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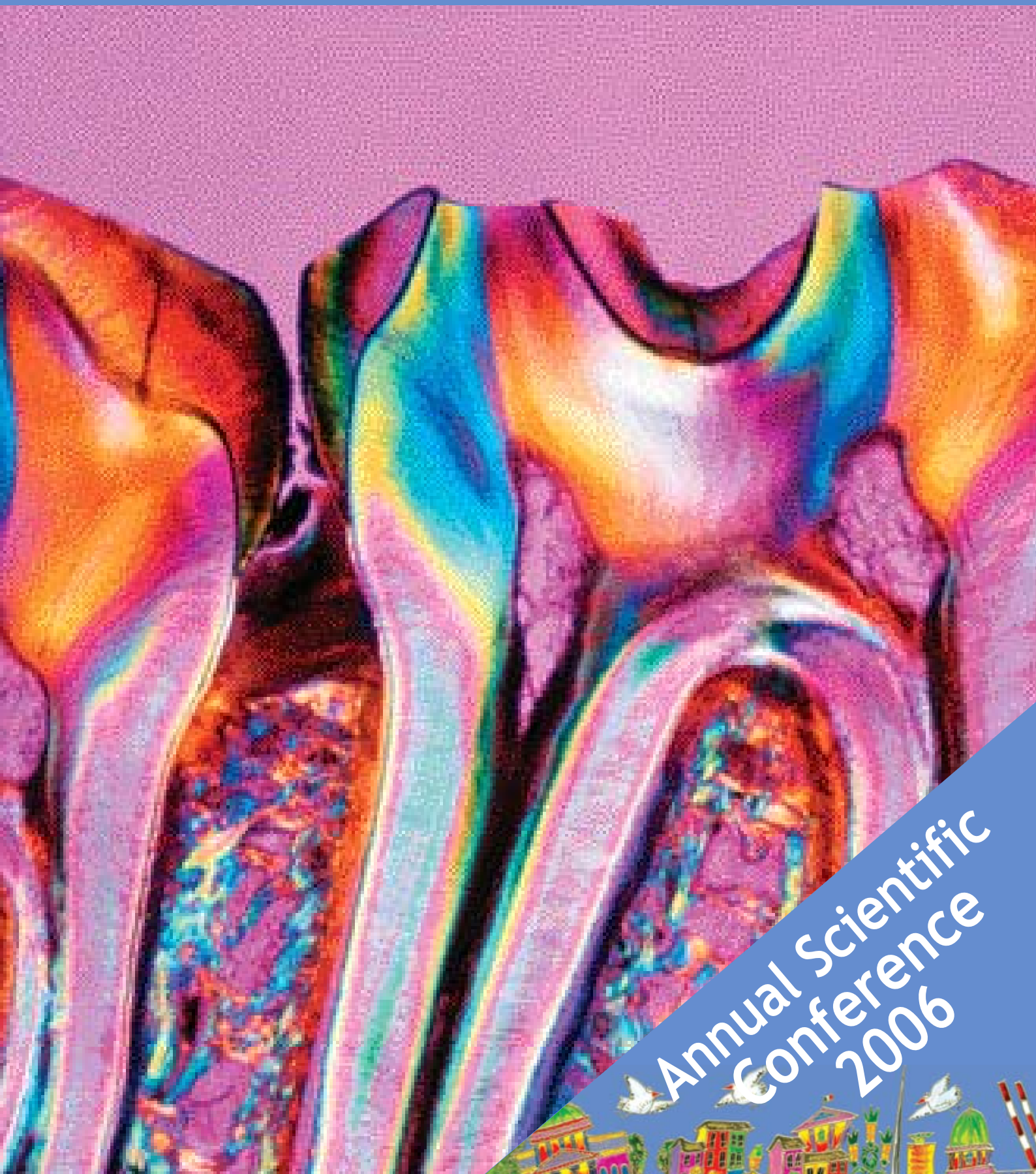
Journal of the Irish Dental Association

Iris Cumainn Déadach na hÉireann



Annual Scientific Conference 2006

The Journal of the Irish Dental Association

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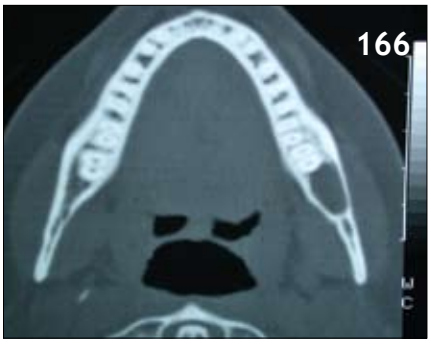
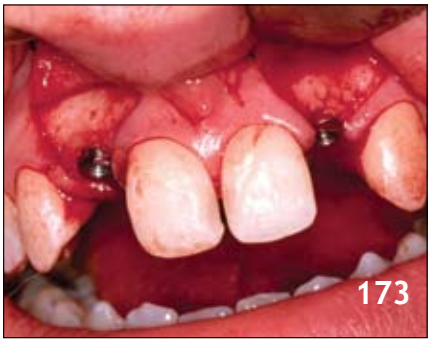




Editorial

This has been a very exciting few months with an increase in the submissions to the *Journal* and a very positive attitude from all involved. Thank you very much for your letters, and the Editorial Board is pleased that the Summer edition was well received. We have had two interesting letters on the content of the past *Journal*. The *Journal* has to be sensible in what it publishes. Letters need to be written in a constructive manner. Although it is recognised that colleagues have deeply felt views, not all letters can be published.

This edition includes a section on the forthcoming Annual Scientific Conference in 2006 and I hope colleagues enter these dates in their diaries.

The Journal will be available from January 2006 on the IDA website. There will be a section available only for members and a section available for the public. This should give you easy access anywhere in the world to your *Journal*.

Please feel free to contact the editorial team with any form of constructive feedback and help direct the *Journal's* future.

Oral cancer

The Faculty of Dentistry held a very interesting multi-disciplinary symposium on oral cancer, its management and the particular problems patients face in Ireland. It is a major problem and dentists are the first line in screening for this very important disease. It is a role we need to embrace. The newspapers, radio and television have highlighted how easy it is for dentists to screen their patients for oral cancer, oral pathology or neck disease, taking less than five minutes. It is an area that the dentist should lead and should ensure patients particularly those at risk (smokers, alcohol imbibers and those with leukoplakia/erythroplakia or other predisposing causes are seen early by the nearest oral medicine/oral and maxillofacial unit. It is a very important reason for dental recall even in those patients who are edentulous and denture wearers. Patients deserve our best. In the next edition of the *Journal* I intend to write clinical notes on what the practitioner should look out for in relation to oral cancer. A patient leaflet will be available on the website.

Osteonecrosis of the jaws

There has recently being great interest in the dental community because of the problems associated with the increased use of bisphosphonates. These drugs are used in medical practice for the management of osteoporosis, Paget's disease and to control some of the effects of cancer and its dissemination. They seem to have restrictive effects on the spread of cancer in bones. The drugs can be very helpful but dentists beware. Colleagues have run into problems with patients developing exposed areas of bone following extractions and not recognising its aetiology. There is a risk of bisphosphonate induced osteonecrosis of the jaws (maxilla and mandible). It is essential we know and check our patients's medical history, particularly any history of cancer, osteoporosis, Paget's disease and check up on any medications they may be taking or have taken for this. Bisphosphonates inhibit osteoclast activity, which help model bone and prevent excessive density of bone. Bisphosphonates can be given intravenously (pamidronate and zoledronate/nitrogen-containing type) and orally (alendronate and risedronate/non-nitrogen containing type). Any history of bisphosphonate treatment is important because the drug lasts in the bone for up to 12 years. Patients should be treated similarly to patients who have had radiotherapy to the head and neck area. There are no definite answers yet. Prevention is of paramount importance. Restoration of teeth, including endodontic treatment, is preferable to extractions. If extractions are required as a last resort, they should be undertaken following meticulous oral hygiene, the use of chlorhexidene 0.2% mouth wash, antibiotic prophylaxis, gentle extraction and meticulous gentle soft tissue care. The extraction site should be covered with a topical dressing (dressing plate) with no pressure. Obviously the possibility of a metastasis needs to be ruled out. There is no definite answer.

Prof. Leo F A Stassen Editor

Articles in this issue

- Immediate Osseotite implant placement and immediate loading of a provisional restoration of maxillary lateral incisors. This paper from Spain is very welcome. I had the opportunity to meet Prof. Jose Calvo on a recent visit to Dublin. He is a hard working, entertaining, and energetic young man. His paper highlights the advantage of the orthodontist, surgeon and prosthodontist working together to solve a difficult aesthetic problem.

- Treatment of third molar teeth - assessment. This paper highlights the importance of communication between the patient and the dentist, the need for good patient, clinical and radiographic evaluation. The need for a valid informed consent.

- Clinical notes: identification of periodontal risk factors prior to restorative treatment. This paper is the first in a series we intend to produce. It is a summary of an excellent lecture given to the metro branch of the IDA. The article highlights the three tips that it wants practitioners to remember.

News

Academic initiative brings a healthy smile to dental students

Gilbert Lysaght of the Dublin Dental School has been announced as one of three winners of the 2005 Listerine Academic Initiative.

The initiative was developed as part of Listerine's continuing commitment to oral health education, involving dental schools in Dublin, Cork and Belfast. The Dean of each dental school was asked to identify a student who they judged to be outstanding, not only in relation to academic performance, but also on project work and overall commitment to their respective courses.

A bursary of €1,500 has been awarded to the winning student from each university in order to assist chosen research projects. This will be Listerine's second academic initiative, which has proved to be a most positive incentive for students to show commitment and interest in their course work with a reward of funding for research.

The judging panel included: Professor Noel Claffey, Dublin Dental Hospital; Dr Hassan Ziada, National University of Ireland, Cork; and Dr Wilson Coulter, Queen's University, School of Dentistry, Belfast.

Gilbert Lysaght, winner of the 2005 Listerine Academic Initiative, with the Dean of the Dublin Dental School, Professor Noel Claffey.

Mercury in dental amalgam - the view from Europe

In January 2005, the European Commission published a strategy concerning mercury in which it stated it would review the use of mercury in dental amalgam. The Commission called on the EU Council and European Parliament for a response. In June, the European Council approved this strategy and emphasised the need to look at mercury. While in the European Parliament, the Cypriot Liberal MEP Marios Matsakis is preparing a report in which he will call for an eventual ban on dental amalgam.

Based on this, the Dental Liaison Committee Brussels office asked DLC members the following questions:

- Is it desirable/necessary, for health or environmental reasons, to ban the use of mercury in dental amalgam?
- Are there suitable alternatives to amalgam at the moment? Will there be suitable alternatives in five to ten years (in terms of quality and longevity of filling, safety of alternative materials, cost, etc.)?

As a result, the EU-DLC sought DLC members' advice on the issue and their responses showed that in the vast majority of countries it is not considered necessary or desirable to ban mercury. There is little scientific evidence to support arguments to ban mercury for health reasons and the environmental problems can be largely solved by strict guidelines on the use of mercury. The Brussels office is arranging meetings with the rapporteur and person responsible for the dossier in the Commission, in order to share the DLC findings with them.

Only one country, Norway, indicated that its government is considering a mercury ban for environmental reasons. The plan is to cease the release of mercury by 2020 in Norway, while in Germany children and pregnant women are not given mercury amalgam fillings. Despite this, the overall opinion was that there is no need for a mercury ban. There was also a widespread feeling that there would be no suitable alternative, especially when cost is considered, to amalgam within the next five to ten years.

However, the MEP responsible for drafting the European Parliament's response to the Commission's Mercury Strategy, Marios Matsakis, still intends to propose a ban on mercury in dental amalgam.

News

Tooth whitening agents - a legal maze

Tooth whitening agents have been the subject of much discussion in Europe regarding their classification and the maximum acceptable concentrations of hydrogen peroxide they contain.

Up until March 2005, the Cosmetics Directive 76/768/EEC classified whitening products as cosmetics with a maximum allowable concentration of hydrogen peroxide of 0.1%. However, the Directive was not clear on the status of whitening products with a higher peroxide concentration.

Therefore, some suppliers of whitening product with more than 0.1% hydrogen peroxide classified their products as medical devices under the Medical Device Directive 93/42/EC.

Since there were few, if any, published clinical safety issues associated with whitening products, these firms had been able to achieve the "CE Mark" from various notified bodies required for marketing medical devices. Thus, these firms were not bound by the Cosmetic Directive's concentration restriction and they therefore legally marketed their products within the EU with a hydrogen peroxide content as high as 35% or as high as they are able to substantiate as being clinically safe with their notified body.

The case for marketing whitening gels with more than 0.1% hydrogen peroxide therefore was confused, with some countries classifying them as dental devices and others as medical devices.

The Scientific Committee on Cosmetics and Non-Food Products intended for Consumers (SCCNFP) had been consulted and expressed its views on the safety of hydrogen peroxide tooth whitening systems on several occasions.

Following submissions from various scientific and pharmaceutical bodies, the Scientific Committee on Cosmetic Products (SCCP) was requested to clarify certain points. On March 15, 2005, the SCCP gave the following opinions:

- The use of tooth whitening products up to 0.1% hydrogen peroxide is safe.
- The proper use of tooth whitening products containing >0.1 to 6.0% hydrogen peroxide (or equivalent for hydrogen peroxide releasing substances) is considered safe after consultation with and approval of the consumer's dentist.
- The use of tooth whitening products is not recommended prior to or immediately after dental restoration.
- Particular care should be taken in using tooth whitening products by persons with gingivitis and other periodontal diseases or defective restorations. Conditions such as pre-existing oral tissue injury or concurrent use of tobacco and/or alcohol may exacerbate the toxic effects of hydrogen peroxide.
- There is an absence of good clinical data and long-term epidemiological studies that assess the possible adverse effects within the oral cavity.
- The new additional data supplied does not provide the necessary reassurance in terms of risk assessment to support the safety of hydrogen peroxide up to 6% in tooth whitening products freely and directly available to the consumer in various application forms (strips, trays, etc.). SCCP cannot quantify the risk of potential serious adverse effects in relation to the use of tooth whitening products.

European Commission services are currently drafting a paper on the implementation into practice of this opinion. Products will be provisionally (probably for five years) available on the market with the following labelling:

- That the consumer should consult a dentist before using the products.
- That persistent and undesirable effects should be reported to dentists.

During this period the Commission is looking for contributions from dentists in order:

- To have a clear view on how the product was perceived/used by consumers.
- To know if instructions were followed and dentists consulted.
- That any undesirable effect is reported to producers.

On the basis of the SCCP opinion, the Commission is devising a strategy to regulate the marketing of tooth whitening products. This strategy is based on four pillars: provisional allowance, information aspect, monitoring system and commitment of industry to submit data in order to answer SCCP concerns.

In December 2005, the Cosmetics Directive will be changed by the Standing Committee on Cosmetic Products. Member states will have six months to transpose it into national law.

It is expected, therefore, that, by June 2006, the consumer/patient will be able to buy tooth whitening products of up to 6% hydrogen peroxide over the counter after consultation with and the approval of a dentist.

An effective monitoring programme has not been established. In addition, the new opinion does not clarify the position regarding products containing over 6% hydrogen peroxide.

News

IDA increases its public relations profile

Recently the Irish Dental Association stepped up its public relations efforts following the appointment of MRPA KINMAN as its external PR advisors.

Since coming on board, the consultant company has helped the IDA to navigate a number of potentially negative stories while also generating and securing significant coverage for some very positive stories about dentists and the profession in general.

Most recently the IDA secured some very good coverage for the role played by dentists in the detection and treatment of oral cancers. The timing of the story was linked to the Annual Scientific Meeting of the Royal College of Surgeons in Ireland which was focusing on oral cancer and which featured a number of members of the IDA on its expert panels.

The PR consultants also secured a front page story on this issue in the high profile health supplement of *The Irish Times*, which reflected well on the profession in general and which also reiterated some positive points about the importance of regular check-ups by dentists. The IDA continues to work with the consultancy to seek to secure additional high profile coverage for this subject.

Working with these advisors, the Association also secured extensive coverage recently for its call on Government to increase people's understanding of their entitlements to free and/or subsidised dental care. A press release prepared on this subject was reported in *The Irish Times* and interviews with Dr Tom Houlihan were carried on a number of local radio stations. The release issued to the national media was also tailored for different parts of the country leading to further coverage in local media.

On the reactive side, the IDA advisors have also played a role in helping the IDA to position the Association as strongly as possible when defending its position in respect of more sensitive issues like dental tourism, costs of treatments and so forth.

In this capacity, the Association has participated in a number of print and broadcast media opportunities to provide a balance to the otherwise critical comments that were being made. For example Eddie Cotter participated on a feature on *The Big Bite* programme on RTE where he defended the industry very effectively. Deputy Secretary General, Ciara Murphy, also defended the profession in a number of feature interviews in the *Irish Independent* and *Sunday Times*.

Finally, of course, the profession in general and the need for careful attention to oral health received enormous positive coverage during the Annual Oral Health Month sponsored by Colgate. This initiative led to numerous interviews, feature articles and general media coverage over a four or five-week period including a number of very high profile national interviews with representatives of the Association.

Together with its advisors, the IDA is now preparing plans to build on the momentum which has been created with a view to securing more positive coverage for the profession and its members in the weeks and months ahead, in particular in relation to the upcoming Public Dental Surgeons Seminar in Kilkenny in November, and ahead to next April's Annual Scientific Conference in the RDS in Dublin.

Dental Council elected members

The following dentists have been elected to membership of the Dental Council commencing November 13, 2005

- Dr Eamon Croke
- Dr Terry Farrelly
- Dr Maurice Fitzgerald
- Dr Barry Harrington
- Dr Martin Holohan
- Dr Niall Jennings
- Dr Barney Murphy

These elected members will be joined by a further 12 people who will make up the council for 2006.

The names of the 12 new members are expected to be announced before December 1, 2005.

News

Revenue Commissioners publishes dentist's tax profile

As highlighted in the IDA Update (Vol.1 No. 3, October 2005), the Revenue Commissioners has developed a 'Dentist Profile' that will be used by Revenue auditors to assist in auditing tax returns and records of dentists in general (private) practice. According to the document: "It is intended to provide general background information on the main features of the profession."

The profile includes an overview of the profession including information on the regulation of dentistry in Ireland, the register of dentists and dental specialists. The document states: "About 2,170 dentists are currently on the Register of Dentists. Approximately 1,200 to 1,500 of these are engaged in private practice."

The main features of a dental practice are highlighted including the structure, i.e. that the majority of dentists carry on practice as sole practitioners. The document goes on to state that "in most other cases dentists (principals) enter into contracts with other dentists (associates) under the terms of which the associates contribute a percentage of their gross fee income (normally 50%) to the principals in return for the use of premises, facilities, equipment and staff. This arrangement is neither one of partnership nor employment: each associate is regarded as a sole practitioner". It is also noted that similar arrangements are in place with dental hygienists who 'are usually self-employed'.

Other features highlighted include trends (dentists who limit their practice to a specific expertise), staffing (employment of receptionist and dental nurses) and patients (eligibility under the DTBS and the DTSS).

The sources of income for dentists in private practice are categorised as follows:

- Private fees
- Government sources (including income from the DTSS, DTBS, HAA Cardholders, children up to age 16, EEA scheme, Occupational Injuries Benefit Scheme, Department of Defence, Department of Justice, Equality and Law Reform)
- Other sources (including contributions from associates and dental hygienists, locums, recovered metals, cancellation fees, health insurers).

Section three of the Profile addresses the issue of record keeping. It is noted that 'Section 905 (2) (c) of the Taxes Consolidation Act 1997 deals with the entitlement of an authorised officer in regard to the inspection of books and records'. It is recommended that where verification of financial information which is held on a patient's record is required, 'the assistance of the dentist (or someone on the dentist's behalf) should be sought in doing so'. Dentists must keep records for a reasonable period, not likely to be less than 10 years.

Section four deals with matters which affect profitability including:

- Ratio of private fees to DTSS/DTBS
- Practice structure
- Location
- Socio-economic profile of the practice clientele
- Competition
- Degree of specialisation
- Fee charging policy and debt collection procedures
- Experience of the dentist
- Age of the dentist
- Investment in IT
- Contributions from associates and hygienists

Finally, section five outlines tax issues specific to dentists under five headings:

- Customs – where goods are directly imported, i.e., dental equipment and materials, all of which are zero-rated except dental floss and films for x-rays
- Income Tax
- VAT – the supply of professional services of a dental nature is an exempt activity for VAT. However, the supplying of goods only by dentists are liable to VAT at the standard rate of 21%. It is stressed that this is an unusual scenario
- PSWT – payments to dentists from the State and authorised insurers are all subject to PSWT
- Third party returns.

The Irish Dental Association has sought permission from the Revenue Commissioners to post the full 'Dentist Profile' on the members section of the website – www.dentist.ie.

Honour for Irish dentists

Two Irish dental professionals have been awarded honorary membership of the American Dental Association. The first, Dr Martin H. Hobdell, was recognised for his contribution to the profession. He had a distinguished international career in dental public health, serving as a director and professor in England, Ireland, the US and parts of South Africa, where he was Dean of the Faculty of Dentistry at the University of Western Cape. Dr Hobdell is currently serving as Visiting Professor at the Department of Epidemiology and Public Health, University College London, and at the School of Dental Science, University College Dublin, and Trinity College. He also currently serves as a member of the ADA's Health Volunteers Overseas/Dentistry Overseas Steering Committee and is on the FDI World Development Health Promotion Committee and serves as its Programme Manager for Africa.

As previously reported, the second recipient of the honour was Dr John Clarkson.

News

Letter to the editor

Dear Editor,

I read with great interest the article on Attitudes of Irish and European dentists to water quality of dental unit water systems in your last publication.

At the FDI World Congress in Montreal in August 2005, I, together with colleagues from almost 80 countries, voted to incorporate the following in the FDI Policy Statements: "The possibility of contamination of dental unit water systems from either the municipal supply or the retracted patient material (saliva) may lead to the development of biofilms within the system. However, available scientific data strongly implies that the risk to either the patients or the operators through such contaminated water with essentially harmless, saprophytic bacteria is nearly zero. It is prudent nevertheless to follow manufacturers' current infection control recommendations and directions for maintenance of each dental operative unit, essentially for hygienic considerations."

FDI Policy Statements are put together through consultation, discussion and consensus amongst leading dental experts from around the world. Many statements are the result of projects carried out by the FDI Science Committee, whilst others are produced in collaboration with organisations such as the World Health Organisation (WHO).

I voted for this Policy Statement because I believe that such a broad base of independent scientific data as is used to develop these statements is reliable and unbiased.

If scientifically accurate, the statement above should allay the concerns and fears of those dental practitioners who feel the need for microbial analysis of the exudates from their handpieces and inject some realism into practice protocols for dealing with enthusiastic sales reps who extract clinical studies from their briefcases to scare customers into purchase of expensive non-essential products and support their sales targets!

The FDI policy statement above gives clear and simple advice regarding appropriate cleaning regimens for DUWS, that is, follow the manufacturer's instructions. This article illustrates clearly the difficulties facing general dental practitioners in obtaining accurate information from unbiased sources regarding the proper maintenance of dental equipment to ensure safety for themselves, their staff and their patients.

Is mise, le meas

Dr Padraig G. O'Reachtagain

Dental guidelines published

The Dental Council has published its Codes of Practice relating to the administration of general anaesthesia, sedation and resuscitation on its website www.dentalcouncil.ie. In addition, the updated draft guidelines on cross-infection control in dentistry is now also available for download. The document details best practices and practical implementations for the control of cross-infection and cross-contamination within dental practice.

The President invites you!

Irish Dental Association President, Gerry Cleary, pulls no punches when answering questions on his hopes and aspirations for his year in office. He also reveals why all dentists and their teams, whether from the Republic or Northern Ireland, should attend the 2006 Annual Scientific Conference.

What do you hope to achieve in your year as president?

To ensure that the Irish public know what a strong, committed, responsible and well-educated dental community there is in Ireland. This is achievable if we all work together to affect the change of view that is required.

What are the three main issues affecting the profession at present in Ireland and how are these being addressed?

1 Dentistry in Ireland receives a poor press and because of this our self-esteem is a bit low. For the first time, the IDA has retained the services of a PR company - MPRA Kinman. Recently, the benefits of this have been seen with a greater positive media presence culminating in the recent national press coverage highlighting that 80% of the Irish population is entitled to a free examination and preventive treatment. All through the coming year, we will see more of the positive side of dentistry being put forward in a clear and professional manner. Our Association is looking for good news stories to promote the image of our profession and our contribution to Irish society. If you have a good story, then let us know. It's time to let our light shine a little bit.

2 Our Association is undergoing huge change.
For each of us change is always difficult, and sometimes unwelcome. But change when it is needed should be welcomed, however difficult the process is. The IDA Executive has not sought the challenges presented to it, but has conscientiously and for the very best interests of the Association faced them in a comprehensive and thorough manner. The Executive and Council ask for your patience until the full details behind the need for these changes can be released.

3 All of the subgroups within our Association: public dental surgeons (benchmarking and working with the new structures of the HSE); general practitioners working the government schemes (renegotiation of the government DTSS schemes); and the specialist and limited practice groupings will all face significant events in the coming year. Through out my time in our Association, it has struck me that when we are united we are at our most effective. I hope that as each of the different negotiations are undertaken, we will continue to work with and for each other to resolve these in the best interests of our membership.

Take us down the path that led to you becoming president of the IDA.

My first contact with the IDA was during my final year in dental school, when I was asked to attend a public dental surgeons conference in Kilkenny. During the conference, we were exposed to some terrific presentations, one from John Walshe stands out particularly in my mind, and I remember a very in-depth conversation with a member that challenged us students to answer why we wanted to become dentists and how we would contribute to the profession. This initial contact with the Association made a very strong impression on me.

After graduation, I joined the practice of Colm O'Sullivan and Leo Heslin, both former IDA presidents and very active members of the Association. Throughout their mentorship, they instilled the importance of being involved actively with one's profession and contributing at some level. The first IDA committee I served on was after election as IDA treasurer for Art McGann's second term of office. It was at that stage I truly understood the commitment and time given by IDA members. I also truly understood what was the heart of the IDA - the members who contribute their time to further our profession.
I was honoured to be asked by the IDA Metropolitan Branch to allow my name to be considered for President. My hope, looking at the coming year, is to live up to their expectations and I can only aspire to the very high standard set by previous presidents nominated by the Metropolitan Branch.

What is your outlook for the future of dentistry in Ireland?

The outlook is optimistic. We have unprecedented numbers in our Association. We have an enormous educational structure within the IDA and an annual scientific conference that, from a clinical point of view, is second to none. We have a young, highly educated dental community, very heavy demand on continuing education such as the Diploma courses at the Dublin Dental Hospital, the MGDS programme in RCSI and the postgraduate medical and dental board activities, and all of the local activities run by the IDA. Each year at our annual scientific conference, we have between 20 and 25% of the practising profession attending. I doubt any other country can match that figure. We also have a voluntary and well-subscribed CPE scheme.

What can people expect at the ASC 2006, what is unique about it and why should people come along?

The conference comes to the village of Ballsbridge for two reasons. First, conference committees have recently felt that the scope of the meeting was limited by the size of the venues. While the scientific content, trade show and social events were excellent, the committees felt it would be worthwhile bringing the conference to a larger venue. The Herbert Park Hotel and the RDS is a large venue, but Ballsbridge retains the feeling of a small town.
And secondly, we are bringing the ASC to the capital to promote our image and let our light shine a little. Our conference is THE IDA's annual showcase event, but unfortunately only we within the profession know this. I hope that the 2006 conference will showcase Irish dentistry to our colleagues in the UK and North America, and most importantly to the Irish public. The conference will be bigger, brighter and better. We have a dual programme on both days and an expanded national trade show. We have more table demonstrations and guest organisations joining us and we have a dental forum for patients. This conference is one you would not want to miss. The committee is also keen to invite colleagues who have not attended before. We have tried to make it easy - all you have to do is get them to log onto www.dentist.ie.

Alumni special

In a breakaway from previous years' programmes, the 2006 Annual Scientific Conference will include a dedicated alumni programme aimed at graduates from the Dublin Dental School and Hospital.
The half-day programme, which will take place on Saturday, April 29 alongside the AAID Clinical Programme, includes a tour of the Dublin Dental Hospital, a class reunion and a lecture by Brendan Keneally as well as a social golf event at the Glen of the Downs Golf Club in County Wicklow. All graduates from the hospital are invited to attend this special day and catch up with old friends. There is no charge for those who wish to take part in this purely social event, but you must register with the IDA or the DDH.

Hands on!

The pre-conference courses, which take place on Wednesday, April 26, promise something special for those who attend. With technology now taking a growing role in dentistry, the organisers thought it time that the conference reflected this. As a result, the pre-conference courses will include two surgery link-ups via video link to allow delegates to observe live oral surgery and implant procedures at the Dublin Dental School and Hospital.

Public interaction

In another breakaway from tradition, the 2006 Conference will run a dental health forum to which members of the public will be invited to attend and participate. The forum will not only promote oral health covering areas such as smoking, oral cancer and gum disease, but will allow the public a chance to hear from the profession the wider concerns about dental care in Ireland. This innovative programme of allowing the public into what has traditionally been a profession-only conference, will be seen as opening up to scrutiny what has been perceived as a closed shop. As IDA President Gerry Cleary said: "The public forums present a great opportunity to allow the light of the dental profession to shine through."

Top 10 lecturer reasons for attending the IDA Annual Scientific Conference 2006

1 Steve ROSENSTEIL - UK London graduate and now Professor and Chairman of Prosthodontics in Ohio State University. We had to study his comprehensive textbook, but you can now hear the man in person. Steve straddles the great divide that is the Atlantic ocean very well.

2 Tim CARLSON - Professor in the Operative Dentistry department of Indiana University. Widely published and hugely respected as a teacher at graduate level. He is clear and concise and practical and will speak on a topic that affects us all on a day-to-day basis i.e. choosing the best method of intra-corronally restoring the posterior tooth.

3 Gerry ANDRES - has held all the prestigious positions in Prosthodontics in North America. For the past ten years he has been the Graduate Director of Prosthodontics in Indiana University. He has a lifetime of complete dentures experience and will pass on the essence of this to us.

4 Aidan MORAN - Professor of Psychology in UCD with a particular interest in sports psychology. Aidan is consultant to the Irish Olympic team and Tennis Ireland. He will help us to understand our Own mind and hopefully how to get those 18 inch putts to drop on a more regular basis. The same principles apply to what we do on a day-to-day basis.

5 Jaime LOZADA - a renowned implant surgeon and a guest to our programme from the American Academy of Implant Dentistry. He is a professor in Loma Linda School of Dentistry and will speak on the developing area of computer-guided implant placement.

6 Paul OVERY - Paul founded Financial Engineering Ltd and has advised members of the Association on a regular basis in the Journal. Paul has strong opinions on money and getting the most from your money. He will speak on the topic of - you have earned it now make it work for you!

7 Juliette REEVES – Juliette was unable to come to Killarney last year and is very much looking forward to participating this year. She will speak to the theme of living better and wellness throughout life.

8 Ray WHITE – a very popular speaker in the UK and will talk on stress free dentistry. Need we say any more!!!

9 Karl O'HIGGINS - how you work is how you feel at the end of the day and Karl will talk on aspects of surgery design to reduce the physical stress of our working positions in dentistry.

10 Michael GILLEN – Michael is from IBEC and has spoken on health and safety to some of our groups. Those who have heard him will want to do so again and those who have not, will not want to miss this. Our responsibility to protect ourselves and our staff will be outlined and this is core to the check-up for the practice.

Win free entry to the 2006 Annual Scientific Conference!

With a programme that confirms the ASC as the premier scientific conference for the dental profession, attendance is a must. To help you along your way to Ballsbridge, we will pay the €300 cost of conference registration for an IDA member. All you have to do to win is answer the following question:

Who is the President of the Irish Dental Association?

Answer by email only to daniel@ifpmedia.com by Monday 9 January 2006.

Get a practice check-up

We are all used to giving our patients a dental check-up. Indeed, we know regular check-ups are essential to ensure the oral health of the population. Now, it is your chance to get a check-up. During the conference, a practice check-up will be run, which will cover all the essential areas to ensure your practice is operating at 100% efficiency. Areas such as finance, waste management, radiation protection legislation, stress management, practice ergonomics and human resources will all be covered. Isn't it about time you gave your practice a check-up?

The whole team is welcome

The 2006 Annual Scientific Conference has recognised that to be able to offer a comprehensive service, dental practices need to employ a range of dental professionals. Each member of the dental team makes up a valuable part of the practice jigsaw. Each member, whether it be the practitioner, the dental nurse or the hygienist, must be as up-to-date as possible in their discipline. Therefore, this year the conference has a full programme of breakaway sessions so that each member of the dental team is catered for.

Top 10 scientific reasons for attending the IDA Annual Scientific Conference 2006

1. Choice throughout the programme on each of the days and a wide area of topics covered.
2. The FUNdamentals of dentistry facing into our future.
3. A check-up for the practice as opposed to the patient or indeed the dentist; stress, waste management, working position, human resources.
4 Hands-on pre-conference course in a dedicated teaching facility- composite layering - limited to 35 people.
5 Live surgical demonstration pre-conference courses - oral surgery, implants.
6 Free implant full day programme (day after the conference but must register for it through IDA).
7 Large trade show and associated trade forum - free communications from the dental industry. If you want dental shopping we have it for you.
8 Table demonstrations and clinics - bigger and better and more of them.
9 Speakers - we have an excellent national and international panel of presenters.
10 You can't work anyway, because your staff will be at it!

Scientific programme - Day 1 Thursday, April 27, 2006

Time	Event	Event
8:00	Registration	Practice Check-up
8:45	Opening of Meeting	
9:00	Restorative	Wellness & Wellbeing
	Michael O'Sullivan	Juliette Reeves
	PhD MSc MDentSc	'Staying well through life'
	'Restoration of the Hypoplastic first molar in the young patient'	
9:45	Orthodontics	Health & Safety
	Marielle Blake	*Michael Gillen, IBEC*
	BDentSc, MdentSc., MOrth, MSD Toronto	
10:15	'Catch It Early - identification of various signs of treatment need in the growing individual'	Waste Management *Brian Rodgers*
10:30	**Coffee**	
10:45	**Coffee**	
11:00	**Coffee**	
11:15	Paedodontics	HR and Employment Law
11:30	*Dr. Dympna Daly*	Irene Minogue - HR Dept.
11:45	BDentSc, MSD Minn	Radiation Protection Institute
	'Problem solving in paediatric dentistry'	*S Fennell* 'Recent Changes In X-ray Law'
12:00	Disability & Oral Health	Workplace Ergonomics
12:15	*Professor June Nunn*	*Karl O'Higgins, ADEC*
12:30	'Access to care for a disabled patient in a general practice setting'	
12:45	LUNCH	
14:00	Wellness & Wellbeing	Financial Health
14:15	*Ray White*	*Paul Overy*
14:30	'Stress Free Dentistry'	'You've worked hard for it - now keep it!'
14:45	Restorative	Inheritance Planning
15:00	*Pat Cleary*	*Aidan McLoughlin*
	Diplomat American Board Endodontics	'No pockets in your shroud'
15:15	*John Walshe*	
	Diplomat American Board Paedodontics	
15:30	*Billy Davis*	Pension Planning
15:45	Diplomat American Board Prosthodontics	*Colin O'Neill*
	'Central Incisor - Birth to Grave'	'Wanting to retire early and comfortably'
	The traumatised central incisor from initial injury to replacement with implant dentistry	
16:00	COFFEE	
16:30	Table Demonstrations	Dental Health Forum (Concert Hall, RDS)
16:45	Costello & Moloney Medals	1. Brushing your teeth can save your life *Paul O'Reilly*
17:00	Trade Show	2. Smoking & mouth health *Irene Smart*
17:15	LA GRAND FIESTA NOLELBIOCARE PARTY	3. I'm afraid I have cancer in my mouth *Christine McCreary*
17:30		4. Your child and preventing cavities *John Walshe*
17:45		5. Fractured incisor *Pat Cleary*

Scientific programme - Day 2 - Friday, April 28, 2006

Time	Clinical Programme
9:00	Prosthodontics
	Steve Rosensteil
	Diplomat American College Prostho
	'The patients perception of appearance'
9:45	Operative
10:30	*Tim Carlson*
	Diplomat American Academy Operative Dent
	'Operative techniques for successfully restoring posterior teeth.'
11:15	Operative (Part 2)
11:30	*Tim Carlson*
11:45	Diplomat American Academy Operative Dent
	Operative techniques for successfully restoring posterior teeth.
12:00	Removable Prosthodontics
12:15	*Gerry Andres*
12:30	Diplomat American College Prostho
	Complete Dentures in General Practice - tips for the dentist.
12:45	LUNCH
14:00	The Winning Mind
14:15	*Aidan Moran*
14:30	Professor of psychology, NUI Dublin consultant to the Irish Olympic team and Tennis Ireland
	'How the mind works in top professional sports stars.'
14:45	Implant Dentistry
15:00	*Jaime Lozada*
15:15	The new dilemma: Model-based or Computer based Implant Dentistry
15:30	COFFEE
16:00	What's In A Face? - maxillofacial prosthodontics overview
	Gerry Andres
16:30	Implant Restorative Dentistry
16:45	*George Priest*
17:00	Optimising Aesthetics
17:15	Close of Trade Show & Meeting

Scientific programme
Pre-conference
Wednesday, April 26, 2006
Dublin Dental School and Hospital

Time	Teaching Lab	Large Lecture Theatre	Small Lecture Theatre
9:00	Composite Layering *Crotty* *Menton* *Brennan* *Quinn*	Implant Immediate Loading Live surgery via video link-up *Paul O'Reilly* *Kevin O'Boyle*	Pain Management *Dermot Canavan*
12:45		LUNCH	
14:00 Update	Composite Layering *Crotty* *Menton* *Brennan* *Quinn*	Oral Surgery Live surgery via video link-up & lectures. *Leo Stassen* *Peter Cowan*	Prosthodontic *Steve Rosensteil*
17:30		END OF SESSION	

The trade show

This year's trade show will be like no other. With 38 stands already booked, the trade show will have everything the dentist and the dental team need (and a whole lot they might not even have considered). If you are considering updating equipment or are interested in the latest dental technology, you are advised not to miss this year's trade show.

The sponsors

This year, there are six main sponsors of the Annual Scientific Conference:
Nobelbiocare
Glaxosmithkline
Colgate
Wrigley
3i
ITI Straumann
The conference organisers are grateful to these companies for their support.

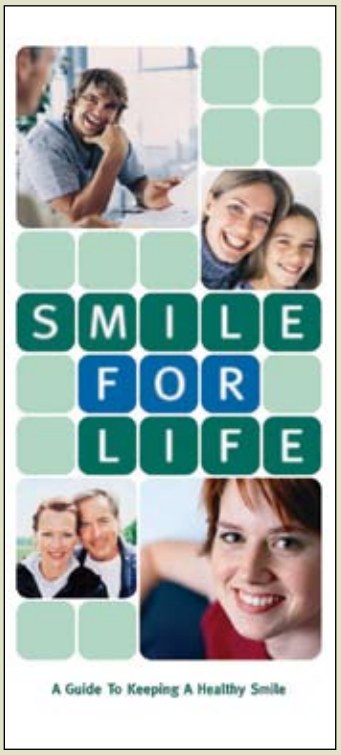
Where to stay

Ballsbridge in Dublin 4 is close to the heart of the city and yet has managed to retain the feel of a small town. There are a host of accommodation options available to those planning to attend the conference. The Herbert Park Hotel, which is situated close to the RDS – the conference venue – has agreed special rates for the duration of the 2006 ASC. Early booking is essential.

Remember you can book your place at the ASC 2006 by simply visiting www.dentist.ie.

Business news

Smile for life



An estimated 93% of the Irish population suffer from some degree of gum disease, which is the biggest cause of tooth loss in adults, it was recently revealed at the launch of 'Smile for Life', a public education campaign sponsored by Listerine to improve oral health.

Astonishing figures of people suffering from gum disease in cities throughout Ireland include 198,600 people in Galway, 166,500 people in Limerick and 1,066,000 in Dublin.

'Smile for Life – A Guide to Keeping a Healthy Smile' was launched as part of the campaign and gives practical advice and information on how to maintain healthy gums and teeth.

Research conducted as part of the campaign revealed that only a third of all adults claim to visit their dentist once a year or more often. With the vast majority of the balance having no regularised system of attendance and claiming that they attend the dentist 'whenever they need to.' About 10% of the population claim that they never visit the dentist at all. The campaign has been developed to encourage greater oral health awareness and the adoption of Listerine's three step routine: Brush, Floss and Rinse (with a clinically proven therapeutic mouthwash), which according to a new clinical study can reduce plaque by up to 52%.

The research also looked at daily oral hygiene routines and revealed that only 30% of adults use dental floss with the incidence of use being higher among women and those with children. There is also some evidence to suggest that people who routinely visit the dentist are more likely than average to use floss. When it comes to mouthwash use, only 25% of all adults claim to use mouthwash at least once a day with 45% of adults claiming to use it once a week. The 'Smile for Life' campaign has been developed to encourage greater dental attendance and the adoption of a three step daily oral care routine of brushing, flossing and rinsing (with a clinically proven therapeutic mouthwash) to help maintain healthy gums and teeth.

"The good news about these statistics is that they demonstrate that, for the majority of people, by making simple adjustments to their oral care routine, real improvement can be made in their oral health. Studies demonstrate that flossing and rinsing with a therapeutic mouthwash can provide a dramatic and significant improvement in the health of both the gums and teeth. Clearly there is still some work to be done to encourage dental attendance which is vital as any potential problems can be picked up and treated early. Furthermore, with advances in technology, dental treatment for the most part should be pain free. If fear is a factor in non-attendance, I would encourage anyone to talk to their dentist who should be able to help them overcome this problem" commented dentist Dr Roger Owens.

The research also showed that there is a gap in knowledge regarding the benefits of mouthwash use. The key reason stated for using mouthwash was to keep breath fresh with two thirds of all mouthwash users claiming this as the reason for use. This is followed significantly behind by issues such as a general oral care routine, reducing the germs that cause plaque and reducing tartar.

For a free copy of a Smile for Life Leaflet, please write to: Listerine's Smile for Life campaign, PO Box, 7808, Dun Laoghaire, Co Dublin.

Essentials orthodontic catalogue.

DB Orthodontics has launched its new essentials catalogue. With over 80 pages, it is a comprehensive, full colour compendium of DB Orthodontics' complete product range and contains details of all the latest additions and established lines including brackets, bands, adhesives, wires, elastics, orthodontic instruments, consultation models, photographic accessories, impression trays and accessories, retainer boxes, mouth guards, waxes, x-ray equipment, laboratory products and much more.

The company has also launched its new Ixion Orthodontic Instruments catalogue.

For more details visit www.dbortho.com.

More Ivoclar innovations

Ivoclar has extended its OptraLine range of clinical innovations with the introduction of three new products.

Designed for use with children, OptraGate Junior is an auxiliary aid for enlargement of the treatment field. It allows the lips and cheeks to be gently and evenly retracted to provide a clear view of the oral cavity.

OptraDam is a rubber dam that does not need clamps. It incorporates a patented anatomical shape with 3D flexibility and an integrated frame. It gently and evenly retracts the lips and cheeks, creating an enlarged working area with increased access and visibility. Simultaneous total isolation of both arches is achieved. It can remain in situ during radiography, avoiding time-consuming removal and re-seating.

OptraPol is a one-step high-gloss polishing system for composites. The product ensures an aesthetic, high-gloss surface finish and low surface roughness. Autoclavable it can be used up to 20 times, which facilitates multiple use and increased cost effectiveness.

For further details go to www.ivoclarvivadent.com.

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Treatment of third molar teeth - assessment

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Summary
With careful assessment and knowledge of potential complications, the surgical treatment of third molar teeth can be safely carried out utilising modern concepts and techniques.

Abstract
This first article will discuss the indications for removal of third molars and the initial assessment of the patient. The importance of good communication will be highlighted.

Dental anatomy
Third molar teeth commence their calcification around 7-10 years of age. The calcification of the crown completes at about 12-16 years and, following approximately four further years of root growth, the tooth should normally begin its eruption around 16-20 years of age (Fig. 1).

The roots of the upper third molar are quite often fused but may adopt one of a number of variations in shape and form, ranging from a single conical type to a diverging multi-rooted pattern. The roots of the upper third molar may be closely related to the maxillary sinus. The anatomical arrangement of the lower third molar roots is also variable, although many will tend to have a distal inclination. When these teeth are impacted, their roots may be closely associated with the inferior alveolar canal.

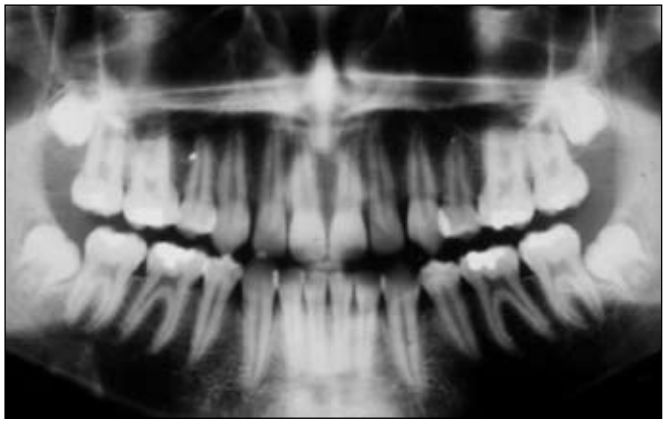

Figure 1: *OPG showing developing third molar teeth.*

Indications for removal
Although the NICE guidelines (Table 1) set out a number of reasons for the removal of third molar teeth, the most common indications are as follows:

- Pain
- Pericoronitis
- Associated pathology e.g. caries, periodontal disease, cysts, etc
- Frictional trauma
- Orthodontic reasons

The prophylactic removal of third molar teeth – a common practice in years gone by – cannot be supported as a concept today[1, 2, 3]. Third molar teeth should be assessed and treated in a similar fashion to other teeth in the oral cavity i.e. on a symptomatic basis.

By far the commonest reason for removal of a third molar tooth is pain, due to repeated episodes of pericoronitis (Figs 2a and 2b). Pericoronitis is an inflammation of the soft tissue surrounding the crown of a partially erupted tooth. Due to a number of factors such as evolutionary changes in the jaw size, retention of teeth through improved dental treatment, diet, etc, there is often limited space for third molars to erupt leading to their impaction. The resulting pericoronitis may be acute or chronic in nature. Acute pericoronitis may vary from a mildly painful gum flap to a full-blown fascial space infection with a purulent discharge, pyrexia, trismus and lymphadenopathy.

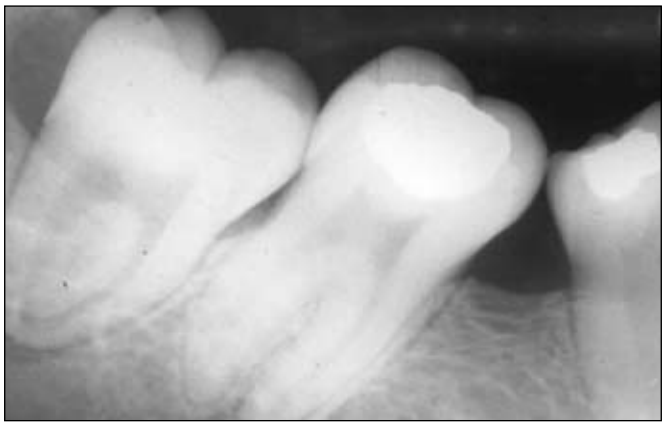

Figure 2 (a): *Periapical radiograph showing typical associated radiolucency in pericoronal infection.*

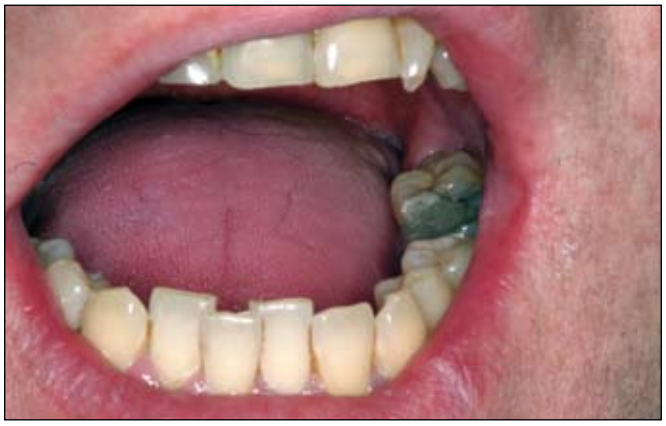

Figure 2 (b): *Clinical photograph of patient with pericoronal infection.*

Table 1: NICE guidelines for the extraction of third molar teeth

- The practice of prophylactic removal of pathology-free impacted third molars should be discontinued in the NHS.
- Surgical removal of impacted third molars should be limited to patients with evidence of pathology. Such pathology includes unrestorable caries, untreatable pulpal or periapical pathology, cellulitis, abscess, osteomyelitis, internal/external resorption of the tooth or adjacent teeth, tooth fracture, disease of the follicle including cyst/tumour, tooth/teeth impeding surgery or reconstructive jaw surgery and when tooth is involved in or within the field of tumour resection.
- Specific attention is drawn to plaque formation and pericoronitis. The evidence suggests that second or subsequent episodes of pericoronitis should be considered the appropriate indication for surgery.

In general, if a patient has had more than one bout of pericoronitis and where it would appear that eruption is unlikely, the correct treatment is to advise extraction. However, patients are often reluctant to have the offending tooth removed and would rather try to cope with pain and discomfort from time to time, than have an extraction.

Other indications for extraction include caries, either in the third molar itself, or more commonly, in the neighbouring second molar tooth due to the development of a stagnation area because of the impaction. Related pathological conditions including paradental cysts, inflammatory cysts and dentigerous cysts which will require enucleation or marsupialisation (in conjunction with extraction of the offending tooth) and long term follow-up until healing is complete. Occasionally an odontogenic keratocyst or more rarely, an ameloblastoma will occur in this region. These conditions are best referred for oral and maxillofacial consultation and treatment.

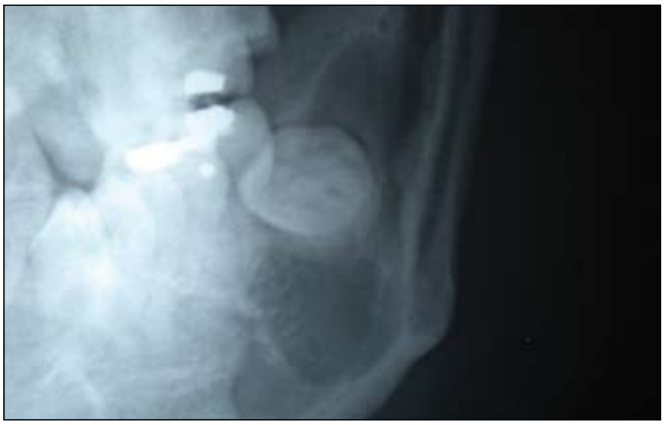

Figure 3: *OPG showing dentigerous cyst.*

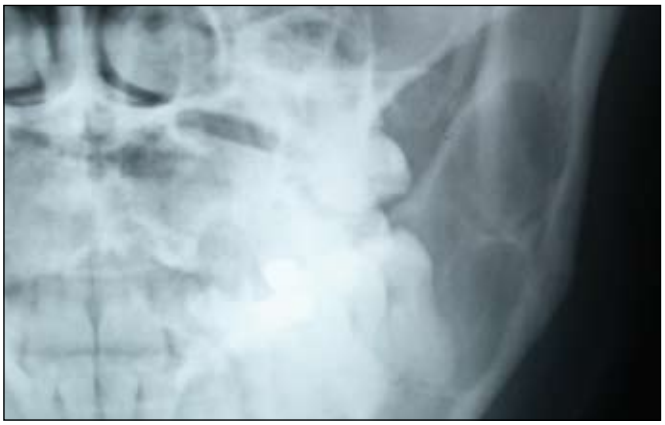

Figure 4: *PA skull showing an odontogenic keratocyst in the lower left quadrant of the mandible.*

An upper third molar may cause frictional trauma to the buccal mucosa if it erupts in a lateral direction. Where there is evidence of frictional keratosis, these teeth should be extracted. Similarly, an overerupted upper third molar can traumatise the opposing lower third molar area, particularly when pericoronitis is present. Instant relief will be provided by either a simple reduction of the offending cusp of the upper tooth or in certain cases, extraction.

There may be a request from an orthodontic colleague to remove maxillary third molars prior to bi-maxillary retraction or poorly positioned lower third molars prior to orthognathic surgery. Some

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patients may request removal of their third molars because of developing imbrication of the lower incisor teeth. There is little evidence to support the theory that late incisor crowding is caused by impacted lower third molars necessitating their extraction[1]. Nonetheless, impacted lower third molars do tend to provide a force on the neighbouring teeth as they attempt to erupt – whether or not this has an effect on the incisors has yet to be proven and much research is being undertaken in this area at present.

Assessment of the patient

Nearly every patient presenting for an extraction is concerned and nervous and it is important to provide a calm, sympathetic and gentle approach that will promote a feeling of confidence. For this reason, good communication skills are essential in establishing rapport, outlining a risk/benefit analysis in relation to potential treatment and to provide an explanation of the procedures involved, including possible post-operative sequelae and potential complications.

The assessment should follow a logical sequence which will include a detailed history, examination and radiographs. Occasionally the use of further special tests may be required, e.g. other forms of diagnostic imaging, blood screening, etc.

History

Of relevance in this part of the assessment will be the dental, social and medical history. The patient's age is noted. Younger individuals will tend to have more 'elastic' bone, which as a rule is more forgiving and usually results in a more straightforward extraction. This may be an important consideration when deciding on the timing of a procedure[6]. In the dental history, it is necessary to discuss all aspects of the presenting complaint, including frequency of symptoms; the patient's general oral condition and compliance. The social history will focus primarily on smoking. Patients who smoke will tend to have slower healing and an increased likelihood of postoperative infection (dry socket). These patients should be advised to stop smoking at least one-to-two weeks prior to elective surgery in order to try to reduce this risk. Research would also indicate an increased risk of dry socket in women[10].

In the medical history, it will be essential to establish if the patient has a relevant medical condition and/or is taking regular medication(s) that may be of importance in relation to potential surgical intervention. Of significance are the diabetic patient, the patient at risk to infective endocarditis, those with coagulopathies (e.g. platelet deficiency), patients on steroids or who are taking other medications e.g. aspirin, warfarin, the contraceptive pill, etc.

Although an uncontrolled diabetic patient is likely to have an increased risk of postoperative infection following surgery, most diabetic patients are generally well controlled and present few problems during and after third molar surgery. However, it is advisable to discuss the proposed treatment with the patient's specialist prior to making any final decisions. This is particularly relevant for the uncontrolled type 1 diabetic who is taking insulin and who may need to be stabilised prior to treatment.

Patients at risk to infective endocarditis due to e.g. a diagnosed heart murmur or a prosthetic heart valve replacement, should be provided with appropriate antibiotic cover prior to and following treatment.

Patients with coagulopathies will require a full blood screening. Contact should again be made with the patient's specialist, prior to finalising the treatment plan. Similarly, patients who are taking aspirin or warfarin will need to gradually reduce their dose to zero over three-to-four days prior to surgery, to reduce the potential for postoperative bleeding. It may be necessary to have an INR (International Normalised Ratio) test carried out on the day of the procedure to ensure an appropriate level (i.e. less than 3-4 IU) is present.

The patient who is taking steroids may require an additional dose to counteract the potential effect of stress during surgery. Women who are taking the contraceptive pill need to be advised that if they are taking antibiotics, there may be a reduced effect of the contraceptive and they should take added precautions. In addition, those patients taking contraceptives and for whom a general anaesthetic may be required, may potentially be at risk of developing a postoperative deep venous thrombosis. Nowadays, most anaesthetists will recommend the use of an anti-coagulant (e.g. clexane) intra-operatively rather than requesting the patient to stop taking her contraceptive several weeks prior to surgery.

Examination

The clinical examination begins when the patient walks in to the surgery. Does the patient appear to be generally fit; are there any signs of physical disability that might prevent the patient from sitting in the dental chair for long periods e.g. arthritic conditions; are there obvious signs of swelling, etc? Following on from these general observations, a more detailed extra-oral and intra-oral examination is carried out.

The extra-oral examination will include a review of the patient's TMJs for signs of temporomandibular disorder; examination of the lymph glands in the neck for signs of enlargement (lymphadenopathy) or tenderness (lymphadenitis) is warranted in all cases; any facial scarring or lip laxity should be noted along with the patient's ability or limitation to open widely.

The intra-oral examination will note the state of oral health in general before considering the specific area of the third molar. If there is trismus due to pericoronal infection, it may only be possible to provide a limited examination. However it will be essential to carry out an inspection of the relevant periodontal tissues; to review the caries status of the second and third molars; to assess the position of the third molar in three dimensions. Important information will include the degree of eruption of the third molar, i.e. full, partial or unerupted; if partially erupted, assess how far it has penetrated the soft tissues; if through the soft tissues which way it is inclined; the size of the patient's general mouth opening in terms of potential access during surgery.

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Radiographs

Radiographs are an essential prerequisite to surgical extraction. The major use of radiographs is to assess the relationship of the inferior alveolar canal to the lower third molar tooth.

It is imperative to ensure that the radiograph shows the crown and *all* of the root(s). In order to assess the degree of difficulty of a potential extraction, the following should be noted: the impaction type; the angle and depth of impaction; the space between the second molar and the anterior border of the ramus; the anatomical configuration of the crown and the roots; the relationship of the tooth to adjacent structures (e.g. the inferior alveolar canal) and the level of eruption[4].

The standard extra-oral view for assessment of third molar teeth, and the most commonly used, is the orthopantomogram (OPG). This will provide a good general outline of the entire dentate region and associated structures. Other views include an oblique lateral radiograph, occasionally used if an OPG is unavailable and the postero-anterior view (PA skull), which will be of benefit for example, if a cystic lesion has been identified.

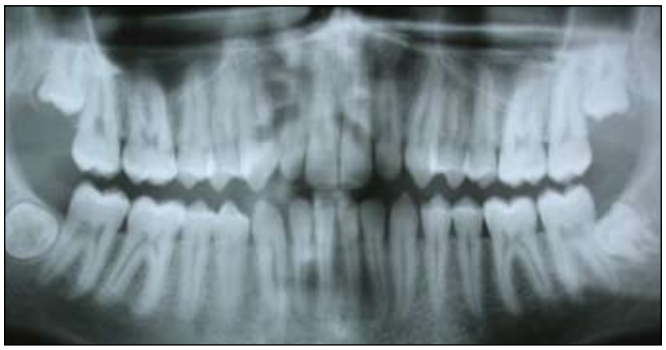

Figure 5: *OPG showing impacted third molar teeth.*

It is also possible to take a simple intra-oral periapical radiograph. However, this may occasionally be difficult to obtain because of pain or trismus.

The relationship to the inferior alveolar canal is of particular importance for lower third molar assessment. In assessing the risk of inferior alveolar nerve damage prior to an extraction, one should consider darkening of the root, interruption of the canal white line or deflection of the canal, as factors increasing the risk of postoperative neural complications[5,6].

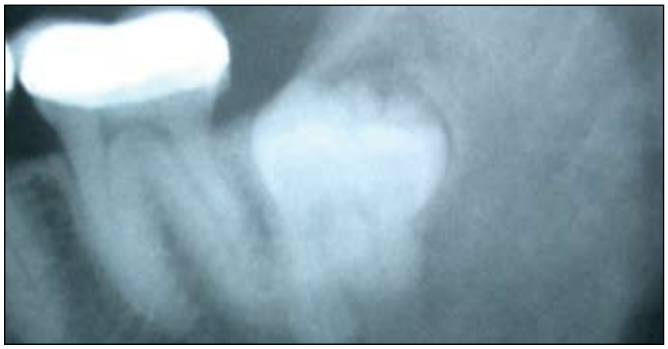

Figure 6: *OPG showing darkening of third molar roots due to proximity of inferior alveolar canal.*

Radiographs will also reveal associated pathological conditions e.g. caries, cystic-lesions, etc, which may be related to the impacted tooth. The size and relationship of these lesions to the third molar will tend to dictate the surgical approach.

From time to time it may be necessary to consider other forms of diagnostic imaging. The use of computerised tomography (CT scan) can be of value where there is associated pathology, which needs to be more accurately assessed. A recent communication[10] has considered the value of CT scans, in trying to determine the relationship between the inferior alveolar canal and the roots of a third molar.

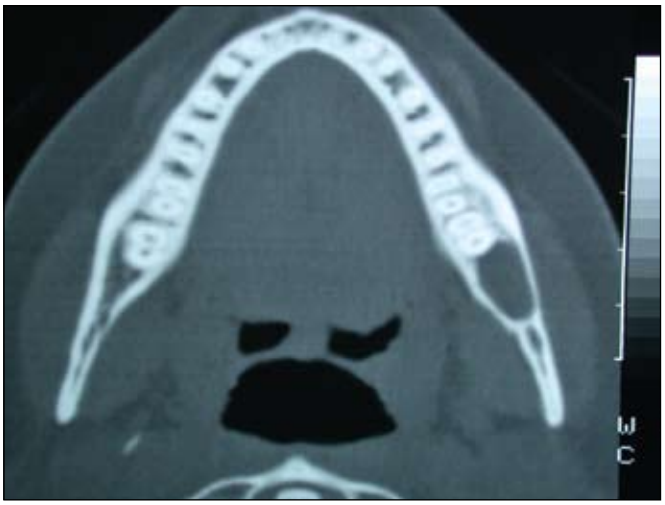

Figure 7: *Computerised tomographic view of a space occupying lesion related to a lower third molar.*

Impaction types

It is useful to categorise impaction types to help in communication with colleagues and to provide some indication as to the degree of difficulty of the extraction. As previously mentioned, the depth of the tooth in the bone and distance between the third molar and the anterior border of the ascending ramus of the mandible, should be noted.

There are six impaction types:

- Mesioangular - where the long axes of the second and third molars converge occlusally and where the third molar makes an angle of less than 45 degrees relative to the second molar (see Fig. 8). These are the most common impaction types and generally account for approximately 50% of all impactions.
- Distoangular – where the long axes of the second and third molars diverge occlusally (see Fig. 9). The distoangular impaction is virtually *always* more difficult than it appears and the wise surgeon should treat this impaction type with respect. The extraction will often require sectioning of the crown and the mesial roots are generally much closer to the distal of the second molar than expected. These account for approximately 20% of all impactions.
- Vertical – where the long axes of the second and third molars are parallel (see Fig. 10). In many cases these will be relatively straightforward extractions unless the teeth are deeply placed or where there is little space between the distal of the second

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molar and the anterior border of the ramus. These account for approximately 16% of impactions.

- Horizontal – where the long axes of the second and third molars converge occlusally but where the third molar makes an angle of greater than 45% relative to the second molar (see Fig. 11). These impaction types *always* require sectioning of the crown. Care needs to be taken here during sectioning, to avoid damaging the inferior alveolar or lingual nerves. These account for approximately 12% of impactions.
- Transverse – where the occlusal surface is seen on radiograph (see Fig. 12). These impactions should be carefully monitored and if required should be carried out fairly early on and ideally before complete root end growth has occurred to avoid extensive bone loss and potential damage to the lingual nerve. These account for approximately 1-2% of impactions.
- Ectopic – where it is not possible to categorise the impaction type into one of the above (see Fig. 13). These account for approximately 1-2% of impactions.

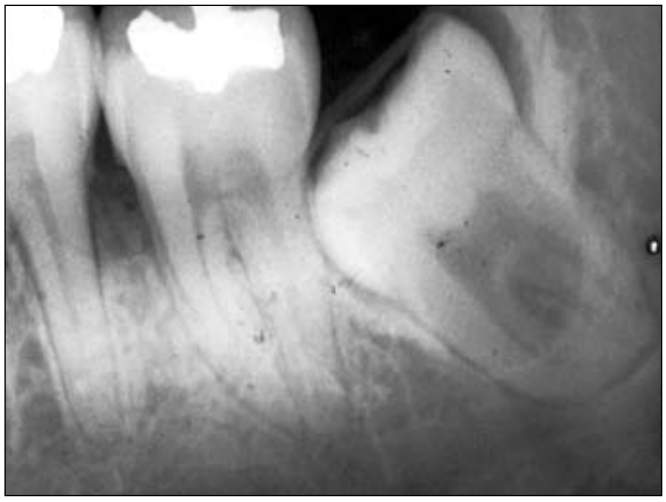

Figure 8: *mesioangular impaction of lower third molar.*

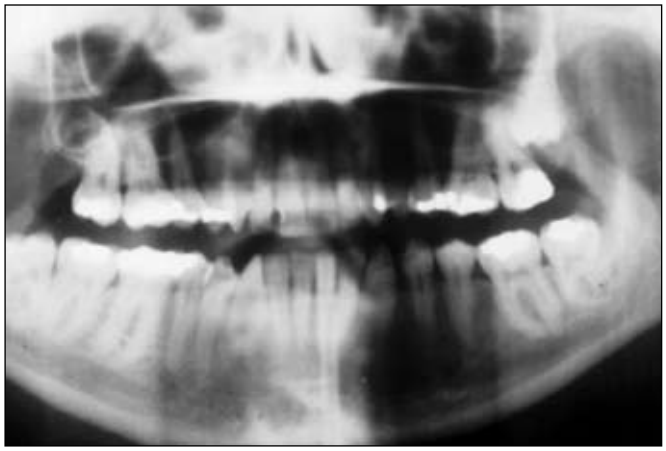

Figure 9: *Distoangular impaction of lower right third molar.*

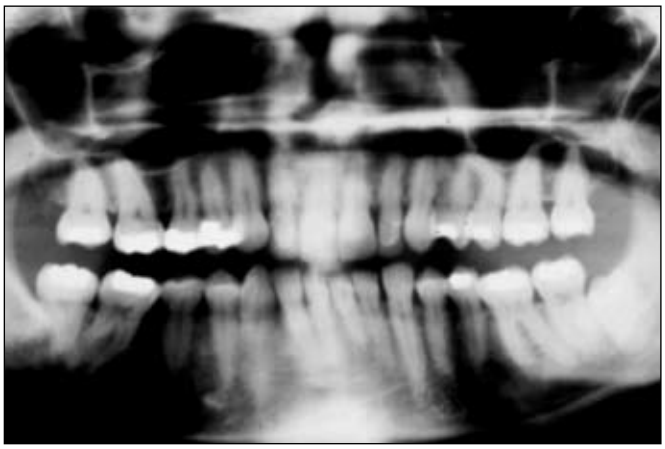

Figure 10: *Vertical impaction of lower left third molar.*

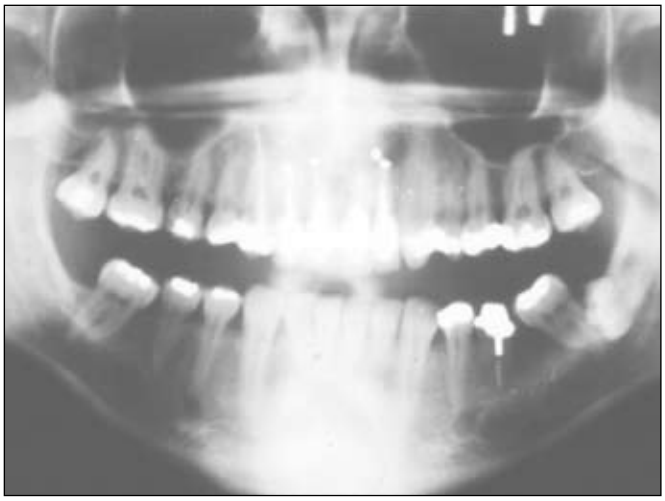

Figure 11: *Horizontal impaction of lower third molar.*

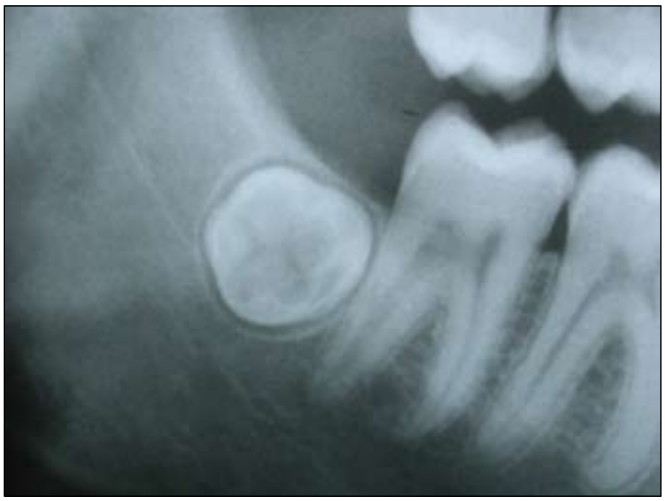

Figure 12: *Transverse impaction of lower third molar.*

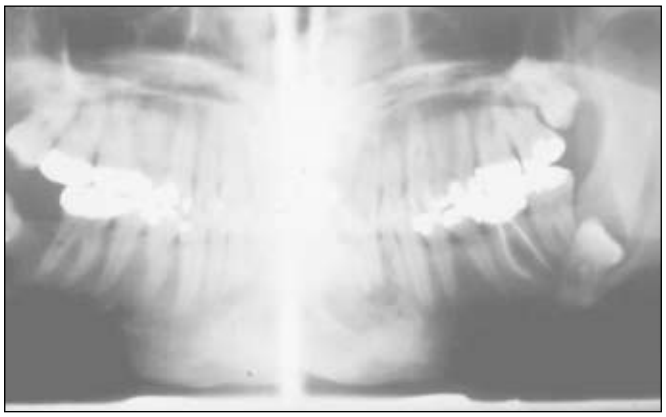

Figure 13: *Ectopic impaction of lower third molar.*

Table 2: American Society of Anaesthesiology Physical Status Classification

P1	A normal healthy patient
P2	A patient with mild systemic disease
P3	A patient with severe systemic disease
P4	A patient with severe systemic disease that is a constant threat to life
P5	A moribund patient who is not expected to survive without an operation
P6	A declared brain-dead patient whose organs are being removed for donor purposes

Risk factors

There are a number of factors which may increase the likelihood of post-operative complications following third molar surgery:

- The anatomical relationship of the lower third molar tooth to the inferior alveolar, lingual and long buccal nerves. Radiological evaluation of the proximity of the roots of this tooth to the inferior alveolar canal is essential, with an apparent relationship increasing the chances of postoperative sensory deficit. In addition, visualisation of the inferior alveolar nerve during surgery is regarded as a high risk factor in terms of alteration of sensation in the lower lip[11].
- As younger patients tend to have more 'elastic' bone –in general, it is more forgiving and easier to treat. Conversely, post-operative complications are more common in the older patient. This may be an important consideration when trying to decide on the timing of a procedure[6].
- During surgery, the removal of distal bone is a most important risk factor, which may lead to lingual nerve damage if appropriate care isn't taken. Sectioning the crown, where necessary, will tend to reduce the amount of distal bone removal and thus decrease the potential damage to the nerve[7,8].
- The choice of surgical technique may have a bearing on the outcome. The traditional technique has, for many years, been the raising of a lingual flap with appropriate protection of the lingual nerve using a Howarth's periosteal elevator during the procedure. This method has been reviewed in more recent years and a number of studies have indicated that the totally buccal approach might be a safer option. In this technique, a buccal flap is raised, leaving the lingual tissues intact throughout the procedure. This technique will usually require more buccal bone removal but there would appear to be a much reduced risk of damage to the lingual nerve[7,9].
- Studies have indicated that when the duration of the surgery lasts longer than 15-20 minutes per tooth, there tends to be a greater risk of morbidity[6].

Having completed the clinical and radiographic assessment, a decision is made regarding potential extraction and if required, what degree of difficulty may be anticipated. In the event that surgery is required, the options are local anaesthesia, local anaesthesia and sedation or general anaesthesia.

Simple extractions can be carried out under local anaesthesia in the surgery for a relaxed patient. However, for more difficult extractions, where there is related pathology, where multiple extractions are required or where the patient is extremely nervous or is medically compromised, it will be easier to carry out the procedure under local anaesthesia and sedation in an appropriate setting or under general anaesthesia in a hospital environment, usually on a day stay basis. Ideally, patients requiring sedation or general anaesthesia should be in ASA group 1 (American Society of Anaesthetists) – i.e. they are in good general health. However, for those that are compromised, it is necessary to refer them for a full and thorough medical examination prior to surgery, to rule out any potential risk.

Consent

It is essential to ensure that the patient is well informed of the potential risks and likely benefits of the procedure. Time must be set aside for a detailed pre-operative discussion covering all aspects of the proposed surgery, including the type of anaesthesia or sedation. Of relevance are the following:

- The possibility of damage to the inferior alveolar and lingual nerves should be discussed in detail as these are the most important complications. It is probable that patients should also be advised of the risk of damage to the long buccal nerve. Sensory alteration to the lip and the tongue, following third molar surgery, is the major cause of litigation in the discipline of oral and maxillofacial surgery. The commonest figures quoted for permanent damage are approximately 0.3-0.9% for the inferior alveolar nerve and approximately 0.02-2% for the lingual nerve[8].
- Deep impactions, particularly those with related pathology (e.g. large cystic lesions), may lead to a potential mandibular fracture during surgery. The risk of oro-antral fistula, where upper third molars are closely related to the maxillary sinus, should also be noted.
- There is likely to be swelling, limitation of mouth opening and more rarely, bruising, along with mild discomfort, following the surgery, for the first five-to-seven days.

Scientific

- If oral or intravenous sedation or general anaesthesia are to be used, the format should be explained in detail, noting the requirement for pre-operative fasting and the need to have a responsible adult accompany the patient home following the procedure.

All of these points form part of an 'informed consent' which needs to be both verbal and written and should be signed by the patient and noted in the chart. Patients will appreciate an honest approach and the building of a good rapport will increase confidence and reduce the risk of potential legal challenge in the unlikely event of long-term postoperative problems.

In the second article, surgical techniques, postoperative follow up care and complications will be discussed.

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Scientific

Immediate Osseotite implant placement and immediate loading of a provisional restoration of maxillary lateral incisors

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Abstract
This article describes the immediate replacement of two maxillary lateral incisors teeth after extraction of the left lateral deciduous incisor at the same time with immediate Osseotite implants and immediate restoration. A traumatic dental extraction of a deciduos (b) lateral incisor was performed and a 4mm diameter x 15 mm 3i tapered Osseotite (Implants Innovations, Palm Beach, CA, USA) implant was immediately placed.
The other lateral incisor place was treated at the same time and provisional temporary crowns were placed at the same surgery. The provisional crowns did not have any occlusal contact to reduce negative lateral forces.
Final impression for definitive restoration was made five months after implant placement veneer ceramic crowns were bonded to the Gingihue abutment (3i, Implants Innovations, Palm Beach, CA) one month later. This article describes the use of immediate implants with immediate loading of Osseotite combined with provisional crowns resulted in an excellent outcome after a two-year follow up period.

Key words
Tooth agenesis
Missing lateral incisors
Osseotite implants
Immediate implant placement

Introduction
Missing teeth are one of the most common developmental problems in children. Congenitally missing teeth occur in nearly 20% of the US population; 3.4% have missing second premolars and 2.5% have missing maxillary lateral incisors. "Missing teeth" (tooth agenesis) can exist in isolation or as part of a syndrome. Isolated cases of missing teeth can be familial or sporadic in nature. Familial tooth agenesis is transmitted as an autosomal dominant, autosomal recessive, or X-linked genetic condition.
Restoration with an implant-supported prosthesis has become a treatment option for the replacement of congenitally missing lateral incisors. The central incisor and canine often erupt in less than optimal positions adjacent to the edentulous lateral incisor space, and therefore preprosthetic orthodontic treatment may be necessary[1-4].
The lack of quantity and volume of bone in the maxillary and mandibular arches may often complete implant therapy. Surgical techniques aimed at augmenting bone and soft tissue contours to a level to receive dental implants in an adequate environment, have developed and may be necessary prior to implant placement[5-10].
Dental implants are biologically predictable with the classic two-stage protocol. However, dental implants have historically required a significant length of time for osseointegration to be achieved and results to be completed.
There is evidence that implants can be placed into fresh extraction sites with success rates comparable to the original osseointegration rates in edentulous jaws[11-12].
The provisional restoration (single unit) should not be in occlusion; it can serve as custom healing abutment anatomically contouring the gingival tissues surrounding the implant[13].

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The provisional restoration provides the patient with an aesthetic restoration at the time of deciduous tooth extraction and implant placement.

Another advantage to extraction and immediate implant placement is the preservation of the labial plate of the alveolus. In instances where an anterior tooth is extracted and not immediately replaced with an implant, the labial plate of the alveolus is usually lost. In many cases, it is the authors' opinion that extraction followed by immediate implant placement and immediate implant restoration actually decreases the number of subsequent surgeries a patient may have to undergo. Extraction and immediate implant placement/restoration may improve final aesthetic result.

This case history demonstrates the advantages of using a tapered-step implant, immediate one-stage surgery, and temporisation in replacing congenitally missing lateral incisors.

Clinical case

A 25 year-old female presented to the implant surgeon's office with her left maxillary deciduos lateral incisor and missing right maxillary lateral incisor (Fig.1-3).

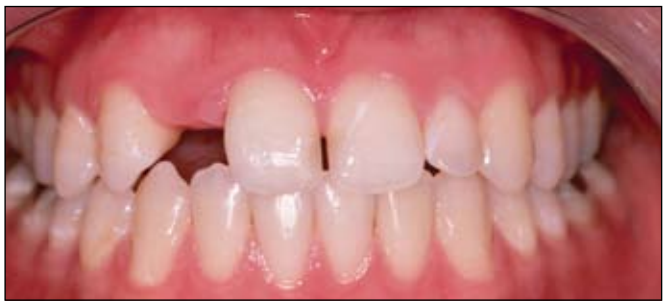

Figure 1: *Frontal view of occusion.*

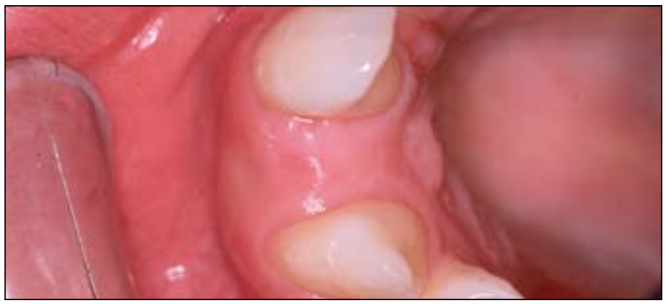

Figure 2: *Oclusal view of the right maxillary lateral incisor space.*

Figure 3: *Lateral view of the left deciduous (b) lateral incisor.*

The orthodontic therapeutic sequence in this patient was primarily used for reduced mesiodistal size and congenital absent right maxillary lateral incisor.

The treatment plan presented to the patient involved the removal of deciduous maxillary left lateral incisor and reconstruction with two dental implants on the twelfth and twenty-second alveolar zone. Lazzara developed parameters for the surgical placement of implants[12]. He suggested that potential implant sites required at least 7-8mm of vertical bone and a buccal-lingual width of approximately 6mm. These dimensions were specific for 4mm diameter implants, primary stability to the implant immediately post-insertion.

The maxillary left deciduous lateral incisor was extracted and followed by the placement of a 3i Osseotite implant, (Implants Innovations, Palm Beach, USA) 4mm in diameter by 15mm in length. Ideal vertical positioning of a 4mm diameter implant requires that the implant restorative platform be placed approximately 3mm apical to the CEJ's of the adjacent teeth (Fig. 4)[13]. The maxillary right lateral incisor space was treated at the same time.

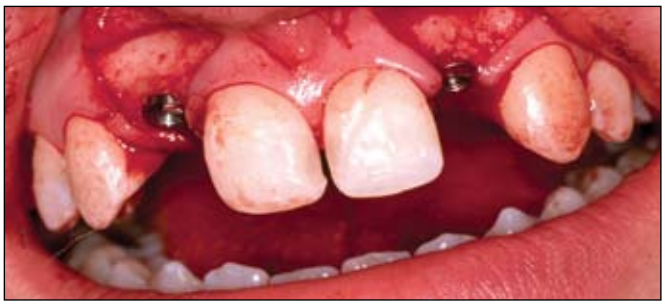

Figure 4: *Two implants in place.*

Tarnow et al. established that the inter-dental papillae in the natural dentition will be maintained 100% of the time when the distance between the inter-proximal contact area and the greatest vertical height of the inter-proximal bone is 5mm or less[14].

Immediate restoration

Titanium provisional abutment offer clinicians significant flexibility in restoring dental implants. In this instance, the 3i provisional post (Implant Innovations Inc., Palm Beach Gardens, FL) was selected (Fig. 5 and Fig. 6).

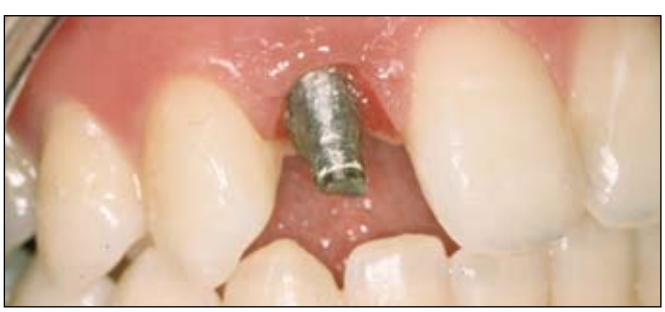

Figure 5: *Right provisional abutment six months later.*

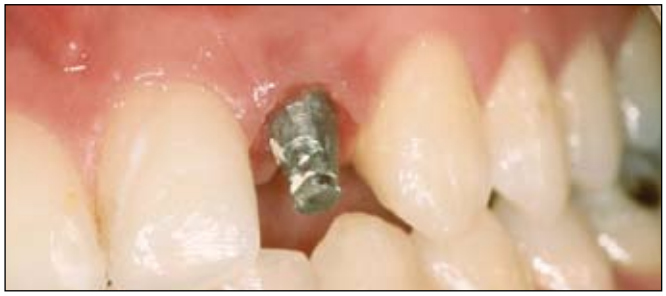

Figure 6: *Left provisional abutment six months later.*

This decreases the potential for screw loosening and other potential mechanical restorative complications, because the tooth is out of occlusion. Centric and eccentric occlusal contacts were eliminated. The provisional crown was cemented to the titanium post with temporary cement (Temp Bond, Kerr, USA) (Fig. 7 and Fig. 8). Therefore, the implant had an immediate restoration in place but it was not immediately loaded.

At six-months' time after implant placement, final restoration was made in both implants (Figs. 9 to 11).

A panoramic radiograph was subsequently taken (Fig. 12)

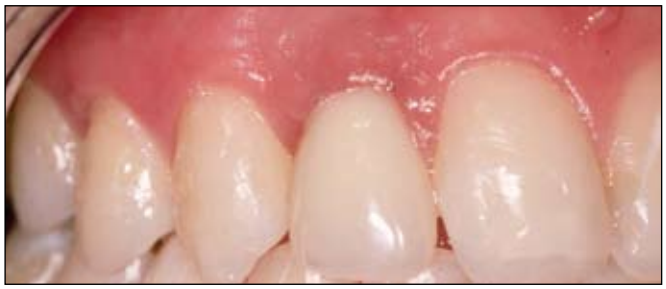

Figure 7: *Right provisional crown after six months healing.*

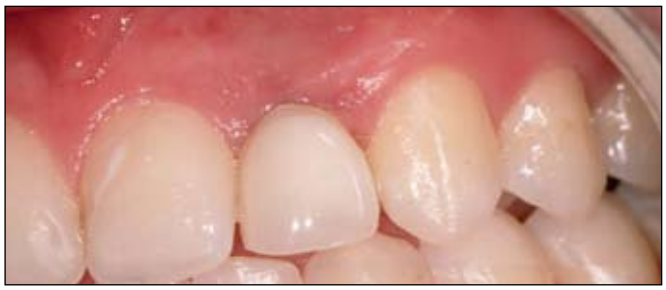

Figure 8: *Left provisional crown after six months healing.*

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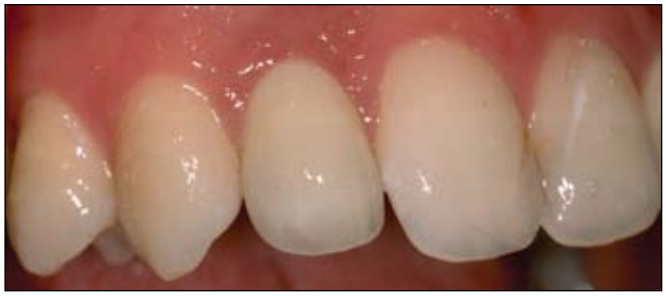

Figure 9: *Final right definitive crown in place.*

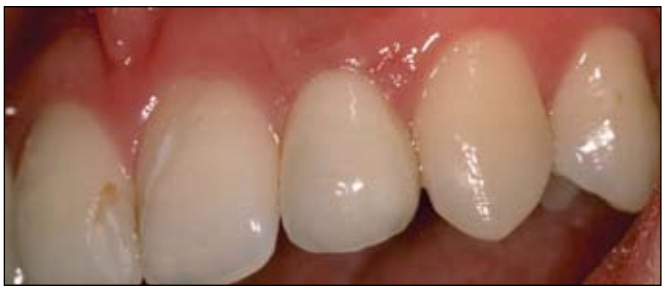

Figure 10: *Final left definitive crown in place.*

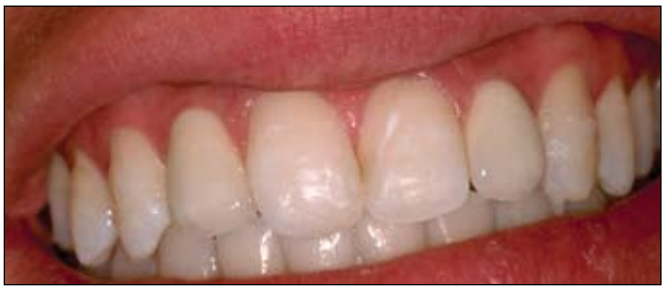

Figure 11: *Frontal view of definitive crowns in patient's mouth.*

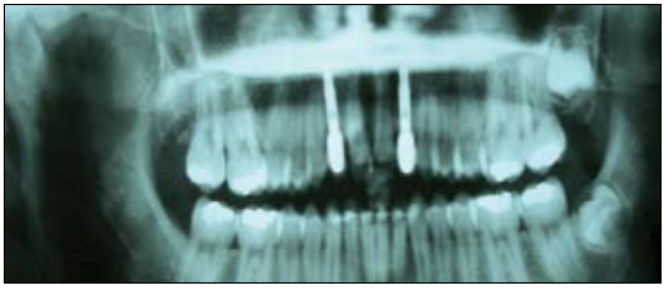

Figure 12: *Panoramic final radiograph.*

Discussion

The purpose for tooth replacement is the restoration of adequate function and aesthetics without affecting adjacent hard and/or soft-tissue structures.

Sometimes, because of the limited residual bone and proximity of adjacent roots, the placement of conventional implants is difficult. For this reason, selection of a biologic alternative is frequently appropriate to preserve healthy adjacent structures. With adequate consideration of these requirements, the use of single-tooth tapered implants in the rehabilitation of single-tooth gaps has significantly gained in importance[15-23, 32, 33].

Recent results reported by Scholander[22], Gómez Román[24] and Calvo Guirado et al have confirmed these reports with success rates of 98.5% and 95.9%, respectively[25-27]. Long-term results for other implant systems have also documented the successful use of implant systems for single-tooth replacement.

There is an increasing desire for clinicians to restore single-tooth spaces with endosseous implants because they can ensure adequate function, esthetic results, and optimal dental hygiene Above all, they can fulfill the primary wish of the patient for fixed replacement for individual tooth[28-34].

Scientific

Conclusions

This treatment illustrates that optimal aesthetics in the anterior maxilla can be obtained with immediate implant and immediate restoration. This case report demonstrates the implant option in a patient with congenitally missing lateral incisors utilising a combination of orthodontic treatment and a dental implant to replace the congenitally missing tooth.

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Clinical notes

Identification of periodontal risk factors prior to restorative treatment

Presented at IDA Metro Branch Meeting September 2005.
Dr Anne O Donoghue, Periodontist
Beacon Dental Clinic, Dublin

Lecture summary
1. Identify the patient at risk
2. What measurements are most useful for assessment
3. Appropriate use of radiographs

Identifying the patient at risk

To identify the patient at risk we need to look at a number of factors. Review of the personal history may reveal that the patient is a smoker with a family history of early tooth loss. Stress factors may be openly acknowledged by the patient, although underlying anxiety/depression may not be immediately obvious. Difficulties such as sleep disturbance (too much or too little), recent weight gain/loss (unexplained), fatigue or lethargy, excessive use of alcohol etc, may signal a mood disorder.

An appropriate clinical check list would be as follows:

- Assessment of oral hygiene
- Patient's age
- Genetic factors
- Smoking
- Stress
- Site specific defects

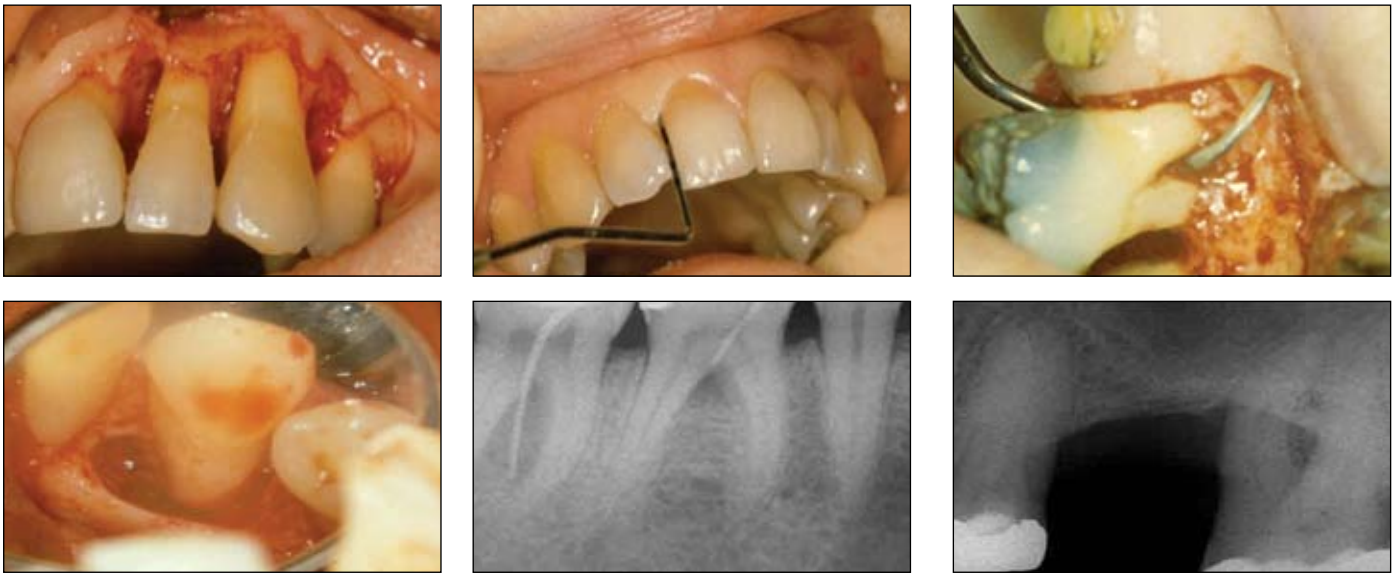
What measurements do we use and which periodontal probe do we use?

The extent of the pocket depth combined with the level of recession gives the true status of the tooth. In patients who are smokers, suppuration should be used as a measurement as bleeding will be reduced. Mobility is not a good risk factor and should be used with caution. The extent of furcation involvement may be difficult to measure accurately but this is important in the periodontal assessment. The variable degree of furcation involvement may be classified as Type 1, Type 2 or Type 3. Root morphology needs to be assessed where furcation involvement is evident.

Several different types of periodontal probes are available. The Hu Friedy perio probe is easy to use with markings at depths of 3, 6, 9, 12mm and a curved tip for assessment of furcations.

Use of radiographs

Radiographs only show bone loss in one dimension and thus may be a poor indication of risk. Radiographs taken at different angles may help to clarify the extent of bony support. It may help to place a marker (e.g. gutta percha) in the bony defect to reveal the true extent of bone loss. Remember bone loss and attachment loss are not the same.



Abstracts

Dental practitioners' views on the use of stainless steel crowns to restore primary molars

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Aim

To ascertain dental practitioners' views on the use of stainless steel (pre-formed metal) crowns to restore carious primary molars.

Method

Ninety-three general dental practitioners were selected at random from those practising in Lancashire, Cheshire and Greater Manchester in 2003 and interviewed separately about the clinical care they provide to the primary dentition. Before the interview, participants recorded the care they would provide for a case scenario, describing a child with a carious lesion that the British Society of Paediatric Dentistry (BSPD) guidelines indicate should be treated with a stainless steel crown.

Results

In answering the case scenario only six (7%) of the dentists reported that they would fit a stainless steel crown. Of the 93 dentists interviewed 71% knew of the BSPD guidelines, but only 18% had ever fitted a stainless steel crown in general practice. Reasons given for not using stainless steel crowns were they are inappropriate for many children, time consuming to fit, difficult to manipulate, expensive and ugly.

Conclusion

The BSPD guidelines on the use of stainless steel crowns do not reflect the views of the majority of general dental practitioners who consider these crowns unsuitable for most children and an impractical restorative technique in busy daily practice.

British Dental Journal (2005); 199, 453-455. doi: 10.1038/sj.bdj.4812746

Replantation of 45 avulsed permanent teeth: a one-year follow-up study

Vivianne Chappuis and Thomas von Arx

Abstract

Thirty-four patients with 45 avulsed and replanted permanent teeth were followed for one year. All teeth were soaked in tetracycline before replantation. In addition, enamel matrix derivative was used in teeth with dry storage times exceeding 30 minutes. Splinting was carried out with a non-rigid titanium splint and was limited to 710 days. Within that period, root canal treatment was begun in all teeth with a closed apex, whereas teeth with an open apex and ideal post-traumatic storage were not instrumented.

All patients were given tetracycline systematically for 10 days. The survival rate of replanted avulsed permanent teeth was 95.6% at the one-year follow-up.

In 82.2%, root canal treatment was performed. Pulp survival was never observed, but three teeth had pulp canal obliteration. Normal periodontal healing was observed in 57.7% of teeth; 42.3% of teeth showed external root resorption (28.9% replacement resorption, 6.7% infection-related resorption, 6.7% surface resorption).

The occurrence of replacement resorption correlated with the period of extraoral dry storage. Compared with other clinical studies on avulsed and replanted teeth, the present study reports a higher percentage of periodontal healing. The favorable treatment outcome may be associated with a strict protocol to enforce endodontic treatment, the use of topical and systemic tetracycline, and the relatively high number of ideally stored teeth following avulsion. In contrast, the present study has a follow-up period limited to one year.

Affiliations

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International Endodontic Journal Volume 38 Issue 11 Page 843 - November 2005 doi:10.1111/j.1365-2591.2005.01017.x

Volume 21 Issue 5 Page 289 - October 2005 doi:10.1111/j.1600-9657.2005.00330.x

Dent Traumatol 2005; 21: 289296.

Abstracts

Neurological complications following extrusion of sodium hypochlorite solution during root canal treatment

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Aim
To report the presentation and management of two cases with neurological complications secondary to the extrusion of sodium hypochlorite solution into the facial soft tissues during root canal treatment.

Summary
The clinical features, with particular emphasis on nerve deficit following inadvertent extrusion of sodium hypochlorite, are discussed and its management highlighted. Early and aggressive treatment is advocated following such incidents in order to reduce potentially serious complications.

Key learning points
Neurological sequelae can follow inadvertent hypochlorite extrusion.
Early recognition may avert a potentially more serious outcome.
Active hospital treatment including intravenous steroids and antibiotics are recommended.

Reasons for and parental satisfaction with children's dental care under general anaesthesia

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Affiliations
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Objectives
The aim of this study is to describe why healthy children's previous treatment experiences can be reasons for their dental treatment under general anaesthesia (GA), and to describe their parents' experiences and satisfaction with that treatment.

Subjects and methods
The data cover those children (n=102) below 16 years of age who, being otherwise healthy, were referred for Public Dental Service GA dental care in Helsinki, Finland, over the course of one year because of serious difficulties in dental treatment. The parents were given a self-administered questionnaire inquiring about their child's previous experiences of dental care, and about their access to and satisfaction with the present GA treatment. Data on the children's dental state were taken from patient records.

Results
The children's mean age was 6.4 years (SD=2.6 years), and the mean number of teeth with untreated caries was 7.7 (SD=3.0). Of the total sample, 32% had undergone four or more previous unsuccessful dental visits. At the time of their first difficulties in dental care, 39% were below three years of age. The older the child, the more serious was her or his parents' ranking of the difficulties met during dental care ($P = 0.02$). From the parents' point of view, dental fear was the most important reason for treatment failures, followed by pain. Seeking GA treatment had been easy for 93% of parents, and most of them were also satisfied with their child's present GA treatment.

Conclusions
The most important factors leading to the use of GA, as reported by the parents, are dental fear and repeated unpleasant experiences during dental care, and therefore, these should always be properly diagnosed, prevented and controlled.

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Volume 15 Issue 6 Page 448 - November 2005
doi:10.1111/j.1365-263X.2005.00681.x

Interview

Face the challenges

Professor O Mullane, Ireland's former Chief Dental Officer and former Head of the Cork Dental School and Hospital, tells the dental profession to face its challenges, and face them now.

Teaching

Looking at the area of dental teaching first, Professor Denis O Mullane points to two areas that in his view need attention.

Lifelong learning and the need for CPD

"The big challenge at present is getting the entire profession to subscribe to the notion of lifelong learning," says O Mullane. "Dental graduates must realise that completing their basic dental degree is only the start of the learning process." He says there is an obligation on graduates to maintain their knowledge and skills. If this is not done voluntarily, it could become obligatory, he warns. "I would see that as a challenge, but one that should be welcomed. Dentists must be able to demonstrate that they have maintained their skills." Professor O Mullane points out that the uptake of continuing professional development (CPD) in Ireland is increasing. "There have been very positive developments in this regard, especially with the establishment of the Post-Graduate Medical and Dental Board. In addition, both dental schools are now running CPD courses. But it is a challenge for the schools and the specialists to develop and run these courses," he says. "These courses must also include a sizeable hands-on component. Not only will they teach the theory, but they must also train participants to carry out the procedure." We must also remember that patients are now much better informed, points out the professor. "Patients will not simply accept what dentists tell them, they will go away and find out more. This reinforces further the need for dental professionals to stay up-to-date."

Orthodontic training insufficient

"In my view, the undergraduate orthodontic training courses in this country need to be revised," says O Mullane, who has taught at the Cork Dental School for the past two decades and previously in the Manchester Dental School. "At undergraduate level, orthodontic training is geared so that the dental students learn a lot about the anatomy, embryology and histology of the jaws and teeth during the early part of the undergraduate course, but there is no further training in orthodontics until the final two years. So when they qualify they know about the subject but they generally have acquired few or none of the clinical practical skills in orthodontics." Clearly an issue that the professor has felt strongly about for many years, undergraduate training he says is letting the students and the patients down. "Dental graduates should be trained to a level where they can treat primary care orthodontics. At present they can't," he says. "The demand for orthodontics is very high and is not going to go away. But at present the orthodontic needs of the population are not being reflected in the amount of teaching of orthodontics provided at undergraduate level."

However, there are some within the profession who would argue that orthodontics is an entirely specialised area that needs further post-graduate training. This is an argument that holds little sway with Professor O Mullane. "The knowledge and the skills acquired by the dental students during their five years is such that they are not in a position to undertake orthodontic treatment. That makes orthodontics an almost entirely specialised subject and I don't think it should be. I have yet to hear of an educational argument to support this view," he points out. "The undergraduate programme needs to be developed in such a way that it will help alleviate the need for orthodontic care - a need that will not decline."

Treatment

While undergraduate training is clearly a subject close to the professor's heart, the changing dental demands of the population also needs attention, he says.

Keeping your teeth

One of the biggest challenges the profession is facing is that the retention of natural teeth into old age is now the norm. "In 1979, 72% of those aged over 65 had all of their natural teeth removed. Now that figure is 40% and going down," explains O Mullane. "Now we have more people who are living longer and they are retaining their own teeth into old age. This is having a major impact on the work of dentists. They are now doing crowns for people in their sixties." This change in patients' age profile will bring its own challenges to practising dentists and their teams. Treating an ageing population presents new challenges and it is because of this that CPD is all the more critical. But there is also another aspect of the phenomena of the population's improving dental health, as O Mullane explains: "There is a thought that if dental health is improved, the need for treatment is reduced. But this is not the case - retention of natural teeth leads to, and increases, the need for dental care."

Interview

Dental tourism

Dental tourism – patients travelling abroad for treatment – has become a favourite of newspapers' health supplements since the disparity in prices was highlighted several years ago. However, as has been explained by the IDA several times, these disparities are not the result of dentists profiteering in the rip-off republic but rather are due to higher costs, such as wage demands and insurance. As O Mullane points out, patients are entitled to shop around for treatment, but what is missing is education. "The answer is to make the public aware of the pitfalls of travelling abroad for treatment. The standard of work may be very high, but even with the best dentists in the world, things go wrong and the need for follow-up care and the steps required to obtain it having returned home, should not be underestimated," he says. "The PR company employed by the IDA could do some positive work in this area by highlighting the pitfalls of dental tourism."

Evidence-based treatment

In an increasing litigious society, healthcare professionals must be able to prove that the care they give is the best possible and in the patient's best interest. It is therefore vital that dentists subscribe to the notion of evidence-based treatment. "I believe that the treatments dentists provide will have to be evidenced based," explains O Mullane. "If, for instance, a dentist decides to provide a service such as laser treatment, it has to be evidence based, i.e., that there is a proven history of its efficacy." The strategy espoused by the professor is one where practising dentists report on the efficacy of the treatment they provide. "This approach can be aided by follow-up papers that look at, for example, how many crowns fail. So having done the treatment, practitioners record their findings. For example if they fit 100 crowns using a certain technique and have a 95% success rate, they should record and share that information."

But will practising dentists, who already have a substantial workload, subscribe to such an initiative? O Mullane believes so. "Irish practitioners are very willing to do this. We, in the Oral Health Research Centre in Cork, have already done a number of projects involving the practising professionals and they have always been more than willing to help." But this concept is one that eventually all practitioners will have to subscribe to, believes O Mullane. "The whole concept of audits - monitoring and reporting findings - will become an increasing part of the practitioner's role," he says. "I can see that as a challenge facing the profession, but one that I suspect most practitioners will be willing to take up."

Administration

The final area that Professor O Mullane sees as needing attention is in administration of the Irish dental service.

From the cradle to the grave

In Ireland, the dental care given to minors is exemplary, says O Mullane. "In my view, the current public dental health system for young people is very good. Our children's dental health is good for several reasons, one of them being that we have a focused treatment system. There are over 300 health board dental surgeons and they do a fantastic job," he explains. "Because they are salaried they can identify and recruit their patients, rather than having patients present themselves." This means children needing dental care can be identified and treated earlier. However, the system then begins to fail when these children mature into adults. Because Irish adults must take the initiative and present themselves for treatment, problems are identified later and some never come to the attention of practitioners until it is too late. The challenge, says O Mullane, is to keep the high standard of dental care going into adulthood, both for medical card holders and workers in insurance schemes. "It is imperative that the treatments allowed under these schemes are kept up-to-date with best practice." This is something the IDA should take an active role in by advising the cheque-book holders – the insurance companies and the Government funding bodies – of the most up-to-date treatments. "The IDA needs to ensure that what is allowed on the system is such that you can practice modern dentistry," says O Mullane. "They need to keep pressure on the funding agencies, ie, the HSE or the Department of Social Welfare or the insurance companies, to ensure the best treatment is always available."

Who is Professor O Mullane?

Name:	Professor Denis O Mullane
Qualified:	1960 from Cork Dental School, UCC
Member of the IDA since:	1965

Experience

- After qualifying, went into general practice in the UK
- In 1965, took up a position with what is now the Health Board Dental Service in west Cork, a role which saw him achieve the honour as the first dentist with his colleague Vincent Bluett to provide a dental service on the island of Cape Clear.
- In 1967, moved to the academic side of the profession as deputy of a newly established research group looking into the effectiveness of water flouridation.
- In 1971, became the first dentist in Ireland to gain a PHD.
- In 1972, took up a lectureship at the University of Manchester in the Department of Preventive and Children's Dentistry.
- In 1978, took up the position as Ireland's Chief Dental Officer in the Department of Health.
- In 1982, left to head up the Department of Preventive and Paediatric Dentistry in Cork at senior lecturer level and becoming professor in 1984.
- In 1984, established the Oral Health Services Research Centre in Cork, which is now the largest establishment of its kind in Europe.
- From 1989 to 1998, was Head of the Cork Dental School and Hospital.

Current positions

- Emeritus professor and consultant in the Oral Health Services Research Centre.
- Studying the relationship among oral hygiene habits, salivary fluoride levels and dental caries. Also studying the fluoridation of water in Ireland and comparing with Northern Ireland, where there is no fluoride added to water.
- Editor of the Journal of Community Dental Health.
- International Development Advisor to the Royal College of Surgeons of Ireland.
- Co-ordinator of the UCC Dental Alumni.
- Consultant to the World Health Organisation.
- Former President of ORCA, The European Organisation for Caries Research.
- Former President of The British Association for the Study of Community Dentistry.
- Has over 120 papers published in internationally refereed journals.

Special interest

Dental Project Uganda

Caoimhin MacGiolla Phadraig B.Dent.Sc (DUB), and Ceara Cleary, RDH (DUB), set out to use their dental training to help those in need in Uganda. Caoimhin tells their story of sharing skills in a country where knowledge is priceless.

Like many of our generation, we toyed with the idea of travelling abroad and seeing the world while using our skills and training for the benefit of those less fortunate. The idea is not new, and may strike a chord with many, but it is less common to act on it. Three months ago we decided to. For my part, it was as partial penance for an under productive fourth year elective. After many false starts and fruitless emails we decided on Africa, in particular Uganda.

Knowledge sharing

We came into contact with Barbara Koffman, a retired dental hygienist from England. She had been praying for a western trained team to visit Uganda and feels we were the answer to her prayers. She invited us over to Uganda on a voluntary basis. We agreed, although we were not sure how we could help. We assumed our work would involve basic primary dental care, oral health promotion, establishing rural dental clinics, training staff and visiting outreach centres. As it turned out our most valuable contribution would be training, and simply sharing knowledge.

We left Dublin at the start of August, and were collected by Barbara at the airport. Uganda is a dusty, landlocked country bordering Lake Victoria. The population is almost 27 million, with an estimated HIV rate of 7% (WHO/UNAIDS, 2005) or approximately 800,000 people.

Knowledge is an expensive commodity in Uganda; it is hard earned and zealously guarded by its bearers. In a country like Uganda, any advantage can make a massive difference to the lives of those involved. For instance, most staff we met in the government hospitals were unpaid, working daily in the hope of gaining enough know-how to eventually take up a paid position.

Training in basic dental techniques to a group eager to learn.

The project's much needed dental equipment finally clears Ugandan customs after intervention from the Irish Ambassador.

The need for equipment

Barbara has been involved in voluntary dental work for 10 years and runs the Namwendwa dental clinic in the Kamuli district of Uganda, which was kindly donated by Dentaid, among other dental projects. The clinic mainly performs emergency treatment and is operated by a dental paramedic, who is trained to diploma level, and unqualified medical staff. Conditions are basic and, as we found out later, desperately under-equipped.

First we found that treatment was commonly unavailable due to a shortage of local anaesthetic and needles; filling materials were scarce to the point of exclusion; and functional X-ray machines were lying lifeless due to a shortage of developing solutions. As a consequence, much treatment was regularly denied to the peasant population.

So we set about collecting equipment. Lots of equipment. Promed, GSK, Dentsply, McCormack Dental, the HSE and Dublin Dental Hospital kindly donated vital instruments and materials. We shipped the equipment by DHL, which, even with a large subsidy, cost well over €2,500. We organised a raffle/gig night in Dublin and raised this money, which was donated by our colleagues, family, friends and Sigmar Recruitment to whom we are thankful.

In Uganda, when the shipment eventually arrived 10 days late, we were asked to pay "tax" of $1,000 by customs. After a lot of

Special interest

phone calls, road miles and wasted breath the Irish Ambassador in Uganda got involved and, eventually, our shipment arrived.

To work

We were based in a compound in Kamuli about four hours' drive from the capital, Kampala. The compound consisted of an orphanage, school and adult training centre. Our days started at sunrise with the singing of the orphans floating through our windows. We would head out to Namwendwa health centre most days, though on our first day we went to an outreach clinic in Bulopa to provide dental treatment. We carried out OHI, and extractions. I extracted a lower eight for the midwife of the clinic, who then went off for a rest. Immediately after, one of her patients went into labour. Our dental nurse, Lowisa duely marched into the maternity ward and without ceremony, single-handedly delivered a baby on the ground in front of us. She then marched back to dental and continued her treatment.

We spent the next week training the staff of Namwendwa in cross-infection control, safe handling of instruments, zoning, pulpal diagnosis, LA administration and extraction techniques.

We found that cross-infection control was substandard. Bleach was used for all disinfection, leading to accelerated wear of instruments. An ultrasonic bath lay unused on the counter because nobody knew what it was for. There were two working autoclaves, but unfortunately most days they could not be used because electricity was available only sporadically. We discovered much later that this was because the hospital could not pay its electricity bill.

Therefore, on a day-to-day basis, there was no sterilisation: instruments were washed, bathed in bleach for 15 minutes and then laid in a pot of simmering water on a charcoal fire for 30 minutes. There were no clean or dirty zones. Instruments were not packed after disinfection, but kept together in Tupperware.

Where dentists rarely venture

After one week we had a reorganised clinic with clean and contaminated zones. We had a rotary system whereby one person became head of CSSD for the day. We introduced Virkon spray and baths. We had a pressure cooker-type autoclave, which we tested with Sterigage (3m), and even Spore Tests (3m Attest) and was found to be effective.

The equipment finally arrived after week one. We met up with Donal Flynn B.Dent.Sc (DUB), and part-time dental nurse, Mary McDonnell, on the banks of Lake Victoria. We set sail at daybreak across the Lake to Bovuma Island, where only once had a dentist been before. There were rumours that cannibals still roamed the inland forests. We set up clinic in a timber frame church and many people arrived. Although the mainland was within two hours' sail, most could not afford the fare or the dental fees. We worked with a visiting healthcare worker, Joseph, who we began to train.

Left: the control measures in place before the team's arrival, and, right, a pressure cooker-type autoclave used by the team.

After two days on the island, we realised that there had been no time to train Joseph to the level needed, so we paid for him to travel to and stay at Namwendwa and begin training with us for a few weeks. Joseph regularly attends Namwendwa Clinic now for further training. He performs extractions under supervision, and also performs some simple extractions unsupervised. Over time we hope that his proficiency will increase to the point where he can run a clinic independently on the island.

Establishing a clinic where before there was none

Our second week consisted of further training, and refinement of our systems in Namwendwa. We also visited other clinics in the area, dropping off gifts of equipment where it was needed, and making valuable contacts. We met with Dr Tigawalana, Uganda's Chief Medical Officer, and discussed which sub-counties would benefit most from dental facilities. Four areas were highlighted, one of which was Bugaya district.

Bugaya is a sub-county of 55,000 people. It is serviced by a type-three health centre, which means it has access to emergency treatment, a pregnancy ward, pharmaceuticals and dental services.

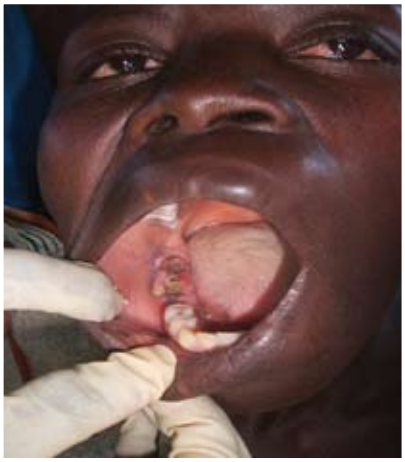
It was disheartening when we visited. No drugs had been available for months. This meant meaningless prescriptions being issued as the mainstay of medical treatment, although there was no pharmacy in the area. A door labeled "injection room" housed two empty boxes of needles. The only equipment we saw for the whole hospital was indescribably inadequate. We spent our last two weeks setting up a dental clinic. Having put our sights on an outhouse, where the night watchman slept, we left an invitation for a member of staff to be trained the following day. The training lasted for two weeks, and is now continued by Lillian, our dental nurse, and will continue for the foreseeable future. We got a chair and equipment and we even painted the walls of the new clinic.

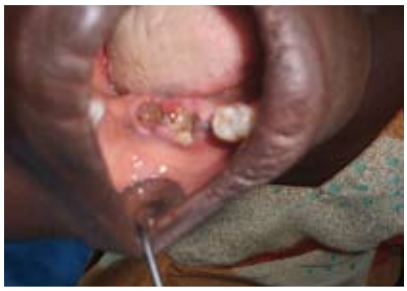
The grand opening

There was a grand opening presided over by local dignitaries, with fanciful speeches, thanking us for all of our efforts. There were pictures and handshakes and a bit of a commotion.

And then our first patient in the new dental clinic entered. She was a lady in her early forties who had attended a 'dentist' in the community the previous day complaining of toothache. The 'dentist' then administered LA, and decoronated the lower right 7 and 8. Rather than attempt to remove the retained roots or refer, he attempted to charge the patient the equivalent of a day's wage. The retained roots were successfully removed in the first procedure of Bugaya dental clinic. It was reported by the chief orderly of Bugaya

Special interest





The new clinic's first patient – a woman who had a less than fruitful visit to a local 'dentist'.

clinic that one man was even suspected of having contracted HIV through rogue dental care in the area, prior to our arrival.

This was definitely a highlight of our trip, bringing controlled, organised dental services to an area where there was, for all practical purposes, none before. I honestly feel that I did more with my qualification in one month in Uganda, than in my years in developed countries. All you need is access, drive and a bit of luck.

Doing the right thing?

Some may question our decisions on this venture: providing under-trained, poorly equipped, though accountable people with the means to carry out dental treatment, and it is something I have asked myself. We have made provision for supervision and further training of all staff who we are involved with. Having experienced the alternative to what we have provided: untrained, unaccountable lay people attempting extractions with whatever tools are at hand, I am confident that we have improved things, but there is vast room for further work, and further improvement. This is just the start.

If anyone would like to find out more, or would like to get involved with this project please contact caomhinmc@dental.tcd.ie or kmacgp@hotmail.com.

Special interest

Women in Irish dentistry

Author:
Dr Margaret Ó hÓgartaigh

Abstract
In 1928, women constituted barely five per cent of Irish dentists. This can be attributed to a variety of factors, especially societal attitudes. However, there were perceptions that women brought certain attributes to the profession. By 1960, the proportion of women in dentistry had increased to 11%, and, by 1980, one-in-five dentists registered in the Republic of Ireland were female.

Dentistry was a paramedical profession that attracted a growing number of females in the twentieth century, although it remained a resolutely male-dominated occupation until the latter part of the century.

Educational developments in the late-nineteenth and early-twentieth centuries, with the establishment of the Royal University of Ireland in 1879, which became the National University of Ireland (NUI) in 1911, and the opening of Trinity College Dublin (TCD) to women in 1904, facilitated women's access to professional careers[1]. Dental schools were established in University College Dublin in 1908, and in University College Cork in 1913. Both were colleges of the NUI. By 1920, there was also a dental school in Belfast. In 1924 there were 20 females and 97 males registered at the TCD Dental School[2]. As in pharmacy, the profession gradually became popular for females in the 1920s. Six women from Methodist College, Belfast, opted to study dentistry in the 1920s[3]. Despite their growing presence at dental schools, females were not prominent in the organisation of the profession. In the 1920s, the Dublin-based Miss de Sales Magennis was the only female member of the Irish Dental Association.

Irish dentists were registered in the Irish Free State under the 1921 and 1928 Acts, which ensured that only those registered could practice. The enrolment of Lilian Murray in 1899 at the TCD Dental School meant she was the first female dentist to be admitted to the General Dentists' Register. Significantly, this was five years before women were allowed to take degrees at Trinity. By 1917, the committee of management of the university's dental hospital withdrew "its objections to lady students becoming members of the Students' Society should the majority of members desire their admittance." Given that females did become members, there must have been a willingness to accept the "lady students"[4].

A 'lady dentist' felt women were not inclined to opt for dentistry because it was perceived that great physical strength was required. She thought females were at an advantage in the profession. "Children, for instance, are inclined to think that a woman is going to do something for them, whereas a man is going to do something to them!" she argued. Nonetheless, her clients were not primarily women and she felt that "the average man" thought "if there's any gentleness to be got out of dentistry he'll get it from a woman."[5] This view was echoed by an American dentist, Dr Gracia Paxson, who argued that the "woman dentist, with her feminine eye for symmetry and proportion, should be well adopted" to the profession.[6] Yet again, the emphasis on alleged female characteristics made the profession somewhat more accessible for women. It assumes, unfairly, that men are not gentle and balanced[7].

The greatest difficulties facing women in dentistry in the early years of the twentieth century, were societal rather than educational. Women were perceived as taking jobs from traditional breadwinners. In 1926, a Kells Councillor, Mr Tully, complained that "the modern young woman cannot be easy unless she has a man's job, and a man's trousers on." He argued: "It's very unfair, in ten years' time we'll have nothing in this unfortunate country but old maids and cats. It is the greatest curse of Ireland to be having women in everything...Are we going to be bossed by petticoats?...Woman was made for one job by God Almighty, and she is a fool in her own interests if she does not stick to it."[8]

Because of developments in women's employment in the early twentieth century, aspiring females were still seen as taking a job from a male with a family. Women, therefore, rarely challenged the male monopolies in dentistry, medicine, law, engineering or accounting[9].

It is difficult to ascertain the precise career paths of Irish female dentists. However, it is worth noting that when a female dentist was offered a post in a western town, during the late 1930s, the salary was fixed at £400 per annum. However, she was advised to reject the position as the profession believed it was too low[10]. By way of contrast, in 1946, during a major strike, primary teachers sought £364 per annum (a pound a day).

Like their colleagues in medicine, female dentists were inclined to opt for public service jobs, even if the pay was not as substantial as private practice. Public service work offered regular pay, and this made it attractive to those who were new to the profession. Catholic social action is now receiving attention from historians. Professional women were prominent in organisations such as the Catholic Women's Federation of Secondary School Unions.[11] The aim of the Catholic Women's Federation of Secondary School Unions was to "promote and foster catholic social principles and action, especially from the women's point of view, and in particular to promote and defend the interests, rights, and duties of the family."[12] The St. Dominic's Social Service Club was established in 1926, but the union was set up in June 1914. Its President was Mary Hayden, Professor of Modern Irish History at UCD. The educationalist, Louise Gavan Duffy, "proposed a social work scheme." She advocated "the necessity of social work amongst catholic girls." The union organised a night school that taught technical/domestic subjects and supplied the teachers. It also organised social activities such as tennis and hockey matches. Medical inspections were conducted by female doctors involved in the college union. "Miss Cunniffe", a dentist, was interested in establishing another club for girls. Such activities

Special interest

stitched together, in an intricate pattern, a wide range of social activities amongst women[13]. Dr Louisa Cunniffe was one of 25 female dentists listed in the Irish Free State Dental Register of 1930. She was based in Ballaghaderen, County Mayo and had graduated with a BDS from the National University of Ireland in 1926[14].

According to the Irish Free State census of 1926, there were 31 female dentists out of a total of 536, or 6% of the profession. In Northern Ireland, at the same time, there were only five female dentists and 250 male dentists. Hence, women constituted only 2% of the profession[15]. In medicine, women were 14% of the profession in Northern Ireland and 11% in the Irish Free State.

Female dentists may not have been prominent in Irish public life during the twentieth century but at least one achieved sporting fame. Thelma Hopkins was a dental student at Queen's University in Belfast in 1956 when she broke the world record in the high jump. Later in the year she won a silver medal at the Melbourne Olympics. Hence, she was breaking barriers in a variety of ways[16].

For twenty-first century dentists, rigorous preparation for a professional career forms an essential part of their development[17]. Rosemary Daly was a student at University College Cork between 1998 and 2003. Given her desire to work with her hands and with people, her choice of career is not surprising. She also liked the fact that an independent career, in one's own business, was possible. However, the actual course work was extremely demanding and extensive work in the dental hospital during the day had to be supplemented by intensive study in the evening. Colleagues were caring and one tended to know everyone in the class. Out of a total of 42 students, 18 were female. In some respects, it was good preparation for professional life as one had to work nine-to-five and be prepared for all eventualities. In the final years of the course, the work was intensive and full-time in clinics. After graduation, Dr Daly decided to prepare for Membership of the Faculty of Dentistry, which is awarded by the Royal College of Surgeons. This involved undertaking a job in a recognised hospital post. The work entailed a lot of variety as well as the occasional assumption that a woman could not extract an awkward tooth, "you'll never get that out", one elderly gentleman prophesised. He was wrong! Though women now constitute one-third of the profession, there were only three female and eight male consultants in the Trinity Dental School. As of September 12, 2005, there were 1,483 male and 823 female dentists registered in the Republic of Ireland[18]. Hence, from a low of barely 5% after the passage of the 1928 Dentists' Act, to 35% of the profession in 2005, women in Ireland have greatly increased their representation in dentistry. Whether this increased proportion will change the symmetry of dentistry remains to be seen.

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17 Based on an interview with Dr Rosemary Daly who graduated from the National University of Ireland, Cork, Dental School, in 2003. I am very grateful for her help.

18 Figures courtesy of the Dental Council of Ireland.

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Practice management

Your practice is not your pension fund

Dr Niall J Jennings, BDS NUI Dip. C Dent. DU, warns against relying on the value of your practice to finance your retirement.

There has been the impression in Ireland over the years, that when and if you sell your practice you can retire comfortably on the proceeds of the sale. This could not be further from the truth. The main reason for this is there are insufficient dentists in the country. This is leading to a dramatic fall off in the number of prospective purchasers of practices being available. Indeed, the interim results of a recently released report by the Department of Health and Children, predicts there will be a shortage of dentists by the year 2015.

When one compares the trends in the UK, where the number of dentists is increasing, and the number of practices is going up by three to 4% per year, to Ireland where in only a decade there will be a deficit of dentists in the country of up to 45%. This might keep us very busy at present with the volume work, but who is going to be around to buy your practice in the future?

It's a buyer's market

The vast majority of practices for sale in Ireland are single-handed. Many of the owners are long-established solid practitioners who have provided excellent service to the public for many years. Unfortunately the same practitioners have not felt a need to match their facilities and ambiance of the practices with their excellent dentistry.

As a result, new, young, progressive dentists are often astounded as to how antiquated the condition of many of the practices that are for sale. Although they may see the potential of a practice, they find it hard to believe that they can turn a practice into one where they are comfortable and happy to work.

At any one time there are up to 50 practices for sale, with increasingly discerning purchasers who either move on to the next practice available or offer a dramatically reduced price.

When one considers an expenditure of between €100,000 to €150,000 to re-equip, introduce computerisation and a total revamp of the interior including often complete rewiring, is it little wonder that the few purchasers available become discouraged.

This expenditure, which has to be borrowed, even at the exceptionally favourable rates that are available today with a proper business plan, on top of the potential price of the practice has only one effect: the selling price of your practice falls like a stone.

It is now obvious that achieving anything close to 100% of the previous year's gross is just not possible in a straight sale. There is only one exception to the rule, at present, but I have noticed that even here it is becoming increasingly difficult to achieve extremely high yields in the sale. Many of the banks are just not prepared to loan extravagantly for dental practices. This inevitably means purchasers have to put their hands in their own pockets to finance the difference.

Realistically it can take up to two years to sell a practice - even a well organised one.

Solutions

The two areas that are within our control are:

Modernise

Introduce 21st century concepts of customer service. Consider for example that hotels completely revamp their lobby areas every five to seven years. It is hard enough to get customers through the door, don't lose them due to lack of service and especially facilities. This same lack of up to date ambiance is exactly what puts off prospective purchasers buying your practice.

Expense sharing

The coming together of like minded, caring practitioners to share facilities on an expense sharing basis. This should have patient allocation and exit strategies built in as part of the agreements; this also leads to reduction in overheads to each principal of up to 10%.

Practice statistics – leading to a proper valuation

In many facets of our lives, as we approach the early-50s, the concept of a 'comfort zone' looms large. This may be a good feature to our day-to-day lives but often has a disastrous effect on our practices. This concept leads us to reducing the number of new patients taken on, even less emergency cases treated and fully integrated into our practices. For a dentist, just to stand still in our practice, requires approximately 150 new patients per year.

Total overhead expenditure

Leaving aside depreciation, leases, bank charges and good accountancy practice, the average single-handed practitioner will have an overhead expenditure of about 50%. A two-man expense

Practice management

The three tips

In an increasingly competitive market, make your practice stand out and make a statement about yourself as a provider of highest quality professional service.

- Plan well in advance to make your exit strategy.
- Revamp your practice and develop services and facilities.
- Bring in fresh blood such as expense sharing 'partners'.

sharing practice will have overhead expenditure of 40 to 45%. Highly efficient three-man practices with practice will have overhead expenditure of between 36 to 40%.

Gross fees

A normal busy GP dentist earns €50 to 60K approximately per day per annum of operation. This is equivalent to seven to eight hours' chair-side dentistry. A single-handed practice, with the equivalent of 40 hours per week chair-side dentistry (with overhead expenditure approximately 50%) earns a net profit of €150K before depreciation, bank charges, loans, etc. Taxable income is approximately €120K.

A two-man expense sharing practice with the equivalent of up to 80 hours per week of chair-side dentistry, will reduce overhead expenditure by around 10% per principal because of greater efficiency. In these more efficient circumstances, overhead expenditure falls to approximately 40%, meaning total practice net profits of €360,000 before depreciation, bank charges, loans, etc. Taxable income is approximately per principal is €150,000. Increase in profitability is approximately €30,000 per principal and this is for the same amount of work.

All the above figures should include a variation of 10% depending on the location of the practice. But remember that these figures and variations are accepted by the Revenue Commissioners.

These statistics have a bearing on the ease, timescale and achievable price of the sale of your practice. Banks and prospective purchasers no longer just accept gross figures and the potential 'of the practice' in the idealised view of the vendor.

Did you realise, that certain banks allow you to borrow against the equity of the value of your practice?

Summary

I believe that in the not too distant future – in 10 to 20 years – the single-handed practice as we know it today will cease to exist. Even in today's market, 25% of practices have either closed due to an un-saleable commodity or have taken two to three years to sell and at a seriously reduced price. This thought alone should refocus the mind as we continue into the 21st century.

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Practice management

Helping consumers understand dental fees

Dr P. Garry Heavey B.Dent.Sc, Dip.Clin.Dent, F.I.C.D

Fees are one of the most contentious issues that Irish dentists have to deal with today. We listen to the following allegations from the media in relation to our profession on a daily basis:

- Dental fees are too expensive. Irish consumers are being "ripped off".
- It is cheaper to get dental treatment done in Northern Ireland and Easter Europe, for complex treatment in particular.
- There is a lack of competition amongst the dental profession in Ireland.
- There is no transparency in relation to dental fees levied in individual practices.

Apart from the public's concerns in relation to dental fees we also have the problems of fees from a business perspective in trying to ensure an appropriate level of income. It is frustrating for most of us to have to listen to this negative perception of our profession while we continue to deliver a high quality service and standard of care to our patients.

Firstly, I would like to address the issues that are of concern to the public. In relation to the comparison of fees between Northern Ireland and the Republic, I think it is incumbent upon us to stress as we always have done, that in the Republic in order to provide high quality services, fees are necessarily going to be more expensive than they are in Northern Ireland where the cost of the provision of treatment is a lot less – high quality dentistry takes time.

As Chairman of the Fitness to Practice Committee of the Dental Council for the past five years, I noted that many of the complaints received were in relation to dental fees and almost all of these were concerning the fact that the first time the patient had heard that a particular treatment was going to cost a particular amount of money was when they went to pay the receptionist. That is obviously an entirely unsatisfactory situation for both the patient and the receptionist to be placed in. In terms of satisfying the requirement for informed consent, all patients should be informed not only of what their options are in a particular situation but also the cost of each option. I cannot think of a single problem that a patient would present with where there wouldn't be at least two, and usually three or four options. In terms of respecting the patient's position we should in every case give the patient their treatment options, the cost of each particular option and then obviously clinical advice as to what we might consider to be the more appropriate option for them. But at the end of the day they must choose. Once a patient has made an informed choice knowing in advance what the required treatment is likely to cost, they can have no complaint in terms of the professional behaviour of the dentist.

Summary tips

- Always give and record patients' treatment options and the cost for each option.
- Have a price guide available for patients.
- Advise patients of cost involved in referred treatment.

Another area where patients sometimes find themselves in difficulty and which can cause both resentment and embarrassment among patients is when we refer patients for treatment to a consultant or a specialist, and give them no idea of the fees involved. We should tell patients beforehand the financial implications of referred treatment as they may well change their mind. Patients may find themselves in an embarrassing situation and feel that they had no option but to continue treatment. We should also ensure patients understand the cost of additional treatment they may require following specialist treatment, so that they are fully aware that, for example, following a root canal treatment they may also have the cost of a post and core and a crown.

I believe there are considerable advantages to having price lists on display in our practices. Firstly, it gives the patients a general idea of the expenses they are likely to incur. If for instance they are thinking of replacing metal fillings with tooth coloured fillings, the appreciation that there is a price difference can save surgery time in explanations. The availability of a price list helps to build trust and the natural follow up is a detailed invoice or receipt for treatment. One note of caution however, if your administrators are not dental nurses, one really needs to go through the price list and explain what the various procedures are as it is your front line staff that are often asked clinical questions and they need to understand in general terms the procedures referred to in any price list.

The Irish Dental Association has recently launched its proactive public relations campaign that includes increasing awareness of consumers in relation to their entitlements under the State dental schemes.

Many aspects of the role of the dentist are being proactively promoted in the media since September 2005 by the Association. It is within the gift of each member of the dental community to assist in changing the public's perception of our profession. It is our collective responsibility to help our patients understand dental fees!

Practice management

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Composite core materials

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This month's feature of is taken from the March 2004 issue, Vol. 21, No. 2.

Bonded resin composites have become the core material of choice for rebuilding broken down teeth before placing an extra-coronal restoration. Composites used as core materials bond to tooth structure and may be light-cured, dual-cured or self-cured. The short cure time allows crown preparations to begin immediately after core placement. These materials require a clean, dry field during placement. Compatibility of the adhesive and composite is essential to achieving a predictable bond to the tooth.

Mode of Delivery

Some composite core products utilize automix cartridges with small tips for direct syringing into tooth preparations. Others can be loaded into small syringes (Centrix) for delivery after hand-mixing. They may also be supplied in tubs, compules and/or unit-dose packaging.

Viscosity

Most composite core materials have a medium or low viscosity, allowing flow into undercuts and around pins and posts. The few products that have a high viscosity can be placed with hand instruments. The light-cured core materials tend to have the highest viscosity and are more packable.

	Product	Company	Packaging	Automix Mixing
Dual-cured	ABSOLUTE DENTIN	PARKELL	Automix cartridge	Yes
	BIS-CORE	BISCO	Syringes	No
	BUILD-IT! FR	PENTRON CLINICAL TECHNOLOGIES	Automix cartridge	Yes
	COMPCORE AF DUAL-CURE	PREMIER	Automix cartridge	Yes
	CORE PASTE SYRINGEABLE	DEN-MAT	Automix cartridge	Yes
	ENCORE D/C	CENTRIX	Automix cartridge	Yes
	FLUOROCORE	DENTSPLY/CAULK	Syringes	No
	LUXACORE AUTOMIX DUAL	ZENITH/DMG	Automix, Smartmix	Yes
	PARACORE	COLTENE/WHALEDENT	Automix cartridge	Yes
	REBILDA DC	VOCO GMBH	Automix, QuickMix	Yes
Light-cured	BISFIL CORE	BISCO	Syringe, unit dose	na
	CLEARFIL PHOTO CORE	KURARAY AMERICA	Syringe	na
	ENCORE SUPERCURE	CENTRIX	Unit syringe	na
	LIGHT-CORE	BISCO	Syringe, unit dose	na
Self-cured	CLEARFIL CORE NEW BOND	KURARAY AMERICA	Tubs	No
	CORE-FLO	BISCO	Syringes, tubs	No
	CORE PASTE SYRINGEABLE	DEN-MAT	Automix cartridge	Yes
	ENCORE	CENTRIX	Tubs	No
	ENCORE AF	CENTRIX	Tubs	No

u = unit dose, c = cartridge, s = syringe, t = tub, na = not available

Practice management

Method of placement

Preferences for obtaining proper form and contour of composite core materials vary among dentists. Core forms, matrix bands or hand moulding are often used and may depend on the size of the build-up needed.

Compatibility with bonding agents

Light-cured composite core materials generally bond best to tooth structure with light-cured bonding agents. Dual- or self-cured composite core materials require dual- or self-cured bonding agents. For best results, use the bonding agent that is recommended by the manufacturer. Many composite core materials available today have the option of being light- or self-cured. If placement in a non-vital root canal is necessary, the self-curing mode is preferable to ensure adequate curing.

Colour

Core materials are available in a blue, gold or gray colour, opaque white or an aesthetic dentin colour. The contrasting colour is an advantage in the posterior and subgingival areas. The tooth-coloured shades are ideal for use in the anterior when placing translucent all-ceramic restorations.

Fluoride release

The amount of fluoride released from composite cores adequately sealed by a crown is very small and of questionable value.

Retention

Retention for a future crown should not depend on the bond of the core to tooth structure, but rather on the taper of the preparation. Posts or pins should be considered when little or no structural or mechanical retention is present or when little coronal portion is remaining. Margins should always end on tooth structure, preferably with a ferrule of tooth structure at least 1.5mm in height.

Editors' note: most self-etching bonding systems (6th- and 7th-generations) are not recommended for use with core materials.

THE DENTAL ADVISOR Recommends:

Dual-cured

ParaCore (96%), LuxaCore Automix Dual (95%), BUILD-IT! FR (94%), Rebilda DC (94%), CompCore AF Dual-Cure (91%), Core Paste Syringeable (90%), Fluorocore

Light-cured

Clearfil Photo Core (94%), ENCORE SuperCure (93%)

Self-cured

Core Paste Syringeable (91%), ENCORE (91%)

Viscosity	Bonding Agent	Shades	Contains Fluoride	Light Curing Time	Flexural Strength	Flexural Modulus	Compressive Strength	Cost/ml	Property Rating	Clinical Rating	Overall Rating
Low	Not Included	3	No	40 sec	Med	Med	High	$1.80 c	89%	na	na
High	Not Included	2	No	20 sec	Med-High	High	High	$8.15 s	94%	na	na
Low	Not Included	4	Yes	40 sec	Med-High	Med	High	$4.28 c	92%	95%	94%
Low	Included	2	Yes	40 sec	Med	Med	Med-High	$7.48 c	87%	92%	91%
Low	BondLink	2	Yes	40 sec	Low-Med	Med	Med	$5.31 c	80%	93%	90%
Med	Not Included	2	Yes	20 sec	Med	Low-Med	Med-High	$3.60 c	83%	na	na
High, med	Included	2	Yes	40 sec	High	Med	High	$16.41 s	na	98%	na
Low	Not Included	3	Yes	20 sec	Med	Med	Med-High	$10.52 c	87%	97%	95%
Med	Included	2	Yes	40 sec	High	Med	High	$9.73 c	94%	96%	96%
Low	Included	3	Yes	20 sec	Med-High	Low-Med	High	$4.56 c	89%	96%	94%
High	Not Included	1	No	40 sec	Med-High	High	High	$8.88 s	94%	na	na
High	Not Included	1	No	20 sec	High	High	High	$11.93 s	100%	92%	94%
High	Not Included	2	No	40 sec	Med	Med-High	Med-High	$17.17 u	90%	94%	93%
High	Not Included	1	No	20 sec	Med	Med-High	High	$10.70 s	92%	na	na
Med	Not Included	1	No	na	Med	Med-High	High	$5.03 t	92%	na	na
Low	Not Included	2	No	na	Med	Med	Med-High	$6.51 s	87%	87%	87%
Low	BondLink	2	Yes	na	Low-Med	Med-High	Med	$5.13 c	83%	93%	91%
Med	Not Included	2	Yes	na	Low-Med	Med-High	Med	$5.65 t	83%	94%	91%
Med	Not Included	1	Yes	na	Med	Med	Med-High	$5.70 t	87%	na	na

Overall rating = 75% clinical rating + 25% property rating; costs are listed for comparison only and are not used to calculate the ratings; all costs shown in U.S. dollars.

Classifieds

Classified advert procedure

Please read these instructions prior to sending an advertisement. Here are the charges for placing an advertisement for both members and non-members.

Advertisements will only be accepted in writing via fax, letter or email (fionnuala@irishdentalassoc.ie).

Non-members must pre-pay for advertisements by cheque made payable to the Irish Dental Association.

If a box number is required, please indicate this at the end of the ad (replies to box number X).

Classified ads placed in the Journal are also published on our website www.dentist.ie within 48 hours, for 12 weeks.

Ad	members	non-members
Length of ad: up to 25 words	€75	€95
Length of ad: 26 to 40 words	€90	€110

Non-members must send in a cheque in advance with their ad

The maximum number of words for classified ads is 40. If the ad is in excess of 40 words, then please contact:

Rebecca Markey
IFP Media, 31 Deansgrange Road, Blackrock, Co Dublin
Tel: 01-2893305
Fax: 01-2897546
Email: rebecca@ifpmedia.com

Full-time

Associate required for superb four surgery practice in Waterford city. Computerised, OPG, Digital X-ray system, full-time hygienist. 90% private with 10% GMS patients. Immediate start to replace departing colleague. Tel: Gus 086-2307457.

Dentist required for busy established southwest Dublin practice to start immediately. Tel: Robert 01-4947548 for interview.

Assistant/associate required for a full-time position in Dovercourt, Harwich, Essex, to start as soon as possible. Brand new surgeries and full support staff with EDI link in friendly coastal town. Contact Mr Parker on + 44 7740 067895 or sayeedparker@hotmail.com.

Associate required for busy practice in southeast. Immediate start. All facilities including OPG. Mixed ethical country practice. Tel: 087-7868703 after 6:00 pm or leave message.

Dental associate required in the southeast for a long established busy dental practice to replace departing colleague, full book. Part time/full time/with a view. Position available from 1 January 2006. Four surgeries, OPG, VT, full support staff, 15 minutes from Waterford City. Tel 087-2507830 or e mail rogersdental@eircom.net.

Innovex Direct Pharmaceutical and Healthcare Recruitment Service is currently recruiting for sales representatives with a dental nurse qualification (Dublin-based), sales experience an advantage but not essential. Full permanent position. Contact anita.sherlock@innovex.com or tel: 087-2239309.

Associate required to join busy well equipped modern practice in midland town. Replies to Box Number J405.001.

Dental associate required for busy dental practice from October 2005 in large thriving satellite town 40 minutes from Dublin. Position would suit conscientious experienced young dentist. Full book. Expanding progressive modern surgery. Tel: 086-8244606 (evenings) or email cv to eilee19561@hotmail.com.

General dental surgeon required to work within the community/primary care dental services in Dublin. Requirements: be registered in the Register of Dentists for Ireland. For further information contact Colleen O'Neill, Principal Dental Surgeon. Tel: 01-6455421 or email colleen.oneill@mailm.hse.ie.

Full-time dental associate required for busy city centre practice located on O'Connell Street. May consider part-time depending on credentials. Contact Simon 087-6423775 or 01-8744902.

Experienced associate required to join busy practice, full-time position, west Cork. Tel: 086-1727064.

Dental associate required for busy dental practice in Monaghan town. Expanding progressive modern practice in new premises. Tel: Tel: 047-72744 during office hours.

Full/part-time associate dentist required for busy city centre practice, full book. PRSI/GMS/Private, OPG, intraoral, digital camera, hygienist. Tel: 086-8200616.

Associate required for Co Meath practice 30 miles Dublin. Part-time initially. Progressing to full-time. Total clinical freedom. Tel: 046-9433189 after 7pm.

Dental nurses wanted. Full-time and part-time positions available in Cork specialist practice. Excellent remuneration. Tel: Emmet on 086-8187373.

Associate required for busy four surgery practice. One hour from Cork and 30 minutes from Waterford. OPG, hygienist. Part time considered. This position would suit a conscientious graduate with experience. Tel: 087-9334357 or 058-44027 – evenings.

Part-time

Part-time dentist: Fully qualified (BDS or equivalent) with orthodontic experience required for North Essex – approximately 35 hours per month. Salary iro £40,000 pa pro rata. Closing date end December 2005. Contact anja@sh99.co.uk or phone 0044-1787-473874/7785-380448.

Part-time specialist orthodontist for London and Ipswich approximately 35 hours per month. Must be on orthodontic specialist register. Salary iro £50,000 pa pro rata. Closing date end December 2005. Contact anja@sh99.co.uk or phone 0044-1787-473874/7785-390448.

Part-time associate required for surgery in north central Dublin. 2/3 days per week. Tel: 087-7721828 or email CV to rodandcatherine@hotmail.com.

Part-time associate required for Dublin 2 dental practice. Tel: 01-6787322 or 087-2322384.

Associate wanted – part-time associate required for busy thriving practice in Co Tipperary. Modern fully equipped surgery, OPG,

Classifieds

hygienist and excellent support team. For further information contact Linda at 087-2281282 or themallpractice@eircom.net.

Locum dentist required for three days per week in a modern, busy city centre practice in Galway for up to seven months (maternity leave) to start immediately. Tel: 087-0523495 or mail to niamh@galwaydentist.com.

Positions sought

A Trinity College graduate with five years' experience in oral surgery looking for 1-2 sessions per week in a dental practice either in or outside Dublin. I am training to become a maxillofacial surgeon. Tel: 087-4198529.

Cork - experienced associate with a view to partnership in a modern fully equipped dental practice, full or part time. Tel: 087-9330601.

Female dentist seeks associate position – Dublin area. Previous experience as VT and associate. Available to start from October (full or part-time).Tel: 087-9344781 after 6pm.

Dentist seeking locum position in Cork area available from December, for up to six months. Tel: 0044-77-31437162.

For sale

Drogheda, Co Louth – excellent location. Two modern fully equipped surgeries. OPG, computerised, space for further development. Contact casta@indigo.ie or tel: 01-8226074.

For sale/lease. Spacious ground floor premises (c. 1000sqft) with FPP for dental surgery in Mullingar Town. Opposite Mullingar/Longford General Hospital. Own front door and off street parking. Enquiries to Murtagh Bros. Auctioneers 044-42512.

For sale: dental unit ADEC performer, good condition, good working order, re-upholstered, €1,500. Telephone 087-2807304 (evenings).

Long established Dublin practice for sale – Stillorgan/Kilmacud area. Tel: 01-2985001.

For sale: successful group practice with strong existing patient base. Excellent turnover, located in Mallow town. Tel: 086-8077604.

Dublin south: single-handed OPG hygienist, two-surgery well equipped, superb location, leasehold – low rent, very busy, great figures. Negotiable, flexible. Tel: 086-8075273.

Dental practice for sale – Dublin 12. Established 1980, full book, freehold and parking. Dentist retiring. Tel: 087-7541833 or 01-4974266.

For sale: Ardet 90/10 OPG and Ceph combined. Lightly used. Full service history available. Buyer collects - €6,500. Also, Durr X R25 Processor – full service history - €1,500. To view phone 01-6606589.

Almost new x-ray machine for sale with operational manuals in mint condition. Reasonable price. Dentist retiring. Tel: 071-9662099 after 6pm.

Midlands dental practice. Leasehold single surgery, with excellent potential for expansion in rapidly growing area. 70 miles from Dublin. Tel: 087-6826840.

Wicklow. Ideal location. Very busy. Top class facilities/equipment. Computerised/OPG. Superb patient marketing software. One man two surgeries. Room to expand. Tel: 086-8075273.

Galway city. Single handed long established. Two surgeries, very busy. Huge potential. Strictly private/PRSI. Realistic price. Fast sale. Goodwill option. Tel: 086-8075273.

Dublin city three miles. Long leasehold. Thriving area. 3 surgeries. OPG. Long established. Huge new patient numbers. Flexible options. Price negotiable. Tel: 086-8198887.

Galway. Sale associate locum. Three surgeries. Top class equipment computerised. Fantastic location. Booming practice. Excellent profits. All options considered. Speedy reply. Tel: 086-8198887.

Kildare. Fantastic potential. 45 minutes Dublin. Freehold/Leasehold option. Long established. Two man. OPG/Hygienist. Very busy. Expansion possible. No medical card. Realistic price. Tel: 086-8075273.

Galway. Unique opportunity. Expense sharing. Superb well established. High quality - gross. Top class equipment computerised. Great location. Flexible all options. Including outright sale. Tel: 086-8075273.

Munster. Definite view – buyout. Booming town. Long established. 2 surgeries. Excellent equipment/staff. Expansion possible. Freehold/leasehold options. Full book. Great facilities. Tel: 086-8075273.

North Dublin. Superb opportunity. Definite view expense sharing. Needs enthusiastic progressive dentist. Three excellent surgeries. Full book. 40 minutes Dublin. Huge growth area. Tel: 086-8198887.

To let

Established general practice opening a new medical centre in north County Dublin shortly invites inquiries re: dental suite to let in the premises. Replies to Dr James Reilly, The Square, Lusk, Co Dublin. Tel 01-8437520 or 086-8338653 or email fingalmedi@eircom.net.

Premises suitable for dental surgery: Kilmallock, Co Limerick. Fast developing area, no dentist in the area. Lease or purchase option. Details from Carroll Auctioneers, Charleville, Co Cork. Tel: 063-89591 or 087-2559101.

Premises available to rent in Main Road, Fairview. Ideal for dental practice. Reception area, two separate rooms, kitchen and washroom. Tel: 087-2330877.

Luxury villa with heated private pool to rent near Nerja, Costa Del Sol. Special off peak rates. Tel: 087-6758069.

Shop to let. 700 sq ft. Suitable for dentist. Prime location. Ballinrobe town, Co Mayo catchment area. 12 – 15,000 population. Contact Michael: 094-9541036.

To lease: dental surgery to lease in rapidly expanding Kilkenny town. No competition. Thriving business, dentist forced to retire suddenly due to ill health. Tel: 087-2933759.

Fantastic property to let just off Main Square, Thurles. Ideal for dental practice. Six rooms (two very large), adjacent to Londis Foodstore, free/private parking, very reasonable rent, viewing a must. Phone Oran on 085-7353233 or email oranmo1@eircom.net for details/photos.

Diary of events

November 2005

Metropolitan Branch, IDA, Scientific Evening
Date: 24 November 2005
Venue: Davenport Hotel, Dublin

Greater New York Dental Meeting
Date: 25 - 30 November 2005
Venue: New York, USA

Metropolitan Branch, IDA, Christmas Party
Date: Saturday 26 November 2005
Venue: Gravity Bar, Dublin

December 2005

IDA Golf Society - Christmas Outing
Date: 2 December 2005
Venue: Portmarnock Links Golf Club
Contact: Dr Ciaran Burke, Tully House, Monastery Road, Clondalkin, Dublin 22 for details

IDA Annual General Meeting
Date: 3 December 2005
Venue: Herbert Park Hotel, Dublin - 11 a.m.

First International Workshop of the International Cleft Lip and Palate Foundation
Date: 3 - 6 December 2005
Venue: Balaji Cranofacial Hospital & Research Institute, 30, K.B. Dasan Road, Teynampet, Chennai, India.
For details contact www.cleftworkshop.com

January 2006

North Munster Branch, IDA, Scientific Meeting
Date 10 January 2006
Venue: Jurys Inn, Limerick, 8 p.m.
"Bone Grafting for the General Practitioner" - Dr Dermot Murnane

Metropolitan Branch, IDA, Scientific Meeting
Date: 26 January 2006
Venue: Ashton Suite, Alexander Hotel, Dublin
"Current concepts on management of tooth wear" - Prof. Brian O'Connell, Postgraduate Students from Dublin Dental Hospital

February 2006

Irish Academy of Aesthetic Dentistry - Paradigms of Aesthetic Excellence - A Day with Ueli Grunder
Date: 3 February 2006
Venue: Rochestown Park Hotel, Cork
For further information contact Catherine Nevin, Postgraduate Medical & Dental Board, University Dental School and Hospital, Bishopstown Road, Cork. Fax: 00 353 21 4941811.

Metropolitan Branch, IDA, Annual Scientific Course
Date: 17 February 2006
Venue: Conrad Hotel, Earlsfort Terrace, Dublin
"A Day with Lorenzo Vanini" Artist and Dentist

Metropolitan Branch, IDA, Non Scientific Evening
Date: 17 February 2006
Venue: Conrad Hotel, Earlsfort Terrace, Dublin - 8pm.
"An Evening with George Hook"

North Munster Branch, IDA, Scientific Meeting
Date: 20 February 2006
Venue: Jurys Inn, Limerick, 8pm.
"When the going gets tough - Problem solving in Endodontics"
- Dr Donagh Kennedy

March 2006

North Munster Branch, IDA, Scientific Meeting
Date: 14 March 2006
Venue: Jurys Inn, Limerick, 8pm.
"Forensic Pathology, a role for the Dentist" - Dr Marie Cassidy

The 12th International Dental Congress of the Egyptian Clinical Dental Society
Date: 22-24 March 2006
Venue: Cairo, Egypt
For more information contact ecds12@egycalendar.com

Metropolitan Branch, IDA, Annual Scientific Day
Date: 30 March 2006
Venue: Aston Suite, Alexander Hotel, Dublin
"Smoking Cessation" - Dr Bernard McCartan

April 2006

Irish Dental Association - Annual Scientific Conference
Date: 27 & 28 April 2006
Venue: Royal Dublin Society (RDS), Ballsbridge, Dublin 4
For further information contact Joan Bracken, Tel: 01-2830499, Email: joan@irishdentalassoc.ie.

Social

Oral Cancer Meeting

Dental students Jennie Flanagan and Emma Ratigan at work at the Oral Cancer Conference, Faculty of Dentistry, RCSI, in November.

Claire Healy, Sarah Troute and Margaret Twomey at the Oral Cancer Conference, Faculty of Dentistry, RCSI, in November.

Stephen Flint, Anita Nolan and John Hamburger at the Oral Cancer Symposium, which was held at the Faculty of Dentistry, RCSI, recently.

Michael O Brien, Margaret McGrath and Christine McCreary at the Oral Cancer Symposium Faculty of Dentistry, RCSI.

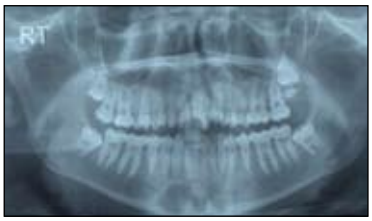
Also at the at the Oral Cancer Symposium, which was held at the Faculty of Dentistry, RCSI, were Prof John Beumer, Eddie Cotter and Ashok Songra.

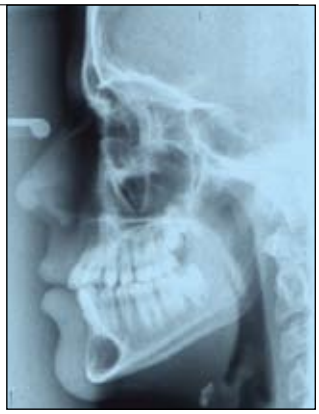
Ashok Songra, Michael O Brien, Noreen O Regan, Denise McCarthy, Eddie Cotter at the Oral Cancer Conference, Faculty of Dentistry RCSI.

Winter 2005 Quiz

Win a €150 Brown Thomas voucher!

This 17-year-old male Caucasian was referred to A/E following routine radiographic assessment prior to orthodontic treatment. OPG and Rt. lateral cephalogram show an oval radio-lucency 2.5cm in diameter, in the anterior region of the mandible crossing the midline.





What is the differential diagnosis?
What is the likely diagnosis?

Submitted by Dr Paul Cashman B.Dent.Sc SHO Dublin Dental School and Hospital

Autumn 2005 Quiz answer

The diagnosis is Hyperparathyroidism (Tertiary). The intra-oral reaction would be very aggressive for the more common secondary hyperparathyroidism. Thanks to all those who entered. There was an excellent uptake. Three people were close suggesting secondary hyperparathyroidism. The panel felt that radiographs, biopsy and blood investigations were essential. The winner is Ms Amy Moran Final Year Dental Student.

Investigations: 1) Radiographs (OPG, peri-apicals, +/- hands, spine and areas of bone pain) 2) Biopsy (intra-oral) subject to medical status 3) Renal function tests including blood and urinary calcium and phosphate levels) 4) Bone chemistry (calcium, albumen. total protein, alkaline phosphatase) 5) Parathyroid gland investigation.

Tertiary hyperparathyroidism is observed most commonly in patients with chronic secondary hyperparathyroidism and often after renal transplantation. The hypertrophied parathyroid glands fail to return to normal and continue to over-secrete parathyroid hormone, despite serum calcium levels that are within the reference range or even elevated. Secondary hyperparathyroidism is the overproduction of PTH secondary to a chronic abnormal stimulus for its production. Typically, this is due to chronic renal failure. Another common cause is vitamin D deficiency. All patients with renal failure should be monitored regularly with serum calcium, phosphorous, and PTH levels. Patients with secondary hyperparathyroidism usually have a low-normal calcium and elevated PTH.The phosphate level may vary based on the aetiology, tending towards high values in renal insufficiency and low values in vitamin D deficiency. Radiographic evaluation is limited to assessments of the bone disease. Obtain radiographs of sites of bone pain. Imaging of the parathyroid glands is not indicated unless primary or tertiary hyperparathyroidism is suggested.