation of

transplant surgery. A comprehensive understanding of the primary disease, disease complications and disease management will allow dental practitioners to provide dental treatment in a safe, effective and reassuring environment for patients with CF.

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Oral and peri-oral piercings: impact on the gingival tissues

Précis

Oral and peri-oral piercings have been well documented to have destructive effects on both the dental hard tissues, and the oral and periodontal soft tissues. This paper presents two case reports, which highlight the effects of such piercings on the gingival tissues and possible treatment options available.

Abstract

Introduction: Oral and peri-oral piercings have increased in popularity in recent years. As a result, general dental practitioners are more frequently seeing the destructive effects within the oral cavity. In this paper we will discuss two cases of gingival injury as a result of lip and tongue piercings, and their management.

Discussion: The purpose of this paper is to highlight the potential negative effects of oral and peri-oral piercings, and the possible treatment options available, so that the dental team can discuss these with patients.

Conclusion: These cases highlight the destructive effect of oral and peri-oral piercings on the gingival tissues, while demonstrating a treatment option to deal with gingival recession.

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Introduction

Body piercings have been around for over 4,000 years; however, they have recently become more prevalent within society. The practice of body piercing was originally of cultural significance; lip piercings in Inuit culture symbolised a boy's transition to manhood, and an act of purification for girls.[1] Tongue piercings were practised in a ritual form by ancient Aztecs and Mayans.[1] However, nowadays oral and body piercings are used as a form of self-expression.[1]

A 2012 systematic review of the prevalence of oral piercings in young adults from developed countries in Europe, North America, Asia and Australia reported that 5.2% of 11,249 young adults had an oral piercing.[2] A 2016 survey conducted by the Oral Health Foundation in the United Kingdom (UK) to investigate oral piercing trends found that tongue piercings were the most common oral site at 43%, followed by lip piercings at 33%. Other anatomical sites included: frenulum (7%); cheek (3%); and, sites such as gingival piercings.[3] Undoubtedly, as dental practitioners, we will see a considerable number of patients with a peri-oral piercing.

Oral and peri-oral piercings hold a special interest for the dental profession and the dental team must become aware of their associated risks and complications. In the UK, the incidence of reported medical complications associated with oral piercings in 16 to 24 year olds was 50.1% in those who had tongue piercings and 20.5% in those who had lip piercings.[4,5] Early complications include pain, swelling and local infection.[6] More serious complications include Ludwig's angina[6] and hypotensive collapse as a result of haemorrhage.[7]

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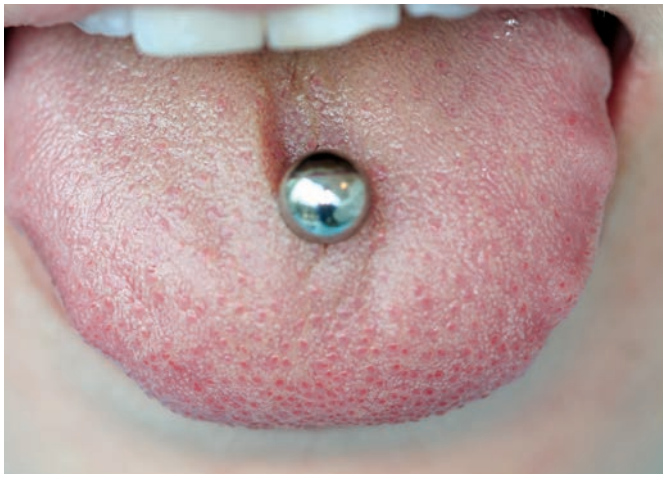

FIGURE 1: Large tongue barbell on dorsum of tongue.

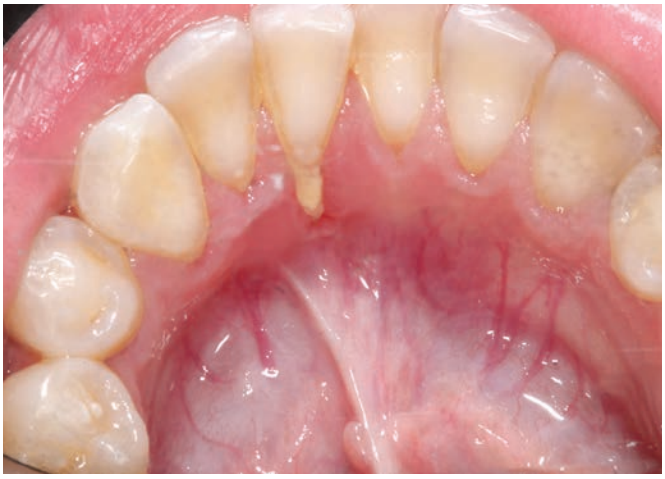

*FIGURE 2: 7mm of gingival recession lingual on tooth 3.1. Miller Class 2 GR (**Table 2**).[30]*

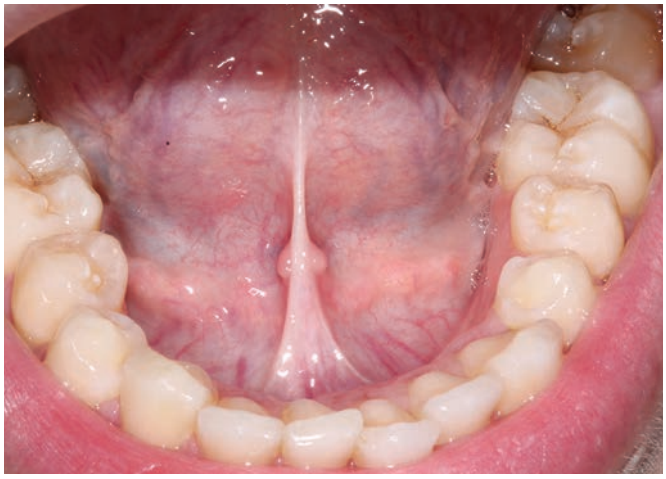

FIGURE 3: Broad frenal attachment.

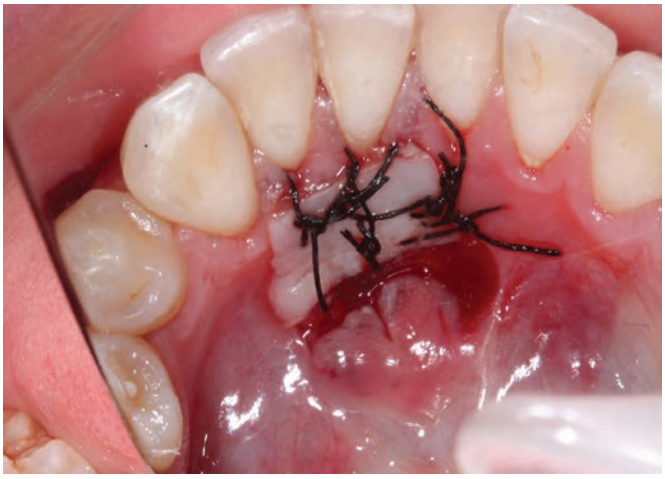

FIGURE 4: FGG donor site was the left hard palate and recipient site was the lingual of tooth 3.1.

Dental complications include those of both hard and soft tissues, with reports of abrasions, cracks[8] and fracture of teeth,[9] pulpal damage resulting in loss of tooth vitality,[10] gingival recession (GR), periodontal destruction, galvanic reactions, hypersalivation and localised tissue overgrowth.[11,12]

This paper illustrates the localised gingival soft tissue destruction caused by peri-oral piercings and possible treatment options available to manage their consequences. Both patients were referred to the Dublin Dental University Hospital by their general dental practitioners (GDPs).

Case 1

A 24-year-old female was referred for a specialist periodontal assessment regarding GR on the lingual of tooth 3.1.

Her presenting complaint was that her gum had been "stripped back by a tongue bar" (**Figure 1**), which she had worn for approximately six years without removal. Medically she was fit and well, was a never smoker and moderate alcohol drinker. She was an avid kickboxer and she wore a mouth guard. However, she was worried that her front tooth might be weakened due to the GR and could be knocked out.

Extra-orally, no abnormalities were detected. Intra-orally, bilateral linea alba on her buccal mucosa and crenations on the lateral borders of her tongue were noted (**Figure 1**), suggesting hyperactivity. She had a moderately restored dentition with some incisal edge enamel fractures. Her oral hygiene was fair and her periodontal diagnosis was of localised gingivitis with a thin gingival biotype. A 7mm area of GR with associated bone destruction was noted on the lingual of tooth 3.1. There was calculus build-up on the lingual surface of tooth 3.1 (**Figure 2**) and also on the sublingual aspect of the tongue barbell she wore. In conjunction with the GR, she had a high and broad lingual frenal attachment (**Figure 3**). Radiographic examination did not reveal any pathological change.

Following discussion, a treatment plan was agreed: advice to remove the tongue piercing; oral hygiene instruction; supra-gingival tooth debridement; re-evaluation of the periodontal health following cause-related therapy; and, finally, placement of a free gingival graft (FGG). Following improvement in oral health, surgical management included lingual frenectomy and preparation of the FGG recipient site lingual to tooth 3.1. An FGG graft was harvested from the donor site on the left hard palate, positioned onto the recipient site on the lingual of tooth 3.1 and sutured in place (**Figure 4**).

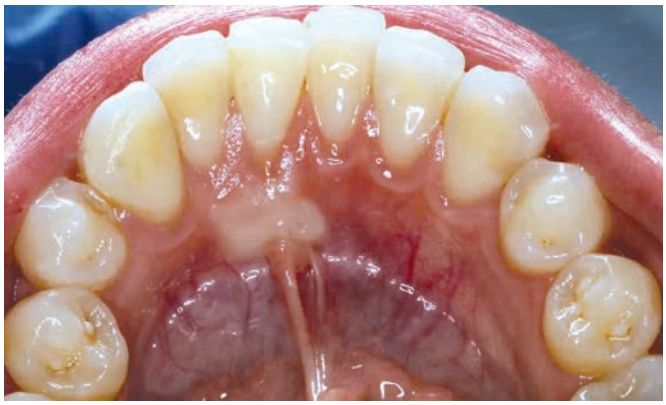

FIGURE 5: Healing five years post FGG placement (recipient site).

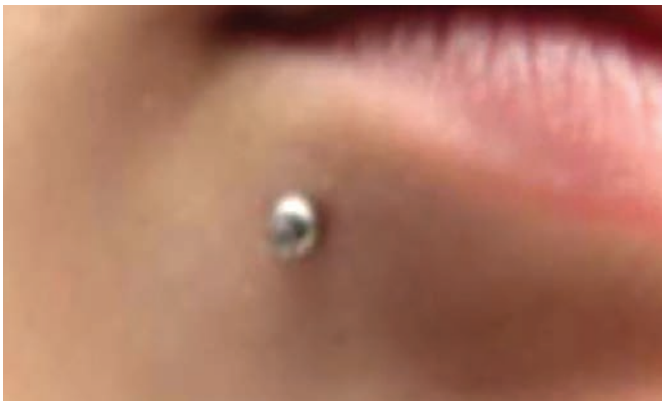

FIGURE 6: Lip piercing.

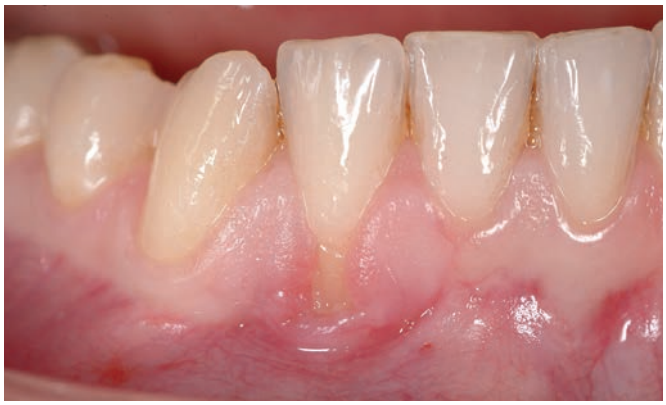

*FIGURE 7: Buccal gingival recession as a result of lip piercing. Miller Class 2 GR (**Table 2**).*[30]

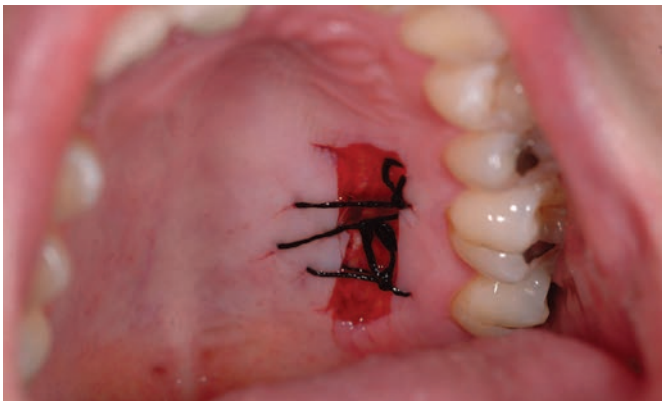

FIGURE 8: Donor site from the left hard palate.

Healing was satisfactory at three months and the patient returned to her GDP for follow-up care. Review at five years post treatment found that healing in the area was excellent with a well-defined, stable grafted site and increased root coverage of tooth 3.1 (**Figure 5**).

Case 2

A 30-year-old female was referred to the Dublin Dental University Hospital for advice regarding an area of buccal GR and tooth sensitivity associated with her mandibular right lateral incisor (tooth 4.2). She had been wearing a lip stud for approximately five years before initial presentation (**Figure 6**).

Medically she was fit and well, and was a never smoker. Extra-orally, no abnormalities were detected. A lip piercing was present on her lower lip, right side. Intra-orally, she had a minimally restored dentition. Oral hygiene was good and periodontal status was healthy. The gingival biotype was thin. On the buccal aspect of tooth 4.2, a 5mm area of GR was recorded (**Figure 7**).

The various treatment options were discussed with the patient, including: conservative monitoring of the area for a period of time to see if the gingival recession was progressive; or, surgical correction of the area of GR with soft tissue grafting (connective tissue or FGG). It was agreed that following removal of the piercing and excellent oral hygiene, an FGG procedure could be carried out in the area. The patient was advised to gently use a single-tufted toothbrush to remove dental plaque from the area affected by GR.

Following removal of the lip piercing, the recipient site was prepared buccal to tooth 4.2. An FGG was harvested from the donor site on the left hard palate (**Figure 8**). Sutures were placed across the donor site to assist healing and reduce the risk of postoperative bleeding.

The FGG was positioned on the prepared recipient site buccal to tooth 4.2 and was sutured in place. Healing was followed up for 36 months postoperatively as the patient moved abroad. The grafted area healed well and 3mm of root coverage was achieved (**Figures 9a** and **9b**).

Discussion

The cases described above highlight potential gingival and dental complications that may be caused by lip and tongue piercings, in particular both buccal and lingual GR, localised bone destruction and tooth wear. Compounding factors such as a prominent buccal or lingual fraenum, thin gingival biotype, malocclusion and parafunctional activity were also considered.[13] Other causes of GR include oral habits such as 'picking' at the gingiva with fingernails and post orthodontic therapy. More serious medical complications may also occur, as previously described.[4-7]

Lip piercings

The literature has shown that severity of GR is markedly increased in patients with lip rings or studs *in situ*.[12,14-17]

Studies on lip piercings alone have highlighted the increased prevalence of GR on the buccal aspect of teeth adjacent to the intra-oral portion of the piercing.

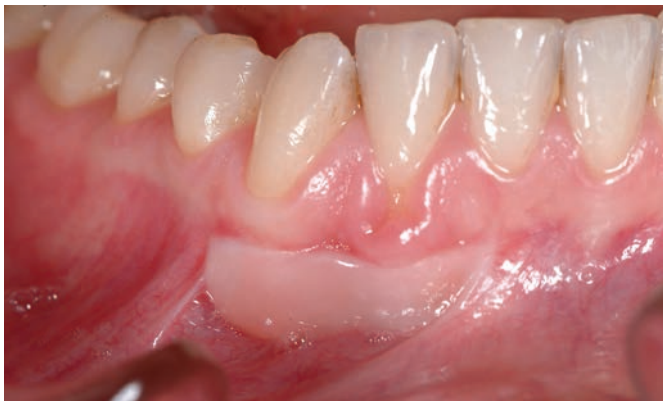

FIGURE 9a: Follow-up at six months postoperatively.

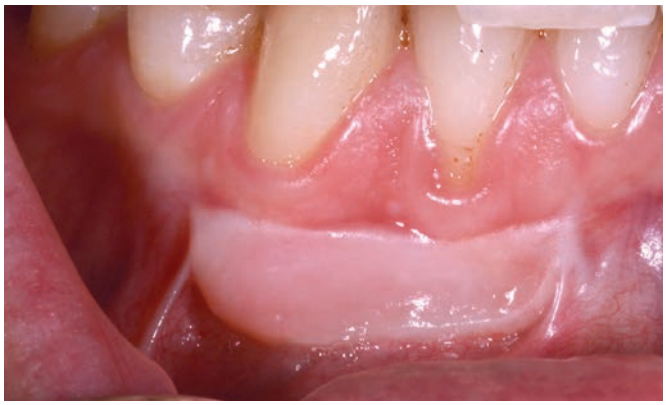

FIGURE 9b: Follow-up at 36 months postoperatively.

Split-mouth studies on patients with lateral lower lip piercings also confirm these findings.[18]

The prevalence of GR is 68-80% in patients with lip piercings compared to 4-22% in control groups.[14,16,17] The time since the piercing was placed and the position of the stud are significantly associated with gingival recession.[17] However, there appears to be no abnormal tooth wear associated with labial piercings.[19]

Labial GR is clearly related to the labial stud, which would have to be in constant contact with the keratinised tissue in this area. The width of keratinised tissue is directly related to the amount of buccal GR.[16]

Tongue piercings

The tongue is the most prevalent site for an oral piercing and the piercing is typically situated just anterior to the lingual fraenum along the midline.[20] Oral complications from tongue piercings have been well documented.

Trauma to the lingual gingival tissues of the anterior teeth is the most common complication found in patients with tongue barbells. Studies report the prevalence of lingual GR ranging between 3 and 33%.[21-23] The extent of GR is directly correlated with the amount of time the tongue piercing has been worn. The mandibular incisors are the most commonly affected at 88% and maxillary teeth do not appear to be affected.[22] This reinforces the contribution of the mechanical action of the tongue barbell, during tongue protrusion, to GR on lingual surfaces of mandibular incisors.[23]

Table 1: Treatment options to manage gingival recession.

1.	Accept the area of GR and monitor with photographs and clinical measurements to assess progression. If progressive, or causing aesthetic issues, corrective procedures should be considered.
2.	Frenectomy
3.	Lateral rotational graft
4.	Double papilla graft
5.	Free gingival graft (FGG)
6.	Sub-epithelial connective tissue graft
7.	Coronally advanced flap
8.	Free-gingival graft followed by a coronally advanced flap

Table 2: Miller's classification of gingival recession defects.[30]

Class 1	GR not extending to the mucogingival junction (MGJ)	Complete root coverage is achievable – 100%
Class 2	GR extends to or beyond the MGJ, with no interdental periodontal attachment loss (i.e., bone, soft tissue)	Complete root coverage is achievable – 100%
Class 3	GR extends to or beyond the MGJ, with moderate periodontal attachment loss in the interdental area	Only partial root coverage possible to the height of the contour of interproximal tissue – 50-70%
Class 4	GR extends to or beyond the MGJ, with severe periodontal attachment loss in the interdental area	Root coverage is unpredictable

Dental fractures are the most commonly observed hard tissue complication of tongue piercings, with some studies reporting fractured teeth in up to 50% of individuals with these piercings. Results from studies suggest that posterior teeth are more commonly affected and this is due to trauma caused by biting on the tongue barbell. It has also been reported that abnormal tooth wear can occur following barbell placement and this may contribute to cracked tooth syndrome.[24]

It has been suggested that mechanical trauma from repeated, habitual holding or moving the stud between teeth can lead to periodontal destruction similar in fashion to the effect of occlusal trauma on bony tissue.[25]

Finally, potentially serious post-placement complications including oedema, haemorrhage and infection may occur. Individuals should be advised about these prior to placement.[25]

Treatment options

GR is described as the displacement of the soft tissue margin beyond the cementoenamel junction leading to root exposure.[26] There are several treatment options to manage GR (**Table 1**). Further information regarding management of GR can be found in any good clinical periodontology textbook.[26] This paper focuses on FGGs and frenectomy.

FGGs are autogenous, keratinised, soft tissue, avascular grafts, which are transferred from an area distant to the area of GR to cover the defect. These techniques are used where there is inadequate donor tissue close to the recipient site, or where the aim of treatment is to increase the width of attached gingiva, tissue thickness or for root coverage. The graft is taken from the donor site completely devoid of a blood supply, relying on the recipient site for restoring blood supply. There are, however, some disadvantages to the FGG procedure. Aesthetics may be compromised given the difference in colour between the FGG and the surrounding mucous membrane, and there is a denudated surface left behind on the palate, which heals by secondary intention. Despite this, FGGs have a long history of being highly predictable and successful in the appropriate situation.[27] It is also interesting to note that root coverage can be expected to improve further with time.[28]

In patients with a high or broad frenal attachment, a frenectomy can be considered in conjunction with an FGG. A frenectomy involves removing the frenum along with the attachments to the underlying bone. This removes the 'pull' on the labial and/or lingual gingivae, helping to prevent recurrence of the GR defect.[29]

The use of a subepithelial connective tissue graft is also an excellent technique to cover single or multiple areas of GR.

A decision regarding the most appropriate procedure to achieve coverage or stabilisation of areas of GR can be made following detailed assessment and on a case-by-case basis.

Conclusion

The GDP and dental hygienist should be aware of the potential consequences of oral and peri-oral piercings given their increased prevalence in today's society. Practitioners should take time to discuss complications of oral piercings with patients and encourage removal. If piercing-related complications occur, the relevant treatment modalities must be clearly discussed with the patient, including conservative removal of the piercing and monitoring of the affected site for any progression of the problems. If the area of gingival recession is progressive, is causing aesthetic issues or is associated with tooth sensitivity, the dentist should consider appropriate management options, including referral to a periodontist.

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CPD questions

To claim CPD points, go to the MEMBERS' SECTION of www.dentist.ie and answer the following questions:

1. The most common site for an oral piercing (according to the Oral Health Foundation in the UK) is:

- ○ A: Lip
- ○ B: Tongue
- ○ C: Gingivae
- ○ D: Uvula

2. The type of tissue transferred in a free gingival graft is:

- ○ A: Keratinised tissue
- ○ B: Non-keratinised tissue
- ○ C: Muscle
- ○ D: Adipose tissue

3. What is the most common hard tissue complication of a tongue barbell?

- ○ A: Cracked tooth syndrome
- ○ B: Devitalisation of teeth
- ○ C: Fractured teeth
- ○ D: Lingual gingival recession

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CPD

Candida: case report of an uncommon presentation of the common culprit

Précis

Oral candidiasis is a relatively common infection, which can significantly impact on patient quality of life. While clinicians are aware of the common presentations of *candida*, we highlight an atypical presentation.

Abstract

Candida albicans is present as a normal commensal fungus of the oral cavity in 35-69% of the healthy adult population. Infection is caused by an overgrowth of these normal fungi, which can be precipitated by systemic or local host factors. Thrush is a well-known and recognisable presentation of oral candidiasis; however, it is prudent that clinicians be aware of other less common presentations.

Here we describe a case involving soft tissue changes in the oral cavity that proved to be a diagnostic challenge for clinicians across various disciplines. This case aims to highlight the diagnostic dilemma that can face clinicians when diagnosing oral lesions and the benefits of a multidisciplinary approach. Candidiasis may not always present as a white coating on the mucosa, but can also cause soft tissue changes of the tongue. The patient's medical history should be thoroughly inspected to identify any potential contributing factors.

Keywords: *Candida*; *Candida albicans*; oral manifestation; tongue nodule; fissured tongue.

Journal of the Irish Dental Association June/July 2021; 67 (3): 156-160

Introduction

Various species of *Candida* are present as normal commensal fungi of the oral cavity. Carriage of *Candida* in the oral cavity is reported to be as high as 69% in the normal, healthy adult population.[1-3] A variety of local and systemic host factors can lead to an overgrowth of the opportunistic pathogen (**Table 1**).[4] It is likely that the increasing prevalence of antibiotic and steroid use, along with an ageing or medically compromised patient population, has contributed to an increased incidence of symptomatic *Candida* in recent years.[5] Candidal infection commonly presents as a white, creamy coating on the mucosa that can be scraped away leaving a red erythematous appearance.[6] Symptoms such as a burning, tingling or stinging sensation are not uncommon.[7] Other, more discrete presentations are possible (**Table 2**).[8]

Case report

We present an atypical case of candidal infection in a postmenopausal woman. An asymptomatic, fissured, nodular appearance of the right dorsum tongue was noticed by the patient in December 2018. This appearance prompted the patient to attend her general medical practitioner (GMP). The tough, fibrous lesion measured approximately 2cm in length by 1cm in width on presentation. On attending her GMP, a referral was made to an ear, nose and throat (ENT)

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Table 1: Local and systemic factors predisposing to candidiasis.[4]

Local factors	Systemic factors
Impaired local defence mechanisms	Impaired systemic defence mechanisms
Decreased saliva production	Primary or secondary immunodeficiency
Smoking	Immunosuppressive medications
Atrophic oral mucosa	Endocrine disorders – diabetes
Topical medications – corticosteroids	Malnutrition
Mucosal diseases (oral lichen planus)	Congenital conditions
Altered or immature oral flora	Broad-spectrum antibiotic therapy
Poor oral hygiene	
Dental prostheses	

Table 2: Differential diagnosis on presentation.

- Fibrous hyperplasia
- Wegener's granulomatosis
- Lichenoid reaction
- Oral lichen planus

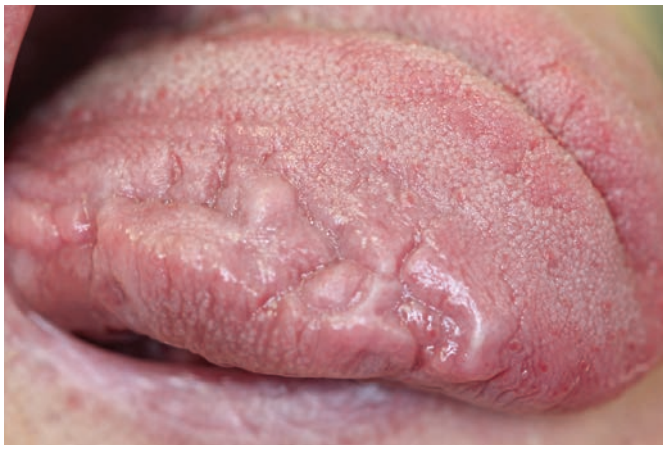

FIGURE 1: Lesion on presentation on the right lateral tongue.

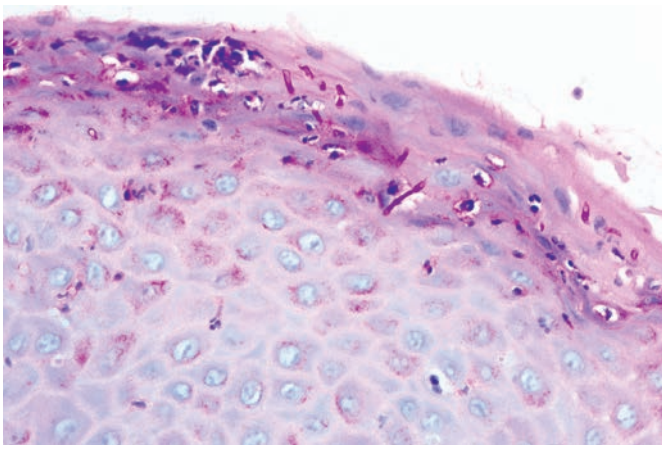

FIGURE 2: 40x image of a PAS stain highlighting fungal hyphae within the parakeratin layer.

consultant in South Infirmary University Hospital, Cork. The lesion remained asymptomatic, but the tongue felt enlarged and swollen. This lady was seen by a consultant in December 2018, who reassured her that there were no sinister features to the lesion; however, no definitive diagnosis was provided. The ENT consultant referred the patient to Cork University Dental School and Hospital for further examination.

Medically, this patient had a hysterectomy in 2003 and commenced hormone replacement therapy (HRT) in the form of an oestrogen patch in September 2018. A daily seretide (salmeterol) inhaler for asthma was taken, along with a daily antihistamine (cetirizine) for dust and pollen allergy. The patient reported that she was careful to rinse her mouth out following use of the inhaler. The patient was a non-smoker, a retired laboratory technician, and was currently caring for her elderly mother.

On initial presentation to Cork University Dental School and Hospital in January 2019, clinical examination showed no cervical lymphadenopathy, no asymmetry and a normal skin tone. Mouth opening was not restricted. Intra-orally, the hard and soft palate, floor of mouth and buccal mucosa were normal, pink and healthy in appearance. The patient was partially dentate and did not wear any dental prosthesis. Oral hygiene was good.

The right lateral border of the tongue extending to the dorsal surface showed a corrugated, fibrous, fissured, puckered appearance approximately 2.5cm in length by 1.5cm in width. This area had a tough fibrous texture. The left side of the tongue was of normal soft texture and had a healthy, pink, papillated appearance on initial presentation in January 2019. There was no alteration of taste, sensation or range of movement of the tongue. The tongue was a uniform pink colour. No white coating was present on the tongue. No induration, ulceration, striation or speckling were observed on presentation. Saliva quantity and quality appeared normal on subjective assessment by the treating clinician; however, objective saliva assessment was not undertaken.

Clinically, the tongue appeared granulomatous and fissured (**Figure 1**). The patient consented to an incisional biopsy under local anaesthetic to aid definitive diagnosis. Two samples were taken, one from the posterior aspect of the lesion on the right lateral tongue, the second from the anterior aspect of the lesion.

Initial histopathology reports indicated that both biopsy specimens showed similar features characterised by hyperplastic squamous mucosa with surface parakeratosis and intraepithelial neutrophils. There was underlying acute and chronic stromal inflammation with a somewhat band-like pattern, raising the possibility of lichen planus. Granulomas were not identified. There was no evidence of a vasculitic process, dysplasia or malignancy. The histopathology department was contacted seeking any further advice or findings that might aid diagnosis. A supplementary report followed, stating that periodic acid-Schiff (PAS) stain had highlighted the presence of fungal hyphae in both specimens (**Figure 2**). *Candida albicans* was identified.

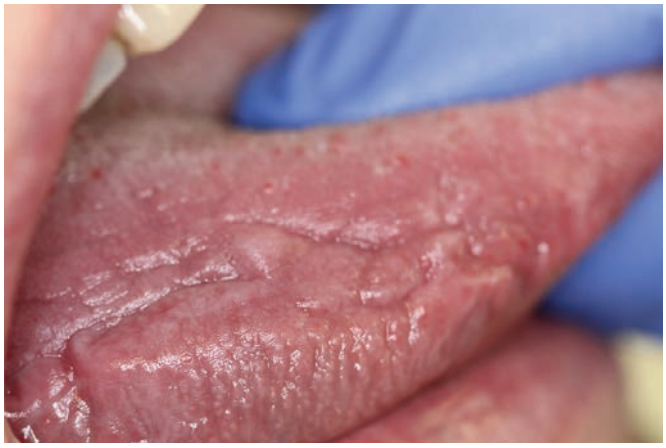

FIGURE 3: Lesion on the right lateral tongue at four-week review.

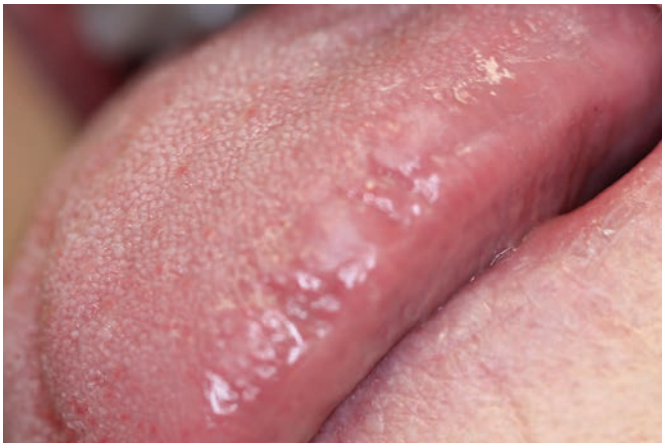

FIGURE 4: Lesion on the left lateral tongue identified at four-week review appointment.

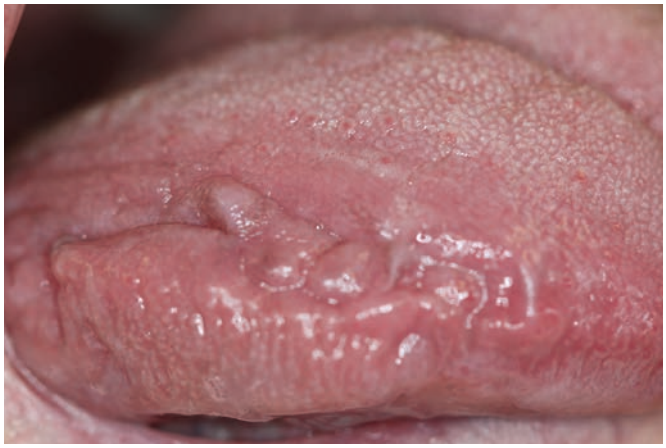

FIGURE 5: Lesion on the right lateral tongue at six-month review.

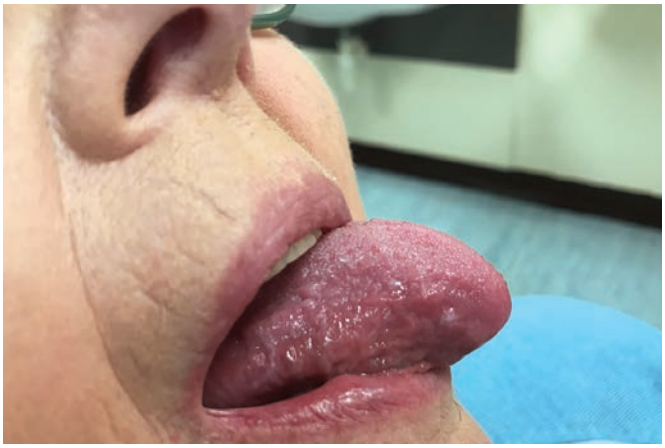

FIGURE 6: Resolution of lesion on the right lateral tongue at 12-month review.

FIGURE 7: Complete resolution of lesion on the left lateral tongue at 12-month review.

Following diagnosis of fungal hyphae, a systemic antifungal was prescribed – 100mg fluconazole once daily for two weeks followed by 50mg fluconazole daily for a further two weeks. Upon review after four weeks, the patient reported that the tongue had felt less swollen following the initial 100mg course of antifungal; however, the patient felt that the corrugated appearance started to return once dosage reduced to 50mg daily. On clinical examination following four weeks of oral fluconazole, the right lateral tongue retained the fissured, puckered appearance, but the fissures appeared less deep and pronounced (**Figure 3**). However, a new 0.5 x 0.5cm shallow corrugated lesion was noted on the left lateral border of the tongue, which was not present on previous examination (**Figure 4**). The patient continued fluconazole 100mg daily for six months. Liver function tests were continuously monitored.

On review in November 2019, 10 months following presentation to Cork University Dental School and Hospital, the texture of the tongue was soft and uniform (**Figure 5**). Both the lesions on the left and right lateral borders of the tongue had resolved completely. Further review in January 2020 showed maintenance of normal healthy soft tissue intra-orally (**Figures 6** and **7**). Our department will continue to monitor the health of the oral soft tissues in the coming months.

Discussion

This case describes a hyperplastic, nodular lesion of the dorsum and lateral border of the tongue. There were no typical signs or symptoms that one would expect to see associated with a candidal infection. Oral *Candida* commonly

Table 3: Classification of oral candidiasis.[8]

Primary oral candidiasis	Secondary oral candidiasis
Acute	**Oral manifestations of systemic mucocutaneous candidiasis**
Pseudomembranous	Thymic aplasia
Erythematous	Candidosis endocrinopathy syndrome
Chronic	
Erythematous	
Pseudomembranous	
Hyperplastic	
Nodular	
Plaque-like	
Candida-associated lesions	
Angular cheilitis	
Denture stomatitis	
Median rhomboid glossitis	
Keratinised primary lesions with candidal superinfection	
Leukoplakia	
Lichen planus	
Lupus erythematosusa	

presents in two forms: white or erythematous (**Table 3**).[8,9] White subgroups include hyperplastic and pseudomembranous, while erythematous or red subgroups include acute atrophic, median rhomboid glossitis and angular cheilitis.[8] These presentations are generally well recognised and treated by clinicians. This case proved a diagnostic challenge as the entire oral mucosa had a normal, pink healthy appearance. However, the topography and the texture of the tongue was dramatically altered. Histopathological reports need to be correlated with clinical findings if no definitive findings are reported. In this case, the initial histopathological report was suggestive of oral lichen planus; however, there were no clinical findings such as Wickham's striae to correlate this finding. It is prudent to involve the whole team in challenging cases; in this scenario we contacted the histology department to see if any further information could be provided to aid diagnosis.

It is accepted that medications such as corticosteroids can have xerostomic effects, which predispose patients to oral candidiasis.[10] In retrospect, critical review of the patient's current list of medications, which included a corticosteroid inhaler and an antihistamine, should have led to the inclusion of candidiasis in the differential diagnosis.

Of note, this patient was postmenopausal and had commenced HRT in the form of an oestrogen patch three months prior to noticing the changes in appearance of the tongue in December 2018. Although there is no definitive evidence that this was a causative relationship, it has been shown that patients on HRT who wear dentures are a high-risk group for candidiasis.[11,12] Hormone depletion post menopause can influence the condition of the oral mucosa and lead to oral symptoms such as dry mouth.[13] Budtz-Jorgensen *et al.* emphasise the effect of hormonal changes and endocrine disorders on the progression of normal fungus to fungal infection.[14] However, it should be noted that this study focused on dependent women in full-time care with a mean age of 85 years. Other *ex vivo* studies show that HRT, such as estradiol, an oestrogen patch used by the patient in our case, increased the susceptibility of candidiasis.[15] It was discussed with the patient that the HRT could be a contributing factor to the onset of the alteration to the tongue. Finding alternative treatment or cessation of the HRT in discussion with the medical practitioner was discussed. The patient was reluctant to cease HRT due to the much improved quality of life with regard to postmenopausal side-effects experienced since commencement.

Following advice from histopathology on the presence of fungal hyphae and commencement of systemic antifungal medication, an almost immediate improvement was noted in the appearance and texture of the tongue. Although significant improvement of the lesion was seen immediately, the lesion had not resolved completely on review at two and four weeks. Following a protracted six-month period of treatment with systemic fluconazole, the tongue had returned to a normal, healthy appearance and texture.

Conclusion

Oral candidiasis is a relatively common infection, which can significantly impact on patient quality of life. While clinicians, both dental and medical, are well aware of the common presentations of *Candida*, we believe it is useful to highlight the more atypical presentation seen in this case and to note the referral route to diagnosis. In this case the referral from GMP to ENT surgery and then on to oral surgery at Cork University Dental School and Hospital highlights how oral lesions often do not have a single definitive referral pathway and the benefits of building interdisciplinary links. The case presented here is suggestive of a potential association between the oral lesion and the HRT therapy; however, there are many confounding factors and more detailed research is required in the field.

Acknowledgement: Dr Linda Feeley, Department of Pathology, University College Cork, for providing the histology images seen.

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CPD questions

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CPD

1. What is the most common species of *candida* found in the oral cavity?

- ○ A: *Candida albicans*
- ○ B: *Candida glabrata*
- ○ C: *Candida tropicalis*

2. What is the first line systemic treatment for oral candidiasis?

- ○ A: Amoxicillin
- ○ B: Fluconazole
- ○ C: Amphotericin

3. What clinical feature is suggestive of oral lichen planus?

- ○ A: White plaque that can be wiped away
- ○ B: Wickham's striae
- ○ C: Nodular appearance

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Electronic cigarettes and oral health

Holliday, R., Chaffee, B.W., Jakubovics, N.S., Kist, R., Preshaw, P.M.

Abstract

Novel nicotine products, particularly electronic cigarettes (e-cigarettes), have become increasingly popular over the past decade. E-cigarettes are sometimes regarded as a less harmful alternative to tobacco smoking, and there is some evidence of their potential role as a smoking cessation aid. However, there are concerns about their health consequences, particularly in users who are not tobacco smokers, and also when used long term. Given the mode of delivery of these products, there is potential for oral health consequences. Over the past few years, there have been an increasing number of studies conducted to explore their oral health effects. *In vitro* studies have reported a range of cellular effects, but these are much less pronounced than those resulting from exposure to tobacco smoke. Microbiological studies have indicated that e-cigarette users have a distinct microbiome, and there is some indication that this may be more pathogenic compared to non-users. Evidence of oral health effects from clinical trials is still limited, and most studies to date have been small in scale and usually cross-sectional in design. Epidemiological studies highlight concerns over oral dryness, irritation, and gingival diseases. Interpreting data from e-cigarette studies is challenging, given the different populations that have been investigated and the continual emergence of new products. Overall, studies reveal potential oral health harms, underscoring the importance of efforts to reduce use in non-smokers. However, in smokers who are using e-cigarettes as an aid to help them quit, the benefits of quitting tobacco smoking may outweigh any negative oral health impacts of e-cigarette use, particularly in the short term. Future research is needed to understand the clinical significance of some of the biological changes observed by following different cohorts of users longitudinally in carefully designed clinical studies and pragmatic trials supported by high-quality *in vitro* studies.

Journal of Dental Research March 2021. [epub ahead of print]. doi:10.1177/00220345211002116

A cost-effectiveness analysis of community water fluoridation for schoolchildren

Cronin, J., Moore, S., Harding, M., Whelton, H., Woods, N.

Abstract

Background: Community water fluoridation (CWF), the controlled addition of fluoride to the water supply for the prevention of dental caries (tooth decay), is considered a safe and effective public health intervention. The Republic of Ireland (Ireland) is the only country in Europe with a legislative mandate for the fluoridation of the public water supply, a key component of its oral health policy. However, more recently, there has been an increase in public concern around the relevance of the intervention given the current environment of multiple fluoride sources and a reported increase in the prevalence of enamel fluorosis. The aim of this economic analysis is to provide evidence to inform policy decisions on whether the continued public investment in community water fluoridation remains justified under these altered circumstances.

Methods: Following traditional methods of economic evaluation and using epidemiological data from a representative sample of five-, eight-, and 12-year-old schoolchildren, this cost-effectiveness analysis, conducted from the health payer perspective, compared the incremental costs and consequences associated with the CWF intervention to no intervention for schoolchildren living in Ireland in 2017. A probabilistic model was developed to simulate the potential lifetime treatment savings associated with the schoolchildren's exposure to the intervention for one year.

Results: In 2017, approximately 71% of people living in Ireland had access to a publicly provided fluoridated water supply at an average per capita cost to the state of €2.15. The total cost of CWF provision to five-, eight-, and 12-year-old schoolchildren (n = 148,910) was estimated at €320,664, and the incremental cost per decayed, missing, or filled tooth ($d_{3vc}mft/D_{3vc}MFT$) prevented was calculated at €14.09. The potential annual lifetime treatment savings associated with caries prevented for this cohort was estimated at €2.95 million. When the potential treatment savings were included in the analysis, the incremental cost per $d_{3vc}mft/D_{3vc}MFT$ prevented was -€115.67, representing a cost saving to the health payer and a positive return on investment. The results of the analysis were robust to both deterministic and probability sensitivity analyses.

Conclusion: Despite current access to numerous fluoride sources and a reported increase in the prevalence of enamel fluorosis, CWF remains a cost-effective public health intervention for Irish schoolchildren.

BMC Oral Health 2021; 21 (1): 158.

Association between periodontitis and severity of Covid-19 infection: a case-control study

Marouf, N., Cai, W., Said, K.N., Daas, H., Diab, H., Chinta, V.R., et al.

Aim: Covid-19 is associated with an exacerbated inflammatory response that can result in fatal outcomes. Systemic inflammation is also a main characteristic of periodontitis. Therefore, we investigated the association of periodontitis with Covid-19 complications.

Materials and methods: A case-control study was performed using the national electronic health records of the State of Qatar between February and July 2020. Cases were defined as patients who suffered Covid-19 complications (death, ICU admissions or assisted ventilation), and controls were Covid-19 patients discharged without major complications. Periodontal conditions were assessed using dental radiographs from the same database. Associations between periodontitis and Covid-19 complications were analysed using logistic regression models adjusted for demographic, medical and behaviour factors.

Results: In total, 568 patients were included. After adjusting for potential confounders, periodontitis was associated with Covid-19 complication including death (OR = 8.81, 95% CI 1.00-77.7), ICU admission (OR = 3.54, 95% CI 1.39-9.05) and need for assisted ventilation (OR = 4.57, 95% CI 1.19-17.4). Similarly, blood levels of white blood cells, D-dimer and C-reactive protein were significantly higher in Covid-19 patients with periodontitis.

Conclusion: Periodontitis was associated with higher risk of ICU admission, need for assisted ventilation and death of Covid-19 patients, and with increased blood levels of biomarkers linked to worse disease outcomes.

Journal of Clinical Periodontology 2021; 48 (4): 483-491.

3-month, 6-month, 9-month, and 12-month respiratory outcomes in patients following Covid-19-related hospitalisation: a prospective study

Wu, X., Liu, X., Zhou, Y., Yu, H., Li, R., Zhan, Q., et al.

Background: The consequences of Covid-19 in those who recover from acute infection requiring hospitalisation have yet to be clearly defined. We aimed to describe the temporal trends in respiratory outcomes over 12 months in patients hospitalised for severe Covid-19, and to investigate the associated risk factors.

Methods: In this prospective, longitudinal, cohort study, patients admitted to hospital for severe Covid-19 who did not require mechanical ventilation were prospectively followed up at three months, six months, nine months, and 12 months after discharge from Renmin Hospital of Wuhan University, Wuhan, China. Patients with a history of hypertension, diabetes, cardiovascular disease, cancer, and chronic lung disease, including asthma or chronic obstructive pulmonary disease, or a history of smoking documented at time of hospital admission, were excluded at time of electronic case note review. Patients who required intubation and mechanical ventilation were excluded given the potential for the consequences of mechanical ventilation itself to influence the factors under investigation. During the follow-up visits, patients were interviewed and underwent physical examination, routine blood test, pulmonary function tests (i.e., diffusing capacity of the lungs for carbon monoxide [DLCO], forced expiratory flow between 25% and 75% of forced vital capacity [FVC], functional residual capacity, FVC, FEV_1, residual volume, total lung capacity, and vital capacity), chest high-resolution CT (HRCT), and six-minute walk distance test, as well as assessment using a modified Medical Research Council dyspnoea scale (mMRC).

Findings: Between February 1 and March 31, 2020, of 135 eligible patients, 83 (61%) patients participated in this study. The median age of participants was 60 years (IQR 52-66). Temporal improvement in pulmonary physiology and exercise capacity was observed in most patients; however, persistent physiological and radiographic abnormalities remained in some patients with Covid-19 at 12 months after discharge. We found a significant reduction in DLCO over the study period, with a median of 77% of predicted (IQR 67-87) at three months, 76% of predicted (68-90) at six months, and 88% of predicted (78-101) at 12 months after discharge. At 12 months after discharge, radiological changes persisted in 20 (24%) patients. Multivariate logistic regression showed increasing odds of impaired DLCO associated with female sex (odds ratio 8.61 [95% CI 2.83-26.2; p=0.0002) and radiological abnormalities were associated with peak HRCT pneumonia scores during hospitalisation (1.36 [1.13-1.62]; p=0.0009).

Interpretation: In most patients who recovered from severe Covid-19, dyspnoea scores and exercise capacity improved over time; however, in a subgroup of patients at 12 months we found evidence of persistent physiological and radiographic change. A unified pathway for the respiratory follow-up of patients with Covid-19 is required.

Lancet Respiratory Medicine 2021: S2213-2600(21)00174-0. [Epub ahead of print.]

Quiz answers

Questions on page 124

1. What special investigations would you carry out alongside your examination?
   - Radiographs
   - Sensitivity testing of adjacent teeth

2. Describe the lesion seen in the radiograph
   A well-defined tear-shaped unilocular radiolucency between the roots of the LR3 and LR4. It does not appear to have caused damage to the roots of teeth, but has caused some displacement of the roots.

3. What is a lateral periodontal cyst?
   A lateral periodontal cyst is a rare odontogenic cyst, located adjacent to the roots of vital teeth. They are most commonly found in the mandibular canine/premolar region.

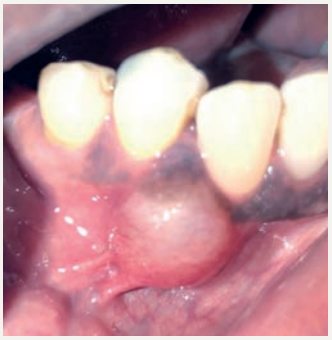

FIGURE 1.

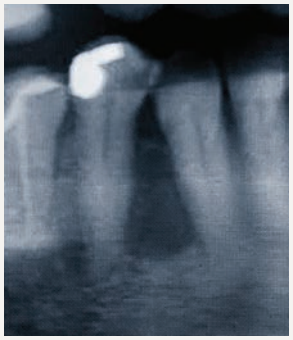

FIGURE 2.

4. What is the origin of a lateral periodontal cyst?
   Their origin is controversial, but it is thought to be one of the following:
   - remnants of dental lamina;
   - reduced enamel epithelium; or,
   - rests of Malassez.

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Enthusiastic associate required for busy computerised practice in Westmeath. Part-time options two to three days. Private and GMS, strong established book, high earning potential, friendly atmosphere. Contact midlandsdentalassociate@gmail.com.

Dublin 3, private general practice. Part-time associate required two days per week (Wednesdays and Fridays). Experience preferred. Email CV to pauleggles@gmail.com.

Associate required for busy mixed practice in Cork town for two weekdays and alternate Saturday mornings immediately, going to four days at end of July to cover maternity leave. Great remuneration in a friendly atmosphere. Contact Matt at ballinvoher96@gmail.com.

Part-time associate dentist position available in a busy, established, high earning practice in Dublin north. Experience preferable. Contact charlestownmedicaldentalcentre@gmail.com.

Associate required full/part-time for busy general practice in Ballinasloe, Co. Galway. Strong established book, private, SOE Exact, digital IO and OPG, excellent support staff, hygienist, endodontist, no weekends, great working environment. Contact drrothwelldental@gmail.com.

Associate dentist required for covering period June 14-29 for a busy practice based in Dunboyne. Experience essential. Please email CV to info@dunboynedental.ie.

Full-time position available for an associate dentist in our friendly practice in Navan. 30-minute drive from M50, excellent remuneration, clinical support, continuous professional development encouraged and supported. Six weeks' holidays. Immediate start. Contact info@abbeydentalcare.ie.

Dublin 9/11. Associate needed immediate start full book. 50% remuneration. Solid three days. Very busy. CVs to dublin11dental@gmail.com.

Associate required, multi-surgery practice, south Co. Wicklow, to replace departing colleague. Full-time/part-time options. PRSI and private only. Flexible start date. Contact Positionavailable2020@yahoo.com.

Dentists

Smiles Dental is looking for passionate dentists to join our well-established, state-of-the-art practices across Ireland in Enniscorthy, Cork, Athlone, Drogheda and Dublin. Positions offer up to five days per week, established lists, great earning potential. Contact joanne.bonfield@smiles.co.uk.

Dentist required for general private practice in south Dublin. Newly renovated premises. Initially two to three days a week with a view to replacing full-time senior colleague. Email reception@booterstowndental.ie.

Full-time dentist required for modern, computerised, friendly and expanding practice. Guaranteed minimum €100k salary with higher earning potential. Own nurse, surgery and any equipment required will be supplied. Excellent support staff. Please email your CV to northdublindentalclinic@gmail.com.

Dentist required. Full/part-time. Busy, modern, large, fully digital practice. Blackrock, south Dublin. Flexible hours. Ideally with interest in orthodontics and cosmetic dentistry. Contact drerikawhitesmile@gmail.com.

Part-time dentist wanted in Sandyford for Fridays and alternating Saturdays. Computerised, great staff, friendly patients. Email CV to blackglendental@gmail.com.

Dentist wanted for modern, private practice south Tipp., part-time/full-time options. Experience important. Position available immediately. 50 mins Cork 2 hrs Dublin. Email dentaljobsouthtipp@gmail.com.

General dentist wanted for part-time in modern practice in Dublin 3. Position available immediately. Must be IDC registered and insured. Contact northdublinclinic1@gmail.com.

Dentist wanted for busy, modern multi-surgery practice in Westmeath. OPG/CBCT, 3D scanner, oral surgeon, periodontist and hygienists in house. Experience preferable. Role available for three days initially. Contact nicola@maguiredentalcare.ie.

Part-time dentist required in a busy north Dublin practice. Very good conditions. Contact drjjconneely@gmail.com.

Urgent: Dentist needed for a very busy, fully digital practice on Main Street, Swords. Full-time position, own nurse, surgery and equipment provided. Contact dentalcareersdublin@gmail.com.

Experienced general dentist wanted for part-time in Dublin 1. Position available immediately. Must be IDC registered and insured. Contact contact@freedomdental.ie.

Dentist(s) required for two days in Bray and/or two days in Ongar, D15, in busy practices. Some flexibility with days/hours. Please send CV to jonathandentalfisher@outlook.com or contact Michelle on 01-2862 137 for further information.

Full- or part-time dentist wanted for busy north Dublin mixed practice. Some flexibility with hours/days. Please email CV to rahenydentalcentre@outlook.com.

Limerick – we're looking for an experienced dentist to join our team. Great opportunity to join a fully private and thriving multi-surgery practice, modern facility with an excellent team. Three days (negotiable) and generous terms for the right candidate. Contact limerickdentaljob@gmail.com.

North east – full-time/part-time dentists position in busy multi-surgery practice. 50% remuneration. One hour from Dublin/Belfast. Immediate start. CV to Bernie at mbcar06@gmail.com.

North Dublin – experienced dentist required for three days a week. This is a great opportunity to join a busy, state-of-the-art, modern dental practice with a highly skilled team. Very supportive and friendly working environment. Contact careers@smilehub.ie.

General dentist required to join a very busy dental clinic in Cavan Town. Part-time initially. Must be IDC registered and insured. Contact info@ndentalclinic.com.

Dublin – Smiles Dental is looking for a passionate dentist to join our well-established, state-of-the-art practice in Grand Canal Square, Dublin. Position offers five days per week, established list, great earning potential. Contact joanne.bonfield@smiles.co.uk.

Limerick – Smiles Dental is looking for a passionate dentist to join our well-established, state-of-the-art practice in Limerick. Position offers three days per week, established list, great earning potential and strong support team. Contact joanne.bonfield@smiles.co.uk.

Experienced dentist required to join expanding, mixed general practice in Limerick. The position will be part-time initially. Great support staff and modern facilities. Very favourable terms. Please email your CV to info@victoriahousedental.ie.

Navan, Co. Meath. Experienced dentist required to replace departing associate. Modern, computerised, mixed practice. Periodontist, implants, hygienist. Excellent support staff and highly skilled team. Full-time/part-time. Immediate start. Send CV to gh@bridgeviewdental.ie.

Part-time dentist required one day a week to join our busy, expanding practice. Fully computerised, 3D scanner, friendly team. Lakeside Dental, Monaghan Town. Contact associatemonaghan@gmail.com.

Co. Mayo. Excellent opportunity to join a long-established, growing, unique practice, providing bio-compatible patient care. Experienced in occlusal/smile design, crucial. Excellent support team/remuneration. Part growing to full-time. Must be registered, appropriate Irish authorities. Contact niall@innovativedental.com.

Dentist required. Part-time. Busy, modern, large, fully digital practice. ITERO, OPG. Fully private. Flexible hours. Established book. Reception and patient co-ordinator. An interest in Invisalign and cosmetic dentistry a plus. Blackrock, south Dublin. Contact alex@whitesmiledental.ie.

Part-time dentist required for established practice in Tullow, Co. Carlow. Fully computerised, digital radiography, with full book to replace departing colleague. Contact Carlowdentaljob@gmail.com.

Experienced dentist required to join our Galway city centre practice to replace a departing associate. Position is for three to four days per week. Available from mid-June. Contact info@cuddydentistsgalway.ie.

Full-time dentist wanted for modern, multi-surgery practice in Westmeath. Oral surgeon, periodontist and hygienists all in house with exceptional support team and the latest diagnostic equipment – OPG/CBCT, 3D iTero scanner. Experience preferable with endodontic interest. Contact nicola@maguiredentalcare.ie.

Excellent opportunity for an experienced dentist two to three days per week in busy, rapidly expanding practice in Bray, Co. Wicklow. Must be enthusiastic and passionate about dentistry and patient care. Excellent remuneration. Contact dentist2required@gmail.com.

Part-time dentist position available. Days negotiable. Private PRSI only. Immediate start. Modern practice. Contact Seaportdental@hotmail.com.

Excellent opportunity for an enthusiastic full-time/part-time dentist in busy practice in Sutton, north Dublin. SOE Exact, digital radiography and experienced support staff. Fully private practice and excellent remuneration. Contact careers@smilehub.ie.

Full-time or part-time dentist required for busy dental practice in Castlerea town, Co. Roscommon. Two years' experience preferable. Full book and great support staff. Please email bernboyle@yahoo.com for all enquiries or dentalcastlerea@yahoo.ie.

Full- or part-time dentist, crown and bridge, endodontic experience required for practice in Carlow. Five years' experience preferable. Modern equipment. Email info@maddendentalclinic.com.

Full-time dentist required for modern, computerised, friendly and busy practice in Arklow, Co. Wicklow. Earnings €12,000 to €18,000 per month. Please email CV to annedental@hotmail.co.uk or call 086-398 8981.

General dentist required for our very busy clinic in Claremorris, Co. Mayo. Fully private book, new build, all mod cons. Training in aesthetics and cosmetic dentistry desirable. Full- and part-time hours available. Contact dr.odonovan@alexandradental.ie.

Experienced dentist required for Cavan Town and Virginia. Full- and part-time options considered. Modern, computerised practice with skilled and friendly support staff, including strong established book. Apply to info@virginiadentalsurgery.com.

Smiles Dental is looking for passionate dentists to join our private, well-established, state-of-the-art practices across Ireland in Enniscorthy, Cork, Athlone, Drogheda, Dun Laoghaire and Dublin. Positions offers up to five days per week, established lists, great earning potential. Contact joanne.bonfield@smiles.co.uk.

Dentist required for our private practice in Callan. Modern practice with skilled and friendly support staff, including strong established book. Apply to smile@callandental.ie.

Experienced dentist required, replacing departing colleague. Full- and part-time options. Modern practice with skilled and friendly support staff, including strong established book in Castlebar, Co. Mayo. Apply to careers@dentalcareireland.ie.

Experienced dentist required for our busy private practice in Ennis. Full- and part-time options considered. Modern, computerised practice with skilled and friendly support staff. Strong established book. Apply to careers@dentalcareireland.ie. We look forward to hearing from you.

Excellent opportunity for an enthusiastic full-time/part-time dentist to join our busy and well-equipped practice in Sutton, north Dublin. SOE Exact, digital radiography and experienced support staff. Fully private practice and excellent remuneration. Contact northdublindentalassociate@gmail.com.

Excellent opportunity for an ambitious dentist to join a multidisciplinary team with great earning potential/mentorship. Flexible with days/full/part-time. Accommodation available. Location 30 minutess from Navan, Dundalk and Drogheda, 40 minutes from Newry, and one hour from Dublin/Belfast. Contact: frazermanagement1@gmail.com.

Recently expanded busy practice in Dublin 18 requires dentist. P/T (two days incl. Saturday) with view to F/T. Modern fully digital practice including Cerec, Itero and OPG/CBCT. Fully private with hygienist. Experienced principal mentoring also, if desired. Contact dublin18associate@gmail.com.

Dentist required to provide orthodontic care. Group practice in south east. Fully digitalised practice and full support given. Specialist orthodontist will mentor. Contact Bpm.gmedical@gmail.com.

Part-time/full-time dentists required for busy practice in Donegal. Established, busy family general practice. Private/PRSI/MC. Position available immediately. Experience preferred. Contact mvlavin@gmail.com.

Experienced dentist required for busy modern practice in Greystones. Lovely patient base and full book. For more information contact Liam at 085-128 0859, or email your CV to lsweeney114@gmail.com.

Dentist needed to cover a four- to five-day per week maternity leave, six months+ starting August 1, 2021. Private practice and PRSI. Fully digital, OPG, modern surgeries, amazing team. Full books of patients. Contact Laura. Website: www.kingscourtdental.ie.

Dentist required for Wednesdays in Carlow. Established practice, computerised, digital X-rays, friendly staff and patients. Email jmoneill78@hotmail.com for details.

Part-time dentists required to replace the departing colleague. Flexible with days/full/part-time. PRSI and private only. CVs to dunboyneorthodontics@gmail.com.

Part-time dentist required at Hazelwood Dental Cork to cover July to September. Full book, excellent support staff. Contact cmgdental@gmail.com.

Locums

Full-time locum dentist required for three months (April-June) in south Co. Dublin. Full book, great earning potential. Fantastic support staff, associate and hygienist working alongside. Large, bright, well-equipped surgery. Friendly, relaxed atmosphere. Contact hello@ballybrackdental.ie.

Co. Meath (35 mins Dublin). Locum dentist required to cover maternity leave (starting May 2021). Private multi-surgery general and specialist practice with a fantastic team. Two days per week. Generous terms for the right candidate. Contact kellsdentaljob@gmail.com.

Full-time locum dentist required for three months (May-July) in south Co. Dublin. Full book, great earning potential. Fantastic support staff, associate and hygienist working alongside. Large, bright, well-equipped surgery. Friendly, relaxed atmosphere. View to associate position. Contact: associatedentist15@gmail.com.

Locum dentists. Smiles Dental is looking for locum dentists to join our well-established, state-of-the-art practices in Cork, Enniscorthy and Drogheda. Positions offer great earning potential, up to five days per week, and experienced support teams. Contact joanne.bonfield@smiles.co.uk.

Specialist/limited practice

Dentist required to place dental implants at multidisciplinary practice in Limerick. Full book, excellent support staff and personal co-ordinator guaranteed. Contact hr@3dental.ie.

MyDental Cherrywood require a dentist to place dental implants for our busy south Dublin Clinic. Must be registered with the IDC. Fluent English. Email CV to keith@mydental.ie.

Paediatric dentist required for a specialist orthodontic practice in north Co. Wicklow. Private-only, friendly practice, CBCT, digital scanner, in-house lab tech, 3D printing, modern, state-of-the-art practice. Seven national schools in immediate vicinity. Contact hello@smilesolutions.ie.

Periodontist and endodontist wanted to join specialist clinic located in midlands. Contact midlandspecialistclinic@outlook.ie.

Part-time endodontist and oral surgeon required in private, independent, established, busy practice in Dublin. Please apply with CV to dublinspecialistdentist@gmail.com.

Registered specialist orthodontist required to join our experienced specialist-led team at Maxillo Dental, Dundalk. This position is to work with orthodontics and Invisalign. Our well-established practice in Dundalk has great modern working conditions. Email cover letter and CV to info@maxillo.ie.

Endodontist required to join our experienced specialist-led team at Maxillo Dental, Dundalk. Our well-established, modern practice in Dundalk has great working conditions. Email cover letter and CV to info@maxillo.ie.

Availability for orthodontist in an extremely busy general practice with high GP orthodontic cases. High patient referrals and full support staff in a modern, fully digital practice. Contact: matt@corkdentalcare.com.

Endodontist required to join busy specialist dental practice in Dublin City. Fully computerised/CBCT on site. Two days per week initially. Please send cover letter and copy of CV to rctdentistdublin@gmail.com.

Experienced orthodontist required for private dental group. You will be joining a multi-disciplinary team of specialists with an excellent support team. Contact jobs@shieldsdentalclinic.ie.

Experienced periodontist required for a private dental group. You will be joining a multidisciplinary team with an excellent support team. Contact jobs@shieldsdentalclinic.ie.

Experienced endodontist required for growing private clinic. You will be joining a team of multidisciplinary specialists and excellent support staff. Contact jobs@shieldsdentalclinic.ie.

Implant surgeon – Smiles Dental is looking for a passionate implant surgeon to work in multiple practices across Ireland. Successful candidate will have extensive implant experience and be able to offer all on four, Sinus lifts and bone grafts. Contact Joanne.bonfield@smiles.co.uk.

Orthodontist required for fully modernised, busy private general practice with high volume of patient referrals. One day a week initially, with a view to more hours. Please send CV to office@renmoredental.ie.

Specialist orthodontists required for two extremely busy clinics in Dublin. Immediate start, modern, friendly clinics. Established, referral based. Contact diamondsmilejobs@gmail.com.

Perio, endo, ortho, oral surgeon. Smiles Dental is looking for passionate specialist dentists and dentists in limited practice to join our well-established, state-of-the-art practices across Ireland. Positions offer established referral bases, great earning potential and strong support teams. Contact joanne.bonfield@smiles.co.uk.

We require a part-time orthodontist to join our existing orthodontic team. We are a modern, fully digital, busy dental clinic with high referrals. One day initially with a view to more hours. Contact careers@deansgrangedental.ie.

We require a part-time orthodontist to join our existing orthodontic team in Cork City. One day initially with a view to more hours. Contact kevinorourke1963@gmail.com.

Paediatric dentist. Smiles Dental is looking for a passionate paediatric dentist to join our well-established, private, state-of-the-art Practice in Dundrum, Dublin. Position offers one to two days per week, great earning potential and experienced support team. Contact joanne.bonfield@smiles.co.uk.

Orthodontic therapists

Orthodontic therapist required Carlow and Waterford in private, well-established clinics. Be part of a great multidisciplinary team. Excellent backroom support. Itero scanner, fully digitalised. Flexible days/hours. Please send CV to bpm.gmedical@gmail.com.

Aesthetics

Aesthetic injector. Opportunity for a qualified aesthetic injector in a very busy clinic in Co. Cavan. Attractive pay rate and scheduling. Send CV to Booking@timeclinic.ie.

Dental nurses/receptionists/managers

Maynooth. Dental nurse required. Part/full-time to include two Saturdays per month. Start when suits you (hopefully before July). Experience with Exact desirable. Must be friendly, polite. Beautiful practice, no medical card, very supportive team. Very high pay. Contact: cartondentalclinic@gmail.com.

Dental surgery assistant required to join our boutique dental clinic in Dublin city centre. Experience preferred; a positive attitude essential. Email CV to anneslanedental@gmail.com.

Fabulous Grange practice, Donaghmede, looking for experienced ortho nurse for two months (may be extended) on Saturdays only, 9.00am-5.00pm, immediate start. Contact recruitment@smartdentalcare.co.uk.

Full-time experienced dental nurse required for busy, friendly, private general practice in Limerick. Experienced, friendly, team-focused candidate. Please email wallacedentalclinic@gmail.com.

Dedicated orthodontic nurse required. Excellent remuneration for right candidate. Part-time option available. Beautiful Kinsale. Specialist orthodontists. Contact monique@kinsaledental.ie.

Dedicated implant nurse required. Excellent remuneration for right candidate. Part-time option available. Beautiful Kinsale. Exclusive implant provider and clinics, 30 years' experience. Contact monique@kinsaledental.ie.

Enthusiastic dental nurse/receptionist required to join our friendly team for maternity cover in a busy dental practice in Leitrim/Roscommon area, with the possibility of a full-time position. CV/cover letter to dentalstaffwanted@yahoo.com.

Cork City. Experienced dental nurse/receptionist required. Position would suit one x full-time or two x job share. Phone Michael on 087-283 5282.

Full/part-time dental nurse required for a busy practice in south Dublin (Churchtown). Contact Dublindentist@gmail.com.

Full-time nurse required 36-40 hours, Monday to Friday, start date June 7, 2021, general dentistry in busy practice. CV to northcitydental@gmail.com.

Dental nurse wanted 25/30 hours per week, for general dental practice in D12. Very good rates for suitable candidate. Punctuality, willingness to work as a team and kindness to patients very important. Contact dentalnursewantedindublin12@gmail.com.

Full-time/part-time nurse required for busy practice in Ongar village. Friendly staff and generous remuneration. Please send CV to ongar.dental@gmail.com or call Claire on 01-640 2733 for more info. Many thanks.

Dental and specialist orthodontic clinic is looking for a dental nurse. Great communicator, organisational skills and caring personality is key. Full-time position. Apply by email with CV and cover letter to bobby@healthcaremarketingireland.ie. Generous salary for the right candidate.

Boyne Dental is looking for a full-time dental nurse with experience working in a busy clinic to join our team. Knowledge of dental software Exact would be desired but not essential. Candidate must be friendly and patient focused. Contact enquiries@boynedental.ie.

Full-time dental nurse/receptionist to join small team in busy, friendly Ballincollig practice. Experience preferred but not essential. Must be a very organised, self-motivated, team player. Kindness to patients very important. Immediate start preferable. Contact dentaljobballincollig@gmail.com.

McMahon Dental in Blackrock is looking for an experienced, talented dental nurse/treatment co-ordinator. Excellent communication, patient care skills. Computer skills essential. Full-time, permanent position. Apply by email with CV. Generous salary for the right candidate. Contact dentist@mamahondental.ie.

Ormond Orthodontics. Qualified dental nurse required for Kilkenny/Thurles orthodontic practice. We are seeking a warm, friendly person with good communication and computer skills. Email application to reception@ormondorthodontics.ie.

Full-time experienced dental nurse-receptionist for modern, computerised practice in Dublin 9. Excellent communication, organisational and IT skills, friendly and enthusiastic approach required. Fluent spoken and excellent written English essential. Exact SOE knowledge advantageous. Email CV to niamh@drumcondravillagedental.ie.

Experienced part-time dental nurse (three days) and full-time dental nurse (maternity cover) required for a busy, modern general and specialist dental practice in Dublin 4. Excellent computer and communication skills are essential. Contact office@pembrokedentist.ie.

Experienced practice administrator required for busy specialist practice in Clontarf. Full-time position to cover maternity leave. Ideal candidate would have dental experience, a professional manner and be well organised. Email your CV to clontarfaestheticdentistry@gmail.com.

Dental nurse and receptionist required for our expanding modern dental practice. Part-time and full-time positions available Please forward your CV to office@renmoredental.ie.

Dental nurse required full/part-time for modern, busy, general and specialist private Dublin 7 practice. Fully digital. Staffroom/kitchen. To join our small friendly team please forward CV to alex@whitesmiledental.ie.

Dental nurse wanted for immediate start in a family practice, Killorglin, Co. Kerry. Experience preferable. Contact via email killorglindentist@gmail.com with CV.

North city dental, receptionist/nurse required for full-time position. Experience in Exact and Dental Suite preferred. Immediate start. Contact northcitydental@gmail.com.

Part-time/full-time receptionist needed for busy, modern and friendly practice – www.swords-dental.ie. Nursing experience a benefit and good IT skills essential. Email CVs to colinpatricklynam@hotmail.com.

Full-time position available for a qualified dental nurse at our modern and busy practice in Roxboro, Limerick. Immediate start. Please send CVs to bowedentalclinicjobs@gmail.com.

Dental nurse (full/part-time) required for orthodontic practice in Clonmel. CV, enquiries to admin@clonmelothodontist.ie.

Dental hygienists

Modern, multidisciplinary, fully digitalised practice seeking dental hygienist to join the expanding team. Contact petra.polonkai@carlowdentalcentre.ie.

Full-time/part-time hygienist required for a busy, modern and friendly practice with a high earning potential, 60k per annum guaranteed, in north Co. Dublin. Please email your CV to northdublindentalclinic@gmail.com.

Part-time position for a dental hygienist in multi-surgery practice Fee Dental, Carrickmacross, Co. Monaghan. CV to mbcar06@gmail.com.

Hygienist wanted one day per week for well-established, busy Dublin 3 practice. Chair side nurse provided. Fully equipped, computerised, modern practice. Please email replies to reception@fairviewdentalclinic.ie.

Maxillo Dental have a fantastic opportunity for a dental hygienist to join a well-established practice in Dundalk. As a hygienist you'll be benefiting from an experienced maxillofacial specialist-led team, and a well-managed appointment book. Apply with CV to info@maxillo.ie.

Hygienist position one day per week in friendly, well-established practice in Castlebar, Co. Mayo. Fully computerised. CV to breaffydental@hotmail.com.

Full-time/Part-time enthusiastic hygienist required for a modern, busy, friendly practice. Fully computerised. Please Email CV to office@renmoredental.ie.

Dental hygienist to join our friendly and supportive multidisciplinary team at our Galway City practice. An established book in a modern, high-tech, digital practice. An excellent opportunity for a highly motivated and ambitious hygienist. Full- or part-time. Contact info@jmedental.com.

Opportunity for experienced dental hygienist required two to three days per week. Busy Drogheda private practice. Full support staff including DSA and decon staff. Please email CV to angelamkearney@gmail.com.

Opportunity available to join a team of four hygienists in a modern practice. Great facilities and support staff. Please email paula@eyresquaredental.ie with your information.

Dental hygienist to join our friendly and supportive multidisciplinary team. Established books in modern, high-tech digital practices. Fully private. Flexible hours. Support staff, full-time reception. Part-time. Positions in Dublin 4, 12 and 7. Contact alex@whitesmiledental.ie.

Hygienist wanted one to two days per week in busy general practice in Dun Laoghaire to replace outgoing colleague. Fully computerised, friendly team, good clerical back-up. Contact dentalassoc993@gmail.com.

EQUIPMENT FOR SALE

Entire contents of single-surgery practice for sale in Galway, including Exact licences. All equipment was purchased new and is in perfect working order. Contact dentalpractice1@outlook.ie.

PRACTICES FOR SALE/TO LET

Midlands. Top-class two-surgery, extremely busy, private practice. Long-established, very loyal patient base, excellent location. Strong new patient numbers, fully private. Computerised, digitalised, extensively equipped. Excellent profits. Large base for growth. Contact niall@innovativedental.com.

West of Ireland. Unique, single-surgery practice with room to expand. Digital OPG and Intra oral X-Ray. Ground floor, free patient parking, modern and spacious detached premises. Great potential. Email in confidence to steven@medaccount.ie or call 086-068 1242.

Dentist sought to take over 30-year established practice in Carlow/Kilkenny area. Computerised digital OPG/X-ray. Ultra-low-cost ownership opportunity. Currently private PRSI only. Leasehold or freehold available. Great scope for development. Tel: 087-250 6484, 8.00pm-10.00pm. No agents. Email bernardmurphy@icloud.com.

Dublin south. Long-established, single-handed surgery. Full planning permission in place. Large room for expansion to three surgeries. Very low overheads. Excellent location. Plentiful parking close by. Huge potential to grow. Principal retiring – speedy sale. Contact niall@innovativedental.com.

Dental laboratory for rent in Galway east. Attached to a busy dental practice. Other dental practices in locality. Fully equipped. Contact drrothwelldental@gmail.com.

Cork. Well-established ground floor three-surgery practice for sale with OPG, sterilisation, staff + more. Front and rear access with free parking to rear. Situated on main street of large town. Priced to sell. Call Steven on 086-068 1242.

Cork. Excellent location – long-established, very busy, loyal patient base. Three well-equipped modern surgeries, decontam, large footfall. Good new patient numbers, active hygienist service. Low medical card, experienced staff. Leasehold/freehold options. Priced to sell. Contact niall@innovativedental.com.

Large building, purpose built for medical practice, in the heart of Mullingar Town. Two-storey building, contains two receptions, two separate entrances, two waiting rooms and four surgeries. Separate clinic in the same complex. For more information to daft.ie/Martins Lane – https://www.daft.ie/commercial-properties-for-sale/mullingar-and-surrounds-westmeath or contact: p_murray55@hotmail.com.

Empowering people with disabilities

After many years working as a dental nurse and dental hygienist, CATHERINE WALDRON joined the DDUH and ultimately became Director of the dental hygiene programme. She recently completed a PhD on the oral health of people with disabilities.

What led you to dental nursing, and specifically for people with intellectual disabilities?

I was lucky to be in school with the daughter of the late, great Colm O'Sullivan, who gave me work experience. He was so supportive of dental nurses at the time, in the late 70s. He could really see the role that they could play and that inspired me to apply for dental nursing. My interest is in disabilities in general and not just intellectual disabilities. When I went to Glasgow to train as a dental hygienist, it was a very big part of our training. It was so rewarding, and also gave me the confidence to develop rapport with patients with disabilities and understand the issues that they face. I also have a brother with an intellectual disability.

Can you describe your research into oral hygiene for people with intellectual disabilities?

I looked at what kind of interventions were out there, and if there was any evidence supporting particular interventions. It was important to look at how these interventions really impacted on the people with the disabilities, how they improved their quality of life, how they supported them to make changes to their behaviour and habits that would help them become more empowered in relation to maintaining their own health. I did a number of systematic reviews, a scoping review of interventions of any kind for people with disabilities, then focused it in for the Cochrane Review on people with intellectual disabilities and oral hygiene. My reason for focusing on that was that there were a lot of interventions in that area, but also the basis of any good oral hygiene routine is that if we can get people brushing their teeth, hopefully it will impact on all the other elements. Then I did a realist review, which focused on, not just if these interventions had an impact on oral health, but why they worked in some settings and not others, and who they worked for. For me, the real interest was in the long-term impact on people's quality of life and their ability to function well.

What are the particular challenges for dentistry for this cohort of patients in Ireland?

It's about access to care and to acknowledge that each group of individuals with a specific disability may require different supports. It's also about providing each person with a disability with a dental home so that there's somewhere that they can go to easily that's accessible to them, that can identify their specific needs and, if they need specialist care, that the dental professionals know what the care pathway is. It's important that everybody has education and training in that aspect, so that undergraduates of all the dental team are trained in relation to identifying the needs, are aware of the inequities and challenges that people with disabilities have, and feel a responsibility to advocate for them.

What should Government be doing to support oral health for people with intellectual disabilities?

The major step has been taken with the development of the national oral health policy. It now needs to be implemented. Coming from a non-dentist background, I think some of the restrictions placed on the scope of practice of both dental nurses and dental hygienists should be lifted, so that they can properly use all the skills they have, but also to expand the scope of their practice so that they can provide care in the community. A focus on prevention is something that those team members can readily get involved in.

How do you think the IDA can contribute?

They've been working hard over the last couple of years in relation to drawing attention to the number of dentists that are leaving the DTSS. I've benefitted myself from the support that the IDA has given to research. I was involved in the brushmyteeth.ie project that both the IDA and Wrigley supported.

Catherine is a serial volunteer, who has always been actively involved in her professional bodies, and is current President of the Irish Society for Disability and Oral Health. She enjoys walking, bird watching and loves to be in outdoors. Catherine thanks the role models who have influenced her in her career: her PhD supervisors June Nunn and Caoimhin Mac Giolla Phadraig; her colleague Karin Nylund in the DDUH who encouraged her research and education; and Michael O'Rahilly, her first employer, who made dentistry so interesting. Catherine highlights the need for further education for dental nurses and dental hygienists.

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