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JIDA

Journal of the Irish Dental Association

Iris Cumainn Déadach na hÉireann

Volume 64 Number 6
December 2018/January 2019

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They received their Awards at the special Gala Ball in Dublin in December.

Congratulations to Seán, the Ballyjamesduff Dental team, the regional winners and all the dentists and dental teams that were nominated for an award by their patients.

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CONTENTS

The *Journal of the Irish Dental Association* is the official publication of the Irish Dental Association. The opinions expressed in the *Journal* are, however, those of the authors and cannot be construed as reflecting the Association's views. The editor reserves the right to edit all copy submitted to the *Journal*. Publication of an advertisement does not necessarily imply that the IDA agrees with or supports the claims therein.

For advice to authors, please see: www.dentist.ie/resources/jida/authors.jsp

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Dr Ciara Scott
Honorary Editor

Our professional lives benefit from shared values

This time of year is always an opportunity to celebrate what has been achieved, to thank our staff and colleagues, and to agree goals for the year ahead.

One of the first privileges of being Honorary Editor of the *Journal of the Irish Dental Association* was to attend the Colgate Caring Dental Awards. It was particularly special for me as these Awards were initiated shortly after I joined the Editorial Board and have blossomed over the last 10 years into a wonderful celebration.

The Awards were an initiative of this *Journal* and just one of the developments that have taken place under the stewardship of Prof. Leo Stassen, with support from the Editorial Board, the Association's management and staff, and the publishers. I'd like to thank Leo Stassen for his extensive contribution to the *JIDA* as both Editor and as a co-author. I would also like to thank Dr Kieran O'Connor, and the Board of IDA, for appointing me to this role and look forward to working with them all.

The Awards celebrate what is meaningful to our patients and it was clear that this is such an important value for so many of the nominees and winners. Joe Duffy listens to people sharing their story every day, so it seemed fitting that he was compèring the awards, and I would like to thank him, our judges, our sponsor Colgate, everyone at IDA House, all the nominee dentists and teams for attending and the thousands of patients who took the time to tell their story.

Relationships matter

The health service literature increasingly talks about patient-centred care and this is not a new concept for the dental profession. Relationships matter in our profession and the awards night celebrated not just the value our patients place on this, but the value of dental teams, colleagues and peer support building trust, and continuing to learn to build our practices for the benefit of our patients.

We have all cared for patients in pain and understand the challenge of diagnosing and managing non-specific dental pain. In this issue, Ciara Mulvihill and her colleagues remind us in their case report that this common presentation can have a very uncommon aetiology and the value of diagnostic tests and timely referral to reach a diagnosis.

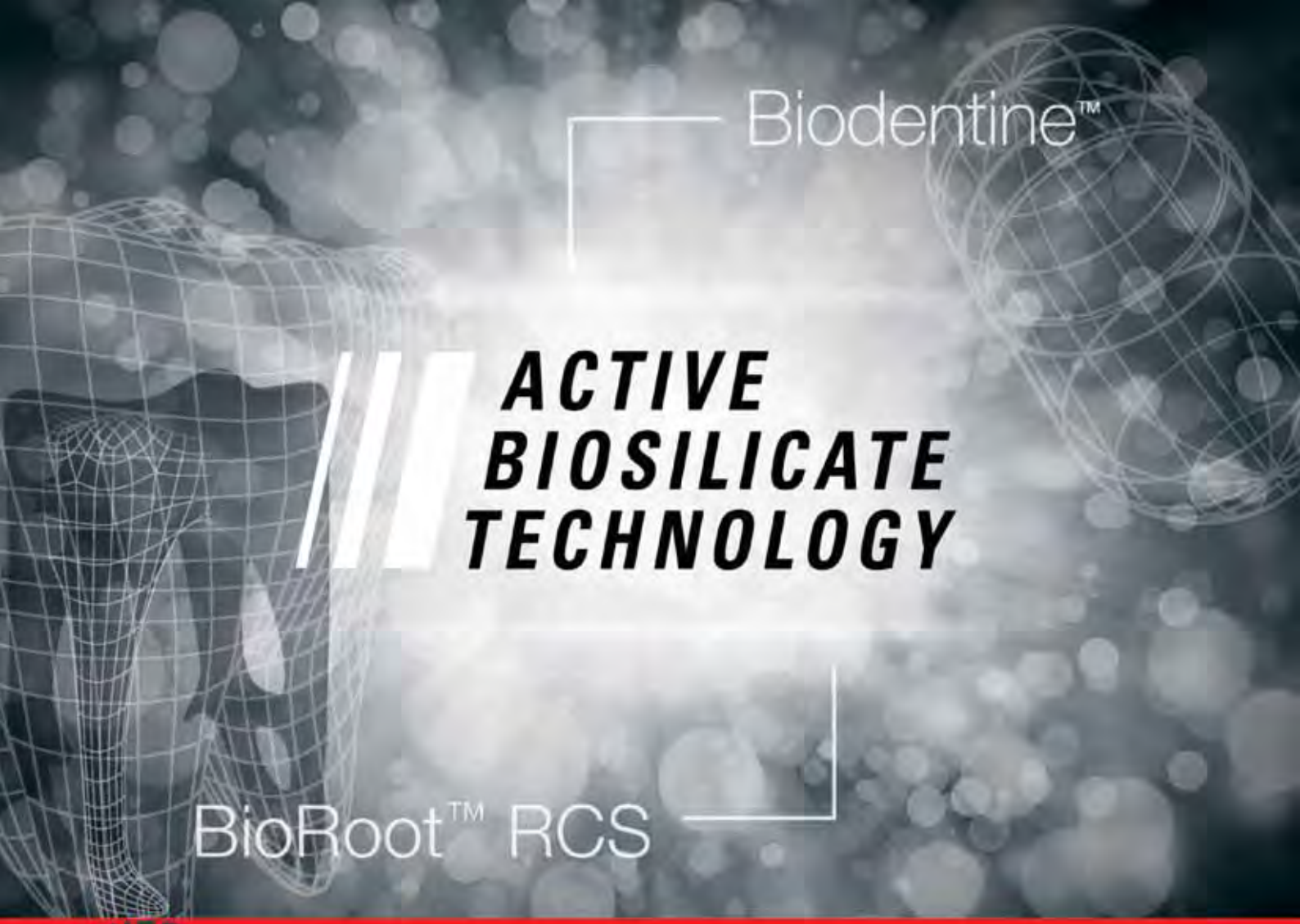
Geraldine McDermott's paper describes how she used the HSE Change Model to introduce a service for nitrous oxide inhalation sedation in the HSE Cavan/Monaghan area, and how Donabedian's model can be used to evaluate the benefits of this change of process on patient outcomes. Donabedian's model is widely used in healthcare to evaluate patient-centred quality improvement. This type of clinician-led organisational development can improve use of resources, access to care and patient outcomes and I commend her and her team for this initiative. Her paper is complemented by a practice management article on nitrous oxide inhalation sedation, which Dr Martin Foster of Dental Protection has kindly provided us with.

I was also delighted that Dr Evelyn Crowley and her team in Waterford were honoured by receiving the "Improving our Children's Health Award" in the Health Service Excellence Awards 2018 for implementing a "Lift the Lip" programme in Waterford.

The HSE updated its Change Model this year (see www.hse.ie/eng/staff/resources/changeguide/) to support quality improvement and safer and better healthcare and it is worth reading. The Brexit negotiations demonstrate the challenges of implementing change in a complex organisation with stakeholders with opposing viewpoints and very different priorities and desired outcomes. Change is complex. As the year draws to a close, we are still awaiting a long overdue oral health policy to start driving many of the changes from which we anticipate that our dental services, patients and profession will benefit.

Care, compassion, learning and trust

Our relationship as a profession with the HSE continues to be challenging, both for many of those working in the HSE and for many dentists contracted by the HSE. However, we do share the HSE values of care, compassion, learning and trust. We hope that mutual trust and meaningful engagement based on these common values will support us to discuss, define, design and deliver dental services for the future that the profession and patients will value when the policy is delivered. In the meantime, I wish you all a happy, healthy and prosperous 2019.



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PRESIDENT'S NEWS

Dr Kieran O'Connor
IDA President

A fair hearing

When it is published, the IDA will consider the new National Oral Health Policy carefully, but our members' and patients' interests must be the most important thing.

The year of the oral health policy?

In each edition this year I have written about the "soon-to-be-published" National Oral Health Policy. We still await its publication and we are ready and willing to engage with the Department of Health once we have studied it and consulted broadly with our members. We plan to hold a national meeting of members in the aftermath of the publication to facilitate this consultation process. The oral health policy may be a once-in-a-generation publication. As IDA members, we owe it to our colleagues and the Irish population to approach consideration of the policy, the contents of which remain unknown at this stage, with an open mind even if, remarkably, the Association has been left outside the door and, along with other significant dental stakeholders, denied any opportunity to play a part in its formulation. Nonetheless, we will make no apology for representing the views and defending the interests of our members, and the needs of our patients, while giving every reasonable proposal a fair hearing.

Colgate Caring Dentist Awards

The Colgate Caring Dentist Awards took place on December 1 at the Clayton Hotel, Burlington Road, Dublin. It was a very enjoyable evening, attended by more than 400 dentists, dental teams and family members. I congratulate all the dentists and dental teams who were nominated for making a difference to their patients' lives through extraordinary care and service. The fact that over 1,700 nominations were received from patients underlines the excellent work dentists across the country are doing on a daily basis. The overall winner was Dr Seán Ó Seachnasaí from SOS Dental, Raheny. The judging panel praised Dr Ó Seachnasaí for his caring, hands-on approach to treatment, especially "his ability to see the need to care for the patient's entire mental, physical and dental health". I wish to thank the judges Dr Barry Harrington, Dr Jennifer Collins, Dr Seton Menton and Dr Anne O'Neill for their dedication and commitment, and IDA Assistant CEO Elaine Hughes and Aoife Kavanagh for their hard work in organising this successful event, which has become the highlight of the dental calendar.

IDA branch training day

Our first branch training day will take place on February 15 and it is a great opportunity for branch officers and committee members to develop their skills to help strengthen our branches. Our branch network is a strength of our organisation and we look forward to enhancing and developing participation of members at regional level. The training day will give practical information on running meetings and events, and demonstrate the incredible support available from the staff in IDA House. I would encourage members to get involved with their local branch and support branch CPD and social events. It is always worth the effort to get involved and share knowledge with your fellow IDA members.

IDA podcast

The IDA has commissioned a new podcast called *The Whole Tooth*. During the series, we will be examining a wide range of issues that affect dentists. In the first episode, which is available now, we looked at the challenges facing new dentists starting out on their career. Thanks to Drs Daniel Collins, Jennifer Collins and Caroline Marron who joined our host Kieran Garry for the inaugural podcast. The feedback has been hugely positive and we look forward to further developing the series. If you haven't listened yet, give it a try. The podcast is available on iTunes.

Governance review

The work of the governance review committee has been continuing with a view to simplifying arrangements for members, modernising our structures in accordance with best governance practice, removing duplication, and mitigating risk. The Board and Council have endorsed the work of our governance review committee and it is hoped that the work will be concluded in spring 2019 and presented to the membership for approval.

Dental insurance poster

We have received feedback that in some practices/areas there is an increase in the number of patients attending with dental insurance. The IDA has produced a new poster guide to dental insurance for patients. The poster details questions that patients should ask when taking out or renewing dental insurance. It also states that dentists are not experts in insurance and that any questions the patient has should be directed towards their insurer.

HPV vaccine for boys

Human papilloma virus (HPV) has emerged as the leading cause of oropharyngeal cancer, especially among young people, and rates are rising steeply overall. It is linked to 5% of all cancers worldwide, including some that affect only men. Dentists are often the first to spot the telltale signs of oral cancer. In our recent Oral Health Task Force report, we recommended extending the vaccination programme to boys. The HPV vaccine is to be offered to teenage boys as well as girls from next year, after the initiative was recommended by the Health Information and Quality Authority (HIQA). Minister for Health Simon Harris has indicated that funding has been set aside for the vaccine, which HIQA has declared as safe. It is understood that a vaccination programme will be in place for the beginning of the school year in September 2019.

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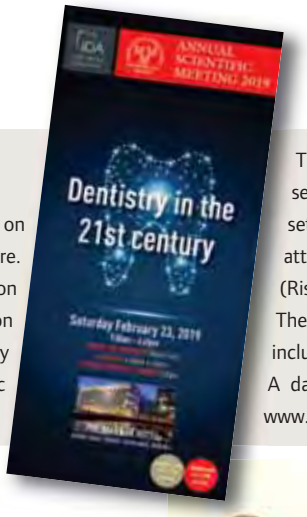
Metro Branch ASM



The Metro Branch Annual Scientific Meeting will take place on Saturday, February 23, at the Marker Hotel, Grand Canal Square. The day will commence with two hands-on courses, the first on posterior composites with Dr Paddy Crotty, and the second on medical emergencies by Safe Hands (please note that this is only part of your core CPD requirement – you must also cover basic life support (BLS)). Places are limited on both these courses.

The afternoon will consist of a varied and interesting lecture series with topics including: social media in a healthcare setting; compliance; TMJ; BOPT (implants); tooth fragment re-attachment; and, finally, a presentation from Dental Protection (Risk Credit available).

The Annual Dinner will take place that evening at 7.30pm, including retired members.

A day not to be missed: see you there! To book, log on to www.dentist.ie.

Annual Conference 2019

All roads lead to Galway from April 4-6 next for the Annual Conference 2019. Don't miss what is expected to be an educational and fun few days in the City of Tribes. To book, please go to www.dentist.ie.

UCC Dental School recognises student achievement

UCC's College of Medicine and Health awards Undergraduate Quercus College Scholarships on an annual basis to students with the highest aggregate score (1H) for each year of the programme (except the final year). From left: Scholarship winners Caoimhe Lanigan and Sydney Saikaly with Prof. Anthony Roberts and Prof. Helen Whelton and fellow winners Benoit Labonne and Rachel Murphy.

RCSI dinner

Pictured at the Annual Dinner of the Faculty of Dentistry, RCSI, on Saturday, October 20, 2018, were (from left): Sean and Norma Malone; Robin and Grainne Foyle; and, Fintan Hourihan and Helen Hayes.

Prestigious IADR Prize

Dr Paul Brady was awarded the International Association for Dental Research (IADR) Senior Clinical Research Category in London in July. Dr Brady's research was entitled 'Risk factors for hypoxaemia during intravenous sedation with midazolam for minor oral surgery in ASA I-II patients'.

HSE award for 'Lift the lip'

Congratulations to the public health nursing and community dental services team at Waterford Primary Care Services, who won the 'Improving Our Children's Health' category at the 2018 Health Service Excellence Awards.

The winning project, 'Public Health Nurse, Oral Health Early Intervention Initiative', centred around 'Lift the Lip', a quick and easy exam for screening infants and toddlers up to the age of four for signs of tooth decay. It provides skills for public health nurses to identify children who have early and active tooth decay, so they can be referred to local oral health services. Congratulations to Dr Pádraig Creedon (Principal Dental Surgeon), Jean O'Keeffe (Director of Public Health Nursing), Fiona McKeown (Asst. Director of Public Health Nursing), Breda McCarthy (dental nurse) and Dr Evelyn Crowley (Senior Administrative Dental Surgeon, HSE).

OSI meeting

Outgoing Orthodontic Society of Ireland (OSI) president Stephen Murray (left) pictured with Prof. Rolf Berhents at the recent OSI meeting in Galway. The new OSI president is Dr Ronan Perry.

Free mouthguard brochures for members

IDA members will receive five free copies of the IDA's brochure on mouthguards free with this edition of the *JIDA*. This brochure can be of great benefit to practices and patients. Mouthguards are an important service that dentists can provide to patients; if a patient gets a dentist-made, uniquely fitted mouthguard, it protects their teeth from injury when they play sport. If you would like to order more of these brochures, please contact Roisín in IDA House on 01-295 0072 or at roisin@irishdentalassoc.ie for more information and prices.

New offerings from Omega

Over the course of 2018, Omega Financial Management introduced new income protection options for the dental community in Ireland. According to the company, chief among these was the day one policy from Dentists' Provident. Omega states that there was a strong uptake by dentists of this and the policy offers tax relief, is more cost effective than its previous offering and features increased age allowances.

John O'Connor of Omega Financial Management.

Omega states that it has proudly worked with the IDA and the dental community for a long time and has built a strong understanding of the unique working arrangements and challenges experienced over the years. According to the company, throughout 2019 it will continue to offer a complete range of financial solutions to suit the whole dental community, from new graduates, associates and principals, to those who are looking at retirement.

New year – new (higher) resolution

You can see a sample of one of the new style websites by visiting www.macroomdental.ie

This is the time of year when we sit down and make those all-important 'must do' lists and, this year, we have every intention of doing every single one of them! One that you've probably had on there for the past few years is a website review, and the IDA has negotiated a special deal with Think Media to produce the very latest, fully responsive website that automatically resizes to be viewed on computers, tablets or smartphones.

They have simplified the offer for members so that you get the complete package, including registration, content, design and uploading on to the web, all for €750 plus VAT. The offer is open to all current members until the end of February, 2019 when it will revert to its normal price of €1,500 plus VAT. As an added incentive, the annual maintenance fee of €250 plus VAT is included for the first year. You can contact Tom or Paul at (01) 856 1166 or tom@thinkmedia.ie and they'll organise everything for you.

Diary of events

JANUARY

24 South Eastern Branch IDA – Meeting

Lyrath Estate, Kilkenny

24 Metro Branch IDA – joint meeting with Irish Endodontic Society

Hilton Charlemont Hotel, Dublin 2

FEBRUARY

17 Closing date for entry to the Diploma of Primary Care Dentistry (RSCI) Exam

Exam takes place in Cork and Dublin on April 1, 2019. Further information is available from: http://facultyofdentistry.ie/examinations/general-examinations/diploma-of-primary-care-dentistry.

23 Metro Branch IDA – Annual Scientific Meeting

Save the date

MARCH

21 Metro Branch IDA – Meeting and AGM

Davenport Hotel, Dublin 2

APRIL

4-6 IDA Annual Conference

Galmont Hotel, Galway

MAY

16 Irish Society of Dentistry for Children – Annual Scientific Meeting

Midlands Park Hotel, Portlaoise

Date for your diary

Colgate Caring Dentist of the Year Awards 2019 – Saturday December 7, Clayton Hotel, Burlington Road, Dublin. Watch this space for nominations opening!

NEW

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References: 1. Merry A, et al. AFT-MX-1, a prospective parallel group, double-blind comparison of the analgesic effect of a combination of paracetamol and ibuprofen, paracetamol alone, or ibuprofen alone in patients with post-operative pain. Department of Anaesthesiology, University of Auckland, New Zealand 2008. *compared with the same daily dose of standard paracetamol or ibuprofen alone.

Easolief Duo 500 mg/150 mg film-coated tablets Each tablet contains paracetamol 500 mg and ibuprofen 150 mg. **Presentation:** A White, capsule shaped tablet with breakline on one side and plain on the other side. **Indications:** Short-term symptomatic treatment of mild to moderate pain. **Dosage: Adults/elderly:** The usual dosage is one to two tablets taken every six hours up to a maximum of six tablets in 24 hours. **Children:** Easolief Duo is contraindicated in children under 18 years. **Contraindications:** Severe heart failure, known hypersensitivity to paracetamol, ibuprofen, other NSAIDs or to any of the excipients, active alcoholism, asthma, urticaria, or allergic-type reactions after taking acetylsalicylic acid or other NSAIDs, history of gastrointestinal bleeding or perforation related to previous NSAID therapy, active or history of recurrent peptic ulceration/haemorrhage, severe hepatic failure or severe renal failure, cerebrovascular or other active bleeding, blood-formation disturbances, during the third trimester of pregnancy. **Warnings and precautions:** This medicine is for short term use and is not recommended for use beyond 3 days. Clinical studies suggest that use of ibuprofen, particularly at a high dose may be associated with a small increased risk of arterial thrombotic events. Patients with uncontrolled hypertension, congestive heart failure, established ischaemic heart disease, peripheral arterial disease and/or cerebrovascular disease should only be treated with ibuprofen after careful consideration and high doses should be avoided. Careful consideration should be exercised before initiating long-term treatment of patients with risk factors for cardiovascular events. The use of paracetamol at higher than recommended doses can lead to hepatotoxicity, hepatic failure and death. Patients with impaired liver function or a history of liver disease or who are on long term ibuprofen or paracetamol therapy should have hepatic function monitored at regular intervals. Severe hepatic reactions, including jaundice and cases of fatal hepatitis, though rare, have been reported with ibuprofen. Paracetamol can be used in patients with chronic renal disease without dosage adjustment. There is minimal risk of paracetamol toxicity in patients with moderate to severe renal failure. Caution should be used when initiating treatment with ibuprofen in patients with dehydration. The use of an ACE inhibiting drug, an anti-inflammatory drug and thiazide diuretic at the same time increases the risk of renal impairment. Blood dyscrasias have been rarely reported. Patients on long-term therapy with ibuprofen should have regular haematological monitoring. Like other NSAIDs, ibuprofen can inhibit platelet aggregation. GI bleeding, ulceration or perforation, which can be fatal, has been reported with all NSAIDs at anytime during treatment. Combination therapy with protective agents (e.g. misoprostol or proton pump inhibitors) should be considered. Use with concomitant NSAIDs including cyclooxygenase-2 selective inhibitors should be avoided. NSAIDs may lead to onset of new hypertension or worsening of pre-existing hypertension and patients taking antihypertensive medicines with NSAIDs may have an impaired anti-hypertensive response. Fluid retention and oedema have been observed in some patients taking NSAIDs. NSAIDs may very rarely cause serious cutaneous adverse events such as exfoliative dermatitis, toxic epidermal necrolysis and Stevens-Johnson syndrome. Products containing ibuprofen should not be administered to patients with acetylsalicylic acid sensitive asthma and should be used with caution in patients with pre-existing asthma. Adverse ophthalmological effects have been observed with NSAIDs. For products containing ibuprofen aseptic meningitis has been reported only rarely. NSAIDs may mask symptoms of infection and fever. **Interactions:** Warfarin, medicines to treat epilepsy, chloramphenicol, probenecid, zidovudine, medicines used to treat tuberculosis such as isoniazid, acetylsalicylic acid, other NSAIDs, medicines to treat high blood pressure or other heart conditions, diuretics, lithium, methotrexate, corticosteroids. Refer to summary of product characteristics for other interactions. **Fertility, pregnancy and lactation:** Easolief Duo is contraindicated during the third trimester of pregnancy. **Driving and operation of machinery:** Dizziness, drowsiness, fatigue and visual disturbances are possible after taking NSAIDs. If affected patients should not drive or operate machinery. **Undesirable effects:** Dizziness, headache, nervousness, tinnitus, oedema, fluid retention, abdominal pain, diarrhoea, dyspepsia, nausea, stomach discomfort, vomiting, flatulence, constipation, slight gastrointestinal blood loss, rash, pruritus, alanine aminotransferase increased, gamma-glutamyltransferase increased, abnormal liver function tests, blood creatinine increased and blood urea increased. Refer to Summary of Product Characteristics for other adverse effects. **Pack size:** 24 tablets. **Marketing authorisation holder:** Clonmel Healthcare Ltd., Clonmel, Co. Tipperary. Marketing authorisation number: PA0126/294/1. Medicinal product not subject to medical prescription. For retail sale through pharmacy only. A copy of the summary of product characteristics is available upon request. **Date prepared:** March 2018. 2018/ADW/EAS/036H.

CLONMEL HEALTHCARE

ABOVE: A section of the strong attendance at this year's conference.

ABOVE RIGHT: Dr Niall Murphy handed over the reins to new HSE Dental Surgeons Group President Dr Christine Myers.

LEFT: Dr Paul Ashley, Paediatric Consultant, King's Hospital London.

Learning in the Midlands

The HSE Dental Surgeons Group held its Annual Seminar in Portlaoise in October, and there was an excellent turn out of members for an educational and social event.

Dr Joe Green, HSE National Oral Health Lead, spoke on the role of the National Oral Health Office, which is to provide clinical public health leadership and the best possible service, quality and standards to patients. He discussed the regulatory requirements on dental professionals, and congratulated delegates on their commitment to CPD in challenging times.

Dr Joseph Noar addressed the management of first permanent molars with poor long-term prognosis. He said that early strategic thinking is key, and suggested a set of rules to help develop protocols that support clinical decisions and informed consent. He described an app that his team is developing, which they hope will assist clinicians in decision-making once it is approved.

Dr Martin Foster of Dental Protection spoke on the GDPR and consent: practicalities for practice. He outlined the principles involved and the importance of being aware of our obligations to protect patients' data and use it appropriately. He updated delegates on the Assisted Decision-Making (Capacity) Act 2015, which changes the legal environment on consent for those with capacity issues.

Dr Anne O'Neill and Deirdre O'Neill gave a fascinating insight into the SOEL system and how the digitisation of dental records will contribute to patient health. They gave advice on how to use the system effectively, and examples of the huge volume of data being collected. They thanked those present for their contribution to the process, and emphasised that the data gathered will enable the HSE to plan resource allocation in the future.

Brush my teeth!

After lunch, Dr Caoimhin Mac Giolla Phadraig told the story of brushmyteeth.ie, and his tremendous work with a team of collaborators across a range of disciplines to create a suite of online resources for better oral hygiene for people with disabilities in Ireland.

Dr Paul Ashley gave some tips and tricks to try and avoid general anaesthetic (GA) for young children. He emphasised the value of good local anaesthetic and sedation where appropriate, and said that while a GA service will always be needed, there are a range of approaches that can help to avoid it in many circumstances. He talked about how to deal with dental emergencies, behaviour management of the young child (and their parents!), and products and equipment that can reduce the need for GA.

Day two of the Seminar began with a fascinating presentation from Dr Eleanor McGovern on the dental management of children with cleft lip/palate. Eleanor gave a detailed grounding in the many classifications of cleft lip/palate and the dental/maxillofacial issues that can arise. She outlined how good dental intervention from day one is vital, and offered advice and information to help support families and children who are dealing with an enormously complex and difficult set of circumstances.

Dr Susan Parekh gave the final lecture, on the emergency management of trauma for permanent incisors. Dental trauma is very prevalent, and Susan recommended using the International Association for Dental Traumatology guidelines in making treatment decisions.

For the remainder of the day, delegates had a chance to attend clinical workshops on dental radiology, infection control, medical emergencies and treatment planning in children.

Quintess supplying Heka Dental chairs

From left: Dr David Fawcett; Sarah Breen; Ava Straume; and, Dr James Pattison of Radiant Dentistry, Enniskillen.

Quintess Denta is the exclusive Irish distributor for Heka Dental chairs. According to Quintess Denta, these chairs allow for all essential information to be shown on your patient's napkin. The company states that this enables the dentist and assistant to see the settings for the active instrument out of the corner of their eyes and stay focused on the patient's mouth. Heka Dental has termed this "light ergonomics", stating that it helps to avoid straining the eyes by constantly having to change focus and light intensity.

Dr James Pattison of Radiant Dentistry in Enniskillen, Co. Fermanagh, recently purchased two of these chairs from Quintess Denta: "After evaluating all the offerings available to us, we chose Heka Dental chairs for their quality and comfort. We have worked with Quintess Denta for a number of years and find them great to deal with".

Grey's Anatomy dental scrubs

Diamond Designs uniforms is an Irish company that has won exclusive rights to distribute Grey's Anatomy brand dental scrubs, tunics and trousers in the UK and Ireland. The company states that Grey's Anatomy uniforms are made of a four-way stretch fabric and are available in a wide range of colours, from pink to turquoise. According to Diamond Designs, they are comfortable, durable, trendy and have been popular with Irish dental staff since they were launched in 2018.

New HIQA standards

Dr Jane Renehan at Dental Compliance Ltd advises that dental practices that provide services on behalf of the HSE should be familiar with the Health Information and Quality Authority's (HIQA) recently published national standards (September 2018). Entitled 'National standards for infection prevention and control in the community services', the standards were developed around providing care in a clean and safe environment, and prescribing antimicrobial medication in a safe manner. HIQA identifies four core infection prevention and control risk management measures:

1. Good hand hygiene.
2. Infection prevention and control training for dental staff.
3. Ensuring that dental equipment is clean.
4. Ensuring that the dental practice environment is clean.

In Dr Renehan's opinion, these measures are likely to form the focus when HIQA reviews dental premises or investigates patients' concerns about a service. She says that up-to-date documentary evidence is essential to demonstrate your dental compliance. Finally, Dr Renehan recommends the wide range of resource material on the members' section of the IDA's website (www.dentist.ie), which provides best practice guidance in respect of regulatory and statutory obligations.

Inspired by your needs

Dentsply Sirona states that dentists have very concrete views of how they would like to provide optimal treatment. At the International Dental Show (IDS) in Cologne in March 2019, the company will be presenting products that it states are co-ordinated precisely to these needs. According to the company, familiar workflows will be simplified and patient communication improved.

Dentsply Sirona states that it has been inspired by the needs of customers and will provide innovative answers to the current issues in dentistry. Digital technology is now a matter of course in many practices and laboratories. New technologies and their links make it possible for innovative diagnostic and therapeutic aids to be available to both specialists and general practitioners.

According to Dentsply Sirona, the SureSmile aligner is a clear aligner solution that also provides general practitioners with the opportunity to offer patients more treatment options and different price models with one platform. Start with a digital impression, take a 2D or 3D image, upload patient photos, approve the treatment plan, and have aligners produced.

Introducing **next generation technology** to help patients achieve Whole Mouth Health*[1]

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- Creates a protective barrier on hard and soft tissue to protect against bacterial regrowth

For better oral health outcomes,† advise your patients about New Colgate Total®

*Statistically significant greater reduction of cultivable bacteria on teeth, tongue, cheeks, and gums with Colgate Total® vs non-antibacterial fluoride toothpaste at 4 weeks, 12 hours after brushing.
†Significant reductions in plaque and gingivitis at 6 months vs non-antibacterial fluoride toothpaste; $p<0.001$.[2]

References: 1. Prasad K et al, *J Clin Dent*, 2018;29 (Spec Iss A) **2.** Delgado E et al, *J Clin Dent*, 2018;29 (Spec Iss A)

Colgate

New Technology Briefing: New Colgate Total®

The next generation toothpaste for Whole Mouth Health - pathway to everyday prevention

Colgate® announces the launch of its next generation Colgate Total® toothpaste designed to proactively protect hard and soft oral tissues - tongue, teeth, cheeks and gums - against the most prevalent oral diseases: gingivitis and caries.

Periodontal disease and caries are both preventable in their early stages (Gingivitis and White Spot Lesions, respectively). Yet, despite the efforts of the dental profession to improve oral hygiene, these diseases continue to be a public health concern, with up to 50% of the global population estimated to be affected.[1,2] Moreover, patients are looking for guidance and support from their dentist to make sure they are being as proactive as possible for better oral health.

Reducing periodontal disease and caries offers societal benefits

Reducing the incidence and prevalence of caries and periodontal disease has the potential not only to improve health and wellbeing in the general population, but also to reduce the growing financial pressure on publicly funded healthcare systems.[3]

The economic burden of these untreated diseases is likely to increase due to population longevity which is an important aspect to policy makers.[3,4] Attention has focused on controlling bacteria in dental plaque, while the value of Whole Mouth Health has been underestimated.

Whole Mouth Health and the role of dental biofilm

The concept of Whole Mouth Health is based on the importance of achieving more than just healthy teeth -all oral tissues need to be healthy. Teeth, the hard tissue, account for only 20% of oral structures, while the soft tissue, tongue, cheeks and gums represent the 80% majority. To retain a healthy mouth, protection of all surfaces is needed.

Disrupting the cycle

Bacteria can colonize on the teeth, initiating the formation of dental biofilm, but they also adhere to soft tissues in the mouth. From here they recolonize on the surface of teeth that have been brushed, rebuilding the dental biofilm causing diseases to reoccur. Protecting the soft tissues prevents adherence of bacterial biofilm and so protects the soft tissue and hard surfaces from bacterial colonization.

Regular fluoride toothpaste* is not enough to achieve Whole Mouth Health - it only protects hard surfaces with fluoride. Regular fluoride toothpaste* does not protect the hard surfaces from repopulating with bacteria harbored in the soft tissues.

Whole Mouth Health as the new paradigm for prevention

The route to improving Whole Mouth Health is to prevent the build-up of oral biofilm and achieve good bacterial control on all oral surfaces, both hard and soft tissues.

The best way to achieve this is having an everyday prevention routine with the daily use of a toothpaste with proven protection against bacteria - a toothpaste that can strengthen the mouth's natural defenses.

The next generation toothpaste, a clinically proven step forward in the quest for Whole Mouth Health

Decades of research have led to the development of a patented formulation for new Colgate Total®. This advanced toothpaste helps achieve Whole Mouth Health with a new technology that works with dual zinc plus arginine to provide proactive protection to the whole mouth, and help prevent the most relevant oral diseases and conditions.

A toothpaste designed to work with the chemistry and biology of the mouth:

The formulation of dual zinc plus arginine effectively controls biofilm, through:[5]

- Weakening to kill bacteria by interfering in bacteria metabolism and reducing their nutrient uptake
- Slowing bacterial growth
- Enhancing soft tissue's natural defense with a protective barrier that adheres to tongue, teeth, cheeks and gums
- Limiting bacterial adherence to hard and soft tissues for 12 hour protection[6,7]

Clinically proven whole mouth antimicrobial protection

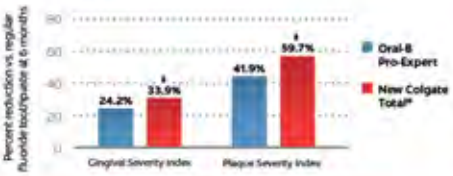
Studies show that new Colgate Total® reduces bacteria on teeth, tongue, cheeks, and gums (TTCG) by up to **38.3%** on Teeth, **39.7%** on Tongue, **35.4%** on Cheeks, and **25.9%** on Gums.[8,**]

Clinically proven to reduce plaque and gingivitis

New Colgate Total® is clinically proven to reduce plaque (by 30.1%; $p < 0.001$) and gingivitis (by 26.3%; $p < 0.001$) when compared to ordinary non-antibacterial fluoride toothpaste after six months.[9]

Superior*** plaque and gingivitis reductions compared to Oral-B Pro-Expert

New Colgate Total® helped patients achieve superior*** plaque and gingivitis control compared to Oral-B Pro-Expert.[9]



New Colgate Total® - proactive protection for Whole Mouth Health

- Prevents tooth decay/cavities
- Superior plaque reduction[9]
- Superior reduction in gingivitis[9]
- Superior reduction in gum bleeding[9]
- Fights bacteria to keep breath fresh
- Superior reduction in sensitivity[8]
- Superior reduction in tartar[9]
- Reduces stains and stain intensity
- Protects against erosive damage
- Helps repair weakened enamel

Additional benefits:

- Long lasting freshness[8]
- For 12 hours fresh breath[8,9]
- The fluoride level meets with the international standards for toothpaste efficacy in caries prevention

New Colgate Total® is the advanced way to achieve Whole Mouth Health by proactively controlling and protecting against bacteria on 100% of mouth surfaces, Teeth, Tongue, Cheeks and Gums.

By recommending new Colgate Total® to your patients, they will have an advanced single solution for better, more complete oral health[5]

If you would like more information about the clinically proven benefits and efficacy of new Colgate Total®, visit our website at:
www.colgateprofessional.ie

* defined as non-antibacterial toothpaste
** after 4 weeks use, 12 hours after brushing
*** statistically significant ($p < 0.001$) differences between Colgate Total® and Oral-B Pro-Expert toothpastes (only relevant data shown in the graph, comparison to Oral-B Pro-Expert stannous fluoride, sodium hexametaphosphate and zinc lactate formula, available in UK)
† vs ordinary non-anti-bacterial fluoride toothpaste
‡ with continuous use, after 3 weeks
‡ statistically significant ($p < 0.001$) differences between Colgate Total® and Oral-B Pro-Expert toothpastes

References:
1. Nazir MA. Int J Health Sci (Qassim). 2017 Apr-Jun; 11(2): 72–80. **2.** Kassebaum NJ. Journal Dent Research 2015, Vol 94, Issue 5. **3.** Perio & Caries Project. Available at: http://www.efpo.lg/publications/projects/perioandcaries/ **4.** Tonetti, et al. J Clin Periodontol 2017; 44 (Suppl. 18): S135–S144. **5.** Mainus L et al, J Clin Dent, 2018;29 (Spec Iss A). **6.** Prasad K et al, J Clin Dent, 2018;29 (Spec Iss A). **7.** Delgado E et al, J Clin Dent, 2018;29 (Spec Iss A). **8.** Data on File, Hu & Mateo, Internal Report, April 2016. **9.** Lee C et al, J Clin Dent, 2018;29 (Spec Iss A). **10.** Hu D et al, J Clin Dent, 2018;29 (Spec Iss A).

No laughing matter

Dental practitioners can use nitrous oxide inhalation sedation safely.

Inhalation sedation using nitrous oxide is a very helpful technique, which can be of great benefit to patients. Like all clinical techniques, inhalation sedation should be used appropriately, and practitioners who use it need to be aware of the relevant professional requirements and potential ethical issues.

Training and patient safety

First of all, it is important to note that the Dental Council expects the clinician to be able to demonstrate that they know what they are doing. This means that they need to have completed recognised postgraduate training in the technique.

Patient safety is the primary consideration, and it is expected that this is kept in mind at all times. Although nitrous oxide was once used as a way of rendering patients unconscious (essentially through hypoxia), it does not have anything approaching the anaesthetic potency of the modern agents routinely used in general anaesthesia. It is therefore a useful and comparatively safe sedative agent.

There are few absolute contraindications to the use of nitrous oxide, but there are some circumstances and conditions where careful consideration will be required before deciding the technique is appropriate to use. A clear understanding of what to look for (and the patient's current medical history of course) is absolutely essential.

The technique involves a wide safety margin. There is a small risk of 'diffusion hypoxia' as well as over-sedation, so good technique and careful monitoring of the patient is essential. All equipment must be maintained properly and checked thoroughly before use. Constant clinical monitoring and communication with the patient is required and the Dental Council states that the use of a pulse oximeter is essential.

Failure to adhere to any of the requirements around training, equipment or monitoring will create difficulties for the clinician should a complaint arise in relation to treatment under sedation.

Workplace considerations

As well as patient safety, employers also need to maintain a safe working environment. To prevent the risk of repeated long-term exposure to nitrous oxide in the surgery, appropriate scavenging equipment should be in place.

Another ethical and practical requirement is the presence of a 'second person'. This should preferably be a suitably trained member of the dental team who can assist with patient monitoring. Once again, patient safety is the prime consideration but clinician safety is also a factor.

Apart from the 'second person' being able to assist with any issue, complication or emergency situation that may arise, an operator/sedationist will clearly be put at risk if left alone at any point with a sedated patient who, by definition, is in a state of 'altered consciousness'. This may cause the patient to 'remember' and believe details that may not actually be true recollections. Allegations may be made that cannot easily be refuted, added to which the clinician will be subject to criticism for working unsupported.

Informed consent

A sedated patient will not be in a position to properly consent to treatment. For this reason the patient's agreement to the procedure, following discussion of options and potential risks, should be obtained beforehand.

This should include a clear explanation of the possible side effects of the sedation (which some patients may find unpleasant) as well as the operative treatment. Written consent to treatment is required, and clear written pre-/post-treatment advice and instructions should be provided to the patient and/or relevant accompanying persons.

As with any treatment, appropriate consent will mean that the patient fully understands what the treatment involves, and what to expect, and should therefore not have any nasty surprises that may give rise to concerns or a complaint against the clinician.

If there are any doubts around appropriately obtaining and recording consent for treatment under sedation, please contact Dental Protection or your dental defence organisation for further advice.

Dr Martin Foster BDS MPH DipHSM

Martin is Head of Dental Services (Ireland) at Dental Protection.

Ringing with confidence

In Dublin in December, the winners of the Colgate Caring Dentist and Dental Team of the Year Awards were announced at a fantastic ceremony, with RTÉ's Joe Duffy as Master of Ceremonies.

Above: RTÉ radio host Joe Duffy congratulates Colgate Caring Dentist of the Year Dr Seán Ó Seachnasaí.

Right: Winner Dr Seán Ó Seachnasaí (centre) with IDA President Dr Kieran O'Connor and Christina Havaldar, Professional Oral Care Leader for Colgate in Northern Europe.

The 2018 Colgate Caring Dental Awards ceremony was a very special occasion for the Irish dental profession. Staged at the Clayton Burlington Hotel in early December, over 400 dentists and dental team members attended the Gala Ball. This is an invitation-only event, where dentists or their dental teams have to be nominated by a patient for an award before they are invited to attend.

Dental VIPs at the Ball included the President of the Association, Dr Kieran O'Connor, the Honorary Editor of the *Journal of the Irish Dental Association*, Dr Ciara Scott, officers of the Association and the executives of Colgate, led by Christina Havaldar, Professional Oral Care Leader for Colgate in Northern Europe. Representatives of the Irish Dental Trade Association, Gerry Lavery of Septodont and Peter Morris of Morris Dental, were also present for the glittering event.

Huge entry

More than 1,700 entries were received, each nominating a dentist or dental team for the care they had provided to a patient who wanted to tell the judges about that care. In some cases, the expression of a simple kindness was enough to touch the heart of a patient, but there were many complex cases involving very ill or very nervous patients. The judges spent a long time deliberating over the entries, affording due care and diligence to each case.

Judges hugely impressed by patients' testimony

The judges for the Awards, Dr Barry Harrington, Dr Seton Menton, Dr Anne O'Neill, and Dr Jennifer Collins, are keen to communicate some key points to the dentists and dental teams about how they approached their work and how winners are chosen.

The judges were hugely impressed by the friendship, kindness, sympathy and understanding extended to patients by the whole dental team, sometimes in very trying circumstances for patients. These testimonies from ordinary patients about the exceptional care and understanding from the majority of the dental profession and their teams were very heartening to the judges.

The judges were also keen to point out that entries are tested and verified – as far as is reasonably possible – to protect the integrity of the Awards. As a consequence of this process, it is not really possible to set out to win one of these Awards. It is the words of the patients making the nominations that set certain entries apart. That's what makes the ceremony such an outstanding event.

Colgate Caring Dentist of the Year
OVERALL WINNER 2018

Dr Seán Ó Seachnasaí

Dr Ó Seachnasaí was awarded Colgate Caring Dentist of the Year 2018 for his treatment of a patient suffering from depression and lacking in self-confidence, due to his appearance and loss of teeth after surviving stage four cancer. The patient didn't want to talk to people and began to isolate himself. However, when he visited Dr Ó Seachnasaí, he felt at ease immediately and the patient began to slowly regain his confidence and said: "I had a good smile, a new life and outlook thanks to Seán. Sometimes in life you do get a second chance".

The judges' report read:

In verifying his nomination of Dr Ó Seachnasaí, this patient insisted that although he received outstanding dental treatment, it was the additional verbal support and encouragement from Seán that lifted the patient out of his deep depression and allowed him to face the world again. The patient said that he felt Seán had given him a second chance at life. In this instance, the clinical support of the dentist was matched by a wonderful human empathy and understanding, which translated into a form of encouragement that had a very significant impact on the patient's mental health and life.

Dr Seán Ó Seachnasaí, winner of the Colgate Caring Dentist of the Year 2018, with his wife Jan (in white), and practice staff Leanna Fitzsimons, left, and Marita Moylan, right, after receiving his award.

For his ability to see and treat the whole human being while still being a skilled dentist, Dr Seán Ó Seachnasaí is the Colgate Caring Dentist of the Year for 2018.

Colgate Caring Dentist of the Year 2018
CONNACHT WINNER

Dr James Flood

Dr Flood's patient had a difficult diagnosis and required significant treatment involving many complex procedures. The patient was quite fearful of the dentist but said: "Since going to James, it has been a pleasure from start to finish. I have gotten teeth pulled, filled, cleaned, crowned, you name it. I no longer feel nervous attending the dentist".

The judges' report read:

In a patient that has pericarditis, any oral treatment could cause bacteria to enter the bloodstream (a bacteraemia) via the gums. If that happens, it is likely to cause a severe heart lining (pericardial) infection with potentially fatal consequences.

Dr James Flood of Eyre Square Dental in Galway, when presented with a patient who has had several bouts of pericarditis (and also myocarditis), managed all the necessary treatment including an implant without triggering a bacteraemia. His patient is acutely aware of his condition and very grateful for the levels of care and skill provided by Dr Flood.

For his skill in treating, and in earning the confidence and appreciation of a patient with a challenging condition, Dr James Flood is the Connacht winner of the Colgate Caring Dentist of the Year 2018.

Colgate Caring Dentist of the Year 2018
MUNSTER WINNER

Dr Cristina Barba Rabadan

Based in Limerick, Dr Rabadan's keen eye and persistence saved her patient's life. Despite some reassurances, Dr Rabadan insisted that her patient had a lump rechecked and it was found to be a rare form of cancer that would require at least two operations.

The judges' report read:

In 2017, during a routine examination, the dentist noted a lump on the soft palate and asked the patient to have it checked with a doctor. This was done and it was not considered significant. On a follow-up examination with the dentist, the lesion was still present and the dentist insisted on having it rechecked immediately. A biopsy showed it was a rare malignant condition, which required at least two operations. The patient reported that the condition was contained even though treatment continues, and nominated Dr Rabadan for her care.

For her insistence on the thorough investigation of a soft palate lump, despite previous medical assessment, Dr Rabadan is the Munster winner of the Colgate Caring Dentist of the Year Award for 2018.

Colgate Caring Dental Team of the Year Award 2018

Ballyjamesduff Dental

The staff at Ballyjamesduff Dental Clinic in Co. Cavan were named the Dental Team of the Year. They were nominated by a patient for the kind and considerate treatment she received. The team worked with the patient's son to ensure the patient received the treatment she needed with the minimum worry and stress. The judging panel noted the very effective teamwork that was evident across the practice.

The judges' report read:

A very nervous patient who attended to have a painful tooth removed decided she could not face the treatment and left the practice despite having taken the prescribed medication for relaxation in advance. Her son later booked an appointment for her for some fillings and the receptionist arranged with the son and the dentist that the extraction could also take place if the patient agreed, but the son would not tell her in advance. When the patient arrived, the dentist asked if they could remove the tooth. The patient agreed and was delighted to have the extraction without worrying about it in advance. She nominated the practice team for their commitment to having her treated with the least possible worry and duress.

For this simple yet very effective teamwork to ensure a patient received her necessary treatment, Ballyjamesduff Dental is the Colgate Caring Dental Team of the Year for 2018.

From left: Dr Helen Matthews; Dr Niamh Rice; and, Alma Clarke of Dental Team of the Year winners Ballyjamesduff Dental, with Christina Havaldar of Colgate.

Christina Havaldar, Professional Oral Care Leader for Colgate in Northern Europe, addressed the assembled dentists and dental teams.

Joe Duffy was master of ceremonies at the gala ceremony.

Of course, these are overall winners. Each dentist and dental team that had been nominated received a certificate to acknowledge that a patient had written into the judges to place on record their gratitude for the treatment thay had received. It is one thing to be grateful for the care you receive, but to go to the trouble of writing that down and sending it to a third party demonstrates a high level of appreciation and therefore, each team and dentist is a winner in their own right and on their own terms for the treatment they provided to their patients.

Colgate Caring Dentist of the Year 2018
ULSTER WINNER

Dr Joanne McGarrity

The worst part of cancer can often be the treatment. However, thanks to Dr McGarrity, one patient didn't have to go through chemotherapy or radiation therapy. Her elderly patient needed only surgery, which she received very promptly and from which she recovered well.

The judges' report read:

During the course of a routine dental health check, Dr McGarrity spotted a small, suspicious abnormality on the tongue of an elderly lady. The dentist acted immediately, getting an appointment in St James's Hospital the following week, and the patient had surgery within a further week to remove a cancerous lesion. The patient recovered well, did not need any follow-up chemo- or radiation therapy, and is immensely grateful to Dr McGarrity for spotting the problem early enough to ensure the surgery was as minimal as possible.

For her skill in spotting a problem early and for ensuring that her elderly patient got the appropriate treatment promptly, Dr McGarrity is the Ulster winner of the Colgate Caring Dentist of the Year for 2018.

Colgate Caring Dentist of the Year 2018
REST OF LEINSTER WINNER

Dr Lisa Lucey

After spotting a suspicious mole on a new patient's face, Dr Lucey enquired if she had any more anywhere on her body. The patient said she had some on her arm and ultimately, a melanoma was diagnosed and successfully treated.

The judges' report read:

A patient looking for a new dental surgery used social media to find Lucey Dental. During the course of the initial examination and assessment on the first visit, a mole on the patient's face was a cause of concern for Dr Lucey. On further checking with the patient, it was established that there were also moles on her arm. This triggered Dr Lucey to refer the patient to a dermatologist and one of the moles was malignant. The patient had surgery, is cancer free, and in a programme to monitor her skin. She is very grateful to her dentist for the total professional care afforded to her by Dr Lucey.

For her willingness to assess the whole health of a new patient, including skillfully asking relevant questions, Dr Lucey is the Rest of Leinster winner of the Colgate Caring Dentist of the Year Award for 2018.

Dental Team of the Year winner Ballyjamesduff Dental.
Back row (from left): Kim Brady; Aoife O'Connell; and, Alma Clarke.
Front row (from left): Samantha Gallagher; Dr Niamh Rice; Dr Helen Matthews; and, Michelle McNicholl.

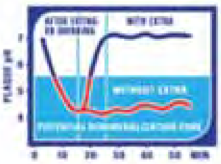
Assistant Chief Executive of the Association, Elaine Hughes (left) and the President of the Association, Dr Kieran O'Connor (centre) with the Colgate team at the Awards. From left; Michal Nunn, Group Brand Manager – Professional Marketing, UK & Ireland; Cristina Havaldar, Professional Oral Care Leader, Northern Europe; Selina Hartnett, Professional Business Manager – UK & Ireland; and Tom Farrelly, Customer Development Manager, Colgate Palmolive Ireland.

Wrigley's Extra.

Another way to improve your patients' oral health

Significant changes in lifestyle mean that traditional eating habits have altered, and people are now eating on the go more than ever before. The more we snack, the more our teeth come under attack.

- Independent clinical research proves that chewing sugarfree gum for 20 minutes after eating or drinking helps neutralise the plaque acid attacks that can cause tooth decay[1] and contributes to removing food remains[2]
- Increased flow of saliva also promotes the remineralisation of tooth enamel,[3] thus reducing one risk factor for developing tooth decay[4,5]



Chewing sugarfree gum after eating and drinking helps neutralise plaque acids, assisting in keeping teeth clean and healthy.[1,2,3,4]

Help your patients improve their oral health through one extra simple and enjoyable step – recommend Wrigley's Extra®.

To learn more about the science behind the benefits of sugarfree gum visit **www.wrigleyoralhealthcare.ie**

[1]Wiecenbos E, Lenelle G, McMahon K, Zibell S. Benefits of Chewing Gum: Oral Health and Beyond. Nutrition Today. Volume 43, Number 2, March/April 2008 [2]Leach SA, et al. Remineralization of artificial caries-like lesions in human enamel in situ by chewing sorbitol gum. J Dent Res 1989;68:1064-8. [3]Creanor SL, et al. The effect of chewing gum use on in situ enamel lesion remineralization. J Dent Res 1992;71:1895-1900. [4]Beiswanger BB, et al. The effect of chewing sugar-free gum after meals on clinical caries incidence. J Am Dent Assoc 1998;129:1623-6. [5]Szöke J, et al. Effect of after-meal sucrose-free gum-chewing on clinical caries. J Dent Res 2001;80:1725-9. [6]Extra® sugarfree gum is beneficial for dental health as it helps neutralise plaque acids.

Roll of honour

Here are the dental teams who were nominated by their patients for their exceptional care.

Avondale Dental Clinic

Conor Begley and Dr Catriona Begley.

Ballinrobe Dental
Dr Conor Gill.

Ballyjamesduff Dental Surgery
From left: Aoife O'Connell; Dr Helen Matthews; Michelle McNicholl; Alma Clarke; and, Dr Niamh Rice.

Bantry Dental
Dr Claire O'Connor.

Blackrock Dental
From left: Dr Morgan O'Gara; Daphne O'Hara; and, Dr Thomas Feeney.

Bowe Dental Foynes and Roxboro
From left: Meabh O'Brien; Dr Ray Power; Dr Maria Hughes; Jennifer Behan; Dr Robert Bowe; Marian Troy; Mike Behan; and, Stacey Cormack.

Bridge Place Dental Practice
From left: Dr Helen Casey; Dr Colm O'Loghlen; and, Jane O'Loghlen.

Boyne Dental & Implant Clinic

From left: Dr Eamon O'Reilly; Becky Dunphy; Grace Coleman; Dr David Murnaghan; Dr Orla Clarke; Dr Niall Neeson; Josephine Cartmill; and, Shona Murray.

Burlington Dental Clinic

From left: Elena Tuns; Ana McNerny; Dina Lazarenco; Catherine Houlihan; Dr Tom Houlihan; Marriane Budiongan; Emma Whelan; Alma McNally; Maeve Fahy; and, Irene Smart.

Dental Care Ireland Callan Dental
From left: Dr Eimear Rowan; Aoife Breen; Dr Jacqueline Clune; Caroline Gillson; and, Dr Omar El Baradie.

Carlow Dental Centre
From left: Liviu Pogan; Erika Hayfron; Dr William Hayfron; Dr Zsuzsanna Kocsis; Dr Krisztian Sallai; Dr Krisztina Polgar; Grace Brannock; Lydia Dunne; Aoife Murphy; and, Sarah Sinnott.

Citygate Specialist Dental Clinic
Dr Seamus Sharkey and Dr Jennifer McCafferty.

Claregalway Dental Surgery
From left: Dr Niamh O'Mahony, Dr Darragh Byrne and Dr Grainne Hurley.

Clear Dental Care Crumlin and Clear Dental Care Dublin 8
From left: Lauren McClory; Dr Jane O'Regan; Ashley Caulfield; Leonie Dennison; Dr Patrick Rooney; Avril McManus; Jaclyn Devereux; Linda Phelan; Rebecca Carey; Toni McAdam; Dr Eimear McHugh; and, Dr Caominhne O'Scanaill.

Cleary FitzGerald Dental Practice
Dr Maurice FitzGerald and Dr Siobhan Cleary.

Cork Dental Smiles
Dr Maria Byrne.

Court Street Dental Centre
From left: Jonny Swan; Helen Woods; Dr Roland Woods; and, Dr Frank Rowe.

Crescent Dental
From left: Dr Miriam Quilty; Dr Pauraic Keogh; and, Dr Anna Foley.

Dental Care Ireland Kells
Dr Kate Clerkin (left) and Dr Kristin Nason.

Dental Department HSE, Grogan's Road, Wexford
Dr Iseult Bouarroudj.

Diamond Smiles Dental
Rachel Brown (left) and Anne Marie Moran.

Docklands Dental
From left: Dr Gregg Barry; Dr Marie O'Neill; and, Dr Danny Collins.

Dr Asta Reddin & Associates
From left: Mary Finn; Lisa Kineavy; and, Dr Asta Reddin.

Dublin Street Dental Clinic
Dr Naoishe Gorham and Dr Thomas Canning.

Dunboyne Orthodontics
Dr Mary Ngeh (left) and Paulina Leszczynska.

Expressions Dental and Cosmetic Clinic
From left: Dr William Rymer; Norma Grace; Dr Sarah Rymer; and, Fiona Bulfin.

Grady Family Dental
Dr Miriam Grady and Joe Morrin.

Happy Dental
Dr Monica Morosanu.

Kinsale Dental
From left: Dr PJ Power; Dr Janet Power; Dr Maeve Murphy; Karen White; and, Orla O'Rourke.

JME Dental Devon Park Dental Clinic • JME Dental Middle Court Dental Clinic
From left: Dr Leah Smyth; Dr David Finnegan; and, Dr Caroline Stewart.

Kiwi Dental
Dr Sana Askary.

Lucey Dental
From left: Kiera O'Neill; Deborah Gough; Conor Lucey; Dr Lisa Lucey; Claire McTague; and, Gisela De Souza Peria.

Mac Domhnaill Dental
Ó chlé: An Doctúir Susan Crean; An Doctúir Marcas Mac Domhnaill; agus, Caroline O'Halloran.

Mayberry Dental Care
From left: Amanda Hudson; Dr Emma Molamphy; and, Dr Cóilín Crehan.

McGarrity Dental Practice
From left: Dr Joanne McGarrity; Joanne Lane; Marian Moran; Teresa McGovern Graham; Dr Danielle Gumley; and, Aisling McGovern.

Milltown Dental Clinic
From left: Ruta Kervaslav; Dr Tom Munroe; Edel Tighe; and, Brenda McCormack.

Navan Dental
Dr Michael Bailey and Kelly Grant.

Navan Orthodontics
Dr Sinead O'Hanrahan (left) and Dr Christine Smith.

Noonan Dental Care
Back row (from left): Laura Williams; Gillian Shannon; Dawn Blackhall; Niamh Nolan; Ciara Jennings; Edel Copse; Catherina Devine; Orla O'Sullivan; and, Carmel Monaghan. Front row (from left): Dr Deirdre Toomey; Suzanne Noonan; Sheila Johnston; Dr Anna Stuckenberg; and, Dr Eamonn Noonan.

Nuala Cagney Dental Practice
From left: Margaret Sheahan; Emma O'Leary; Dr Nuala Cagney; Dr Louise O'Donovan; and, April O'Hanlon.

OC Dental
From left: Jennifer Murtagh; Dr Mairead O'Connor; Eleanor Sherlock; Kellie Gibbons; Alistair Coogan-Martin; and, Dr Emma Rose McMahon.

Oranmore Dental Care
From left: Nora Hernon; Tara Coghlan; Dr Maeve O'Toole; Lily Donoghue; Sarah Carton; and, Dr Peter McDonnell.

Peter Doyle Dental Centre
Dr Peter Doyle and Geraldine Kennedy.

Smart Dental
Dr Svetlana Kilgannon and Warren Kilgannon.

Portobello Dental Clinic
From left: Tara Ryan; Deirdre Quirke; Asta Brazaitiene; Dr Helen Walsh; Dr Nicholas Beirne; Dr Gina Kilfeather; Dr Daisy McCarthy; and, Dr Edward Madeley.

Redmond Dental
Dr Keith Redmond.

Quinlivan Dental
From left: Dr Chloe Quinlivan; Mary Quinlivan; Dr Michael Quinlivan; Dr Sarah Kate Quinlivan; and, Dr Danielle Quinlivan.

Railway Dental Surgery
From left: Yvonne Conlon; Louise Dunne; Dr Frances Little; and, Sarah Moyles.

Spring Dental Buncrana
Dr Aneta Spring.

Smiles Dental Cork • Smiles Dental Dundrum • Smiles Dental Limerick • Smiles Dental O'Connell Street • Smiles Dental Tallaght • Smiles Dental Waterloo Road
Back row (from left): Michael Lynch; Bernadett Ratkai; Sam Enright; Nadia McAdam; Dr Ameerah A. Fakim; Dayse Barsottelli; Dr Aoife Dunne; Alexandra Patyra; Martin Tierney; Dr Joanna Szydlowska; Jamie Di Silva; Gareth Buckley; Majella Koukoulis; Dr Michael Koukoulis; Dr Carla Navarro Milla; and, Dr Katarzyna Dobrylko. Front row (from left): Sue Molloy; Dr Ann Gilligan; Dr Salma Naz; Dr Martin Robledo; Dr Sana Shinki; Dr Nausheen Raza Hussain; and, Sinead Owens.

Post Graduate Certificate

Practical Management of Advanced Aesthetic & Restorative Dentistry

PG Cert PMAARD

PRESENTER:
Dr Subir Banerji
BDS, MClinDent (Prostho), PhD, MFGDP (UK), FICOI, FICD

Dr Banerji has been a private practitioner in London since 1987. He is also a faculty member with King's College Dental Institute in London and the Programme Director of MSc Aesthetics Dentistry. Dr Banerji lectures nationally and internationally, is published in peer reviewed international journals and is a reviewer for the Oral Health and Preventive Dentistry publication by Quintessence. He has conducted several Postgraduate and Master's level courses in aesthetics, implants, composites, fixed & removable prosthodontics and occlusion in the UK, US, Europe, Australia, Hong Kong and India.

PRESENTER:
Dr David Reaney
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Dr Reaney has been a Principal in General Dental Practice since 1988. His current Practice is limited to Prosthodontics and Implant Dentistry.
Previously a part-time clinical Lecturer at the School of Dentistry, Belfast, he has presented seminars and lectured widely in Ireland and the UK.
Dr Reaney is the Module Lead for the MSc in Aesthetic Dentistry, King's College Dental Institute, London and acts as an accredited Dental Expert witness and Clinical Advisor and Expert to the General Dental Council – London.

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From left: Dr Gillian Smith; Dr Dermot Canavan; and, Dr Aysha Akbar Khan.

The James Clinic Enfield, Ferbane, Mullingar
Back row (from left): Dr James Hiney; Dr Orry Torsney; Dr Maurice Treacy; Farkhanda Nasir; Hannah Simpson; Emma Jane Ginty; Leanne Higgins; Sara O'Connor; Anne O'Connor; Vivienne Yeates; Niamh Corcoran; Dr Seif Mohamed; and, Dr Christopher Ryan. Front row (from left): Tracy Corcoran; Tracey Monoghan; Dr Joanne Mohammed; Shannon Murray; Sabina McLoughlin; Niamh Glynn; Deirdre Cusack; and, Leanne Campbell.

Tom Houlihan Orthodontics

From left: Maeve Fahy; Dina Lazarenco; Ana McNerny; Catherine Houlihan; Dr Tom Houlihan; Emma Whelan; Elena Tuns; Marriane Budiongan; Alma McNally; and, Irene Smart.

Touchstone Dentistry
From left: Peter Bodeker; Aoife Killoch; Dr Seung-Min Cha; Amyleigh Boyne; Dr Victoria Turner; Esther Brothwood; Shannan Carey; and, Dr Andrew Turner.

Vard Dental
From left: Maria O'Rourke; Ilaria Balconi; Rosemary Vard; Dr David Vard; and, Dearbhaile Larkin.

Virginia Dental Surgery
From left: Kim Brady; Dr Helen Matthews; Michelle McNicholl; Dr Niamh Rice; and, Samantha Gallagher.

Christmas Stars

The outstanding dentists who were nominated by their patients for an individual award.

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The Dental Suite

Dr Sana Askary
Kiwi Dental

MUNSTER WINNER

Dr Cristina Barba Rabadan
Smiles Dental Limerick

Dr Catherine Barry
Catherine Barry Dental

Dr Gregg Barry
Docklands Dental

Dr Caitriona Begley
Avondale Dental Clinic

Dr Nicholas Beirne
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Dr Iseult Bouarroudj
Dental Department HSE
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Bowe Dental

Dr Darragh Byrne
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Dr Nuala Cagney
Nuala Cagney Dental Practice

Dr Helen Casey
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Touchstone Dentistry

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Boyne Dental & Implant Clinic

Dr Jack Coffey
Deansgrange Dental Clinic

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Application of the Donabedian model of evaluation to assess an organisational development project to introduce a nitrous oxide inhalation sedation service in a community dental setting

Statement of the problem: Dental anxiety is a barrier to dental treatment. HSE Primary Dental Services in Cavan/Monaghan had limited options for treating anxious children.

Purpose of the study: Evaluation of an organisational development project to introduce a nitrous oxide inhalation sedation service for the provision of dental treatment to children with dental anxiety in a community dental setting, HSE Cavan/Monaghan.

Methods: This organisational development project was guided by the Health Service Executive Change Model, which focuses on the service user and stakeholder engagement. The project was implemented to enhance the treatment options available for anxious paediatric patients. Nitrous oxide sedation is the gold standard for treating anxious dental paediatric patients versus general anaesthesia; it facilitates the provision of dental treatment in a calm and relaxing environment, reducing anxiety or eliminating it altogether. The evaluation of this organisational development change project was investigated by applying the Donabedian model of evaluation.

Conclusion: The aim of this project was achieved; a new clinical service to provide dental treatment to anxious children using nitrous oxide inhalation sedation was introduced. This organisational development was assessed by the Donabedian model of evaluation. This quality improvement project illustrated how quality structures and processes of healthcare services can lead to positive outcomes, improving patient safety and resource use within a community dental setting.

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Introduction

Anxiety is a product of thoughts we create, which manifests emotional, cognitive and negative reactions.[1] Dental anxiety can lead to avoidance of dental care. It creates a barrier for patients in accessing dental treatment, which is firmly associated with the deterioration of oral health, posing a substantial problem for the dental profession.[2] Dental anxiety is multifactorial and influences when and how patients access dental care (**Figure 1**).[2,3]

An Irish survey of dental attendees[4] found that 17% were highly anxious with regard to receiving dental treatment, and hence were unlikely to routinely seek dental examinations. Dental caries is a disease that is both preventable and treatable. Murthy and Pramila[5] demonstrated the link between dental anxiety and untreated dental caries, reporting that children with high dental anxiety had a 2.05 times higher risk of experiencing untreated dental caries compared to children with low dental anxiety.

As anxiety is a key barrier for accessing dental care, adjuncts such as conscious sedation and general anaesthesia must be considered in treatment planning for the anxious patient. There were limited methods of treating anxious paediatric

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FIGURE 1: Dental fear and avoidance – causes, symptoms and consequences.[3]

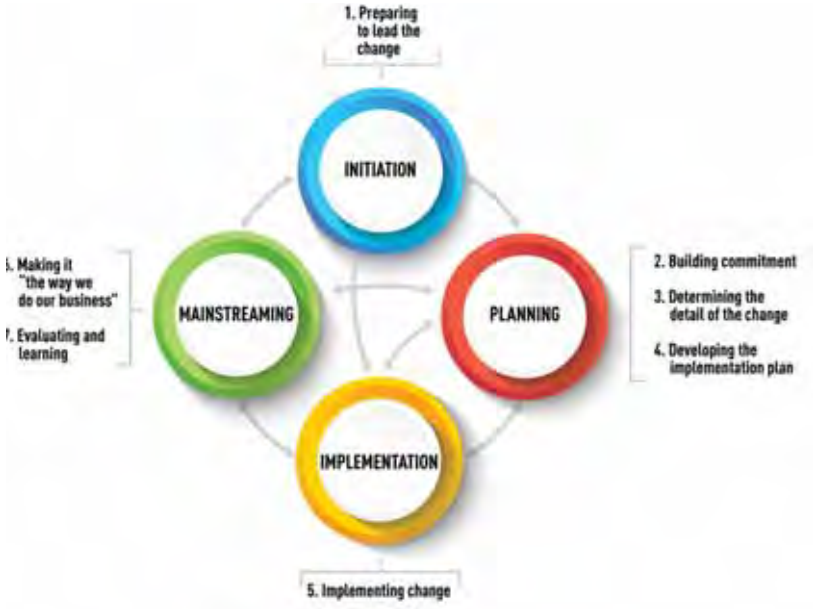

FIGURE 2: The HSE Change Model (2008).

dental patients within the HSE primary dental service in Cavan/Monaghan, as nitrous oxide inhalation sedation was not available to clinicians for the management of these patients.

Nitrous oxide inhalation sedation

In 2000, the Department of Health in the United Kingdom commissioned the report 'A Conscious Decision' to critically evaluate the use of general anaesthesia and conscious sedation in community dentistry.[6] Alarmingly, between 1998 and 1999, six patients died under general anaesthesia for dental treatment, and 50% of these deaths were patients under the age of 16. The report concludes that conscious sedation is a safer treatment option, versus general anaesthesia, for the anxious paediatric dental patient. Macintosh[7] asserted the gold standard to be no general anaesthesia-related mortalities occurring. Unfortunately, this is not a current reality as significant morbidities and deaths still arise in healthy American Society of Anesthesiologists (ASA) I or II status patients. Hence, general anaesthesia must be conducted in a hospital location with a consultant anaesthetist.[8] Roberts[9] analysed 45 years of research on the administration of nitrous oxide inhalation sedation in dentistry. He illustrated that no mortality or even major morbidity had occurred with nitrous oxide inhalation sedation.

Irish Dental Council guidelines (2005)[10] state that dental practitioners must acquire relevant postgraduate conscious sedation qualifications for the administration of inhalation sedation. Conscious sedation equipment must be commissioned and calibrated, and emergency drugs made available for any adverse event (The Intercollegiate Advisory Committee for Sedation in Dentistry, 2015).[11]

Bowe and Gargan[12] highlighted complications relating to acute infections from untreated caries among patients in Ireland. They revealed that patients requiring drainage and intravenous antibiotics for severe dental infections were admitted for an average of 5.5 days. One patient with a tenacious infection was admitted for 37 days. Some patients may require ICU admission due to severity of dental infections and resulting morbidities, which may restrict the airway. Dental caries is preventable, and anxiety is a barrier for patients accessing dental treatment. Nitrous oxide inhalation sedation reduces or eliminates dental anxiety. It is the gold standard for the provision of dental care among anxious paediatric patients.

Nitrous oxide sedation as a means of reducing anxiety for patients was not available in the Cavan/Monaghan HSE Dental Service; therefore, the alternative was providing treatment under general anaesthesia for this cohort of anxious children. In recognition of this gap within our service, an organisational development project to implement a nitrous oxide inhalation sedation service for the HSE Primary Care Dental Services in Cavan/Monaghan was initiated.

Methods

The HSE Change Model (2008)[13] was selected as the framework to guide and shape this organisational development for multiple reasons. The HSE Change Model was constructed for organisational development projects to improve quality and service delivery, while being patient centred (**Figure 2**). It unites all stakeholders to a shared vision. It is cyclical, and thereby more flexible than Kotter's and Lewin's linear change models. It also adapts portions of other change models and is customised to the Irish healthcare system.

The aim of this organisational development project was to introduce a nitrous oxide inhalation sedation service for the HSE Primary Care Dental Services in Cavan/Monaghan. A number of objectives were outlined:

- utilise change management tools: stakeholder analysis, SWOT (strengths, weaknesses, opportunities, threats) analysis (**Appendix 1**), and, Gantt chart (**Appendix 2**);
- obtain multiple quotations from suppliers to raise capital for this project;
- complete a site survey of the four dental surgeries in the Drumalee Health Care Centre by a specialist engineer;
- commence auxiliary work to the external wall of the dental surgery for placement of an external vent;
- install specialised nitrous oxide equipment;

- implement new processes such as a department policy and standard operating procedures;
- complete accredited refresher training by staff who would provide nitrous oxide sedation to patients;
- introduce a pre-assessment nitrous oxide sedation clinic; and,
- introduce a nitrous oxide inhalation sedation clinic.

Significance of healthcare evaluation

The HSE Change Model claims that one of the most important learning tools is healthcare evaluation. It states that evaluation should commence as a change project begins in order to capture deviations, allow refocus and refinement, and to develop necessary adaptations. This practise of evaluation ensures continual focus on outcomes and improvement, and also determines the value of the change. The World Health Organisation echoes the necessity of evaluation for public health.[14] Sackett and Rosenberg[15] state that evaluation forms the basis of quality improvement. It determines the benefit and effectiveness of healthcare initiatives.[16] Gardner and Gardner[17] conclude that measuring the quality of clinical care is neither precise nor complete, but nevertheless the use of an evaluation model can guide an evaluation of a health service innovation. Parry and Carson-Stevens[18] advocate evaluation models for improvement initiatives. However, they acknowledge the complexity of applying an evaluation model to an initiative as initiatives vary broadly in context and during different stages of the change. No evaluation model complements every project or context of innovation; therefore, the evaluator must choose a model that best complements the project.[19]

Donabedian model of evaluation

In 1966, Avedis Donabedian designed a framework to evaluate healthcare quality. It is a simple and flexible framework with three components.[20] The structural component influences the process component, which in turn influences the outcome. This makes each component interdependent (**Figure 3**).[21]

Ameh and Gomez-Olive[22] credit the Donabedian model as the most comprehensive model for healthcare evaluation.

The aim of evaluating healthcare is to improve efficiency and quality outcomes for patients.[23] Outcome is the most important index of quality.[20] Smitz and Viswanatha[21] determined that organisational processes have the most influence on quality outcomes, as they represent the actions an organisation takes to deliver care. Donabedian (2005)[23] maintains that the processes of delivering care are key for developing positive quality outcomes.

The Donabedian framework has been widely used in healthcare research literature. Liu and Singer[24] validated this framework, demonstrating that unfavourable quality care outcomes for patients awaiting inpatient beds in an emergency department were due to limited structures and poor processes. They utilised this framework to make evidence-based solutions to improve quality where deficiencies of structures and processes existed, so outcomes would improve for patients awaiting inpatient beds. Ameh and Gomez-Olive[22] found the Donabedian framework to be a valuable and validated approach for examining the quality of a health service innovation to manage chronic disease in a rural African setting by assessing the relationship of quality between structures, processes and outcomes. Moore and Lavoie[25] validated the Donabedian model of evaluating quality. They illustrated how evaluating structures and processes in a trauma care centre highlighted shortcomings that were remedied, leading to outcome improvements in patient mortality, morbidity and resource use within an integrated trauma system.

FIGURE 3: The Donabedian model of evaluation.

Table 1: Power/interest stakeholder analysis

Interest	Power
Nursing staff	Line manager (Principal Dental Surgeon and mentor)
RA medical suppliers	Primary care lead
Medical gases suppliers	Senior specialist paediatric dentist (mentor)
Refresher CPD trainers	RCSI academic mentor
	Landlord
	Patients
	BOC health and safety trainer
	Specialist engineer
Administration staff	Finance department
	Networks manager
	Irish Dental Council and Guidelines
	Irish Health and Safety Authority (medical gases)

The Donabedian framework states that the basis of healthcare quality is most effectively measured through examining the domains of structures, processes and outcomes. Hence this framework was selected to examine and evaluate this organisational development project.

Structure

Donabedian[26] maintains that healthcare structures are crucial for spurring processes and positive outcomes. Gardner and Gardner[17] describe structures as the static characteristics of an organisation, including staff and their qualifications, along with the settings, facilities, equipment and finances. Structures are required to influence good processes.[24]

New structures were required to implement this new nitrous oxide inhalation sedation service. A power/interest stakeholder analysis was conducted to identify key stakeholders (**Table 1**). Commitment and buy-in from stakeholders were achieved, as there was unanimous agreement that this new service would provide value for money and more efficient service for patients. Nitrous oxide is a cost-effective treatment modality in primary care, which relieves resource pressure on hospital admissions, bed assignments, theatre and recovery resources. Quotations were generated from suppliers. A requisition was then formulated using the 3Es framework (2011) of economy, efficiency and effectiveness, and forwarded to the finance department. A purchase order was authorised by the Principal Dental Surgeon and the Head of Primary Care Services, sanctioning the purchase of all the required equipment.

An engineer was commissioned to conduct a site survey of the four dental surgeries in the Healthcare Centre. The engineer selected the most suitable surgery and design to ensure the smooth flow for service delivery and maximise physical access for patients. Authorisation to conduct auxiliary work on an external wall of the building was obtained from the network administrator and landlord. Specialised equipment and the scavenging system were installed in the most appropriate dental surgery by the specialist engineer.

Accredited verified CPD inhalation sedation training with certificates approved by the General Dental Council was completed by all members of the nitrous oxide team. A specialist medical gas engineer provided another workshop, and training in the care and management of both nitrous oxide and oxygen cylinders in the nitrous oxide dental surgery.

Processes

Gardner and Gardner[17] describe that quality structures support quality processes of service delivery. Processes require a good structural foundation; hence, at this stage feedback from structures can be identified. Processes are the actions performed by an organisation; therefore, they are more indicative of outcomes. Smitz and Viswanatha[21] agree that quality processes lead to high-quality care outcomes.

If change is poorly implemented, despite an initial enthusiasm, it may produce a reaction threatening to derail the change.[27] Therefore, a new department policy containing the new processes was devised. This policy incorporated documents such as the inclusion and exclusion criteria for appropriate patient selection, patient information sheets informing parents/guardians of the benefits and risks associated with nitrous oxide sedation, and also intra-operative monitoring sheets. A written consent form was designed adhering to the HSE National Consent Policy (2017).[28] The departmental policy, which incorporated standard operating procedures, was central to implementing and setting standards for the nitrous oxide service. It created a roadmap for advancing this service. This policy will be audited in 12 months as part of a quality assurance cycle to maintain quality practices and standards.

Outcomes

Donabedian[23] says that outcomes are the direct result of structures and processes. Therefore, structures and processes must ensure impeccable patient-centred delivery of care to achieve positive outcomes.[17]

The new structures for establishing the resources for this new service, and the new processes for delivering dental treatment under nitrous oxide sedation to children, secured outcomes that achieved the aims of this organisational development project. A pre-assessment consultation clinic is now operational prior to treatment with nitrous oxide sedation, where details of the proposed treatment, alternative treatment options, and risks and benefits are discussed with patients and parents/guardians. The suitability of the patient is determined by the operator, and patients have the opportunity to fit the nasal mask. The aim of the organisational development project was achieved with the introduction of the nitrous oxide sedation service, which commenced in February 2018.

A team review meeting was conducted after the completion of the first clinical session with nitrous oxide sedation. This created an opportunity to evaluate and improve personal, team and organisation performance. This debriefing meeting openly discussed and evaluated the clinical session. It was unanimously agreed that teamwork was fundamental to prepare for the clinic, to uneventfully deliver nitrous oxide inhalation sedation, and to ensure that the patient remains relaxed throughout the procedure to the recovery phase.

Discussion

Successful change management involves assessing the current reality of an organisation and comparing this to the vision for change. The aim of this organisational development project was to introduce a nitrous oxide inhalation sedation service to provide dental treatment to anxious children within the HSE Primary Care Dental Services in Cavan/Monaghan. All of the objectives were fully met. This organisational development project was implemented with the guidance of the HSE Change Model. The Donabedian model of evaluation was utilised to examine this project, and reviewed the structures, processes and outcomes. A clinical audit will be conducted in 12 months to provide quality assurance of the standard operating procedures, clinical practices and maintenance of patient quality standards.

The Donabedian framework enables healthcare teams to assess the 'big picture' of delivery of care,[22] while yielding insight to examine the specific facets of quality through structures, processes and outcomes.[21] The Donabedian model highlights the complexities of health service delivery and links organisational, structural and process characteristics to quality care outcomes.[22]

The completion of this project affords new opportunities to expand this service to other community clinics and, as part of the process, to allow dental staff to develop new skills and knowledge regarding the administration of nitrous oxide inhalation sedation. The completion of this project has been acknowledged by the CHO 1 Head of Primary Care Services and recommended as a baseline for developing this service further to other dental community settings.

Despite the initial costs of implementing this new service, the rolling cost of sustaining the service is much lower than that of a general anaesthesia service. The cost of providing dental treatment under general anaesthesia in Ireland is €819 per child.[29] This figure does not include the additional hospital costs for patient admission and day case beds. Incontestably, there are economic benefits and savings in providing a community-based nitrous oxide sedation service, as well as safety benefits for the patient. Therefore, this is a positive outcome for resource use.

Nitrous oxide inhalation sedation is a more economical service and reduces the burden of high demand for a dental general anaesthesia service. Bed assignments in paediatric wards are very limited nationally. Waiting lists for dental treatment under general anaesthesia for paediatric patients are significant throughout the country. Reports from 2015 revealed an estimated eight-month wait in the United Kingdom[8] and a one-year estimated wait time for access to general anaesthesia services for children with chronic dental infections in Ireland. Goodwin and Sanders[8] describe the adverse effect of this in relation to performance at school, as 26% of children missed approximately three school days in relation to acute dental infections post referral for dental extractions with general anaesthesia. Moreover, there is a significant time saving; waiting lists are shorter with nitrous oxide inhalation sedation as this can be provided in the community dental setting. The time to administer and recover from nitrous oxide sedation is 37.5 minutes, versus 153.7 minutes with general anaesthetic.[30]

Nitrous oxide inhalational sedation is a safer option in the community setting for the provision of dental care to anxious children, with lower risks of morbidity and mortality than general anaesthesia.[31,32] Jastak and Paravecchio[33] documented a 1.3% incidence of vomiting post nitrous oxide sedation versus 7-35% post general anaesthesia. Shephard and Hill[30] noted a 1.7% incidence of pain and discomfort following nitrous oxide sedation, versus 20% with general anaesthesia for dental procedures.

Behavioural support for children attending Irish dentists is fundamental.[34] Nitrous oxide sedation can be tapered to the child's anxiety level, allowing them to gain coping skills to co-operate for dental treatment in a relaxing environment. Coping reduces stress and negative emotions.[35] This affords

patients the ability to initiate a behavioural change to engage with dental care. Arch and Humphris[36] analysed post-treatment anxiety levels among patients undergoing day case general anaesthetic dental treatment versus patients receiving nitrous oxide inhalation sedation for dental care. They concluded that although both groups had the same high pre-treatment levels of anxiety, the group receiving dental care with nitrous oxide sedation exhibited greatly diminished post-treatment anxiety levels, whereas the group receiving general anaesthesia exhibited comparably high pre- and post-treatment anxiety levels. The Institute of Healthcare Improvement developed the triple aim framework to optimise health system performance. It is clear that this new nitrous oxide sedation service correlates to the triple aim framework as it focuses on improving patients' experience of care, improving the health of populations, and reducing the per capita cost of healthcare. The HSE values of care, compassion, trust and learning underpinned this project.

Summary

This article examined the importance of healthcare evaluation and discussed the Donabedian model of evaluation. The aim of this project was achieved: to introduce a new clinical service to provide dental treatment to anxious children using nitrous oxide inhalation sedation. This quality improvement project was validated using the Donabedian model of evaluation by illustrating how quality structures and processes of healthcare service can lead to positive outcomes, improving patient safety and resource use within a community dental setting.

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Appendix 1: SWOT (strengths, weaknesses, opportunities, threats) analysis.

STRENGTHS	WEAKNESSES
What do you do well?	What could you improve?
What unique resources can you draw on?	Where do you have fewer resources than others?
What do others see as your strengths?	What are others likely to see as weaknesses?
■ Enthusiasm ■ Effective communication skills ■ Knowledge and experience with nitrous oxide sedation ■ Experience with change; previous introduction of an oral surgery clinical service ■ Nitrous oxide inhalation sedation: ▸ reduces patient anxiety levels; children develop coping skills to facilitate ongoing dental treatment, as sedation can be tailored to patient needs; ▸ reduces GA waiting list time;[8] ▸ fewer morbidities than associated with GA; ▸ more cost-effective than GA;[8] ▸ has analgesic properties; and, ▸ is reversible.	■ Initial capital expense of purchasing new equipment ■ Refresher training required for staff ■ Adapting existing building for installation of equipment ■ Requires patient compliance
■ Broaden treatment options for anxious patients ■ Expansion of this model to other outlying HSE community dental clinics ■ Train other staff to administer nitrous oxide ■ Research opportunities ■ Collaborate and network with other dental districts to create new standard operating procedure (SOPs) and compare practice	■ Economic threats to securing capital and budget for this project ■ Changes in legislation or national sedation guidelines and health and safety guidelines
OPPORTUNITIES	**THREATS**
What opportunities are open to you?	What threats could harm you?
What trends could you take advantage of?	What is your competition doing?
How can you turn your strengths into opportunities?	What threats do your weaknesses expose you to?

Appendix 2: Gantt chart

	Aug 2017	Sep	Oct	Nov	Dec	Jan 2018	Feb	Mar
Quotes from nitrous oxide suppliers	100% completion							
Site survey from engineer			100% completion					
Complete equipment installation					100% completion - additional time allowed for necessary building alterations			
New processes for initiation of new service						100% completion		
Refresher training for dental staff. Staff competence to verify fail-safe safety checks on sedation equipment are functional							100% completion	
Pre-assess nitrous oxide sedation clinic							100% completion	
Functional sedation clinic for the provision of dental care with nitrous oxide sedation							100% completion	

Langerhans cell histiocytosis presenting as mandibular pain

Précis

Case report: first presentation of Langerhans cell histiocytosis with mandibular pain. Discussion of oral presentation, diagnostic issues and importance of prompt referral.

Abstract

Introduction: Langerhans cell histiocytosis (LCH) is a collection of three idiopathic disorders categorised by the proliferation of specialised Langerhans cells (immature dendritic cells) and mature eosinophils.

Case report: In this paper, we demonstrate a case of a 22-year-old male patient with a complaint of persistent pain in the mandible.

Discussion: The purpose of this paper is to present a brief summary of the existing diagnostic and treatment strategies for LCH relevant to the oral and maxillofacial region, and to analyse the differential diagnosis and evaluation of these patients.

Conclusion: This case is an important reminder of the potential clinical and radiographical presentation of LCH with oral involvement, and highlights the role of the general dental practitioner in early diagnosis and prompt referral.

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Introduction

Langerhans cell histiocytosis (LCH), formerly histiocytosis X, is an uncommon proliferative disorder wherein the deposition of pathologic Langerhans cells, derived from the bone marrow, and mature eosinophils, precipitate local tissue permeation and damage. This lesion can occur at any age with incidence most common in children and young adults.[1]

The designation 'Langerhans cell histiocytosis' encompasses three morphological variations of the same disease: eosinophilic granuloma (EG; localised benign form, confined to bone and frequently monostotic); Hand–Schuller–Christian disease (typical triad of skull lesions, exophthalmos and diabetes insipidus, which usually affects children older than three years); and Letterer–Siwe disease (the form of the disease that is most often fatal due to multiple disseminated lesions including multiple visceral organs, which usually affects infants and children younger than three years).[2]

An immense variety of clinical presentations can be seen. The disease may be localised or systemic, with single or multifocal bone lesions presenting with disseminated bone pathology associated with multi-organ involvement (bone, liver, spleen, lung, central nervous system, skin, bone marrow or gastrointestinal tract). Oral involvement is seen in 10% of cases of LCH.[3] Incidence is more commonly observed in the mandible than the maxilla, with lesions in the molar area reported frequently.[3]

The purpose of our study is to present a case history of LCH – solitary eosinophilic granuloma of the mandible – which is a rare entity in the head and neck region, and to emphasise the role of the general dental practitioner (GDP) in early diagnosis and urgent referral.

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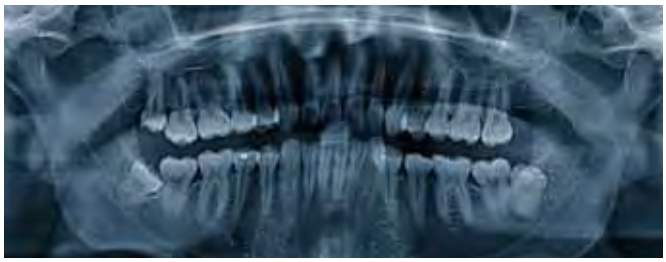

FIGURE 1: Panoramic radiograph at initial examination.

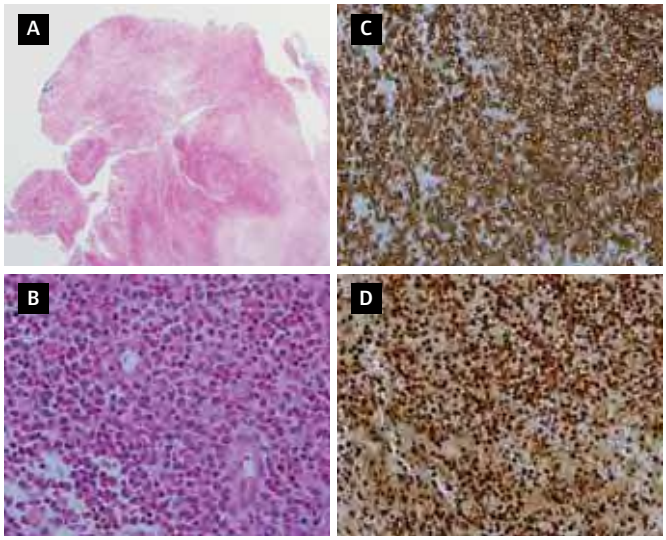

FIGURE 2: A. The complete excision of bone lesion at low power showing a dense cellular infiltration (H&E, 20x). B. High-power view showing Langerhans cells, oval to bean-shaped with eosinophilic cytoplasm and nuclei with longitudinal nuclear grooves admixed with eosinophils (H&E, 400x). C. The Langerhans cells are strongly positive for CD1a (200x). D. Langerhans cells showing uniform expression of S-100 protein (200x).

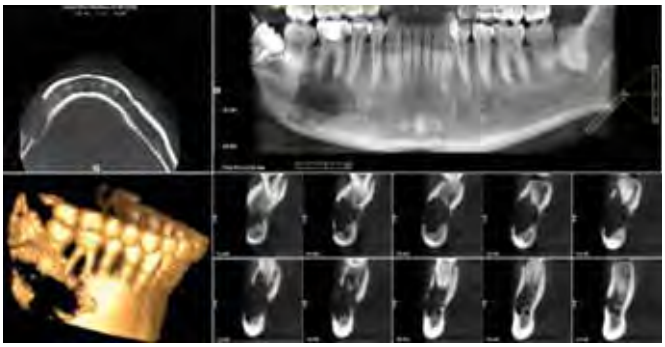

FIGURE 3: CT (computed tomography) image of the mandible revealing a rapidly growing, ill-defined unilocular radiolucency (four weeks after initial presentation).

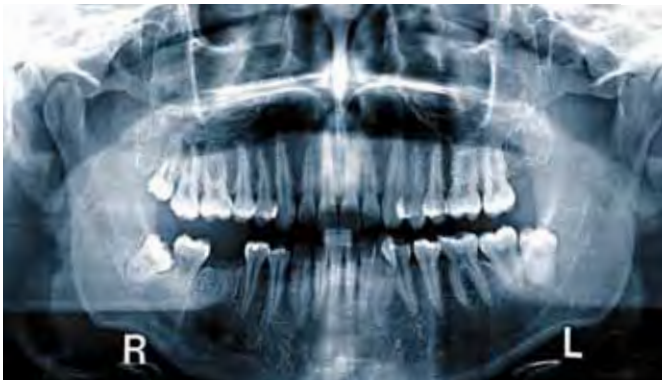

FIGURE 4: Panoramic radiograph two weeks post op.

Case presentation

A 22-year-old male attended his GDP complaining of a moderate pain in the lower right quadrant that he could not attribute to any specific tooth. His medical and family history were unremarkable and there was no history of trauma. Extra-oral and intra-oral examinations were not remarkable.

On orthopantomogram (OPG) examination (**Figure 1**) it was decided that the impacted lower right third molar was the most likely cause of the problem and a referral letter was sent to an oral surgeon requesting the removal of this tooth.

The patient returned to the GDP four weeks later complaining of increasing pain. On this occasion, he was more specific about the location of the pain. The lower right first molar tooth was found to have increased tenderness to percussion and had a lesser response to electronic pulp testing in comparison to adjacent teeth. The GDP discussed the possibility that the lesion could be cystic prior to obtaining consent for a primary root canal treatment. However, a second OPG revealed a lytic lesion that had rapidly changed since the first OPG. The GDP removed the large composite on the lower right first molar and found the tooth to be vital.

The patient was urgently referred to the Department of Oral and Maxillofacial Surgery at Cork University Dental School and Hospital. An incisional biopsy was performed shortly afterwards. Histopathological examination of the specimen revealed a diffuse infiltration of oval cells with abundant eosinophilic cytoplasm and prominent elongated nuclear grooves, which were positive for immunohistochemistry stains CD1a and S100 (**Figure 2**). Abundant admixed eosinophils were also evident. These results supported the diagnosis of LCH.

Haematological investigations showed the following abnormalities: total bilirubin high at 23µmol/L (normal 2-20); eosinophils high at 0.55 x10^9/l (normal 0.04-0.4); and, basophils high at 0.11 x10^9/l (normal 0-0.1). Posteroanterior and lateral chest radiographs were taken and revealed that the lung parenchyma and pleural recesses were clear, and that the cardiac, hilar and mediastinal outlines were normal.

Computed tomography (CT) of the mandible revealed a rapidly growing, ill-defined osteolytic lesion (**Figure 3**). The lower right first molar tooth was extracted, and surgical enucleation of the lesion, bone curettage and primary closure were performed under general anaesthesia. Primary closure was obtained. A cream coloured specimen measuring 15x5x8mm was sent for histopathological examination, which confirmed the initial diagnosis of LCH.

The patient recovered quickly after surgery (**Figure 4**), initially reporting

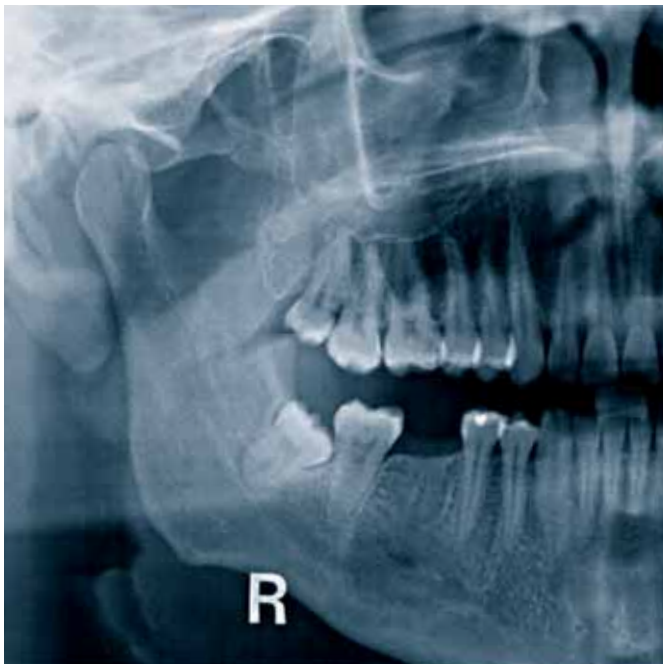

FIGURE 5: Panoramic radiograph six months post op.

inferior dental nerve paraesthesia with sensation returning four months after the surgery. At six months, the lesion appears to be healing well (**Figure 5**).

Discussion

Histiocytosis is a term applied to a group of rare disorders of the reticuloendothelial system. In the disorder LCH, the lesions comprise cells with characteristics analogous to the Langerhans cells of the epidermis. In the case discussed, the patient clinically, radiographically and histopathologically exhibited the features of LCH – solitary eosinophilic granuloma. This disorder is most often a benign, self-limited disease. However, uncommonly, a solitary LCH can quickly recur and ultimately end in fatality.[4]

The aetiology of LCH is unidentified. In the literature, numerous potential aetiological factors are considered. While some argue that a primitive immune anomaly could instigate a proliferation of Langerhans cells, others contend that the Langerhans cell itself might possess a genetic defect owing to atypical cellular proliferation.[5]

LCH is a very uncommon pathology, with an incidence of 0.5 to 5.4 cases per million persons per year,[6] varying based on the age of the population examined. Occurrence is more predominantly seen in males than in females, with a ratio of 2:1. Skeletal involvement is one of the most common features reported, with incidences most commonly in the pelvis, ribs, skull, long bones, vertebra and facial bones. However, maxillary and mandibular involvement has been reported in 7.9% of cases, with the body and angle of the mandible the most frequently affected sites.[7]

Oral manifestations can be the first indication of LCH, and in some cases the oral cavity may be the only site affected. Therefore, patients with LCH may initially present to their GDP with a complaint that may mimic common dental pathologies. LCH can present as localised dull and steady pain, which is sometimes misdiagnosed as a marginal periodontal infection or as pericoronitis, as observed in the case discussed. LCH can also present with mucosal ulceration, swelling, gingival necrosis or destruction of alveolar bone with increasing tooth mobility, or can be discovered as an incidental finding on routine radiographic examination. Radiologically, LCH exhibits localised, punched-out radiolucencies with no calcifications or sclerotic reactions at the peripheries. The incidence of oral manifestations of LCH is 77%.[8] The atypical and varied nature of presentation of LCH represents a diagnostic challenge for dental professionals and highlights the GDP's role and the importance of a thorough knowledge of the potential oral manifestations, both clinical and radiographic. GDPs should be highly vigilant of abnormal radiographic findings, such as lytic lesions, coupled with atypical symptoms, and should promptly refer such patients.

Definitive diagnosis can be obtained via biopsy and microscopic examination, demonstrating an infiltration of Langerhans cells. Langerhans cells are characterised by positivity with langerin, which is the most sensitive immunohistochemical marker for Langerhans cells, and CD1a as well as being S-100 positive.[9] This principal cell population is amalgamated with eosinophils, the additional cellular component of LCH. The discovery of cytoplasmic inclusion bodies recognised as Birkbeck-Breatnach granules by electron microscopy is also a characteristic trait of LCH.[10]

When this histopathologic representation is found, a comprehensive skeletal radiographic survey and chest radiography is also necessitated. The differential diagnosis of the case discussed, based on clinical findings, included LCH, Ewing sarcoma, lymphoma and osteomyelitis.

A wide spectrum of treatment modalities is described for LCH and differs depending on the location, extent and quantity of lesions. Surgical curettage, radiotherapy and chemotherapy are treatment modalities that can be used alone or in combination, as dictated by the magnitude of the disease. In the case discussed, curettage was indicated due to the presence of a monostotic lesion without massive destruction of the bone and the ease of accessibility. However, if multifocal involvement is present with systemic disease, chemotherapy should be considered.

These parameters affect the long-term prognosis of patients with LCH: firstly, visceral involvement, which negatively affects long-term outcomes, with increasing number of organs affected linked to rapid disease progression; secondly, when the patient lacks response to initial treatment (e.g., at six weeks), the prognosis is extremely poor; and finally, when lesions manifest in various bones or soft tissues.[11] Furthermore, as patients with LCH frequently suffer from chronic and recurrent disease, with recurrence rates ranging from 1.6% to 25%,[12] biannual review appointments may be required. This is contingent upon organ system association and the extent of organ dysfunction. Finally, clinicians should be conscious that patients with a history of LCH have a higher probability for recurrent malignancies, involving solid tumours or haematopoietic diseases.[13] Long-term prognosis of patients with unifocal LCH is generally excellent, but rapid recurrence leading to fatal outcomes has been reported.[4]

Conclusion

In conclusion, LCH is an uncommon disease with numerous reports emphasising that oral manifestations may be the initial symptom of the disorder, which trigger patients to present to their GDP. Since the chief complaint in a number of cases is pain or multiple mobile teeth, thorough clinical examination and astute diagnostic skill allow for more prompt referral and treatment of pathology, thereby optimising survival rates with reduced deformity.

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Evaluation of the fit of metal copings fabricated using stereolithography

Kim, S.B., Kim, N.H., Kim, J.H., Moon, H.S.

Statement of problem: Rapid prototyping, including stereolithography (SLA), is a more recent technique for fabricating metal frameworks than the conventional lost-wax technique. However, investigations of the marginal discrepancies and internal spacing of cobalt-chromium (Co-Cr) metal copings fabricated using SLA are lacking.

Purpose: The purpose of this *in vitro* study was to evaluate the clinical acceptability of the marginal discrepancies and internal spacing of Co-Cr metal copings fabricated using the SLA technique.

Material and methods: A resin tooth of a maxillary right first premolar was prepared with a deep chamfer margin for a metal-ceramic crown. Titanium master dies were milled after scanning the prepared tooth (n=45). In the conventional lost-wax group (group LW), the conventional lost-wax technique was used to fabricate Co-Cr metal copings (n=15). In the milling group (group MC), a computer-aided design (CAD) system was used to design the metal copings, which were milled from Co-Cr alloy (n=15). The CAD system was also used to design the metal copings in a 3D-printed group (group SL), and Co-Cr metal copings were cast from resin patterns fabricated using the SLA device (n=15). Marginal discrepancies and internal spaces were measured using an optical microscope at 100 times magnification at 11 reference points. The values were analysed statistically with one-way analysis of variance (a=0.05).

Results: The mean (±SD) overall space was 63.2±16.6mm for group LW, 70.2±15.5mm for group SL, and 130.3±13.8mm for group MC. The overall spaces differed significantly between group MC and the other two groups (P<0.05). The marginal discrepancy and internal spaces were significantly larger in group MC than in groups LW and SL (P<0.05). Occlusal spaces differed significantly among the three study groups (P<0.05).

Conclusions: Co-Cr metal copings fabricated using an SLA technique showed clinically acceptable marginal discrepancies and internal spaces. These spaces did not differ significantly from those obtained with the conventional lost-wax technique.

Journal of Prosthetic Dentistry 2018; 120: 693-698.

Clinical and micromorphologic 29-year results of posterior composite restorations

Montag, R., Dietz, W., Nietzsche, S., Lang, T., Weich, K., Sigusch, B.W., Gaengler, P.

Prospective clinical studies of composite restorations revealed their safety and longevity; however, studies did not elucidate the dynamic mechanisms of deterioration caused by fractures and secondary caries. Therefore, the aims of this 29-year controlled study were: 1) to follow up on the clinical behaviour of posterior composite restorations annually; and, 2) to compare clinical outcomes with micromorphologic scanning electron microscopy features. After ethical approval, the single-arm study commenced in 1987 with 194 class I or II primary posterior composite restorations with glass ionomer cement providing pulp protection. Each restoration was evaluated annually for 15 years and then again at 29 years per the US Public Health Service-compatible clinical, photographic and micromorphologic coding index, with clinical and photographic criteria for anatomic form, colour matching, surface quality, wear, marginal integrity, secondary caries, and clinical acceptability. Parallel micromorphologic criteria were applied at baseline and after one, three, five, seven, 10, 15, and 29 years to assess surface roughness, texture, marginal integrity, fractures, ledges, and marginal gaps with semi-quantitative coding and with quantitative 3D scanning electron microscopy profilometric measurements of marginal grooves next to the enamel, grooves within the bonding zone, and ledges. Statistical analysis included the calculation of the annual failure rate and the use of Kaplan–Meier methodology and non-parametric tests. The cumulative survival rates were 91.7% (six years), 81.6% (12 years), and 71.4% (29 years). The mean annual failure rate was 1.92%. Significant changes in the restoration–tooth interface from baseline to five years resulted in functional masticatory equilibrium. Clinical deterioration year by year, including micromorphologic microfractures and wear, reflected unique dynamic changes in long-term surviving restorations with very low secondary caries and fracture risks (German Network for Health Care Research VfD 29 99 003924).

Journal of Dental Research 2018; 97: 1,431-1,437.

Accuracy of nine intraoral scanners for complete-arch image acquisition: a qualitative and quantitative evaluation

Kim, R.J.Y., Park, J.M., Shim, J.S.

Statement of problem: Different intraoral scanners (IOSs) are available for digital dentistry. However, information on the accuracy of various IOSs for complete-arch digital scans is limited.

Purpose: The purpose of this *in vitro* study was to evaluate the trueness and precision of complete-arch digital scans produced by nine IOSs, using the superimposition method, and to compare them based on characteristics including the data capture principle and mode, and the need for powder coating.

Material and methods: Nine IOSs were used to obtain standard tessellation language (STL) data for a bimaxillary complete-arch model with various cavity preparations (N=10). The scanning performance was evaluated quantitatively and qualitatively. For quantitative evaluation, the images were processed and analysed using three-dimensional (3D) analysis software. After we superimposed the datasets, trueness was obtained by comparing it with the reference scan, and precision was obtained from intragroup comparisons. The IOSs were compared based on the data capture principle and mode, and the need for powder coating. Statistical analyses were conducted using a Kruskal–Wallis test, followed by multiple Mann–Whitney U tests for pairwise comparisons among groups (a=0.05). For qualitative evaluation, surface smoothness and sharp edge reproducibility of the digital images were compared.

Results: The median precision values were lowest in the TRIOS model (average 34.7mm; maximum 263.55mm) and highest in the E4D model (average 357.05mm; maximum 2,309.45mm). Median average trueness values were lowest in the TRIOS model (42.30mm) and highest in the Zfx IntraScan model (153.80mm). The CS 3500 model had the lowest median maximum trueness

values (450.75mm); the E4D model had the highest values (2680.55mm). Individual image and video sequence data captures showed similar median average trueness values (P>0.05); the median maximum values of individual images were higher than those of the video sequence (P<0.05). Swept source optical coherence tomography (SS-OCT) exhibited higher trueness values than those of other scanning principles (P<0.05). The FastScan and True Definition, which require powder coating, showed significantly better trueness than other IOSs that did not require powdering (P<0.05). The E4D, PlanScan, and Zfx IntraScan models had an increased tendency to produce images with imperfect surface features and to round off sharp edges.

Conclusions: The E4D and Zfx IntraScan models did not perform as accurately as the other IOSs. The data capture principle of SS-OCT and the mode of individual image acquisition exhibited inferior trueness. The FastScan and True Definition, which require powder coating, exhibited better trueness. The qualitative aspects of the IOSs varied in terms of polygon shapes, sharp edge reproducibility, and surface smoothness.

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Trends in dental implant use in the US 1999-2016, and projections to 2026

Elani, H.W., Starr, J.R., Da Silva, J.D., Gallucci, G.O.

Dental implants have become an increasingly popular treatment choice for replacing missing teeth. Yet, little is known about the prevalence and sociodemographic distribution of dental implant use in the United States. To address this knowledge gap, we analysed data from seven National Health and Nutrition Examination Surveys from 1999 to 2016. We estimated dental implant prevalence among adults missing any teeth for each survey period overall as stratified by sociodemographic characteristics. We calculated absolute and relative differences from 1999-2000 to 2015-2016 and fit logistic regression models to estimate changes over time. We also used multivariable logistic regression to estimate independent associations of sociodemographic covariates with the presence of any implant. We projected the proportion of patients treated with dental implants into the year 2026 under varying assumptions of how the temporal trend would continue. There has been a large increase in the prevalence of dental implants, from 0.7% in 1999-2000 to 5.7% in 2015-2016. The largest absolute increase in prevalence (12.9%) was among individuals 65-74 years old, whereas the largest relative increase was ~1,000% among those 55-64 years old. There was an average covariate-adjusted increase in dental implant prevalence of 14% per year (95% CI, 11% to 18%). Having private insurance (vs none or public insurance) or more than a high-school education (vs high school or less) was each associated with a two-fold increase in prevalence, with an almost 13-fold (95% CI, 8-21) increase for older adults. Dental implant prevalence projected to 2026 ranged from 5.7% in the most conservative scenario to 23% in the least. This study demonstrates that dental implant prevalence among US adults with missing teeth has substantially increased since 1999. Yet access overall is still very low, and prevalence was consistently higher among more advantaged groups.

Journal of Dental Research 2018; 97: 1,424-1,430

SITUATIONS WANTED

Female dentist with 20+ years' experience (Germany, Ireland and UK) seeking associate position three to four days a week in the northeast. Also offers facial aesthetic treatments. Email dentist.available.ne@gmail.com.

Hardworking, caring, six years' experience seeks four- to five-day position in midwest/Galway/Tipperary region. Excellent references, experience building and maintaining book. VT trained, UCL aesthetics, Six Month Smiles and Invisalign ortho, starting endo training in new year. Full discretion on contact. Email generaldentalassociate89@gmail.com.

Dynamic and enthusiastic dentist with 16 years' experience is looking for a part-time associate role in Dublin and suburbs. Confident in endodontics, prosthodontics and implant dentistry. Available on Saturdays as well. Email dentistaa@ymail.com.

Very experienced associate seeking full/part-time work in Dublin. 14+ years' experience in high-end private practice and hospitals. View to future partnership. Email dentalassociate2019@gmail.com.

SITUATIONS VACANT

Associates

Associate dentist required for busy Newbridge surgery with fantastic support staff, set in primary care centre. Three to four days per week. Highest clinical and ethical standards. Minimum two years' experience desirable. Immediate start. Email CV to cegan@centrichealth.ie.

Associate dentist required in busy south Dublin practice. Fantastic support staff, primary care setting. Minimum two years' experience desirable. Three to four days per week. Long-term full-time option for right candidate. Immediate start. Send CV to cegan@centrichealth.ie.

Full/part-time dental associate required for north Dublin practice. Fully computerised with modern and new equipment including OPG and digital x-ray. Busy, friendly practice with a high earning potential. Hygienist, dental technician, orthodontist and endodontist are also available within the practice. Please forward your CV to northdublindentalclinic@gmail.com.

Busy award-winning northeast practice, one hour from Dublin/Belfast, seeks self-employed associate full time. Modern, computerised, digital x-ray, excellent support staff, RA sedation. Commence January 2019. CV to mbcar06@gmail.com.

Kilkenny. Associate position available at modern, multi-surgery city-centre practice. Four days p/wk (negotiable). Replacing departing colleague – very busy, full book (booked two to three weeks ahead). Generous terms. CVs to kilkennyassociate2018@gmail.com.

Full-time associate position offered in Kilkenny City in well-established practice replacing departing colleague – no medical card – specialist back-up. Excellent back-up support team – Cerec, digital dentistry, orthodontist, hygienist. Suit experienced colleague. Please send CV to southeastdental46@gmail.com.

Experienced part-time associate required for immediate start Co. Kildare. Candidate must have experience in crowns and bridge work, endodontics. Contact loretodentalsurgery@gmail.com.

Newbridge: associate dentist required – busy surgery, strong book, replacing departing colleague. Four days per week. Minimum two years' experience. Fluency in Polish an advantage. Long-term opportunity for the right candidate. Email CV to cegan@centrichealth.ie.

Cork: skilled associate with view. Best equipment. Good area. Parking. Computerised. Email: smileymunster@gmail.com.

Experienced associate required full/part-time to replace departing colleague – 55 minutes from Dublin, 25 minutes from Navan. Long-term view, digital, intraoral scanner, visiting orthodontist and endo. Excellent conditions to right applicant. CV to scotty6@gmail.com.

Blessington, Co. Wicklow. Part-time associate required. Hours flexible, two to three days. Computerised general practice. Hygienist. Digital x-rays. Experience preferable. Email niall@blessingtondental.ie.

Associate required full/part-time in east Galway on the M6. Modern, computerised practice with intra-oral camera. Full support staff. Hygienist available. 70% private fees. Email rothwellauct@eircom.net.

Dentists

Medical and Dental Centre is looking for either a part- or full-time dentist, minimum two years' experience required. Excellent remuneration available. North Dublin opposite DCU. Email orthosull@gmail.com.

Experienced dentist needed, immediate start, replacing departing colleague, full-time at Abbeytrinity Dental Practice, Tuam, Co. Galway. Fully computerised, digital radiography, Cerec, OPG-CBCT. Great team support and earnings, Galway 20 minutes by motorway. Email manager.abbeydent@gmail.com.

Newbridge: part-time position for experienced dentist with excellent endo ability. May suit dentist living in this area who is currently commuting elsewhere who would like to phase out of existing job over a long period. Email 999eaw@gmail.com.

Co. Clare. Dentist with a minimum experience to replace departing colleague. Mixed practice, modern surgeries, initially four days per week. Email niallmcrty@gmail.com.

Advertisements will only be accepted in writing via fax (01-295 0092), letter or email (fionnuala@irishdentalassoc.ie). Non-members must pre-pay for advertisements, which must arrive no later than **Friday, January 25, 2019**. Classified ads placed in the *Journal* are also published on our website www.dentist.ie for 12 weeks. **Please note that all adverts are subject to VAT at 23%.**

Advert size	Members	Non-members
up to 25 words	€80	€160
26 to 40 words	€95	€190

The maximum number of words for classified ads is 40.
If the advert exceeds 40 words, then please contact:
Think Media, The Malthouse, 537 North Circular Road, Dublin 1.
Tel: 01-856 1166 Fax: 01-856 1169 Email: paul@thinkmedia.ie

Please note that all classified adverts MUST come under one of the following headings:

- Positions Wanted
- Positions Vacant
- Practices for Sale/To Let
- Practices Wanted
- Equipment for Sale/To Let

Classified adverts must not be of a commercial nature. Commercial adverts can be arranged by contacting Paul O'Grady at Think Media.

Dentist – Limerick. Smiles Dental is looking for an enthusiastic general dentist to join our private, modern, well-established practice in Limerick. Position initially offers three days per week including bi-weekly Saturdays. Candidates must be IDC registered. Email joanne.bonfield@smiles.co.uk.

Cork City. Part-time position initially for experienced dentist with excellent restorative and endo skills to join ultra-modern state-of-the-art practice. Superb opportunity for a dentist with appropriate skill set. Excellent conditions. CVs to dentalprosendo@gmail.com.

Waterford – Smiles Dental has an exciting opportunity for an enthusiastic, passionate dentist to join our modern, well-established, well-equipped practice in Waterford. Position offers five days per week. Initial guaranteed earning and golden hello available. Email joanne.bonfield@smiles.co.uk.

Dundalk – Smiles Dental has an exciting opportunity for an enthusiastic, passionate dentist to join our well-established, well-equipped practice in Dundalk. Position offers up to five days per week. Initial guaranteed earning and golden hello available. Email joanne.bonfield@smiles.co.uk.

Modern north Dublin, private, two-chair practice looking for a head and general dentist. Three to four years' experience essential, must be IDC registered. Email celticdentalclinic.office@gmail.com.

Dentist wanted to work busy Saturdays in Cavan Town. Apply by CV to churchstdental@gmail.com.

Experienced general dentist required to provide dental services in Co. Meath (minimum three years' experience). Modern, computerised practices with excellent support staff and a busy book. CVs to be emailed to careers@dentalcareireland.ie.

Full-time GDP required to replace outgoing associate in busy mixed practice outside Galway City. Modern, computerised practice, excellent support staff. January start. Email joan@claregalwaydentalsurgery.ie.

KBM Dental is looking to add to our team. Fantastic support staff, fully computerised with digital x-ray. Email CV to management@kbmdental.ie.

Galway – Smiles Dental has an exciting opportunity for an enthusiastic general dentist to join our modern, well-equipped, well-established practice in Galway. Position offers existing patient list and four to five days per week. Candidates must be IDC registered. Email joanne.bonfield@smiles.co.uk.

Balbriggan – Smiles Dental has an exciting opportunity for an enthusiastic general dentist to join our modern, well-equipped, well-established practice in Balbriggan, just north of Dublin. Position offers existing patient list and five days per week. Email joanne.bonfield@smiles.co.uk.

Dentists south Dublin – full/part-time for primary care setting commencing asap. Email CV to unagaster@gmail.com or contact Una Gaster on 087-917 4831.

Western HSC requires a Clinical Dental Officer. Closing Date: Friday December 7, 2018, at 3.30pm. Ref: 74828056. For full criteria and job description for the above please visit http://www.hscrecruit.com and apply online. We are an equal opportunity employer. Email neil@asgandpartners.com.

Part-time dentist required for Buncrana with experience. General dentistry. Digital x-rays, intraoral camera. Two to three days per week. Please send your CV to crana.dental18@outlook.com.

Cork City – dentist required for new venture in modern city-based practice. Experience an advantage. CV to colintobin@live.com.

Alexandra Dental is looking for dentists, specialists and hygienists to join their expanding and award-wining team nationwide. Please forward CVs to jobs@alexandradental.ie or call 01-514 3804.

Locum dentists

Experienced locum dentist required for maternity cover in mixed practice in Waterford. Flexible hours. Start date early 2019. Please send CV to locumdentist2019@gmail.com.

Specialist/limited practice

Orthodontist required for busy dental practice in Carrickmacross, Co. Monaghan. One day per week. Fee dental and orthodontics clinic. CV to mbcar06@gmail.com.

Galway City practice requires part-time specialist orthodontist for modern five-surgery practice. Percentage income available. Waiting list of fixed braces patients eager to begin treatment. All equipment on site, lateral ceph., etc. Excellent remuneration for the right candidate. Email dentaljobsgalway@gmail.com.

Orthodontist required for one to two days per week at fast-growing, mixed three-surgery practice in Dublin 13. Full e-marketing support. Invisalign and fixed brace promoted to expanding patient base. Competitive percentage, new equipment, digital ceph. Contact Subahu Shah at subahu.shah@smartdentalcare.co.uk.

Great opportunity for part-time/visiting specialist orthodontist at Abbeytrinity Dental, Tuam, Co. Galway. Four secondary and 10 primary schools in the area. Fully computerised practice, Exact, OPG-CBCT, hygienists, qualified nurses and support team. Email manager.abbeydent@gmail.com.

Specialist orthodontist required to provide ortho services on a part-time basis in Co. Meath. Modern, computerised practices with excellent support staff and great patient loyalty. Specialist registration essential. Email careers@dentalcareireland.ie.

Orthodontist/dentist required for Cork city centre practice. Minimum two days per week, days are flexible. Contact Alex at alex@whitesmiledental.ie.

Orthodontist required for one to two days per week at busy Dublin 16 practice. Email smilesaversireland@gmail.com.

Orthodontist – Smiles Dental is looking for specialist registered orthodontists to join our well-established practices in Dublin and Dundalk. Practices offer modern, state-of-the-art working environments and full support teams. One to five days per week. Email joanne.bonfield@smiles.co.uk.

Periodontist/endodontist/oral surgeon required for referral clinic in Limerick City. State-of-the-art facilities. Please send CVs to jobs@alexandradental.ie.

Specialist orthodontist required to join busy, friendly, all specialist orthodontic practice in north Co. Dublin. Swords Orthodontics is a purpose-built clinic with excellent facilities and flexible sessions are available. Please contact orthoassociate2018@gmail.com for more information.

Endodontist required for busy dental practice in Tralee, Co. Kerry. Please forward your CV to Kerryendo1@gmail.com.

Dental nurses/managers/receptionists

Cork City practice requires a full-time dental nurse for maternity cover. Starting January 2019 but part-time available immediately. Experience not essential. Email corkcityassociate@gmail.com.

Full-time dental nurse required for a state-of-the-art dental clinic in Nenagh, Co. Tipperary. Please send your CV to contact@nenaghdental.ie.

Full-time, qualified dental nurse required for a modern, busy, fully computerised dental practice in Greystones. Multi-award winning practice, rapidly expanding. CV to manager@obagi.ie.

Full-time dental nurse required to join our busy, modern, expanding Dublin 6 practice. Please forward CV to info@beechwooddental.ie.

We have amazing opportunities for dental nurses across north Dublin – we're looking for people with a variety of experience to join our fantastic Smiles Dental practices. Apply by emailing your CV to jobs@smiles.ie.

Dental nurse – south Dublin. We have amazing opportunities for dental nurses across south Dublin – we're looking for people with a variety of experience to join our fantastic Smiles Dental practices. Apply by emailing your CV to jobs@smiles.ie.

Orthodontic nurses – Dublin. Opportunities for orthodontic nurses across Dublin – we're looking for people with orthodontic experience or at least one year as a dental nurse to join our Smiles Dental practices. Apply by emailing your CV to jobs@smiles.ie.

Dental nurses Galway – Shantalla. Temporary full/part-time for primary care setting commencing asap. Email CV to unagaster@gmail.com or contact Una on 087-917 4831.

Enthusiastic, flexible, empathetic, dental nurse required – part-time position in a top-class private facility in south Dublin, as locum cover, for six months. Two years' experience – computer literate, friendly telephone manner, team worker. Forward CV to niall@innovativedental.com.

Full-time, flexible dental nurse/receptionist required for a busy, progressive specialist practice in Galway. Pleasant, empathetic, enthusiastic personality – more important than experience. Top-class IT skills and English fluency required. Excellent remuneration. Contact by email to niall@innovativedental.com.

Dental nurse required. Permanent position. Flexible, 30-35 hours per week. Modern, friendly, private practice in Limerick. Please email CV to dsalimerick2018@gmail.com.

Full-time qualified dental nurse with good IT and communication skills wanted for modern, busy north Co. Dublin dental practice. Excellent opportunity for an experienced candidate. Email colinpatricklynam@hotmail.com.

Full-time dental nurse wanted for busy computerised practice in south Dublin. Nice friendly team. Attractive salary offered. Email dentalassoc993@gmail.com.

Part-time, flexible dental nurse/receptionist required for dental practice in Kilcock, Co. Kildare. Please send CV to kilcockdental@gmail.com.

Dental nurse required for Sligo orthodontic practice. Looking for positive, friendly individual with excellent work ethic and IT skills. Mix of orthodontic assistant/front desk. Some days in Ballina. Part-time/full-time considered. Excellent work conditions. CV to info@westcoastorthodontics.ie.

Specialist, modern practice seeks qualified dental nurse to join our ever-expanding team at Northern Cross. Applicants are invited to email CV to lisa@ncdental.ie.

Progressive, modern dental practice in Dublin 18 that values our patients and their dental experience seeks experienced part- and full-time dental assistants. Looking for energetic, positive individuals who are passionate about helping people. Long-term positions, salary DOE. Email southeastdental18@gmail.com.

Dental nurse required two days a week in Gorey, Co. Wexford. General mixed dental practice. Email adecdental365@gmail.com.

Dental practices in primary care settings in Newbridge and south Dublin seek part-time qualified dental nurses. Looking for enthusiastic, friendly individuals with good IT and communication skills. Applicants are invited to send CVs to heidi.lane@centrichealth.ie.

Experienced dental nurse required for full-time position in busy private dental practice in Malahide, Co. Dublin. Position involves dental nursing and reception duties. Enthusiastic, friendly and reliable candidate wanted. Immediate start. Please email CVs to dentalnursemalahide@gmail.com.

Full-time, qualified dental nurse required for busy, computerised practice in Balbriggan – www.balbriggandental.ie. Excellent remuneration for the right candidate. Immediate start available. Email CVs to hello@balbriggandental.ie.

Experienced nurse required to work with visiting surgeon one day per week (Monday). Beautifully appointed clinic, exceptional clinical standards. €25 per hour. Email reception@rfdentalclinic.com.

Alexandra Dental is looking for dentists, specialists and hygienists to join their expanding and award-wining team nationwide. Please forward CVs to jobs@alexandradental.ie or call 01-514 3804.

Dental nurse/receptionist needed for specialist practice in Sandyford. Assistant to prosthodontist and oral surgeon. Hours and salary negotiable. Immediate start. Please email CVs to info@specialistdentistry.ie.

South Co. Dublin/north Dublin/Galway – dental nurses part-time/full-time for specialists or primary care. Email CV to unagaster@gmail.com or call 087-917 4831.

Hygienists

Hygienist needed for busy dental practice in Clare area. Email jfssheehan@yahoo.ie.

Co. Clare. Hygienist required to work in modern, well-equipped surgeries, excellent friendly support staff. Email niallmcrty@gmail.com.

Dental hygienist required for Saturdays. Apply with CV to info@guineydental.ie.

Experienced, enthusiastic hygienist sought for busy, computerised Navan practice. Two general dentists and periodontist. Saturdays, Monday 1.00pm-8.00pm sessions available. Email gh@bridgeviewdental.ie.

Locum hygienist needed to cover part of maternity leave. Flexible days available. New ADec chair and new Cavitron. Excellent hygiene team in place, you would work alongside three other hygienists. If you are interested please email paula@eyresquaredental.ie.

Hygienist required to join well-established family practice in Roscommon for one to two days per week. Please send CV to Keaveneydental@gmail.com or ring Eileen on 090-662 7707.

Hygienist required for busy Galway City practice. Three days per week. Flexible hours, can be half days/evenings/Saturdays. Fully computerised, Aquacare unit. Please email CV to aoife@renmoredental.ie.

Part-time dental hygienist required for busy multi-practice in Co. Galway. Fully computerised, new chair and Cavitron. Flexible days and hours. Maternity cover with possibility of permanent position after. Please email CV to drrothwelldental@gmail.com.

Enthusiastic hygienist required to join well-established, modern family practice based in Castlebar, Co. Mayo. Fully computerised. Mature appointment book. Position available for three days a week, with possibility of expanding. Please forward CVs to info@tobindental.com.

Alexandra Dental is looking for dentists, specialists and hygienists to join their expanding and award-wining team nationwide. Please forward CVs to jobs@alexandradental.ie or call 01-514 3804.

Full-time hygienist required for busy, fully computerised, modern Galway dental practice. Please email CV to devonparkdental@hotmail.com.

PRACTICES FOR SALE/TO LET

Practice for sale – Kerry. Good location, modern, custom-built surgery, established 10 years. Excellently equipped, ample room to expand. Experienced staff. Medical card low, new patient numbers high. Priced for speedy sale. Principal retiring. Both leasehold/freehold options. Contact niall@innovativedental.com.

Practice for sale. Dublin centre. Two surgeries fully equipped. Digital OPG. Qualified, experienced staff. High footfall and new patient numbers. Email dubdentsale@gmail.com.

Long-established practice (65 years) for sale in large commuter town in north east. Leasehold. New lease available for negotiation. Good private, SW and medical card turnover. Enquiries to infoflannan@gmail.com.

Office to let, 69sqm, Co. Kildare, within 7km of M4, 6, 7 8 and 9. Previously dental surgery. Ideally located for medical/dental/ortho/satellite practice, busy GP practice next door. Walls to radiation protection standards. Tel: 045-868 412 or email olivia@sfreilly.ie.

PREMISES WANTED

We are a clinician-led team purchasing established dental clinics nationwide. We offer strong marketing, investment, training/CPD and governance support. To align with our 2018 Irish award-winning clinics, with 500+ five-star Google/Facebook reviews, please contact us today. Email practicesforsale@alexandradental.ie.

EQUIPMENT FOR SALE

We're selling our Sirona Furnace, offers considered. https://www.dentsplysirona.com/en/products/cad-cam/dental-lab/production/infire-htc-speed.html. Email victoria@seapointclinic.ie.

EDUCATION COURSES

Get the most out of digital x-rays. Free course on how to import, save and use jpg and dcm images within free imaging software. Use in endo, ortho, implants. Contact John Lawlor on 087-207 1077, or email johnlawlor1947@gmail.com.

Invaluable support

DR ROBERT GORBY of Rathgar Dental Clinic says that the IDA's members and staff help dentists across all aspects of practice.

What led you to get involved in the IDA?

My first involvement was attending IDA lectures as a dental student in Dublin. The lectures were free to attend and I have really good memories of being made very welcome by IDA members. Attending those lectures and seeing dentists of all ages was my first introduction to lifelong learning. Following graduation, I worked as a house officer in the Dublin Dental Hospital and then joined a lovely practice in Carlow run by Dr Dick Gillman. Dick was a great mentor and he encouraged me to join the IDA. That's when I became more formally involved.

What form did that involvement take?

Initially, it was attending lectures, hands-on courses and conferences. Later, encouraged by people like Dick Gillman, Bernard Murphy and Robin Foyle, I became the south eastern representative on the GP Committee. Here I learned the value and strength of a group versus an individual when it comes to lobbying and negotiating. I saw the commitment of IDA members who gave their free time in order to promote the welfare of dental patients and professionals.

How did your involvement progress?

I opened my practice in Dublin in 1999 and since 1995, I've taught part-time in the Dublin Dental University Hospital so I was delighted and honoured when the IDA nominated me to the board of the Dental Hospital as its representative. I've really enjoyed serving on the board and being able to work with dental colleagues there but I've especially valued working with those members from a non-dental background who bring their unique skills and expertise from other professions.

The board has three subcommittees and I chair one of them, the Quality and Safety Committee. The other two are the Performance and Succession Committee and the Audit and Risk Committee. The ethos of the Dental Hospital is one of ensuring excellence in patient care, education and research, and I think this is very much in keeping with the aims of the IDA.

What has your involvement in the IDA meant to you?

Being a dentist in private practice can be quite a lonely profession. I think being a member of the IDA allows you to stay connected with colleagues and to feel part of an organisation that promotes the well-being of dentists and patients.

I know when I set up my own practice that the IDA was a wonderful source of information. Local IDA members in the area made me feel very welcome and they were a genuine source of support and encouragement. I think in regards to CPD, the IDA is an invaluable body.

What is the single biggest benefit of IDA membership for you?

It is one of support from the organisation itself in regards to formal guidance on issues that may arise in practice. Also, the individual members who are always there to support colleagues, to discuss issues and to draw from their own experience – that's invaluable.

What developments would you like to see in the Association?

I'd love to see the Association continue to do the work in the area of informing dentists about regulation changes. Thinking about education, for new graduates, I'd encourage the Association to foster a strong ethos of mentoring and networking between members so that the professional and social supports for new colleagues are enhanced.

Robert is from Dublin and runs Rathgar Dental Clinic. He also teaches part-time in the Dublin Dental University Hospital, which he graduated from in 1993. He opened his practice in 1999 and also says his teaching work has been one of the most enjoyable parts of his professional life. He has three children aged eight, 11 and 13. To relax, he enjoys reading, the cinema and getting together with colleagues.

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1. Araujo MW, et al. J Am Dent Assoc 2015;146:610–622.
2. Johnson & Johnson. Data on file.

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