

# Journal of the Irish Dental Association

Iris Cumainn Déadach na hÉireann



**Antibiotics in odontogenic infection**



# Crisis

## Corsodyl Mint Mouthwash

(Chlorhexidine Digluconate)

The gold standard treatment for gingivitis.



0.2% Chlorhexidine Digluconate

- Treats and prevents gingivitis
- Inhibits the formation of dental plaque
- Promotes gingival healing
- Maintains oral hygiene
- Manages aphthous ulceration
- Medicinal product

# Management

## Introducing **NEW** Corsodyl Daily Defence



0.06% Chlorhexidine Digluconate plus fluoride

- ✓ A daily maintenance mouthwash designed to help protect patients against gum problems
- ✓ Contains low concentration chlorhexidine digluconate plus fluoride to help protect against tooth decay
- ✓ Proven to inhibit the formation of dental plaque<sup>1</sup>
- ✓ A fresh mint taste
- ✓ Non medicinal product

Corsodyl Daily Defence is ideal for use as a maintenance mouthwash following treatment for gum problems to help maintain healthy gums.

**Product Information for Corsodyl Mint Mouthwash** Corsodyl 0.2% w/v Mint Mouthwash - Chlorhexidine Digluconate 0.2% w/v (as Chlorhexidine Digluconate Solution).

**Abbreviated prescribing information:** Please consult the summary of product characteristics for full prescribing information.

**Indications** For the inhibition of the formation of dental plaque. As an aid in the treatment and prevention of gingivitis, and in the maintenance of oral hygiene, particularly in situations where toothbrushing cannot be adequately employed (e.g. following oral surgery or in physically or mentally handicapped patients). Also for use in a post-periodontal surgery or treatment regimen to promote gingival healing. It is useful in the management of aphthous ulceration and oral candida infections (e.g. denture stomatitis and thrush). **Dosage & Administration:** 10ml rinse for 1 minute twice daily or pre-surgery. Soak dentures for 15 minutes twice daily. Treatment length: gingivitis 1 month; ulcers, oral candida 48 hours after clinical resolution. **Contraindications** Corsodyl Mouthwash is contra-indicated for patients who have previously shown a hypersensitivity reaction to chlorhexidine. However, such reactions are extremely rare. **Special Warnings and Precautions for Use** For oral (external) use only. Keep out of the eyes and ears. If the mouthwash comes into contact with the eyes, wash out promptly and thoroughly with water. **Interactions with other Medicinal products and other forms of interaction** Chlorhexidine is incompatible with anionic agents. **Pregnancy & Lactation:** No special precautions. **Side Effects** **Discoloration** A superficial discoloration of the dorsum of the tongue may occur. This disappears after treatment is discontinued. Discoloration of the teeth and silicate or composite restorations may also occur. This stain is not permanent and can largely be prevented by brushing with a conventional toothpaste daily before using the mouthwash, or, in the case of dentures, cleaning with a conventional denture cleaner. However, in certain cases a professional prophylaxis (scaling and polishing) may be required to remove the stain completely. Stained anterior tooth-coloured restorations with poor margins or rough surfaces which are not adequately cleaned by professional prophylaxis may require replacement. Similarly where normal toothbrushing is not possible, as for example with intermaxillary fixation, or with extensive orthodontic appliances, scaling and polishing may also be required once the underlying condition has been resolved. **Taste** Transient disturbances of taste sensation and a burning sensation of the tongue may occur on initial use of the mouthwash. These effects usually diminish with continued use. **Oral desquamation** In cases where oral desquamation occurs, dilution of the mouthwash using 5ml water with 10ml mouthwash, freshly mixed, will often allow continued use of the mouthwash. **Parotid gland swelling** Very occasionally, swelling of the parotid glands during the use of chlorhexidine mouthrinses has been reported. In all cases spontaneous resolution has occurred on discontinuation of treatment. **Irritative skin reactions** Irritative skin reactions to chlorhexidine preparations can occasionally occur. **Generalised reactions** Allergic reactions, hypersensitivity & anaphylaxis to chlorhexidine have also been reported but are extremely rare. **Legal Category:** General Sale. **PA Number** PA 678/2/2. **PA Holder** GlaxoSmithKline, Consumer Healthcare (Ireland) Limited, Stonemasons Way, Rathfarnham, Dublin 16. **Date of printing** March 2009. **Date of Revision of the Text** March 2008. **CORSODYL** is a registered trade mark of the GlaxoSmithKline group of companies.

**References:** 1. Hoffman T, Bruhn G, Richter S, Netuschil L, Brex M. Clinical controlled study on plaque and gingivitis reduction under long-term use of low-dose chlorhexidine solutions in a population exhibiting good oral hygiene. Clin Oral Invest (2001) 5; 89-95.

Further information is available on request from:

GlaxoSmithKline Consumer Healthcare, Stonemason's Way, Rathfarnham, Dublin 16. Tel: 01 495 5000 Fax: 01 495 5575





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213	EDITORIAL
214	PRESIDENT'S NEWS <i>Our voice must be heard</i>
215	IDA NEWS <i>National Survey results, IDA campaign, and more</i>
218	QUIZ
221	BUSINESS NEWS <i>Industry news for dentists</i>
225	EU NEWS <i>CED will remain active in new Brussels arena</i>
228	INTERVIEW <i>Presidential briefing</i>
232	PEER REVIEWED 232 <i>The unerupted maxillary canine – a post-surgical review</i> 237 <i>Reconstruction of the severely atrophic mandible with iliac crest grafts and endosteal implants: a report of two cases</i> 242 <i>Antibiotics in odontogenic infection</i>
246	ABSTRACTS <i>Abstracts from scientific papers</i>
248	PRACTICE MANAGEMENT <i>Implementing radiographic audit in daily practice – frequently asked questions</i>
256	CLASSIFIED
258	DIARY OF EVENTS



Dental tourism in the media. **215**



Minister launches Colgate Oral Health Month. **222**



Interview with IDA President Donal Blackwell. **228**



Reconstruction of the severely atrophic mandible. **237**



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## Stating our values

There are important developments in the governance of the *Journal*, and peer reviewed papers are reconfirmed as the core of the *Journal*.

### Governance of the *Journal*

A recent meeting of the Editorial Board looked at the *Journal's* governance structure, its liabilities and the *Journal's* impact factor. A policy has been drawn up on the composition of the Editorial Board and how colleagues will be elected/co-opted to those positions. There will be an Editor, Deputy Editor, two to three General Dental Practitioner representatives, two to three Specialty/Limited Practice representatives, two Academic representatives, one Public Dental Officer representative, two Dental School representatives, one Nursing representative, two IDA representatives (CEO and Deputy CEO) and two Publisher representatives (Think Media) as well as our administrative support (one person). The method for how representatives will be elected has been agreed and representative sections of the IDA and other organisations will be asked to forward names. There will be an attempt to have geographic areas, gender, age and race considered. There will be a time limit to how long a person will be able to sit on the Editorial Board.

University Research Quality Reviews are important and highlight the importance of impact factor/citation without really understanding the importance of a clinical journal. The aim of the *Journal of the Irish Dental Association* is education and information, and unless that educational material reaches the appropriate readers, no amount of citation is important. How many non-academics read *Nature*? It is for this reason that the *JIDA's* Editorial Board is pleased to be able to circulate the *Journal* to every dentist in Ireland, whether in practice, hospital or the HSE units. The *Journal's* impact factor is an important area to discuss. We are now cited in the Index Medicus so any paper published will now have a scientific value as well as an educational value. The impact factor (Thompson Reuter's Journal Citation Reports) is a retrospective measure reflecting the average number of citations of papers (articles, reviews, proceedings or notes, not editorials or letters to the Editor) published in science journals. The impact factor for 2008, which will be published in 2009, is the number of times articles published in 2006 and 2007 were cited in 2008 divided by the number of citable items published in 2006 and 2007. As an Editorial Board we need to review with Thompson Scientific what we consider citable items and this process will now begin. When writing or reviewing papers for *JIDA* please ensure that you cite relevant previous papers from this *Journal*.

### Our voices need to be heard

The President's news (p.214) and our *Journal* interview with Donal Blackwell pp.228-230) highlight why we all need to work together to have 'our voices heard' for the benefit of oral health. Dental tourism is about patients putting cost as the most important aspect of dental treatment and ignores the importance of quality of care (p.215 and

p.226). We have to work with our patients and educate them as to the best treatment plan and then where they seek that treatment is their decision. I have seen the vastly over treated patient, the complications as well as the occasional excellent treatments. The present down-turn in the economy will encourage patients to avail of possible short-term cheaper treatment elsewhere. Our remit is to educate not dictate. This *Journal* highlights Clinical Audit in Dental Radiology (p.217) and is supported by our Practice Management section by Andrew Bolas (pp.248 – 249) and both commend the Dental Practice Radiography File available to members of the IDA on its website. IDA News (p.217-218) highlights the many important courses available to us throughout Ireland on dental radiology, infection control, dental traumatology, dentistry today and 'Close Encounters of the wrong kind'.

### Peer reviewed papers

Our peer reviewed section (peer reviewed papers) gives an important view on the management of the unerupted maxillary canine (p.232-236) in a captive population of Kerry and Cork and stresses the importance of good collaboration between the surgeon and orthodontist, as well as the many resource problems our services face. Our second paper highlights the possibility of reconstruction of the severely atrophic mandible with iliac crest grafts and endosteal implants (p.237-241) and shows us what is possible. It is now recognised, although not funded, that the implant supported lower overdenture is the minimum we should be striving for in our edentulous patients and this technique may help us achieve that in those very difficult patients. The paper, 'Antibiotics in odontogenic infection' (p.242-245) is an attempt to clarify what is required and to regularise the treatment of infections and the use of antibiotics. It explains how antibiotics work. If all you have time to read is p.244, you and your patients will hopefully benefit considerably. Our abstracts pages (p.246-247) give us a broad stroke across what is being written in other journals and addresses some important clinical issues for our practices.



Leo F. A. Stassen

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

## PRESIDENT'S NEWS

# Our voice must be heard

President Donal Blackwell says that membership of the Irish Dental Association is more vital than ever in these challenging times.

Welcome back to you all after the summer. I hope you all managed to take a break from your busy practices and are ready to face the autumn and winter with increased energy and renewed enthusiasm. This is indeed a very challenging time for the dental profession and now more than ever it is imperative that you are a member of your professional body. The Irish Dental Association is an organisation of dentists for dentists and in critical times we need two key factors: that we are united in our approach; and, that our voice is heard above the terrible hue and cry for cuts in public expenditure. This is especially true of the proposal to abolish the Dental Treatment Benefits Scheme (DTBS).

### McCarthy Report – Stop the Rot campaign

On that very point, we had a particularly busy summer in the IDA, with the launch of a very successful public relations campaign entitled 'Stop the Rot'. It highlighted the many implications if the McCarthy Report suggestion of scrapping the DTBS Scheme was implemented. My thanks to all of you for participating and playing your part in the campaign, whether it was simply informing patients of their proposed loss of entitlements, writing to your local TDs and Senators, participating in television and radio interviews, and/or displaying the posters and postcards in your dental surgery. We await the outcome of the McCarthy Report suggestions in the forthcoming budget patiently.

### Autumn schedule

It is indeed very heartening to see so many branch events being organised for the autumn/winter schedule. All branches are to be complimented on organising such well-known speakers on various topics. I encourage all members to attend their branch meetings.

### National Oral Health Strategy

The IDA has written to Minister Harney expressing great concern about the ongoing delay in publishing the Oral Health Strategy. The report was due to be published earlier this year after considerable time being developed by the Department of Health & Children. We will keep members updated on any developments in this regard.

### Colgate Oral Health Month

Colgate Oral Health Month was yet again another great success in 2009. With over 500 dental practices involved, it has become the most successful oral health campaign in the country. I was particularly please to see the well-deserved Chernobyl Dental Aid Ireland benefiting from the month's activities this year, and I thank all dental practitioners who got involved.



Donal Blackwell,  
President.



# Dental tourists seek treatment at home

In the last edition of the *Journal*, we reported the main findings of the survey of dentists carried out on behalf of the IDA by Behaviour & Attitudes Ltd. The Association recently released the details of its findings regarding patients who had travelled abroad for treatment, resulting in both considerable media coverage and support from British dentists.

The survey found that over the past 12 months, 76% of Irish dentists in private practice have had to treat patients for problems linked to the dental treatment they received abroad. Commenting, the President of the IDA, Dr Donal Blackwell, said the findings reinforced concerns about the quality of dental care being received abroad: "We're seeing a lot of people returning home with problems which are directly related to the quality of the care they received abroad. Common problems include too much dental work being done over too short a time frame, unnecessary work being done and poor materials being used by dentists abroad".

Dr Blackwell said that the figures reinforced concerns expressed previously by Professor Brian O'Connell and Dr Michael O'Sullivan of the Dublin Dental Hospital that "there is a substantial risk to patients travelling abroad for treatment". In a study published in 2007, Professor O'Connell and Dr O'Sullivan found in a survey of 27 patients who had received treatment abroad in the first quarter of 2007, that only four had received a "satisfactory" level of care.

Dr Blackwell said that one of the problems was that when considering travelling abroad for dental treatment, patients tended to focus on short term, aesthetic results rather than the long-term quality of the care they received, and that the lure of 'bargain' prices meant that patients were less concerned about the need for different treatments than the cost of them: "It's been estimated that as many as 44% of people travelling abroad for dental treatment actually don't know what they need when they enquire about costs". [Ref: Professor Brian O'Connell]

Dr Blackwell said that patients need to be more discerning when considering travelling abroad for treatment. "Dental tourism – like medical tourism generally – is a fact of life in every developed country and some people travel to Ireland for specialist dental work. However, we need to encourage people who may be travelling abroad to focus on the quality of work they receive and whether that work is really necessary, and not just the price of that work."

Dr Blackwell advised anyone considering undergoing treatment abroad to consult with their local dentist to clarify what work was required and to get a valid price comparison.

## Survey details

This National Survey of Dentists was conducted on behalf of the Irish Dental Association by Behaviour & Attitudes. The research took the form of a postal 'census' survey with the questionnaire being mailed to dentists throughout Ireland at the beginning of April 2009. Postal returns continued into May 2009 and resulted in a total of 440 responses.

## British support

The results echoed the findings of 2008 British Dental Association (BDA) research, which found that half of those sampled were aware that at least one of their patients had travelled overseas for dental treatment. Just over half of these dentists had treated patients for complications arising from the work. Reasons for carrying out the remedial treatment included the poor quality of the work carried out overseas, infection, the patient suffering pain and the treatment provided being clinically inappropriate. The IDA's research prompted a fresh warning to patients from the BDA, with Executive Board Chair Susie Sanderson advising caution to patients considering travelling overseas: "While travelling abroad may appear to be a cheaper way to receive private dental treatments, difficulties can arise if there are problems with the treatment when the patient returns home. Anyone considering having treatment overseas needs to make sure they are aware of potential risks and hidden costs.

Unfortunately, a significant number of patients who have received treatment abroad are having remedial work to rectify problems with it".



## Media coverage

The survey results and Dr Blackwell's comments attracted very significant media coverage. Television, national radio, local radio and a multitude of print media all reported the findings and many invited Dr Blackwell to participate in their programmes.

IDA NEWS

# “Single greatest retrograde step”

IDA campaigns against abolition of DTBS

A delegation from the Association recently met with the Minister for Social Welfare, Mary Hanafin, and officials from the Department to discuss the proposal in the McCarthy Report to abolish the Dental Treatment Benefit Scheme (DTBS). Details of an economic analysis of the benefits of the DTBS to the State, which was commissioned by the IDA, were presented.

Prior to the meeting, Dr Helen Walsh, Chair of the General Practitioners Committee of the Association, said: “The DTBS is the single greatest vehicle for promoting better oral health. The scheme is widely regarded as contributing to a major improvement in the dental health of the population and the Association suggests that its abolition would represent the single greatest retrograde step in the history of oral health within the State”. The delegation also met and briefed Fine Gael Health Spokesperson, Dr James Reilly.



The Association’s delegation prior to meeting the Minister for Social Welfare and, separately, the Fine Gael Spokesperson on Health, Dr James Reilly, (from left): Dr Sean O’Seachnasai, Raheny (member, General Practitioners Committee); Ms Clare Dowling, Employment/Communications Officer; Mr Fintan Hourihan, Chief Executive; Dr Helen Walsh, Portobello (Chair, General Practitioners Committee); Dr Maurice Quirke, New Ross (Past Chair, General Practitioners Committee); and, Dr John Nolan, Glenageary (member, General Practitioners Committee).

## LETTER TO THE EDITOR

A eagarthóir,

Bunaíodh Acadamh na Lianna i 1968. Is é aidhm an Acadaimh oideachas trí Ghaeilge a chur ar fáil don Ghairm Míochaine agus do na Gairmeacha Comhghaolmhara. Beidh fáilte and fichead roimh bail dod’ phroifisiún. Níl uatha ach suim sa Ghaeilge. Tá tuilleadh eolais le fail ar ár suíomh idirlín nua – [www.acadamhnalianna.com](http://www.acadamhnalianna.com). Bheinn buíoch duit dá scaipeofá an scéal i measc do chuid bhaill.

The ‘Academy of Healers’ was founded in 1968. Its purpose is to provide medical education through Irish to doctors and allied professions. Any of your members would be most welcome. The only requirement is an interest in the Irish language. Further information can be found on our new internet site – [www.acadamhnalianna.com](http://www.acadamhnalianna.com). I would be grateful if you would distribute this information to your members.

Le meas

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## Dentists launch poster campaign against cuts



The IDA has launched a poster campaign in 1,000 dentists’ surgeries to protest at the proposal made in the recent An Bord Snip report to abolish the Dental Treatment Benefit Scheme (DTBS). Posters with the banner heading ‘Stop the Rot’ have been sent to dental surgeries around the country as part of a major public information campaign being prepared by the IDA to oppose the cuts. Fintan Hourihan, Chief Executive of the IDA, said that any move to abolish the Scheme would have a serious impact on dental health and discourage people from having regular check-ups: “Dentists have reacted with dismay to the idea that this scheme might be cut. We intend to fight vigorously to make people aware of the risk to the scheme, which they’ve already paid for through their PRSI contributions. Workers on the average industrial wage contribute €20 per week in PRSI contributions, while higher earners contribute up to €53 per week towards dental and other benefits”.

## 2010 Diary & Directory

The 2010 Diary will be sent to all members in November. This worthwhile publication contains a listing of members and trade suppliers, and will be an essential addition to any dental practice. The IDA would like to thank all advertisers for their continued support for this publication.



## North Eastern Branch

The next meeting of the North Eastern Branch will take place on Thursday October 15 at the Nuremore Hotel, Monaghan. Dr Eoin Mullane will present on 'The Endo Experience: Endodontics and the Operating Microscope'. The meeting will commence at 8.00pm.

## Clinical Audit in Dental Radiology – Eastern Branch Meeting

Dentists will be aware that Statutory Instrument (SI) 478/303 is the law requiring dentists to adhere to best practice in radiology, while it also provides for the health protection of individuals against the dangers of ionising radiation in relation to medical exposures. Also, dentists are required to perform appropriate quality assurance measures and collect data to assist in radiology audits. An IDA working group made up of Drs Andrew Bolas, Eamon Croke, Maurice FitzGerald and Maurice Quirke has put together a 'Dental Practice Radiography File' (DPRF), which will allow practitioners to collate all relevant information and data in order to conduct an internal audit in their dental practice.

In response to SI 478/303, a clinical audit workshop will take place to assist practitioners with their legal obligations.

### Details are as follows:

**Venue:** Whites Hotel, Wexford

**Date:** Wednesday October 7, 2009

**Time:** 8.00pm-9.00pm

**Speakers:** Dr Andrew Bolas and Dr Maurice Fitzgerald

A comprehensive document to accompany the workshop is available for IDA members to download from the IDA website: [www.dentist.ie](http://www.dentist.ie). All IDA members welcome.

## Munster Branch

### Branch meeting

The next Munster Branch meeting will take place on Wednesday October 21 at 8.00pm, in the Maryborough House Hotel, Douglas.

The title of the presentation is 'Paedodontic Overview' and the speaker is Dr Barbara Coyne, a paediatric dentist working in Dublin and Cork.

### Annual Scientific Meeting

Dr Jens Andreasen will address the Munster Branch on 'Dental Traumatology' on Friday November 20 at the Sheraton Hotel, Fota Island, Cork.

Dr Andreasen serves as an associate professor at the University Hospital in Copenhagen, Denmark. In 1959, he received his Doctor of Dental Surgery from the Royal Dental College in Copenhagen. He completed his postgraduate training in oral and maxillofacial surgery at the University Hospital.

He has authored 308 publications and 10 textbooks covering topics such as dental traumatology, tooth replantation and autotransplantation, tooth eruption and tooth impaction. He has received four honorary doctorate degrees and has been invited to lecture in 44 countries.

## Metro Branch



On Friday October 9, starting at 1.00pm, an afternoon of talks covering key aspects of cross-infection control and prevention in the dental surgery will take place at the Ballsbridge Court D4 Hotel.

The entire dental team is invited and the event is free of charge to IDA members. Speakers on the day will include Professor David Coleman, Mary O'Donnell and Dr Ronnie Russell.

The Metro Branch Party follows that evening with cocktails, dinner and music. Tickets are €45 each and everyone is welcome. To book your places on the day, or for tickets to the party, please contact IDA House.



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## IDA NEWS

## Exclusive AED deal for IDA members

An automated external defibrillator (AED) is a machine that delivers an electric shock to help restore a normal heart rhythm. Members of the public can be trained to use AEDs. It has become increasingly important for all frontline health professional surgeries to have an AED. The IDA contacted a number of AED suppliers to the Irish market and asked them to offer IDA members an exclusive deal on purchasing an AED for their dental clinic. We have been assured that this offer is only available to dental professionals who are members of the IDA. The following company responded with the following details:

### Heartsafety Solutions

Contact: David Greville, Tel: 01 466 1191, or log on to [www.hearts.ie](http://www.hearts.ie). Samaritan Pad:

- €999 + VAT (normal price €1,350 + VAT);
- seven-year warranty;
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- next day replacement of any equipment if required;
- FREE spare Pad-Pak;
- FREE replacement Pad-Pak;
- FREE soft carry case;
- FREE BLS kit (CPR mask, gloves, razor, shears); and,
- suppliers of AEDS to the HSE, GAA National Defibrillator Scheme, Jurys Hotels, City of Limerick VEC, Co. Dublin VEC, Dept of Social & Family Affairs, and Houses of the Oireachtas.

This deal is only available to members of the IDA. You will need to quote your IDA number for a quotation.

## Economic evening

In association with Omega Financial Management, the IDA will run an 'Economic Briefing Evening' on Wednesday October 28, at the Radisson Blu St Helen's Hotel in Booterstown. The keynote speaker at the event will be Mr Jim Power, Chief Economist, Friends First. Further details will be announced shortly.

## RCSI Scientific Meeting focuses on 'Dentistry Today'

The Annual Scientific Meeting of the Faculty of Dentistry of the Royal College of Surgeons in Ireland will be held in the Royal College of Surgeons in Ireland on Thursday and Friday October 29-30, 2009. The Meeting's title this year is 'Dentistry Today – The Current Status'. Presentations on the current status of the art and science of dentistry today, and how it will be practised in the future, will be delivered by an international panel of speakers.

Dentists who wish to attend can register by using the following link: [https://abbey.amlinkevents.com/ei/getdemo.ei?id=136&s=\\_2U010YUQ0](https://abbey.amlinkevents.com/ei/getdemo.ei?id=136&s=_2U010YUQ0).

For further information please visit the Faculty of Dentistry website – [www.fodasmrcsi.ie](http://www.fodasmrcsi.ie).

## Communicating with Dental Protection

Dental Protection, in conjunction with the IDA, will run a seminar on communication skills entitled 'Close Encounters of the Wrong Kind – Can you really say that?' at two venues in November. The seminars will broadly look at communication skills in complaints and claims, and the consent process. Dates, times and venues:

- Ormonde Hotel, Kilkenny, Monday November 9; and,
- Crowne Plaza Hotel, Dundalk, Tuesday November 10.

Staff from Dental Protection will give presentations and will be on hand to answer any queries on the night. To book your place, please contact IDA House or log on to [www.dentist.ie](http://www.dentist.ie). Booking forms will be sent to all members.

## Hall claim's Fahy's Captain's Prize



At Carlow Golf Club on the occasion of his Captain's day is Dr John Fahy (left) along with the winner, Dr Gerry Hall (centre). Representing the sponsors Biomet 3i, is Bo Rosendahl (right). A great day was had by all who played, including the guests from the UK and Sweden.

## QUIZ

Submitted by Dr David Finucane



Trauma to tooth 51.



Radiograph of tooth with similar presentation.

**A four-year-old boy suffered trauma to tooth 51 six months ago.**

1. Is tooth 51 vital or non-vital?
2. Why has 51 changed colour?
3. What treatment is required?
4. What further sequelae are anticipated?

Answers on page 250



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## HSE threatens to reduce starting salaries

The IDA has responded immediately to a letter received from the HSE threatening to renege on an agreement regarding the starting pay for general dental surgeons. The letter, written by Chief Executive Fintan Hourihan, includes the following: "Frankly, I am flabbergasted at the proposal to renege on an agreement reached with the Association in regard to the starting pay for general dental surgeons. ...the HSE needs to retain ...(its)...arrangements today more than ever if it is to be regarded as an employer of choice, as it purports to be".

The response goes on to highlight the "savage assaults on the terms and conditions for general dental surgeons". Among those assaults listed in the letter are:

- the failure to approve the filling of vacancies at general dental surgeon level throughout all areas of the HSE;
- the refusal by the HSE to act on critical staff shortages identified by the IDA in successive meetings which have been the cause of untold stress to dentists and vulnerable patients; and,
- the refusal by the HSE to sanction the hiring of staff to cover short-term absences such as maternity cover, sick leave, etc.

The response of the IDA finishes by stating that, if necessary, the Association will ballot on industrial action and all other means to protect the interests of its hard-working members "...in the face of this sustained assault on the conditions of its members".



## New Committee Chairman appointed

Dr Eamon Croke has been appointed by the Council of the Association to be the first Chairman of the IDA's Quality and Patient Safety Committee.

## Meeting with HSE

A delegation from the Association recently met with senior management of the Health Services Executive (HSE). Among the issues discussed were the difficulties that dentists are experiencing with claims and reclaims under the Dental Treatment Services Scheme (DTSS). A separate meeting to deal exclusively with this issue is to take place in the near future and the staff at IDA House wish to be notified of the difficulties that members are experiencing with DTSS claims at present. Other issues discussed included the need for a Chief Dental Officer to be appointed and the need for a senior dental leadership role within the HSE. The HSE representatives also revealed that they intend to commission a study of dental services within the HSE and under the DTSS scheme and IDA stated the importance of being consulted on same.



## Equipment and more at Identex 09

There was an impressive display of dental equipment and other supplies at Identex 09, which took place in Dublin in September.



IDA President Donal Blackwell attended Identex and was welcomed by the President of the AIDI, Pat O'Brien.



On the Promed stand were Colin Denman, Nuala O'Connell and Niamh Hogan.

Despite the impact of the economic downturn on the Irish dental market, exhibitors turned out in force at the Identex exhibition staged in Dublin last month. Organising body, the Association of the Irish Dental Industry (AIDI), hosts the show every two years and the 2009 event took place at the D4 Hotel (formerly Jury's Ballsbridge). Exhibitors observed that numbers of dentists attending the show were slightly down on 2007, but that it wasn't surprising given the current climate.

Henry Schein and DMI were easily the two largest exhibitors with a wide range of equipment and various supplies on display. Henry Schein has signed a new deal with DMG to distribute their products in Ireland, including Honigum, Luxatemp, Luxacore and Vitique. Meanwhile DMI has appointed Philomena Gough as its Northern Ireland Account Manager. Philomena is a dental nurse who worked as a practice manager for 15 years. Prior to joining DMI, Philomena spent six years with B.F. Mulholland Ltd.

Word in the market is that spending on capital items is significantly down with dentists choosing to service and recycle existing equipment. Sales of disposable items, however, are staying reasonably



Philomena Gough has been appointed Northern Ireland Account Manager with DMI.



At the Journal of the Irish Dental Association (JIDA) stand were (from left) Anna Condra, Ivoclar Vivadent; Ryan Maguire, Heraeus Kulzer; and, Pat Murray of the JIDA.

buoyant. In the case of implants and aesthetic items, the market has stalled and there is a significant fall off in demand as dentists and patients hold off on expenditure.

## Front teeth injuries – a trend or a blip?

Among the more than 200 dental professionals that attended Identex was a Longford dentist, Dr Charles Madden, who approached the *Journal of the Irish Dental Association's* (JIDA) stand with a report and a query. He had, in two weeks in September, treated one very serious and two fairly serious front teeth injuries,

caused by Gaelic sports, to girls of 15 and under. They had not been wearing gum shields. He wanted to know, through the JIDA, if any colleagues had a similar experience. He hoped not, but if so, could they let us know at the office of the publishers of the JIDA (Think Media – 01-856 1166).

## BUSINESS NEWS

## Minister launches Colgate Oral Health Month



James Holahan, Managing Director, Colgate-Palmolive Ireland; Mary Harney, Minister for Health and Children; and, Fintan Hourihan, Chief Executive of the Irish Dental Association, at the Department of Health for the launch of Colgate Oral Health Month, in association with the IDA.

Speaking at the launch of Colgate Oral Health Month, the Minister for Health and Children, Mary Harney TD, said: "Working in partnership with the IDA, Colgate Oral Health Month greatly encourages communication between dental professionals and patients. It also serves as an excellent reminder that good oral healthcare is central to healthy living and should be considered an integral part of our general health and wellbeing".

This year, as well as the educational road shows that took place around the country, consumers helped 'Share a Smile' with the children of Belarus affected by the Chernobyl nuclear disaster, by supporting Chernobyl Dental Aid Ireland in their local dental surgery.

## 30% avoid dentist appointments

New research into Irish dental habits, commissioned by Wrigley's Orbit Complete sugarfree chewing gum, has revealed that over two-thirds of the population do not visit the dentist regularly. In fact, 30% of the population have not attended a dental appointment within the last year despite the fact that the Irish Dental Association (IDA) recommends that everyone should have a dental check-up every six months to one year.

One-third of the Irish population have lost three or more adult teeth and many of these people have avoided visits to the dentist. This is apparently due to nerves, with 41% of people admitting to being apprehensive about dental visits. Unsurprisingly the research has shown that those who avoid dental visits are more likely to have lost their adult teeth.

The research also uncovered that a large percentage



## Top model booked in for makeover

"When you have what is arguably the most ergonomic treatment centre on the market it's often difficult to see where improvement can be made. However, even with great beauty there is room for enhancement." That's according to Takara Belmont, describing their sentiment when launching their Cleo II treatment centre. "Like all good makeovers, there are many subtle improvements, which collectively result in an exquisite transformation. The Cleo already boasts a design of distinction; its folding leg rest gives it a less intimidating appearance than other conventional designs, while offering obvious ergonomic benefits to the practitioner. As a society we are obsessed with aesthetics; however, this can be at the expense of functionality, reliability and cost. Takara Belmont is confident that their new model will not disappoint on any of these accounts and looks forward to unveiling it at dental showcases," said the company statement.

## Back by popular demand

According to the company, the popularity of the Oral-B Interspace power brush head (IP17) is evidenced by its re-introduction as a stand-alone pack. Previously only available as part of a kit, dentists and hygienists across the country have been inundated by patient requests for it to be sold as a single pack. P&G listened and is pleased to announce that the IP17 is back.

The filaments on this brush are tapered to access tight spaces, which makes it ideal for cleaning around implants as well as crowns and bridges. It should be used in conjunction with the standard Oral-B power brushhead and fits all the company's power handles.

IP17 is just one of a range of Oral-B replacement power brush heads. Patients' brushing needs differ and the company therefore has a range of options to suit. For example, there's the orthodontic head, which is ideal for cleaning around fixed appliances, and the FlossAction head for those who want exceptional inter-dental cleaning. The Sensitive, Pro Bright, Precision Clean and Stages Power heads for kids complete the range.

of the Irish population suffer from poor oral hygiene habits. For instance, over one-third of the Irish population have never flossed and 14% will only floss if they have an upcoming dental appointment. And despite the fact that sugarfree chewing gum helps keep plaque at bay and strengthens teeth and gums, only one in ten people chew gum as part of their oral care routine.

Dr Tiernan O'Brien of the IDA states: "It is evident from these results that Irish people need to take a more active role in maintaining good oral care to prevent problems such as gum disease and tooth decay. But the positive news for the dental care standards in Ireland is that people who visit the dentist regularly have adopted a good oral care routine".

Wrigleys is offering dentists the chance to order free samples of Orbit Complete sugarfree gum for their patients. To do so, visit: <http://www.betteroralhealth.info>.





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An independent panel of judges will adjudicate on the nominations. The award-winning dentist will be announced in the December/January edition of the Journal while the patient who nominates the winning dentist will win a family holiday in Florida.

Posters and leaflets will be provided to dentists for their surgery waiting rooms or reception areas, and the competition will be publicised nationally by Sensodyne.

For further information, see [www.sensodyne.ie](http://www.sensodyne.ie) or contact the Journal of the Irish Dental Association on 01-8561166.

Closing date for completed entries is November 1, 2009. Full competition rules and complete information on prize is available on [www.sensodyne.ie](http://www.sensodyne.ie)



journal of the irish dental association  
Iris Cumainn D eadach na h ireann





BUSINESS NEWS

**Nominator gets to Florida**



Readers of the Journal will recall that Corkman David Burke provided the winning nomination for the Sensodyne Sensitive Dentist of the Year in 2008. David's nomination of Dr Niall Sharkey spoke of his (David's) long standing fear of the dentist's chair and of how Dr Sharkey overcame that fear through patience

and good communication. The prize for the winning nomination was a family holiday in Florida which the Burkes enjoyed in August: David is pictured at Universal Studios with his wife, Rachel, and their children Charlie (3), Jack (6) and Matthew (11).

**Dacus displays Heka treatment centre**

Visitors to Dacus Dental's stand at Identex had an opportunity to see Heka Dental's Unic Treatment Centre, which, according to the company, combines aesthetic beauty with state-of-the-art ergonomic efficiency. "Therefore, they not only look good but are a pleasure to work with too! The ultimate embodiment of feedback from patients, dentists, dental technicians and service engineers, Unic's inviting appearance and carefully thought through functionality creates the perfect environment for a pleasant dental visit. Designed by David Lewis, the internationally renowned designer responsible for the beautiful yet functional designs associated with Bang & Olufsen, etc., Unic is the epitome of ergonomic design. Everything – instrument table, trays, light, x-ray unit, etc. – is within easy reach. Heka Dental call it intuitive design and functionality – everything is exactly where you would expect it to be – making even complex clinical procedures easier, more efficient and comfortable for the patient and dental team," says the company. According to its statement: "Unic also incorporates various integrated infection control features which are designed to meet the most stringent infection control protocols. In addition, it is electrically operated not hydraulically driven. This enables incorporation of all the state-of-the-art features associated with top-of-the-range electrically operated units, features not necessarily possible with hydraulic units. It also means that it offers more precise control and superior reliability. Therefore it is supplied with a fully comprehensive three-year warranty".



**Cutting out the fund manager – and their charges**

Quinn Life, the Cavan-based investments and pensions provider, claims to have the most competitive pension charging structure in the Irish market.

The company offers executive, company and personal pensions, offering all the tax saving opportunities of a pension plan but, they say, without the high charging structure traditionally associated with pension products in Ireland.

Siobhan Gannon, Quinn Life general manager, says: "There is no doubt that charges impact performance and the cumulative impact over a period of 20-40 years of investment in a pension fund will be significant. Our low charging structure combined with a broad range of funds provides each customer with the best opportunity to make good returns. People need to assess the benefits of the service for which they are being charged. Where is the value in paying a fund manager when your fund is losing value?"

"In the current economic climate, charges and fees should be at the forefront of everyone's minds especially when shopping around for a pension. An easy way to analyse charges is to look at what is known as the 'reduction in yield'. It is a way of expressing the impact which charges have on a savings, investment or pension policies over a specific period of time. It sets out the reduction in the yield or return that would otherwise have been provided if the policy carried no charges at all.

Reduction in yield is an excellent way of judging which policies are good value."

According to the company, Quinn Life works on an execution-only basis, which means that they do not have any fund managers or financial advisors, so the investor makes the decisions.

"Evidence suggests that it is almost impossible for a fund manager to consistently beat market performance year on year. Even if there were such a fund manager, it is difficult for the customer to identify the most successful fund manager for that year in advance. Fund management introduces risk in that there is a reliance on the fund manager to pick the stocks they think will perform well, and this risk increases as managers are pushed to recover from underperformance," says Gannon.

Quinn Life claims to have been instrumental in driving down the cost of investing. "Customers can invest in a well-diversified, transparent portfolio of funds with charging structures as low as 1% per annum. The fund range includes well established European and US markets and also emerging markets such as China and Latin America. There is no lock-in or exit charge on Quinn Life investment funds affording the customer the flexibility to cash in at any time," says Gannon.

The company also provides full internet portfolio management through its on-line web service, making it easy for individual investors to manage their investment and pension funds.



## CED will remain active in new Brussels arena

CED Honorary Treasurer Tom Feeney provides an update on developments in Europe.



### Priorities of the Swedish presidency

Following the European elections, we are now in an 'inter-regnum' period with not much activity in Brussels. In addition, the CED has been continuing to restructure, and this has occupied much of the CED's energies during the past months. In the meantime, in July, Sweden took over the presidency of the EU from the Czech Republic. Swedish priorities in the area of health are the fight against the new influenza virus (swine flu), limiting the harmful effects of alcohol, preventing or delaying the use of drugs by young people, adopting new measures for smoke-free environments, and encouraging healthy and dignified ageing. The presidency will also attempt to propose incentives for development of new effective anti-bacterials, increase European co-operation on evaluating the effects of medicines after their approval and market launch, and continue work on the pharmaceutical package.

### Lisbon Treaty

The Lisbon Treaty, which is meant to strengthen the EU's ability to function effectively as a union of 27+ members, needs to be ratified by 27 Member States and their instruments of ratification need to be deposited for the Treaty to come into force. The main steps that still need to be taken in the process are the following:

- a 'yes' vote in the second Irish referendum on October 2, 2009;
- amendment of German law on parliamentary participation in EU affairs is necessary before the instrument of ratification can be deposited (based on Constitutional court decision and expected in mid-October);



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## EU NEWS

- the Czech President still has to sign the instrument of ratification (only after a 'yes' vote from Ireland); and,
- the Polish President still has to sign the instrument of ratification (only after a 'yes' vote from Ireland).

If the Lisbon Treaty is not ratified, the Union will have to function under the provisions of the Treaty of Nice; one immediate consequence would be that the number of Commissioners would have to be reduced starting in 2009.

## The new Brussels arena and the CED

The CED will have to adapt its Brussels work to the new political balance (at first glance there are no major changes, but inclusion of far-left and far-right MEPs might change the dynamics), personalities and structures. While it is too early to judge how the new situation will affect development of policies of particular interest to the CED, during the next few months Brussels is likely to continue to concentrate, apart from the global challenges of the economic crisis and the swine influenza pandemic, on its internal issues, especially connected with the Lisbon Treaty and the appointment of the new Commission. This could mean that new major legislative initiatives coming from the Commission will be delayed and that there will be less political impetus for reaching agreement on non-critical issues in the Council. The CED Brussels Office will continue to monitor the general political situation and report to the Board.

## Next European Commission

There is no clear agreement on when the new European Commission (2009-2014) will be appointed. The first step will be the appointment of the President.

On Wednesday September 16, Jose Manuel Barroso was elected for a second five-year term as European Commission President.

There is still no agreement on when the new permanent Commission will take office. Member States will have to appoint their candidates for Commissioner; there will have to be an agreement on division of portfolios and confirmation in the European Parliament, so the process could be delayed until early 2010. Some Commissioners from the current Commission are likely to be on the list again but might get another portfolio; Health Commissioner Vassiliou has indicated that she hopes to be reappointed for another term and there have been no indications of serious counter-candidates. One issue that appears to be clear, assuming that the Lisbon Treaty is put into force, is that the new Commission will keep the number of 27 Commissioner seats at least until 2014 (as noted in the Lisbon Treaty) and probably even beyond 2014 (one of four concessions to Ireland in December 2008).

## Elections to the European Parliament

Between June 4 and 7, elections to the European Parliament were held in 27 EU Member States. European citizens elected 736 Members of the European Parliament (MEPs) for the next five years (2009-2014). The results showed a clear victory for centre-right political groups and

a defeat for the centre-left option. In the outgoing European Parliament, the EPP-ED political group had 284 and the Party of European Socialists (PES) had 215 MEPs out of a total of 785 seats. In the new Parliament, the newly named European People's Party (EPP) group has 265 MEPs and the newly named Socialists and Democrats (S&D) group has only 184 MEPs out of a total of 736. The other political groups have the following number of seats:

- Alliance of Liberals and Democrats for Europe (ALDE): 84 seats;
- Greens/European Free Alliance: 55 seats;
- European Conservatives and Reformists (ECR): 55 seats;
- European United Left-Nordic Green Left – GUE/NLG (far-left): 35 seats; and,
- Europe of Freedom and Democracy group – EFD (far-right): 30 seats.

The new MEPs met on July 14-16 in Strasbourg for a constitutive session. Jerzy Buzek (EPP), a former Polish Prime Minister, was elected as the new President of the European Parliament until 2012, when the position will go to a member of the S&D group (most likely the current group leader, Martin Schultz).

## Dental tourism and Irish magazine

The CED Brussels office is regularly contacted by promoters of dental tourism looking for endorsement. Below is the content of a recent email to the office from a company in Germany seeking to promote dental tourism to Hungary through an Irish magazine:

"One of our clients is promoting dental travel to Hungary in Ireland and Great Britain. In order to strengthen the Irish and British population's confidence in the quality and overall standard of Hungarian dentistry, we are currently writing an editorial for an Irish magazine, which is to be released shortly.

In this respect it would be extremely helpful to quote one of your association's officials with a statement. The statement should underline the quality and high standard of Hungarian dentistry and should also stress the strict licensing procedures applied by the local bodies. I once heard, for example, that Hungarian dentists are required to participate in training regularly in order to maintain their licences. This kind of information is what we are looking for.

Unfortunately we only have a very short period of time left. The statement should arrive at our office by the end of the week. If you so wish, I can call you by phone tomorrow and explain my request".

The CED's policy is not to reply to such emails.

## Future plans

In autumn, work will continue on the Directive on the application of patients' rights in cross-border healthcare, which has passed in the Parliament and is currently being discussed in the Council Working Party on Public Health. After failing to come to an agreement under the Czech presidency, EU Member States are now discussing the Swedish presidency compromise proposal. Issues that are still unclear include information to patients (who provides the information and



what kind of information), exclusion of certain kinds of healthcare from the Directive (long-term healthcare, organ transplantation) and exclusion of certain providers from the Directive. Particularly, the latter could be very important for European dentists as some Member States had earlier suggested that providers who are not affiliated with national healthcare or social security systems should be excluded. The text currently under discussion retains the possibility to exclude providers who are not subject to at least the same or equivalent standards and guidelines on quality and safety, including provisions on supervision, as providers that are part of the social security system, which is a milder version of the original proposal.

The Commission will also present the results from the public consultation on a sustainable health professionals workforce. The CED contributed to the consultation, pointing out the specific situation of dentists. According to preliminary signals, the consultation process failed to yield the sort of results the Commission was looking for and it is possible that the Commission's preliminary plans to issue a White Paper with specific proposals for further action at EU level will now be shelved.



From left: Nina Bernot, CED Head of Office; Tom Feeney, CED Honorary Treasurer; Walter Grupp; and, Silvia Schellhorn-Grupp (owner) at the signing of the office contract for the CED's new independent office.

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## INTERVIEW



### We need to support each other

Donal Blackwell is about half-way through his term as Association President and when PAUL O'GRADY met him for the *Journal*, he found him very focused on achieving his goals and strengthening ties between dentists.

Donal Blackwell, President of the Irish Dental Association for 2009-2010, has an interesting take on the public's perception of dentists. He says: "There's an old saying amongst dentists that ask any Irish person what they think of dentists and the reply will almost invariably be – 'I'm not fond of dentists. Mind you, my fella is great'". It's a very Irish double-take. Their direct experience of dentistry may be good, but they harbour reservations. However, the President says that the relationship is changing in tandem with the change in the services dentists provide for their patients. "We were a port of last call. Patients came to us in a time of need. Now we provide a service for what people want. The improvement in aesthetics has played a huge role in that. When I graduated [1989], it wasn't uncommon in any Irish rural town to see people out and about with teeth missing. That's much rarer now and reflects both the increase in patients' expectations and the fact that dentists' skill set is light years ahead of 20 years ago."

#### Goal oriented

Donal is very clear thinking in his goals for his presidency. "My most important goal is to increase cohesiveness amongst members because dentistry can be a very isolating profession. The reality is that every dentist has pressures and it is tempting to let connections with fellow professionals slip. Increasing connections amongst dentists is hugely important to me but it is only achieved through real down-to-earth work like picking up a phone to a local dentist and asking them to attend a branch meeting."

His secondary goals, but which require equal levels of work and commitment, are to educate those who make decisions on dentistry, about dentistry; and, to educate the public about dental issues. "We need to get to the 'purse-string' decision makers and make them more aware of the benefits of dentistry and we need to try to educate the public and bring them with us. A good example is a colleague who

put off getting some work done on his teeth for a while. When he eventually had the work done, he really appreciated the benefit it had for his quality of life. He made the remark to me afterwards that as a profession we completely undervalue our work. I found that very striking."

*"My message to dentists, particularly to those who are not members of the Association, is that you need support."*

Donal is acutely aware of the upward pressure on standards through regulation and legislation (which he welcomes) and the downward pressure on price (which he sees as pernicious). "We have very high standards of dentistry in Ireland and we need to fight to make sure that dentistry does not go the way of the food industry where quality is being driven out the door by the pressure to drive down the price of everything."

This is directly linked to Donal's concern for dentists. He says (again): "Dentistry is a very isolating profession. It's a very difficult but interesting job. We do an intricate job for our patients – we have to invade their personal space and we are perceived to charge high prices. This can lead to high levels of stress and exhaustion. My message to dentists, particularly to those who are not members of the Association, is that you need support. If you don't interact with colleagues it really is not very good for your health. If you are not involved, you are missing out on valuable support and knowledge that is available to you".

*"Any group that can contribute to the further education of dentists, such as the Faculty of General Dental Practitioners, is welcome."*

#### Dental tourism

Which brings us to the vexed question of dental tourism. "Up to now", says Donal, "the focus has been on costs only. There has been nothing on quality and longevity which we see as the nuts and bolts

of the argument. We did succeed, recently, through the results of the survey [see IDA News – Ed.] in introducing a flavour of that into the argument. And we did it without dictating the argument – we just want to include issues of quality, longevity and value for money. I firmly believe that only after time can you look back and make valid judgements. This will play out in the long term, but sadly the media will have lost interest in eight to ten years' time and no one will say that 'yes the IDA was right'. The reality is that the focus on cost and price is too narrow – like all healthcare professions we have to consider the long term."

#### CPD and practice

The advent of compulsory continuing professional development (CPD) is predictably welcomed by Donal but he draws an unexpected line between availing of CPD and creating a good work environment. "I personally will take advantage of the IDA courses on practice management and administration. I think it is really important to keep up to date on legislative and regulatory requirements. The focus up to now has been on technical aspects of dentistry, but now I think that it will help us to run our businesses in a better way." And speaking of running businesses in a better way, Donal is very exercised about the issue of creating a good work environment: "Control in our working environment allows us to enjoy it. If it is bad, it is our fault, and if it is good, it is because we make it so. Therefore, we have to devote some time and attention to making it good".

*"We need to get to the 'purse-string' decision makers and make them more aware of the benefits of dentistry..."*

In his class in NYU (see panel story) was an Italian dentist whose father – at the age of 65 – relocated his entire facility in Rome two years ago. "The control he has now of his working environment allows him to enjoy it. His name is Agostino Scipiona and he is a very accomplished implant dentist. He currently works five days a week but as he gets older, if he feels like it, he will reduce his workload. I think it is really important to create that sort of working environment – one that we enjoy. With the way the world is, I think we will all have to work longer than we thought and should make that as positive as possible."

## Professional development

Donal Blackwell operates a practice limited to fixed prosthodontics and implants in Waterford city. He has two associates and the practice has a staff of eight. He has been in limited practice in Waterford city since 1996 and a year ago, they moved into a new building and facility.

Donal originally qualified from TCD in 1988 and after a spell of 18 months with the NHS in England, he returned to Dungarvan where he joined his uncle in a family-based general practice. In 1995, he

spent a year at the Eastman Institute in England where he obtained an MSc. When he returned, he split his time between general practice in Dungarvan and a limited practice in Waterford city. Over time, the balance turned in favour of the limited practice and in 2004, he sold his interest in the Dungarvan practice. He took the chance then to pursue a two-year Fellowship in prosthodontics at New York University which he completed in 2006.

He is very grateful to his colleagues who have made it possible for him to be sufficiently available to carry out the duties of office.



## INTERVIEW

### IDA operations

In a typically frank admission, Donal says he is ashamed to say that he was surprised at the number of dedicated people who serve on Committees and, in various ways, give their time to the Association in very quiet and often unacknowledged ways. "The level and talent of dentists that give their time to the Association is a huge eye-opener. And we have a brilliant secretariat – a great team – who have made the organisation even more professional than I was aware of before taking up my post. I see huge improvements in the way we represent ourselves and in the professionalism of our organisation. With support and feedback from members, we will continue to improve and to be a meaningful organisation." The President is concerned that the Association remains active at grass roots level, although he acknowledges that other healthcare representative bodies are envious of the level of branch activity in the IDA.

### Government support for dentistry

"Compared to other healthcare sectors – and to other jurisdictions – Government support for dentistry and oral health in Ireland is low. There really is not much outside the two schemes (DTBS and DTSS). Amongst other things, there is no funding for capital expenditure or for pensions of dentists in private practice, even though those dentists are often supplying a public service through a public scheme. This differs, for example, from medical GPs, who do get support for medical education and capital expenditure. We want to bring that to the attention of those in power," says Donal.

*"I always go to IDENTEX and suppliers always give great support to our Annual Conference and PDS Seminar. The reality is we need each other to prosper."*

In fact, he summarises: "We want to communicate about the value of what we do in a rational and reasonable way. We particularly want to highlight the fact that we do have a substantial and measurable impact on the quality of life of our patients".

### Filled with hope

In doing the work alluded to in this interview, the IDA President says that there is a wealth of talent in the Association. "That fills me with hope. I believe that we can meet any challenge."



## Personal profile

Donal was born in London to Irish parents, who moved to Charleville, Co. Cork, when he was 10. Not long after, Donal went to board at Rockwell and from there he went to TCD. He is married to Eileen, also a dentist, and they have three children – Rachel who is 17; Laura who is 16; and Ben, who is 10. They live in Dungarvan where Donal indulges his love of sports and movies – he has a particular affection for Waterford hurling. Both daughters are in

boarding school so the demands of the presidency at weekends has had an effect on the amount of time he sees them. However, he justifies it by saying that being President of the IDA is really an honour and a once-in-a-lifetime opportunity.

All the family moved to New York while Donal was doing his Fellowship and they considered it a great opportunity for an adventure. Interestingly, it was the youngest who missed Ireland most.



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## The unerupted maxillary canine – a post-surgical review

*Journal of the Irish Dental Association 2009; 55 (5): 232-236.*

### Introduction

The unerupted impacted maxillary canine tooth is a complex problem of multifactorial aetiology. The maxillary canine has the longest path of eruption of any permanent tooth and, aside from the third molars, is the tooth most likely to become impacted.<sup>1</sup> The tooth may be impacted in a buccal position and this is often associated with an arch-length discrepancy.<sup>2</sup> However, a palatal displacement may be the result of genetic factors<sup>3</sup> or the presence of peg-shaped, short-rooted or absent lateral incisor teeth.<sup>4</sup>

The frequency of impaction varies from 0.8-2.8%.<sup>1</sup> In general, patients presenting with this type of problem are treated by surgical exposure of the unerupted impacted canine followed by orthodontic alignment of the tooth.

The Public Health Orthodontic Service in Ireland provides orthodontic treatment and care for patients with certain dental anomalies. Until July 2007 the criteria used were those known as the Department of Health Guidelines 1985.<sup>6</sup> In July 2007 the criteria for eligibility changed and the administrative structure of orthodontics within the public health system also changed. It was therefore decided to review the records of patients referred for surgical exposure of the unerupted impacted maxillary canine tooth attending the public orthodontic service in the counties of Cork and Kerry. The population of the counties of Cork and Kerry during the study

period increased from 580,365 in 2002 to 621,130 in 2006.<sup>7</sup>

The aims of the study were:

1. To determine what trends were evident regarding the number and site of the unerupted impacted maxillary canine.
2. To examine the eruption status of these teeth following surgical exposure.
3. To determine the incidence of agenesis or peg-shaped lateral incisors in patients referred for surgical exposure of an unerupted impacted maxillary canine tooth.

### Materials and methods

The letters of referral for all patients referred from the public health orthodontic service in the counties of Cork and Kerry for ancillary treatment from January 2000 until July 2007 were examined. From this we developed a list of 936 patients referred for surgical exposure of an unerupted maxillary canine tooth. The orthodontic records examined were:

1. The name, address, date of birth, sex and date of referral for surgical exposure of the tooth.
2. Pre-orthodontic study models.
3. Pre-surgical radiographs, OPG and lateral ceph.
4. Pre-orthodontic photographs.

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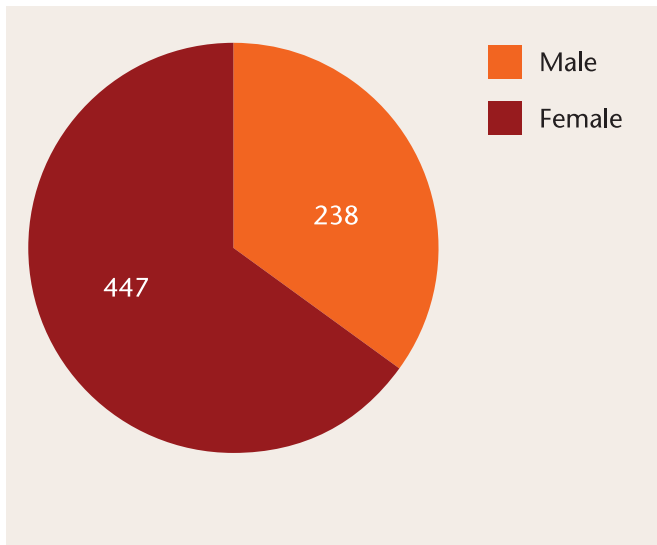


FIGURE 1: The number and sex of patients referred for surgical exposure of a maxillary canine tooth.

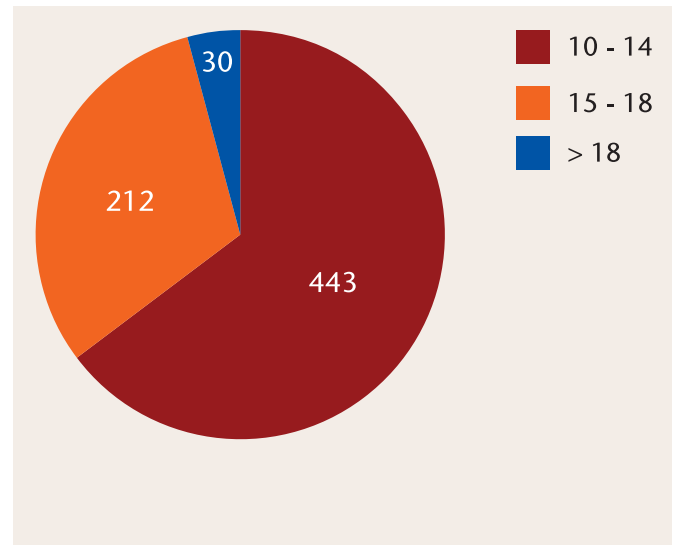


FIGURE 2: The age of patients at referral for surgery.

The site of the impacted tooth was determined from pre-surgical radiographs and pre-orthodontic photographs and study models. At times the comments of the oral surgeon were available in the orthodontic records. Agensis of the lateral incisors or the presence of peg-shaped lateral incisors was determined from pre-surgical radiographs and pre-orthodontic photographs and study models. Complete records were not available in all cases; however, if a decision could definitively be made then these cases were included in the study.

Unfortunately, between 2000 and 2007 the Health Service entered into private arrangements with a number of private orthodontists and with the local University Dental School & Hospital regarding the provision of treatment for groups of selected patients. As a result, the records of 180 patients were no longer available for examination. Subsequent review of patient records indicated that 70 patients either refused surgery following initial referral, failed to attend for the surgical appointment or failed to attend for orthodontic assessment following surgical exposure of the tooth, and in a small number of cases the tooth erupted prior to surgical exposure. This amounted to 70 patients being excluded from the study and we were left with 685 patients with full orthodontic records to be included in the study. The palatally placed canines were exposed by open exposure and allowed to erupt spontaneously. The buccally placed canines were exposed by apically repositioned flaps.

## Results

Figure 1 indicates the number and sex of patients referred for surgical exposure of the maxillary canine tooth. Of the 685 patients included in the study, 447 (65%) were female and 238 (35%) were male.

In Figure 2 we see the age of patients at referral for surgery. Of the 685 patients, 443 or 65% of the total number of patients in the study were between 10 and 14 years of age. A total of 212 patients

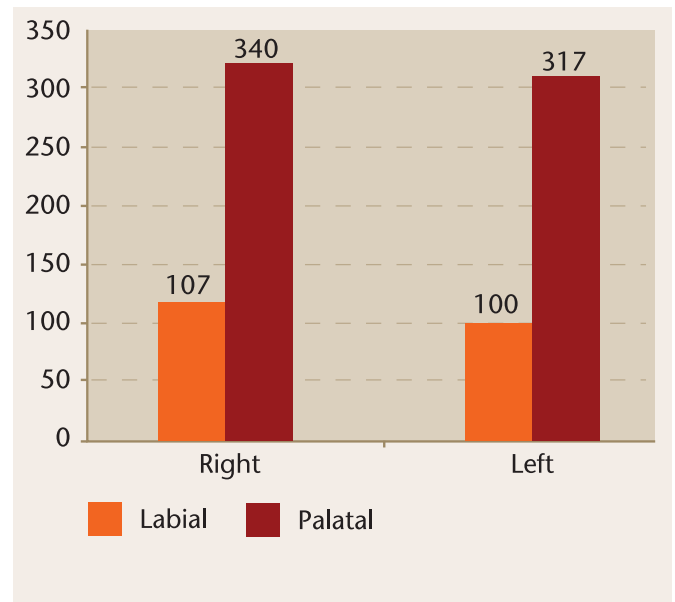


FIGURE 3: The number and site of the impacted teeth.

or 31% were between the ages of 15 and 18 years of age. Finally, 30 patients or 4% of the total were over 18 years of age at the time of referral for surgery.

The number and site of the impacted teeth is displayed in Figure 3. A total of 179 patients had both maxillary canine teeth referred for surgical exposure. In all, 864 teeth were referred for exposure and 657 of these, or 76% of the total number of teeth exposed, were palatally placed. A total of 207, or 24% of the teeth, were labially placed. It is evident from the diagram that there is very little difference between the number of teeth on the right hand side (447) and on the left hand side (417), despite 506 patients having only one tooth exposed.

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**Table 1: The eruption status following surgical exposure of the maxillary canine.**

Tooth erupted uneventfully	829	96%
Tooth erupted following re-exposure	17	2%
Tooth remaining unerupted	18	2%
<b>Total</b>	<b>864</b>	<b>100%</b>

**Table 1** outlines the eruption status following surgical exposure of the maxillary canine tooth. In 829 teeth, or 96% of the teeth surgically exposed, the tooth erupted uneventfully. However, in 35 cases, or 4% of impacted teeth, the tooth failed to erupt. Re-exposure was considered for 17 teeth and these teeth subsequently erupted. However, in 18 teeth re-exposure was not considered and these teeth subsequently failed to erupt, and the majority of cases were referred for surgical removal of the unerupted canine tooth.

Agenesis and peg-shaped malformation of lateral incisor teeth associated with the unerupted impacted maxillary canine tooth is examined in **Table 2**. In 635 cases, or 93% of the total number of patients referred, there was no evidence of congenital absence or peg-shaped malformation of the lateral incisor tooth. However, in 15 cases, or 2% of the patients referred, there was congenital absence or agenesis of the lateral incisor. In 34 cases, or 5% of the patients referred, a peg-shaped lateral incisor tooth was present.

### Discussion

The timeframe of January 2000 to July 2007 was selected specifically to ensure that as many records as possible were available to us. July 2007 was selected because after this many of the patients referred had not received their surgical treatment.

It is difficult to determine the incidence of unerupted impacted maxillary canine teeth in this study as the numbers of new patients referred varies from year to year.

The technique of open exposure was the surgical treatment of choice in the first instance for all patients. The reasons for this are as follows:

1. The number of personnel providing active orthodontic treatment within the orthodontic service varied over the period chosen for this study.
2. The timeframe from referral to surgical treatment also varied during the treatment period.
3. The technique of open exposure allowed sufficient flexibility to manage the treatment and care of patients who had surgical exposure of maxillary canines along with all the other patients requiring orthodontic treatment for a variety of different conditions. The closed exposure generally requires treatment to commence within a short period of time following the exposure of the tooth. However, the open exposure allows the orthodontist to give time for the tooth to erupt and therefore

**Table 2: The agenesis and peg-shaped malformation of lateral incisor teeth associated with unerupted maxillary canine teeth.**

No effect	636	93%
Agenesis	15	2%
Peg-shaped	34	5%
<b>Total</b>	<b>685</b>	<b>100%</b>

time to adequately plan within the context of the public service and the personnel available for orthodontic alignment of the tooth.

The aetiology of the ectopic canine is obscure but is likely to be multifactorial. The palatal displacement of the maxillary canine tooth may be caused by genetic factors as a primary origin of most of the palatal displacements;<sup>3</sup> however, other studies<sup>4</sup> come to the conclusion that there is an environmental factor involved in the palatal displacement of maxillary canines. Aetiology of labially impacted canines is generally considered to be due to an inadequate arch space.

In this study, the impacted maxillary canine was more prevalent in female patients than in male patients, at slightly less than 2:1. Dachi and Howell (1961)<sup>8</sup> found that it was slightly greater than 2:1, and more common in girls than boys. Jarjoura *et al* (2002)<sup>9</sup> also indicated that it was more common in women than men. Numerous articles have referred to the early detection and management of this condition;<sup>10,11,12,13</sup> however, this is not necessarily the case within a public health system, where treatment can only be offered if the tooth is surgically exposed. Therefore, work such as that done by Erickson and Kuroi,<sup>12</sup> where deciduous canines were extracted, or indeed where first premolars were extracted to facilitate eruption of the unerupted canine, were not included in this study. Early diagnosis and intervention can lead to significant improvement of 78% of cases, according to Erickson and Kuroi.<sup>12</sup> However, within the Irish system, if the tooth erupted, but in an unacceptable position, treatment might not be offered for this tooth; therefore, case selection had to be quite strict as to who would benefit from early intervention. It is possible that given the option patients may opt for this type of intervention, with a possibility of avoiding surgery, and opt to receive treatment privately outside the public health system.

The issue of interceptive management within a public health setting in Ireland is different to that of private practice. If an interceptive approach regarding extraction of deciduous canines leads to eruption of the canine tooth, even if the canine tooth erupts into an unacceptable position, then that patient can be refused further treatment for alignment of the tooth within the Irish public health system. However, if the tooth is surgically exposed then, irrespective of where the tooth erupts, that patient is entitled to receive orthodontic alignment of the tooth. The policy within the Orthodontic Unit for Cork and Kerry is to provide a situation to enable the patient to receive the most



comprehensive treatment available, i.e., if an interceptive approach would allow the tooth to erupt into an acceptable aesthetic and functional position then this approach was carried out. On the other hand, if it was felt that an interceptive approach would simply allow a tooth to erupt and the tooth would erupt into an unacceptable position, then the patient was referred for surgical exposure. Therefore, the decision to refer patients for surgical exposure was a clinical decision in an effort to provide the best possible opportunity for a successful outcome from the patient's point of view, working within the restrictions of a public health orthodontic system.

The age profile of patients in this study is important: the majority of patients were between 10 and 14 years of age at the time of referral for surgery. However, this did not mean that they received surgery when they were within this age band. During the period of the study, four oral surgeons were involved in the surgical exposure of the teeth. At one stage, due to the death of one surgeon and illness of another, there was a long timeframe – often over 18 months – from the time of referral to the time that the patient actually received surgery. The routine school examination in some areas of Cork and Kerry was delayed and, combined with the lack of radiographic facilities, these resulted in delays in patient referral. In many cases the unerupted impacted canine was only discovered during the orthodontic assessment. Therefore, the age profile for patients in this study is significantly higher than in other studies.<sup>13,11</sup>

In this study the majority of the canine teeth were in the palatal position with a palatal–labial ratio of 3:1. This is quite low in comparison with previous studies,<sup>14</sup> which found a palatal–canine ratio of 85–15%. Interestingly, there was little difference between the number of teeth impacted on the right hand side and the number of teeth impacted on the left hand side. Sometimes articles refer to teeth erupting in the line of the arch; however, this distinction was not made in this study and the positioning of the tooth was classified according to the direction of the surgical exposure if the unerupted impacted tooth was close to the line of the arch.

The eruption status of the canine teeth was one of the main reasons for conducting this study. In all cases the palatally placed teeth were exposed using open exposure and the labially placed teeth were exposed using an apically repositioned flap. Therefore, in all cases the open eruption method was used.<sup>15</sup> Patients who had the closed eruption method, i.e., a bonded attachment placed at operation and the palatal flaps sutured back intact, were not included in the study.

In this study, 829 canines or 96% of the total number of teeth referred for surgical exposure, erupted uneventfully. In 35 cases or 4% the teeth did not erupt. It was decided to re-expose the unerupted teeth in these cases and, following re-exposure, 17 cases or 2% subsequently erupted. In all, 18 canine teeth out of 864 teeth remained unerupted following surgical exposure and these teeth were subsequently extracted. Therefore, surgical exposure using the open eruption technique allowed 98% of the

canine teeth to erupt into the mouth. Of the 18 teeth that ankylosed and failed to erupt, seven were in a labial position and 11 were in the palatal position. Eight patients were in the 10–14 age group, five in the 15–18 and five in the greater than 18 age group. Therefore, a preliminary analysis indicates that age was not a definitive factor in ankylosis of these teeth. Perhaps a more detailed investigation on the exact position relative to the mid line and to the occlusal plane of these teeth may be of benefit in determining why these teeth failed to erupt.

Becker (1981)<sup>16</sup> reports an exceptionally high incidence of palatal displacement of maxillary cuspids in the presence of anomalous lateral incisors. In this study, I confined myself to the upper lateral incisors being either classified as absent or peg-shaped. I did not measure the size of the lateral incisors and perhaps this could be looked into in a further study. Becker found that in patients with unerupted impacted maxillary canine teeth, congenital absence was found in 5.5% and peg-shaped lateral incisors were found in 17.2% of cases. Mossy *et al* (1994)<sup>17</sup> found weak support for the association between palatal canines and the absence of lateral incisors, and a weak association between palatal displaced canines and lateral incisors of smaller than average crown width. Similarly, Peck *et al* (1996)<sup>18</sup> found similar results; however, Brenchly and Oliver (1997),<sup>19</sup> in their results, did not find that peg-shaped or small lateral incisors were associated with palatal displacement of the adjacent canine. In this study, we found that 15 out of 864 canines had a congenital absent lateral incisor associated with it; this was 1.7% of teeth. In 34 cases there was a peg-shaped lateral incisor present. This was 3.9% of impacted canine teeth. Therefore, in this study, the association of congenital absence or agenesis of lateral incisors, and indeed the presence of peg-shaped lateral incisors associated with unerupted impacted maxillary canine teeth is extremely low. I did not examine root resorption associated with the lateral incisors because the radiographic techniques used over the study period would not be sensitive enough to accurately determine the presence or absence, or even extent, of root resorption. The periodontal response of the canine teeth following surgical exposure and subsequent orthodontic alignment will be the subject of a future article.

### Summary

The orthodontic records of 685 patients referred for surgical exposure of an unerupted impacted maxillary canine tooth were examined. The condition was more common among females than males, slightly less than 2:1. The impacted teeth had a palatal–labial ratio of 3:1. All of the teeth were exposed using the open surgical technique and in 98% of cases the tooth erupted and was orthodontically aligned. In 2% of cases ankylosis occurred and the teeth were subsequently extracted. The presence of peg-shaped lateral incisors associated with the impacted maxillary canine tooth was 3.4% of the total number of impacted teeth and congenital absence was found in 1.7% of impacted teeth.

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# Reconstruction of the severely atrophic mandible with iliac crest grafts and endosteal implants: a report of two cases

*Journal of the Irish Dental Association 2009; 55 (5): 237-241.*

## Introduction

Edentulism in the mandible can often be a functionally and aesthetically debilitating condition.<sup>1,2</sup> Atrophy or resorption of the alveolus is a continuous process that occurs once the teeth are lost. This process is accelerated by tissue-borne complete dentures, and in particular those that are poorly adapted to the soft tissues and those with an improper occlusal scheme.<sup>3</sup> The sequelae of mandibular atrophy include suboptimal denture retention, impaired mastication and unbalanced diet, loss of vertical dimension, speech difficulties, and facial soft tissue changes. An atrophic mandible is also more vulnerable to fracture because of the decreased bone volume.<sup>4</sup> Reconstruction of the atrophic mandible presents a difficult surgical and prosthetic challenge. Various techniques, involving differing surgical procedures, graft materials, endosseous implant systems, and time periods between augmentation and implant placement have been advocated for reconstruction of the severely atrophic mandible.

Original treatments concentrated on the replacement of resorbed bone and involved autogenous iliac crest or rib onlay grafting to the inferior or superior borders of the mandible.<sup>5,6,7</sup> Reconstruction with iliac crest grafting was first reported in Europe by Clementschitsch<sup>8</sup> and in the USA by Thoma and Holland.<sup>9</sup> Macintosh and Obwegeser,<sup>10</sup> in 1976, reported good initial results following the use of rib grafts. However, long-term follow-up studies of onlay techniques revealed significant graft resorption.<sup>11,12,13</sup> A number of other techniques were developed in an attempt to reduce postoperative resorption. Interpositional (sandwich) grafts were initially

described by Schettler<sup>14</sup> and modified by Stoelting,<sup>15,16</sup> but concerns about sensory nerve deficits secondary to the procedure and continued resorption of the graft meant that this technique is now utilised infrequently.<sup>17,18</sup>

The transmandibular implant (TMI),<sup>19,20</sup> developed by Bosker in the 1970s, was designed to restore the atrophic mandible without placement of a bone graft and consisted of a lower border baseplate secured to the mandible by five cortical screws, with transosteal struts passing through the mandible and into the mouth. Overall success rates of between 56% and 97.8% have been reported.<sup>21,22,23</sup> However, the incidence of "reversible complications" (postoperative infection, post fracture, loss of osseointegration, formation of hyperplastic tissue around the transosseous posts, mandibular fracture) is significant, with rates of between 7.8% and 22.2% reported.<sup>22,24,25</sup>

Following the introduction of endosteal implants, various innovative techniques for the restoration of severely atrophic mandibles became available to clinicians, including the placement of short implants,<sup>26</sup> vertical distraction osteogenesis followed by placement of implants,<sup>27</sup> and autogenous onlay bone grafting prior to implant placement.<sup>28,29,30</sup>

The use of endosteal implants in severely atrophic mandibles, without bone grafting, is possible. However, in some patients, the mandibular basal bone can only accommodate short implants. While successful oral rehabilitation can be achieved with short implants,<sup>31,32</sup> the large interarch distance seen in severe atrophy can compromise denture stability and cause unfavourable leverage effects on implants during function.

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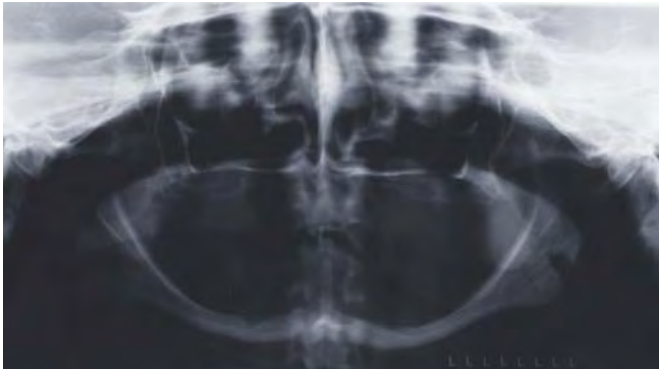


Figure 1: Preoperative panoramic radiograph.



Figure 2: Postoperative panoramic radiograph showing bone graft retained by titanium screws in anterior mandible.

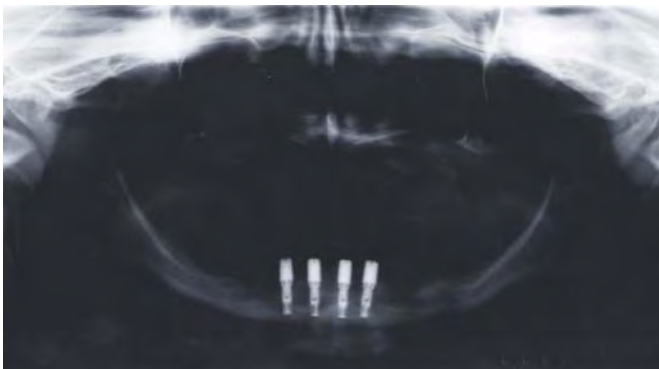


Figure 3: Panoramic radiograph showing four endosteal implants with healing abutments in situ.



Figure 4: Panoramic radiograph with prosthetic superstructure in situ.

Keller<sup>32</sup> states that absolute indications for the combined use of implants and bone grafts are a mandibular height of less than 4 or 5mm and a width of less than 6mm. However, others<sup>33</sup> suggest that the minimum height should be 7mm. Implants are placed, via a transoral or transcutaneous incision, simultaneously during the grafting procedure or during a second procedure. Long-term implant survival rates (in combination with autogenous bone grafting) of between 25% and 100% have been reported.<sup>2,29,31,34,35</sup>

This article describes the treatment of two patients suffering from severe mandibular atrophy, with autogenous bone grafting via a transcutaneous submental approach, the subsequent placement of endosseous implants transorally, and prosthetic rehabilitation with implant supported prostheses.

### Surgical protocol

Under general anaesthesia, a corticocancellous bone graft is harvested from the medial wall of the anterior iliac crest, and additional cancellous bone is taken in a standard fashion.<sup>36</sup> The mandible is approached via a submental incision. The superior, inferior, anterior and lateral borders are exposed subperiosteally via dissection through skin, subcutaneous tissue, and platysma. The mental nerve is identified and protected bilaterally. Two corticocancellous block grafts are placed in the anterior mandible and rigidly secured with multiple titanium bone screws. Cancellous bone mixed in a 50:50 ratio with hydroxyapatite (HA) is placed along the superior and lateral borders of the mandibular body. The incision is then closed in layers, and the graft is allowed to consolidate for four months. Four months later,

endosseous implants are placed in the anterior mandible via a transoral approach under local anaesthesia and conscious sedation. Six months later, after successful osseointegration, the implants are exposed under local anaesthesia via a crestal incision. Prosthetic rehabilitation is completed using an implant-supported prosthesis, which achieves direct internal functional bone loading.

In addition to addressing the lack of denture stability associated with severe mandibular atrophy, concerns about lower facial appearance (sagging/double chin and chin ptosis) are also addressed during the surgery. The extra-oral approach allows a functional and aesthetic reconstruction of the origins of the muscles of the lower third of the face. An elliptical incision of excessive skin and removal of subcutaneous fat is used to correct a sagging chin. When closing the submandibular incision, a muscular sling is formed by connecting the mentalis, depressor labii oris, and depressor anguli oris with the geniohyoid, digastric, and platysma muscles, as described by Bosker.<sup>37</sup>

The submental approach, combined with staged bone grafting and implant placement, addresses a number of important functional and aesthetic issues in this group of patients. The incision and dissection permits access to the mental nerves from an inferior aspect, thus reducing the risk of iatrogenic nerve injury. Identification and protection of the mental nerves in the atrophic mandible can be difficult when approached from an intra-oral route. The incision also provides excellent mandibular exposure and access for excision of excessive submental skin and



Figure 5: Postoperative photograph showing submental incision.



Figure 6: Photograph with prosthetic superstructure in situ.

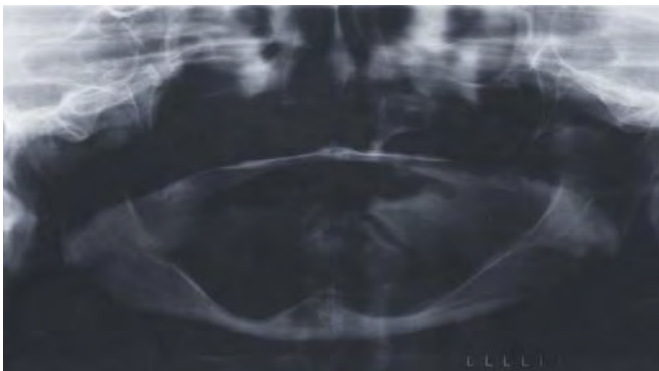


Figure 7: Preoperative panoramic radiograph.



Figure 8: Postoperative radiograph with graft in situ in anterior mandible.

subcutaneous fat, as described earlier. The staged approach to bone graft reconstruction and implant placement allows more precise implant placement, with the use of a surgical stent if necessary. However, simultaneous grafting and implant placement in the anterior mandible has the advantage of being a single surgical procedure, but may compromise the accuracy of implant location.

## Case reports

### Case 1

A 53-year-old woman was referred by her general dental surgeon. She had been edentulous since her late teens. Her primary complaint was an inability to tolerate a mandibular denture. Clinical examination revealed a knife edge mandibular alveolar ridge. A panoramic radiograph showed a mandibular height of approximately 6mm anteriorly and 4mm in the body. The inferior alveolar nerve was lying on the crest of the ridge bilaterally (Figure 1). A dual-energy x-ray absorptiometry (DEXA) scan revealed that the patient had early osteoporotic changes. The patient underwent transcutaneous placement of a corticocancellous iliac crest block graft anteriorly and cancellous bone mixed with HA posteriorly (Figure 2). Excessive subcutaneous fat and submental skin was excised to improve lower facial aesthetics, as described above. There was no sensory or motor nerve deficit following the surgery. The graft was permitted to consolidate for four months and then four endosseous implants were placed, transorally, in the anterior mandible (Figure 3). The patient

underwent exposure of these implants six months later, under local anaesthetic and intravenous sedation. The patient's dentition was restored with a fixed implant-supported prosthesis (Figure 4 and 6). The patient has been reviewed at six-monthly intervals (Figure 5).

### Case 2

A 65-year-old woman presented following referral by her general dental surgeon. Her primary complaint was a lack of retention and discomfort associated with a mandibular complete denture. She had been edentulous for more than 15 years. The patient was also concerned about the increased risk of fracture associated with an atrophic mandible.

A DEXA scan showed underlying osteoporosis. Clinical examination revealed a severely resorbed mandibular ridge. A panoramic radiograph demonstrated a mandibular height of 6mm anteriorly and 4mm in the body bilaterally (Figure 7). This patient also underwent transcutaneous placement of corticocancellous block grafts harvested from the iliac crest anteriorly, and cancellous bone mixed with HA in the body bilaterally (Figure 8). Excessive subcutaneous fat and submental skin was also excised to reduce a sagging chin. The patient suffered no sensory or motor nerve deficit as a result of the surgery. Following graft consolidation for four months, four endosteal implants were placed, transorally, in the anterior mandible (Figure 9). Healing abutments were placed six months later. The mandibular dentition was restored with a removable overdenture. The patient has been reviewed at six-monthly intervals (Figure 10).





Figure 9: Radiograph with endosteal implants in situ.



Figure 10: Postoperative photograph showing submental incision.

### Discussion

Various techniques have been described for oral rehabilitation of patients with severely atrophic mandibles. Keller<sup>32</sup> stated that bone grafting prior to endosteal implant placement is required in mandibles less than 4-5mm in height and 6mm in width. The use of short implants in atrophic mandibles, without bone augmentation, can lead to fracture of the mandible,<sup>38</sup> while peri-implantitis may increase this risk.<sup>39</sup> This article describes the treatment of two patients who underwent reconstruction with autogenous iliac crest bone grafts and subsequent placement of endosteal implants and implant-supported prostheses.

All implants were placed, transorally, four months after grafting. Bell *et al*<sup>2</sup> highlighted the advantages of delaying implant placement, including more precise positioning of the implants compared to those placed via a submental approach immediately after grafting. Also, placement of the iliac crest graft via a transcutaneous, submental approach, avoids communication with the oral cavity, thereby reducing the risk of infection. A number of other studies<sup>40,41,42</sup> have reported improved results following a two-stage procedure. Misch and Dietsch<sup>43</sup> reported an implant survival rate of 90% with implants placed simultaneously with the graft compared with 99% with those placed during a second procedure. Lundgren *et al*<sup>44</sup> showed, in a histological analysis of bone-graft titanium interface, that integration of implants placed six months post grafting was superior to implants placed immediately after grafting.

Multiple titanium bone screws were used to ensure rigid fixation of the corticocancellous block grafts placed in the anterior mandible. Vascular ingrowth is critical for maintaining the grafted bone and movement between the graft and its recipient site prevents successful revascularisation.<sup>45</sup>

As described earlier, a mixture of autogenous bone and HA was placed along the superior and lateral borders of the mandibular body. HA is the major inorganic component of bone and has osteoconductive properties. Similar to bone, it has good compressive strength and research has shown that autogenous bone mixed with HA is more resistant to loading.<sup>46,47</sup> Atrophic mandibles are at an increased risk of fracture, and reconstruction posteriorly with cancellous bone will ultimately reduce this risk.

One of the complications associated with this type of surgery is neurosensory disturbance. Kent *et al*<sup>6</sup> reported a 13% incidence of sensory disturbance with onlay grafting, while Haers *et al*,<sup>47</sup> in an article on interpositional bone grafting, reported a sensory disturbance incidence of 23.4%. McGrath *et al*<sup>29</sup> reported an 11.1% incidence of long-term

paraesthesia (involving the lip and chin) following mandibular onlay grafting. Van der Meij *et al*<sup>28</sup> reported a 14.7% incidence of persistent disturbance to the mental nerves when placing onlay grafts via a transoral approach. However, there were no episodes of sensory nerve disturbances in the cases highlighted in this report. While four implants, well positioned between the mental foramina, can adequately support a fixed prosthesis, a removable overdenture may often be a better option to provide lip support in situations of severe resorption. With a fixed prosthesis there is no support in the sulcus area, often creating a lower lip fold below the vermilion border. This may result in a suboptimal aesthetic outcome. The acrylic flange of an overdenture provides good tissue support and prevents this problem. Ongoing evaluation (oral hygiene, peri-implant tissues, radiograph appearance of implants and surrounding tissues, stability of prosthesis, occlusal status and function, and patient comfort) post prosthetic treatment is critical for the long-term success of the implants.

### Conclusion

Patients suffering from significant mandibular bone resorption secondary to long-term loading by mucoperiosteally supported removable dentures may be safely and predictably restored to a satisfactory level of function and aesthetics using autogenous corticocancellous iliac crest bone grafting followed by placement of endosseous implants, which support fixed or removable prostheses.

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## Antibiotics in odontogenic infection

Antibiotics work by exploiting differences between human and bacterial cells. They are grouped according to their targets of action: cell wall synthesis, protein synthesis, and nucleic acid replication. Generally they should be used as an adjunct to local measures that aim to remove the source of infection and drain pus, usually when infection has spread to adjacent tissue spaces. They should not be used prophylactically after surgical extractions unless significant pre-existing infection is diagnosed.

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### Antibiotics in odontogenic infection

Antibiotic therapy works on the principle of selective toxicity, which is to say that antibiotic agents have the property that they can damage micro-organisms without injuring host cells. This is achieved by targeting sites that are present in the pathogen but absent in the host. The basis of this principle is that fundamentally all living cells can be classified as either prokaryotic or eukaryotic; bacteria fall into the first category and all other organisms, from yeast to plants and right up to mammals, fall into the second. Prokaryotic cells are small, simple and have no membrane bound organelles. Eukaryotic cells are larger, more complex,

have an obvious membrane bound nucleus and have organelles such as Golgi apparatus and endoplasmic reticulum. Although some of the metabolic pathways, such as oxidative phosphorylation (the Krebs cycle) and macromolecule biosynthesis, are quite similar in both cell types, significant differences exist that can be exploited. One very significant difference between the two is the presence of the peptidoglycan cell wall normally present in prokaryotes but never present in eukaryotes (**Figure 1** and **Figure 2**).

The ideal systemic antibiotic would have the following properties:

1. Selective toxicity against bacterial target.
2. No toxicity to the host.



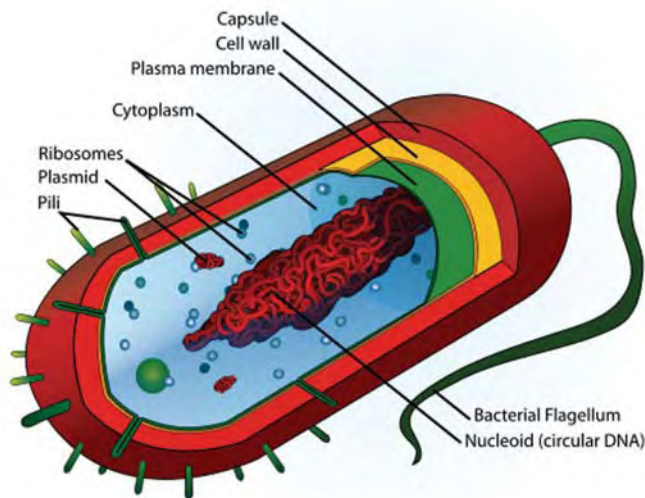


FIGURE 1: Prokaryotic cell.<sup>1</sup>

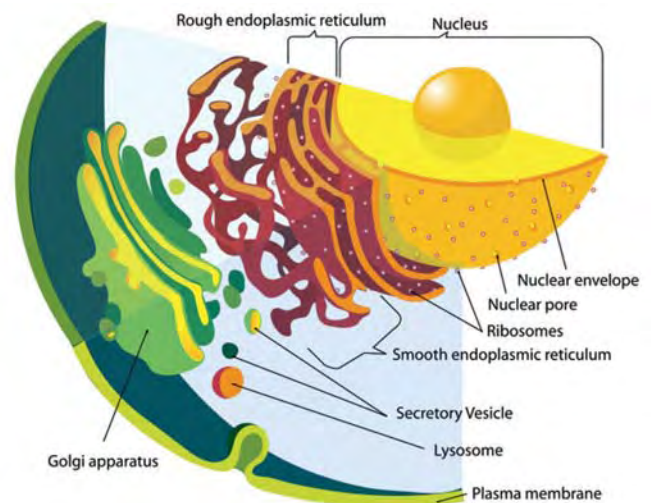


FIGURE 2: Eukaryotic cell.<sup>2</sup>

3. Cidal activity against bacteria.
4. Long plasma half-life.
5. Good tissue distribution.
6. Low binding to plasma proteins, i.e., increased bio-availability with decreased dose.
7. Oral and parenteral preparations.
8. No adverse interactions with other drugs.

Anti-bacterial antimicrobials have three main targets of action: cell wall synthesis; protein synthesis; and, nucleic acid synthesis. Below are some examples of these relevant to the treatment of common infections in dentistry.

#### Inhibitors of cell wall synthesis

These are the beta-lactams and include the penicillins and cephalosporins. They prevent cell wall synthesis by binding to enzymes known as penicillin-binding proteins. These enzymes are involved in the final stages of the cross linking of the peptidoglycan bacterial cell wall, and their inhibition causes the precursor cell wall units to accumulate within the cell, leading to autolysis. The most important antibiotic in this group for the treatment of odontogenic infections is Phenoxymethylpenicillin (penicillin V), which is effective against oral anaerobes, including streptococci. Approximately 3% of the population is allergic. Extended spectrum beta-lactams such as ampicillin and amoxicillin have limited additional activity against streptococci and other oral anaerobes relative to penicillin V. Their extended spectrum is in the area of aerobic gram-negative rods such as *Haemophilus influenzae*, *Escherichia coli*, *Salmonella*, *Shigella* and *Proteus* organisms; hence, they are not indicated as the antibiotic of choice for odontogenic infections as drug resistance may be promoted.

The addition of clavulanic acid to amoxicillin (co-amoxiclav) inhibits the activity of penicillinase, an enzyme secreted by penicillin-resistant

bacteria, which enhances the activity of amoxicillin in the presence of these organisms. Although it is undoubtedly effective, its use is not encouraged in the treatment of most odontogenic infections. It should also be noted that co-amoxiclav was the subject of an Irish Medicines Board bulletin in 2006 in relation to hepatobiliary reactions, ranging from hepatitis and cholestatic jaundice reported rarely to moderately, and asymptomatic increases in liver enzymes occurring occasionally.<sup>3</sup> Its use is contraindicated in patients who have suffered previous co-amoxiclav associated jaundice/hepatic dysfunction, and it must be used with caution in patients with known hepatic impairment.

Cephalosporins are an antibiotic family with a molecular structure similar to penicillin, are bacteriocidal and have a broader spectrum of activity. The two most commonly used in dentistry, cephalexin and cefadroxil, are effective against streptococci and staphylococci, oral anaerobes and aerobic gram-negative rods. 5-15% of patients who are allergic to penicillin are allergic to cephalosporins. In a hospital setting, cefuroxime is used in conjunction with metronidazole intravenously for odontogenic infections that have spread to involve regional tissue spaces. They are generally not considered to be first-line antibiotics.

#### Inhibitors of protein synthesis

Several groups of antibiotics that are commonly used in dentistry fall into this category. The macrolides work by blocking the first translocation step in protein synthesis, which prevents the release of transfer RNA after peptide bond formation. They are bacteriostatic in low concentrations and bactericidal in high concentrations. The most familiar is erythromycin, which is effective against *Streptococcus*, *Staphylococcus*, *Bacteroides*, *Prevotella* and *Porphyromonas* species, as well as being active against  $\beta$ -lactamase producing bacteria. Its primary indication is for patients who are allergic to penicillin. Nausea, vomiting and epigastric pain are associated with its use, but newer

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versions such as azithromycin and clarithromycin, which have a similar spectrum, have fewer gastrointestinal side effects due to increased acid stability in the stomach. They also exhibit higher tissue concentrations and longer half-life, so are given once a day and twice a day, respectively, as compared to four times a day for erythromycin. Clarithromycin is a useful alternative to amoxicillin in patients who are allergic to penicillin.

The lincosamides' method of action is not fully understood, but ultimately they inhibit protein synthesis by blocking peptide bond formation. The important member of this group is clindamycin, which is effective against streptococci, staphylococci and essentially all anaerobic bacteria. It is bacteriostatic and has a relatively high toxicity. It is also expensive and not considered a first-line drug for odontogenic infections. It is useful in treating low grade infections that have been resistant to penicillin or erythromycin, but can disrupt the gut flora, allowing proliferation of *Clostridium difficile* leading to pseudomembranous colitis.

The tetracyclines, examples of which are oxytetracycline, doxycycline and minocycline, are bacteriostatic and all have the same mode of action. After active transport into the cell, they bind to 30S ribosomal sub-units, preventing aminoacyl-tRNA from entering the acceptor sites on the ribosome, thereby halting peptide chain elongation. Tetracyclines' original spectrum included streptococci, staphylococci, oral anaerobes and a variety of gram-negative aerobic rods; however, because they are bacteriostatic and have been widely prescribed, there is a high degree of bacterial resistance to them caused by a decrease in cell wall permeability. Their main indication for use in odontogenic infections is in patients with severe allergies to penicillin and cephalosporins who cannot tolerate erythromycin-like drugs. Their use can cause suppression of the gut flora leading to gastrointestinal upset and oral candidiasis. They are also deposited in developing bone and teeth, so should not be used in children, pregnant women or those of childbearing potential without advice.

### Inhibitors of nucleic acid synthesis

Since any compound that binds to DNA would be toxic to both prokaryotic and eukaryotic cells, this mechanism would appear to be of no therapeutic value. However, there are several compounds that interfere with enzymes that are associated with DNA synthesis, replication and supercoiling, exploiting the fact that bacterial enzymes are structurally different from their mammalian counterparts. The antimicrobials in this group are trimethoprim, the quinolones, rifamycins and 5-nitroimidazoles. Of these, only the last group is of significance in odontogenic infections. The most important member of this group is metronidazole, which is very active in anaerobic conditions. It works by entering the bacterial cell where, because of the low reduction-oxidation potential that only exists in strict anaerobes, it is reduced and made active. The intermediate products react with the DNA strands causing breakages. The development of resistance is rare. Clinically, its use is associated with nausea, metallic taste and furred tongue. Flushing and hypotension can arise if the patient drinks alcohol in combination with metronidazole. This is the antabuse effect and patients must be warned.

**Table 1: Localised infections and their treatment**

Irreversible pulpitis	Endodontic procedure or extraction. Antibiotics not indicated.
Dental abscess	Incision and drainage, endodontic procedure or extraction.
Periodontal abscess	Incision and drainage, debridement of periodontal defect or extraction.
Acute necrotising gingivitis (non-odontogenic but included for completeness)	Gross scaling with copious flush, OHI. Metronidazole 200-400mg tds for four days.
Acute perio-endo lesion	Incision and drainage, debridement of periodontal defect and endodontic procedure or extraction of tooth.
Pericoronitis	Debridement and irrigation of pericoronal tissues, drainage of pus and elimination of occlusal trauma.

### Use of antibiotics

The central principle of using antibiotics to treat odontogenic infections is that they are an adjunct rather than a first-line treatment. The inference of this statement is that antibiotics are both overprescribed and inappropriately prescribed in dentistry. This has led to an increased prevalence of bacterial resistance to commonly prescribed antibiotics, as well as exposing patients to the risks of side effects of these drugs with no benefit accruing. In particular, the age old and still prevalent practice of prescribing antibiotics to treat irreversible pulpitis should be condemned. In general, localised infections caused by pericoronitis, periapical abscess, lateral periodontal abscess, perio-endo type infections, or acute necrotising gingivitis (ANG) can be treated by various combinations of local debridement, irrigation, incision and drainage, initiation of endodontic therapy or extraction of the involved tooth, (**Table 1**). If these measures address the cause of the infection and effect the release of pus, then an antibiotic is not required. If pus is not drained, or if infection has spread to regional tissue spaces (commonly the buccal space, canine fossa or submandibular space), or if the patient is exhibiting regional or systemic symptoms such as trismus or fever and malaise, then antibiotics are indicated as an adjunct to the above measures. These patients sometimes require referral to secondary care for incision and drainage and exploration of the tissue spaces under general anaesthesia.

Antibiotics are usually prescribed 'empirically' rather than 'rationally' in practice, which is to say that clinicians do not routinely perform microscopy, culture and sensitivity testing before deciding which antibiotic to use. Instead clinicians employ a 'best guess' as to the

most probable pathogen or range of pathogens involved. Odontogenic infections tend to be anaerobic in character with typically ten or more pathogen types present.<sup>4</sup> These organisms are usually sensitive to penicillin, such as alpha-haemolytic streptococci, penicillinase-negative staphylococci, and gram-negative anaerobes such as *Bacteroides*, *Prevotella*, *Porphyromonas*, *Fusobacterium* and *Veillonella*. On this basis penicillin is the antibiotic of choice for most odontogenic infections. For patients who are allergic to penicillin, erythromycin is indicated. Metronidazole is effective in the treatment of pericoronitis and ANG. It can be used in combination with penicillin for severe infections. In a hospital setting, culture and sensitivity testing is routine. Prescribing is empirical at the outset as microbiology takes up to three days, and becomes rational once a causative organism has been isolated and its sensitivities established. It is important to realise that resolution of infection once the cause has been treated is effected by the body's immune system primarily, and that antibiotics merely tip the balance in the patient's favour. It is often the case that infections resolve before sensitivity is known, even though the results show that a non-optimal antibiotic was used. The use of postoperative antibiotics prophylactically remains common practice, even though there is little if any scientific evidence to justify it. A study by Poeschl *et al* (2004) involving 288 patients who had 528 asymptomatic lower third molars extracted showed that there was no significant difference in levels of pain, trismus, infection and dry socket between three groups given a post-op five-day course of co-amoxiclav, five days of clindamycin or no antibiotic.<sup>5</sup> Other studies concur with this finding.<sup>6,7,8,9,10,11</sup> These results strongly suggest that the practice of routinely prescribing a course of antibiotics after a surgical extraction involving bone removal in the absence of pre-existing infection is unnecessary. Some experts feel that the concept of 'preventing' infection with antibiotics is flawed and a misuse of these important drugs. Antibiotics can be life saving so it is incumbent on us as healthcare professionals to use them properly, based on evidence with a patient-oriented approach.

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## ABSTRACTS

**Effects of different implant surfaces and designs on marginal bone-level alterations: a review***Abrahamsson, I., Berglundh, T.***Objective**

The purpose of this review was to evaluate the effect of different implant surfaces and designs on marginal bone-level (MBL) alterations.

**Material and methods**

A MEDLINE search (PubMed) was performed to identify clinical, prospective and controlled studies using a sufficient sample size (>10 subjects) and with a follow-up time of  $\geq 3$  years.

**Results**

Ten publications fulfilled the inclusion criteria. Two studies evaluated the influence of implant surface characteristics and two studies reported on the effect of implant design on MBL changes. Six publications analysed the combined effect of different implant surfaces and designs on MBL alterations. As revealed from available studies, there is no evidence that modified surfaces are superior to non-modified implant surfaces in marginal bone preservation. One study reported significantly improved MBL preservation for implants with a conical and micro-threaded marginal collar over implants with a cylindrical and non-threaded marginal portion after three years in function. No implant system was found to be superior in marginal bone preservation.

*Clinical Oral Implants Research 2009; 20 (s4): 207-215.***Endodontics or implants? A review of decisive criteria and guidelines for single tooth restorations and full arch reconstructions***Zitzmann, N.U., Krastl, G., Hecker, H., Walter, C. Weiger, R.*

This review describes practical criteria and a systematic process to aid the treatment planning decision of whether to preserve teeth by root canal treatment (RCT) or extract and provide an implant. Recommendations presented are based on best available evidence from the literature and the expert views of specialists in endodontics and restorative dentistry, including dental implantology. A MEDLINE search was conducted using the terms 'root canal therapy', 'dental implants', 'decision making', 'treatment planning', 'outcome' and 'human', and supplemented by hand-searching. When evaluating the outcome of root canal treatment, an observation period of four to five years is required for complete healing of periapical lesions. Dental implants, however, present a *de novo* situation, and a functional period of at least five years is often required before peri-implant diseases are established and detected. Good long-term success rates and greater flexibility in clinical management indicate that RCT or re-

treatment should be performed first in most instances unless the tooth is judged to be unrestorable. When deciding if a compromised tooth of questionable prognosis should be maintained or replaced by an implant, both local site-specific and more general patient-related factors should be considered. Following systematic evaluation and consideration of the best treatment option in a particular case, a treatment recommendation may then be given in favour or against tooth retention. While single risks are possibly accepted for single tooth restorations, teeth with questionable prognosis and multiple pre-treatment requirements are better not included as abutments in fixed dental prostheses to reduce the risk to survival of the entire restoration.

*International Endodontic Journal 2009; 42 (9): 757-774.***Management of exaggerated gag reflex using conscious sedation techniques in endodontic therapy – a pilot study***Harushi Yoshida, Tomoyuki Nogami, Yoshihiko Hayashi, Kumiko Oi.***Objective**

To evaluate the usefulness of inhalation sedation (IS) and intravenous (IV) sedation for gag reflex management in patients undergoing endodontic therapy.

**Design**

Twelve cases (five mandibular molars, two maxillary and two mandibular premolars, one maxillary canine and two maxillary incisors) of five retching male patients were studied. Management techniques, complications during treatment, and the characteristics of the root canal obturation were surveyed. The postoperative discomfort was also examined every month for four months up to two years after root canal filling.

**Results**

Two patients each underwent IS and IV sedation, and both management techniques were employed in the other patient. Endodontic treatment was completed without respiratory distress, nausea, vomiting or other complications. Radiographs indicated that the root canals were filled up to 0.5-2mm on the inner portion from the apex in 10 of 12 teeth, although the curved root canals of two mandibular molars showed unfilled space between the ledge and apex. After root canal filling, no postoperative pain/swelling or other discomfort was observed throughout the observation periods.

**Conclusion**

IS and IV sedation were useful management techniques that facilitated endodontic therapy for problematic gag reflex patients who could not tolerate therapy by behaviour modification.

*Journal of Disability and Oral Health 2009; 10 (1): 36-40.*

### Anticipatory anxiety in children visiting the dentist: lack of effect of preparatory information

Olumide, F., Newton, J.T., Dunne, S., Gilbert, D.B.

#### Aim

This study sought to explore whether viewing a leaflet explaining the benefits of dental treatment would have a significant impact on children's anticipatory anxiety.

#### Method

Fifty children aged 8-12 attending the paediatric dental clinic of King's College Hospital, London, took part in this triple-masked, randomised control study. The participants were randomly allocated to one of two groups, and either shown an intervention leaflet containing child-friendly dental information (the experimental group), or a leaflet with child-friendly information on the benefits of healthy eating (the control group). Using the Facial Image Scale, anxiety was measured when the children arrived for their dental appointment, once before reading the leaflet and again after reading the leaflet.

#### Results

There was no statistically significant effect of the experimental leaflet on self-reported anxiety levels in this study, although anxiety levels did drop slightly in both groups after reading a leaflet.

#### Conclusions

Providing paediatric patients with preparatory information about what to expect from a visit to the dentist had no effect on anticipatory anxiety in comparison to reading a leaflet about healthy eating. We speculate that reading, or cognitive processing, may have some beneficial effect. Future work should investigate this possibility.

*International Journal of Paediatric Dentistry 2009; 19 (5): 338-342.*

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## Implementing radiographic audit in daily practice – frequently asked questions

ANDREW BOLAS answers some of the most common questions about radiographic audit.



### Introduction

Since the adoption of Statutory Instrument (SI) 478 in 2002<sup>2</sup> the dental profession has had an obligation to carry out clinical audit in dental radiography. It was not until 2007 that ten criteria were adopted by the Dental Council for this audit process.<sup>1</sup> This article aims to answer some of the commonly asked questions from general dental practitioners who are beginning to implement clinical audit in their daily practice.

### The need for audit

In January 2008, the Irish Dental Council published ten criteria for clinical audit in dental radiology (see Table 1). In order to fulfil the statutory requirements outlined in SI 478, dental practitioners must carry out a clinical audit in each of these criteria once every five years, with the first audit within three years of the publication of the criteria. SI 478<sup>2</sup> also states that these audits, while being internal (self-audit), can also be examined by an outside agency (the competent authority). This means that each practitioner has to be able to produce evidence that they have: i) carried out the audits; and, ii) recorded the results. As with all inspections by external agencies, the presence of written records and protocols is likely to have more credence than the verbal statement that “something is always done”.

In order to facilitate this, and not make clinical audit an onerous task, the Clinical Audit Committee of the Irish Dental Association published the document ‘Clinical Audit in Dental Radiology’ (available to download from the members’ area of the Irish Dental Association website). One of the key features of this document is the recommendation that practitioners should have a ‘Dental Practice Radiography File’ (DPRF). This file provides a central repository for all documentation relating to the radiographic activities in the practice, and also for the results and data from the audit activity.

As with much of the legislation that relates to clinical practice, perhaps the most daunting prospect is trying to implement it into a busy schedule. Although the principles of any type of audit activity are largely welcomed by clinicians, many see them as tasks that will take them away from their clinical duties and will therefore impinge on patient care. If carried out correctly and efficiently, any clinical audit into dental radiography should in fact benefit patients, by making more efficient use of the radiographs taken and by reducing their exposure to ionising radiation.

In order to show how the tools and templates contained in the DPRF can be used, some of the more common questions about clinical audit in dental radiography will be addressed here.



### Why do I need to do this?

SI 478 of 2002<sup>2</sup> and its subsequent amendment SI 303 of 2007, address a number of issues to protect patients from the hazards of ionising radiation. The introduction of clinical audit as one of these measures is outlined in the legislation. As practitioners and prescribers of radiographs, dentists have a statutory requirement to uphold the measures put in place by these documents. At present, the statutory instrument allows for a fine of up to €3,000 if a practitioner is found guilty of contravention of any part of the document. Clinical audit, as a tool, should also identify areas of good clinical practice and provide information as to the systems that are not operating to their full potential.<sup>3</sup>

### How often do I need to audit?

Paragraph 15.3 of SI 478<sup>2</sup> states that each of the ten criteria adopted by the Dental Council should be audited once every five years, with the first audit being undertaken not later than three years after the adoption of the criteria by the Dental Council. Some of these criteria will of course be covered as part of other processes within the practice. For instance, one of the criteria listed is 'X-Ray Equipment', which will be checked or audited once every two years by the Radiation Protection Advisor, whereas, in practices using conventional film, the maintenance of the "Chemical Change Log" advocated in the DPRF is something that may become a routine occurrence. One of the key principles of any audit process is that those taking part can learn from their results and improve results or outcomes.<sup>3</sup> With this in mind, as we strive for best practice, other audit tools such as 'Image Quality Analysis' might be used more frequently.

### Do I have to audit all my radiographs?

It would be impracticable to examine everything we do in relation to dental radiography. Some processes lend themselves to constant evaluation, whereas others would require a substantial amount of resources. In the DPRF it has been suggested that dentists select two days retrospectively and examine all the radiographs they carried out on those two days for the purposes of the audit.

This two-day audit period is suggested because it is likely to be representative of the radiographic practices of that dentist. The 'sample' period can, of course, be varied by the practitioner to capture a representative sample. For example, little useful information can be gained from a two-day sample where only a small number of radiographs were taken. In this situation the practitioner could extend the sample period. Why retrospective? When compiling the DPRF, it was felt that examining records retrospectively would give a truer reflection of the radiographic practices and prevent 'tailoring' of the audit results.

### The Dental Practice Radiography File discusses what can be audited for each of the ten criteria. Do I have to follow these exactly?

When the Clinical Audit Committee of the Irish Dental Association compiled the DPRF, the topics chosen for each of the ten criteria were those that can easily be implemented in general dental practice. It is

**Table 1: Criteria for clinical audit in dental radiography.**

1. Selection Criteria	6. Image Quality
2. Technique Selection	7. Image Interpretation
3. X-Ray Equipment	8. Records
4. Patient Dose	9. Training
5. Processing	10. Internal Audit

by no means an exhaustive list, but merely suggestions as to what can be easily achieved. Practitioners are free to audit any aspect of dental radiography that falls within the criteria published. There is, however, always the risk that self-developed audits will provide no useful information for the practitioner.

### I am a principal in a practice and have a number of associates working with me. Do I need to carry out all the audits myself?

Paragraphs 15.3 and 17 of SI 478<sup>2</sup> also state that the 'Holder' is responsible for ensuring that audits take place. They do not, however, state that the Holder must carry these out. It would seem sensible that each individual involved in the radiographic process becomes involved in carrying out the audit. For example, each dental surgeon should be responsible for auditing their own activities. Some of the criteria can be audited collectively, such as the x-ray equipment, processing and internal audit. In a similar way, many practices make use of registered dental nurses, who fulfil the requirements under SI 303 of 2007, to take their radiographs, and in these cases the member of staff taking the radiographs should be aware of their statutory requirements under SI 478 as well. Each practice should agree whether there should be one DPRF for all staff, or if each dentist should be responsible for their own file. If it is decided locally that only one file should be kept, it would be prudent for the associates to keep copies of their audit activities, to verify that they have taken part in radiographic audit should they change jobs. In situations where more than one dental practitioner operates in the same location, there is the opportunity to carry out the clinical audit in the form of a peer review. In this format the learning component of the audit process can be increased by the collective input of all those taking part.

### I operate in several different premises. Do I need to carry out these audits for each premises?

The regulations clearly state that the Holder shall ensure that clinical audit is carried out "in his or her installation or installations".<sup>2</sup> This has been clearly defined because in many situations, the same x-ray licence covers a number of different locations owned or operated by the same person or organisation. As is the case for associates, it would be advisable for a DPRF to be kept at each location because the equipment and facilities will differ in each location, even when the same dental practitioner is operating.

## PRACTICE MANAGEMENT

**What am I looking for when auditing  
"Selection Criteria"?**

"Selection Criteria" are guidelines dentists can use to help decide what would be the most appropriate radiograph to take. Many documents exist, such as the European Guidelines on radiation protection in dental radiology,<sup>4</sup> to offer scientific advice on the choice of radiograph. However, they are only guidelines and because the choice of radiograph can only be made after the clinical examination, it is up to the dentist to justify the exposure on an individual patient basis. SI 478<sup>2</sup> states in paragraph 7.10 that all prescriptions for radiographs shall be in writing. It therefore seems prudent that the presence of this written prescription should be audited, and that the prescription itself will demonstrate that the dentist has performed the process of justification. It would be beyond the scope of any audit to examine the amount of information contained in the prescription itself, as this will be closely linked to the findings of the clinical examination. A detailed essay might be at one end of the spectrum and a simple note such as "?caries" at the other, and each might very well contain the same amount of relevant information. But a rule of thumb might be to consider if the written prescription would be adequate for a third party to see that the exposure was justified, and that taking it would add useful information to the diagnosis or management of the patient.

**Surely "Technique Selection" and "Selection Criteria" are the same?**

Many of the ten criteria adopted by the Dental Council<sup>1</sup> have considerable overlap. It could be considered that "Selection Criteria" covers the decision to take a particular radiograph, whereas "Technique Selection" covers how that radiograph is actually taken. Paragraph 7.5(a) of SI 478 states: "All doses due to medical exposure ... shall be kept as low as reasonably achievable consistent with obtaining the required diagnostic information".<sup>2</sup> This is the ALARA

principle. Therefore, when choosing an area of dental radiography to audit to cover this criterion, the dentist should record details of each exposure that demonstrate they have made every effort to keep the radiation dosage to the patient as low as they can. Thus, the recording of information such as whether E or F speed films were used, or whether beam aiming devices or film holders were employed, will illustrate the practitioner's efforts to reduce the dose to the patient.

These are just a few of the questions asked by dental practitioners when they are considering implementing clinical audit into their radiographic practice. When mentioned to most dentists, the subject of clinical audit will often elicit the response: "Not more paperwork! I wouldn't have time to see any patients". The point of the DPRF is to make the process as painless as possible. We have a statutory obligation to carry out clinical audit in dental radiography; we also have a professional obligation to ensure best practice. By following the processes outlined in the DPRF and using the templates provided, practitioners will be able to fulfil their statutory obligations. Further advice regarding clinical audit can be sought through the staff at IDA House, who can pass on your queries to the members of the Committee.

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4. **European Commission.** European guidelines on radiation protection in dental radiology. The safe use of radiographs in dental practices, 2004.

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**Quiz answers** (from page 218)

Trauma to tooth 51.



Radiograph of tooth with similar presentation.

**1. Is tooth 51 vital or non-vital?**

Tooth 51 is sclerotic (affected by pulpal obliteration). There is no associated sinus or swelling. Only a vital pulp can cause pulpal obliteration; therefore, 51 is vital.

**2. Why has 51 changed colour?**

Tooth 51 is yellow due to internal sclerosis. (Post trauma, a tooth that appears yellow is usually sclerotic – radiograph will confirm.)

**3. What treatment is required?**

No treatment is required at present. Sclerotic incisors rarely cause problems. If eruption of 11 is delayed beyond normal age range (approximately eight years old) extraction of 51 would be indicated.

**4. What further sequelae are anticipated?**

Delayed exfoliation of 51 (as 51 is more solid, it will take longer to resorb). Delayed eruption of 11.

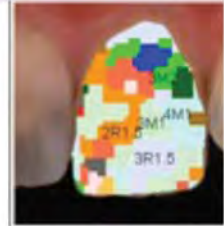
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## Protect yourself against illness

Over 70% of workers have no back-up plan if they cannot work due to ill health and self employed may not be entitled to any state benefits. SEÁN HYNES of New Ireland Assurance says that everyone needs to consider what sort of financial cover they have in place.



With many people facing new financial challenges, all workers need to consider what sort of financial cover they have in place should they be unable to work due to ill health, injury or accident. As self-employed professionals, dentists are only too keenly aware that they are not entitled to any State illness or disability benefit allowance should they be unable to work due to illness or injury.

The issue of financially protecting our single most important asset, our income, has never been so important. In fact, 77% of full-time workers are now more aware of the importance of income protection cover in the current economic climate than ever before – yet less than three in ten workers have any form of financial protection in place.

Many of us will instinctively rely on our savings and investments, or our partner, as our financial cushion should we become unable to work due to illness or disability, but what happens when you cannot return to work for years if at all? Would our savings and investments last longer than a few months of the everyday outgoings we still need to pay out including mortgage repayments, bills, childcare, and medical expenses?

Recent research carried out by New Ireland Assurance shows that:

- 72% of workers have no financial protection in place if they cannot work due to ill health;
- 32% of private sector workers, including the self-employed will not receive an income if they cannot work due to ill health, while a further 15% have no idea what income, if any, they will receive in this situation;
- 41% of all workers who claim they will receive a salary while they are off work sick will only be paid for a period of six months or less, and a further 25% don't know how long they will be paid an income when off work sick;
- 31% of workers who will receive no salary at all or a salary for a limited period of time will depend on State benefits (maximum weekly payment currently €204) as their only source of income when they are off work sick;
- 41% of self-employed workers wrongly believe that they can depend on the State to pay them an allowance if they cannot work due to illness or disability when in fact this benefit is only payable to PAYE employees;
- 90% of workers think that having income protection cover is a good idea;
- when it comes to actually buying income protection, nearly half of workers (47%) think that an average payment of €60 per month for this cover is worth the outlay, and would consider taking out the cover; and,
- 68% of workers were not aware that they could claim tax relief on their monthly payments for income protection cover.



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## Buying or selling your practice

Bernard Doherty of Grant Thornton advises on big decisions in dentistry – buying or selling a practice; and on the tax implications of repairs and capital expenditure



### Selling your dental practice

The decision to sell is not an easy one and it may be prompted by the recession, financial pressures or life changes. The most important aspect of the sale will be the price that your practice achieves. The present economic climate has led to downward pressure on practice prices. Sale price is determined by a number of factors such as:

- fee income;
- location;
- patient base;
- equipment;
- profitability;
- staff numbers; and,
- service offerings etc.

The decision to dispose of the practice should not be a knee-jerk one. Careful planning can help you achieve a better sale price. Essentially, you should be grooming your practice for sale for a number of years before placing it on the market. You should also be willing to stay on in the practice for a definite period of time in order to achieve a smooth transition and maximum value. Tax is an important consideration. Relief from CGT should be provided by retirement relief (proceeds up to ?750,000 tax free) provided that the conditions for the relief are satisfied. Care is needed in this regard to ensure that relief is not compromised.

On the sale of your practice you will have ceased to trade for income tax purposes and be subject to cessation provisions. The legislation is quite prescriptive but there are opportunities to reduce your income tax liability provided that the sale is managed and takes place at the correct time.

### Buying a dental practice

Great care is required when purchasing a dental practice. The level of investment required necessitates that a comprehensive due diligence exercise be carried out. The due diligence exercise should focus on the key aspects of the practice, e.g., the patient list, service offerings, equipment, location, competing practices in the locality etc.

The negotiation process typically commences with both parties adopting polar positions before arriving at a settlement price or negotiations breaking down altogether.

You should be certain that the price you are paying for the practice is based on the ability of the practice as it currently operates to pay for itself. As the recession deepens, patients ability to pay for treatment will wane, which will inevitably result in drop-off in profitability. You should also be particularly cognisant of the effect the reduction in tax relief for medical expenses will have on profitability in future.

The purchase agreement should require the current practitioner to remain on in the practice to ensure a smooth transition and the minimum erosion in patient base.

The main tax consideration on purchasing a dental practice is stamp duty. The rate of stamp duty applicable to such a transaction can run as high as 6% of the purchase price. It should be possible to mitigate the stamp duty cost with clever and careful planning. Capital allowances may be available on equipment purchased and this is examined in detail below.



### Repairs and capital expenditure

Have you spent significant amounts on repairs to your practice (roof repairs, heating, electrics, access) or do you intend to do so? Have you bought dental equipment, furniture or fittings for your practice or intend to do so? Are you setting up in practice for the first time? If the answer to any of the above is yes, you may be able to deduct a proportion of these costs from your taxable profits and reduce your tax bill.

*You should also be willing to stay on in the practice for a definite period of time in order to achieve a smooth transition and maximum value.*

When analysing expenditure on fixed assets, there are three categories of classification being:

- i. repairs;
- ii. plant and machinery;  
and,
- iii. enhancements/improvements to buildings.

### Repairs

Repairs qualify for a full tax deduction in the period in which they are incurred and therefore reduce your taxable profits and, in turn, your tax liability. Typically an item will be considered a repair where it merely returns the asset to its previous functional state and no enhancement arises from the work done. If when looking at expenditure the item is clearly not a repair, it falls into capital categories of either plant and machinery, or building. If this is the case then it is preferable to have the expenditure classified as plant and machinery.

### Plant and machinery

In order for an item of expenditure to qualify as plant, it must satisfy two criteria:

- (a) the item should perform a function in the business (functional test);  
and,
- (b) it should not form part of the setting in which the business is carried on.

Typical items in a dental practice which are accepted as qualifying for capital allowances include:

- underfloor ducting and cabling;
- raised clinic floors;
- leaded walls for X-ray rooms;
- demountable partitions;
- reception desk;
- air conditioning;
- plumbing for specific water features;
- patient file storage units;

- laboratory;
- specialist lighting features;  
and,
- wiring control panels.

Capital allowances are available over eight years at a rate of 12.5% per annum in respect of the cost incurred on plant and machinery.

From the foregoing it can be concluded that there is scope for tax planning where an analysis of expenditure is undertaken to identify parts of buildings which qualifying as 'plant'. Such a claim will result in a significant income tax saving as any capital allowances arising can be used to shelter your trade income taxed at the marginal rate of income tax, PRSI and health levies each year.

Bernard Doherty is a Partner with Grant Thornton and is a member of their specialist team which advises medical and dental professionals on their financial affairs. He is contactable by phone on 01 6805611 or by email at: [bernard.doherty@grantthornton.ie](mailto:bernard.doherty@grantthornton.ie)

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### POSITIONS WANTED

Female Cork graduate with one year of VT experience available for locum/associate position in Munster area. Tel: 086-318 8927, or Email: [monryan21@hotmail.com](mailto:monryan21@hotmail.com).

Experienced Cork graduate available for part-time associate position in the Munster area. Vocational training, MFDS, hospital and private practice experience. Please Tel: 086-391 2684.

Irish vocationally trained dentist seeks locum, full- or part-time associate position in Galway, Limerick or surrounding areas. Tel: 087-640 1494, or Email: [jenniewaldron@hotmail.com](mailto:jenniewaldron@hotmail.com).

Endodontist available for part- or full-time position in Dublin or countrywide. Email: [endodontist2@gmail.com](mailto:endodontist2@gmail.com).

Irish dental graduate with one year's NHS experience seeks full/part-time associate position in Dublin area. Tel: 0044-7549-864845. Email: [snag72@hotmail.com](mailto:snag72@hotmail.com).

Associate position wanted. Experienced Irish dentist available for full/part-time locum/associate position in Dublin area. Immediate start. Friendly, conscientious, committed to providing quality, ethical care to all age groups. Tel: 086-807 5273, or Email: [niall@innovativedental.com](mailto:niall@innovativedental.com).

### POSITIONS VACANT

Associate required to replace departing colleague. Long established, well-appointed practice, Glasnevin, Dublin 9. Computerised, digital x-rays/OPG, hygienist, pleasant capable staff. Private/PRSI. Tel: 01-857 2120, or Email: [rcahill@cahilldental.net](mailto:rcahill@cahilldental.net).

Associate required for busy dental practice located in centre of Laois town. Computerised, dental x-ray, hygienist. Tel: 087-249 3722.

Dental associate required for a busy three-surgery practice in Co. Mayo. Full book, computerised, digital x-ray, rotary endo and hygienist. Come join a friendly dynamic practice. To start January 2010. Tel: 087-755 0673.

Associate required full-time in Waterford. Completely modernised practice – computerised, digital x-ray. Full book, immediate start. Join the ambitious young team at Belvedere Dental! Email: [belvederedental@eircom.net](mailto:belvederedental@eircom.net).

South East – committed associate wanted. Excellent very busy general practice. modern and well equipped. Excellent knowledgeable staff to support. Easily accessible – 50 minutes to Dublin, free parking. Would suit progressive dynamic personality. Patient care paramount. Tel: 086-807 5273, or Email: [niall@innovativedental.com](mailto:niall@innovativedental.com).

Associate required for busy, long-established Kildare practice to replace departing colleague. Private and PRSI patients. Full book. Tel: 087-134 8640 after 6.00pm.

Experienced dentist required, full- or part-time, for a new modern surgery in Dublin. Immediate start, mixed GMS and private list. Please apply by CV. Contact PolyClinic, 203 South Circular Road, Dublin 8, Tel: 01-473 6707, or Email: [poly\\_clinic@hotmail.com](mailto:poly_clinic@hotmail.com).

Conscientious and ethical general dental surgeon required to begin a new patient list in smart practice in Carlow town. One-day week (Thursday). Mix of patients seen. Full clerical/chairside support assured. Please Tel: 059 9131958, or Email CV to [info@absolutedental.ie](mailto:info@absolutedental.ie).

Associate dental surgeon required three or four days per week for surgery in Dunboyne, Co. Meath (two miles from Blanchardstown). For further information and to arrange an interview please contact Imelda, Tel: 01-825 1455.

Orthodontist required for city centre general practice. One session available per week initially. Please forward CV. Email: [dpgal@eircom.net](mailto:dpgal@eircom.net).

Qualified dental surgery assistant required for busy Dublin 2 practice. Full-time position available. Computer experience helpful. Please contact Bridget, Tel: 086-805 8779, or Email: [conor.gallagher@imagine.it](mailto:conor.gallagher@imagine.it).

### PRACTICES FOR SALE/TO LET

Unit for sale/to let – Dublin 15. 1,000-1,500 sq ft adjacent to GP/pharmacy. Available as Shell spec. Tel: 086-153 6655.

For sale or rent – Listowel, Co. Kerry. Long-established practice, freehold, owner retiring. Tel: 087-279 2048.

North Tipperary – modern dental surgery for sale. Excellent location and equipment, leasehold property. Tel: 087-907-9773, or Email: [jjmlfc@gmail.com](mailto:jjmlfc@gmail.com).

## Technical Implant Specialist joins the team at Promed



Promed is pleased to announce a new addition to our dental team. Kevin Walsh has joined us as our Technical Sales Specialist for Neoss Implants.

North Midlands – very modern three-surgery practice. Excellent patient mix and equipment – digital OPG/intra-oral camera, etc. Tel: 01-280 6414, or Email: steven@medaccount.ie.

Northbrook Clinic, Dublin 6. Unit to rent. 650 sq ft. Two to three surgeries. Specialists only. Tel: 01-496 7111.

To let – Midlands. Primary care centre. Superb location. Area very under-developed: dental services. Dublin city centre one hour. Fantastic facilities – superb WOW factor. Low rent. Flexible options. Parking on site. Full planning permission. Tel: 086-807 5273, or Email: niall@innovativedental.com.

Practice for rent – West of Ireland. Galway city 40 minutes. Great location – large footfall. Very low start-up costs. Eight medical GPS in surrounding area. No dental services. Very busy pharmacy on site. Area wide open. Low rent. Tel: 086-807 5273, or Email: niall@innovativedental.com.

Practice for sale – Cork. Very busy two-surgery. Well equipped. OPG, fibre-optics. Large private base. Low rent/overheads. Dentist retiring – can stay on to assist smooth transition. Tel: 087-232 7557, or Email: tuohy52@eircom.net.

Practice for sale – Dublin South West. Very busy long-established top class general practice. No medical card. Stable and expanding area – wide open. Single surgery, ample room to expand. Well equipped. Excellent gross, high profits. Superb staff. Tel: 086-807 5273, or Email: niall@innovativedental.com.

Practice to let – West Midlands. One hour from Dublin on M4 – high profile, large passing trade. Superb, very busy primary care centre including pharmacy, physiotherapists, opticians, etc. All mod cons. Great design. Area wide open. Low rent. Tel: 086-807 5273, or Email: niall@innovativedental.com.

Practice for sale – Galway City. Single person – long established. Two surgeries. Very busy. Huge potential. Strictly private/PRSI. Fast sale – realistic price. Freehold. Future development plans available. Superb central location. Tel: 086-807 5273, or Email: niall@innovative dental.com.

To let, Dublin 14. Recently vacated practice, 400m Dundrum Luas, c800 sq ft, partly equipped, parking above medical practice, suit specialist or dentist with existing patient base. Please Tel: 087-065 4620 after 8.00pm.

Carrigaline, Co. Cork. Two spacious adjoining rooms in medical centre for rent. Fitted to high standard. Free car parking. Ideal for dental practice. Tel: 086-226 1170.

### EQUIPMENT FOR SALE

For sale. Two dental chairs. Suitable for second surgeries. Side units and lights attached. Tel: 087-207 1077.

Two x-ray developers for sale. Velopex Intra-X €500, and Durr XR24PRO €1,000 ONO. Both in excellent condition. Also unopened OPG, Adult + Paedo I/O films, x-ray holders and viewer included. Tel: 087-659 4867.

Kevin is from Tralee Co. Kerry and has over ten years experience within the implant market in Ireland and the UK, most recently as Surgical Product Specialist with Biomet 3i. During that time he has held various positions covering surgical, restorative, and regenerative aspects of the dental implant procedure.

Kevin has run several surgical training courses on the surgical placement of implants in London, Manchester, Edinburgh, and Belfast. Many dental practitioners in Ireland will already know Kevin from meeting him at one of Dr Robert London's Advanced Surgical Placement course in Fort Lauderdale, Florida, which is one of the foremost training programmes in the world.

Kevin was at the Promed stand at Identex to answer queries about one of the latest additions to the Promed range, the Neoss ProActive. With fewer than a hundred and fifty components, the Neoss Implant System has unique design features and a host of excellent advantages for everyone in the dental team.



Building on the already excellent performance of the Neoss Bimodal implant the new ProActive clearly demonstrates accelerated osseointegration and interfacial strength in immediate replacement, early loading and high risk implant cases.

In-vivo removal torque tests reported an increase in peak removal torque (RTQ) of greater than 65% 10 days after insertion and more than 105% three weeks post placement for ProActive implants.

We at Promed would like to wish Kevin all the best in his new role. Should you have any queries with regard to dental implants, Kevin can be contacted at [walshk@promed.ie](mailto:walshk@promed.ie) or on his mobile 087 9980323





## DIARY OF EVENTS

**OCTOBER 2009****North Western Branch Meeting**

October 3 Clarion Hotel Sligo, 8.00pm  
 'Dental/Medical Emergencies', presented by Drs Andrew Bolas and Tom Boyce.

**Public Dental Surgeons Seminar 2009**

October 7-9 Whites Hotel, Wexford  
 For further information, contact Dario Gioe in the IDA on 01 295 0072, or Email: dario@irishdentassoc.ie.

**Metropolitan Branch – Scientific Meeting**

October 9 Grosvenor Room, D4 Ballsbridge Court Hotel (Old Berkeley Court Hotel), 1.00pm  
 'Cross infection control and prevention', presented by Drs Barry Harrington, Mary J. O'Donnell and Ronnie Russell, and Professor David Coleman.

**North Eastern Branch Meeting**

October 15 The Nuremore Hotel, Carrickmacross  
 'The Endo Experience – Endodontics and the operating microscope', presented by Dr Eoin Mullane.

**Munster Branch Meeting**

October 21 Maryborough House Hotel, Douglas, Cork  
 'Paedodontic Overview', presented by Dr Barbara Coyne.

**Irish Endodontic Society Meeting**

October 22 Dublin Dental Hospital, 7.30pm  
 'Top ten tips for endodontic treatment', presented by Dr Jarlath Loftus.

**NOVEMBER 2009****Communication workshop in conjunction with Dental Protection**

November 9 Ormonde Hotel, Kilkenny  
 Dental Protection, in conjunction with the IDA, will run a seminar on communications skills entitled 'Close Encounters of the Wrong Kind – can you really say that?' The seminar will broadly look at communication skills in complaints and claims, and the consent process. To book your place contact the IDA or log on to [www.dentist.ie](http://www.dentist.ie).

**Communication workshop in conjunction with Dental Protection**

November 10 Crowne Plaza Hotel, Dundalk  
 Dental Protection, in conjunction with the IDA, will run a seminar on communications skills entitled 'Close Encounters of the Wrong Kind – can you really say that?' The seminar will broadly look at communication skills in complaints and claims, and the consent process. To book your place contact the IDA or log on to [www.dentist.ie](http://www.dentist.ie).

**Council of the Irish Dental Association – Meeting**

November 14 IDA House

**Munster Branch – Annual Scientific Meeting**

November 20 Sheraton Hotel, Fota Island, Cork  
 Speaker: Dr Jens Andreasen, on 'Dental Traumatology'.

**Metropolitan Branch – Scientific Meeting**

November 26 Grosvenor Room, D4 Ballsbridge Court Hotel (formerly Berkeley Court Hotel)

'Tooth retention through root canal treatment or tooth replacement using implants or fixed partial dentures – the ultimate in scientific research', presented by Dr Shane White, USA, DDH graduate and now professor in UCLA.

**Irish Endodontic Society Meeting**

November 26 Dublin Dental Hospital  
 'The restoration of the endodontically treated tooth', presented by Dr Kevin O'Boyle.

**DECEMBER 2009****IDA Golf Society – Christmas Hamper**

December 11 The Royal Dublin Golf Club

**JANUARY 2010****Joint Metropolitan Branch and Irish Endodontic Society Meeting**

January 21 Hilton Hotel, Dublin  
 'Diagnosis, differential diagnosis and management of orofacial pain', presented by Dr Asgeir Sigurdsson, Iceland, UK and USA.

**FEBRUARY 2010****Council of the Irish Dental Association – Meeting**

February 6 IDA House

**Metropolitan Branch – Retired Dentists Social Evening**

February 25 Hilton Hotel, Dublin, 6.00pm  
 All dentists, whether retired or not, are very welcome to attend and have a chat with colleagues who have 'been there' and 'done that'.

**Irish Endodontic Society Meeting**

February 25 Dublin Dental Hospital, 7.30pm  
 Case presentation night.

**Metropolitan Branch – Annual Scientific Day**

February 26 Grosvenor Room, D4 Ballsbridge Court Hotel (formerly Berkeley Court Hotel)  
 'The Compleat Dentist': work/life balance, science, research, clinical practice, practice management, finance, table discussions and trade show.

**MARCH 2010****Metropolitan Branch – Scientific Meeting**

March 11 Grosvenor Room, D4 Ballsbridge Court Hotel (formerly Berkeley Court Hotel)  
 'Radiation in the dental surgery', presented by Mandy Lewis, Stephen Fennell, Dr Maurice Fitzgerald, and Dr Andrew Bolas.

**Irish Endodontic Society – Presentations by recent endodontic graduates**

March 25 Dublin Dental Hospital, 7.30pm.

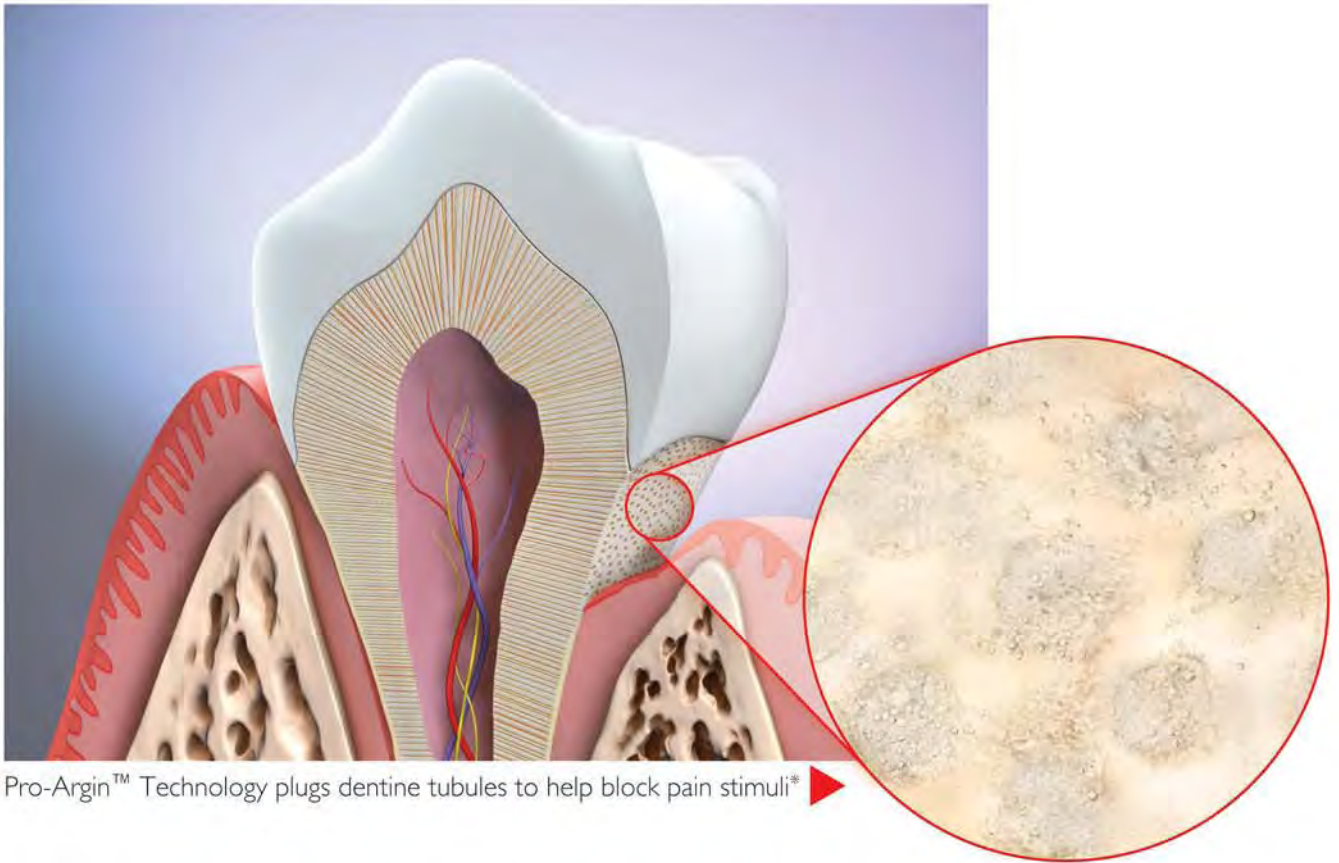
**APRIL 2010****Council of the Irish Dental Association – Meeting**

April 17 IDA House

**MAY 2010****IDA Annual Conference – 'Pearls of Wisdom'**

May 12-15 Radisson Hotel, Galway

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