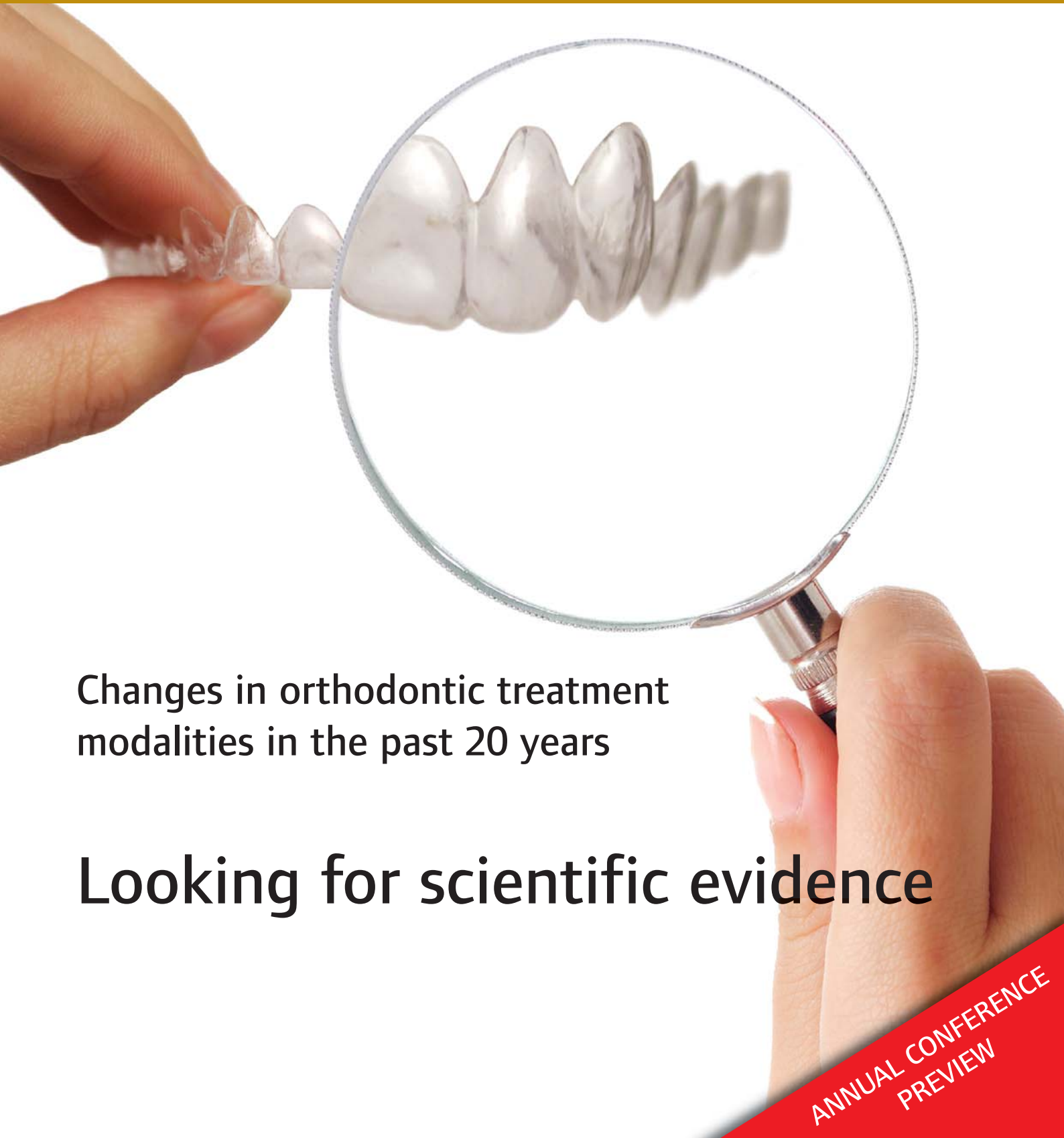


Volume 59 Number 2  
April/May 2013

  
**IDA**  
irish dental association

# Journal of the Irish Dental Association

*Iris Cumainn Déadach na hÉireann*



Changes in orthodontic treatment modalities in the past 20 years

## Looking for scientific evidence

ANNUAL CONFERENCE  
PREVIEW

# In a class of its own... A must-have for any dentist

## NSK Ti-Max Z Series Contra-angles

NSK Ti-Max Z Series contra-angles feature the smallest head and slimmest neck dimensions in the world\*, providing a standard of operational visibility like never before. Accessing otherwise difficult oral regions is made significantly easier by the miniaturised, ergonomic design.

NSK are so confident about the durability and performance of their new Ti-Max Z Series contra-angles, they come as standard with a 3-year warranty.

## MultiPad Integrated System

NLX nano, the smallest micromotor in the world†, is lighter than conventional micromotors making especially speed increasing contra-angles feel more like an air turbine in the hand. When built into your existing treatment centre and controlled using NSK's MultiPad, the NLX nano reaches speeds of 1,000 - 40,000 min-1 and delivers a powerful 3.4Ncm torque.

NSK's MultiPad is the only control pad on the market capable of controlling both a micromotor and a scaler, making upgrading easier than ever.



**“ The NSK Ti-Max Z95L speed-increasing handpiece provides complete speed control and delivers an exceptionally smooth running bur, these advantages equate to more precise margins and potential for improved overall clinical results. ”**

Dr Paul Mandon-Gassman, Sturry Dental Practice  
[www.sturrydental.co.uk](http://www.sturrydental.co.uk)

**“ The use of the speed-increasing handpiece is a must for the finesse of the preparation and for margin and retention features. With the support of NSK, I have been able to teach my delegates how to cut a more precise preparation. ”**

Paul Tipton, Tipton Training  
[www.tiptontraining.co.uk](http://www.tiptontraining.co.uk)

**“ The Z95L is a tremendous handpiece that combines high torque, bright fibre-optics, and a small head size to make it the most efficient handpiece I have ever used. ”**

Dr Ian Cline, Private Practitioner, Central London  
Course Director, Cosmetic Dental Seminars  
[www.cosmeticdentalseminars.org](http://www.cosmeticdentalseminars.org)

**“ The Z95L enables me to deliver precision to my work that is in a class of its own. Combine this with its tiny head, superb optics and comfortable ergonomics and it really is a must-have for any dentist. ”**

Christopher Leech BDS MJDF (RCS Eng)  
Barker Dental Care, Southampton  
[www.barkerdentalcare.co.uk](http://www.barkerdentalcare.co.uk)

## NSK contra-angles and turbines are compatible with KaVo® and W&H®

For more information call your Territory Manager:

ROI: Angela Glasgow on +44 (0)7525 911006 or

NI: Dominie Curran on +44 (0)7541 864641

Alternatively call NSK:

NI: 0800 6341909 ROI: 1800 848959

IDA PRESIDENT **Dr Andrew Bolas**  
 IDA CHIEF EXECUTIVE **Fintan Hourihan**  
 JOURNAL CO-ORDINATOR **Fionnuala O'Brien**

EDITOR  
**Professor Leo F.A. Stassen**  
 FRCS(Ed), FDSRCS, MA, FTCD, FFSEM(UK) FFDRCSI

DEPUTY EDITOR  
**Dr Dermot Canavan**  
 BDentSc, MGDS(Edin), MS(UCalif)

EDITORIAL BOARD  
**Professor Finbarr Allen**  
 BDS PhD MSc FDS FDS(Rest Dent) RCPS  
 FFDRCSI

**Dr Michael Crowe**  
 BSc BDentSc DPDS (Bristol)

**Dr Mark Kelly**  
 BA BDentSc

**Dr Christopher D. Lynch**  
 BDS PhD MFDRCSI FDS (RestDent)RCSI  
 FACD FHEA

**Jennifer O'Rourke**  
 RDN, IDNA Executive Committee Member

**Dr Ioannis Polyzois**  
 DMD, PhD, MDentCh, MMedSc

**Dr Ciara Scott**  
 BDS MFD MDentCh MOrth FFD (RCSI)

**Dr Seamus Sharkey**  
 BDS NUI FRACDS (Syd) MFDSRCS DChDent  
 (Prosthodontics) FFDRCSI

**Dr Simon Wolstencroft**  
 BDS FDSRCS MScD MOrth FDSOrth

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

**For advice to authors, please see:**  
[www.dentist.ie/resources/jida/authors.jsp](http://www.dentist.ie/resources/jida/authors.jsp)

Published on behalf of the IDA by  
 Think Media, 537 NCR, Dublin 1

T: 01-856 1166  
[www.thinkmedia.ie](http://www.thinkmedia.ie)

EDITORIAL  
**Ann-Marie Hardiman, Paul O'Grady**  
 DESIGN AND LAYOUT  
**Tony Byrne, Tom Cullen, Ruth O'Sullivan**  
 ADVERTISING  
**Paul O'Grady**

**The Journal of the Irish Dental Association:**  
 - is the only dental publication produced in Ireland;  
 - is Irish dentists' own Journal of record.

57 EDITORIAL  
 Our patients deserve better than the lack of support from Government.

58 PRESIDENT'S NEWS  
 Croke Park II changes the pay and conditions of public sector dentists.

61 NEWS  
 The Association received cross party support from members of an Oireachtas Joint Committee.

66 CONFERENCE  
 The Gathering in Galway: this year's Annual Conference returns to Galway

82 BUSINESS NEWS  
 The Sensodyne Sensitive Dentist of the Year for 2013; and other news.

84 PEER-REVIEWED  
 Prosthodontics at the crossroads: is this a 'golden age'  
*Brian O'Connell*

87 North Cork HSE orthodontic treatment waiting list 2009-2010: retrospective audit of patient records  
*Timothy McSwiney and Declan Millet*

91 Changes in orthodontic treatment modalities in the past 20 years: exploring the link between technology and scientific evidence  
*T. Gerard Bradley*

96 ABSTRACTS

98 PRACTICE MANAGEMENT  
 Dangers of social media

100 CLASSIFIED

102 DIARY OF EVENTS



Cork Centenary 63

*Deans photographed*



Conference preview 66

*Fantastic programme*



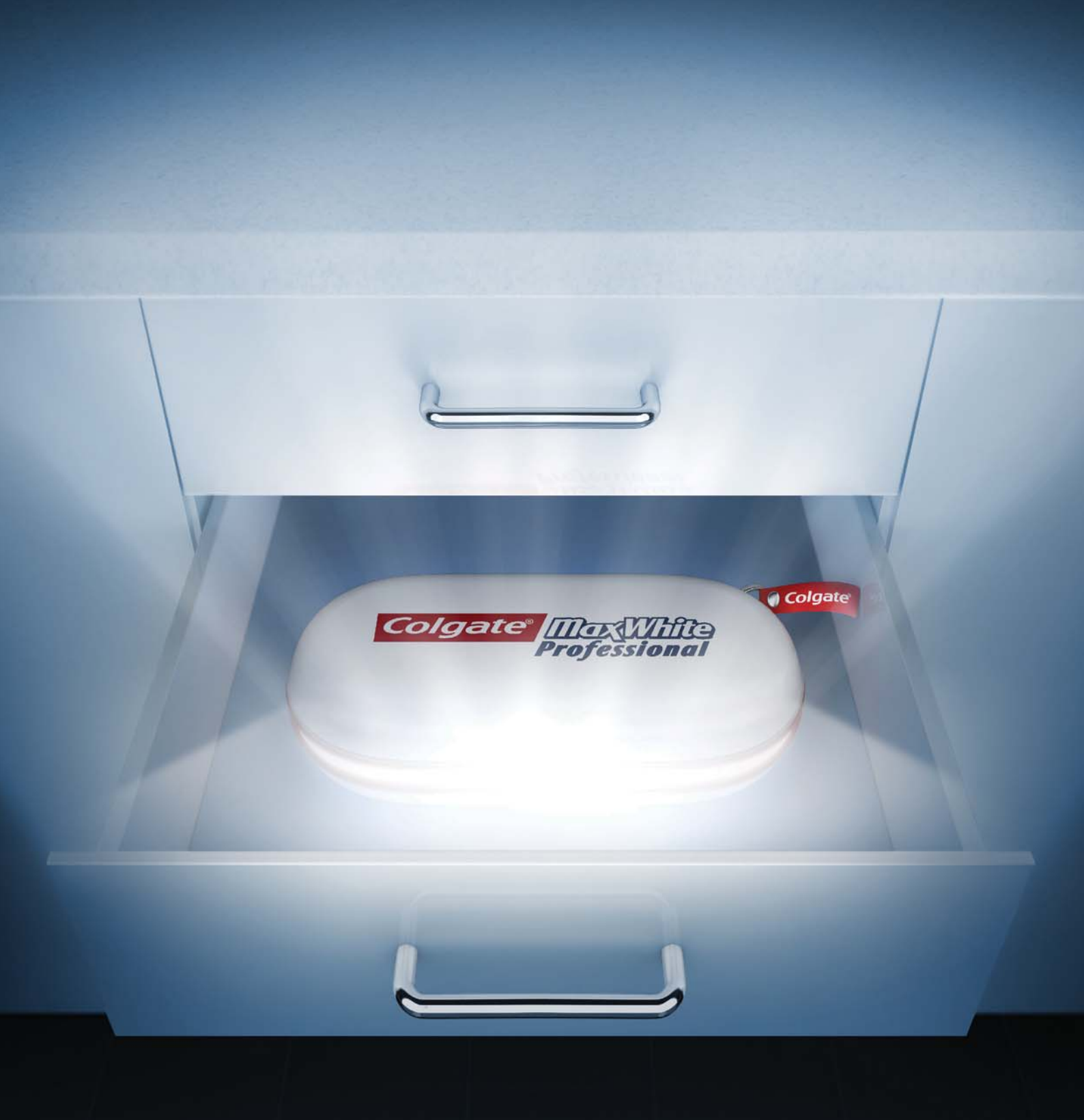
Peer Reviewed 84

*Prosthodontics at the crossroads*

Irish Dental Association Unit 2 Leopardstown Office Park, Sandyford, Dublin 18.  
 Tel: +353 1 295 0072 Fax: +353 1 295 0092 [www.dentist.ie](http://www.dentist.ie)  
 Follow us on Facebook (Irish Dental Association) and Twitter (IrishDentists).



Total average net circulation 01/01/12 to 31/12/12:  
**3,366 copies** per issue. Circulated to all registered dentists in the Republic of Ireland and Northern Ireland.



*Professional strength whitening*

Visibly whiter teeth in 3 days

Now available from your dental wholesaler

**Colgate®**

YOUR PARTNER IN ORAL HEALTH

[www.colgateprofessional.ie](http://www.colgateprofessional.ie)

# We are not a third world country

The Honorary Editor, PROFESSOR LEO STASSEN, reflects on the contents of this edition.

The publication of the Annual Report of the Association for 2012 is recorded in this edition of the *Journal*. In the *Journal* section of the Report, I extend a sincere thanks to the many dental professionals and business experts who provided their services as reviewers for the *Journal* in the last year. We are grateful for their work (which is unpaid) and which is provided solely for the benefit of the profession. Such selflessness is not unique to dentistry, but it is a proud aspect of our professional calling. The *Journal* continues to provide high-end content despite the challenging economic climate, the intense competition from abroad, and a Government for whom dentistry is an irritant.

## Our patients deserve better

Presenting themselves to the members of the Oireachtas Joint Committee on Health and Children, a delegation from the Association made a crystal clear case for the restoration of supports for oral healthcare in Ireland. Indeed, such was their impact, that the Committee members unanimously and immediately backed the Association's call for the immediate appointment of a Chief Dental Officer. This critical appointment is necessary if we are to have any hope of adopting and implementing a new oral healthcare policy.

The withdrawal of funding from the State schemes for oral healthcare is causing pain to the citizens of this Republic. Pain that is relieved only if the sufferer can afford private dental treatment, or by extraction under the Medical Card scheme. This disgraceful state of affairs has been allowed to develop to an intolerable point because the Government has chosen not to have an advocate for oral healthcare (i.e., a Chief Dental Officer) in its inner circle. Such short-sightedness is plainly going to cost the State a very great deal of money as untreated oral health conditions do not just go away. They develop and deteriorate and eventually require expensive emergency treatment.

Reading the submission by the Association (pp78-79) is thoroughly depressing in a dreadfully familiar way and the tables outlining the treatments that are no longer available are damning. The *Journal* completely endorses the concluding statement of the submission by the Association: "We are calling on the Government to reverse the cutbacks to State schemes, and to engage with the IDA on the issues raised in this submission. We are not a third world country. Our patients deserve better."

## The big event

There is good news in this edition and much of it centres on the details of the forthcoming Annual Conference of the Association. The

proceedings outlined here and set out in detail in the Conference programme are comprehensive and enticing. We especially welcome the introduction of a *Journal of the Irish Dental Association* lecture. This year it will be given by Professor Klaus Lang on the topic of: 'What is the value of the tooth? What is its longevity?'

This is just one feature of a Conference packed with highlights (see pp69-76). I'm told that the presentation on The Human Symphony by conductor David Brophy is likely to be as entertaining as it is informative. It will act as a counter balance to some excellent and highly technical presentations. And speaking of technology, the Trade Show will be an essential place to view the latest products from suppliers to the profession. We are, as always, very grateful to the firms who exhibit at the Conference and advertise in the *Journal*. That support is critical to the role of the *Journal*.

## Scientific content

There is much scientific content in this *Journal* too, with excellent papers from the Cork Centenary Conference, for which we are most grateful, as well as a review of orthodontic services in the North Cork region. Our practice management article is further, and timely, advice about the dangers of social media.

One last point: the *Journal* has teamed up with GSK again to bring you the Sensodyne Sensitive Dentist of the Year. This is a superb competition that has showcased the skills of Irish dentists as appreciated by our patients. I encourage every reader to get involved: everyone wins in some way because it's a fantastic boost to be endorsed by your patients.



Leo F. A. Stassen

**Prof. Leo F. A. Stassen**  
Honorary Editor

## Consultations and conferences

In his last President's news for the Journal, DR ANDREW BOLAS sums up current events.

### Croke Park II

The proposals for 'Croke Park II' represent a significant reduction in the terms and conditions for HSE dentists. While not a party to the talks, the Irish Dental Union has registered its opposition to the plans, which will have a severely negative effect on the take home pay for dentists who are, in return, expected to work increased hours.

### Cork Dental School celebrates its centenary

I attended the celebrations in Cork to mark the centenary of the Dental School on Friday March 1. A great evening was had by a huge number of alumni, beginning with a reception in the Aula Maxima, which brought back memories to many as the scene of their graduation. This was followed by a dinner and we were entertained by Dr Pixie McKenna from Channel 4's *Embarassing Bodies*.

### CPD Roadshows

The second round of CPD Roadshow events are well underway now, and I would urge dentists to take advantage of these events on their doorsteps.

### New Dental Bill

The Department of Health has begun its consultation with the Irish Dental Association on the new Dental Bill. This represents a major opportunity to improve dentistry and oral healthcare in Ireland. I hope the Department takes on board the views of the Association on this important matter.

### News watch

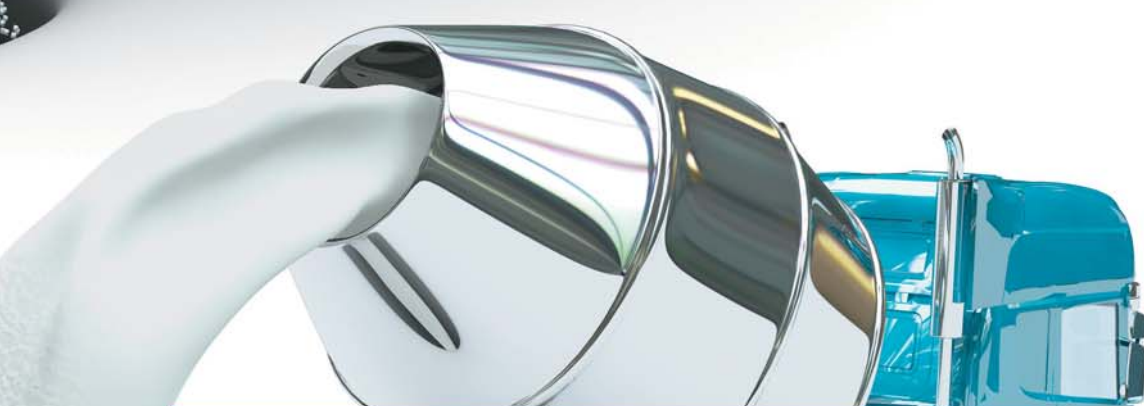
In my usual scanning of the papers, I read with interest that an inmate of a North Dakota prison was suing authorities over his dental treatment. It seems he wanted a root canal treatment and a crown after fracturing a tooth, and was instead offered only an extraction. He took his case citing it as cruel and unusual but the prisoner, who is serving a sentence for murdering and dismembering his victim, had his case thrown out in court. I also see that the first private dental school in England is to begin classes in a cinema, while building work is completed on the clinics. *Marathon Man* or *Finding Nemo* might end up on the curriculum.

As this is my last President's News, I wish to take the opportunity to thank members for their help and support during the year. I wish the incoming President, Dr Sean Malone, the very best of luck for his year as President.

See you all in Galway!

Dr Andrew Bolas





# Advanced Defence Sensitive blocks **92%** of dentine tubules in just 6 rinses *in vitro*\*<sup>1</sup>

Introducing the first in a new expert range from LISTERINE® – a twice-daily mouthwash built on potassium oxalate crystal technology that blocks dentine tubules deeply for lasting protection from sensitivity.<sup>2,3</sup>

In just six rinses Advanced Defence Sensitive blocks **92%** of dentine tubules; twice as many as the leading recommended pastes.<sup>1,4</sup>

It can be used alone for lasting protection,<sup>3</sup> or in combination with the most recommended paste from the leading sensitivity brand, to significantly increase the number of tubules the paste blocks *in vitro*.<sup>4,5</sup>

\* Based on % hydraulic conductance reduction



#### References:

1. Dentine Tubule Occlusion, DOF 1 – 2012.
  2. Tubule Occlusion Stability, DOF 3 – 2012.
  3. Relief of Hypersensitivity, DOF 4 – 2012.
  4. TNS – Sensitivity Market Research 1 – 2012.
  5. Combination Tubule Occlusion, DOF 2 – 2012.
- UK/LI/12-0494m

Do not recommend this product if patients have a history of kidney disease, hyperoxaluria, kidney stones or malabsorption syndrome, or take high doses of vitamin C (1000mg or more per day).

**Recommend Advanced Defence Sensitive  
for expert care when you're not there**



**SENSODYNE**



**IDA**

journal of the irish dental association  
Iris Cumainn Déadach na hÉireann



# WILL YOU BE IRELAND'S MOST SENSITIVE DENTIST IN 2013?

The search for the 2013 Sensodyne Sensitive Dentist of the Year has commenced.

This awards programme showcases the marvellous work of Irish dentists – and all through the words that mean most: those of your patients.

There was a record number of entries in 2012.

We hope for an even greater entry this year.

Send back the postcard from the wrap around this Journal and you will receive your Sensodyne Sensitive Dentist of the Year nomination pack.

For more information and for full terms and conditions visit  
[www.sensodynesensitivedentist.ie](http://www.sensodynesensitivedentist.ie)





## Support from Joint Committee

The Oireachtas Joint Committee on Health and Children has unanimously supported a number of key recommendations from the Irish Dental Association to deal with the current crisis in oral health.



The Association's delegation present their case to the Oireachtas committee.

The Association recently accepted an invitation to attend a meeting of the Health Committee which sought information on the impact of the cuts to the State dental schemes as well as the reduced expenditure on HSE dental services. The Association made a detailed submission (see Members' News pages in centre of this edition) and presentation to the Oireachtas committee hearing which was then followed by an extensive question and answer session. The Association's delegation comprised: Dr Andrew Bolas, President; Dr Peter Gannon, Chair of the General Practitioner Group; Clare Dowling, Employment and Communications Officer; and, Fintan Hourihan, Chief Executive.

The Committee unanimously supported writing to the Minister for Health, Dr James Reilly, calling for the immediate appointment of a Chief Dental Officer. In addition, the Committee unanimously supported a number of proposals from the Association intended to deal with the current orthodontic waiting list crisis. The Association's recommendations included diverting some of the €85 million previously assigned to the Treatment Purchase Fund to deal with the maxillofacial and orthodontic waiting lists as well as restoring marginal tax rate relief for orthodontic and other specialist dental treatments and addressing the anomaly whereby those without an income are unable to claim tax relief for dental treatments. The Association also called on additional funding to be made available to the Dental Schools to train orthodontists and orthodontic therapists.

### Questions and answers

After the initial IDA presentation there were a wide range of queries and questions from members of the Oireachtas Health Committee. Deputy Caoimhghín Ó Caoláin (Sinn Féin) asked about orthodontic

waiting lists in the north east, the eligibility criteria for orthodontic treatment and raised questions in regard to the administration of the DTSS and delays in payments to dentists as well as raising concerns on behalf of clinical dental technicians.

Deputy Seamus Healy (Independent) raised concerns about difficulties in children being seen by the public service as well as the guidelines for orthodontic care, the lack of a Chief Dental Officer and the failure of the Department of Health and Children to respond to the Association's proposals sent in January 2012 regarding the replacement of the DTSS.

The increasing incidence of oral cancer was raised by Deputy Denis Naughten, (Independent). He also explained that there are currently 2,000 children awaiting treatment in the former Western Health Board

**Will you still be smiling at the end of the year?**

**Make sure your practice is profitable in 2013**  
As Ireland's only specialist dental accountants we're here to help you control your practice costs

<b>QUARTERLY ACCOUNTS</b>	<b>PAYROLL SERVICES</b>
<b>TAX CONSULTANCY</b>	<b>COST OF TREATMENT</b>



**MedAccount SERVICES**

Medaccount offer a full range of specialist dental accounting support and advisory services for Associates, Principals, Expense Sharing Partners and Hygienists.

FIRST CONSULTATION FREE

**MedAccount Services**  
96 Lower Georges Street  
Dun Laoghaire  
Co Dublin  
Tel: 01 280 6414  
Email: info@medaccount.ie

First consultation free of charge, with no obligation to engage

region and suggested that there are very different experiences and waiting lists for children on different sides of the same street according to whether they are in the previous Western Health Board or the Midland Health Board. He stated his great dissatisfaction at the lack of attention being paid to this problem.

Senator Colm Burke (Fine Gael) queried how long the Chief Dental Officer position has been vacant and also raised concerns about the lack of dental health education programmes here in Ireland.

Deputy Mary Mitchell O'Connor (Fine Gael) raised questions about value for money associated with orthodontic care.

The savings associated with spending and dental care for children and thereby saving the State significant expenditure in later years was raised by Deputy Robert Dowds (Labour).

The good work of dentists in caring for children was acknowledged by Deputy Catherine Byrne (Fine Gael) who also raised questions about orthodontic care and Mouth Cancer Awareness Day. She also commented on the important role of parents as educators and sought information on the extent which children miss appointments.

The low number of dentists in practice in Ireland was raised by Senator John Crown, (Independent).

### Flouridation

The Chair of the Committee, Deputy Jerry Buttimer (Fine Gael) explained that the Committee had received a large volume of emails in regard to fluoridation and sought the views of the Association. Dr Andrew Bolas explained that the Association was fully supportive of fluoridation and highlighted a new (soon to be published) cross border study which shows significant variations in the level of decay among 15 year olds in Donegal and Derry as testimony to the value of fluoridation.

At the end of the two-hour hearing the Oireachtas Committee decided to invite the HSE to respond to some of the concerns raised by the Association and also agreed to put dental health on its work programme for the new Dáil term. The Chair, Deputy Buttimer thanked the Association for accepting the invitation to attend and the comprehensive submission which he acknowledged contained a significant number of solutions as well as explaining the extent of the current oral health problems. He concluded by noting that the Committee would write to the Minister for Health supporting the proposals from the Association to deal with the waiting lists and also calling for the urgent appointment of a Chief Dental Officer.



## FACULTY OF DENTISTRY, RCSI

### POST-GRADUATE DENTAL EDUCATION PROGRAMME

Saturday morning modules of the Postgraduate Dental Education Programme, with a strong focus on clinical issues, and to help with preparation for the new Diploma of Primary Care Dentistry and the MFD examinations, have been organised by the Faculty of Dentistry, RCSI. These continue to take place in RCSI. The final two modules for this series take place on the dates mentioned below. The modules will start at 9.00am and will feature five 40 minute presentations until approx 1.00pm. The next series of lectures will recommence in September 2013 – for further information, please check the Faculty website: <http://dentistry.rcsi.ie>

The following topics and their relation to practice will be covered:

#### Saturday April 27 2013

Audit, Compliance and Complaints, Bleeding Disorders and Dentistry, Adult Orthodontics – Procedure and Pitfalls, Surgical exposure of impacted canines, Practical Tips 1 – Replacing a fractured Archwire in practice, Practical Tips 2 – Space Maintainers – Practical Aspects.

#### Saturday May 18 2013

Bacterial Endocarditis in Children, current guidelines for prevention and treatment, Preventative Dentistry for the Paediatric

Patient, Fundamental Principles of Endodontics 1, Fundamental Principles of Endodontics 2, Practical Tips 1 – Chairside Temporary Crown Construction, Practical Tips 2 – Repairing Fractured Ceramics/Metal Ceramics.

**Cost: €80 per module or €140 for both modules.**

To register: contact the Faculty of Dentistry, RCSI by phone on 01 402 2239/2256 or by email at [facdentistry@rcsi.ie](mailto:facdentistry@rcsi.ie)

Alternatively: an application form can be downloaded from the Faculty of Dentistry website at: <http://dentistry.rcsi.ie>

## Cork Centenary Conference – 100 years of dental evolution



There was an excellent turnout for Cork University Dental School and Hospital's Centenary Conference in March.



At the celebration dinner were current Dean, Professor Finbarr Allen, Dr Edith Allen, Dr Judith Phelan, Dr Gerry Bradley, and Dr Peter O'Brien.



Dr Pixie McKenna, a UCC graduate, from the Channel 4 programme 'Embarrassing Bodies' was the guest speaker at the dinner. She is pictured second from left with Dr Nuala Lyden, Dr Joe McKenna, and Dr Ronan Lyden.



Deans past and present: Professor Brian Barrett, Professor Finbarr Allen, Professor Robert McConnell, Professor Denis O'Mullane and Professor Louis Buckley.

### Accreditation for Irish graduate



In November 2012 Dr Gillian Martin became the first Irish woman to be accredited by the British Academy of Cosmetic Dentistry. This highly prestigious award is given in recognition of excellence in cosmetic dentistry. There are now only two Irish accredited members, the other being Dr Chris Orr. Dr Martin works as a leading cosmetic dentist at the Welbeck Clinic in central London, and confines her work exclusively to the enhancement of smiles.

### Quiz

Submitted by Elaine Hughes

#### Questions (answers on page 97)

1. What are the three core areas of CPD that will be covered at the Annual Conference from April 18-20 in Galway?
2. Coltene are Gold Sponsors at this year's conference. What stand number will they be at in Galway?
3. Professor Klaus Lang will present a lecture sponsored by the *Journal of the Irish Dental Association* on Saturday April 20. At which university is Professor Lang Professor Emeritus?

## Hygienist promotes child oral health



Dental hygienist Kellie O'Shaughnessy, who is based in Ballina, Co. Mayo, is working with an innovative oral health programme for children – the Dental Den.

"Our practice was seeing high levels of decay in children with poor oral hygiene, so we created a space that is non-clinical, child friendly, adaptable for all age groups and can facilitate families," said Kellie.

The Ballina Dental team use a caries risk assessment checklist (CRAC) to assess patients for referral to the Dental Den. Children visiting the Dental Den receive education on plaque and tooth decay, oral hygiene, and diet, particularly sugars and snacking, and learning to read food labels. Quizzes and questionnaires help empower children and parents to make the changes to improve their health.

Kellie is working with the HSE so that the Dental Den programme can be evaluated and shared. If you would like more details on running a programme in your practice, please contact Kellie, Tel: 087-922 4347, or Tel: kelliesshau@gmail.com.

## Faculty of Dentistry RCSI ASM 2013

The Faculty of Dentistry RCSI is delighted to announce that its Annual Scientific Meeting (ASM) 2013 will be held in Dublin on October 24 and 25, 2013. The title of this year's ASM is 'Surgical Aspects of Dental Practice', and the meeting will include lectures on dentoalveolar surgery, implant dentistry, temporomandibular disorders, trigeminal neuralgia, general anaesthesia and sedation in dental practice, and periodontal and endodontic surgery. Confirmed international speakers include: Dr Karl DeLeeuw, Mayo Clinic, Scottsdale, USA, on 'Surgical Aspects of Temporomandibular Disorders'; Dr Steve Scrivani, Tufts University Boston, USA, on 'Trigeminal Neuralgia'; Dr Leonard Kaban, Massachusetts General Hospital, Boston, USA, on 'Historical Role of Dental Surgeons in General Anaesthesia'; Dr Tony Pogrel, Univ California San Francisco, on 'Complications in Implantology'; and, Professor Tara Renton, Kings College Dental Institute, London, UK, on 'Avoiding complications in Dentoalveolar Surgery'. We also have many renowned national speakers, including Dr Dermot Canavan on 'Non surgical management of TMD', Dr Pat Cleary on 'Surgical Endodontics', Dr Anne O'Donoghue on 'Periodontal Surgery', Dr Gerry Cleary on 'Surgical-Prosthodontic Interface in Implant Dentistry', Dr Peter Cowan on 'Osseointegration', and Professor Duncan Sleeman on 'Dentoalveolar Surgery'.

This year is of special significance as it marks the 50th anniversary of the Faculty's establishment (1963-2013). We encourage all of our graduates (e.g., Members, Fellows) and our many friends who have attended our ASMs over the years to attend during this special 50th anniversary year. Those who wish to register interest for this meeting, and would like to be kept updated on the event, should email the Faculty office at: [facdentistry@rcsi.ie](mailto:facdentistry@rcsi.ie).

## Announcement of the Diploma in Primary Care Dentistry

Committed to the pursuit of excellence in dentistry in Ireland, the Faculty of Dentistry, Royal College of Surgeons in Ireland (RCSI) is delighted to announce the introduction of a new examination, the Diploma of Primary Care Dentistry (Dip PCD (RCSI)). The Diploma has been approved by the Dental Council and the examination has been developed in collaboration with the Irish Dental Association and the Irish Faculty of Primary Dental Care. The first sitting of the examination will be held in October 2013.

Candidates for the Diploma examination are required to have completed a minimum of 12 months of clinical practice following graduation. The examination will consist of an MCQ examination and a Clinical Reasoning Assessment, which will take the form of a written paper. There will be a strong emphasis on clinical practice within both components of this examination.

The Faculty of Dentistry RCSI also runs a monthly Postgraduate Dental Education Programme, which provides a considerable amount of information that is relevant in helping candidates to prepare for this examination. Candidates who are successful in the

Dip PCD RCSI may enter the MFD Part 2 directly (and are exempt from the MFD Part 1) provided they meet all the requirements as set out in the regulations. The Diploma of Primary Care Dentistry RCSI is also a stand-alone qualification.

Commenting on the introduction of the Dip PCD (RCSI), Professor Gerard Kearns, Dean of the Faculty of Dentistry, RCSI, said: "The Faculty of Dentistry, RCSI, is delighted that the major stakeholders in primary care dentistry in Ireland have worked together to develop this new qualification. The Faculty recognises and acknowledges the contribution of our colleagues – the Dental Council, the Irish Dental Association and the Irish Faculty of Primary Dental Care – and looks forward to seeing the first graduates in the Diploma of Primary Care Dentistry and to promoting the continuing excellence in the provision of clinical dental services in Ireland".

Further information, including regulations and the exam closing date, can be found on <http://dentistry.rcsi.ie>, or by emailing [facdentistry@rcsi.ie](mailto:facdentistry@rcsi.ie).



# Helping you succeed

**Trusted implant systems**

**ANKYLOS®** **ASTRATECH**  
IMPLANT SYSTEM **XiVE®**

**Prosthetic digital  
innovation**

**ATLANTIS™**  
**ATLANTIS ISUS™**



**Practice growth support**

**RELAX** **dentists4implants.com**

**Clinical skills  
development**

**courses4**  
**implants.com**

# Gathering in Galway

This year's IDA Annual Conference returns to the Radisson Blu in Galway for three days of meeting colleagues, education and CPD and, of course, fun.

Taking place slightly earlier than usual, from April 18-20, the theme of this year's event is 'All hands together', reflecting the importance of teamwork and mutual support in difficult times for dentistry.

Once again, this year's conference will feature speakers from at home and abroad, covering the latest innovations in dentistry in both our hands-on workshops and in the lectures that will take place for the whole dental team. This year's pre-conference programme takes place on Thursday, April 18, and features topics from adhesive dentistry to medical emergencies. The lecture programme on Friday and Saturday addresses the whole dental team on a range of clinical and management topics, from root canal obturation and mouth cancer, to engaging the consumer and communication skills.

As ever, all scientific sessions have been approved for continuing professional development (CPD) credit. Forms will be available each morning and evening at the Conference registration desk and a separate form must be signed for each morning and afternoon session you attend, so be sure to register for those crucial credits every day (and include your accreditation number).

In a year when membership of the Association has risen substantially, the Annual Conference will give you the opportunity to have your say



on issues that affect dentistry and oral health in Ireland. The IDA and IDU AGM will take place from 6.00pm on Thursday April 18, and members will debate and vote on motions that reflect these vital issues.

## CONFERENCE COMMITTEE



*Dr Pj Byrne,  
Chairman*



*Dr Mark Condon*



*Dr Garry Heavey*



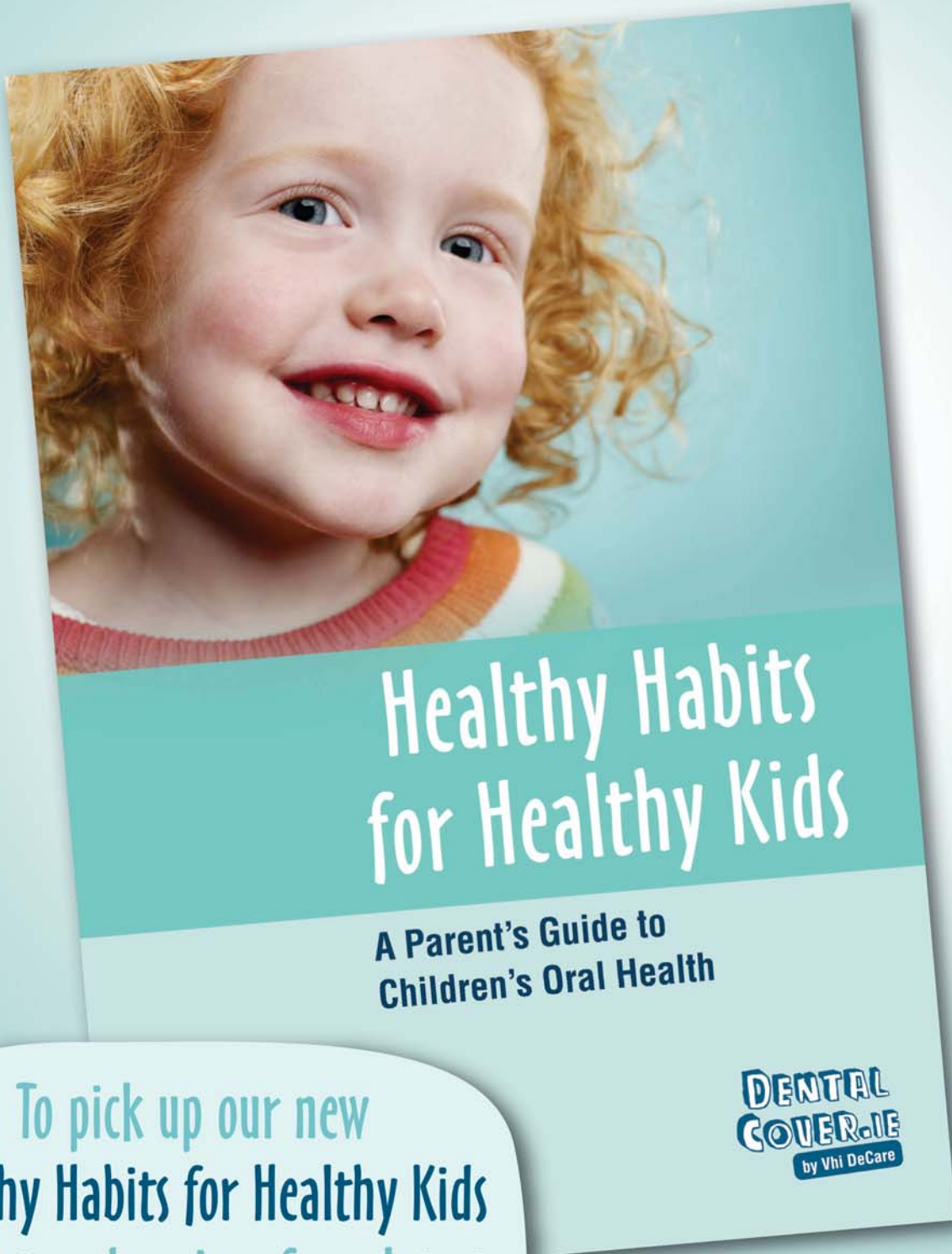
*Ms Elaine Hughes*



*Dr Saoirse O'Toole*



*Dr Jane Renehan*



To pick up our new **Healthy Habits for Healthy Kids** booklet and copies of our latest oral health materials, call to our stand at the **IDA Annual Conference** or call us on **1890 222 422**

To find out more about our dental insurance plans and oral health services log onto [www.dentalcover.ie](http://www.dentalcover.ie)

**DENTAL  
COVER.IE**  
by Vhi DeCare

**New  
Formulation**

dexketoprofen trometamol  
**Keral**<sup>®</sup>  
25mg granules for oral solution

*Lemon  
Flavour!*



**Keral<sup>®</sup> 25 mg granules for oral solution (dexketoprofen). Prescribing information.** Please consult the Summary of Product Characteristics (SPC) for full prescribing information.

**Presentation:** Sachets containing 25 mg Dexketoprofen, as dexketoprofen trometamol.

**Use:** Short term symptomatic treatment of acute mild to moderate pain.

**Dosage:** Adults: 25mg every 8 hours or 12.5mg every 4-6 hours. Maximum daily dose 75mg. Use lowest effective dose for the shortest duration necessary to control symptoms. For acute pain administer 15 minutes before meals. For short term use only. In the elderly or those with mild-moderate hepatic dysfunction or mild renal dysfunction, initial maximum daily dose of 50mg. Close monitoring advised in the elderly or those with hepatic dysfunction. Not recommended for children or adolescents.

**Contra-indications:** Hypersensitivity to dexketoprofen, the excipients or other NSAIDs, NSAID induced attacks of asthma, bronchospasm, acute rhinitis, or nasal polyps, urticaria or angioneurotic oedema. Known photoallergic or phototoxic reactions during treatment with ketoprofen or fibrates. History of gastrointestinal bleeding or perforation related to previous NSAIDs therapy. History of or active peptic ulcer/haemorrhage, chronic dyspepsia or suspected peptic ulcer/haemorrhage, other active bleeding or bleeding disorders, Crohn's disease or ulcerative colitis, severe heart failure, moderate-severe renal dysfunction, severe hepatic dysfunction, haemorrhagic diathesis and other coagulation disorders, severe dehydration, during the third trimester of pregnancy and lactation.

**Warnings and precautions:** Caution in allergic conditions. Avoid use with concomitant other NSAIDs including COX-2 selective inhibitors. Use lowest effective dose for the shortest duration necessary to control symptoms. Gastrointestinal bleeding, ulceration or perforation which can be fatal, have been reported with all NSAIDs at anytime during treatment, with or without warning symptoms or a previous history of serious gastrointestinal events. When gastrointestinal bleeding or ulceration occurs withdraw treatment. The risk of gastrointestinal bleeding, ulceration or perforation is higher with increasing NSAID doses, in patients with a history of ulcer, particularly if complicated with haemorrhage or perforation, and in the elderly. The elderly have an increased frequency of adverse reactions to NSAIDs especially gastrointestinal bleeding and perforation which may be fatal. Commence treatment in these patients on the lowest dose available. Ensure cure of oesophagitis, gastritis and/or peptic ulcer before starting treatment. Monitor

patients with history of GI disease. Special care with NSAIDs in patients with a history of gastrointestinal disease (ulcerative colitis, Crohn's disease). Consider combination therapy with protective agents (e.g. misoprostol or proton pump inhibitors), and in patients requiring concomitant low dose aspirin, or other drugs likely to increase gastrointestinal risk. Monitor patients with a history of gastrointestinal toxicity, particularly when elderly, for unusual abdominal symptoms (especially gastrointestinal bleeding) particularly in the initial stages. Caution in patients receiving oral corticosteroids, anticoagulants, SSRIs or anti-platelet agents. Do not use with warfarin, other coumarins or heparin. Caution in patients with impaired renal function, receiving diuretic therapy or those who develop hypovolaemia. Ensure adequate fluid intake, may increase plasma urea nitrogen and creatinine. Caution in patients with impaired hepatic function. May increase some liver parameters. Monitor and advise patients with hypertension and/or mild to moderate heart failure. Special caution in patients with cardiac disease, especially episodes of previous heart failure. Monitor and advise patients with a history of hypertension and/or mild to moderate congestive heart failure as fluid retention and oedema have been reported. Some NSAIDs (particularly at high doses and long term treatment) may be associated with a small increased risk of arterial thrombotic events (e.g. myocardial infarction or stroke). Careful consideration before treating patients with uncontrolled hypertension, congestive heart failure, established ischaemic heart disease, peripheral arterial disease, and/or cerebrovascular disease. Similar consideration before initiating longer-term treatment of patients with risk factors for cardiovascular disease (e.g. hypertension, hyperlipidaemia, diabetes mellitus, smoking). Serious skin reactions (some of them fatal), including exfoliative dermatitis, Stevens-Johnson syndrome, and toxic epidermal necrolysis reported very rarely. Discontinue treatment at the first appearance of skin rash, mucosal lesions, or any other sign of hypersensitivity. Particular caution in patients with congenital disorder of porphyrin metabolism, dehydration, directly after major surgery. If long term use necessary, monitor hepatic and renal function and blood count. Stop treatment at first signs of severe hypersensitivity reactions. Avoid use with varicella. Caution in patients with haematopoietic disorders, systemic lupus erythematosus or mixed connective tissue disease. As other NSAIDs, dexketoprofen can mask the symptoms of infectious diseases. Contains sucrose.

**Interactions:** Other NSAIDs, anti-coagulants, heparins, corticosteroids, lithium, methotrexate, hydantoines and sulphonamides, diuretics, ACE inhibitors, antibacterial aminoglycosides and angiotensin II receptor

antagonists, pentoxifylline, zidovudine, sulfonyleureas, beta-blockers, cyclosporin and tacrolimus, thrombolytics, anti-platelet agents and SSRIs, probenecid, cardiac glycosides, mifepristone, quinolone antibiotics.

**Pregnancy and lactation:** Do not use in pregnancy, lactation or in women attempting to conceive.

**Undesirable effects:** As with other NSAIDs, the most commonly observed adverse events are gastrointestinal. Peptic ulcers, perforation or gastrointestinal bleeding, sometimes fatal, particularly in the elderly may occur. Common (1-10%): Nausea and/or vomiting, abdominal pain, diarrhoea, dyspepsia. Uncommon (0.1-1%): insomnia, anxiety, headache, dizziness, somnolence, vertigo, palpitations, flushing, gastritis, constipation, dry mouth, flatulence, rash, fatigue, pain, asthenia, rigors, malaise. Rare (0.01-0.1%) anorexia, paraesthesia, syncope, hypertension, bradypnoea, peptic ulcer, peptic ulcer haemorrhage or peptic ulcer perforation, hepatic lesion, urticaria, acne, increased sweating, back pain, polyuria, menstrual disorder, prostatic disorders, peripheral oedema, liver function test abnormal. Very rare (<0.1%) neutropenia, thrombocytopenia, anaphylactic reaction including anaphylactic shock, blurred vision, tinnitus, tachycardia, hypotension, bronchospasm, dyspnoea, pancreatitis, hepatocellular injury, Stevens-Johnson syndrome, toxic epidermal necrolysis (Lyell's syndrome), angioedema, facial oedema, photosensitivity reactions, pruritus, nephritis or nephrotic syndrome. Not known: laryngeal oedema, hepatitis, acute renal failure. As with other NSAIDs the following undesirable effects may appear: aseptic meningitis, which might predominantly occur in patients with systemic lupus erythematosus or mixed connective tissue disease, and haematological reactions (purpura, aplastic and haemolytic anaemia, and rarely agranulocytosis and medullary hypoplasia).

**Pack size:** 20 sachets. **Legal category:** POM.

**Marketing authorisation number:** PA 865/2/5  
**Marketing authorisation holder:** Menarini International Operations Luxembourg S.A., 1 Avenue de la Gare, L-1611 Luxembourg.

**Marketed by:** A.Menarini Pharmaceuticals Ireland Ltd Further information is available on request to A.Menarini Pharmaceuticals Ireland Ltd, 2nd Floor, Castlecourt, Monkstown Farm, Monkstown, Co. Dublin, Ireland or may be found in the SPC.

**Date of preparation:** November 2011.



**A.MENARINI**  
PHARMACEUTICALS IRELAND LTD  
*Healthcare for Life*





Dr John Kanca III

**Adhesive dentistry 2k13**

This course is a must for those seeking to place the finest restorations possible with the fewest difficulties.



Dr Hal Duncan

**From instrumentation to obturation: a trip through new innovations in endodontics**

A practical course aimed at general dental practitioners and those with a particular interest in endodontics



Dr Garry Heavey

**Componeurs: an alternative to porcelain?**

This course will demonstrate the technique for placing componeurs – a new and versatile way to restore anterior teeth.



Mr Trevor McNulty, Survival linX Solutions

**Recognition and management of medical emergencies in dental practice**

A workshop designed to update dental professionals on how to manage patients presenting with a medical/cardiac emergency.

**Pre-conference programme**

Delegates will have a choice of four excellent pre-conference courses in Galway this year, all of which take place on Thursday April 18. One of our prestigious international speakers, Dr John Kanca III, will deliver a full-day lecture entitled 'Adhesive dentistry 2k13', which is a

must for those seeking to place top quality restorations with the fewest difficulties. Endodontics will be covered by Dr Hal Duncan from the Dublin Dental University in a full-day practical- and lecture-based course entitled 'From instruments to obturation: a trip through new innovations in endodontics'. Two half-day courses will also take place,

**Interdental brushes to suit every need**

Angled or straight brush head, long or short handle, TePe's range of interdental brushes are the easy-to-use alternative to dental floss.

**FREE TEPE ANGLE SAMPLE**

To receive your free sample:

- Visit: [tepe.com/uk/samplerequest](http://tepe.com/uk/samplerequest) and use code IDA04a
- Or, use the QR code opposite.

For more information call +44 (0) 1934 710022, email [infoUK@tepe.com](mailto:infoUK@tepe.com), or visit [www.tepe.com](http://www.tepe.com)





**WRIGLEY**  
Oral Healthcare  
Programme



I'll have a  
piece of you



## Pack a punch against plaque acid, with **Wrigley's Extra**.<sup>®</sup>

You know plaque acid attacks your teeth whenever you eat or drink. You know that chewing is one of your best defences - the science proves it. Chewing helps to stimulate the flow of saliva, which helps to neutralise plaque acids, remineralise tooth enamel and wash away food debris.<sup>1</sup> But do your patients know?

If you haven't told your patients about the benefits of chewing as part of their oral care routine, tell them today. And when you do, make sure you recommend the great little way to fight back.

Recommend Wrigley's Extra<sup>®</sup> to your patients.

And join our community at  
[www.wrigleyoralhealthcare.ie](http://www.wrigleyoralhealthcare.ie)



so delegates will have two opportunities to learn from Dr Garry Heavey and Mr Trevor McNulty. Dr Heavey will present a practical/lecture entitled 'Componeers: an alternative to porcelain?' which will introduce the technique for placing componeers, a new and versatile way to restore anterior teeth. Mr McNulty's course, 'Recognition and management of medical emergencies in dental practice', will update dental professionals on how to manage patients presenting with a medical emergency while awaiting the ambulance service.

The Conference trade exhibition takes place in close proximity to the lecture halls, so you will have ample opportunity to visit the stands and meet the trade representatives. All of the top companies in the dental industry will be represented, so please take the time to visit, as their support is crucial to the success of the Conference.

The Association's commitment to education and professional development is further reflected in the clinical audit workshops on hand hygiene and waste management, which will take place during the Conference. Aply hosted by the Quality and Patient Safety Committee, these workshops are an excellent way to make sure your practice meets HIQA standards.

This year's social programme has plenty to offer, with an extra, active dimension in the form of the return of the 5k Fun Run on Saturday morning. The black tie President's Dinner on Saturday night will be the highlight of the weekend.

**Lecture programme**

This year's lecture programme really reflects the Conference theme of 'All hands together'. For Team Day on Friday, April 19, the morning session will feature Hal Duncan on root canal obturation, Claire Healy and Pat Ormond on mouth cancer, St John Crean on the medical-dental interface, and Ryan Hennessy on consumer awareness, while after lunch the 'Team Afternoon' is not to be missed.

With the aim of raising morale and team spirit for the whole dental team, Ciaran O'Boyle will look 'lessons in leadership', John Tiernan will talk about communication skills for the team, and Eamon O Muircheartaigh will offer some very practical advice on posture and pain. The highlight of the afternoon, however, will be 'The Human Symphony', an interactive session with David Brophy, Principal

**KIN**

# KIN B5

**NEW**

## Daily maintenance for healthy gums

- CETYLPYRIDINIUM CHLORIDE **0.05%**
- PROVITAMIN B5
- VITAMIN B3
- ALCOHOL FREE

...won't let you down!

**FLUORIDE**

MOUTHWASH 226 ppm F<sup>-</sup>

TOOTH PASTE 1450 ppm F<sup>-</sup>

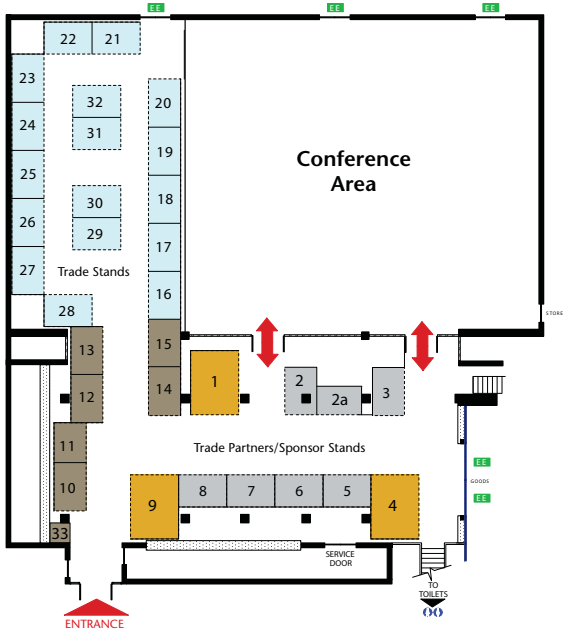
Distributed by:  
**Pamex**  
 14 Moneen Business Park,  
 Castlebar, Co. Mayo, IRELAND  
 TEL: 094 9024000, FAX: 094 9022824  
 e-mail: info@pamex.ie



Manufactured by:  
**KIN**  
**LABORATORIOS KIN S.A.**  
 Ciutat de Granada, 123 E-08018 Barcelona - Spain  
 www.kin.es - e-mail: kin@kin.es

# Conference preview

JOURNAL OF THE IRISH DENTAL ASSOCIATION



**Floor Plan**  
Inis Mor Room,  
Radisson Hotel,  
Galway

- Gold
- Silver
- Bronze
- Trade Exhibitor

### GOLD

- 1 Colgate
- 9 Coltene
- 4 Wrigleys

### SILVER

- 2 Johnson and Johnson
- 2a Nobel Biocare
- 3 Optident
- 5 DeCare Dental
- 6 GSK
- 7 Helix Health
- 8 Dentsply

### BRONZE

- 10 A. Menarini  
Pharmaceuticals
- 11 Geistlich
- 12 McDowell and Services
- 13 Dentech
- 14 Sybron Endo
- 15 Pamex
- 33 Manepa

### TRADE

- 16 MedAccount
- 17 DP Medical
- 18 Tepe
- 19 NSK
- 20 Karma
- 21 Hogan Dental &  
Medical Services
- 22 3M
- 23 Biofact
- 24 Dental Protection
- 25 MSD
- 26 Bio Physis
- 27 Omega Financial  
Management
- 28 Henry Schein
- 29 Meda
- 30 3i Biomet UK
- 31 Dental Tech
- 32 Septodont

## SHOCKBUSTER

### Sports Mouthguards

WE HAVE IRELAND COVERED

**SHOCKBUSTER** mouthguards are worn by many professional rugby players throughout Ireland and UK.

**SHOCKBUSTER** is a brand name custom made mouthguard supplied by your dentist.

**SHOCKBUSTER** mouthguards are designed to be tough, impact absorbing, resilient, close fitting and retentive, tasteless and odourless and suitable for use in any sport.

Suitable for junior and senior players.

Contoured and smooth at the border edges to ensure comfort for the wearer.

**SHOCKBUSTER** comes complete with name in guard and protective case with **SHOCKBUSTER** logo for storage.

Boil + bite mouthguards from sports shops are not recommended as often are a very poor fit and can block the airway if a blow is received causing suffocation and breathing difficulties.

Available in all team colours & clear.

**McDowell + Service Dental Laboratory LTD**  
 4c, Dargan Court, Dargan Crescent, Belfast, BT3 9JP  
 Tel: 02890370708 • From R.O.I. Tel: 04890370708  
 email: enquiries@mcdowell-service.com • website: mcdowell-service.com

**DON'T MISS...****DENTAL TEAM DAY FRIDAY** APRIL 19

**Mr David Brophy**  
Principal Conductor,  
RTÉ Concert Orchestra

4.30 – 5.30

**The human symphony**

Become a musician, improviser, and composer in this uniquely stimulating session. Initially exploring the amazing sound world available to us all, this provocative workshop will quickly transform the participants into a multi-grouped human orchestra. Using elemental forms of expression available to all humans, each group will develop, create and perform a new composition incorporating singing, vocalisation and movement. The workshop will culminate in the première of the Irish Dental Association's Human Symphony.

Conductor with the RTÉ Concert Orchestra, where the audience will throw caution to the winds, lose their inhibitions and work together. Saturday's sessions will cater to each professional group, with parallel sessions for dentists and separate sessions for nurses, technicians and

hygienists. The dentists' programme will address an impressive array of clinical topics, from resin restorations and cross-infection control, to bisphosphonates and dental traumatic injuries. Dental nurses will cover the best ways to deliver oral health, and a discussion on the

**International** strength  
and experience

**Local** knowledge  
and expertise



- We have the largest team of dento-legal advisers and a panel of local dental advisers based in Ireland
- Over 75% of dentists in Ireland are members of Dental Protection

- We have discounted subscriptions for IDA members
- Our RiskCredits scheme rewards members who actively try and improve their knowledge of risk management

Membership information from  
[www.dentalprotection.org/ireland](http://www.dentalprotection.org/ireland)

Dental Protection is a division of The Medical Protection Society Limited. Registered in England No. 2374160. A company limited by guarantee 33 Cavendish Square, London W1G 0PS, UK. MPS is not an insurance company. All the benefits of membership of MPS are discretionary as set out in the Memorandum and Articles of Association. 03/13



## DON'T MISS... DENTISTS' DAY SATURDAY APRIL 20



**Professor Klaus Lang**  
*Professor Emeritus University of Berne and  
Professor of Implant Dentistry,  
University of Hong Kong*

2.00 – 3.00

### What is the value of the tooth? What is its longevity?

Answering these questions is certainly not an easy enterprise and probably best dealt with by stating: "It depends". However, for the practising dentist a relatively reliable answer is of utmost importance, especially when reconstructions are planned to restore adequate function, obtain satisfying aesthetics, and obtain and maintain oral health. Therefore, the questions will be answered for various situations.

1. New techniques in debridement
2. When to refer to a specialist

future of dental nursing. Technicians can avail of lectures on ceramics, new clinical technology and finance. The hygienists' programme will feature lectures on referral to specialists, medical emergencies, and caring for the smile makeover generation.

### Clinical audit workshops

The IDA's Quality and Patient Safety Committee has expanded its offering of clinical audit workshops to include both hand hygiene and waste management. These workshops aim to promote awareness and

# COMPONEER™

Surprise your patients with a new smile – in only one session!

Innovative. Time-saving. Surprisingly easy. COMPONEER is the Direct Composite Veneering System used for quick, easy and save restorations of single or multiple teeth. This offers new perspectives for you and your patients. So both of you have a reason to smile.

[www.componeer.info](http://www.componeer.info)

## THE SMILE TO GO.

NEW, NOW ALSO AVAILABLE:



**XL size:** Individualisation made easy with extra size XL COMPONEER



**Premolar:** COMPONEER now also available for premolars

### COMPONEER™ benefits:

No laboratory required | One session | Naturally aesthetic corrections using freehand technique | Easy application with prefabricated composite veneers | Brilliant result | Attractive added value

FreePhone 0500 295454 (Eire: 1-800-936028)  
Ext. 223 Julie or 224 Chris

Gold Sponsors  
of IDA Annual  
Conference  
2013



COLTENE®

# Biodentine™

The first and only dentine substitute in a capsule



As the **first all-in-one** biocompatible and bioactive **dentine substitute**, Biodentine™ fully replaces dentine wherever it's damaged.

Biodentine™ helps the remineralization of dentine, preserves the pulp vitality and promotes pulp healing. It replaces dentine with similar biological and mechanical properties.

Improving on **Biodentine™** clinical implementation, you can now bond the composite onto Biodentine™ in the same visit and perform the **full restoration in a single session**.

To enjoy the clinical benefits of the first and only dentine substitute in a capsule, ask your dental distributor for Biodentine™.

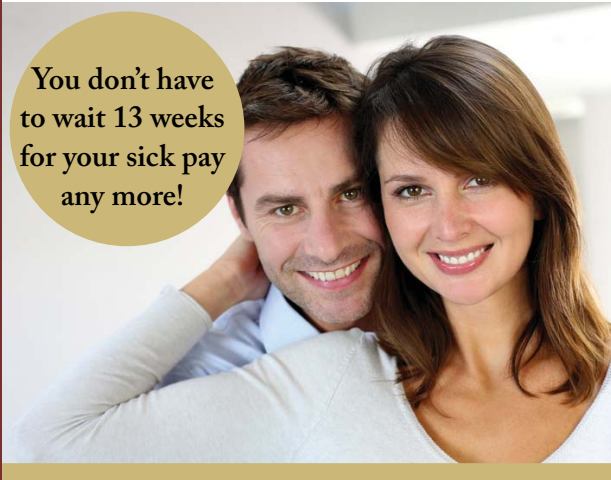
[www.septodont.co.uk](http://www.septodont.co.uk)  
Tel: +44 (0)1622 695520



# DAY 1

## INCOME PROTECTION

You don't have to wait 13 weeks for your sick pay any more!



**Income Protection – now with no deferred period for dentists.**

- No Deferred Period
- Full Tax Relief on Premiums
- Cover to Age 65
- New Applicants Under 56



Omega Financial Management

**Call us on 1850 260 261**

**Email: [day1@omegafinancial.ie](mailto:day1@omegafinancial.ie)**

OFM Financial Ltd. T/A Omega Financial Management  
is regulated by the Central Bank of Ireland.

[www.omegafinancial.ie](http://www.omegafinancial.ie)

ensure compliance with HIQA and Health and Safety Authority standards. Workshops are open to all members of the dental team and will take place on Friday and Saturday mornings:

#### **Hand hygiene**

Friday, 11.00am-11.30am

Saturday, 9.45am-10.15am

#### **Waste management**

Friday, 12.20pm-1.00pm

Saturday, 10.30am-11.00am

#### **Social programme**

This year's social programme places an emphasis on outdoor activity, with the 5k Fun Run and the President's Golf Competition, but there is plenty of indoor fun too. On Friday evening, the annual trade show party brings delegates and trade show sponsors together from 5.30pm to 7.30pm for a lovely start to the weekend. Later, there will be music and craic in the Radisson, presided over by the resident Piano Man. Early risers on Saturday can participate (or just come along to cheer) in the newly reinstated Fun Run in aid of Simon. The fun starts at 8.00am and there are great prizes on offer. Registration is €20 to have fun and raise money for a terrific cause.

No Annual Conference would be complete without the Annual Dinner on Saturday evening. This year's black tie event will commence with drinks at 7.30pm, followed by dinner and dancing from 8.15pm. Guest of honour Alex White TD, Minister of State for Primary Care, will address guests.

Those who still have some reserves of energy after the educational and social rigours of the weekend can take part in this year's President's Golf Competition at the beautiful Oughterard Golf Club on Sunday. Playing in three balls, tee times begin at 11.30am and green fees are €40. Delegates, accompanying persons and trade exhibitors are welcome to participate, but only registered delegates can win the President's Prize.

#### **Awards**

The two main awards traditionally presented at the Annual Conference return this year, as do our table and poster demonstrations, which will be held from 2.30-5.00pm on Friday, April 19.

#### **Dr Joe Moloney Award**

The Dr Joe Moloney Award is kindly sponsored by the Dental Health Foundation. A beautiful glass trophy will be awarded to the presentation judged as best table demonstration.

#### **Tony Costello Memorial Medal**

The Tony Costello Memorial Medal is awarded to a table demonstration or poster presentation of not more than 10 minutes' duration on a subject applicable to dental practice. Each of the three dental schools may enter a team of a maximum of two people.



# Get a quote today on our exclusive schemes specially designed for members of the IDA

## IDA Car, Home and Dental Surgery Insurance Schemes

At Glennon, we're committed to giving you the right cover at the right price. Our exclusive offers are available to IDA members and their spouses or partners.

It's never been easier to get your IDA Scheme quotes.

Simply call 1890 812221 or get a Quick Quote in less than 30 seconds and buy online at [ida.glennons.ie](http://ida.glennons.ie) or email [ida@glennons.ie](mailto:ida@glennons.ie) and find out what we can do for you.

## New products launched by Voco

### CleanJoy prophylaxis paste

CleanJoy is the new tooth cleaning and polishing paste used for professional tooth cleaning and polishing within the framework of prophylactic treatment. This paste is used to remove soft and hard plaque as well as extrinsic staining caused for example, by tea, coffee or tobacco. CleanJoy is also used for cleaning and

polishing tooth surfaces as well as restorations as part of professional tooth cleaning. In addition, CleanJoy is suitable for use before applying whitening gel or after removing orthodontic appliances. CleanJoy is simple to use and can be applied with any commercially available cup or small brush.



### Meron – Radiopaque glass ionomer luting cement

Meron is a radiopaque glass ionomer luting cement which comes in capsules for direct application. This material is characterised by good rheological

properties, high levels of stability and compressive strength, a low film thickness (16-20 µm), in addition to high translucency and fluoride release. Voco claims the new application capsule contains significantly more material than comparable products of other manufacturers and has an additional benefit to offer.

Meron is designed for luting indirect restorations of different types: metal-based crowns, bridges, inlays and onlays, high-strength all-ceramic crowns and bridges as well as metal-based and high-strength all-ceramic crowns and bridges on implant abutments. Meron is additionally suitable for luting metal root posts and indirect metal post core build-ups, prefabricated steel crowns and orthodontic bands.

In its new application capsule Meron now offers a working time of around three minutes and a curing time of three to seven minutes. This means that application and luting are completed quickly, after just six to 10 minutes. Postoperative sensitivity does not generally occur with this product.



### Control Seal - highly filled, transparent fissure sealant

This new fissure sealant from Voco is being launched as a versatile all-rounder. One new feature is its transparency, which allows for continuous control of the seal. Offering a filler content of 55% by weight, according to Voco, Control Seal is thus the only fissure sealant on the market that combines transparency with the stability of an opaque sealant. In addition, the transparency of this product allows for the use of diagnostic methods based on laser fluorescence. This light-curing, composite-based fissure sealant is designed to seal fissures and pits, to face damaged enamel surfaces, to cover predilection sites, e.g., during the course of orthodontic treatments and to seal composite or cement fillings as a protective layer against moisture. Control Seal is additionally suitable for sealing deciduous teeth as well as for extended fissure sealing.



### Dual-curing universal adhesive

With the new dual-curing SingleDose Futurabond U, Voco is now launching what it claims is the market's only truly universal adhesive in a disposable applicator. Besides the simple handling of SingleDose, the new Futurabond U offers practitioners an outstanding range of options for application, self-etch, selective-etch or total-etch: Futurabond U allows practitioners to freely select how they wish to condition the dental hard tissue, depending on the individual clinical situation and their preferred way of working. Applied in a single layer, this new universal adhesive creates a strong bond to enamel and dentine, thus ensuring a durable, gap-free bond between the dental hard tissue and the restorative material. This universal adhesive is fully compatible with all light-curing, dual-curing and self-curing methacrylate-based composites and is suitable for both direct and indirect restorations – and without any additional activator for dual-curing. The patented SingleDose guarantees fast, simple working as mixing errors are ruled out from the start, and the product is very hygienic.



## 2013 Sensodyne Sensitive Dentist of the Year

The *Journal of the Irish Dental Association* and GSK are teaming up again for the superb Sensodyne Sensitive Dentist of the Year Awards. This is the programme that gives patients the opportunity to express their appreciation for the care and treatment they receive from their dentist.

Last year, more than 1,000 patients nominated their dentist and the judges described the entries as a magnificent endorsement of the high standards of care being provided by the Irish dental profession. Details of the 2013 awards will be available on the GSK stand at the IDA Annual Conference, but the easiest way to get your awards pack is to return the pre-paid postcard which is on the wrap around the cover of this edition of the Journal.

Last year, Dr Gillian Smith, took the top Award for her exceptional care of an autistic adult, Neal Dhondt, whose mother gave evidence of the outstanding care provided by Dr Smith and her nurse, Sharon McAllister. Drs Hannah Flynn, Robin Foyle, David Vard and Alistair Woods were all highly commended for outstanding care of their patients.



Michelle Darlington, Paul Hutton and Rory Brennan of GSK at this years awards ceremony and below the previous winners.



Niall Sharkey Freda Guiney Sarah McMorro Gillian Smith

## Antonio Banderas teams up with Wrigley

A new TV advertising campaign launched by Wrigley in February is encouraging consumers to chew sugarfree gum after eating and drinking, especially when they are on-the-go. Its theme – ‘Break Up With Lingering Food’ – focuses on how foods linger in the mouth and can threaten oral health, with an amusing encounter between celebrity Antonio Banderas and the ‘Food Gang’ – a group of mischievous creatures that represents some of the foods that linger longer.

Independent research shows that chewing sugarfree gum for 20 minutes after meals and snacks can help teeth healthy because the increased production of saliva helps clean the mouth and neutralise the plaque acids that may damage tooth enamel. The new high profile campaign is part of Wrigley’s commitment to promoting the proven benefits of chewing sugarfree gum to consumers as an effective part of their oral healthcare routine.

Louisa Rowntree, Wrigley Oral Healthcare Programme Manager in the UK and Ireland said: “Wrigley is spreading the message to Irish consumers that chewing sugarfree gum benefits oral health, especially for people who are busy and eating and drinking on-the-go. The Wrigley Oral Healthcare Programme supports this through our work with dental professionals, to help them understand and

educate their patients about the benefits of chewing and encourage them to eat, drink, chew.”

For more information about the Wrigley Oral Healthcare Programme please visit the dedicated site for dental professionals [www.wrigleyoralhealthcare.ie](http://www.wrigleyoralhealthcare.ie).



Antonio Banderas on the set of the new Wrigley advertisement.

CORK 100

## Prosthodontics at the crossroads: is this a 'golden age'?

Oral health still needs to be integrated into general healthcare, and dentists need to advocate for that.

*Journal of the Irish Dental Association 2012; 59 (2): 84–86*



**FIGURE 1:** Mandibular fixed implant prosthesis placed in 1987, showing extra-oral view (left) and occlusal view (right). Components have changed over the years but the survival of this type of prosthesis has not improved significantly.

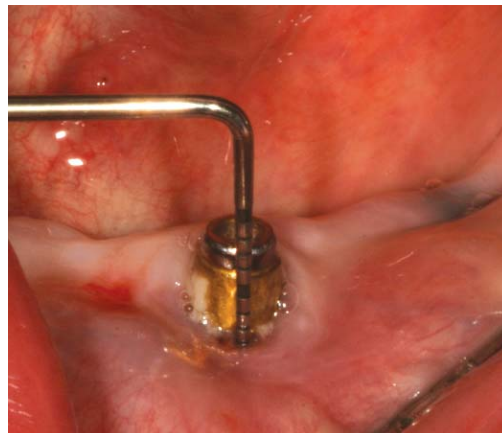
Congratulations to the Cork University Dental School on its first 100 years of dental education and service to the community. It is important to celebrate the achievement of the Dental School, which is flourishing as never before, as well as recognising the many individual contributions on which the current successes have been built. Such an occasion invites reflection on where we have come from and, indeed, if we are going in the right direction. Looking at the areas of dentistry that have had the most impact in the scientific literature in the past 25 years, it is clear that the interface between oral health and general health still generates the most interest, as for example did the possibility of a link between periodontal disease and cardiovascular disease.<sup>1</sup> Perhaps this is a lesson we have to keep re-learning. What happens in the mouth influences, and is influenced by, the body as a whole. Fundamentally, we should be taking care of people, not just their teeth.

### The implant evolution

When we think of prosthodontics we tend to

believe that it has undergone a sea change in the past few decades, with the development of dental implants having the greatest impact in the dental literature. Though the barrage of advertisements for dental implants suggests a revolution, the evidence would suggest more a process of evolution. The development of dental implants has been well documented in the scientific literature and successful treatment of edentulous patients by the Gothenburg group was recorded more than 30 years ago.<sup>2</sup> Many patients are still treated according to these protocols with incremental improvements in technology (Figure 1). However, we have learned to extend the use of dental implants into more challenging situations, including immediate or early loading, and the boundaries of what is clinically predictable have become clearer.<sup>3</sup> Notably, implant design has greatly converged over the years, suggesting that form is more closely fitting function than ever before. Despite this progress, we should bear in mind that technical and biological complications are a very common part of

**Brian O'Connell**  
BDS MS PhD FACP FFD FTCD  
Professor of Restorative Dentistry  
Trinity College Dublin



*FIGURE 2: Fracture and wear of veneering material remain the most common complications with implant restorations (far left), while peri-implantitis can lead to implant loss and may be difficult to manage (left).*

implant therapy, from the simple mechanical failures (**Figure 2a**) to the more intractable problems, such as peri-implantitis (**Figure 2b**).<sup>4</sup> Far from being a once-off 'repair job', implant restorations themselves commit patients and dentists to a long-term care relationship.

The very success of implant treatment should beg the question of why so many natural teeth need to be replaced. Why is it that periodontal disease still rages through the adult population, despite decades of research on its cause and prevention? How can it be that so many teeth are lost to dental caries, when we have long considered this to be a preventable disease? To any independent observer it would seem strange that so much time, energy and money has been invested in the replacement of teeth, rather than implementing the strategies to prevent their loss in the first place.

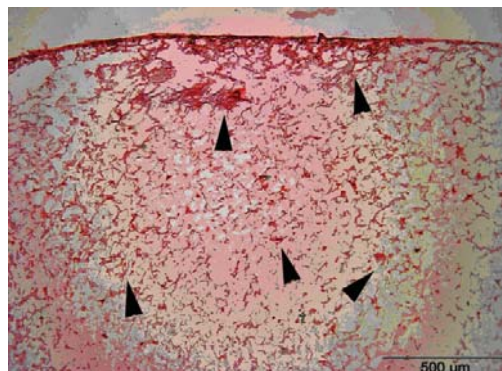
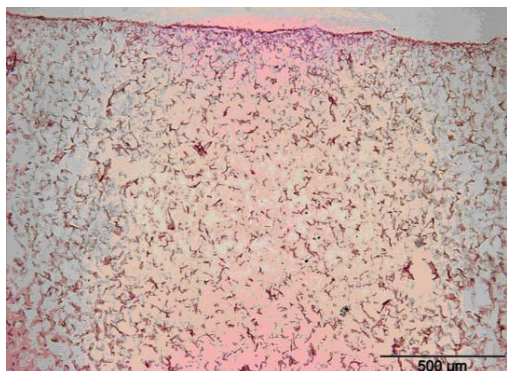
### Looking at the whole patient

One of the positive developments in the past 20 years of restorative dentistry has been the consideration of the whole patient when assessing their oral status and, especially, the outcome of treatment.<sup>5</sup> We have become much more aware of how oral health impacts on the daily activities of our patients, and this is particularly true of the elderly and the edentulous. We are learning that patient-centred outcomes are often the most important way to measure the success of treatment.<sup>6</sup> It is now well documented that many edentulous patients suffer limitations in eating and speaking that can lead to wider psychological discomfort and difficulties with social interactions.<sup>7</sup> The relative success of fairly simple treatments, such as implant-retained

mandibular overdentures, has been demonstrated in alleviating many of these problems for patients and restoring some degree of confidence and independence.<sup>8</sup> However, such treatment is still not available as part of our public health system, and so is denied to most of our elderly people. We have to ask ourselves how much of a success we can claim for treatment that is effective but is not available to those who need it most. This also frames the larger question of the place of oral health in our health service; who advocates for those most in need and how treatment priorities are derived. It does not seem that the implementation of oral healthcare has been keeping pace with developments in treatment.

### Future research and development

Undoubtedly, we have seen significant improvements in the replacement of missing teeth over the past 20 years or so. The historic options of removable and fixed prostheses have been greatly expanded by the use of dental implants. Fixed implant restorations have the advantage of not directly involving the neighbouring teeth. Particularly in patients who have good supporting structures remaining, the use of implant restorations has achieved good aesthetic and functional success.<sup>9</sup> Nonetheless, clinical complications occur frequently, and can be expected in about one-third of fixed implant restorations by five years.<sup>10</sup> The use of high strength ceramic materials is increasingly common for implant abutments and restorations due to their aesthetic properties, patient acceptability and cost effectiveness.<sup>11</sup> However, long-term clinical performance of these



*FIGURE 3: Bioengineered materials to support bone growth. Collagen-glycosaminoglycan scaffold seeded with bone marrow stem cells and incubated for one day (a) or 21 days (b). Sections are stained with Alizarin Red to demonstrate the formation of calcified tissue over the time period (arrows). Images courtesy of Dr Brendan Grufferty.*

materials has yet to be proven. An even greater challenge for restorative dentistry is the replacement of deficient hard and soft supporting structures. Despite a greater understanding of the biology of oral tissues and a plethora of augmentation techniques, the regeneration of bone and mucosa after tooth loss remains unpredictable at best. Little long-term data exists on the success and stability of regenerated tissues and this is currently the weak link in oral rehabilitation.

In parallel with clinical research, basic science has sought to understand and improve approaches to tooth agenesis and loss. The use of bone precursor cells and bioengineered scaffolds shows some promise for the regeneration of bone to accompany implant placement (Figure 3a and 3b).<sup>12</sup> A great deal of work has been done on understanding the development of the dentition, from the progenitor cells involved to the chemical signals that regulate cell growth and differentiation. It is encouraging that some genetic defects that lead to missing teeth (anhidrotic ectodermal dysplasia) have been reversed in animals by using recombinant proteins.<sup>13</sup> The generation of new teeth from stem cells has been a subject of considerable research effort over the past 10 years.<sup>14</sup> Much progress has been made in demonstrating the feasibility of regrowing 'bio-teeth' from adult marrow-derived cells, though this has yet to be made a clinical or financial reality.<sup>15</sup> Nonetheless, we must bear in mind that historically, clinically significant discoveries such as high-speed instrumentation, acid etching and osseointegration have taken several decades to enter clinical practice. Given the global research budgets and publications today, we should be optimistic about future advances in oral healthcare.

So, an assessment of the current state of prosthodontics suggests a step in our evolution rather than a major turning point. On the positive side, the technology at our disposal is improving all the time and delivering better results for patients. Yet, our patients are still losing far too many teeth from preventable diseases and then are not able to avail of the treatment that would benefit them most. Oral health remains to be truly considered and treated as part of general health, and we must seize every opportunity to advocate for oral health.

## References

1. Beck, J., Garcia, R., Heiss, G., Vokonas, P.S., Offenbacher, S. Periodontal disease and cardiovascular disease. *J Periodontol* 1996; 67 (10 Suppl): 1123-1137.
2. Adell, R., Lekholm, U., Rockler, B., Brånemark, P.-I. A 15-year study of osseointegrated implants in the treatment of the edentulous jaw. *Int J Oral Surg* 1981; 10: 387-416.
3. Gallucci, G.O., Morton, D., Weber, H.P. Loading protocols for dental implants in edentulous patients. *Int J Oral Maxillofac Implants* 2009; 24 (Suppl.): 132-146.
4. Bozini, T., Petridis, H., Garefis, K., Garefis, P. A meta-analysis of prosthodontic complication rates of implant-supported fixed dental prostheses in edentulous patients after an observation period of at least five years. *Int J Oral Maxillofac Implants* 2011; 26 (2): 304-318.
5. Allen, P.F., McMillan, A.S. A longitudinal study of quality of life outcomes in older adults requesting implant prostheses and complete removable dentures. *Clin Oral Implants Res* 2003; 14 (2): 173-179.
6. Feine, J.S., Dufresne, E., Boudrias, P., Lund, J. Outcome assessment of implant-supported prostheses. *J Prosthet Dent* 1998; 79: 575-579.
7. Allen, P.F., McMillan, A.S., Walshaw, D. A patient-based assessment of implant-stabilised and conventional complete dentures. *J Prosthet Dent* 2001; 85 (2): 141-147.
8. Harris, D., Hofer, S., O'Boyle, C.A., Sheridan, S., Marley, J., Benington, I.C., et al. A comparison of implant-retained mandibular overdentures and conventional dentures on quality of life in edentulous patients: a randomised, prospective, within-subject controlled clinical trial. *Clin Oral Implants Res* 2013; 24 (1): 96-103.
9. Jung, R.E., Zembic, A., Pjetursson, B.E., Zwahlen, M., Thoma, D.S. Systematic review of the survival rate and the incidence of biological, technical and aesthetic complications of single crowns on implants reported in longitudinal studies with a mean follow-up of five years. *Clin Oral Implants Res* 2012; 23 (Suppl. 6): 2-21.
10. Pjetursson, B.E., Thoma, D., Jung, R., Zwahlen, M., Zembic, A. A systematic review of the survival and complication rates of implant-supported fixed dental prostheses (FDPs) after a mean observation period of at least five years. *Clin Oral Implants Res* 2012; 23 (Suppl. 6): 22-38.
11. Lops, D., Bressan, E., Chiapasco, M., Rossi, A., Romeo, E. Zirconia and titanium implant abutments for single-tooth implant prostheses after five years of function in posterior regions. *Int J Oral Maxillofac Implants* 2013; 28 (1): 281-287.
12. Alhag, M., Farrell, E., Toner, M., Lee, T.C., O'Brien, F.J., Claffey, N. Evaluation of the ability of collagen-glycosaminoglycan scaffolds with or without mesenchymal stem cells to heal bone defects in Wistar rats. *Oral Maxillofac Surg* 2012; 16 (1): 47-55.
13. Casal, M.L., Lewis, J.R., Mauldin, E.A., Tardivel, A., Ingold, K., Favre, M., et al. Significant correction of disease after postnatal administration of recombinant ectodysplasin A in canine X-linked ectodermal dysplasia. *Am J Hum Genet* 2007; 81 (5): 1050-1056.
14. Young, C.S., Terada, S., Vacanti, J.P., Honda, M., Bartlett, J.D., Yelick, P.C. Tissue engineering of complex tooth structures on biodegradable polymer scaffolds. *J Dent Res* 2002; 81 (10): 695-700.
15. Ohazama, A., Modino, S.A., Miletich, I., Sharpe, P.T. Stem cell-based tissue engineering of murine teeth. *J Dent Res* 2004; 83 (7): 518-522.

## North Cork HSE orthodontic treatment waiting list 2009–2010: retrospective audit of patient records

### Précis:

In 2009/2010, 57% of patients on the North Cork HSE orthodontic treatment waiting list were female and the most predominant malocclusion was Class II division 1 (40%).

### Abstract:

**Purpose of the study:** To evaluate the case profile and verify the treatment eligibility (based on the modified IOTN) from written case records, of patients accepted for orthodontic treatment from the North Cork area of HSE South.

**Materials and methods:** A data collection form was designed and applied to the written case records of 200 consecutive patients accepted for orthodontic treatment in 2009/2010. Data relating to the IOTN (DHC and AC, where relevant) were provided by a calibrated examiner.

**Results:** Based on the written case records, most (57%) of the treatment cohort were female and had an average age of 14 years and two months. The predominant malocclusion was Class II division 1 (40%). The prevalence of Class III malocclusion was high at 18%. A total of 61% of patients were in grade 5 and 36% in grade 4. The majority of patients in each of these grades fell into DHC 5a (32%), followed by 5i (24%) and 4d AC>8 (16%).

**Conclusions:** Written case records conclude that patients accepted for orthodontic treatment from the North Cork area of HSE South were predominantly female. Class II division 1 malocclusion was the most common accepted for treatment. These records verify that those patients accepted for orthodontic treatment satisfy the eligibility criteria for HSE treatment.

*Journal of the Irish Dental Association 2012; 59 (1): 87–90*

**Timothy P McSwiney**  
BDS MFD RCS(Ire)

Postgraduate Orthodontic Student,  
Postgraduate Orthodontic Unit,  
Cork University Dental School  
and Hospital,  
Wilton,  
Cork.

**Declan T Millett BDS** DDS  
FDSRCPS(Glasg) FDSRCS(Eng)  
DOrthRCS(Eng) MOrthRCS(Eng)

Professor of Orthodontics/Consultant,  
Cork University Dental School  
and Hospital,  
Wilton,  
Cork.

**Address for correspondence:**  
Timothy McSwiney  
E: mcswineytim@yahoo.ie

### Introduction

Guidelines were introduced in 1985 to assess orthodontic treatment eligibility in the Republic of Ireland (ROI). These guidelines, however, presented difficulties, in that there were varying interpretations in operation throughout the country and some high need

cases were not included.<sup>1</sup> It was recommended that they be replaced by an internationally validated index (the Index of Orthodontic Treatment Need; IOTN).<sup>1</sup> The IOTN has two components, a dental health and an aesthetic component. The dental health component (DHC) has five categories

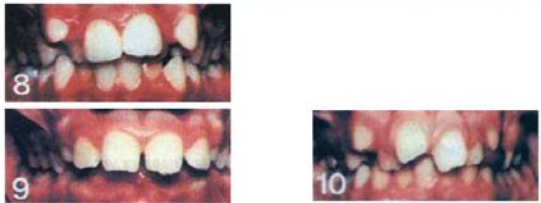
**Grade 5 Treatment required**

- 5.a Increased overjet > 9 mm
- 5.h Extensive hypodontia (2 or more teeth missing in any quadrant excluding third molars) requiring pre-restorative orthodontics. Amelogenesis imperfecta and other dental anomalies which require pre-prosthetic orthodontic care. Incisors lost due to trauma assessed on a case by case basis
- 5.i Impeded eruption of teeth (apart from 3rd molars and second premolars) due to crowding, displacement, the presence of supernumerary teeth, retained deciduous teeth, and any pathological cause
- 5.m Reverse overjet > 3.5 mm with reported masticatory and speech difficulties
- 5.p Defects of cleft lip and palate
- 5.s Submerged deciduous teeth – arrange removal of teeth but orthodontic treatment not necessarily provided

**Grade 4 Treatment required**

- 4.b Reverse overjet > 3.5 mm with no masticatory or speech difficulties
- 4.c Anterior or posterior crossbites with > 2 mm discrepancy between the retruded contact position and intercuspal position
- 4.d Severe displacements of anterior teeth > 4 mm but only with Aesthetic Component of 8 to 10 (see photographs below).
- 4.e Extreme lateral or anterior open bites > 4 mm
- 4.f Increased and complete overbite with gingival or palatal trauma
- 4.l Posterior lingual crossbite with no functional occlusal contact in an entire buccal segment.
- 4.m Reverse overjet > 1 mm but < 3.5 mm with recorded masticatory and speech difficulties

**Aesthetic Component 8 – 10 NB applies to 4d Category only**



Additional Eligibility Criteria – assessed on a case by case basis.

- Children who are in the care of the Health Service Executive and do not fall under any of the other eligibility criteria.
- Children with special needs who are referred by the primary dental care special needs service or a paediatric dental consultant.

FIGURE 1: HSE Orthodontic Eligibility Guidelines.

ranging from 1 (no need for treatment) to 5 (very great need), and the aesthetic component (AC) ranges from 1 (little aesthetic handicap) to 10 (great aesthetic handicap). Due to resource limitations,<sup>2</sup> the IOTN has been modified for use in HSE orthodontic units.<sup>1</sup> As part of the modified IOTN (Figure 1), only patients categorised to grade 5 DHC or selected grade 4 components are regarded as of sufficiently high need to be treated in the public health orthodontic service. An individual in category 4d will only be accepted for treatment if there is an AC of grade 8 or greater. Since July 2007, the ‘modified’ IOTN has been used to assess the treatment eligibility of HSE orthodontic patients. Only one previous orthodontic audit carried out in the ROI has examined the IOTN grades,<sup>3</sup> and similarly one audit has examined the profile of patients accepted for orthodontic treatment.<sup>4</sup> Both of these audits were implemented when the 1985 guidelines were in operation. No audit appears to have been undertaken since the introduction of the modified IOTN within the HSE orthodontic service.

**Table 1: DHC grades of sample**

		% of sample
Grade 5	Very great	61%
Grade 4	Great	36%
Grade 3	Moderate	3%
Grade 2	Little	0%
Grade 1	None	0%
Total		200

The purpose of this audit was to evaluate the case profile and verify the treatment eligibility (based on the modified IOTN), from written case records, of patients accepted for orthodontic treatment from the North Cork area of HSE South.

**Aims of the audit**

- To analyse, based on written case records, the age, gender and malocclusion distribution of patients accepted for orthodontic treatment in the North Cork area of the HSE South.
- To verify, from written case records, the treatment eligibility (based on the modified IOTN) of patients accepted for treatment.

**Gold standard**

It was agreed that written case records should verify that patients accepted for orthodontic treatment are in grade 4 or 5 of the modified IOTN. Patients in IOTN grades 1-3 may be eligible subject to justifiable reasons, for example those with special needs or children in the care of the HSE.<sup>1</sup>

**Materials and methods**

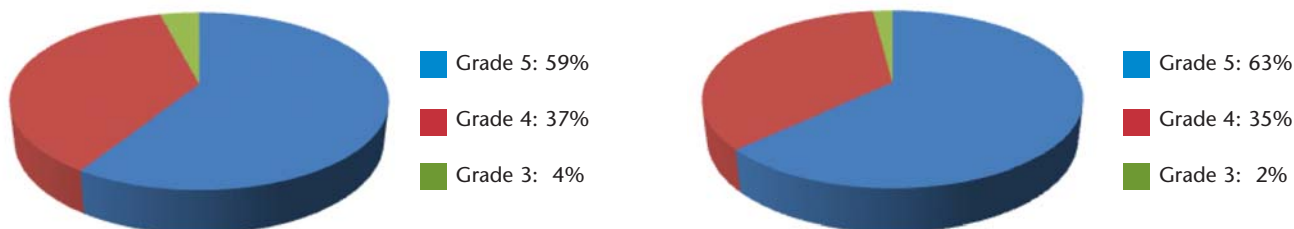
The records of 200 consecutive patients accepted for treatment at the Postgraduate Orthodontic Unit, Cork University Dental School and Hospital (CUDSH), in 2009/2010, were examined retrospectively. These represented approximately 35% of the orthodontic treatment waiting list in the North Cork area of HSE South. All patients had been assessed and scored for the DHC of the IOTN by two orthodontic consultants and one orthodontic specialist, who had been calibrated in the use of the IOTN. Patients who reported a history of previous orthodontic treatment were excluded from the study. Data collection, performed by a single operator, was based on written case records. This operator was not involved in ascribing the IOTN DHC score to any of the patients. Radiographs were consulted to confirm the presence/absence and number of unerupted teeth. Assessment of dental decay was not undertaken in this audit.

A form was designed to facilitate data collection. The data collected were as follows:

- patient age;
- gender;
- incisor relationship based on BSI classification;<sup>5</sup> and
- IOTN DHC and AC (where relevant).

Child patients were defined as those who had not yet attained their





FIGURES 2(a) males and 2(b) females: Gender distribution of DHC grades.

eighteenth birthday. To assess examiner reliability in data collection, the records of every twentieth patient were re-recorded and compared with the original data one month after initial entry. All data were stored in accordance with CUDSH data protection policy.

**Results**

No errors were recorded with respect to data entry, indicating high reliability. Of the 200 patient records examined, 57% were female and 43% were male. Children accounted for 90% of the sample. The child patients ranged in age from nine years and two months to 17 years and nine months, with a mean age of 13 years and nine months. The overall mean age (children and adults) was 14 years and two months. The most common malocclusion was Class II division 1 (40%). The prevalence of Class III malocclusion was high at 18%. A total of 27% of patients were Class I and 15% were Class II division 2.

The results of the categorisation according to rating the DHC of the modified IOTN are demonstrated in **Table 1**, with 61% in grade 5 and 36% in grade 4. No instances of grade 1 or 2 were recorded in the sample. Five cases of DHC grade 3 were accepted for treatment. Four of these cases were patients with special needs and one was a child in the care of the HSE. A total of 63% of female patients and 59% of male patients were in grade 5. A total of 35% of female patients and 37% of male patients were in grade 4 (**Figure 2**). **Figure 3** shows the breakdown of malocclusion according to each DHC of the modified IOTN. The majority of patients had an increased overjet of greater than 9mm (5a), accounting for 32% of cases. Patients with impacted permanent incisors and canines (5i) were the next most common group, representing 24% of the sample. Within grade 4, most patients (16%) were accounted for by a DHC of 4d AC>8.

**Discussion**

The demand for orthodontic treatment in the ROI has increased in recent years.<sup>6</sup> The North South Survey of Children’s Oral Health in Ireland, 2006, revealed that by the age of 15 years, 23% of those examined had received orthodontic treatment. Many of these treatments were provided through the Public Health Service.<sup>1</sup> No contemporary comparable data with respect to case profile and malocclusion mix exists for other HSE units in the ROI. An Eastern Health Board audit dates from the 1990s<sup>4</sup> and is likely to have a different case profile and malocclusion mix. Only broad comparisons can be made and these should be interpreted with some caution. The sex distribution of orthodontic patients requiring treatment has been studied extensively.<sup>4,7,8</sup> This audit showed that, based on written case records, 57% of patients accepted for orthodontic treatment from the North Cork area of HSE South were female. This figure is comparable to 59.4% found in the Eastern Health Board audit in

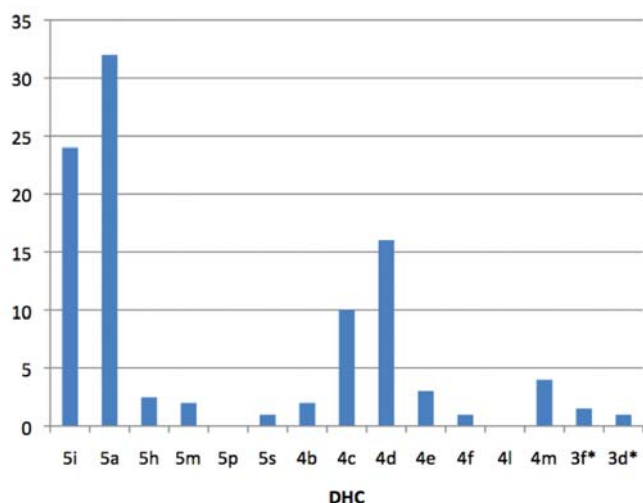


FIGURE 3 (above and below): Breakdown of malocclusion according to DHC of modified IOTN. \*eligible as patients in this category were under the care of the HSE.

	5i	5a	5h	5m	5p	5s	4b	4c	4d (AC≥8)	4e	4f	4l	4m	3f*	3d*
ADULT	5	6	1	1	0	0	0	1	3	2	0	0	1	0	0
CHILD	43	58	4	3	0	2	4	19	29	4	2	0	7	3	2
%	24	32	2.5	2	0	1	2	10	16	3	1	0	4	1.5	1

1998.<sup>4</sup> Similarly in the UK, the Children's Dental Survey in 2003 reported that a greater proportion of girls were undergoing orthodontic treatment.<sup>7</sup> The overall mean age reported in our audit was 14 years and two months. This was similar to that found in another Health Board area, where the mean age of patients on the orthodontic waiting list was 14.6 years.<sup>4</sup>

Class II division 1 (40%) was the most common malocclusion recorded, which compares to 46.7% in the Eastern Health Board study.<sup>4</sup> A disproportionate number of Class III cases (18%) relative to their prevalence in the general population (3%)<sup>9</sup> were accepted for treatment. In contrast, the prevalence of Class III malocclusion was 11.3% elsewhere in the ROI.<sup>4</sup> This could reflect a regional variation in malocclusion.

On analysis of the written case records, it was observed that 97% of patients accepted for orthodontic treatment were in grades 4 or 5 of DHC IOTN. This verifies that those patients on the orthodontic treatment waiting list satisfy the eligibility criteria for HSE treatment. In this audit, 3% of cases accepted for treatment fell into the moderate need grade category (grade 3). These cases were eligible for orthodontic treatment as the HSE grants all children in the care of the HSE (residential care, foster care and housed on their own up to age 21), and those with special needs, the right to specialist orthodontic care. None of the cases was IOTN score 1 or 2. It is important to be aware that the decision to provide orthodontic treatment is not based solely on indices of treatment need. Other factors such as the patient's level of oral hygiene, and internal motivation for treatment, are key considerations in the decision-making progress.

Cases with DHC 5a (32%) accounted for the greatest proportion of patients accepted for treatment. Some 24% of patients had ectopic teeth (canines or incisors) and 19% required joint oral surgery care to expose impacted teeth. This underlines a need for interdisciplinary treatment in this group. The corresponding figure in the Eastern Health Board audit was 8.8%.<sup>4</sup> It was not possible to determine the percentage of patients requiring orthognathic treatment at this stage. Given, however, the mean overall patient age of 14 years and two months, and the high percentage of Class II Division 1 patients (40%), it is likely that a modest need will exist.

## Conclusions

In the patient cohort assessed, the following conclusions can be drawn (based on the written case records):

- patients accepted for orthodontic treatment had an average age of 14 years two months and were predominantly female (57% female, 43% male);
- the most common malocclusion was Class II division 1 (40%), and the prevalence of Class III malocclusion was high (18%);
- 97% of patients were in grade 4 or 5 of the modified IOTN – the records verify that those patients accepted for orthodontic treatment satisfy the eligibility criteria for HSE treatment; and,
- the majority of patients (32%) fell into IOTN DHC 5a, followed by 5i (24%) and 4d (with AC  $\geq$ 8)(16%) – 19% of patients required joint oral surgery care.

## Recommendations

Re-audit in two years to ensure that 100% of written case records verify that patients accepted for orthodontic treatment conform to HSE eligibility criteria.

## References

1. **Orthodontic Review Group.** Orthodontic Review Group 2007: 21 – [http://www.hse.ie/eng/Publications/services/ChildrenOrthodontic\\_Review\\_Group\\_Report.pdf](http://www.hse.ie/eng/Publications/services/ChildrenOrthodontic_Review_Group_Report.pdf).
2. Response of the Orthodontic Society of Ireland to the Preliminary Report of the Competition Authority. Competition in Public services. Dentists; December 2005.
3. **O'Hanrahan, S., Macauley, D.** An audit of orthodontic referrals using IOTN as a comparison. *Journal of the Irish Dental Association* 2007; 53 (1): 29-31.
4. **Blake, M., Dowling, P.A., Garvey, M.T., McNamara, C.M.** A profile of orthodontic referrals. *Journal of Dental Research* 1998; 77: 1284.
5. **British Standards Institute.** Glossary of Dental Terms (BS4492). BSI; London, 1983.
6. **Department of Health and Children.** North South Survey of Children's Oral Health in Ireland 2006. Stationery Offices: Dublin; 2006: 77.
7. **Chestnutt, I.G., Burden, D.J., Steele J.G.** The orthodontic condition of children in the United Kingdom, 2003. *BDJ* 2006; 200: 609-612.
8. **Burden, D.J., Holmes, A.** The need for orthodontic treatment in a child population of the United Kingdom. *European Journal of Orthodontics* 1994; 16: 395-399.
9. **Todd, J.E., Lader, D.** Adult Dental Health 1998. HMSO; London.

CORK 100

## Changes in orthodontic treatment modalities in the past 20 years: exploring the link between technology and scientific evidence

### Précis

Technology drives the market in orthodontics, with claims of better results in less time. In many instances the evidence for such changes is lacking.

### Abstract

**Statement of the issue:** Is there a link between the many perceived advances in orthodontic techniques/therapy and science in the past 20 years? The purpose of this paper is to take five topics and match the perceptions with the scientific evidence. The variety of appliances and the swings in treatment philosophy have been dramatic, including the swing from extraction to non-extraction therapy, the introduction of space-age wires, appliances that grow mandibles, the introduction and extraordinary growth of Invisalign, and reduced friction brackets to reduce treatment time, all with claims by manufacturers of better results than ever before. The focus is on faster treatment, reduced visits/appointments and superior results. Most of these 'advancements' represent what has been the 'juggernaut of technology'.

**Materials and methods:** Five questions are posed, and an evidence-based approach is used to critically examine the literature in these selected topics.

**Results:** The evidence is lacking for some of the most commonly used systems and materials in orthodontic practice today.

**Conclusion:** More randomised clinical trials are needed in orthodontic practice to evaluate treatment outcomes.

*Journal of the Irish Dental Association 2012; 59 (2): 91–94*

T. Gerard Bradley BDS MS

Address for correspondence:

Dr T Gerard Bradley

Professor and Chair,

Developmental Sciences,

Marquette University School of Dentistry,

1801 W. Wisconsin Ave,

Milwaukee, WI 53233,

USA

E: thomas.bradley@marquette.edu

### Evidence-based dentistry and the pyramid of evidence

Evidence-based dentistry, as defined by the American Dental Association<sup>1</sup> and adapted by the American Association of Orthodontics, is "an approach to oral healthcare that

requires the judicious integration of systematic assessments of clinically relevant scientific evidence, relating to the patient's oral and medical condition and history, with the dentist's clinical expertise and the patient's treatment needs and preferences".

The hierarchy, or pyramid, of evidence has no universally accepted format, but there is general agreement that at the highest level, or tip, of the pyramid is systematic reviews of randomised clinical trials (RCTs), and at the lowest level is expert opinion.<sup>2</sup> The Centre for Evidence-Based Medicine (CEBM) at the University of Oxford has adapted a hierarchy of evidence from 1 to 5, with 1 as the highest and 5 as the lowest (Table 1), and grades of recommendation, with A as the highest, and D as the lowest (Table 2). In clinical practice, the challenge is that the numbers of RCTs are limited, and there are logistical and ethical issues that make such trials difficult to accomplish. However, the clinician must be able to find the highest level of evidence, and make decisions for patient care that adhere to the standard of evidence-based dentistry.

For this article, five questions were selected and, using the tools described above, the current status of the scientific evidence is reviewed.

**Table 1: Levels of evidence**

Level	Therapy/aetiology
1a	Systematic review (SR) (with homogeneity) of RCTs
1b	Individual RCT (with narrow confidence interval)
1c	All or none case series (absolute better or absolute worse)
2a	SR (with homogeneity) of cohort studies
2b	Individual cohort study (including low quality RCT, e.g., <80% follow-up)
2c	'Outcomes' research; Ecological studies
3a	SR (with homogeneity) of case-control studies
3b	Individual case-control study
4	Case series (and poor quality cohort and case-control studies)
5	Expert opinion without explicit critical appraisal, or based on physiology, bench research or "first principles"

Source: Produced by Bob Phillips, Chris Ball, Dave Sackett, Doug Badenoch, Sharon Straus, Brian Haynes and Martin Dawes, since November 1998. Updated by Jeremy Howick, March 2009 (partial table) – <http://www.cebm.net/index.aspx?o=1025>.

**Table 2: Grades of recommendation**

<b>A</b>	Consistent level 1 studies
<b>B</b>	Consistent level 2 or 3 studies or extrapolations from level 1 studies
<b>C</b>	Level 4 studies or extrapolations from level 2 or 3 studies
<b>D</b>	Level 5 evidence or troublingly inconsistent or inconclusive studies of any level

'Extrapolations' are where data is used in a situation that has potentially clinically important differences to the original study situation.

### QUESTION 1: Is non-extraction therapy more stable and less harmful than extraction of permanent teeth?

The trend in recent years has seen the extraction percentage fall from the peak of 73% in the 1960s in the US to the current level of approximately 26%.<sup>3</sup> The reasons include but are not limited to:

- the association of extractions with a detrimental effect on the profile;
- an increased risk of temporomandibular problems; and,
- non-extraction therapy with comparable stability.

However, a review of the literature does not support these claims.<sup>4,5,6</sup>

For the purpose of this paper, post-orthodontic stability was the primary focus of the literature review. Little and his group<sup>5,6</sup> at the University of Washington concluded from retrospective cohort studies looking at patients 10 years and beyond, that satisfactory mandibular anterior alignment exists in only 30% of patients with extractions. In the expansion non-extraction group, this was only 19% after ten years. In a retrospective cohort study of 98 patients,<sup>7</sup> half of whom were treated with four premolar extractions and half with non-extraction, the authors found that the incisors tended to return to the pre-treatment position, so in the extraction group the incisors proclined after being uprighted, and after non-extraction treatment they retroclined after being proclined. This was in agreement with a previous study,<sup>8</sup> which found that the initial position of the mandibular incisor is the most stable.

**Level of evidence: 3**

**Recommendation: C**

#### Summary

The weight of the evidence that is available is that non-extraction therapy could be more problematic than extraction, highlighting the importance of careful consideration of all the options. The literature points to the long-term value of retention to hold the result rather than the appliance or technique used.<sup>9</sup>

**QUESTION 2: Are Invisalign treatment results as effective as conventional fixed appliances?**

Since the introduction of the Invisalign system in 1999 (Align Technology; Santa Clara, Calif., USA), the popularity of the system in terms of sales has grown enormously. However, a systematic review in 2010 concluded that there was no evidence to either support or reject the use of the appliance.<sup>10</sup> This review had included two longitudinal trials<sup>11,12</sup> and many case reports. Subsequent to these papers, the company has modified the acrylic used and refined the use of the attachments. There is evidence to suggest that certain types of tooth movement can be accomplished with this appliance, but movement such as torquing, extrusion and bodily movement are problematic.

**Level of evidence:** 3a

**Recommendation:** C

**Summary**

The weight of evidence currently available is weak, with the majority of case reports showing a preference for less complicated cases, while more recent case reports show its use in more complex malocclusions. In view of its widespread use, randomised controlled clinical trials are needed to evaluate treatment outcomes.

**QUESTION 3: Do reduced friction brackets or self-ligating brackets (SLBs) make teeth move faster and get better treatment results than conventional edgewise (CE) brackets?**

Many advantages have been claimed regarding the use of SLBs,<sup>13,14</sup> such as:

- faster initial alignment and space closure;
- decreased treatment time with fewer appointments;
- reduced chair time;
- more alveolar bone generation;
- more expansion with less need for extractions;
- less proclination of anterior teeth;
- less pain experienced by patients;
- decreased frictional resistance and better sliding mechanics; and,
- decreased apical root resorption.

The use of SLBs among American orthodontists increased from 8.7% in 2002 to over 42% in 2008. There is not sufficient high-quality evidence to support the claims that SLBs are more efficient than CE appliances. Three systematic reviews consisting of eight randomised trials<sup>15,16,17</sup> indicate that other than time saving during archwire tie in, no other claims have been supported by scientific evidence.

**Level of evidence:** 2a

**Recommendation:** B

**Summary**

The weight of the evidence is that SLBs offer no advantage over conventional brackets in all measurable outcomes of treatment other than the time at the chair side while tying in the archwire.

**QUESTION 4: Is treatment for patients with deficient mandibles with one phase of treatment in the late mixed dentition as effective as having a growth-modifying appliance placed earlier and fixed appliances/growth modification later?**

The best available evidence is a systematic review on early orthodontic treatment for patients with prominent upper front teeth.<sup>18</sup> They selected studies that were RCTs and controlled clinical trials for children less than 16 years old. The authors narrowed their search down to three trials of 432 participants where early treatment with functional appliances was compared to no early treatment. Both functional appliances and headgear were evaluated as part of the early treatment, while the other group's treatment for prominent anterior teeth began in adolescence. The results showed no statistically significant differences in overjet, ANB, or PAR scores between the early and late treatment groups.

**Level of evidence:** 1a

**Recommendation:** A

**Summary**

The weight of the evidence is that one phase of treatment for mandibular deficiency is as effective as a two-phase approach involving intervention at an earlier age.

**QUESTION 5: Do newer generations of orthodontic wires make teeth move faster and deliver less force?**

The introduction of nickel-titanium archwires into orthodontic practice has made it the wire of choice by the majority of orthodontists for the initial levelling and aligning of teeth due to its superelasticity and springback properties. The majority of bench top and case reports over the years have highlighted the improved metallurgical properties of these wires compared to those of conventional stainless steel.<sup>19</sup> However, in one systematic review in 2010<sup>20</sup> the authors point out, after reviewing seven randomised clinical trials with 517 participants, that there is little evidence to suggest that these wires offer significant clinical advantages. They conclude that the RCTs were of poor quality and that the result should be viewed with caution and more RCTs should be performed.

**Level of evidence:** 1a

**Recommendation:** B

**Summary**

The weight of the *in vitro* laboratory bench top evidence suggest that these wires have superior properties over conventional stainless steel wires but there is some evidence that there is no difference in the clinical outcome based on the RCTs on this topic.

## Conclusion

Technology has driven the marketplace, with claims that results are better and faster. In many instances the evidence to support manufacturer claims are lacking. RCTs that look at clinical outcomes are needed. Claims by manufacturers of treatment efficiencies with advances in technology should be critically evaluated.

## References

1. American Dental Association. Policy on evidence-based dentistry. Policy document [updated February 28, 2008] – <http://www.ada.org/1754.aspx>.
2. Sackett, D.L., Straus, S.E., Richardson, S.W., Rosenberg, W. *Evidence-based Medicine: How to practice and teach EBM*. New York; Churchill Livingstone, 2000.
3. Proffit, W.R. Forty-year review of extraction frequencies at a university orthodontic clinic. *Angle Orthod* 1994; 64: 407-414.
4. Luther, F., Layton, S., McDonald, F. Orthodontics for treating temporomandibular joint (TMJ) disorders. *Cochrane Database Syst Rev* 2010; (7): CD006541.
5. Little, R.M., Riedel, R.A., Artun, J. An evaluation of changes in mandibular anterior alignment from 10 to 20 years' post retention. *Am J Orthod Dentofac Orthop* 1998; 93: 423-428.
6. Little, R., Wallen, T., Riedel, R. Stability and relapse of mandibular anterior alignment-first premolar extraction cases treated by traditional edgewise orthodontics. *Am J Orthod* 1981; 80: 349-365.
7. Erdinc, A., Nanda, R., Isiksal, E. Relapse of anterior crowding in patients treated with extraction and non-extraction of premolars. *Am J Orthod Dentofac Orthop* 2006; 129: 775-784.
8. Blake, M., Bibby, K. Retention and stability: a review of the literature. *Am J Orthod Dentofac Orthop* 1998; 114: 299-306.
9. Littlewood, S.J., Millett, D.T., Doubleday, B., Beam, D.R., Worthington, H.V. Retention procedures for stabilising tooth position after treatment with orthodontic braces (Review). *Cochrane Database Syst Rev* 2006; 1: CD002283 (Update).
10. Lagravere, M.O., Flores-Mir, C. The treatment effects of Invisalign orthodontic aligners: a systematic review. *J Am Dent Assoc* 2005; 136 (12): 1724-1729.
11. Bolen, A.M., Huang, G., King, G., Hujoel, P., Ma, T. Activation time and material stiffness of sequential removable orthodontic appliances, part I: ability to complete treatment. *Am J Orthod Dentofac Orthop* 2003; 124: 496-501.
12. Clements, K.M., Bolen, A.M., Huang, G.J. Randomised trial on frequency of activation and stiffness of Invisalign appliances. (Abstract 2917) *J Dent Res* 2003; 82 (special issue B June); B-374.
13. Damon, D. The rationale, evolution and clinical application of the self-ligating bracket. *Clinical Orthodontics and Research* 1998; 1 (1): 52-61.
14. Harradine, N.W.T. Self-ligating brackets and treatment efficiency. *Clin Orthod Res* 2001; 4: 220-227.
15. Fleming, P., Johal, A. Self-ligating brackets in orthodontics: a systematic review. *Angle Orthod* 2010; 80: 575-584.
16. Chen, S., Greenlee, G., Kim, J., Smith, C., Huang, G. Systematic review of self-ligating brackets. *Am J Orthod Dentofac Orthop* 2010; 137: 726.e1-726.e18.
17. Johansson, K., Lundstrom, F. Orthodontic treatment efficiency with self-ligating and conventional edgewise in brackets: a prospective randomised clinical trial. *Angle Orthod* 2012; 82: 929-934.
18. Harrison JE, O'Brien KD, Worthington HV. Orthodontic treatment for prominent upper front teeth in children. *Cochrane Database of Systematic Reviews* 2007; 3. Art No: CD003452.
19. Bradley, T.G., Brantley, W., Culbertson, B. Differential scanning calorimetry (DSC) analyses of superelastic and non-superelastic nickel-titanium orthodontic arch wires. *Am J Orthod Dentofac Orthop* 1996; 109 (6): 589-597.
20. Wang, Y., Jian, F., Lai, W., Zhao, Z., Yang, Z., Liao, Z., et al. Initial arch wires for alignment of crooked teeth with fixed appliances. *Cochrane Database Syst Rev* 2010; 4: CD007859.

CLINICALLY  
PROVEN



# 9 OUT OF 10 DENTISTS

WHO TRIED COLGATE® SENSITIVE PRO-RELIEF™ TOOTHPASTE  
WOULD RECOMMEND IT FOR SENSITIVE TEETH<sup>1</sup>

## WHAT ARE YOU RECOMMENDING?



**ALSO AVAILABLE:**

**Colgate® Sensitive Pro-Relief™ Desensitising Polishing Paste**

Clinically proven to give instant and lasting sensitivity relief  
in the dental chair<sup>2,3</sup>



**Colgate®**

YOUR PARTNER IN ORAL HEALTH

1 Independent survey of dentists who recommend toothpastes, April 2011. 2 Schiff T et al Am J Dent 2009; 22 (Spec Iss A): 8A-15A. 3 Hamlin D et al Am J Dent 2009; 22 (Spec Iss A): 16A-20A.

[www.colgateprofessional.co.uk](http://www.colgateprofessional.co.uk)  
[www.colgateprofessional.ie](http://www.colgateprofessional.ie)

### **The prevalence of dentin hypersensitivity in general dental practices in the northwest United States**

Cunha-Cruz, J., Wataha, J.C., Heaton, L.J., Rothen, M., Sobieraj, M., Scott, J., et al.

#### **Background**

The prevalence of dentin hypersensitivity is uncertain, yet appropriate diagnosis and treatment of dentin hypersensitivity require accurate knowledge regarding its prevalence. The authors conducted a study to estimate the prevalence of dentin hypersensitivity in general dental practices and to investigate associated risk factors.

#### **Methods**

The authors conducted a cross-sectional survey of 787 adult patients from 37 general dental practices within the Northwest Practice-based Research Collaborative in Evidence-based DENTistry (PRECEDENT). Dentin hypersensitivity was diagnosed by means of participants' responses to a question regarding pain in their teeth and gingivae, and practitioner-investigators conducted a clinical examination to rule out alternative causes of pain. Participants recorded their pain level on a visual analogue scale and the Seattle Scales in response to a one-second air blast. The authors used generalised estimating equation log-linear models to estimate the prevalence and the prevalence ratios.

#### **Results**

The prevalence of dentin hypersensitivity was 12.3%; patients with hypersensitivity had, on average, 3.5 hypersensitive teeth. The prevalence of dentin hypersensitivity was higher among 18- to 44-year-olds than among participants 65 years or older; it was also higher in women than in men, in participants with gingival recession than in those without gingival recession, and in participants who underwent at-home tooth whitening than in those who did not. Hypersensitivity was not associated with obvious occlusal trauma, noncarious cervical lesions or aggressive toothbrushing habits.

#### **Conclusions**

One in eight participants from general practices had dentin hypersensitivity, which was a chronic condition causing intermittent, low-level pain. Patients with hypersensitivity were more likely to be younger, to be female, and to have a high prevalence of gingival recession and at-home tooth whitening.

#### **Practical implications**

Given dentin hypersensitivity's prevalence, clinicians should diagnose it only after investigating all other possible sources of pain.

*Journal of the American Dental Association* 2013; 144 (3).

### **The use of porous titanium granules for treatment of peri-implantitis lesions: preliminary clinical and radiographic results in humans**

Mijiritsky, E., Yatzkaier, G., Mazor, Z., Lorean, A., Levin, L.

#### **Objectives**

The aim of the present study is to report on preliminary clinical and radiographic results of using porous titanium granules for treatment of peri-implantitis lesions.

#### **Methods**

A retrospective cohort of 18 implants presenting with peri-implantitis in 16 consecutive patients from two private practices had been evaluated. Treatment included open flap debridement of the lesion, implant surface decontamination using tetracycline, filling of the defect with porous titanium granules, and apically positioning the flaps. Patients' demographics, site and implant characteristics, and clinical and radiographic evaluation at baseline and time of follow-up were recorded.

#### **Results**

Patients' age ranged from 44 to 79 years with a mean of  $61.3 \pm 9.5$  years. Follow-up time after treating peri-implantitis lesions ranged from six to 15 months (mean  $7.5 \pm 3.9$ ). Two out of the 18 implants still presented with bleeding and suppuration at follow-up and thus the treatment was considered as a failure. This resulted in an overall success rate of 88% for the treatment. Mean bone loss prior to treatment was  $4.4 \pm 2.1$ mm and was reduced following treatment to  $2.3 \pm 2.1$ mm.

#### **Conclusion**

The use of porous titanium granules might be a viable treatment option in cases of peri-implantitis lesions. Further large-scale long-term studies are warranted in order to assess the additional benefit from this treatment option compared to other available alternatives.

*British Dental Journal* 2013; 214 (E13).



### The influence of prophylactic antibiotic administration on post-operative morbidity in dental implant surgery. A prospective, double-blind, randomised controlled clinical trial

Nolan, R., Kemmoona, M., Polyzois, I., Claffey, N.

#### Objectives

A prospective, double-blind, randomised controlled trial was conducted to test the effect of prophylactic antibiotics on post-operative morbidity and osseointegration of dental implants.

#### Materials and methods

Fifty-five subjects scheduled for implant surgery were enrolled. The patients were randomly assigned to the antibiotic (test group) and placebo (control group). Twenty-seven patients (test group) received 3g amoxicillin one hour pre-operatively, and 28 patients (control group) received placebo capsules one hour pre-operatively. No post-operative antibiotics were prescribed. Pain diaries and interference with daily activities diaries were kept by the patients for one week post-operatively. Signs of post-operative morbidity (swelling, bruising, suppuration and wound dehiscence) were recorded by the principal investigators at day two and day seven following the operation. Osseointegration was assessed at second-stage surgery or three to four months post-operatively.

#### Results

The results of this study suggest that the use of prophylactic pre-operative antibiotics may result in higher dental implant survival rates (100% vs. 82%). Five implant failures, one in each of five patients, were reported in the placebo group and none in the antibiotic group ( $P = 0.0515$ ). No significant differences were found for most of the signs of post-operative morbidity two and seven days post-operatively. Only bruising at two days following the operation appeared to be higher in the placebo group ( $P = 0.0511$ ). Post-operative pain ( $P = 0.01$ ) and interference with daily activities ( $P = 0.01$ ) appeared to be significantly lower for the antibiotic group after seven days. Those patients with implant failure reported higher pain (based on the VAS scores) after two days ( $P = 0.003$ ) and after seven days ( $P = 0.0005$ ), higher pain (based on the amount of analgesics used) after seven days ( $P = 0.001$ ), and higher interference with daily activities (based on the VAS scores) after two days ( $P = 0.005$ ).

#### Conclusions

The use of prophylactic antibiotics for dental implant surgery may be justified, as it appears to improve implant survival in the short term and also results in less post-operative pain and interference with daily activities. From the results of this study, it appears that prophylactic antibiotics may be beneficial both in terms of implant survival and patient comfort, especially when the surgical procedure is prolonged due to its difficulty, high number of implants placed or operator's inexperience.

*Clinical Oral Implants Research*. Early view. Published online: Feb 13, 2013.

### Prevalence of traumatic injuries to permanent dentition and its association with overjet in a Swiss child population

Schatz, J.P., Hakeberg, M., Ostini, E., Kiliaridis, S.

#### Objective

Dental trauma is a very common issue in dentistry and its occurrence has been related to many factors. The aim of this study was to evaluate the prevalence of traumatic dental injuries in the permanent dentition among Swiss children and its association with overjet.

#### Material and methods

A sample of 1,900 children aged six to 13 years was prospectively evaluated to determine the number and types of injuries, the influence of overjet on the risk of suffering trauma, and the relationships between trauma, age, gender and life conditions.

#### Results

The observed prevalence of trauma was higher for boys, with a slight risk increase with age and a peak frequency at the age of 10 years. Most of the injuries (91.2%) involved the upper front teeth; 87.2% of all injuries were hard tissue injuries (enamel or dentin fractures), and 12.8% only subluxation and luxation injuries. Children with an overjet of 6mm or more had a four times higher risk of suffering trauma, compared with those with less overjet.

#### Conclusion

This cross-sectional study confirmed most of the results from earlier studies dealing with epidemiological factors of dental injuries to the permanent dentition. Of all the variables analysed, overjet stood out as the most significant risk factor: an increased overjet of 6mm or more had a major impact on the risk of trauma, which would speak in favour of early orthodontic correction of an increased overjet to reduce the prevalence of dental trauma.

*Dental Traumatology* 2013; 29 (2): 110-114.

## Quiz

### Answers (questions on page 63)

1. Infection control, oral radiology and medical emergencies.
2. Stand 9.
3. The University of Berne, Switzerland.



## Social media

In the latest in our series of articles from Dental Protection, JAMES FOSTER warns dentists of the need to be vigilant in their use of social media.

Early in my dentistry career, I joined a social group of colleagues known as the MOTHS (Monday Out, Tuesday Home). A chat about dentistry over a couple of beers was the usual format; however, it didn't take long to discover that a more appropriate name for the group could have been MOAN.

While the initial discussions were quite relaxed, there were always one or two colleagues who, after a beer or two, would begin to talk negatively about a patient, colleague or other team members. Within the confines of the local pub this was rarely a problem. However, times have changed. The topics discussed by groups of dental colleagues today are basically the same, but the meeting place may well be the worldwide web. The sympathetic listening ear of the barman has been replaced by a much larger audience.

### What are we talking about?

Social media may be defined as a form of interaction by which people create, share, exchange and comment on content among themselves within a virtual (online) community or network. It includes internet forums, blogs, social networks, podcasts, shared images, video ratings, social bookmarking, etc. Increasingly, these forms of social media are accessed on mobile devices, allowing immediate interaction while on the move or, indeed, in the surgery. Regulators now acknowledge that online communication has become part of a clinician's personal and professional life, and that the use of social media is very common. While these newer forms of communication can be incredibly useful, it is important that the standards of behaviour expected of clinicians in the real world are also observed online.

### Saved forever

A spoken social remark – or moan! – is rarely recorded, but the same words in an internet posting can be there forever.

Dentists and members of the dental team use the internet in a variety of ways. While there may be significant benefits to this, there are also inherent dangers. The aim of this article is to encourage colleagues to consider their responsibilities and to suggest ways that can prevent you falling foul of the regulator's expectations.

I will limit myself to the following dental uses for social media:

- discussion forums between colleagues;
- advertising or practice promotion;
- direct contact with patients;
- ratings and review websites; and,
- personal entries and blogs.

### Discussion forums between colleagues

A difficulty arises when an individual reads a comment that raises concerns about the author's professional standards. Referrals to bodies such as the Dental Council can come from patients; however, they often come from other registrants.

Colleagues often have firmly held beliefs and, even though the immediacy of the internet is seen to be an advantage, there is also a downside in that any such exchange can suddenly take a rapid and aggressive turn. All colleagues should be aware of the standard of behaviour expected by authorities such as the Dental Council, who would be critical of gratuitous or derogatory comments of a disparaging nature on the service or treatment of other members of the profession.

Patient confidentiality needs to be maintained and a detailed debate about a patient's treatment is an obvious potential risk, particularly if the detail is specific to that patient and includes images.

### Advertising and promotion

In the Council's code of conduct pertaining to public relations and communications the Council expects that any information provided is:

- truthful;
- legal and decent;
- factual;
- relevant; and,
- accurate.

Such information should not:

- mislead the public;
- impugn the professional reputation or integrity of his/her colleagues;
- bring the profession into disrepute; or,
- exploit or take advantage of:
  - (i) the physical and emotional state of patients, or
  - (ii) the public's lack of knowledge of dental subject matters.

Promoting a practice and services through a website has benefits; however, many colleagues will often engage an outside agency to provide this service. Such organisations may be skilled at promotion but they may be unaware of the regulatory requirements within dentistry. Without any reference to the Dental Council's guidance, a colleague who lets a marketing company lead their marketing objectives may find themselves challenged by the Council. Unfortunately, most of the complaints about websites tend to come



from colleagues in the locality who object to content that perhaps suggests that the practice provides a better service than others in the area, or seems to present as a specialist practice when in fact it is not.

### Testimonials

The use of video testimonials on websites is on the increase. However, while this may be an effective way of marketing your practice it brings with it a legal and ethical minefield. By its very nature, a video testimonial will display a patient's image. There will be reference to a patient's dental treatment and, therefore, to comply with principles of confidentiality and data protection, the patient must be informed and not misled as to the use of their personal information. The patient must give their explicit consent for the data to be used. It therefore follows that the standards of consent must be higher when processing such sensitive personal data, and in the case of video testimonials this should be reflected in the message you use for obtaining the required agreement from a patient. The same would apply to any images, models, etc., that a practice wishes to use for demonstration or promotional purposes.

Many colleagues are now using YouTube to display patient testimonial videos; however, they need to be aware that patients may assume that the video would be uploaded to the dental practice website only. Therefore, unless your intention to upload a video to YouTube is made clear, there is a risk that the patient could be unwittingly misled or deceived over the intended purpose of the video. It is perhaps much safer for dentists to invest in their own website where they can control the terms and conditions of its use and content.

The Dental Council's code of practice confirms that registrants must ensure that testimonials are from bona fide patients at that practice who have received the treatment referred to in their testimonials. It also indicates that if patients giving such testimonials have received remuneration for doing so then this must be clearly stated.

### Direct communication with patients

All personal information that you accumulate about a patient by virtue of your professional relationship with them is bound by professional confidentiality and the need to protect the patient's personal data. Email addresses may or may not be secure, so when inviting a patient to supply their email address they should also be asked to indicate whether they agree to receiving all kinds of communication from you by these means or simply, for example, a reminder for them to contact the practice to arrange a check-up. Once you offer an email facility, both new and existing patients can contact you for information or to make an appointment. Subject to the controls outlined above, you can then confirm appointments by email.

Just as the quality of your website reflects directly on your practice, so does the speed with which you respond to patients' email. As a minimum standard, email should be checked daily. People seem to

expect a faster response to email than to more traditional forms of communication. If a reply that takes days has the potential to frustrate your patient, then a same day response can be particularly impressive.

### Complaints and emails

If a patient forwards a complaint and a flurry of email exchange follows, there is the danger of a rapid escalation in the tone of the conversation. A measured and considered response is required to a complaint, so sending a letter of response may provide a softer landing, as the patient loses the immediacy of a retort.

### Ratings and reviews

There is an ever-increasing number of forums for patients to comment on their experience. While this may not yet be as prevalent in Ireland as other jurisdictions, it's on its way, and there is potential danger for healthcare professionals.

If a negative comment appears, it is perhaps ill advised to enter into a series of exchanges with the author – this can often produce a further deterioration.

If comments are inaccurate or malicious, the first step would be to examine the terms of service for the host site. Aggressive comments may be posted anonymously and many sites will agree to remove these when requested to do so.

### Personal entries and blogs

Many colleagues have found themselves criticised for posting personal information and events. Snapshots at a party may seem harmless; however, a patient, or indeed a local colleague, may think otherwise. The code of practice relating to professional behaviour and ethical conduct clearly states that "to promote confidence and trust between you, your patients and the wider community you should aim to maintain appropriate standards in all aspects of your life, both personal and professional". Therefore, registrants have standards to maintain, both in and out of the surgery.

### Summary

There is an argument that with the common use of a variety of media the professional expectations on our everyday life are becoming increasingly important. A moan about a patient on a Monday night 20 years ago may have been harmless. The same comment made using today's communication methods could result in a regulatory challenge.

*James Foster LL.M BDS MFGDP(UK) was in general practice for 16 years in Northumberland. He also worked as a clinical supervisor in prosthodontics at Newcastle Dental Hospital. As a full-time dento-legal adviser, James serves as DPL's deputy lead for members in Australia, as well as being part of the team supporting members in Ireland.*

## Classified advert procedure

Please read these instructions prior to sending an advertisement. Below are the charges for placing an advertisement for both members and non-members. 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 May 10, 2013, by cheque made payable to the Irish Dental Association. If a box number is required, please indicate this at the end of the ad (replies to box number X). Classified ads placed in the *Journal* are also published on our website [www.dentist.ie](http://www.dentist.ie) for 12 weeks.

Advert size	Members	Non-members
up to 25 words	€75	€150
26 to 40 words	€90	€180

Non-members must send in a cheque in advance with their advert. The maximum number of words for classified ads is 40.

**Only if the advert is in excess of 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](mailto:paul@thinkmedia.ie)

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

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

Classified adverts must not be of a commercial nature. All commercial adverts must be display advertisements, and these can be arranged by contacting Paul O'Grady at Think Media, Tel: 01 856 1166.

### POSITIONS WANTED

Experienced dentist available for sessional or part-time work in Leinster area. Email: [jfob19@hotmail.com](mailto:jfob19@hotmail.com).

### POSITIONS VACANT

Associate required for two days per week (days flexible) for busy dental practice in Co. Roscommon. Tel: 087-411 3909, or Email: [abboyle2@eircom.net](mailto:abboyle2@eircom.net).

Experienced associate dentist required to join well-established practice in Galway city. Fully computerised, vistascan and OPG. Tel: 087-234 1153.

South Dublin. Opportunity for an experienced, motivated and enthusiastic associate to join our modern, private dental practice. Computerised, digital OPG, Cerec, great support staff. Afternoon, evening and Saturday sessions available with a view towards full-time work. CVs to [dublindentist18@gmail.com](mailto:dublindentist18@gmail.com).

Wanted – full-time dental associate for Carlow Town practice. Fully computerised with digital OPG and intra-oral. Partnership/associate arrangements for suitable candidate. For further information, Tel: 087-250 6484, or send CVs to [info@bernardmurphydentalurgeons.ie](mailto:info@bernardmurphydentalurgeons.ie).

North Kildare. Experienced associate required to replace departing colleague. Three days per week. Tel: 087-665 9600, or Email: [bridnoel@gofree.indigo.ie](mailto:bridnoel@gofree.indigo.ie).

Excellent opportunity for experienced, friendly and competent dentist to join modern, expanding family-based practice – close to Galway City. Start spring 2013. Please apply with CV to [phewatal@eircom.net](mailto:phewatal@eircom.net).

Dental associate required. Experienced full-time dental associate required for a busy suburban Dublin practice. Immediate start. Applications (with CV) to [kcpdent@hotmail.com](mailto:kcpdent@hotmail.com).

West of Ireland. Associate required immediately – full-time. Very busy, modern practice, excellently equipped, OPG, hygienist, computerised, knowledgeable supportive staff. Very good figures. Flexibility for the most suitable candidate. Please Tel: 086-807 5273, or Email: [niall@innovatedental.com](mailto:niall@innovatedental.com).

Channel Islands. Associate required immediately. Full-time position. Busy, modern, walkinable practice. High profile practice. Three surgeries. Fully private. Excellently equipped. Fully computerised. Excellent figures. Knowledgeable, loyal, supportive staff. Suits associate with a view. Email: [niall@innovatedental.com](mailto:niall@innovatedental.com).

Locum dentist wanted in busy north Cork practice for three months with possibility of part-time position long term. Email: [northcorkdentist@gmail.com](mailto:northcorkdentist@gmail.com).

Dentist required to join a dynamic team in beautiful Westport. Superb conditions and package. Immediate start possible. Contact Maeve, Email: [theresadentist@eircom.net](mailto:theresadentist@eircom.net).

Opportunity for young, enthusiastic dentist to join our motivated team. Great facilities, location and support staff. Email applications to: [paula@eyresquaredental.ie](mailto:paula@eyresquaredental.ie).

Part-time dentist required in Tallaght area working Mondays and Tuesdays in a well-established modern surgery. Please Email: [wmunroe@eircom.net](mailto:wmunroe@eircom.net).

Locum dentist required for busy Meath practice. Immediate start – 30 minutes from Dublin. With possibility of part-time position long term. Email: [drsusanmurray@eircom.net](mailto:drsusanmurray@eircom.net).

Dentist required two to three days per week for progressive modern practice, south Dublin/north Wicklow. Enthusiasm and interest in career development essential. Please email CV to Bicanos@hotmail.com.

Locum dentist required to cover maternity leave in busy north Kildare family practice, 30 minutes from Dublin city centre. Full-time position starting mid June. Experience essential. Tel: 01-627 3766, or Email: brian.corcoran26@gmail.com.

Cork – part-time, committed, enthusiastic dentist to join motivated team. Approximately five half days. Email replies and CV to cmgdental@gmail.com.

Part-time dentists required for sessional work (all disciplines). Saturday mornings included. Busy multiple-surgery practice, Newbridge area. Experience essential. Apply with EV by email only to dentalcolleagues@gmail.com.

Dentists – looking for predictable income, job satisfaction on busy high-spec private practice with a great team? Great opportunity available, part-time, north Leinster. Email: crey99@gmail.com.

Part-time oral surgeon required for busy clinic in Dublin docklands. Please email CV to carol.moroney@redmondmolloy.ie.

Endodontist/paedodontist required for sessions in Navan specialist practice. Great opportunity to build referrals. Email: info@navanorthodontics.ie.

Orthodontist required in a busy dental practice in east Cork, which has already been providing an orthodontic service. For further information, Email: corkdentist96@yahoo.ie.

Orthodontist required for our established practice in Tasmania, Australia. Fantastic career-building opportunity, lucrative earning potential, and great outdoor lifestyle. Enjoy full clinical freedom in the modern, relaxed and friendly environment. Assistance with sponsorship available. Please contact Nicola at careers@dentalcorp.com.au.

Experienced dental nurse required for general practice, D12. Required for maternity leave to cover Mondays, Tuesdays and Wednesdays for 6.5 months – starting July 1, 2013. Experience as a restorative and orthodontic nurse ideal. Email CVs to walkinstowndc@eircom.net.

Qualified DSA required to work part time – Thursday, Friday, occasional Saturday – in modern Midlands practice. Please email CV to neil@abbeyleixdental.com.

Qualified DSA/receptionist required for west Dublin private practice. Immediate start. Initially part time leading to full time, to cover six months' maternity leave. Must be well presented and computer literate. Email CVs before April 20 to info@theplazadentalpractice.ie.

Qualified DSA required to cover maternity leave, Kilkenny City. Starting first week of April 2013. Email: noel\_kavanagh@hotmail.com.

### PRACTICES FOR SALE/TO LET

For sale – Leinster. One hour from Dublin. Top class, long-established two-surgery, real WOW factor, practice. Digitalised OPG. Serviced room to expand. Top-of-the-range equipment. Low overheads, very busy. Excellent figures. Immediate sale. Tel: 086-807 5273, or Email: sugeriestavailable@yahoo.ie.

Long-established, busy, four-surgery dental practice for sale, located in the heart of Kilkenny City. Principal is willing to continue working if required to ensure a smooth transition. Please contact Charles McCarthy, Tel: 086-854 5656, or Email: charles@irishdentist.com.

For sale – two-surgery private practice in Lanzarote, Canary Islands – due to retirement. Email: lanzadent12@gmail.com.

Practice for sale. Experienced dentist to take over from retiring partner in long-established practice, 45 mins Dublin. Cost sharing, no medical cards. Excellent support staff including two hygienists. Three well-equipped surgeries, computerised. Visiting periodontist and implant specialist. Email: wdpdental@gmail.com.

Practice for sale – south Kildare. General practice. One surgery with room for expansion. Second surgery with chair. Sterilising room. Digital x-rays including OPG, intra-oral camera. Freehold or leasehold. Busy surgery. Great potential. Sale required due to family commitments. Email: dentalsurgerysale1@gmail.com.

For sale – north east. Anyone interested in taking over two good surgeries from retiring dentist? Would suit ambitious go-ahead dentist without much capital. Big potential to revitalise practice. Replies to mcentegart.eugene@gmail.com.

### PRACTICES WANTED

Property wanted for a dental practice, preferably D2, D4 or D6 but all south Dublin considered. Happy to consider freehold/leasehold. Planning for dental use an advantage. Correspondence will be treated in strict confidence. Please contact Declan at Raymond Hunt and Company, Tel: 01-497 2494, or 087-945 2927.

### EQUIPMENT FOR SALE

For sale – used dental equipment including Belmont dental chair, Forest dental chair, Fedesa JS500 dental chair, choice of two Trophy CCX x-ray machines, Durr dental DL26 x-ray developer, D.C.I. dental cart, S.D.I. Ultramat amalgamator and assorted hand instruments. Contact John, Tel: 086-159 2265.

For sale – contents of modern surgery due to early retirement. Includes complete dental unit, central suction, compressor, autoclave, x-ray and x-ray sensor, ultrasonic bath, curing light, forceps, hand instruments, etc. Tel: 086-323 5332, or Email: nickykavana@gmail.com.



**Galway**  
April 18-20, 2013

**BOOK NOW**

Irish Dental Association  
T: (01) 295 0072  
E: [dario@irishdentalassoc.ie](mailto:dario@irishdentalassoc.ie)

## APRIL

### Dubai Implantarium, the first specialised dental implantology congress in the UAE

April 4-6 *Armani Hotel – Burj Khalifa, Dubai, UAE*

### IDA Annual Conference 2013

April 18-20 *Radisson Blu Hotel, Galway*

### North Munster Branch half-day hands-on endodontic course

April 30 *The Strand Hotel, Limerick*

Speaker is Dr Eoin Mullane. Course starts at 2.00pm. To register, Email: [eoinmullane@gmail.com](mailto:eoinmullane@gmail.com).

## MAY

### Irish Society of Dentistry for Children Annual Scientific Meeting – Improving your Diagnostic Skills

May 9 *Citywest Hotel, Dublin*

Guest speakers are Prof. Richard Widmer and Dr Sally Hibbert from the Children's Hospital at Westmead, Sydney, Australia. Booking forms are available at [www.dentistryforchildren.ie](http://www.dentistryforchildren.ie).

### Primary Care Conference 2013 – Communicating – not just talking

May 25  
*Crowne Plaza Hotel, Northwood, Santry, Co. Dublin*  
For further information, Email: [grainne@healthevents.ie](mailto:grainne@healthevents.ie).

### North Munster Branch Annual General Meeting

May 28 *The Strand Hotel, Limerick, 8.00pm*

## AUGUST

### FDI 2013 Istanbul – Annual World Congress

August 28-31 *Istanbul, Turkey*  
For further information, log on to [www.fdi2013istanbul.org](http://www.fdi2013istanbul.org).

## OCTOBER

### Faculty of Dentistry RCSI Annual Scientific Meeting 2013 – Surgical Aspects of Dental Practice

October 24-25 *RCSI, Dublin*



For further information see page 64. To register contact the Faculty Office at [facdentistry@rcsi.ie](mailto:facdentistry@rcsi.ie).

# ONE FUTURABOND FOR ALL CASES!



## DUAL-CURING UNIVERSAL ADHESIVE

- One bond for all – no other adhesives required in your practice
- Self-etch, selective-etch or total-etch – the choice is yours!
- Outstanding versatility of application
  - for direct or indirect restorations
  - fully compatible with all light-curing, dual-curing and self-curing composites – without additional activator
  - secure adhesion to various materials such as metal, zirconium and aluminium oxide, as well as silicate ceramics – without additional primer
- Applied in one layer – just 35 seconds total working time



## Futurabond® U

NEW



new

# Welcome to a new layer of expertise in dentine hypersensitivity

Today you can go further than simply relieving your patients' dentine hypersensitivity.

Today you have new Sensodyne® Repair & Protect containing NovaMin® calcium phosphate technology. NovaMin® builds a reparative hydroxyapatite-like layer over exposed dentine and within the tubules<sup>1-5</sup>

Starting to form from the first use,<sup>5</sup> this reparative layer creates an effective and lasting barrier to dentine hypersensitivity<sup>6-8</sup>

*Explore the new layer of opportunity  
with Sensodyne Repair & Protect*



Visual representation of dentine cross-section and dynamic reparative layer



Specialist in dentine hypersensitivity management

**References:** 1. Burwell A *et al.* J Clin Dent 2010; 21(Spec Iss): 66-71. 2. LaTorre G, Greenspan DC. J Clin Dent 2010; in press. 3. Efflant SE *et al.* J Mater Sci Mater Med 2002; 26(6):557-565. 4. Clark AE *et al.* J Dent Res 2002; 81 (Spec Iss A): 2182. 5. GSK data on file. 6. Du MQ *et al.* Am J Dent 2008; 21(4): 210-214. 7. Pradeep AR *et al.* J Periodontol 2010; 81(8): 1167-1113. 8. Sallian S *et al.* J Clin Dent 2010; in press. SENSODYNE® and the rings device are registered trademarks of the GlaxoSmithKline group of companies. Prepared November 2010. GSKCH/2011/0026.