

Volume 63 Number 3
June/July 2017



IDA
irish dental association

JIDA

Journal of the Irish Dental Association
Iris Cumainn Déadach na hÉireann

Plaque attack

Key concepts, tools and techniques that may be used
in providing effective oral hygiene advice for patients



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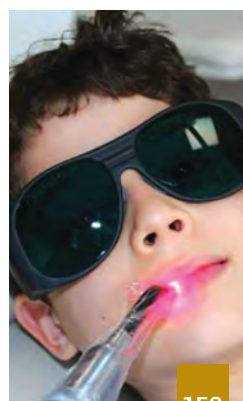
130



141



148



158



170

125 EDITORIAL

127 PRESIDENT'S NEWS

128 LETTER TO THE EDITOR

129 IDA NEWS

Mouth Cancer Awareness Day 2017; IDA retirement seminar; PRSI dental scheme

132 QUIZ

133 DIARY OF EVENTS

134 CURIOSITY SATISFIED

Report from IDA Annual Conference 2017

138 BUSINESS NEWS

All the latest news from the trade

141 INTERVIEW

It's good to talk – interview with Dr Robin Foyle

145 MEMBERS ONLY | MEMBERS ONLY | MEMBERS ONLY

News on a national oral health policy; Public service pay talks; IDA/IDU governance; Recruitment of staff

149 PRACTICE MANAGEMENT

Trust in your business

151 CLINICAL FEATURE

Plaque control and oral hygiene methods

158 PEER-REVIEWED

Are non-pharmacological interventions to alleviate pain during orthodontic treatments as effective as pharmacological interventions?
A. Keane, B., T. Garvey, E.A. Al-Awadhi

165 ABSTRACTS

166 CLASSIFIEDS

170 MY IDA

Dr Paul Murphy

NATIONAL ORAL
HEALTH POLICY AND
PUBLIC PAY TALKS

PAGE 145

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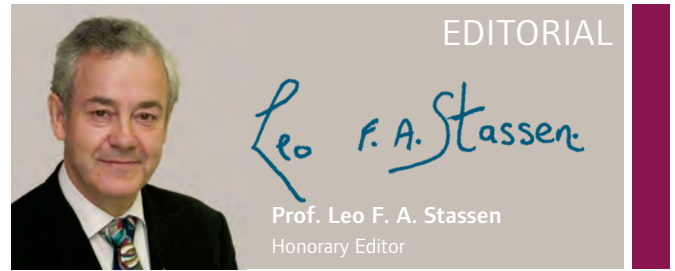
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* Compared to a regular fluoride toothpaste – defined as non-antibacterial fluoride toothpaste.

** Defined as teeth, tongue, cheeks and gums.

1. Kravaphan P, Armonchat C, Triratana T. *J Clin Dent.* 2013;24:20–24.

2. Fine DH, Sreenivasan PK, McKiernan M et al. *J Clin Periodontol.* 2012;39:1056–1064.



Policy developments leading to brighter future

Slaíntecare represents an opportunity for the oral health of our population. We have a duty to seize it and help make it work for our patients.



Appropriately, matters of policy dominate discussions among oral healthcare professionals. The acceptance by the Oireachtas All Party Committee on the Future of Healthcare (Slaíntecare) of much of the substance and thrust of our Association's submission, which outlined the damage caused by the severe cuts to State support for oral healthcare programmes, is a good start, but it is only a first step in the long road back to good oral health. We need a strong, inclusive, effective, and visionary oral health strategy. Apparently, the oral health strategy paper is almost complete but surprisingly will not be available until 2018.

In recent editions, we have recorded the progress made by the Association's negotiating team on improvements in the Dental Treatment Benefit Scheme (DTBS) and now we have the recommendation in the All Party Committee Report to reinstate in full the Dental Treatment Services Scheme (DTSS) – the Medical Card Scheme. New President Dr Robin Foyle argues coherently in his message in this edition that this Report offers a golden opportunity to introduce a new, meaningful and fit-for-purpose Medical Card Scheme for oral healthcare. He also argues for the long-awaited oral health strategy. It is, as he rightly points out, a national scandal that we have had no new national oral health policy. We eagerly await the outcome of the current deliberations on such a policy.

On a related matter, we received and are publishing in this edition an excellent letter from Dr Padraig O'Reachtagain. As it raises important dental strategy points, we felt it appropriate to seek a response from the Chief Dental Officer and requested the same. A response has not yet been received but hopefully we can publish her response in our next edition.

Best practice

Good oral hygiene is the bedrock of good oral health. We are fortunate to have a comprehensive clinical feature from Dr Peter Harrison in this edition on plaque control and hygiene methods. It is detailed and longer than we normally accept for publication, but as Dr Harrison points out, gingivitis and periodontitis represent a continuum of disease. Therefore, mechanical

disturbance of plaque is paramount in achieving plaque control.

Tying in with this theme are both the publication of a periodontal health consensus statement from a number of dental health professionals gathered together by Johnson&Johnson, makers of Listerine (see news pages), and a supplement accompanying this edition of the *Journal* from the same source. We welcome the commercial supplement as it provides both relevant information and funds, which allow us to invest further in the *Journal*.

The *Journal* continues to thrive, and to be the publication of choice for Irish dentists. Investment in the *Journal* continues on two fronts. In recent editions we have increased the number of pages being published as a result of both very strong materials/articles being available and receiving strong support from advertisers. We appreciate our commercial advertisers very much and urge you to support them in turn.

Kilkenny success

The Association's Conference in Kilkenny this year was a marked success. The *Journal* Lecture was delivered by Professor Peter Butler and it was a fascinating exploration of the development of plastic surgery. Interestingly, he expressed some dissatisfaction at the limits to the aesthetic success he and his plastic surgeon colleagues can provide to patients, but most notably burn victims. Every aspect of the Conference proved successful, with terrific presentations ranging from Dr James Kessler and Dr Kirk Pasquinelli on prosthodontics to Professor Dan Ericson on caries, Dr Susie Sanderson on antimicrobial resistance, and Dr Modi Mwatsama of the UK Health Forum looking at sugar consumption.

Packed

Once again it's a packed edition and that's without even mentioning Dr Andrew Keane's excellent paper on non-pharmacological interventions to alleviate pain during orthodontic treatment, or indeed, a wide-ranging interview with new President, Dr Robin Foyle. All highly recommended reading.

PLAQUE CONTROL: 'GOOD' CAN BE BETTER



THE PROVEN ORAL CARE COMBINATION

A combined analysis of 29 clinical studies on essential oils has been published in the *Journal of the American Dental Association*.

This showed that after 6 months of using **LISTERINE®**, after brushing and inter-dental cleaning, **37%** of patients had at least half their mouth free from plaque, compared with only **5.5%** of those who just brushed and used inter-dental cleaning.¹

LISTERINE® contains a unique anti-plaque agent, 4 powerful essential oils. These penetrate the plaque biofilm to kill **97%** of bacteria left behind after brushing.² For some patients 'good' can be better.

To see the full study visit [http://jada.ada.org/article/S0002-8177\(15\)00336-0/abstract](http://jada.ada.org/article/S0002-8177(15)00336-0/abstract)

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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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Golden opportunity

An important Oireachtas committee has recognised the damage caused by cuts to oral healthcare and it presents an opportunity for a new Medical Card Scheme.

Having made a detailed submission last autumn, we – the members of the Association – welcome the recognition by an all-party Oireachtas committee of the huge damage caused to patients by cuts in State supports for dental treatment during the recession. The report, by the Oireachtas All Party Committee on the Future of Healthcare, recommends reinstating in full, the Dental Treatment Services Scheme (DTSS) or Medical Card Scheme, which was cut during the economic crisis. This move would cost €17m in year one. This represents an excellent opportunity to introduce a new and enhanced scheme as the current version is seriously flawed.

The longstanding neglect of the oral health of our population has led us to this point where we have to collectively take action to repair the damage. While good but limited progress has been made on the PRSI dental scheme (DTBS), the Medical Card Scheme (DTSS) has to be replaced.

What they said

It is worth recording the provisions of the Oireachtas report that relate to dentistry:

“Dental healthcare, especially preventive dental care, is a crucial component of good health. Currently, out-of-pocket payments for dental care cause high levels of impoverishment and many people go without essential dental care due to cost.

Reinstating previous publicly-funded schemes is a short-term measure to provide some dental care to some people. In the medium and long term, a more comprehensive package of dental care should be implemented as part of the Sláinte reform programme.

Reinstate Pre-Economic Crisis Budget to Dental Treatment Services Scheme

Under the DTSS, people with medical cards are entitled to some dental care without charge. This budget was cut by €17 million during the recent recession.

Crucially, as the scheme now operates, virtually no treatments except extractions and emergencies are carried out and orthodontic services have been severely diminished. This scheme should be reinstated to pre-crisis levels in year one, until a more comprehensive package of care is put in place for the whole population.

The Department of Social Protection is in the process of re-instating aspects of the Dental Treatment Benefit Scheme. Currently the Department of Health is working on a new Oral Health Policy and it

has commissioned costings on a minimal dental package. When this work is completed in 2017, a universal comprehensive package of care should be put in place.

Analysis

Under the Dental Treatment Services Scheme (DTSS), people with medical cards are entitled to some dental care without charge. Access to dental care for those on lower incomes was significantly curtailed as part of a range of austerity measures introduced in 2010. The Irish Dental Association submission highlighted this issue.

Even though the number of people with medical cards seeking dental care under the DTSS increased by 35%, the numbers of scale and polishes fell by 97% and fillings fell by 33% between December 2009 and December 2015. Over the same period surgical extractions and routine extractions increased by 53% and by over 14%, respectively, as dentists are only funded to provide emergency care and carry out extractions.

In December 2015, the average cost of the DTSS per person to the State was €160 (€69m for 436,000 people). In 2009, before budget reduction measures, the average cost of the DTSS per person was €252 per person (€86m for 343,067 people). The public allocation to the Dental Treatment Benefit Scheme which enabled people who pay PRSI to get dental services at reduced cost was cut from €62m to €10m between 2010 and 2015”.

What we said

Interestingly, the Report also uses a quote from our submission:

“Currently, oral healthcare in Ireland is provided through a mix of publicly funded schemes, fully private provision, a public dental service and specialist/hospital services...there are a number of problems with the current model of care including lack of funding and resources, savage cuts to funding and the scope of treatments covered that were implemented during the crisis...”

(Irish Dental Association)

In a more general sense, but relevant to the development of a new approach, is the failure of the Government to formulate and implement a National Oral Health Plan since the 1990s. It is gross incompetence, a scandal and represents a failure of care by the State for its people. We will continue to campaign on all matters relevant to the oral health of the Irish people.

Dear Editor,

I refer to the question Dr McCrea poses in his letter published in the April/May 2017 edition of the *Journal of the Irish Dental Association*.

Dr McCrea's question is regarding a DTSS treatment item "lancing an abscess" and its availability to medical cardholders.

In April 2010, the HSE, in its wisdom, unilaterally removed the following treatment items from the DTSS:

- ▶ biopsy – excision of soft tissue;
- ▶ pulpotomy;
- ▶ abscess – pre-treatment and incising;
- ▶ dressings; and,
- ▶ treatment of a dry socket.

This, despite stating at that time: "The HSE will provide emergency dental care to eligible patients with a focus on relief of pain and sepsis". It is uncertain whether this decision was made with the considered advice of experienced clinicians or by a HSE administrator alone.

I would caution any DTSS contractor colleague against claiming for any treatment item provided, which falls outside the exact description of the item in the DTSS contract. In this case, prior to 2010, a claim for "lancing an abscess" would fall under "abscess – pre-treatment and incising". This would require an incision to be made and recorded in the patient notes to satisfy the requirements of the contract. Regardless of the best interests of the patient, a claim made for any treatment item which is not as per the contract definition leaves the contractor open to an allegation of breach of contract and fraud by a colleague and may have the matter brought to the attention of the Dental Council and the Gardaí.

It is a poor indictment on the value placed on oral health by the HSE and the Department of Health for the past seven years that they have facilitated the provision of inappropriate dental care, approved and supervised by dental professionals, which often is not in the best interests of patients who often are the most disadvantaged in society.


Yours sincerely,

Dr Padraig O'Reachtagain

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Mouth Cancer Awareness Day 2017

Mouth Cancer Awareness Day 2017 will take place on
Wednesday, September 20.



Mouth Cancer Awareness Day has been a fantastic success since its inception in 2010, with over 20,000 patients availing of free mouth cancer exams and 26 cancers being detected as a direct result of the day.

This year, we are not asking dentists to offer free mouth cancer exams on the day, or indeed to set aside a specified period of time to carry out free mouth cancer exams. Instead, we are

hoping to link with some well-known homeless

charities in various urban areas to offer free mouth cancer exams for clients. Dentists do not have to register this year to take part.

Patient information on mouth cancer for your surgery is available from the Irish Cancer Society at www.cancer.ie.

IDENTEX 2017



The IDA is delighted to partner with the IDTA (Irish Dental Trade Association) once again this year for IDENTEX 2017.

IDENTEX will take place at Citywest Hotel on Friday and Saturday, September 15 and 16. A full programme of lectures, workshops and hands-on courses will be available as part of the IDA Autumn CPD Programme.

Half-day hands-on courses will take place on adhesive dentistry with Dr Ian Cline in conjunction with Dentsply, and there will be a half-day lecture on restorative dentistry with Professor Edward Lynch of the University of Warwick. A full-day practical workshop on medical emergencies with Basic Life Support (BLS) certification will be given by Safe Hands on both Friday and Saturday. These workshops proved very popular during our Annual Conference in Kilkenny recently and will provide core CPD training for all dental team members. Dental Protection will be present on Friday with a lecture on consent from Dr Martin Foster.

Thinking of retiring from dentistry?

Are you thinking of retiring over the next few years or have you recently retired? Well then, this seminar is for you. The full-day event, supported by Goodbody, will take place on Friday, September 29, at the Radisson Hotel, Dublin Airport.

Presentations on looking after your health in retirement, pension planning, medicolegal issues

on retiring, along with

much, much more, will be

covered on the day. This

year we are also inviting

spouses/partners of IDA

members to attend.

A full programme will

be available very

soon. The seminar

is only open to

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ADA licence for IDA CPD



The IDA has achieved a significant endorsement of its CPD programmes with the granting of a licence by the American Dental Association's (ADA) Commission for Continuing Education Provider Recognition. This effectively means that for approved education and CPD events, members of the ADA will now also be able to acquire CPD credits for attending IDA-organised events. It is hoped that this will serve to boost attendance by members of the ADA at IDA events, and also serve to enhance the longstanding and close relationship between both organisations.

IDA affinity schemes

Affinity scheme with 3 Mobile proving very popular

A number of members have made the move to 3 Mobile since the inception of the very attractive rate of €15.75 per month plus VAT, plus a free smartphone. Up to 40% can be saved on landline calls and broadband also. This deal is only available to IDA members. Please have your IDA membership card available for confirmation, and call Andrew on 01-202 1601.

Are you paying too much for credit card transactions?

The IDA has negotiated a preferential deal with AIB Merchant Card Services for IDA members. Members have made significant savings by moving over to AIB Merchant Card Services.

Card type	Interchange	Scheme fees	Merchant service charge
Credit cards	At cost	At cost	0.24%
Debit cards	At cost	At cost	5 cent

For further details, contact IDA House.

HSE dentists off to Kilkenny

The HSE Dental Surgeons Seminar will take place on Thursday and Friday, October 12 and 13 next at Hotel Kilkenny. The full programme will be announced soon!



New IDA Board

A new Board of Directors was appointed at the recent Annual General Meeting of both the Irish Dental Association and the Irish Dental Union. Dr Robin Foyle succeeds Dr PJ Byrne as the President.

Dr Kieran O'Connor from Youghal, Co. Cork, was appointed as President Elect and Dr Clodagh McAllister, a general practitioner from Dublin, has been proposed as Honorary Secretary Designate.

Stepping down from the Board were Dr Anne Twomey, Past President, and Dr Ronan Perry, Honorary Treasurer. Drs Twomey and Perry were thanked warmly for their outstanding contribution to the Board in recent years.

Who will be Sensitive Dentist of the Year 2017?

Nominations are now open for Sensitive Dentist of the Year 2017. Dentists should encourage their patients to nominate them either by:

- filling out a form in the clinic (you should have received copies in the last edition of the *Journal*; if not, contact IDA House and we can send you some); or,
- logging on to www.sensodynesensitivedentist.ie and nominating your dentist and/or dental practice for the Award.

The Awards Ceremony will take place on Saturday, December 2, at the Concert Hall, RDS. Remember, this is the only dental award that is nominated by patients.



HSE handbook for DTSS contractors

The HSE has published a new handbook for DTSS contractors, which is available to view on its website. The handbook explains the provisions as regards eligibility of patients, the basis on which patient eligibility can be checked online, administrative arrangements associated with the working of the Scheme by dentists, and a brief description of the work of the dental inspectorate.

Finally, it is important to note that a full list of items that can be prescribed is included in the appendices to the document. Members are also advised to regularly check the members' section of the IDA website for updates on the DTSS and also to access copies of DTSS contracts and other key documents.

PRSI dental scheme

The Department of Social Protection has confirmed that just over 1,200 dentists have signed up to treat the self-employed, arising from recent negotiations between the Department and the Irish Dental Union. This represents over 90% of active contract holders. The Department has also confirmed that claims are 14% higher in April 2017 than in the same period in 2016.

Talks are to commence shortly with the Department on negotiating a new Dental Treatment Benefit Scheme contract. In addition, the Department has been working on a new IT system, which it is hoping to introduce from October. This will allow dentists to check a person's eligibility electronically via a web port and get a real-time answer. After treatment is completed, the dentist will be able to submit an electronic payment request with no paper transactions. The dentist will also be able to see the current status of an enquiry and payment status of each claim online. There will still be a paper channel, which can be used for everyone's benefit; however, the Department wants to get as many dentists as possible online as early as it can. Further information will be issued to members as the discussions with the Department progress.



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Quiz

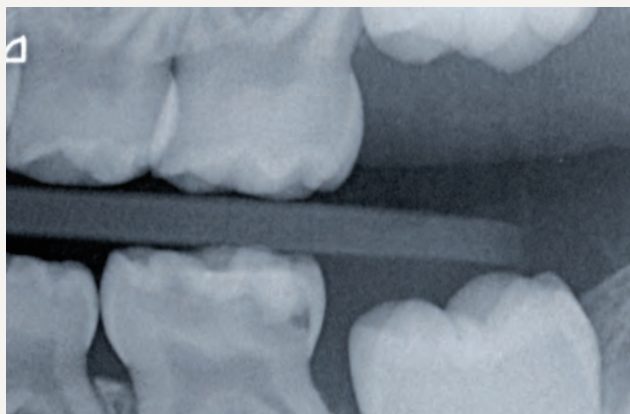
Submitted by Dr Deirdre Coffey

This is a left-sided bitewing of a five-year-old boy. This child's presenting complaint was of transient pain associated with a lower left tooth. The pain was precipitated by cold drinks but did not linger.

Questions

1. What pathology can you identify on this radiograph?
2. What investigations would you carry out to determine the status of tooth 7-5?
Following examination, the pulp of tooth 7-5 was diagnosed as being reversibly inflamed.
3. What is the ideal treatment for tooth 7-5?
4. In what situation would you not carry out this procedure?

Answers on page 169



Dental complaints report

The 2016 report of the Dental Complaints Resolution Service will be published shortly. The Service has had another busy year and has proved of great assistance to dentists when handling complaints. Further information will be circulated to members once the report is published.



Diary of events

JUNE

23 Irish Society for Disability and Oral Health

Marker Hotel, Dublin 2

Annual Conference: 'Dental anxiety and phobia'

30 Practice Management Seminar for Practice Managers, Dental Nurses and Receptionists

Radisson Blu, Dublin Airport

Contact IDA House for information

SEPTEMBER

15-16 Identex

Citywest Hotel, Dublin

OCTOBER

12-13 HSE Dental Surgeons Seminar


Hotel Kilkenny, Kilkenny

Dental amalgam update

The Irish Government will be required to set out a national plan showing how it intends to implement the phased down use of dental amalgam. According to new EU regulations, the plan must be published by July 2019.

The new EU regulations in regard to the use of dental amalgam have recently been published in the *Official Journal of the European Union*. From January 1, 2019, dental amalgam shall only be used in pre-dosed encapsulated forms. From July 2018, amalgam must not be used for dental treatment of deciduous teeth of children under 15 and of pregnant or breastfeeding women, except when deemed strictly necessary based on the specific medical needs of the patient. The regulation also requires that amalgam separators must be used for the retention and collection of amalgam particles from January 2019. Dentists will also be responsible for the handling and collection of amalgam waste by authorised waste management companies.

The Association has already met with the Department of Health and the Department of Communications, Climate Action and Environment, and will be seeking their involvement in practical guidance to issue to dentists to ensure orderly compliance with these new provisions.



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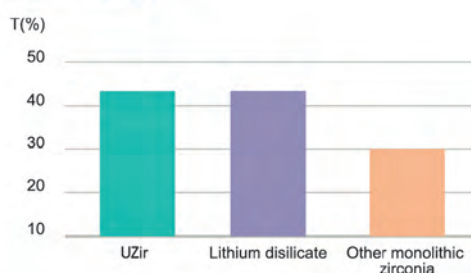
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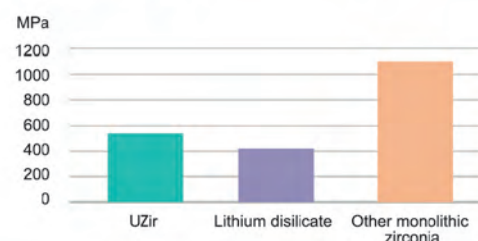
Crown & Bridge	Single crown and 3-unit bridge (up to premolar).
Inlay/Onlay	Yes
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Cementation	Self-adhesive or adhesive resin cements are recommended. Shade of the cement will contribute to the final shade. Please contact our technical team for further information.
Adjustments	Fine diamond with water cooling or diamond impregnated rubber is recommended. Areas must be polished to a high shine with diamond polishing paste afterwards.



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Three-point bending test





ABOVE: Dr David Reaney demonstrating to Dr Freda Guiney on the Southern Cross Dental stand.

LEFT: Professor Peter Butler delivers the JIDA lecture on facial reconstruction.

RIGHT: Dr Lilia Collazo-Pakholiuk pays close attention at Dr Kessler's restorations course.



Curiosity satisfied

Delegates at this year's Annual Conference in Kilkenny left with a wealth of information on all aspects of dentistry.

This year's conference took place in the lovely surroundings of the Lyrath Estate in Kilkenny, and as ever, the programme of pre-Conference courses, speakers and workshops from at home and abroad was second to none.

Thursday was Pre-Conference Course day, and the courses on offer covered bonded ceramic restorations with Dr James Kessler, the aesthetics of the periodontium around teeth and implants with Dr Kirk Pasquinelli, and the art of endodontics with Dr Stephen Buchanan. There was also the opportunity to participate in two workshops. Drs Jane Renehan, Nick Armstrong and Eamon Croke, with Siobhan Carrigan and Fiona Heavey, covered all aspects of regulation and inspection for dental surgeries, while a second workshop by Safe Hands provided an update on managing medical emergencies in the practice.

On Friday morning, a fantastic two-day lecture programme began, where aspects of clinical, surgical, cosmetic and holistic dental care for patients from the first dental visit to the final years were addressed by a truly impressive group of speakers.

Restoration men

Dr James Kessler opened proceedings on Friday morning with the observation that good science happens slowly. The Lumbricht Study of 1989 demonstrated that huge levels of movement are normal in the mouth, and even more in patients with bruxism. The stomatognathic system is constantly changing and implant restorations are a great reference because they stay in one spot. Dr Kessler also referred to the work by Dr Jack Turbyfill, who demonstrated that gold is the only material that will wear quicker than enamel. Dr Kessler expressed concern about the ability of zirconia to adapt to change in the mouth, and about likely coronal changes in the opposing tooth.

Dr Kirk Pasquinelli's presentation concerned the considerable challenge of making implant-supported crowns look like teeth. Soft tissue considerations around implants were discussed with regard to development of the surgical site and the restorative site. The importance of putting the implant in the right place was emphasised. He stressed the importance of preserving and thoroughly debriding the socket when extracting teeth. A considerable part of the presentation concerned the important role of the restorative dentist in influencing development of the soft tissue. The influence of over-contoured and under-contoured temporary crowns on the eventual soft tissue contour was clearly explained, and techniques used in order to achieve these high-quality results described. Dr Pasquinelli's results were so impressive that the implant-supported crowns looked even better than the crowns on natural teeth.

Ann-Marie Hardiman reports from the Annual Conference for the *Journal* with additional material by Dr Conor McAlister and Paul O'Grady





ABOVE LEFT: Aoife Moran, Caitlin Tolhurst and Debbie Maudsley of Colgate.

ABOVE RIGHT: Geraldine Kennedy, Gillian Martin and Richard Kenny of DMI, with Dr Melissa Lee and Dr Traelach Tuohy, and Shane O'Neill of DMI.

LEFT: Angela Glasgow and Jonathan Singh from NSK.

RIGHT: Dr Robin Foyle with Aoife O'Brien and Pat Bolger on the Henry Schein stand.



Caring dentistry

Dr Anne Twomey spoke passionately on the subject of the tens of thousands of elderly patients in nursing homes in Ireland who have little or no meaningful access to dental care. The principal aims of care for this patient group are to keep patients disease and pain free, maintain a safer mouth (aspiration pneumonia is a significant risk in this population) and, where appropriate, to offer palliative care. Dr Twomey offered practical tips for carrying out examinations, and outlined the common issues she encounters, from lost dentures to the significant damage done to teeth by high sugar-containing fortified drinks. Ultimately, the key to helping these patients lies in involving dentists in their care, getting the low sugar message out, and developing an oral care plan for every patient, in collaboration with family and carers.

Governance and guidelines

Dr PJ Byrne gave delegates an update on the extensive work being done on the organisation's governance structures. He introduced the forthcoming governance document and reiterated the Association and Union's commitment to ongoing review to strengthen these processes. (Read a detailed summary of this presentation on page 146).

Dr Susie Sanderson of DPL gave an extremely timely talk on antimicrobial resistance (AMR) and the role of dentistry in addressing this global issue. Although 9-10% of antibiotic prescribing in the UK and North America is done by dentists in primary care, and AMR is firmly on the global health agenda, dentistry has not been involved in policy discussions up to now. This is changing, and Susie outlined what dental professionals can do to be part of the solution rather than the problem, such as patient education, an end to inappropriate prescribing (helped by evidence-based practice audit structures), and lobbying government, along with colleagues from other disciplines, to change policy and raise awareness.

Looking at the evidence

Dr James Kessler's second lecture of the day looked at what the laboratory needs to know when it comes to preparation designs. He recommended

constant communication with the lab, and reminded delegates that positive feedback is important, as many labs only hear negative comments. He offered several visual examples of how to communicate, for example, plane of occlusion to the lab, and presented a range of case studies showing that the right intra-oral mock-up can help manage patient expectations.

With implementation of the Minamata Convention meaning that amalgam's days are numbered, Dr Frank Quinn looked at the evidence base for composite resin. He examined the key differences between the two types of restoration, and offered advice on choice of instruments, and techniques for placement of composites that reduce the risk of shrinkage. He also looked at studies comparing incremental and fluid-type composites, and at the evidence relating to different finishing methods. He finished by looking at the evidence around failure rates, and emphasised the need for agreed criteria for monitoring, repair or replacement of restorations to minimise unnecessary treatments.

Inspirational

In the latter part of Friday's session, delegates came together to hear two fantastic speakers. First, Dr Raj Rattan of DPL used quotes from Shakespeare and anecdotes from his own career to offer his 10 critical success factors in general practice. He warned of the dangers of forgetting the fundamentals of dentistry in favour of business and marketing, saying that there is no substitute for knowing your craft. When it comes to communicating with patients, Raj's advice went all the way back to Aristotle, as he talked about building relationships with patients based on logical explanation, emotional connection and credibility. He reminded those present of the importance of enjoying what you do, and finished with a chess analogy: that no matter what, we need to remain a player and not a spectator in our lives and careers, making whatever moves we need to over the course of our career to make sure that remains the case.

The final speaker of the day, Professor Peter Butler, delivered the *Journal of the Irish Dental Association* lecture, and held the audience in rapt attention with his account of his work at the cutting edge of facial reconstruction. His examples of the groundbreaking techniques he and his colleagues have employed to improve the health and quality of life of their patients were fascinating and inspiring,



The GSK team (from left): Eilis Tobin; Alan McCartney; Claudia Long; and, Fiona Considine.



Dr Robin Foyle hosted the traditional lunch for past Presidents at the Annual Conference. He is pictured centre front with Dr Barry Harrington and President Elect Dr Kieran O'Connor. Back row (from left): Drs Tom Feeney, Gerry McCarthy, Ena Brennan, Martin Holohan, Garry Heavey, Michael Galvin, Charles O'Malley, John Barry, Joe LeMasney, Anne Twomey, Pat Cleary and Billy Davis.

encompassing microsurgery, stem cell treatment and tissue engineering. He also discussed the thorny issue of facial transplantation. Prof. Butler was the first to write about the possibility of carrying out a full facial transplant, but for a variety of reasons – clinical, ethical and practical – the procedure has yet to take place in the UK, and transplants that have been done elsewhere have had limited success. At times, the images Prof. Butler used as examples were extremely hard to look at, and they brought home very forcefully his view that the best that can currently be offered to patients with severe facial disfigurement is nowhere near good enough. He and his team are resolved to keep working, however, exploring every avenue to “deliver” for his patients. It was a truly fascinating and moving end to the day.

Caries and sugar

On Saturday morning, those who attended Professor Dan Ericson’s lecture were treated to a comprehensive (and often humorous) look at the facts around caries. Despite an estimated three billion people suffering from untreated caries, most patients don’t see it as a disease or serious condition. Dr Ericson looked at what he called the “remarkable correlation between sugar consumption and decay”, the effectiveness of fluoridated toothpaste and dental floss, and the trends in restoration, which have moved in recent times towards minimal intervention. He said that perhaps ‘caries-free’ should be an outdated term, as we look to seal caries in rather than fully removing it.

The discussion of sugar consumption and its relation to dental health continued in two further presentations. ‘First tooth, first visit, zero cavities’ is the message that Dr Eleanor McGovern and her colleagues are eager to get out to the general public, as the rates of children requiring extensive dental treatment, including extractions under general anaesthetic, continue to increase. In an often-passionate presentation, Dr McGovern wondered how society has allowed this situation to arise when these conditions are entirely preventable. The infant oral health visit has a vital role to play in educating parents about creating a ‘dental home’, where good oral health practices are fully integrated into family life. Dr McGovern outlined what should happen at this visit, and how dentists might go about making their practices more welcoming to younger patients and their families. She also spoke about the dangers of products full of ‘hidden’ sugars, such as juices and sports drinks, and the importance of getting the message to parents, teachers and sports coaches about the harm these products are doing to oral health.

Dr McGovern was followed by Modi Mwatsama of the UK Health Forum, who looked at sugar consumption from a wider, health policy perspective. Modi talked about the kinds of initiatives that have been proven to reduce sugar consumption in populations, saying that the evidence says that taxes and regulation such as restricting advertising works. The food and drinks industry is involved in intense lobbying to prevent any such regulation, however, and this is something campaigners need to be aware of and prepared for. Dr Mwatsama pointed out that the issue of tooth decay is not featuring sufficiently in the international debate around sugar and that this needs to change. She advocated more co-operation between health professionals across the disciplines to present a cohesive message.

‘Simple’ dentistry

After lunch, Dr Tif Quereshi used a range of case studies to weigh the respective benefits of “cosmetic dentistry versus ‘simple’ ortho”. He said that simple changes can make massive improvements, and argued for giving patients options regarding what treatments are available, as well as emphasising the importance of follow-up and retention to maintain results.

Dr James Buchanan used a variety of cases (including his own!) in a fascinating lecture on CT-guided endodontics. The research evidence points to the usefulness of this technology in endodontics, and Dr Buchanan had video footage of CT-guided apical access and retroseal replacement, which he said was minimally invasive and fast. He said that this new technology is producing remarkable accuracy in placement and predictable results.

Dr Edward Cotter delivered the last lecture of the day on ‘The transition to complete dentures: why, when and what to expect’. Over the course of the lecture, he presented a range of cases, often asking the audience their view on whether they would retain or remove teeth, an exercise that went to prove that often there is no ‘right’ answer. He pointed out that dentures are not a replacement for teeth; they are a replacement for no teeth. He offered a wealth of practical advice on planning and carrying out treatment, discussing the options with the audience as he continued. Making someone edentulous is a huge thing to do, so giving the patient time is very important. He also talked about when not to do it, and the role of the “transitional denture”. In summary, he reiterated that it is always better not to have to make a patient edentulous; however, if extraction is needed, then good assessment, good technique and good explanations up front are essential.

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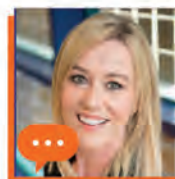
Your Speakers



Simon Chard - *Belfast*

Dr Simon Chard BDS(Hons) BSc(Hons) qualified with Honours from King's College London Dental Institute in 2012. In 2015 he was voted the Best Young Dentist in London and also the overall Best Young Dentist in the UK at the prestigious Dentistry Awards. Simon is very passionate about providing

beautiful, healthy smiles for his patients and is a big promoter of using digital technology to simplify cosmetic and implant dentistry.



Sinead McEnhill - *Dublin & Cork*

Sinead McEnhill is the director of Belmore Dental Clinic, 2014 winners of the Best Dental Team Ireland Award. She qualified from Queens University, Belfast in 1995 and worked for 8 years in Belfast before opening Belmore Dental Clinic. Sinead is a member

of the ADI, ICOI and the AACD.

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Neodent launches in Ireland

Quintess Denta held an event in Belfast Castle on Friday, April 21, to launch Straumann's Neodent. Talks at the event were delivered by: Peter Radqvist, Straumann; Nyima Phuntsok, Intradent; John Aiken, Head of Neodent UK; Prof. Joe Bhatt, specialist in prosthodontics and oral surgery; and, dental technician John Wibberley. James Hamill, CEO, Quintess Denta said: "It was a wonderful event that gave our guests a real insight into the world of Neodent". This was the first in a calendar of events Quintess Denta has planned for 2017. Another event planned for later in the year is a talk by clinician Robert Oretti. Robert is coming to Belfast Castle on September 23, 2017, to discuss how to get the best and most predictable implant outcomes for you and your patients. If you would like to reserve a place, please contact enda@quintessdenta.com.



Dermot Pierse, Consultant Maxillofacial Surgeon, Altnagelvin Hospital, Derry; Peter Greene, Managing Director, Quintess Denta; Dr Marta Martin Fernandez, Oasis Dental Care; Nyima Phuntsok, Global Product Manager, Intradent, Straumann Group; Stephen Ginn, McDowell + Services; Ciara McGinley, Oasis Blue Apple Dental and Implant Team; Peter Radqvist, Director – Head of Global Distribution Management, Intradent, Straumann Group; Jane Rutherford, Armstrong Dental; Jesse Morrow, McDowell + Services; Ian Creighton, Implant Sales Manager, Quintess Denta; John Aiken, Country Manager Intradent UK, Straumann Group; James Hamill, CEO, Quintess Denta; Kenn Scott, A Plus Lab; Chris Barrowman, Infinity Blue Dental Care; Garrett MacEnri, Cavan Denture Clinic; James Pattison, Radiant Dentistry; Maurice Fitzgerald, Cleary Fitzgerald; Stewart Fawcett, Dundee Dental Lab; John Wibberley, Clinical Dental Technician; and, Prof. Joe Bhatt, Professor, Specialist Oral Surgeon and Prosthodontist, Director, Moor Park Specialist Dental Centre.

Omega financing for refurbishment



Finance options are available from Omega.

Since the start of 2016, all new dental practices must have a separate decontamination room and all older practices must have a plan towards establishing one.

Setting up and maintaining a dental practice is an expensive investment and with increased regulation around infection control, this initial or ongoing outlay can be very expensive. Omega Financial Management states that with over 15 years' experience working closely with the dental profession, it understands the financial demands of a dental business. It has just announced a partnership with Finance Ireland and the Strategic Banking Corporation of Ireland (SBCI) to bring dentists what it calls a highly-competitive funding option to set up, refurbish or maintain their dental practices. The company states this will allow dentists to avoid unnecessarily tying up their capital in expensive assets such as dental chairs, fit-outs, lab facilities, surgery equipment, x-ray machines, vehicles, computers and more.

By accessing SBCI funding (available to independent Irish SMEs) Omega states that it can offer highly-competitive finance rates from just 7.5% per annum. You can enquire or access more information at www.omegafinancial.ie/leasing.

Southern Cross Dental golf

Southern Cross Dental will host a dental golf day on Friday, June 23, 2017 at the Slieve Russell Golf Club, Co. Cavan. Places are limited and anyone wishing to attend should register today at scdlab.co.uk/golfdays. The schedule for the day is as follows:

- 12.00pm – meet and greet at the Clubhouse Bar;
- 1.00pm – tee-off;
- 6.00pm – dinner in a private room; and,
- 8.00pm – prize ceremony.

Southern Cross Dental hopes many of its customers will be able to come along on the day.

Consensus on periodontal health

Listerine, in association with a number of dental health professionals, has released a Periodontal Health Consensus Statement. The Statement sets out a number of key principles to be followed for optimal periodontal health.

It sets out as essential for oral health, the need for effective plaque and calculus removal and that for effective management of oral disease, professional debridement is as essential as patient home care.

The Statement mentions: "Mechanical plaque control remains the primary approach to home care oral hygiene routines but for those who are not achieving optimal levels of oral health with mechanical plaque control, adjunctive use of antimicrobial mouthwashes, gels and pastes, with clinically proven efficacy, should be considered".

Dental health professionals have a responsibility to educate their patients on their disease status and to direct patient behaviours appropriately. The Statement reminds dentists that patients need ongoing personalised oral hygiene instruction and demonstration, but that they should be encouraged to take ownership of their oral health.

The Statement recommends regular periodontal maintenance for long-term treatment outcomes. Continuity of care supports effective monitoring of periodontal stability and facilitates early intervention as required.



Clinicians who helped draft the Statement (from left): Dr Roberto Labella; Prof. Anthony Roberts; Louise Fleming RDH; Dr Rory Maguire; Prof. Helen Whelton; Dr Peter Harrison; Dr Mark Condon; Dr Mary Crossling; and, Dr Traelach Tuohy.

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New DMI Cork showroom



Located at OD House in the Doughcloyne Industrial Estate, the DMI Cork office is only five minutes from the Cork Dental Hospital and just off the South Ring Road. DMI states that the new showroom displays the latest surgery packages from Adec, Kavo and Planmeca, and cutting-edge digital systems from Carestream and Planmeca. With its 40-seater conference facility, the company will be able to hold education and training events. DMI asks dentists to call in anytime they are passing or to contact the company directly if they would like to organise a confidential visit.

Changes to Colgate purchasing

Since March 1, 2017, dentists who wish to purchase professional Colgate products should do so from Dental Medical Ireland (DMI). For samples, product information, clinical studies, patient education tools and CPD from Colgate, the company asks that dentists register with the Colgate Professional website at www.colgateprofessional.ie. If dentists wish to speak to someone at the company, they should do so through that website as well.



Aoife Moran, Professional Relations Manager, Colgate, explained the changes: "We are changing the way we work to help us more effectively meet your needs. Our objective is to be more accessible, more flexible and support you more through 24-hour access to product information and online education. We are also strengthening our offer of online resources and will continue to actively attend and support key national conferences".

Busy time for Dental Care Ireland



Colm Davitt, CEO, Dental Care Ireland; Joe Giltinane, President, Ashbourne Chamber of Commerce; Minister of State and Government Chief Whip, Regina Doherty TD; and, Dr Kieran Davitt, Dental Care Ireland, cut the ribbon at the opening of the practice in Ashbourne, Co. Meath.

The group of practices headed by Colm Davitt, Dental Care Ireland, has accelerated its activity in recent times. Dr Paul O'Dwyer has been appointed Group Clinical Adviser. Dr O'Dwyer will work alongside founding partner Dr Kieran Davitt to maintain and support the highest clinical standards across the group.



Dr Paul O'Dwyer, Group Clinical Adviser.

Meanwhile, it opened a new flagship practice in Ashbourne, Co. Meath. Led by principal dentists Drs Cliona O'Brien and Claire Burns, it is a family-focused practice. The new practice has been designed to what Dental Care Ireland states is an award-winning specification, including state-of-the-art facilities and technology throughout the waiting and surgical areas. It will provide the benchmark for all Dental Care Ireland practices nationwide.



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It's good to talk

New IDA President Robin Foyle spoke to the *Journal* about general practice, dentistry in Europe and his plans for his year in office.

Robin Foyle was attracted to dentistry on the recommendation of his older sister Deborah, who had already entered the profession. In fact, after graduating from the Dublin Dental School, he worked for a year in the practice she shared with her husband, John D. Regan, in the UK. Robin is a general dentist, but has a particular interest in endodontics, and he credits this to the influence of his brother-in-law, an endodontist: "He taught me the importance of taking your time, and learning to do it properly. It was great advice and I still love doing endodontics – I'd do it all day".

Robin spent three years in the UK before deciding to move home in late 1995. With his wife Gráinne, he made the move to Wexford in answer to an advertisement in the *British Dental Journal* for an associate position, and (despite never having been to Wexford before), the town has been home to the Kilkenny native ever since. These days Robin is the principal in the Wexford Dental Clinic.



Focus on well-being

For his year as President, Robin wants to place a particular emphasis on dentist well-being, particularly among his colleagues in general practice. He acknowledges the work already done in this area by IDA CEO Fintan Hourihan and the team in IDA House, in particular the Mentoring Programme and the Association's involvement in the Practitioner Health Matters Programme: "I've three dentists here so it's not so bad, but for many dentists it's a lonely and stressful job, particularly if there's no other dentist close by. I

would like to highlight the stress that dentists in practice feel, and try to get more awareness of and engagement among members with the programmes that are in place. I'd particularly like to get feedback from members, outside of clinical dentistry and CPD and the other things we do, on what are the other issues affecting dentists, and try to highlight those".

He takes inspiration from local initiatives: "My nurse's husband is Mayor of Wexford and has done huge work in his year as mayor on depression through the 'Ask' campaign. It encourages people, if they see someone who seems troubled or quiet, to ask is everything ok. It was really inspiring to see what he has done. I think something like that would be very helpful".

Robin feels that with increasing competition for business, there can be less of the collegiality between dentists which he recalls when he first returned to Ireland: "I would like to get dentists to reconnect and share our common problems and common interests".

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He feels that the key to achieving this is continuing the work begun by his predecessor Dr PJ Byrne in trying to revive the IDA branch network, particularly by reaching out to those who don't come to meetings: "It's important to have that local connection between dentists. It's not just a rural issue either. In the Metro Branch, for example, the percentage of members who don't come to meetings is probably the same as it is in more rural areas".

The Association also wants to encourage younger dentists, and non-Irish graduates, who can face particular challenges, to get involved: "There are approximately 300 non-Irish graduates on the register now, and it can be quite isolating for them if they don't have a support network". Increasing member involvement is not a new challenge, and is one experienced by many organisations, but the IDA has increased its focus on the issue in recent times, and as a result now has a series of action points that aim not only to bring members in, but also to encourage them to get involved at branch and committee level (see panel).

Righteous anger

At this year's Annual Dinner in Kilkenny, Robin spoke passionately about successive governments' failures to address a range of issues in dentistry and oral health, and the need for the Association to continue to work to improve the situation. Issues such as the continuing failure to appoint a full-time Chief Dental Officer, and the ongoing issues with the HSE dental service are just two

Proposals to increase IDA membership and member involvement

1. Emphasise social aspect of membership; a 'social secretary' for each branch (with training from the IDA).
2. Funding for smaller meetings to attract better overseas speakers.
3. Peer-to-peer engagement: phone calls to new members and 'buddy system' at meetings.
4. Better engagement with small groups: recent graduate day in September/October; non-Irish graduate committee.
5. Explore options for online social networking and CPD (videos of lectures, webinars, YouTube channel, etc.).

of the sources of anger and frustration for the profession: "Who wouldn't be angry? We've been asking for and promised a [full-time] Chief Dental Officer. It's no more than any western country has, someone to dictate oral health policy, but it's never happened". He welcomes the recent announcements regarding the expansion of the Dental Treatment Benefit Scheme (DTBS) to the self-employed, but sees no accompanying movement on improving the Dental Treatment Services Scheme (DTSS) for those with medical cards: "The HSE dental service is in crisis. If you're a child from 0 to 16, the service you get is abysmal, and nothing is being done about it. We've had a 20% increase in children eligible to be treated in the HSE dental service, and a 20% cut in staff. IDA figures show that we need approximately 150 more dentists to meet the need. Medical card holders are only entitled to two fillings a year – it's just wrong. When the financial crisis hit, the Government went straight for the low-hanging fruit and the first thing to go was dentistry".

Practice matters

At a day-to-day level, general practice has changed a great deal since Robin began practising in Ireland in the mid 1990s: "When I began in practice we relied very much on word of mouth, but now advertising and promotion of practices is commonplace".

The amount of administration and regulation that dentists have to deal with is another major development, and Robin points out that it places quite a burden, both financial and administrative, on general dentists: "We are burdened with a lot of regulation, much of it from the EU, and most of it is good, but it all comes at a cost and we're expected to absorb that cost. I recently had to spend €1,300 for the statutory inspection of my x-ray machine. All these costs have escalated but fees have not; in fact, in terms of the DTSS and so on, fees have been cut". He speaks of dentists' ongoing frustration at the lack of recognition by the State of these additional responsibilities, particularly when medical practitioners can avail of a number of grants to support their practice: "There's a huge amount of admin involved, and if yours is a small or medium-sized practice you shoulder it yourself, because you can't afford to pay someone else to do it for you".

With all of these requirements, it's not difficult to see how dentists might opt to be employees in one of the large corporate practices in operation around the country, where a more business-oriented model is employed. It's a big cultural change from the dentistry that Robin was trained in, where "dentistry wasn't something you marketed", but he recognises that these changes are here to stay, and he acknowledges the IDA's work to keep dentists educated and informed on practice management issues with events such as the annual seminar in Croke Park.

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Indeed, he points out that there has never been so much choice in terms of CPD for dentists and the dental team. Robin would like to see dentists using these opportunities more to meet each other, and combine CPD with face-to-face interactions: "You can learn a lot from colleagues talking about their own experiences, what went right and wrong, and I think that's very valuable, even just to know that you're not alone and other people have faced the same problem. It's not 'official' CPD, but I think it's very important".

Branch meetings provide these opportunities to meet and talk, but Robin says the emphasis has changed in recent years, and not necessarily for the better: "When I went to Wexford first it was more social, and people would stay for dinner or a drink afterwards, but now people go for the CPD and go home".

He acknowledges that the demographics of dentistry have changed, with more female members of the profession, and a greater emphasis on family time for both sexes, and this adds to the challenges involved in getting people together. Changing the times of meetings might be a way to do this, but for private practitioners like himself changing to, for example, meetings during the working day, would not be ideal. One solution he suggests would be support from the State: "Perhaps if the Government would sponsor CPD, for maybe a half day a year. The NHS pays its contractors to have time out of practice for CPD, so maybe our Government could do something similar for DTSS/DTBS contractors".

The European perspective

Robin has for a number of years been a member of the IDA's CED (Council of European Dentists) Committee. He attends CED meetings twice yearly, and additional meetings of the Tooth Whitening Working Group, of which he is a member. He finds it fascinating to meet with colleagues around Europe, learning about the different approaches in different countries and seeking to find common ground in areas such as education, waste management, patient safety and data protection:

"Germany and France, for example, don't have hygienists and don't want them. In the UK there is direct access to hygienists, but [the German and French dentists] see this as the death knell of the profession".

Robin enjoys his involvement, although dealing with the bureaucracy involved can be challenging. At the moment, the Tooth Whitening Working Group is trying to change the section in the EU's directive on tooth whitening that makes it illegal to bleach teeth in under 18s: "If you have a 13-year-old with a dead black front tooth, who is being teased at school, you're not allowed to do an internal bleach on it. We're trying to get that looked at again. We've been doing that for about four years, but there hasn't been much movement. Paddy Fleming of the European Paediatric Dental Association, and other European colleagues, gave us expert advice, and we have sent a letter to the Commissioner. We received a letter recently saying that they'll look at the letter

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 needed their income
 protection in 2016*

to see if they will refer it to the Scientific Committee for Consumer Safety in August. We'd sent them a couple of letters already and they'd asked for more detail and new references. We've done all that so it's in their hands. It will take a number of years; even if it's referred to the Scientific Committee, it has to meet, make a decision, then it has to be amended in national legislation".

This seems like an example of the kind of bureaucracy cited by Brexit supporters in their campaigns, but Robin and his colleagues have no choice but to follow the protocols and hope for the best. Meanwhile, Brexit looms large, and it's impossible to know what its final impact on dentistry will be. The current CED Treasurer, Dr Michael Armstrong, is a representative from the UK, and Robin says it would be regrettable to lose UK colleagues: "Our system of dentistry is quite close to theirs – the structures are similar and we've more or less followed them in terms of regulation, etc. Our interests are generally aligned – and they have a bigger voice in Europe, so it would be a great pity to lose them".

Seeing the bigger picture

Given Robin's interest in learning from colleagues in dentistry in Europe, it's perhaps not surprising that he also thinks we have a lot to learn from working with professionals from other health disciplines. At the Annual Conference, for example, there was a fascinating discussion following Modi Mwatsama of the

UK Health Forum's presentation on policy options and advocacy on sugar intake about how medical, nutrition and dental professionals can work together to change policy: "We all need to work together, not just for political reasons, but for the well-being of people".

Collegiality between colleagues closer to home is something Robin feels has great value too. He regularly has lunch with local medical colleagues and says the things they have in common far outweigh their differences: "Our problems are similar in terms of dealing with the Government departments, the HSE. It's useful to get together and see where we're all coming from – how each other's systems work. We have many common interests and there's a lot we can learn from each other".

Home life

Robin is married to Gráinne and they have three children. At the time of our interview, their eldest daughter Juliette was preparing to sit the Leaving Certificate, but is leaning more towards a business degree than following her dad into dentistry. His son Robert is in Transition Year and youngest daughter Izzy is in first year.



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Trust in your business

The importance of managing the relationship with patients when running a general dental practice.

Every valued human interaction is based on trust. A trusting relationship is one of the most important components in the dentist-patient relationship. As a consequence, the professional relationships that we form last longer and are usually more stable. Trust in a relationship reduces the incidence of conflict, promotes satisfaction, reduces complaints, and builds loyalty. It is therefore one of the key drivers of success in general dental practice. If patients are confident that they can trust the dental team to act in their best interests, the business will be rewarding both professionally and financially.

What is trust?

There are many definitions of trust and they feature credibility, benevolence, confidence in honesty, and reliability as component parts of the construct. We make promises to our patients and our patients expect us to keep them. They expect us to be knowledgeable, skillful and competent. As Joseph Graskempner noted in an article in the *Journal of the American Dental Association* (June 2002): "Dentists should gain the patients' trust in them as reasonably knowledgeable, reasonably talented, caring dental health providers". We can summarise this concept as a simple formula: $\text{Trust created} = (R \times C \times I) / SO$. Here R = reliability, C = credibility and I = intimacy are the multipliers, and self-orientation (SO) is the divisor. The greater the divisor, the lower the output of trust.

Credence markets

In economic terms, dental services fall into the category of credence goods. Patients don't always know whether they need the suggested treatment and in some cases, even after they receive the treatment they cannot be sure of its value. This is because the 'buyer' does not have the knowledge of the 'seller' – a feature of the dentist-patient relationship referred to as information asymmetry. It is this asymmetry that makes the credence goods market particularly challenging because it may give rise to aberrant behaviours. It is



interesting to note the comments made by Brown and Minor in their paper 'Misconduct in Credence Good Markets': "Providers of technical advice are common in the automotive, medical, engineering, and financial services industries. Experts benefit from customers trusting and buying their advice; however, experts may also face incentives that lead them to provide less than perfect recommendations. For example, a mechanic can provide a more extensive fix than warranted and a dentist can replace a filling that has not failed".

The need for regulation to protect the consumer in the credence space is implicit. Another challenge is that perceptions of clinical success and failure in this market are largely subjective for patients because there is no external verification. It is only because of trust that patients do not routinely seek to independently verify every transaction and clinical outcome.

Building trust

Building trust should underpin a practice's risk management strategy. Without this, any business risks loss of market share and loss of reputation. Building trust can be achieved by making a commitment to:

1. Meet patient needs and preferences when it comes to service delivery.
2. Ensure that patients feel cared for. We use the phrase care and treatment in our everyday language and tend to focus on the technical elements of treatment. Remember to show them that you care.
3. Get it right when patients most need you – when they are in distress.
4. Manage the expectation and create experiences built on continuity of care with individual clinicians. This builds relations and fosters trust.
5. Improve communications – both clinical and non-clinical.
6. Ensure that there is transparency in pricing.
7. Empower your frontline staff – the first contact with the team will form lasting impressions

Healthcare operates in a consumerist environment and patients have to make their decisions about purchasing dental treatment alongside other competing needs. Patients think and behave like consumers and therein lies a challenge. The mantra for consumers has long been *caveat emptor* (let the buyer beware). I am not comfortable with this and don't feel such a warning is appropriate to any of the services provided by a highly-skilled dental professional. It should be replaced with *credat emptor* (let the buyer trust). By committing early to form a relationship based on trust and mutual respect, the dental team can be assured that all other consumer warnings become superfluous and redundant.

Dr Raj Rattan

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Raj is Dental Director of Dental Protection and this subject formed part of his presentation at the IDA Conference 2017.



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Plaque control and oral hygiene methods

Introduction

The experimental gingivitis study of Loe *et al.*¹ demonstrated a cause and effect relationship between plaque accumulation and gingival inflammation, and helped to establish plaque/biofilm as the primary risk factor for gingivitis. When healthy individuals withdrew oral hygiene efforts, gingival inflammation ensued within 21 days in all subjects. Once effective plaque removal was recommenced, clinical gingival health was quickly re-established – indicating that plaque-associated inflammation is modifiable by plaque control. As current consensus confirms that gingivitis and periodontitis may be viewed as a continuum of disease,² the rationale for achieving effective plaque control is clear.

However, despite this knowledge and the wide range of marketed oral hygiene products, much of the dental literature remains somewhat equivocal on the relative benefits of different oral hygiene tools and techniques. Interpretation of the research literature is limited by factors including short duration, industry involvement and heterogeneity of study designs and assessment parameters. Furthermore, the majority of studies have been conducted in healthy individuals, while the presence of confounders and ethical concerns limits the practicality of withdrawal plaque removal in diseased/susceptible patients.

This clinical feature addresses some of the key concepts, tools and techniques that may be used by dental professionals in providing effective oral hygiene (OH) advice to their patients. Many of the concepts and statements that follow reflect the consensus recommendations of the 11th European Workshop in Periodontology,² which addressed prevention of periodontal and peri-implant diseases.

Oral dysbiosis

Current thinking indicates that only certain microbial species within plaque are pathogenic, and indeed much of the time, the oral environment exhibits a state of symbiosis, or relative harmony, between the body and the oral microbiome. A threshold of bacterial burden may exist below which the oral tissues remain unaffected; if this is overcome, the state of balance is disturbed (dysbiosis) and periodontal destruction may ensue. This microbial threshold might differ between individuals, or at different times within an individual, potentially explaining the often-episodic nature of periodontal disease and its uneven pattern of distribution in the population. Maintenance of gingival health would consequently focus on altering the volume and/or pathogenicity of plaque and/or risk factors contributing to susceptibility at host sites. In this context, regular plaque removal maintains an immature biofilm, containing fewer pathogenic species. The modifiable nature of plaque accumulation makes it a rational target to address to prevent dysbiosis.

Epidemiology

Gingivitis is ubiquitous in child and adult populations. Epidemiological studies suggest that the majority of adolescents and adults exhibit gingival bleeding.³ Periodontal examinations conducted as part of the US National Health and Nutritional Examination Survey (NHANES) between 2009 and 2012 – using full-mouth charting – indicated periodontal disease prevalence of 45.9% of the US adult population. All ethnic groups were affected; disease prevalence was elevated among smokers and those over 65 years, as well as individuals with lower educational attainment and lower socioeconomic status.⁴

Severe periodontitis alone has been estimated to affect approximately 11% of the population, rendering it the sixth most common chronic disease worldwide.⁵ Plaque is identified as a key causative factor in peri-implant inflammation. A recent meta-analysis estimated that peri-implant mucositis affects approximately 63% of patients and 30% of implants. In the same study, the estimated prevalence of peri-implantitis approximated 19% of patients and 10% of implants.⁶

Practical importance of plaque control

Prevention

Plaque control is an effective method for the prevention of gingivitis. Based on the accepted gingivitis–periodontitis continuum, plaque control is also indicated for periodontal disease prevention. Prevention may be considered in terms of:

- primary prevention – advice and care in healthy individuals focused on prevention of plaque and gingivitis; and,
- secondary prevention – advice and care in patients previously treated for periodontal disease.

Non-surgical therapy

Improved plaque control alone can reduce gingival inflammation. However, when combined with non-surgical instrumentation, the clinical benefit seen is greater, with most of the evidenced reduction in pocket depth being attributable to the effects of the instrumentation itself.⁷ Where effective OH does not support non-surgical instrumentation, recolonisation of treated sites occurs within weeks and clinical benefits are reduced.⁸

Surgical therapy

Healthy gingival tissues present a more favourable environment for periodontal surgery. A plaque-free environment may also reduce the possibility of wound contamination/poor wound healing/postoperative infections.

Periodontal maintenance

A preventive programme including well-performed OH and professional maintenance care may provide effective long-term management of periodontal disease, resulting in low tooth mortality and low incidence of disease progression.⁹

Discussions with your patient

Start by listening

Patients may be unaware of the association between poor plaque control and



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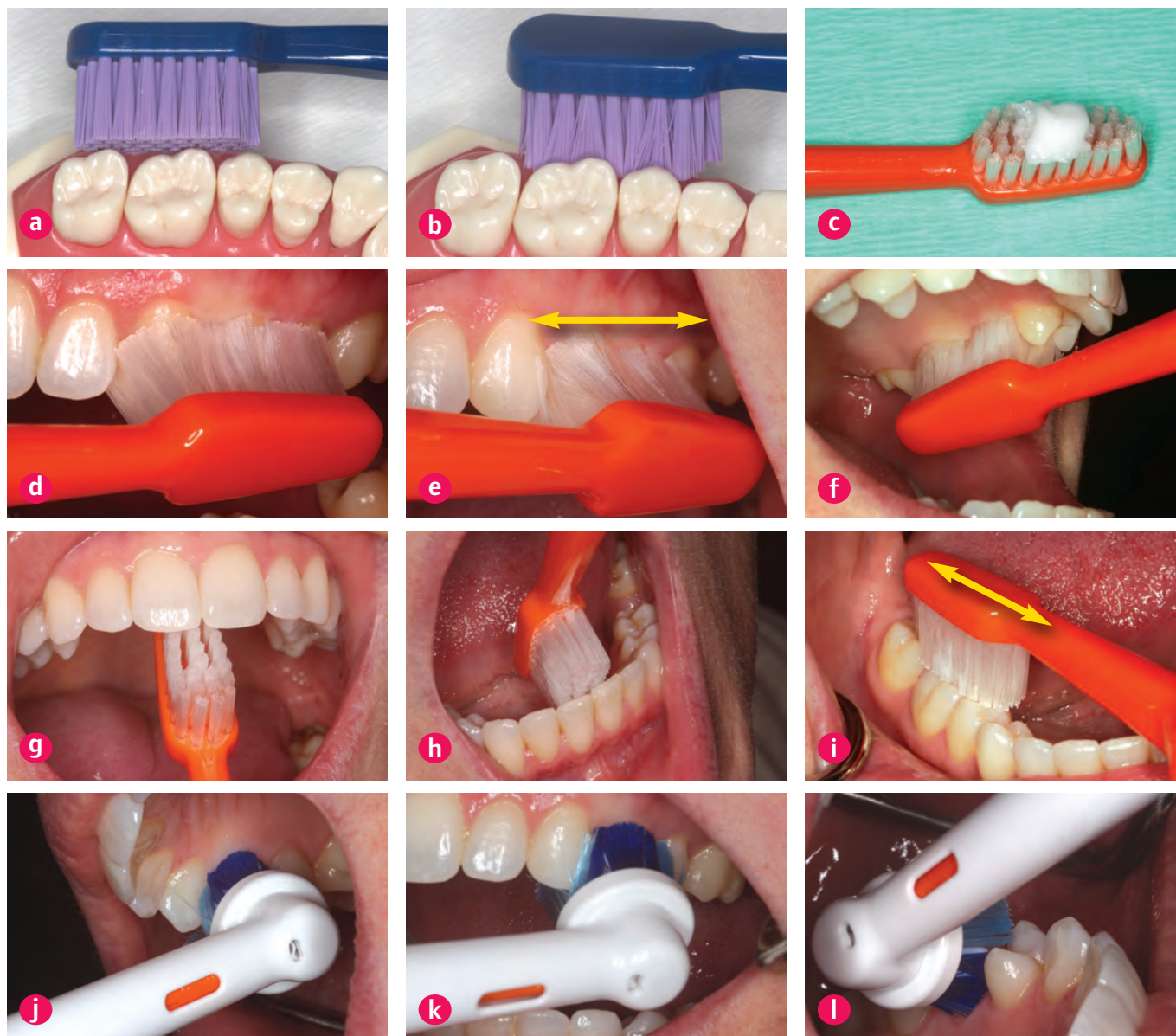


FIGURE 1: Bass tooth brushing technique (sulcular brushing).

This technique concentrates on cleaning cervical tooth areas and the area beneath the adjacent gingival margin.

A mannequin may be used to demonstrate how brush head angulation influences the interproximal extension of bristles (a, b). The patient is instructed to use a pea-sized amount of toothpaste (c). The brush head is positioned obliquely towards the tooth so that the toothbrush bristles are pointed at approximately 45° to the gingival margin and extend into the sulcus (d). The brush is moved in a back-and-forth direction, without removing the bristle tips from the sulcus. The patient should focus on short strokes, working on one to two teeth at a time (e). The same technique is applied for palatal/lingual surfaces (f). On lingual surfaces of anterior teeth, the brush head is kept vertical to allow access (g, h). Occlusal surfaces are brushed using a back-and-forth scrubbing motion (i). This technique may also be used for powered brushes (j-l).

Patients are advised to follow the same brushing sequence each time, cleaning all tooth surfaces and areas of the mouth.

Note: The modified Bass technique incorporates an additional step. Following brushing at the sulcus region, the brush head is rolled over the gingiva and tooth in an occlusal direction. This allows the brush bristles to flex interproximally and enhances plaque removal in these areas.

periodontal diseases and may be motivated towards good OH primarily by the idea of a healthy appearance and avoidance of halitosis.

Dental professionals should question patients to understand their rationale for achieving OH, as this may provide a valuable insight into how to frame and deliver preventive advice.

Delivery of OH instruction

- Include a simple explanation of the role of plaque deposits in the initiation and progression of periodontal diseases.
- Explain that plaque accumulates daily; consequently, there is an ongoing requirement for prevention, in which the patient (through home care) and



FIGURE 2: Interproximal plaque deposits demonstrated by use of disclosing agent (a). As this patient has healthy gingival tissues that fill the entire embrasure space, interdental brush use may be traumatic. Consequently, flossing is demonstrated for interproximal care (b). Floss sticks may be used to address compliance or dexterity concerns in such instances (c).

dental professionals (through preventive/supportive instrumentation) must work together. Some patients may be motivated by understanding their personal role in prevention.

- Enable the patient to recognise plaque and signs of gingivitis. Practically, this can be achieved through in-office demonstration and periodic home use of disclosing aids by the patient.
- Demonstrate appropriate hygiene aids and their use to the patient and evaluate this use.
- Patients with dental implants should also be made aware that implants are also susceptible to disease and require patient and professional care.
- Potential issues of patient compliance should be considered when designing an OH regimen and evaluated periodically.
- Plan to reinforce concepts, adapting to changes in patient systemic and dental health, compliance and dexterity.

Mechanical oral hygiene

Overview

Personalise: patients should receive a personalised OH regimen that reflects their disease state, intra-oral local anatomic factors, likely compliance and manual dexterity. This may need to be adapted over time.

Brushing: manual or powered brushing may be recommended as the primary means of reducing plaque and gingivitis. Where plaque control remains inadequate, rechargeable power brushes should be recommended.

Interdental: interdental hygiene should be recommended. Selection of interdental aids should be based on the interdental anatomy, specifically the size/shape of the interdental embrasure space.

Reinforce: evidence suggests that reinforcement of OH instruction (OHI) provides further benefit in plaque and gingivitis reduction.¹⁰

Practical steps

In new patients, it may be advisable to simplify the regimen initially, to reduce the scope and time of new technique aspects to which the patient must commit. On this basis, begin with effective tooth brushing and one method of interproximal hygiene.

In compliant patients who demonstrate good cleaning efficiency, additional tools or techniques may be added as indicated. The patient's existing oral hygiene technique should be evaluated. Where brushing is atraumatic and provides relatively effective plaque removal, subtle modifications of technique may be more effective than teaching a new brushing method.

When a new brushing method is advised, the dental professional should

demonstrate the technique (**Figure 1**) and review the patient's attempt to replicate, providing feedback as indicated. The patient should be able to observe their own technique in a mirror. The use of a mannequin for demonstration, as well as the use of a disclosing agent to highlight plaque deposits (**Figure 2**) may prove helpful. Current recommendations on tooth brushing frequency and duration are primarily based around fluoride delivery to the dentition and maximising patient compliance:

- brushing – twice daily brushing for two minutes is advocated;
- interproximal hygiene – should be advocated at least once daily as this reduces the time/compliance requirement for this 'additional' hygiene step; the patient should be encouraged to choose a time that facilitates compliance and for some patients, this may not be simultaneous to brushing; and,
- mouthwashes – where indicated, most manufacturers suggest rinsing twice daily for 30 seconds (some chlorhexidine formulations advocate a 60-second rinse cycle).

Tooth brushing

Manual brushing

There is no clear evidence of the superiority of any particular bristle design in terms of plaque reduction or gingival inflammation. Therefore, a simple flat-trim brush design may be satisfactory to recommend to patients during OHI. Soft bristle brushes should be recommended, as they reduce the potential for tissue trauma and tooth abrasion but maintain effective plaque removal. A compact brush head design may facilitate greater access and control.

Powered brushing

Rechargeable powered brushes appear to achieve greater plaque reductions than those with replaceable batteries. Short-term studies indicate that powered brushes with a rotation-oscillation motion provide greater plaque reduction than those employing side-to-side action. However, differences appear small and their clinical significance is questionable.¹¹

Powered v manual brushing

In controlled studies using standardised brushing times, powered brushes give statistically significant additional short-term and long-term (greater than three months) reductions in plaque indices (in the order of 10-20%). Findings for reductions in gingival inflammation are broadly similar (in the range 5-10%). The clinical significance of these improvements may be questioned.

Reasons for the slightly improved effectiveness of powered brushing have not



FIGURE 3: In large, open interdental embrasure spaces, interdental brushes are the hygiene aid of choice (a). Dental woodsticks are cheap and may be selected by patients for this purpose also. The flat base of the triangular woodstick should face the gingival tissue during use (b). Single-tuft brushes may help to address local anatomic factors such as surfaces approximating an edentulous space (c).

Table 1: Selection of adjunctive mechanical aids for various clinical situations.

Clinical consideration	Adjunctive OH aid(s)/technique(s)
Tooth crowding	Single-tuft brush to improve access Floss/picks interproximally
Tooth spacing	Compact-head/single-tuft brush for routine hygiene Large IDB interproximally
Interproximal restoration overhang	Remove overhang Size-appropriate IDB
Distal surface of most posterior tooth	Single-tuft brush/large IDB
Edentulous space adjoins tooth (proximal tooth surface)	Use of gauze strips ("flossing motion") at proximal surface
Gingival recession (buccal/lingual site)	Establish contributing factors Single-tuft brush ± modify recommended brushing technique
Exposed furcation	Single-tuft brush
Root concavity	IDB
Halitosis	Establish contributing factors Tongue brushing/tongue scraper ± mouthwash
Food trapping	Oral irrigation device
Lacking dexterity for use of interproximal aids	
Fixed partial denture (pontic area and proximal surfaces)	Specialised floss Small IDBs/use of floss threader where access is poor
Removable denture	Daily removal of denture for tissue health and denture brush/toothbrush for denture hygiene
Implant restoration	Single-tuft brush at: <ul style="list-style-type: none"> ▶ cervical area of single-implant crowns (emergence often creates plaque retentive area); ▶ exposed implant surfaces; and, ▶ overdenture abutments. IDB at proximal sites Fixed multi-unit restorations – OH as for fixed partial denture (above) If mucositis – add mouthwash/chlorhexidine gel

been definitively established. Design features such as small brush-head design, the use of a timing device to encourage increased brushing time and sensors to detect excessive pressure may contribute to the results obtained.

Interproximal hygiene

Overview

Tooth brushing is generally unable to clean interproximal sites effectively. Interproximal cleaning is therefore required to maintain interproximal health, particularly for secondary prevention. A wide array of products is available. Interproximal sites may be more vulnerable to periodontal tissue destruction due to the more complicated nature of interdental anatomy and the lack of a keratinised barrier mucosa in the region of the interdental col. Interdental brushes (IDBs) may be considered the device of choice in most cases and are particularly indicated for open embrasure spaces (Figure 3). Flossing may be preferred at healthy sites where IDBs will not pass through the interproximal space atraumatically.

For plaque removal, there is moderate evidence that adjunctive use of IDBs provides greater plaque removal than brushing alone. Evidence for the efficacy of other aids is inconsistent or lacking. In cases of gingival inflammation, there is limited evidence that interproximal cleaning, even with IDBs, reduces inflammation. This may be due to methodological limitations in the research in this area. Interproximal aids include:

- IDBs;
- floss – dental floss, dental tape, floss holders, specialised floss and floss threaders;
- single-tufted brushes;
- dental woodsticks;
- interdental stimulators; and,
- oral irrigators.

Interdental brushes

These are recommended as the most effective method interproximally. IDBs may achieve greater plaque removal compared to tooth brushing alone, or tooth brushing and flossing.¹² They are relatively easy to use and may therefore gain high acceptance among patients.

Brush bristles should meet gentle resistance when inserted interproximally but should not have to be forced into a site. Selecting an appropriately sized brush allows bristles to adapt to even complex interproximal anatomy.

IDBs are flexible and may be bent to facilitate access in posterior regions. In the maxillary molar region, IDB insertion from the palatal aspect may be easier due



FIGURE 4: Interdental brushing.

Simulation of interdental brush concepts on dental mannequin (a to f), and demonstration by the patient intra-orally (g to i). Different IDBs may be tried in each interdental space to determine the appropriate size for use. Brush bristles should meet gentle resistance when inserted interproximally (a, b). IDBs may be pre-bent to facilitate access (c). In the posterior maxilla, a palatal approach may present easier access for the patient (d). During insertion, the IDB may be angled towards the mesial and distal to maximise contact with the tooth surfaces (e, f).

Patients are advised to hold the brush between their thumb and index finger. Partial mouth opening is sufficient, as with wide opening, the tension from the oral musculature may limit access for IDB placement (g). The IDB is inserted at approximately 90° to the teeth, ensuring the tip does not traumatise the papilla. Patients should slide the brush in and out of the space to facilitate plaque removal; using gentle pressure of the brush against the gums will allow bristles to penetrate slightly subgingivally (h, i). IDB bristles should be rinsed after each use and allowed to dry. Patients should expect to replace IDBs after approximately one week of use.

to the interproximal tooth anatomy of this area (Figure 4).

IDBs are generally colour coded by size. However, this is not standardised among manufacturers, so recommendations to patients need to be very clear.

Patients may require several different brush sizes for optimal cleaning in all areas, based on the size of individual interdental spaces. However, it's reasonable to commence with a single size initially to encourage adoption of interproximal cleaning. Localised anatomical features or patient factors may complicate mechanical oral hygiene, particularly interdental hygiene. **Table 1** addresses selection of appropriate mechanical aids for various clinical situations.

Chemical plaque control

Overview

This is delivered primarily through two methods – toothpastes and mouthwashes. These agents may improve subjective feeling of cleanliness and halitosis control. Product selection should be based on patients' individual

caries and periodontal risk profile. Patients may select products based on convenience factors such as price and taste; therefore, review details of product use with each patient periodically.

Toothpastes

Use of fluoridated toothpaste is advocated. Herbal and cosmetic products may not contain fluoride and may also have a higher abrasive content. Additional active ingredients vary among marketed products but include anti-plaque, anti-calculus, anti-gingivitis and anti-sensitivity agents. Toothpastes represent an efficient method to deliver active agents as they are widely accepted by patients as a routine part of their oral hygiene regimen.

Mouthwashes

Mechanical cleaning remains the mainstay of preventive treatment. Mouthwashes require an additional step in the mechanical OH regime and this

Table 2: Principal mouthwashes used for control of plaque and gingival inflammation

Mouthwash type	Active agent(s)	Plaque reduction	Gingivitis reduction	Consider
Bis-biguanide	Chlorhexidine 0.2% for specialised short-term use 0.06% for "daily" use (over limited period)	Greatest	Greatest	Staining Taste disturbance Local side effects limit suitability for longer-term use
Essential oil	Thymol Eucalyptol Menthol Methyl salicylate	Good	Good (approaches chlorhexidine levels in some studies)	Additional actives in some formulations High alcohol content of some formulations
Quaternary ammonium compound	Cetylpyridinium chloride (CPC) Various concentrations across several product ranges – usually 0.05%/0.075% Often combined with sodium fluoride	Good	Equivocal	Staining may occur with some formulations This is the formulation used by many "store brand" products and all-purpose rinses.

may impact on patient compliance. When mechanical plaque control is insufficient, or hygiene is ineffective in preventing gingival inflammation, mouthwashes may be advocated.

The anti-plaque action of mouthwashes may depend on prolonged persistence of antimicrobial action in the mouth (substantivity). It may be prudent to use mouthwashes following tooth brushing and avoid rinsing after use to maximise the beneficial effects. Evidence for interaction of mouthwash agents with sodium lauryl sulphate in toothpastes, which might purportedly reduce mouthwash adherence/substantivity, is inconsistent. Local side effects such as extrinsic tooth staining, taste disturbance and discomfort from high alcohol content may reduce acceptability to patients. **Table 2** overviews the principal mouthwashes used for control of plaque and gingival inflammation.

Summary

- Gingivitis and periodontitis represent a continuum of disease and mechanical disturbance of plaque is paramount in achieving plaque control. Professional OHI should be provided (and reinforced) to reduce plaque and gingivitis, while manual or powered brushing may also be advocated. Powered brushes may be beneficial where plaque control is insufficient.
- IDBs may be considered the interproximal device of choice in most cases. However, in healthy tissues with intact papillae, IDB use may be traumatic and flossing is advocated. A wide array of adjunctive mechanical hygiene aids is available.
- Mouthwashes may be viewed as adjuncts to mechanical cleaning. The cumulative literature suggests that chlorhexidine mouthwash products may offer superior benefits in terms of plaque inhibition and control of gingival inflammation. However, due to local side effects, short-term use is generally advocated. Where longer-term mouthwash use is recommended, products based on an essential oils formulation may represent the option of choice.

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Are non-pharmacological interventions to alleviate pain during orthodontic treatment as effective as pharmacological interventions?

Précis

Although many non-pharmacological interventions have been investigated, there is insufficient evidence to support that any modality is as effective as pharmacological intervention, which should be used to alleviate orthodontic pain.

Abstract

Statement of the problem: The majority of patients who receive orthodontic treatment experience pain related to it. Although almost all orthodontic procedures are associated with pain, initial activation of archwires and separator placement are the most commonly associated procedures. Pharmacological interventions have been proven effective at alleviating this pain but are associated with a number of adverse side effects. Several non-pharmacological interventions have been researched to provide a safer alternative to drugs.

Purpose of the study: To review the evidence for the various non-pharmacological interventions reported in the literature and evaluate whether they are as effective as pharmacological intervention.

Materials and methods: An electronic search of the literature was conducted using PubMed with keywords "orthodontics" and "pain". A hand search of relevant orthodontic journals was also conducted.

Results and conclusions: No non-pharmacological intervention has been proven as effective as pharmacotherapy. Although some modalities, like cold laser therapy, are promising, higher-quality research is needed and until then pharmacological intervention remains the gold standard.

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Introduction

Pain is defined as: "An unpleasant sensory and emotional experience associated with actual or potential damage or described in terms of such damage".¹ The prevalence of pain among orthodontic patients is very high.² Several orthodontic procedures, such as separator placement,^{2,6-10} initial placement of archwires,^{5,10-13} intermaxillary elastics,¹⁴ initial use of headgear,¹⁰ and debonding,^{10,15,16} have been associated with pain. Onset of orthodontic pain

occurs after a few hours,^{4,10,17-19} and has been reported to peak in intensity one to two days after archwire placement.^{2,4,10,17-18} Most studies report that the pain subsides after approximately one week;^{2,4,10,17,18} however, it is acknowledged in the literature that some patients suffer prolonged^{4,20} or even constant pain.³ Pain during orthodontic tooth movement is multifactorial.¹⁷ Compression of the periodontal ligament causing ischaemia of nerve fibres has long been identified



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FIGURE 1: A low-level laser therapy device to reduce orthodontic pain.

as a cause of delayed-onset pain,¹⁹ but more precise understanding of the inflammatory and biochemical consequences of this has been achieved in subsequent research.^{10,21} There are many chemical mediators of orthodontic pain including: matrix metalloproteinase-1 and -8;²² galanin;²³ substance P;¹⁰ histamine;¹⁰ calcitonin gene-related peptide;²¹ and, prostaglandins.¹⁰ Inflammation, and accompanying oedema, is an integral part of orthodontic tooth movement²¹ and as such the pain associated with it cannot be completely avoided.

Patients frequently do not seek intervention for orthodontic pain,⁴ which may be attributed to higher motivation for treatment and an expectation of pain.¹⁷ Analgesics are the most commonly used method of alleviating orthodontic pain,¹⁷ with non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen and aspirin found to be effective at relieving pain.^{10,24,25} These drugs are associated with adverse side effects, such as gastric irritation, renal impairment, increased risk of thrombotic events, and hypersensitivity reactions.²⁶ Furthermore, there have been several reports which suggest that NSAIDs may slow the rate of orthodontic tooth movement by reducing the concentration of prostaglandins.^{10,27,28} Paracetamol has been proposed as an alternative to NSAIDs^{27,28} but its efficacy has been disputed in comparison to other drugs.²⁹ In light of this, non-pharmacological methods of alleviating pain have been developed over recent years.

A PubMed search conducted for papers using the keywords “orthodontic” and “pain” yielded 1,003 results, which were then analysed on the basis of their titles and abstracts. A hand search of recent orthodontic journals was also conducted. There are many non-pharmacological methods of alleviating orthodontic pain including:³⁰ low-level laser therapy (LLLT);¹⁷ transcutaneous electrical nerve stimulation;³¹ chewing gum^{19,32} and bite wafers;^{33–35} vibration;³⁶ acupuncture;³⁷ psychological intervention;^{38,39} and, even music.⁴⁰

The majority of studies on orthodontic pain assess pain using a visual analogue scale (VAS), with the McGill Pain Questionnaire (MPQ) being the next most popular.¹⁰ The verbal rating scale (VRS) has seen limited use,¹⁰ but is acceptable as a valid measurement of pain.⁴¹

Low-level laser therapy

LLLT (Figure 1) is defined as: “An energy output that is low enough so as not to cause the temperature of the treated tissues to rise above 36.5° or normal body temperature”.⁴² As a non-pharmacological intervention for pain it has the added advantages of increasing the rate of orthodontic tooth movement and

Table 1: Comparison of systematic reviews by Li <i>et al.</i> (2015) and He <i>et al.</i> (2013) for the effect of low-level laser therapy on orthodontic pain.	
Li <i>et al.</i> (2015)	He <i>et al.</i> (2013)
Only RCTs included	Quasi RCTs and controlled clinical trials (CCTs) included
Intervention for separators and wires analysed separately	Separators and archwires analysed together
VAS trials only included	
GRADE level of evidence included	

not having side effects on either the pulp or periodontium.⁴² This modality has been more extensively researched than any other and has been the subject of multiple systematic reviews.^{42–45} The mechanism of action is twofold: the production of β -endorphin is stimulated and the depolarisation of nerve endings is inhibited, blocking the transmission of painful impulses.⁴³

He and colleagues⁴⁴ included eight studies in their systematic review and meta-analysis, and they found that the efficacy of LLLT to treat orthodontic pain was “proved with limited evidence”, while they acknowledged that the studies included were flawed in their methodology and at considerable risk of bias. Half of the studies included in the meta-analysis were judged to have a high risk of bias.^{46,47} However, the authors note that in the well-designed randomised controlled trials (RCTs), including one that had a double-blind design, LLLT was shown to be effective.⁴⁸

Recently, Li *et al.*⁴² conducted a systematic review with more strict criteria than He and colleagues in several respects⁴² (Table 1). By applying the GRADE (Grading of Recommendations Assessment, Development and Evaluation) system to evaluate the quality of each of the 11 RCTs included, the authors came to the conclusion that there is insufficient evidence to say whether or not LLLT is effective at alleviating orthodontic pain.⁴² The majority of RCTs included in this analysis were found to have a very low quality of evidence in order to compare lasers versus control, LED and placebo.⁴² In addition to this serious risk of bias, serious imprecision and reporting bias were judged to be issues.⁴² The authors note, however, that LLLT is “the most promising method” currently being researched and that future research is likely to find it effective.⁴²

Ren *et al.*⁴⁵ conducted a systematic review on the effects of diode LLLT on orthodontic pain. Of the 14 RCTs included in their meta-analysis, 11 were found to be at a high risk of bias, which the authors attributed to blinding and allocation concealment design flaws. Although LLLT was found to reduce pain when compared with a placebo, the authors stated that there is insufficient evidence to support or refute the effectiveness of diode LLLT due to the quality of the RCTs available.

A systematic review by Souza and colleagues⁴³ examined LLLT for both rate of tooth movement and its analgesic effect. This meta-analysis reviewed 11 studies for pain, not all of which were RCTs, but did not comment on their quality of evidence, risk of bias or what scale was used to evaluate pain.⁴³ The review concluded that LLLT “seems to have demonstrated efficacy” and that the determining factor in its effectiveness is the dose.⁴³ This is at odds with Li

Table 2: Summary of non-pharmacological interventions to alleviate pain during orthodontic treatment.

Intervention	Effectiveness
LLLT	Insufficient evidence (Li, 2015) Insufficient evidence (Ren, 2015) “Effective...with limited evidence” (He, 2014) “Seems to have a demonstrated efficacy” (Sousa, 2014)
Bite wafer/ chewing gum	Insufficient evidence: - No systematic reviews - Chewing gum may reduce ibuprofen use by patients (Ireland, 2016)
Psychological intervention	Insufficient evidence: - No systematic reviews - Limited number of RCTs
Vibration	Insufficient evidence: - No systematic reviews - 2 x RCTs; - 1 x CCT
TENS	Insufficient evidence: - No systematic reviews - No RCTs; - 1 x CCT
Others	Insufficient evidence

et al., who state that the efficacy of LLLT is affected by several factors including radiation time, number of sessions and wavelength.⁴²

In summary, while there is a significant volume of research for this intervention, the evidence cannot be considered of sufficient quality to make a definitive ruling on its efficacy or for that matter to state if it has achieved parity with analgesics. Furthermore, an LLLT machine typically costs in excess of €1,000, making it the most expensive intervention yet studied for orthodontic pain.

Chewing gum and bite wafers

Chewing to alleviate pain, be it on gum or hard foods, has long been regarded as effective.¹⁹ The rationale is that increasing blood flow by temporary displacement of the tooth from repetitive chewing cycles will lessen inflammation and accompanying oedema.⁴⁹ Several RCTs have been done for this form of intervention.^{32,34,35,50} A recent study, a multi-centre RCT by Ireland and colleagues, found that while chewing gum is not as effective as ibuprofen at alleviating orthodontic pain, it reduces the amount of ibuprofen taken by patients.⁵⁰ Whereas chewing gum has been associated with breaking appliances by clinicians in the past, this study found that the incidence of appliance breakage among the chewing gum cohort was similar to those patients not chewing gum. This high-quality study therefore suggests that while chewing gum should not be used as a standalone method for alleviating orthodontic pain, it can be recommended to patients to reduce their consumption of analgesics.⁵⁰



FIGURE 2: Bite wafers used to alleviate orthodontic pain during treatment.

Chewing gum was investigated by Benson *et al.* in an RCT, whose 57 participants were either given gum and instructed to chew as required, or asked to refrain from chewing gum at all.³² The results showed a significantly lower median VAS score at 24 hours for those respondents using chewing gum – an average of 25mm, or more simply put, 2.5 fewer points on a ten-point scale.³² Analgesic use by both groups was reported and shown to be statistically similar. Median VAS scores after seven days were found to be similar between the groups, echoing findings in the other studies.^{34,35}

A study by Hwang *et al.* in 1994 found that more than half of patients found *thera-bite* wafers (**Figure 2**) effective at alleviating pain. The majority of those who found them ineffective reported that they made the pain worse.³³ This study makes no mention of what scale the pain was measured on or whether there was any concomitant analgesic use by patients. Few studies compared the efficacy of bite wafers with analgesic use.^{12,34} A non-inferiority comparison by Murdock *et al.* found bite wafers to be not inferior to over-the-counter (OTC) analgesics at alleviating pain following archwire placement among 49 patients aged eight to 18 at a graduate orthodontic clinic. As a non-inferiority trial this study is prone to several weaknesses such as: assay sensitivity; definition of inferiority margin; and, the lack of a conservative analysis approach.⁵¹ Farzanegan *et al.* compared chewing gum, bite wafers and ibuprofen in a randomised clinical trial on 50 females aged 13–18.¹² This trial found bite wafers and chewing gum to be as effective as ibuprofen in controlling orthodontic pain. It has obvious shortcomings in terms of its sample size and the fact that all respondents were female.

Otasevic *et al.* conducted a study which compared bite wafers to the avoidance of hard food in 84 patients up to the age of 16.³⁵ It was reported that patients using bite wafers experienced a “marked increase of reported pain” from the day after archwire placement. This study also states that analgesic use by the group using bite wafers was “not greater” than that of the group avoiding chewing hard food.³⁵ No data was given as to the prevalence of analgesic use in either group, the type of analgesic used or frequency of use. Both chewing gum and bite wafers are cheap relative to other non-pharmacological interventions (**Table 2**). However, the potential for bite wafers to exacerbate orthodontic pain,³³ together with the lack of strong supporting evidence for their efficacy, suggests that they should not be prescribed to alleviate orthodontic pain. Chewing gum, however, has been proven to reduce use of ibuprofen in patients so should be recommended as an adjunct to pharmacological intervention.



FIGURE 3: A vibration device for reducing orthodontic pain.

Psychological interventions

Psychological intervention includes cognitive behavioural therapy (CBT)^{39,52} and structured telephone calls.^{38,53,54} A single-blinded RCT by Wang and colleagues in 2012 on 450 patients found CBT to be as effective as ibuprofen in alleviating orthodontic pain.⁵² This study also made use of a structured telephone call on a daily basis to remind participants to practice their cognitive interventions. This may be somewhat unrealistic to expect in a clinical setting. The authors concede that as the first study of its type, further multi-centre RCTs are required.

The structured telephone call for alleviating orthodontic pain was first investigated by Bartlett *et al.* in 2005.³⁸ This American study on 129 patients compared a structured telephone call, in which patients were reassured, to an attention only telephone call, in which patients were thanked for participating in the study. They found that any telephone call from a dental professional reduced both pain and anxiety among patients. Keith and colleagues (2013) found a significant decrease in reported pain among patients who were sent a structured text message following orthodontic treatment.⁵³ Text message and telephone call were compared by Cozzani *et al.*⁵⁴ They found that while both methods reduced reported pain compared to a control group, a significant decrease in reported pain was observed in the telephone call group.⁵⁴

Psychological interventions are more time consuming and require significantly more follow-up than other interventions. The cost of CBT is variable but is typically more expensive than pharmacological intervention, whereas it is difficult to estimate the cost of structured telephone calls or text messages. When coupled with the small evidence base supporting them, they cannot be said to be either clinically or cost effective in alleviating orthodontic pain.

Vibration

Vibration to alleviate orthodontic pain (Figure 3) was first described by Marie *et al.*⁵⁵ The rationale of this intervention was that by applying vibration to the teeth immediately after separator placement or archwire activation, ischaemia of the periodontal ligament is prevented.⁵⁵ This trial was a non-blinded controlled clinical trial (CCT) on 48 adult and adolescent patients. No details were given on mean age or age range. A 10cm VAS was used and the authors admitted that they could not verify that patients had reliably recorded their pain levels – a problem common to many studies on orthodontic pain. Their results showed a significant pain decrease in the vibration group compared to the control group.⁵⁵ The lack of blinding is a drawback to this study design, as is the fact that one of the authors had a financial interest in the vibratory device used.



FIGURE 4: A transcutaneous electrical nerve stimulation machine that can be used to alleviate orthodontic pain – MediTens XP™.

Table 3: Cost comparison of various non-pharmacological interventions to alleviate pain during orthodontic treatment.

Intervention	Cost (approximate)
Low-level laser therapy	€7,000–€28,000 for machine
Vibration	€900–€1,100
TENS	€100
Cognitive behavioural therapy	€50–€120 (per session)
Bite wafers	€10
Chewing gum	€1
Ibuprofen	<€1 per capsule

A prospective RCT on 66 patients by Miles examined the effect of vibratory stimulus for 20 minutes per day on both rate of tooth movement and orthodontic pain.³⁶ The results showed that there was no clinical benefit to using vibration for either rate of movement or pain control. A recent RCT by Lobre and her colleagues⁵⁶ tested a proprietary device (Accedent Aura) on 58 adolescent and adult patients over a period of four months. It found a statistically significant reduction in pain in the group using the micropulse vibration device. While this study asked its participants not to use analgesics, it did not employ a placebo; instead, it compared the device to non-intervention treatment alone.

Vibration treatment represents one of the most costly interventions (Table 3) and cannot yet be recommended to patients.

Transcutaneous electrical nerve stimulation

Transcutaneous electrical nerve stimulation (TENS) (Figure 4) is a method where two electrodes are placed in contact with the painful teeth and produce a current, which disturbs the nervous signalling causing pain. It stimulates natural products to relieve pain.³⁰ This intervention has been extensively investigated for use in chronic musculoskeletal pain.⁵⁷ Roth investigated TENS as a method for alleviating pain associated with orthodontic tooth movement for 45 adults who had separators placed.³¹ It was found that patients who received TENS reported “significant decreases” in pain as recorded on a 10cm VAS. This study had several shortcomings, which called into question its credibility: the sample size was small; it was carried out on adult patients rather than adolescents, who are most likely to get orthodontic treatment; pain from separators rather than initial archwire placement was solely investigated; and,

pain measurements were taken at 12-hour intervals, whereas pain is initially felt two to four hours after treatment and recording then is pivotal in any study investigating orthodontic pain. The cost of TENS machines is variable, but typically under €100, which is relatively costly to the patient in comparison to pharmacological intervention. As this was the only study to apply this intervention to orthodontics, it can be concluded that there is not enough evidence to say that is effective in its own right or as effective as analgesics.

Other

Acupuncture, acupressure^{37,58} and music⁴⁰ to alleviate orthodontic pain have been reported in the literature. Boleta-Ceranto found acupuncture effective but this non-blinded clinical trial only had eight participants.³⁷ A study by Xu found music to be effective in certain personality types, but this differed greatly depending on gender and individual traits.⁴⁰ The personality traits associated with a response to music were “extroverted” and “steady minded”. These novel interventions are not to be recommended due to the low volume, and quality, of evidence behind them.

Conclusion

Many non-pharmacological interventions to alleviate pain during orthodontic treatment have been investigated. There is promising evidence for some modalities such as LLLT. However, neither the quality nor the volume of research is sufficient for all interventions studied (Table 2). It is not in keeping with the principles of evidence-based dentistry to state that any one of these is as effective as pharmacological intervention until proven otherwise by future high-quality research. Future research should be concentrated on LLLT, as studies thus far have shown this to be the most promising modality. Furthermore, the cost of some of these interventions is significantly greater than analgesics (Table 3). The impracticality of using such appliances makes them less attractive to patients and practitioners. Therefore, patients who experience pain during orthodontic treatment should be prescribed NSAIDs such as ibuprofen, with or without paracetamol, to be taken within two hours of archwire placement in doses and at intervals appropriate to the patient's age, as recommended by up-to-date pharmaceutical references. Furthermore, the use of chewing gum should also be recommended to patients, as it has been shown to reduce the consumption of analgesics by patients and to have no effect on bond failures of orthodontic appliances.⁵⁰

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Evidence regarding the treatment of denture stomatitis

Yarborough, A., Cooper, L., Duqum, I., Mendonça, G., McGraw, K., Stoner, L.

Denture stomatitis is a common inflammatory condition affecting the mucosa underlying complete dentures. It is associated with denture microbial biofilm, poor denture hygiene, poor denture quality, and nocturnal denture use. Numerous treatment methodologies have been used to treat stomatitis; however, a gold standard treatment has not been identified. The aim of this systematic review is to report on the current knowledge available in studies representing a range of evidence on the treatment of denture stomatitis. Treatments evaluated were grouped into eight main treatment categories. These include: systemic and topical antifungal therapy; disinfectants and cleansers; laser treatment of palatal tissue; oral hygiene instructions; fabrication of a new denture; hard reline; placement of a resilient liner or tissue conditioner; and, microwave disinfection.

Some 34 out of 36 papers found topical and systemic antifungal therapy effective, with one paper finding increased benefit when more than one antifungal therapy was used. Some 13 out of 16 papers found benefit from denture disinfectants and cleansers. Four out of five papers found improvement from simple biofilm control measures. Five papers supported the use of microwave disinfection. Two papers supported the use of a hard reline.

Four out of seven papers found benefit from the use of soft relines or tissue conditioners; however, one paper reported an initial improvement in denture stomatitis, followed by a worsening of denture stomatitis.

In conclusion, improved oral and denture hygiene measures, including removing dentures at night, were considered the best options initially. If required, further treatment methodologies should target the prosthesis itself and increased benefit is found when using multiple treatment approaches.

Journal of Prosthodontics 2016; 25: 288-301.

Are “human factors” the primary cause of complications in the field of implant dentistry?

Renouard, F., Amalberti, R., Renouard, E.

Complications in medicine and dentistry are usually analysed from a purely technical point of view. Rarely is the role of human behaviour or judgement considered as a reason for adverse outcomes. When the role of human factors is considered, these are usually described in general terms rather than specifically identifying the factors responsible for an adverse event. The impact of cognitive and behavioural factors in the explanation of adverse events has been studied in other high-stakes areas such as aviation and nuclear power. Specific protocols have been developed to reduce rates of human error and, where human error is unavoidable, to lessen its impact. This approach has dramatically reduced the incidence of accidents in these fields. This article aims to review how a similar approach may prove valuable in the reduction of complications in implant dentistry.

The International Journal of Oral & Maxillofacial Implants 2017; 32: e55-e61.

The clinical performance of monolithic lithium disilicate posterior restorations after 5, 10 and 15 years: a retrospective case series

Van den Breemer, C.R.G., Vinkenburg, C., van Pelt, H., Edelhoff, D., Cune, M.S.

Purpose: Lithium disilicate glass-ceramic restorations are routinely used, but results over a period longer than 10 years are rare. The objective of this study was to obtain long-term clinical data on monolithic lithium disilicate posterior crowns provided by a single restorative dentist.

Materials and methods: Eligible patients who received a circumferential lithium disilicate crown in the posterior region between 1997 and 2010 were invited to participate in a clinical examination in 2015. This consisted of intraoral inspection and radiographs, performed by one observer and according to standardised criteria. Probability of survival was estimated using Kaplan-Meier survival analysis.

Results: A total of 13 patients (n=87 restorations) fulfilled the inclusion criteria. Of these, 12 patients were available for clinical evaluation (N=74 restorations). After five, 10 and 15 years, the cumulative chance of survival of the restorations was 92%, 85.5% and 81.9%, respectively, with a median observation period of 12.8 years. Of the 74 restorations, 13 failed: four because of secondary caries, two because of debonding, and seven because of fracture of the restoration.

Conclusion: Lithium disilicate can be regarded as a strong and fracture-load-resistant restorative material providing long-term clinical performance.

International Journal of Prosthodontics 2017; 30: 62-65.

Can reinforcement of maxillary implant overdentures decrease stress on underlying implants?

Takahashi, T., Gonda, T., Maeda, Y.

Purpose: Reinforcement of maxillary implant overdentures is necessary not only for preventing prosthetic complications but also for protecting underlying structures, as it makes the denture base more rigid. However, few studies have investigated the effects of reinforcement on the underlying structure. The purpose of this study was to examine the effects of reinforcement on implant stress under various implant configurations and denture designs.

Materials and methods: A maxillary edentulous model with implants and experimental overdentures with and without palatal coverage and three types of cast reinforcement were fabricated. Four strain gauges were attached to the implants in the anterior, pre-molar and molar areas. A vertical occlusal load of 98N was applied through the mandibular complete denture, and the strain on the implants was compared using one-way analysis of variance (p=0.05).

Results: In dentures with palatal coverage, reinforcement significantly decreased the strain on the anterior and molar implants. In palateless dentures, reinforcement with a palatal bar decreased the strain most on the anterior and molar implants.

Conclusion: Reinforcement of maxillary implant overdentures decreased the strain on underlying implants, regardless of the denture design and implant configuration.

International Journal of Maxillofacial Implants 2017; 32: 63-69.

SITUATIONS WANTED

Experienced Irish dentist available Mondays and Tuesdays anywhere within one hour's commute from Cork city. Full range of skills including STO and botox. Email corkbasedassociate@gmail.com.

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Dentists

Dentist required. August start. East Wicklow. Busy. Email Info@rathdrumdental.ie.

Dentist job in Canada. Salary more than 200k per year. Busy schedule from day one. Guaranteed salary for six months. Four-week vacation. Loan repayment programme and more incentives. Resumé to Westspiritdental@gmail.com.

Waterford – Smiles Dental is looking for an enthusiastic general dentist to join our well-established, busy Waterford practice to cover a period of maternity leave. Position offers three days per week – Monday, Friday and Saturday. Candidates must be IDC registered. Email joanne.bonfield@smiles.co.uk.

Dentist required for mixed practice in market town in Co. Wexford. Full clinical and clerical back-up, new equipment in revamped practice. Please send CV to southeastdental46@gmail.com.

Part-time dentist position available. Ideally for Thursday, Friday and Saturday for growing practice in Dunboyne (www.dunboynedental.ie). Immediate start. Email pklinowski@gmail.com.

Part-time dentist position available for Wednesday and Thursday for modern, busy practice in Naas (Hungarian Dental Clinic). Immediate start. Email hungariandentist@gmail.com.

Dentist – fantastic opportunity to work in a very established, busy practice. Office staff and nurses on site. Well-established, seeing both private and public patients. Email julie@omalleyhr.ie.

Exciting opportunity for general dentist to work part-time across our busy corporate and nursing home clinics. Must be IDC registered and have up-to-date TCC. Invisalign or removable ortho system experience a super plus. Email CV to clinics@dentaltech.ie.

Dublin – Exciting opportunity for an enthusiastic general dentist to join our modern, well-equipped, well-established Smiles Dental practice in Clonsaugh. Position offers five days per week. Candidates must be experienced and IDC registered. Financial joining incentive available. Email joanne.bonfield@smiles.co.uk.

Hard-working, ethical dentist, two years' plus experience, for part/full-time position in relaxed, bright and spacious environment. North Dublin practice, excellent reputation. Fully computerised, digital x-rays/OPG. Friendly atmosphere, with excellent staff. Mentorship available. Email gma11111@gmail.com.

Newbridge – dentist required for Tuesdays and Wednesdays in general practice. Ideal candidate would have good ability in endo. Flexible starting date. Please contact by email to arrange phone contact time. Long-term view preferred. Email 999eaw@gmail.com.

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

Dentist wanted to work one day per week and possibly one to two Saturdays per month in medical aesthetics clinic in Cork City. Must have advanced training in botulinum toxin injections and dermal fillers. CVs to medicaestheticscork@gmail.com.

Part-time dentist position available with a view to full-time expansion in a busy Navan surgery. Digital x-rays and modern, with a good mix of private and GMS work. Contact dentistvacancynavan@yahoo.com.

Limerick. Part-time dentist required, to include Saturdays. Modern, busy clinic in Dooradoyle. Experience required. CVs to: limerickdentaljob@gmail.com.

Dublin – exciting opportunity for an enthusiastic general dentist to join our modern, well-equipped, well-established Smiles Grand Canal practice in Dublin 2. Position offers five days per week. Candidates must be IDC registered. Email joanne.bonfield@smiles.co.uk.

Dublin – opportunity for an enthusiastic general dentist to join our modern, well-equipped, well-established practice – over 30 years in the area. Private, GMS. Dental lab in house. Full-time or part-time. Email dentalcabra@gmail.com.

Dublin south city centre – experienced dentist required to join our friendly team in modern, computerised, entirely private practice for part-time position. Availability to include some early mornings and late evenings. Apply to progressivedentistrydublin@gmail.com.

Part/full-time dentist required for busy Kilkenny practice. Please email your CV to dentistpositionkk@gmail.com.

Associates

Associate required for busy surgery in Limerick. Part-time initially increasing if required. Modern computerised practice with OPG. CVs to racefielddental@gmail.com

Full-time associate position available in busy mixed practice in Enniscorthy. Fully computerised, well-equipped, modern practice. Excellent remuneration for the right candidate. Email CV to: courtstreetdental@hotmail.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, July 14, 2017**. Classified ads placed in the *Journal* are also published on our website www.dentist.ie for 12 weeks.

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

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

Experienced associate dentists required for a busy south Dublin practice. Full-time and part-time positions available. Experience/interest in cosmetic dentistry, Six Month Smiles, restoring implants preferred but not essential. Resumés to be sent to shauna@3dental.ie.

Associate/locum. ASAP start in pleasant south Dublin practice. Owner injured. Longer-term part-time position. Contact iodonovan@yahoo.co.uk with your details.

Experienced (minimum eight years) associate wanted for part-time position in busy state-of-the-art west Cork practice. References essential with CV to c.dentist@live.com.

Dental associate required for a part-time position in Co. Meath. Newly-refurbished practice with excellent equipment and experienced support staff. Great long-term remuneration for the right candidate. Email laura.cowman@dentalcareireland.ie.

Associate dentist required full time for a busy, long-established (22 years), practice in Dunboyne, Co. Meath, 10 minutes from Blanchardstown off the N3/M3. Please email CV to Dr Robin Jones at robinjones@eircom.net.

Associate dentist required part time for busy, modern dental practice in north county Dublin. Family-oriented dental practice, experience and enthusiasm essential. Private and PRSI treatment only. Special interests welcome. Forward CV to pdsvacancy@gmail.com.

Part-time associate dentist required to work Fridays and Saturdays in Enniscorthy, Co. Wexford. Busy, modern, computerised dental practice. Experience essential. Please email CV to courtstreetdental@hotmail.com.

Full-time associate required for busy, modern, well-established general practice in south county Dublin. Full book. Private, medical card and PRSI treatments. Fully computerised practice. CVs to jobs@ballybrackdental.ie.

Experienced associate required for maternity cover in a busy, mixed specialist and general private practice in Dublin city centre. Very friendly team and environment, along with an excellent remuneration. Hours and days to be confirmed. Email info@harcourtdentalclinic.ie.

Limerick city private practice. Experienced general associate required to join Shields Dental and Implant Clinic. Ideal for associate with skill set to compliment advanced dentistry. Digitalised, CBCT. Full-time/part-time, flexible start. Reply to conor.shields71@gmail.com with CV, or telephone Conor on 085-751 1529.

Associate required for busy multidisciplinary practice in Kerry. Great team, full book and state-of-the-art facilities. Experience and passion essential. Email dentistryinkerry@outlook.com.

Part-time dental associate position available in Co. Wexford town. Mixed, modern computerised and digital practice. Superb opportunity for the right candidate. Email dillondental2@gmail.com.

Navan – dental associate required to replace departing colleague. Two days per week including Saturdays. Fully private practice. Computerised, OPG, hygienists. Warm, friendly supportive team. Email brewshilldentalcentre@eircom.net.

Experienced associate wanted for general practice in south Dublin. Fully computerised; friendly team and environment. Immediate three-day start increasing to five days from the summer. Please send replies with CV to cegan@centrichealth.ie.

Dental associate sought for two or three days per week in Galway/Mayo area. Modern, long-established practice, very busy, full books, 70% private, with a view to possible future purchase. Email dentaljob2017@outlook.com.

Associate required for six months' maternity cover from September. Three days per week in modern, digital, fully-computerised practice. Busy, expanding practice, so may be permanent position available at end of cover – 45 minutes from Dublin. CVs to dentsistnortheast01@gmail.com.

Dental associate needed for immediate start in general dental practice in north Dublin for three days a week. The days are Wednesday, Thursday and Friday. Please email glasnevindental@gmail.com.

Experienced, motivated, passionate dental associate required for full-time in south Dublin city. Very busy dental practice. High level of endodontic and prosthodontic services. Modern facility with all necessary equipment. Email info@cleardentalcare.ie.

Associate dentist wanted to join busy team in Cavan town. Full-time position. See website www.cavandentist.com. Contact joanneoriordan73@gmail.com.

Associate dentist required for busy multidisciplinary practice in the midlands. Multi-practice 20 minutes from the M50 with a great atmosphere and team. Cerec, CBCT, full-time orthodontist, periodontist/implants, prosthodontist. Great opportunity with excellent remuneration. Email deirdrecusack@gmail.com.

Part-time dental associate position available in Co. Cavan. Ideally to work a Friday to start; more days may be available. Mixed, modern computerised and digital practice. Superb opportunity for the right candidate. Please email rmccorry1@hotmail.com.

Dental associate required in Co. Kilkenny for a full-time position. Very busy practice with excellent staff, full book and great earning potential. Email laura.cowman@dentalcareireland.ie.

Dental associate required for a part-time position in Co. Meath. Newly refurbished practice with excellent equipment and experienced support staff. Great long-term remuneration for the right candidate. Email laura.cowman@dentalcareireland.ie.

Associate required for busy, expanding practice in Co. Louth. Three days per week in modern, digital, fully-computerised practice – 45 minutes from Dublin. CVs to dentsistnortheast01@gmail.com.

Dental associate needed for part-time role including some Saturdays (all private), mixed GMS and private practice, fully computerised and digital x-rays on the Wicklow/Carlow border. Experience of adult/short-term orthodontics a bonus. Must be ID registered. CV to ldental99@yahoo.ie.

Full-time and part-time dental associate positions available in a busy multidisciplinary practice in Dublin 22. Well-equipped, modern practice with experienced support staff. Email resumes to shauna@3dental.ie.

Full-time dental associate position available in a busy multidisciplinary practice in Limerick. Well-equipped, modern practice with experienced support staff. Email resumés to Nikki at oldquarterdental@gmail.com.

Dental associate required in busy, modern, general dental practice in SW Dublin for cover work Friday July 21 to Friday August 4, inclusive; full days and, if desired, other part-time work before/after those dates. Email Wendy at wmunroe@eircom.net.

Part-time dental associate required for busy Meath dental practice. Position includes Saturdays. Modern, computerised surgery with a mix of private and GMS work. Hygienist and orthodontics on site. Contact dentalpracticemeath@gmail.com.

Dublin 24 – experienced associate (with view) needed for a very busy mixed practice. Part-time to begin, May start. Must work Fridays, one late night, no Saturdays. Email sheena.mceniff@gmail.com.

Galway – full-time associate position in a modern practice. Fully-digitised, newly-renovated practice with visiting specialists, a great way to expand your clinical knowledge in a supportive environment. All terms flexible for right candidate. CVs to info@quaydental.ie.

Experienced, enthusiastic associate required two days per week for busy, computerised, private general practice in Kilkenny. Must be IDC registered. Email dentistrequiredkk@gmail.com.

Carlow town – Experienced committed associate required full time in award-winning multidisciplinary practice. Excellent staff and facilities, implants, oral surgeon, orthodontics, RA, rotary, computerised, digital x-ray/OPG. Good people skills and excellent dentistry essential. July start. Email southeastdental46@gmail.com

Locums

Locum dentist required to cover maternity leave – start end of July to end of January in a busy general family practice, Dublin 5. Tel: 086-172 6061.

Locum dentist required to cover maternity leave starting in July in a busy family practice in Mayo. Email locumdentistjob@gmail.com.

Locum dentist required for month of July in family practice in Co. Clare. Fully computerised, digital x-ray plus OPG, all modern equipment in a state-of-the-art surgery. Email niallmcrty@gmail.com.

Locum dentist required for a dental practice in Waterford. Cover needed for two weeks in July. Days flexible. Email ferrybankdentalpractice@gmail.com.

Locum dentist required for holiday cover in a busy Tipperary practice. From July 12-21, inclusive. Please reply with CV to dentalassociaterequired@gmail.com.

Locum dentist required in south Dublin, immediate start, three days per week, indefinite term – modern, single-chair practice, fully computerised, friendly team, full-time nurse and admin support. Please reply with CV to cegan@centrichealth.ie.

Specialist/limited practice

Canada. St John's, Newfoundland – paediatric dentist needed now. Looking for a dynamic, energetic and exceptionally motivated paediatric dentist to join LOL dental, paediatric dentistry and orthodontic. Part-time or full-time. Remuneration: \$1,200 per day guaranteed (Canadian funds) or 35% of net collection. Contact drlynanaseri@gmail.com.

Orthodontist wanted to join modern, progressive practice in Co. Mayo. One day per week initially with a view to increasing. Email westofirelanddental@gmail.com.

Periodontist required to join a multidisciplinary team in north Dublin. Newly-expanded specialist practice looking to add to our well-established team. Applications can be sent to dentalspecialist8@gmail.com.

Orthodontist needed to join specialist ortho practice in the midlands, flexible regarding number of days. Ortho therapists used. Fun staff. Only 60 minutes from Dublin. Email orlarose1@hotmail.com.

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

Galway. Full-time specialist orthodontist required to join our team with existing fixed appliance and Invisalign patients. Attractive salary (€140,000 per annum) and accommodation. Modern practice and potential for growth and possible partnership. Please send CV to info@quaydental.ie.

Specialist orthodontist required one to two days per week for busy referral practice in Athlone. Email CV to info@shannonsmiles.ie.

Orthodontic therapists

Orthodontic therapist required to join an established orthodontic practice in north Dublin. Recently-expanded, state-of-the-art practice. Attractive package offered for the right candidate. Applications can be sent to: dentalspecialist8@gmail.com.

Dental nurses/practice managers/receptionists

Full-time qualified dental nurse required for busy south side practice. Please forward CV to Info@beechwooddental.ie.

Part-time dental assistant required in award-winning practice in Malahide. Ideal candidate would be a dental nurse with excellent communication, reasonable PC skills and must work flexible hours. Email CVs to info@ivorydental.ie.

Full- or part-time nurse required for an award-winning, high-tech and progressive family practice. Join our friendly team. Good pay for the right candidate. Needs to be friendly with good people skills. Some reception duties required. Dublin 18. Email cabinteelparkdentist@gmail.com.

D12 dental practice requires an experienced dental nurse/receptionist. Full- and part-time position available. Email CV no2dental@gmail.com, or tel: 087-981 0131.

Receptionist/nurse required for practice in Dublin 10, immediate start, busy practice but nice friendly place to work. Email sbarnes@ballyfermotdental.ie.

Experienced dental nurse with excellent communication skills required for high-tech general dentistry practice in Tralee, specialising in cosmetic dentistry and implants. Currently three days/week but we envisage it as a full-time position incorporating treatment co-ordinator role in the future. Email Info@tdic.ie.

Qualified dental nurse required for part-time work in a busy Dublin city centre practice. We do mainly orthodontics with some general dentistry. Candidate must have good English and references are essential. Please email CV to drpeterdwyer@gmail.com.

Dental surgery in Dublin 6 area looking for full-time dental nurse to start as soon as possible. Email info@beechwooddental.ie.

Dental nurse – Cork. Full- or part-time experienced dental nurse required for a dynamic and friendly practice in the west Cork area. Car desirable but not essential. CVs to weneedadentalnurse@gmail.com.

Full-time dental nursing position available in Bray, Co. Wicklow. Start date negotiable. Would suit outgoing friendly individual. Reply by email to dentalnurse1required@gmail.com.

Full-time dental nurse required in Dublin 4. Northumberland Institute of Dental Medicine is a dynamic, multidisciplinary clinic and we are looking to expand our highly-skilled team. Full-time hours over four days – 7.30am-5.30pm. Qualification or experience as a dental nurse is essential. Email laura.cowman@dentalcareireland.ie.

Full-time qualified dental nurse required in busy long-established general practice on Main St, Dundrum from Monday, June 19. Please reply to dr.moroney@dentalclinic.ie.

Hygienists

Hygienist required for a very busy dental practice. Immediate start. Email anna.m@pearldental.net.

Hygienist wanted in award-winning practice in Carlow town. Five days available, full- or part-time basis acceptable. Employee basis. High standards expected. Immediate start available. Please send CV to southeastdental46@gmail.com.

Hygienist wanted for sessions in a busy practice in Clonakilty. Experience not essential, new grads considered. CVs to westcorkdental@gmail.com.

Hygienist required for busy south west Dublin practice. Experience preferred but not essential. Immediate start. Please contact adasethsmith@gmail.com or telephone 01-451 3453.

Part-time hygienist wanted for busy general dental practice in Sandyford for Monday and Thursday evenings. Must be hard working, friendly and computer literate. Please email CV to blackglendental@gmail.com.

Hygienist wanted, Navan, Co. Meath. One day a week to join our existing hygiene team. Private practice, computerised, great supportive team. Email brewshilldentalcentre@eircom.net.

Hygienist wanted one to two days per week in busy Co. Clare practices. Modern equipment, computerised, dental assistant provided. Email niallmcrty@gmail.com.

Dental hygienist, north west Connacht. Full book. High gross in modern, private clinic. Must have excellent clinical and communication skills. Open to new graduates. Email Innovatedental@yahoo.ie.

Part-time hygienist required for very busy modern practice in Waterford. Fully-computerised, modern fully-equipped surgery with excellent support team. Please email your CV to cusackdental@gmail.com.

Part-time hygienist required in Spiddal. Initially one day every two weeks. Minimum contract of one year. Minimum of €170 earnings per day. Email lod@orthocosmetics.ie.

Hygienist required for two to three days a week in Shannon town centre. Brand new Cavitron and KaVo PROPHYflex. Custom-built clinic, with good support team. Excellent rates. Please email Dr O'Donovan at drodonovan@alexandrardental.ie for more information.

Enthusiastic, caring, part-time hygienist required in modern practice. Email CV to reception@portlaoisedental.com.

Experienced, gentle, caring hygienist required for Saturday morning sessions in busy Dublin northside dental practice. Please email cover letter and CV to 1959conais@gmail.com.

Experienced dental hygienist required for sessional cover in Dublin 14. Immediate start. For details phone 01-296 0376 or email bellavistadental@eircom.net.

Enthusiastic part-time hygienist required in modern practice. Email CV to Nikki at oldquarterdental@gmail.com.

Full/part-time locum hygienist required for immediate start in private Limerick city practice. Suitable for dentist if they so wish. Contact Conor.shields71@gmail.com or Conor on 085-751 1529.

Dublin south city centre – experienced hygienist required to join our friendly team in modern, computerised, entirely private practice for part-time position. Availability to include some early mornings and late evenings. Apply to progressiveidentistrydublin@gmail.com.

Hygienist required in Rathfarnham, Dublin, to join our team as maternity leave cover four days per week in modern surgery starting August. Must be enthusiastic, work well with others and have good attention to detail. Email CV please to info@rathfarnhamdental.com.

PRACTICES FOR SALE/TO LET

Long-established, busy full-time general practice for sale. Busy town, large catchment area. Excellent, loyal staff. Low overheads. Immediate profits, great potential for growth in services. Principal available for transition. Reasonably priced. Email dzjs60@hotmail.com.

Beautifully-appointed, architect-designed, modern ground floor dental practice for sale/lease in Tralee, Co. Kerry. Sale of goodwill optional. Tel: 086-386 3466.

For sale – freehold practice in east Cork. Long established. Single surgery with space to expand. Principal retiring. Realistically priced. Email barryjsj@gmail.com.

Practice for sale – south west. Very busy, well-established modern surgery – prime location. Excellently equipped – ample room to expand. Medical card numbers low. Strong new patient numbers. Experienced staff, walkinable, ready to sell. Custom-built freehold property. Contact: practicesouthwestforsale@yahoo.com.

EQUIPMENT FOR SALE

Wand computer-assisted anaesthesia system for sale. Excellent condition. Cost €700. An invaluable practice builder! Contact 066-711 7071.

Autoclave for sale – Mocom Millenium B+ Autoclave for sale, excellent condition, €2,500. Contact 086-811 5788.

Equipment for sale due to practice upgrade: Global G3 microscope: four years old, with inclinable binoculars – €12,000. Two dental chairs: Sirona C4 – €6,500; Pelton+Crane Spirit 1800 – €6,000. Planmeca ProOne OPG four years old – €9,500. Email hello@docklandsdental.ie.

QUIZ ANSWERS

Questions on page 132

- Distal caries in tooth 7-5 beneath existing restoration extending into dentine with retraction of distal pulp horn.
- pain history – to determine the type of pain experienced (severe/nocturnal/spontaneous/pain on biting), the need for analgesics and any history of associated swelling;
 - clinical exam – to determine the extent of caries and any associated sinus tract or swelling;
 - special tests – percussion test to determine if any peri-apical involvement (thermal testing is not reliable in children); and,
 - radiograph – to determine the extent of caries, presence of furcation/periradicular radiolucency, and the presence of a permanent successor. *Following examination, the pulp of tooth 7-5 was diagnosed as being reversibly inflamed.*
- Vital pulp therapy (indirect pulp cap/pulpotomy), followed by a full coverage restoration (stainless steel crown).
- If your pulpal diagnosis was of irreversible pulpitis or pulpal necrosis.

A great network

Paul Murphy is based in Claremorris, Co. Mayo, and says younger members should realise the benefit of having a support network like the IDA around them.

What led you to get involved with the IDA in the first instance?

I qualified in 1989 and like almost everyone else in my generation went to work in the UK. I came back after five years and set up practice in Mayo. Older colleagues in the area were encouraging me and mentoring me, and they advised me to get involved in the Association.

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

Initially, it took the form of attendance at local meetings but gradually moved on, and I was Western Branch rep in the mid 90s. I was also on the GP Committee. I dropped out of the committees and for a while was just a general member. More recently I've become more involved in the Association again at committee level. I've now been Western Branch rep for the last year.

What has your participation in the Association meant to you?

It is always good to meet with other colleagues and discuss issues with them. What I get out of it is the advice that the Association offers, particularly in running a small business, something we are not trained for in university.

What is the single biggest benefit of membership in your opinion?

I think it's the support offered and the chances to meet up with colleagues. We have issues and problems that only other dentists can understand and that only other dentists can help us with. Particularly for young graduates, it's really important to learn that support is there because other dentists are their only source for solving these problems.

What developments would you like to see in the Association?

I'd like to see our younger members realising the full benefits of membership and becoming more actively involved. I know from my own experience how important it is to have colleagues to discuss issues with and build up a support network. Getting involved with the IDA can lead you to that network.

I would encourage mentoring either by getting involved with the IDA's Mentorship Programme or even members informally meeting up for a coffee and chatting through things.



Paul is from Cork and studied dentistry in UCC. He is married to Judith who is also a dentist. They have three children, one of whom is now studying dentistry. In his spare time, he enjoys hillwalking and water sports, particularly sailing.

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HELP KEEP YOUR PATIENTS ON A JOURNEY TO HEALTHY GUMS

CORSODYL® TOOTHPASTE IS CLINICALLY PROVEN TO REDUCE PLAQUE, BLEEDING GUMS AND INFLAMMATION

4X
greater plaque
removal*¹

48%
greater reduction
in bleeding gums*¹

Recommend Corsodyl® Toothpaste to help patients maintain their gum health between dental visits.



*Removes more plaque than a regular toothpaste after a professional clean and twice daily brushing.

Reference: 1. Data on file, GSK, RH02434, January 2015.

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