



Journal of the Irish Dental Association

Iris Cumainn Déadach na hÉireann

Irish Dental Association

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Facing the Future
FUNdamentally



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The Journal of
the Irish Dental Association

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Editorial

The spring issue of the *Journal* has rushed up on us and nearly caught me unawares. There have been many changes and developments. The *Journal* will now be available on the Irish Dental Association website and members can obtain the whole manuscript (www.dentist.ie). We have been approached and are negotiating to have the *Journal of the Irish Dental Association* part of a number of scientific publications delivered to academic institutions around the world, thereby increasing our readership exponentially. The IDA Council has agreed to circulate the *Journal* to dentists in the Republic and the North of Ireland, again increasing our readership and hopefully attracting more articles. This has to be good news for authors wanting to have their work peer-reviewed.

It was great to receive a letter on one of our articles from Walter Alwright, one of my teachers from those grim and dark days in the late seventies and congratulations to him on his recent IDA Award.

There will be a change in the IDA's publishers from the next issue and the *Journal* would like to formally thank the current publisher's (IFP Media) In-house Editor, Daniel Attwood, for his effort over my three issues of the *Journal*. He has been very helpful, tolerant and easy to work with. We will be working with ThinkMedia for the next two years and it is expected that we can and will improve the *Journal* even more.

There is an increasing number of papers being submitted and reviewed. There is often a short delay in responding, as I cannot decide on publication until I have two positive reviews but please feel free to ring Fionnuala at the IDA office and ask for an update. All papers must be submitted to the Editor through the IDA office.

The Competition Authority has met and produced a document on dentistry, which in some ways will change what we do and how we do things, but in the end, quality work will continue to flourish. In Ireland, many dentists set high standards and provide quality dentistry. This has to be highlighted to the public.

The Irish Expert Body on Fluorides and Health produced its report Action Plan 2005 ISBN: 0-9551231-0-0 www.fluoridesandhealth.ie and the *Journal* has been asked to recommend readers to read it. The report stresses the importance of oral health as an integral part of general health and the effects of diet, stress, hygiene, smoking alcohol and injuries on oral health. It specifically recommends that fluoridation of piped public water at a level of 0.6 to 0.8ppm with a target level of 0.7ppm. It recommends an audit of present water fluoridation schemes. In adults, the use of fluoridated toothpastes is recommended and that fluoridated toothpaste should not be used in the under two-year-olds. How products are labelled and presented

is important and there is a need for further research and continued audit.

Articles in this issue highlight the surgical techniques of removing wisdom teeth in a dental practice setting, the tooth brushing dental abrasion saga and the difficulties and variations over antibiotic prophylaxis in bacterial endocarditis. We are grateful to Professor Addy and the *International Dental Journal* for allowing us to publish his article.

Antibiotic prophylaxis is controversial. It is often forgotten that prevention of endocarditis is also about good oral hygiene (brushing and chlorhexidine 0.2% MW), high quality dentistry as well as antibiotic prophylaxis.

1: Patients classified as high risk (valve replacement, previous endocarditis, shunts/conduits) require prophylaxis for all procedures.

2: Patients requiring sequential procedures should ideally have these performed at intervals of 14 days to ensure appropriate mucosal healing.

3: All cardiac patients (valve replacement) should be screened by a general dental practitioner and have all dental interventions performed prior to their cardiac surgery and if not possible

4: A delay of three months following their cardiac surgery is recommended.

Lesson of the month: beware, recently I have seen three patients with loose teeth for no known dental reason; one in an adolescent (lower molars), another in a young lady (anterior maxillary teeth) and the third in a middle aged lady (posterior maxillary teeth). Further investigations revealed lymphoma in the first two and an adenocystic carcinoma of the maxilla in the last case. Simple radiographs gave no hint of the diagnosis. Further investigations are required to find out why these teeth are loose and if no known dental cause (abscess, periodontal disease) is identified - think worst scenario. I have asked a colleague to draw up some simple guidelines for us.

Thanking you all for your enthusiasm and help and I look forward to seeing you at the Irish Dental Association Annual Meeting in April in Dublin.



Prof. Leo F A Stassen
Editor

News

Presidential news



Dr Gerry Cleary, President, Irish Dental Association.

The work of the Association continued as normal since the AGM and over the holidays. We have had some very important developments since that time.

Review of the Association

The PriceWaterhouseCoopers Review of IDA formed the basis of considerable discussion among members since the AGM and the IDA has now taken steps to move the process of putting the recommended Finance and Audit Committee in place. For governance purposes this is extremely important. The staffing structures proposed in the report have also been looked at carefully and it is felt there is a pressing need to recruit senior staff to assist Ciara. Advertisements will appear for this in the near future and the IDA will be moving to appoint somebody as quickly as possible to spread the workload at head office staff. The council has established an implementation sub-committee consisting of the executive committee to implement the PWC Review of IDA.

Volunteering for your association

During my speech to the AGM, I asked members to consider not waiting to be asked to volunteer for various committees of the Association, whether they are branch or national committees. Make it your New Year's resolution to volunteer to do whatever is necessary to re-energise all the local branches of the Irish Dental Association. Please don't wait to be asked - you know the people in your area who would be only too delighted if you approached them with a view to helping out at any level. Each of the Negotiating Teams (DTSS & DTBS) in this very important year are short by two members. This is very urgent and volunteers are needed.

With the promotion of Adrian Loomes (Elected Member) to the position of Honorary Treasurer Designate, Council co-opted Dr Keith Redmond to the position vacated by Adrian for the remainder of the term of office.

New website

Our newly designed website was also recently launched and there is a completely new look to our website. Eirvia has redesigned the site so if you have not logged on for some time then please have a look and let's start to use the site to its maximum potential - www.dentist.ie. Congratulations to all involved and especially the web subcommittee headed up by Dr Daryl Moroney.

Chief Executive appointed

Another very exciting development is the appointment of the IDA's new Chief Executive Officer, Ms Ciara Murphy. In response to an advertisement, the Association received 25 CVs for the vacancy, all of which were reviewed by the interviewing committee. This was co-ordinated by Jane Duncan of PriceWaterhouseCoopers who was the external adviser in this matter. Four people were interviewed and each of the four candidates impressed the interviewing panel. It was the unanimous decision of the interviewing panel, because of her experience over the past five years and her terrific hard work and dedication to the Association, that Ciara Murphy was the first choice. Over the holiday period, negotiations took place and a contract has been agreed and signed by Ms Murphy and the appointment was ratified at the IDA Council meeting on January 21, 2006.



Ciara Murphy, IDA Chief Executive Officer.

Dentists respond to Competition Authority report

The Irish Dental Association (IDA), the representative body of 1,500 dentists in Ireland, has responded to the publication today of a preliminary report on the profession by the Competition Authority. The thrust of the reports recommendations are clearly aimed at the Regulatory Framework governing the profession which is the responsibility of the Dental Council rather than individual dentists. The IDA said that it broadly welcomed the thrust of the reports recommendations. However, it warned that policymakers could not apply a purely economic approach to healthcare issues; "while we will endorse any responsible proposals to encourage competitiveness within the profession, we could not condone any proposals which prioritise competitiveness over patient welfare. Dentists - like other healthcare practitioners - have a duty of care with respect to their patients which must not be sacrificed on the alter of competition. There is an over-riding requirement to ensure the protection of the public."

The IDA also said that consumers should be aware that 80% of the population are entitled to free or subsidised dental care from their local dentist but because of the lack of promotion of this by Government, only a fraction of those entitled to actually took advantage of this facility.

In respect of specific proposals regarding expanding the services offered by dental hygienists and dental technicians, the IDA said that any move to broaden their areas of practice must ensure that the health and safety of patients is protected at all times; "ultimately we may need to examine what we teach hygienists and technicians rather than what we allow them to do".

In respect of advertising, the IDA confirmed that it has already established a committee to explore a Code of Practice in respect of the advertising of dental services and that the Competition Authority were aware of this fact.

New IDA premises



On Friday January 20, 2006, the IDA formally opened its new premises. In attendance were several past presidents of the Association, members of the architectural firm, WS Atkins, who supervised the work for members of council and our secretariat. Given the great effort that Dr Roger Grufferty put into this project, the IDA Council felt it was appropriate that the honour of opening the building was given to Roger and he duly performed the function. Congratulations to Dr Patrick Quinn, Kerry Branch, who won the competition to name the new building which will be IDA House.

Everybody who has visited the new premises is extremely impressed by them. It certainly is wonderful to sit in the council room and have everybody at the same table. Please drop in and visit if you are in Sandyford - you certainly will be proud of your Association when you see the building.

Public Dental Surgeons Seminar

The Public Dental Surgeons Conference was held in Kilkenny in November 2005 with a record number of delegates attending from all parts of the country. The seminar was organised by Dr Anne Crotty who was inaugurated as President of the Public Dental Surgeons Group Committee during the event.

There was a varied mixture of topics, which were delivered by experts in their field, with plenty of information to take back to the clinics.

Professor June Nunn's lecture on special needs was dedicated to the memory of our esteemed colleague, Dr Nico Droog, who spent many years working with special needs patients and assisted in the development of the special needs dental service in the Mid-Western area of the HSE. Nico died during 2005 and we remember him with great fondness.

As the Health Service Executive (HSE) continues to undergo dramatic change, we welcomed Mr Aidan Browne, the National Director of the PCCC, who agreed to speak at the seminar. Aidan Browne outlined to members the proposed new structures of the HSE. Unfortunately, not all the questions posed by members of the Association could be answered, which is a matter of grave concern for the Irish Dental Association. It became apparent that senior HSE management has no clarity on the future direction of the Public Dental Service.

It was wonderful once again to see the enthusiasm and interest of our members, demonstrated by the numbers attending and the questions posed. Many of the speakers commented how impressed they were with the audience.

The annual dinner was also well attended, with a fabulous disco afterwards. The variety of music and exotic dancing was entertaining. The highlight of the night was the display of Riverdance by some of our esteemed colleagues! Michael Flatley and Jean Butler would have been overwhelmed by the hidden talent displayed by members of our profession. Great craic was had by everyone!

We look forward to the next Public Dental Surgeons seminar, which will be taking place on October 18-20, 2006, in Adare, Co Limerick and is being organised by President Elect of the Public Dental Surgeons Group Committee, Dr Patrick Quinn.



Delegates in attendance at the Public Dental Surgeons Conference in Kilkenny.

Aidan Browne, National Director of Primary, Community and Continuing Care, HSE, addressing the conference.



Drs Nuala Healy, Cora McCarthy and Imelda Counihan at the PDS annual dinner.

Drs Margaret McDonnell, Padraig Creedon, Anne Crotty, Leo Burke and Maura Horan at the conference.



Dr Maeve O'Connor congratulates Dr Anne Crotty on her inauguration as President of the Public Dental Surgeons Group.

News

Letter to the editor

Dear Sir,

I refer to Dr Peter Cowan's comprehensive article "Treatment of Third Molar Teeth - Assessment" (JIDA 51, 4 pp 166-172).

I am astonished to learn that the NICE guidelines for the extraction of third molar teeth do not include the prophylactic removal of these teeth when it is apparent that normal eruption cannot be achieved. Cowan apparently endorses this lack of support for such an approach by NICE and other authorities by his bold statement that "the prophylactic removal of third molar teeth - a common practice in years gone by - cannot be supported as a concept today".

Apparently one is to be advised that when radiographic evidence indicates the presence of an unerupted horizontally impacted or other malpositioned third molar and when it is certain that normal eruption cannot take place, one should wait until the inevitable onset of infective pathology. The NICE guidelines list no fewer than eleven indications for surgical removal of third molars but only after two or more episodes of pericoronitis should surgery be contemplated.

Oral surgeons, (and although long retired from practice I include the writer of this letter), will readily recognise that surgical excision of partly erupted impacted third molars will usually be followed by a difficult and often painful healing period with open sockets occasioned by chronically or acutely inflamed soft tissue inadequate for satisfactory suturing. One should contrast this scenario with the postoperative experience following excision of completely buried teeth where, with careful surgery and adequate soft tissue for suturing, direct healing will take place in a short time and with undoubtedly less pain and swelling than following similar surgery where third molars will have already made connection with the mouth.

I ask - what happened to preventive dentistry among the NICE guidelines?

Yours faithfully

Dr Walter Allwright

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ASC conference



Why dental nurses should attend

This year the IDA has organised a different conference and a terrific programme for dental nurses. The highlights of the programme are:
Tim Carlson's (Indiana University) talk on dental materials
Julliette Reeves on wellness and wellbeing - the role of nutrition
Ray White on reducing stress at work
Psychologist Aidan Moran on The Winning Mind
Marielle Blake on the role of the dental nurse in orthodontics
Claire Keys' RDN talk on professional developments for orthodontic nurses.

Dental nurses programme

Friday April 28, 2006

- 9.00 Registration
- 9.25 Conference opening
- 9.30 Orthodontics - Orthodontics for Dental Nurses
- **Marielle Blake**
- 10.15 Psychology - The Winning Mind
- **Aidan Moran**
- 11.00 Coffee
- 11.30 Wellness and Wellbeing - Stress-Free Dentistry
- **Ray White**
- 12.30 Changing roles for the Dental Nurse - **Claire Keyes**
- 1.00 Lunch
- 2.15 Wellness and Wellbeing: Nutrition - **Julliette Reeves**
- 3.00 Dental Materials Operative - **Tim Carlson**
Manufacturing the final restorative material
- the nurse's role
- 4.00 Coffee
- 4.30 Wine reception
Presentation of certificates
- 5.15 Close of trade show and conference

Why dental technicians should attend

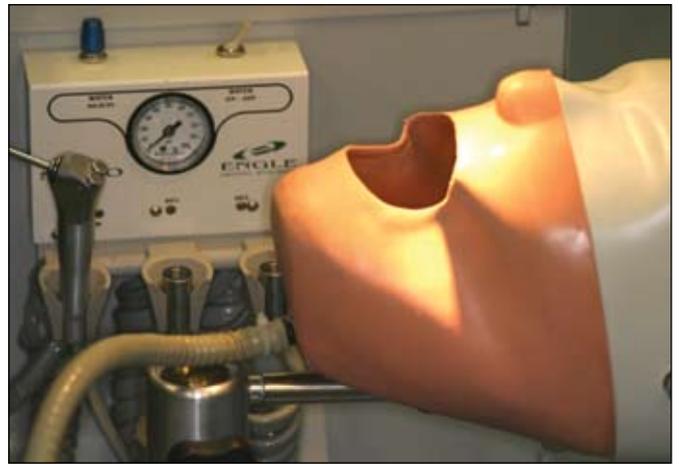
This year the conference has a terrific programme planned for the dental technician. The highlights are:
Michael Gillen from IBEC will talk on laboratory health and safety and relevant recent legislation.
Steve Rosensteil (Chairman Ohio State University) the author of the undergraduate prosthodontic textbook will speak on what patient's perceive as being nice appearance versus what the dental profession think is good appearance.
Jerry Andres of Indiana University School of Dentistry is going to provide a short overview on acrylics and advances in acrylics.
Glenn McEvoy will speak on the principles of laser welding.
Kevin o'Boyle looks at the different needs of the lab and the surgery in providing patients with porcelain veneers
North American prosthodontist, George Priest, talks about optimising aesthetics in implant restorative dentistry and to finish out the programme, and Gerry Andres will talk on maxillo-facial prosthodontics and silicone materials in maxillo-facial.

Dental technician programme

Friday April 28, 2006

- 9.30 Laboratory health and safety - **Michael Gillen** IBEC
- 10.15 Prosthodontics
- 10.30 What patients like in appearance - **Steve Rosensteil**
- 11.15 Coffee
- 11.45 Laboratory technology
- 12.15 Laser welding in a commercial laboratory setting
- **Glenn McEvoy**
- 12.30 Lunch
- 2.00 Acrylics then and now - **Gerry Andres**
- 2.30 Dental Ceramics - **Kevin O'Boyle**
- 3.00 Veneers: Laboratory vs Dental Surgery
- 3.30 Coffee
- 4.00 What's in a face? - **Gerry Andres**
- 4.30 Implant Restorative Aesthetics
- 5.00 Optimising Aesthetics - **George Priest**
- 5.15 Close of programme

ASC Conference



Pre-conference courses

The IDA Annual Scientific Conference 2006 has a number of interesting pre-conference courses.

Composite layering

This hands-on composite layering course, which is sponsored by Optident, is being moderated by Dr Paddy Crotty, assisted by Drs Seton Menton, Mairtin Brennan and Frank Quinn. The aim is to give people hands-on experience with the layering of dental composite. It will be held in the undergraduate teaching laboratory of the Dublin Dental Hospital. Each work area has a built-in manikin head, high speed, low speed and suction and also an individual flat screen monitor to follow both the demonstrations and techniques clearly. The course is booking out extremely rapidly and is limited to 35 places.

Live surgical demonstrations

Live surgical demonstrations via a built-in video link between the operating theatre at the Dublin Dental Hospital and the lecture facilities allows for two special pre-conference demonstrations.

The first live surgical demonstration is scheduled for the morning and will be on oral surgery. Professor Leo Stassen and Dr Peter Cowan will each operate on a patient demonstrating different surgical techniques. There will also be an overview and a lecture form each of them on different aspects of oral surgery.

In the afternoon an implant surgical demonstration will take place. Drs Paul O'Reilly and Kevin O'Boyle will demonstrate two different techniques. There will be an immediate loading of a single unit dental implant. The purpose is to demonstrate the advantages of placing an implant with a temporary crown on it immediately and there will be an overview of the different methods of doing this. The second surgical demonstration will be of the Noble Guide technique and a patient will have six implants and a permanent bridge placed all within one hour. There will also be an overview of this exciting new technique.

Lecture-based programmes

Two lecture-based programmes will also take place at the Dental School. In the morning, Dr Dermot Canavan will give a three-hour course on pain control. Practical Solutions in Diagnosing Facial Pain will highlight the difficulties encountered in differentiating between purely dental pain and pain from other sources that mimics toothache. The practical aspects of clinical examination of the head, neck and orofacial region will be demonstrated. Specific methods of assessing the orofacial area (including some local anaesthetic techniques) will be demonstrated to facilitate differentiation between pain that is pulpal and pain that is referred to the orofacial region. The course will also review problem solving in local anaesthetic as well as the clinical and practical demonstrations.

In the afternoon, Steve Rosensteil will give a prosthodontic update aimed at the general practitioner. We are delighted to have Steve Rosensteil on the programme. His textbook is now the most widely used in prosthodontics and indeed around the time of the conference he will have launched the third edition of the book, which will be illustrated in colour. Steve will review a considerable amount of the material from the new book.

Course choices

Given the structure of the pre-conference programme, delegates could consider any of the above courses or the following combinations and at a special price of €275:

- Implant surgery and oral surgery
- Oral surgery and prosthodontic update;
- Pain management solutions and implants surgery
- Pain management solutions and prosthodontic update

The composite layering course is a full-day programme and does not allow the option of additional courses. Another interesting note about the pre-conference composite layering course is that the Metropolitan Branch Annual Scientific Day is with Dr Lorenzo Vanini. This is a lecture-based programme with demonstrations by Dr Vanini. The presenters at the composite layering course will be demonstrating and allowing you to use the materials that Dr. Vanini will be presenting and this course is also sponsored by Optident.

ASC conference



Social events

The organising committee is very keen to ensure that there is a lot of fun at this year's conference in Ballsbridge. The atmosphere and fun element at the conference every year is something the committee wants to maintain and ensure is as good as it ever was.

Thursday evening April 27

La Grand Fiesta - Nobel Biocare

Nobel Biocare is generously sponsoring a conference party for every registrant on Thursday evening in the Serpentine Hall (conference partners' area) from 5.30pm. Beer and wine, finger food, music, lots of friends and don't forget every registrant (dentist, nurses, technicians, and hygienists) is invited. To ensure the evening is helped along, 3I is sponsoring a Late Evening Music Session in the Herbert Park Hotel bar from 10.30pm. Both these events are included in your registration

Friday April 28

The usual fun run, which starts at 7:45am, will go through scenic parts of Ballsbridge, Herbert Park and Sandymount seafront. All proceeds raised will be donated to a charity and if you have any suggestions for which charity we would be delighted to hear them.

On Friday afternoon there is the annual guest golf competition.

The formal gala dinner will take place at 7.30 for 8.00pm in the Herbert Park Hotel. Places are limited to 200 people, and guests and speakers already account for 140 of those, so if you wish to attend, please book early. The dinner will be black tie and will cost €60 per person.

Instead, you might want to consider a less formal social dinner evening, which costs €45 per person. A dinner dance will be held in the Hilton hotel, Charlemont Place and promises to be a great evening and you are guaranteed no speeches!

Saturday April 29

The Dublin Dental Hospital is hosting an alumni morning for graduates. There will be a tour of the hospital, an address by the

Dean, Professor Noel Claffey, and a review of the role of dentistry in Trinity College by Professor Brendan Kenneally. This will be followed by a light lunch and buses will be arranged for the golf outing later that afternoon.

Saturday afternoon sees the President's Prize Golf Outing. Tee time is reserved from 12.30 and limited to 70 places in Glen of the Downs Golf Club.

Continuing the alumni theme, on Saturday evening there will be class reunions.

Sunday and all day Monday (Bank Holiday) are free for you to enjoy Dublin.

Accompanying persons

A full programme of events for accompanying persons is also being organised. This will include Dublin sightseeing on Friday and perhaps an escorted visit to the Dundrum Shopping Centre on Thursday. Further details are available on www.dentist.ie.

Recognising professional dental qualifications in the EU

The EU's Directive 2005/36/EC, which was adopted in September 2005, consolidates and modernises the rules regulating the recognition of professional qualifications. On 20 October 2007, at the end of the transposition period, this Directive will replace 15 existing directives in the field of the recognition of professional qualifications. The existing Sectoral Directives will remain in force until then. In short the new directive lays down the rules for dentists moving from country to country within the EU.

The new Directive will include the provisions of the sectoral directives for seven professions: doctors, dentists, pharmacists, nurses, midwives, veterinarians, and architects.

It constitutes the first comprehensive modernisation of the community system since it was conceived 40 years ago.

A number of changes have been introduced compared with the existing rules, including greater liberalisation of the provision of services, more automatic recognition of qualifications and increased flexibility in the procedures for updating the Directive. The EU Commission also proposes to develop its cooperation with member states in order to keep citizens better informed about their rights and give them more help in getting their qualifications recognised. The abolition of obstacles to the free movement of persons and services is one of the objectives of the EU.

For EU citizens, this includes, in particular, the right to pursue a profession, in a self-employed or employed capacity, in a member state other than the one in which they have obtained their professional qualifications.

In addition, directives shall be issued for the mutual recognition of diplomas, certificates and other evidence of formal qualifications.

Below is a synopsis of the main provisions of the 256 page directive, as they relate to the dental profession.

Disciplinary rules

The service provider should be subject to the application of disciplinary rules of the host member state.

Basic formal qualifications of dental practitioners

The Directive allows freedom of establishment and of service provision for a dentist, provided s/he is in possession of evidence of formal qualifications, issued by the competent authority of the member state, confirming that the person has undergone training that meets the minimum conditions.

Consequently, a dentist can establish legally in a member state if s/he has a recognised dental qualification. From this member state of establishment s/he can move to another member state for either permanent provision or for temporary and occasional provision of services.

Automatic recognition of diplomas

The recognition of professional qualifications for dentists (and doctors, pharmacists, nurses, midwives, veterinarians and architects) is based on a system of Europe-wide recognised minimum training standards. Automatic recognition also applies for dentists from Italy, Spain, Austria, the Czech Republic and Slovakia with training under the professional titles listed.

Prerequisites

They must have started their training by the reference date listed in the annex - at the very latest.

They must have evidence of formal qualifications accompanied by a certificate of the competent authority stating that they have pursued their professional activities for at least three consecutive years during the five years preceding the award of the certificate.

Exceptions from the system of automatic recognition

The general system for recognition of evidence of training will apply for dentists:

- If they have started their training by the reference date listed in the annex - at the very latest.
- They don't have evidence of formal qualifications accompanied by a certificate of the competent authority stating that they have pursued their professional activities for at least three consecutive years during the five years preceding the award of the certificate. In this case there is no automatic recognition, although certain provisions will apply.

Third country diplomas

A qualification issued by a third country will be recognised as evidence of formal qualification throughout the EU as soon as the holder has three years' professional experience in the territory of the member state which recognised that evidence. An example of this could be a Portuguese dentist having obtained his/her diploma in Brazil and, after three years practice in Portugal, would be free to practise in any other EU country.

Knowledge of languages

Persons benefiting from the recognition of professional qualifications shall have knowledge of languages necessary to practise in the host member state.

Approval by health insurance funds

Some member states require persons who acquired their qualifications in their territory to complete a preparatory period of in-service training and/or a period of professional experience so as to be

EU news

approved by the health insurance fund.

This obligation shall be waived for the holders of evidence of professional qualifications acquired in other member states.

Dental specialities

Automatic recognition continues to apply for the 52 existing medical and dental specialities common to at least two member states. In the case of dental specialities, oral surgery and orthodontics are automatically recognised.

In the case of seeking recognition for a new speciality, it must be common to two-fifths of the member states.

Rules for professionals moving to another EU state

The migrant will be subject to the rules of the host member state. The service provider moving temporarily to another EU state will also be subject to the professional rules and the disciplinary provisions of the host member state.

Updating of training

Minimum standards of knowledge and skills of dentists can change because of scientific and technical progress. Minimum standards can be updated by a regulatory committee composed of representatives of all EU member states.

The Regulatory Committee replaces the Advisory Committees of the seven professions still covered by the sectoral directives. The European Commission must ensure suitable involvement of the representative professional organisations, also at European level.

Administrative cooperation

Competent authorities of the host and the home member state will cooperate closely to facilitate the implementation of the directive. In the case of service provision or establishment, competent authorities of the host member state may ask competent authorities from the member state of establishment to provide information on:

- The legality of the service provider's establishment
- His/her good conduct
- The absence of any disciplinary or criminal convictions

Professional cards at European level

Further to the explicit wish of the European Parliament, the directive now foresees the introduction of professional cards at EU level by professional organisations. They can contain such information as:

- Professional qualifications and experience
- Legal establishment
- Penalties related to the exercise of the profession
- Details of the relevant competent authority.

1/2 Bicon

Business news

All-ceramic restorations

The IPS e.max system is the latest all-ceramic innovation from Ivoclar Vivadent. It enables all-ceramic restorations to be made using either CAD/CAM or press technology. Whichever process is used, the restoration is then finished with the universal Nano-Fluorapatite Glass Ceramic, e.max ceram. It offers an exceptional balance between colour saturation and translucency. For further details visit www.ivoclarvivadent.com.

Ivoclar Vivadent has launched its latest Apexit Plus non-shrinking root canal sealer. Its active agent, calcium hydroxide, promotes natural balance and health in periapical tissues unlike materials containing formaldehyde, various antibiotics or antiphlogistics. Flowable, it expands slightly when set to permanently seal root canals and eliminate the risk of apical leakage, the frequent cause of endodontic failure. Dispensed via its automix syringe and either a disposable fine Intra Canal Tip or lentulo spiral spreader, it remains usable for over three hours.

In addition, Ivoclar Vivadent has also launched ApexCal a ready-to-use calcium hydroxide paste for use as a temporary disinfectant dressing in root canal therapy. It is also recommended for both direct and indirect pulp capping. Non-setting, it is easy to remove when required. pH 12.5, it is strongly bactericidal and has a radiopacity of 400% Al, which makes it easy to identify radiographically. It can be dispensed deep into the canal either via the integrated 0.3mm diameter application tip or a lentulo spiral spreader.

For further details visit www.ivoclarvivadent.com.

Nicotine not proven to cause cancer

According to research, 41% of current and ex-smokers believe that nicotine is the most harmful substance in a cigarette. One of the major misconceptions about nicotine is that it causes cancer when in fact nicotine is not proven to cause cancer. There are more than 4,000 other chemicals in cigarette smoke, many of which are known to cause cancer.

Research launched recently by Nicorette reveals that current and ex-smokers are not aware that carbon monoxide, tar and other chemicals contained in a cigarette are in fact more damaging to smokers' health. The research was conducted by Millward Brown IMS, who surveyed 1,200 adults aged 15 years and over in June 2005.

Another Nicotine myth is that it causes the yellow stains that are regularly seen on smokers' fingers and teeth, when in actual fact it is the tar that gives rise to the unsightly yellow-brown stains on smokers' fingers and teeth. Nicotine does not cause cancer or COPD, two of the major diseases caused by smoking. Carbon monoxide and other substances are the main cause of cardiovascular diseases.

"Many smokers would like to give up smoking but are finding it difficult. They need all the support that we can give them to kick the habit," says Owen Daly, Community Pharmacist, "Nicotine Replacement Therapy (NRT) can be used to curb cravings amongst smokers. While nicotine is the addictive part of a cigarette it is the other substances in smoking that are damaging to health and it is important that smokers understand that," he added.

The Nicorette research further revealed:

- 51% of smokers would like to stop smoking;
- 43% of them would like to give up in the next three months;
- 18% are currently trying to give up.

Nicotine is an addictive drug, which is rapidly absorbed into the blood when smoked, reaching the brain within ten seconds. NRT provides much lower doses of nicotine than cigarettes, which are released slowly and in a controlled way over a shorter period of time. This makes NRT a much safer way of delivering nicotine to the blood and aids in abstaining from smoking completely. The addictive nature of nicotine in medications such as NRT has proved to be very low compared to the risk posed by tobacco products.

Combined data from over 100 published long-term clinical trials have shown that smokers who use NRT are twice as likely to succeed stopping smoking compared to smokers who use willpower alone. The World Health Organisation advocates NRT as a valuable tool in the fight against cigarette smoking, and supports its use by smokers who wish to quit completely or temporarily abstain from smoking. For more information on NRT and help to give up smoking you can log onto www.nicorette.ie.

Piezosurgery

The latest model Piezosurgery II has been launched and comes with built-in programmes for bone surgery (bone Types D1 - D3 plus "Special") together with one-touch power settings for perio and endo inserts, variable fluid control and automated cleaning cycle.

Piezosurgery II has the widest range of insert tips for all types of bone cutting and harvesting. The system can be used in oral surgery, implantology, surgical orthodontics, endodontics and periodontology. The modulated ultrasonics ensure that no damage occurs to soft tissue increasing the safety level of intra-oral surgery in such procedures as sinus lifts and nerve transpositions as well as in less complex cases.

The unit can be sterilised up to 135°C and has a two-year warranty. For further information visit www.generalmedical.co.uk.



Bone surgery made easier.

Interview

Meeting the Dental Council President

Dr Martin Holohan, President of the profession's governing body, the Dental Council, speaks about the future of dentistry in Ireland and how his role as President will influence the profession's future direction.



What are the main challenges facing the dental profession in Ireland and how they may be overcome?

In my opinion, professional self-regulation is a privilege granted to us by government on behalf of the public.

However, in order to guard and protect this privilege, professional regulators must maintain and foster a 'public interest' culture and be seen to promote this culture everywhere. Policy documents should reflect and explain how each option will advance and support the public interest mandate.

I feel the profession needs constant reminding as to the role of the regulatory authority and how it supports the mandate. It is my

hope that in the current year as part of our Business and Corporate plan that Council will hopefully succeed in developing a two-way communication between the Dental Council and registrants.

The Dental Council is cognisant of the changes occurring in society's understanding of quality assurance and continuing competence. Continuing education as a method of ensuring practitioner competency has a long history in our profession. In addition adherence to a code of ethics, combined with education and training is integral to our continued ability to self-regulate the practice of dentistry.

I would consider that in the future, introducing compulsory professional development and education, would be necessary for continued registration. Such a move will ensure that professionals are up-to-date, their professional performance is up to the standard required and that their conduct meets the standard set out in ethical guidance documentation. However, I wish to emphasise that the Dental Council recognises the high standards of dentistry that has, and is, being delivered in the country at present.

I consider that a modernisation programme and change to the Dentist Act is required to extend the range of the Council's powers and make it a more effective and efficient regulator. Since the Dentist Act was enacted in 1985, numerous misgivings have been raised by previous Dental Councils where it was felt that the Dental Council was inhibited and restricted in its role. Legislative change would allow the Dental Council to strengthen its role in protecting good oral health and high standards.

To this end, I am conscious of the need to work closely with Government to enact the appropriate legislation, with organisations representing patients' and consumer interests and most importantly of all, with professional bodies and groups who represent the professions. By including all members of the dental team, dentists, hygienists, dental nurses and technicians we will be able to extend the protection offered to patients and recognise the professionalism and contribution of all members of the dental team.

What will be the most significant changes in the dental profession in Ireland in the next decade?

As a practicing dentist, I am very conscious of the changing technology and modern treatment modalities coming on stream on a regular basis.

Interview



One has only got to look at evolution of dental implantology over the past 20 years into a treatment modality which is proven, reliable and successful.

An ever-accumulating body of evidence has identified certain systemic diseases, conditions and behavioural factors that play important etiological roles in the development and perpetuation of periodontal disease. In addition, recent findings have provided compelling evidence regarding the impact of periodontal disease on the overall health of the individual.

Because dental and systemic health are inextricably intertwined, dental education must provide proper role models so that dental students can be exposed to the practice of modern dental techniques in a practice setting.

I consider that advertising which is honest, and not misleading or misrepresentative of dental practice, will be the norm ensuring that the public will have greater information available to them on choices of treatment, costs, preventative measures on oral/systemic health.

It is difficult to anticipate the role of Government over the next decade and how it will impact on Dentistry. At present the position of Chief Dental Officer is vacant and has been for some time, so that the one individual who would possibly advise the Minister for Health and Children and provide direction for the future is missing. I would consider it both vital and necessary that the filling of this post is expedited so that the views of the profession and public alike can be brought to the Government table and given the over due consideration it deserves.

Government funding of dentistry both in the public and private sectors has to be increased to avail of the changing technologies and modern treatment modalities that should be available to all

members of the public and reflect the high standard of care that is currently being delivered.

What is the role of the President of the Dental Council?

I hope to bring an integrated perspective, experience and a collaborative spirit to the Dental Council. I trust that the many years serving both the IDA and previous Dental Councils will have given me some insight into how I can use those experiences for the benefit of the Dental Council.

I would consider my general responsibilities as President would include:

- Provision of leadership and direction for the future
- Provide primary support to the staff with the assistance of the Vice President and members of the Finance and General Purposes Committee
- Attend and chair all Council and Finance and General Purpose Committee meeting
- Liaise with the other committee chairpersons in advancing the business of the Dental Council
- Maintain cohesion and unity of purpose within the Dental Council through dialogue and communication.

What do you hope to achieve during your term?

Since my election as President I have asked myself how the Dental Council is going to evolve.

Our role as a Dental Council is to register and control persons engaged in the practice of dentistry in a fair and just manner. I feel that previous Dental Councils and the present Dental Council have, and are, able to achieve both goals, regulating the professions in a credible manner whilst being fair and just towards registrants.

It is my intention that the three statutory committees of the Dental Council: Fitness to Practice; Education and Training; and Auxiliary Dental Workers set out strategic goals and set a programme for the next five years.

This review will provide the Dental Council with an opportunity to consider, identify and commit to specific goals and priorities that will support the Council in its work as a strategic, responsible and organised governing body.

What are your immediate aspirations for the Dental Council?

A Dental Council acknowledged by dentists, dental hygienists, dental nurses and the whole dental team, the public and the government as a highly effective regulatory body, protecting the public interests while treating registrants with fairness, justice and due respect.

A Dental Council instrumental in the progression of the standards of education and practice, promoting high standards and challenging all members of the dental team to deliver quality care, increasing respect for the professions thereby reducing the likelihood of public cynicism and increasing the goodwill of the public.

A Dental Council with its members nominated and elected on the basis of what they have to contribute, with its committees working

Interview



as cohesive and coherent teams, focusing on making good decisions, managing its resources responsibly and maximizing opportunities as they arise.

A Dental Council that sets aside any personal interests or the interests of small constituencies in favour of the Dental Council's broad interests of effective, fair and just regulation of the professions.

A Dental Council whose members have open minds, ready to advocate but also ready to listen and learn from the views and insights of their colleagues.

A Dental Council valued by its registrants and seen as a meaningful deterrent against bad practices that place the public at risk and damage the reputation of the dental profession.

A Dental Council staff who feel valued, respected and appreciated. Professionalism to me implies a pride in work, a commitment to quality, a dedication to the interests of the client and a sincere desire to help. In modern dental practice, with its unremitting pressures, some of these traits can be neglected. I would hope to bring these ideals back to the forefront during my term of office.

Explain the role and authority of the Dental Council and how it is structured

The Dental Council was established under the provisions of the Dentist's Act 1983.

Functions

The general concern of the Dental Council as identified in the Act is to promote high standards of professional education and professional conduct amongst dentists. Its clear mandate is to look after the public interest.

The main functions assigned to the Dental Council under the Act are:

- To establish, maintain and publish a Register of Dentists and a Register of Dental Specialists and to provide for the registration and the retention of dentists' names in the registers.
- To satisfy itself as to the adequacy and suitability of the dental education and training provided in the State's dental schools to the standards required at examinations for primary qualifications and as to the adequacy and suitability of postgraduate specialist

training.

- To inquire into the fitness of a registered dentist to practise dentistry on the grounds of his/her alleged professional misconduct or his/her alleged unfitness to practise by reason of physical or mental disability and to take appropriate action. The Council has power, subject in some instances to confirmation by the High Court, to advise, admonish, censure, suspend, attach conditions to registration or erase a dentist's name from the register.
- To organise, with the consent of the Minister, schemes for the establishment of classes of auxiliary dental workers.
- To discharge the duties assigned to the Council pursuant to the provisions of EU Dental Directives.
- To advise the profession and the public on all matters relating to the functions of the Council under the Act.

Committees

The Act makes provision for the establishment by the Dental Council of statutory committees to act in relation to the Council's functions in the following areas:

- Education and training
- Auxiliary dental workers
- Fitness to practice.

These committees operate a number of sub-committees and establish ad hoc working groups when necessary.

There is also a Finance and General Purposes Committee, chaired by the President, which meets once a month. This Committee handles business between Council meetings.

Conclusion

As I have already stated this Dental Council must identify, articulate and live by a core set of values if it is to be successful over the long-term and truly make a difference.

A number of core values can be attributed to the Dental Council that guide our behaviour, shape our future and motivate us on an on-going basis: focus on our public role, focus on our registrants; professional integrity; and the individual performance of Dental Council members.

Finally, let me be personal for a moment. These are early days for me, but I am optimistic that the various pieces are in place, the members of the Dental Council, the development of a strategic plan, and the receptive ear of our profession to continue planning for a better future.

I strongly believe in the value of a collegial, enthusiastic Dental Council, one that operates on the basis of consensual collaborative actions, clear communications and a focus for achieving desired outcomes.

None of this can happen without the dedication and energy of the high-calibre members in the Dental Council. I have a growing sense of anticipation about what the members of this Dental Council may be able to accomplish together and I am confident that we have a Dental Council that will deliver through deeds and actions.

Interview

The land of a 1,000 welcomes

Dr Romana Czemko, one of many Polish dentists that have come to work in Ireland, speaks about her experiences since she arrived.

Originally from the city of Wroclaw in Poland, Dr Romana Czemko came to Ireland in October 2003 and worked here as a locum for four months before returning to Poland. However, she took the decision late last year to return to Ireland permanently and arrived to settle



in Nenagh, Co Tipperary with her family in September 2005.

Relocating from a city of 634,000 people to settle in a provincial town of just 6,500 inhabitants in rural Ireland presents its own difficulties. Add to these the cultural and emotional hurdles that a foreigner with few insights into Ireland and the ways of its people needs to overcome and one begins to appreciate the tremendous courage it takes to relocate here.

Despite this, Dr Czemko, like many from her country, left her homeland for Ireland for one simple reason: "I came here to search for a better life for me and my family."

Dr Czemko came with distinct advantages: she is a fluent English speaker and she is a qualified and experienced dentist. She qualified in Wroclaw in 2000 and went on to work as a dentist in Poland. When coming to work as a dentist in Ireland, Dr Czemko had to satisfy the Dental Council of her competency. To do this she was required to supply a copy of her degree certificate, plus a certificate from the relevant Polish authority confirming that her dental qualification was granted following an undergraduate dental course that satisfied the training standards laid down in Article 1 of the Dental Directive 78/687/EEC. In addition, a letter of good standing had to be supplied from the Polish Registration Board.

Her working experience in Poland and now in the public health service in Tipperary means she is aware of the differences in the standards of Irish public dental care compared to that in Poland. "The public sector in which I work provides a much better dental service than the public sector in Poland," she says. "I truly believe that the service we provide here is of a high standard."

With her dental degree, which involved five years' study plus a one-year mandatory internship, Dr Czemko found few difficulties securing work here. "I think it is simple enough for any English-speaking dentist to secure a position here in Ireland," she says. "Dentists are still in great demand, especially in the rural areas."

Recent comments by politicians that Irish jobs are being taken by eastern European immigrants and that work permits should be issued must be a concern. Not really says Dr Czemko. "I have always felt and still do feel very welcome here," she says. "The reaction of patients has always been very positive; they often ask where I am from and wish me all the best here. I have never had any negative situations, as a dentist nor as a private person since I came to Ireland. Actually, I always say, that I have never met such a high concentration of nice and helpful people in one place anywhere else in the world."

So does she plan to stay here? "For now our plans are associated with staying here, but who knows what the future brings?"

For Dr Czemko at least it appears Ireland is living up to céad míle fáilte.

Treatment of third molar teeth part II - surgery

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Abstract

The indications for removal of third molar teeth along with the pre-operative assessment of the patient have been outlined¹. This article reviews the surgical options and identifies the possible post-operative sequelae and potential complications of treatment.

Summary

Third molar surgery is by far the commonest procedure carried out by oral surgeons and some oral and maxillofacial surgeons. Against a background of potential complications and in an increasingly litigious world, it is important to be aware of the various treatment protocols.

Surgical treatment options - anaesthesia

Simple non-surgical extractions for an uncomplicated patient can be carried out under local anaesthesia in the surgery. However those extractions requiring a surgical approach, may be completed utilising local anaesthetic alone, local anaesthesia with sedation or general anaesthesia. In the past, most third molar surgery was carried out in a hospital under general anaesthesia, often on an in-patient basis. In more recent times however, there has been a gradual move away from general anaesthesia, with the majority of patients now being treated under local anaesthesia or local anaesthesia and intravenous sedation, on a day-stay basis. Day-stay general anaesthesia in a hospital or an approved facility may still be required for certain cases, e.g. in a medically compromised or extremely nervous patient, or if the extraction is particularly difficult. However, when intravenous sedation or general anaesthesia is provided for surgical extractions, it must conform strictly to Dental Council guidelines.²

Surgical approaches for lower third molar extractions

Once the decision has been made to utilise a surgical approach, there are a number of operative techniques available. The principles of flap design remain the same for each and should encompass the following: a broad-based flap to ensure adequate access and a rich blood supply; the margins should be based on sound bone to allow good healing to take place.

Incision and flap elevation



Figure 1: Clinical photograph showing the initial incision for lower third molar surgery.



Figure 2: Clinical photograph showing distal incision for lower third molar surgery.



Figure 3: Clinical photograph showing the raised buccal flap.

Scientific

The incision commences at the distal aspect of the second molar tooth, slightly buccal to the ridge crest. A full thickness incision is extended distally towards the retromolar area, becoming partial thickness as it extends upwards backwards and outwards across the external oblique line and into the buccal tissues. Here, the long buccal nerve traverses the external oblique ridge and care should be taken to avoid injury to this structure. At the anterior end of the flap, a crevicular incision is brought forwards around the second molar tooth, with or without an anterior releasing incision, depending on operator preference and the need for visibility. It should be noted that the facial vessels traverse the lower border of the mandible at the anterior attachment of the masseter muscle, in the first molar region, and so are potentially subject to damage when a releasing incision is carried into this area. A full thickness mucoperiosteal flap is then raised buccally, taking care not to damage or tear the tissue. The decision as to whether or not a lingual flap should be raised will depend on the approach being utilised. There are two main surgical options available:

1) The raising of buccal and lingual flaps with lingual nerve protection provided during bone removal with a Howarth's periosteal elevator or wider retractor. In this technique, it is important to be extremely careful when raising the periosteum on the lingual side so that the lingual nerve is included in the flap and is not damaged by the elevator. There are several reports in the literature suggesting that postoperative sensory deficit along the lingual nerve distribution, is caused through damage inflicted by the retractor during surgery^{3,4,5}. However, the potential safety factor should not be underestimated when it is necessary to remove distolingual bone during the surgical procedure.

2) The alternative technique is the totally buccal approach, which has gained popularity not only in the USA but more recently on this side of the Atlantic⁶. In this method, only a buccal flap is raised, leaving the lingual tissues completely intact. All treatment, including bone removal, is kept to the buccal side, with no incursion on to the distal or lingual aspects of the tooth. The rationale behind this method arose from reports of damage to the lingual nerve when a lingual flap is elevated^{7,8}.

Removal of bone

Having raised a suitable flap, any soft tissue remnants or granulation tissue should be removed with curettes and the area irrigated with sterile saline or water. As much of the tooth as possible should be identified using curettes before the drilling sequence commences. The basis for removal of bone is to reduce the bony support for the tooth and to decrease any impediment that would prevent its extraction. Bone is usually removed using either a round or a tapered fissure shaped bur with copious amounts of sterile saline irrigation. Albrektsson has shown that bone, if heated above 47 degrees Celsius for a minute, will tend to necrose⁹. A 'gutter' is created, from distal to mesial, around the buccal surface of the tooth. During bone removal using the totally buccal approach, it is essential that drilling is confined to the buccal surface only, with no attempt made to cross over to the distolingual area. Where a lingual flap has been raised

with protection in place, care still has to be taken when removing distal bone, particularly towards the distolingual aspect. In addition, it is important to remember to irrigate the soft tissues of the lip and cheek, which come into contact with the handpiece, during the drilling process to avoid trauma to these areas.



Figure 4: Clinical photograph showing the removal of bone using the guttering method.

Enough bone is removed to allow the relatively simple impaction to be elevated. In more severe impactions, e.g. horizontal or distoangular impactions, it may be necessary to section the crown of the tooth prior to elevating the root(s). In these situations, great care must be taken to avoid damaging the neighbouring tooth, bone or lingual tissues. For this reason, sectioning should be completed by cutting through the crown/root junction mesio-distally but only as far as two thirds of the way through to the lingual side. The crown may then be sectioned using a straight elevator. Having provided a point of application on the mesial aspect of the remaining tooth structure, it is then possible to deliver the root(s), which on occasion may firstly require further sectioning. The use of either a Couplands chisel, Warwick-James or other appropriate elevators, will facilitate this process.



Figure 5: Clinical photograph showing the sectioned crown of a lower right third molar.



Figure 6: Clinical photograph showing the application point for a Warwick-James elevator.

In certain circumstances, it may not be possible or indeed prudent to attempt to remove the entire root of a lower third molar due to anatomical anomalies of form or where the root lies in close proximity to the inferior alveolar canal. The patient will already have been informed that this may occur. For these cases, decoronation may be the safest and best option¹⁰. In essence, this technique deliberately leaves a portion of the root in-situ. Ideally, this is buried below the buccal and lingual bony walls of the socket, so that a full bony covering will result post-operatively. Decoronation should not be considered as a first choice option, nor is it recommended if there is periapical pathology present. However, reports suggest that it is a safe and effective method of avoiding damage to the inferior alveolar nerve, where this is in danger.

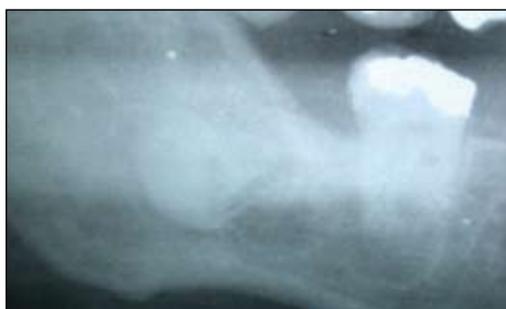
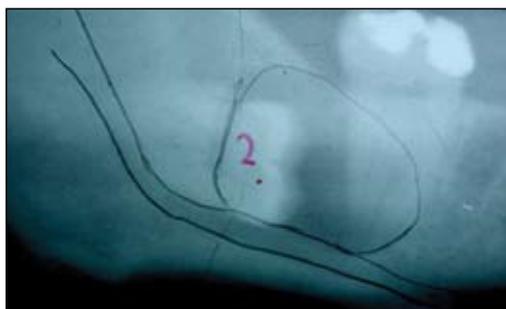


Figure 7: Radiographs showing a deeply impacted lower third molar closely associated with the inferior alveolar canal, before and after decoronation.

Socket debridement

Prior to suturing the wound, an important step is to ensure that the socket is scrupulously clean and free of any remaining debris e.g. soft tissue remnants, bony fragments, etc. Any loose fragments may provide a nidus for possible future infection. Therefore, careful curettage, filing or trimming of sharp bony fragments along with irrigation, particularly under the buccal flap, will help to reduce this possibility.



Figure 8: Clinical photograph showing socket curettage.

Suturing

Interrupted sutures are placed to close the wound. A minimum thickness of 2-3mm of tissue is sutured together on each side of the incision line so that the suture will not tear. However, the wound should be closed without tension to avoid post-operative breakdown and discomfort. Approximately 3mm of thread-end should remain when the suture is tied - too long and it will collect food and irritate, too short and it will open.



Figure 9: Clinical photograph showing placement of 3-0 silk sutures without tension.

The different types of suture materials available fall into two categories - resorbable (e.g. 3-0 or 4-0 vicryl rapide) and non-resorbable (e.g. 3-0 or 4-0 silk). The decision as to which type is used for each particular case will depend on operator preference and patient availability for follow up. Sutures should ideally be removed around 7-10 days after surgery.

Scientific

Upper third molar extractions

Upper third molar extractions are usually less complicated than in the mandible, although care must be taken with deeper impactions, to avoid damage to or displacement into, the maxillary sinus. In addition, there is a potential for tuberosity fracture when the tooth has an unfavourable root pattern.

Surgical access to the upper third molar region involves a crevicular incision commencing from the disto-palatal margin of the second molar tooth and extending buccally to the distal aspect of the first molar. A curved vertical releasing incision is made high into the buccal sulcus. From here, a buccal flap is raised and the tissue is pushed distally to denude the tuberosity region and this provides excellent access. The flap is maintained by a Laster's retractor, which increases vision and prevents distal displacement of the tooth during elevation. These points aside, the upper third molar extraction follows the same outline as already noted above.

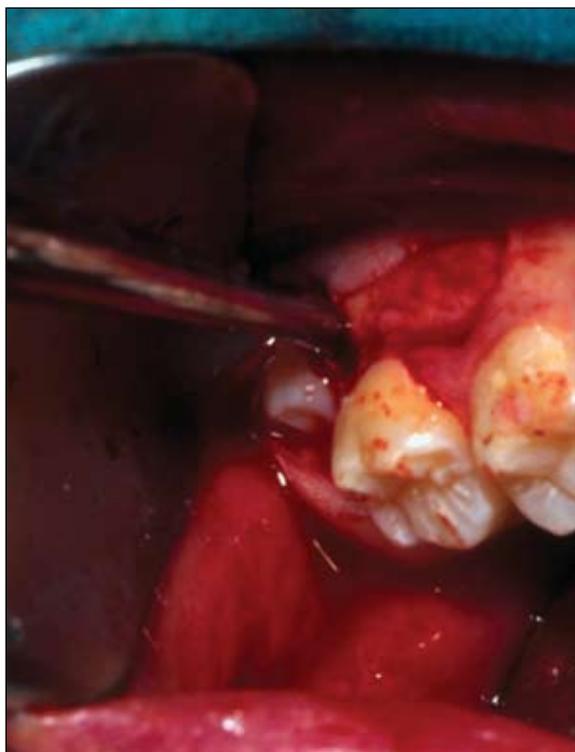


Figure 10: Clinical photograph showing the buccal flap maintained by a Laster's retractor.

Post-operative care

Immediate care includes placement of intra-oral gauze packs and extra-oral icepacks to help to reduce swelling. Analgesics are prescribed for 5-7 days.

The benefit of antibiotic follow up is uncertain. However, it is sensible to consider this option if there is infection or where a patient is medically compromised. It is useful to provide the patient with a post-operative note detailing the required protocol following a surgical extraction. This should include information about warm saline mouth rinses, analgesics and antibiotics, if being used.

The patient is given a contact number to call in the event of emergencies.

Delayed care includes a follow-up telephone call the next day to check-in with the patient and to confirm a review appointment for one week later. Any suture remnants are removed and the operation site checked for satisfactory healing.

Complications

The most common complications are swelling, pain, bleeding and infection. Swelling is common and is usually due to oedema, which is the body's natural response to trauma. In most patients, swelling will subside by the third or fourth post-operative day. The use of steroid medication intra-operatively is considered by many to be helpful in reducing post-operative swelling¹¹. However, swelling which persists and is firm and painful, is usually due to a haematoma. This is likely to take longer to resolve and should be closely monitored.

Although pain is to be expected following any surgical procedure, third molar surgery causes minor discomfort, which is well controlled by analgesics. Severe pain is likely to be due to infection. The most common cause of severe pain following lower third molar surgery is a dry socket. This condition occurs because of breakdown and retraction of the blood clot in the socket, which is thought to be due to the plasmin-fibrinolytic system¹².

The pain from a dry socket classically begins about five days following surgery, is constant, deep and boring, and is not relieved for long by analgesics. Patients with dry socket need to be seen immediately for treatment. Local treatment is with saline irrigation and the use of one of a variety of packs which can be placed within the socket to ease the pain (e.g. alvagyl, zinc oxide/eugenol packs, etc). The pack not only fills the open socket but also provides rapid relief through its local analgesia and antiseptic properties. If necessary, a systemic antibiotic may need to be prescribed in addition to local measures and the patient will often require bed rest. The condition is self-limiting and will generally resolve within 10 days.

Although minor oozing may occur post-operatively, heavier bleeding is a concern for the patient. Primary bleeding occurs on the day of the procedure and is usually due to a damaged vessel or incomplete suturing.

Pressure packs soaked in cold water and applied to the wound, will often resolve this situation. However, more persistent bleeding is likely to require careful review, pressure, haemostatic agent and a suture. Secondary bleeding occurs somewhat later and is almost always due to infection or trauma to the tissues. Haematoma formation will need to be treated with warm compresses and the infection by antibiotics, until the situation resolves.

Other potential complications include damage to the inferior alveolar, lingual and long buccal nerves with resulting alteration in sensation. With the inferior alveolar nerve travelling in a bony canal, good recovery can usually be expected with less than 1% of patients having persistent sensory problems. The lingual nerve is morphologically different from the inferior alveolar nerve as it is only covered by a thin layer of soft tissue at its usual site of injury. For this reason, when sectioned, the chances of complete resolution

are reduced. Robinson has suggested that if the lingual nerve is seen to be severed during surgery, it should be sutured with epineural sutures immediately or referred to an appropriate experienced maxillofacial surgeon.¹³ These sensory deficits need careful monitoring over the first six months. In most situations, complete resolution can be expected up to and around the sixth post-operative week. On occasion this may take longer (six months or more), but paraesthesia or indeed anaesthesia which persists after six months, is unlikely to return to complete normality^{13,14}.

Conclusion

Although much has changed in our approach to the treatment of third molar teeth over the past fifty years, there are several important principles which should be kept in mind. These include appropriate training programmes, continuing professional development and lifelong learning, maintenance of the highest standards of treatment and above all, adequate and compassionate care of our patients.

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Tooth brushing, tooth wear and dentine hypersensitivity - are they associated?

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Abstract

Evidence suggests that patients suffer the painful symptoms of dentine hypersensitivity when dentine is exposed and the dentinal tubule system is opened to the oral cavity to allow stimuli to trigger a neural response in the pulp via a hydrodynamic mechanism. The processes needed to localise lesions of dentine hypersensitivity include loss of enamel and/or gingival recession. Whilst tooth brushing with or without toothpaste appears to cause minimal wear to enamel (in the absence of acids), circumstantial evidence implicates tooth brushing with gingival recession and exposure of dentine. Other tooth wear processes, notably attrition and acid erosion, cause loss of enamel and can expose dentine. Therefore, sensitivity may result. How lesions of dentine hypersensitivity are initiated is a

matter of conjecture and based on extrapolating data from studies, mainly in vitro, to effect in vivo. Again, this circumstantial type of evidence suggests that abrasion by some toothpastes and erosion by dietary acid could open the tubule system. Little is known about the actual effect of de-sensitising toothpastes on lesions of dentine hypersensitivity even though they are formulated to either occlude dentinal tubules or block the neural response in the pulp. Clinical studies have produced contradictory findings for the efficacy of products and there have been extremely few evidence-based reviews. In conclusion, available evidence supports a probable link of tooth brushing, with or without toothpaste and an acidic diet, to both tooth wear and dentine hypersensitivity, and also suggests that dentine hypersensitivity is a tooth wear phenomenon. Although there is a need for more direct clinical and scientific evidence for these associations, it is recommended that they be taken into consideration when planning management strategies for the dentine hypersensitivity sufferer.

Key words:

Dentine hypersensitivity, abrasion, acid erosion, attrition, toothbrushes, toothpaste, acidic foods, enamel, dentine, tooth wear.

Introduction

Many aspects of dentine hypersensitivity are poorly understood by dental professionals and in particular the aetiology of the condition. This has led to a great deal of conjecture on the subject of how best to treat, or more importantly, manage the condition. Much confusion has been caused by conflicting views and opinions. Over recent decades much has been learned through research on dentine hypersensitivity and the former logical approach to the condition has been replaced by a biological strategy. Unfortunately, the next stage of an evidence-based understanding of dentine hypersensitivity has not yet been achieved. Thus, many of the conclusions drawn on aspects of dentine hypersensitivity are based on studies in vitro, epidemiological surveys, case reports and even anecdote. Data drawn from such sources provide evidence that may be more circumstantial than factual. One notable and important area of debate, even argument, is the role of tooth brushing and toothpaste in the aetiology, and therefore the treatment of dentine hypersensitivity. Indeed, there was for some time, and may be still, diametrically opposed views on whether dentine hypersensitivity was associated with good oral hygiene or poor oral hygiene. One circular argument that was often cited was that the pain of dentine

hypersensitivity adversely affected oral hygiene practices and resulted in a build-up of plaque and the development of gingivitis, which in turn caused more gingival recession thereby worsening the sensitivity and so the cycle was repeated. This paper will attempt to refute this supposition by reviewing available evidence, which, when taken overall, appears to link tooth brushing with tooth wear and in turn dentine hypersensitivity. By way of debating this question of associations a brief overview of tooth brushing, tooth wear and dentine hypersensitivity will be given.

Toothbrushing

The oral health and cosmetic benefits of tooth brushing with toothpaste are many and well known to the profession although perhaps not the general public¹⁻³. Tooth brushing per se probably only has the potential to achieve gingival and periodontal health through the mechanical removal of plaque. Even here, the toothbrush has limitations for the control of inter-dental plaque and therefore the prevention of periodontitis in the susceptible individual. Toothpaste has the potential to provide additional or adjunctive oral care benefits through chemical and physical means and the potential value of the most common ingredients are listed in Table 1.

Table 1: Function of common toothpaste ingredients

Ingredient	Function
Abrasive	Stain removal, polishing
Detergent (Surfactant)*	Foaming, stability, solubiliser, anti-microbial, plaque inhibitory
Binder (Thickener)*	Stability, consistency, appearance
Humectant*	Maintain moisture, sweetener
Flavour*	Taste, Feel
Colour*	Appearance

*Probably contribute to the consumer expectations for a toothpaste product and indirectly improve compliance with the professional recommendation to tooth brush regularly.

Thus, over recent decades, toothpaste formulations have been manipulated to deliver chemical and physical mediated benefits ranging from the prevention of caries and supra-gingival plaque and calculus, the removal of extrinsic stains and the treatment of dentine hypersensitivity^{1,3,4-7}. Indeed, there must be other avenues yet to be explored for the use of toothpaste as a delivery vehicle. However, are all of the outcomes of tooth brushing with toothpaste beneficial or is there the potential for harm? As with virtually all apparently beneficial therapeutic and preventive regimens in medicine and dentistry, a balance often has to be struck between positive effects and side effects. Moreover, possible interactions of treatment or preventive regimens with other ongoing regimens or processes may tip the scales toward side effects. Such considerations apply just as much to tooth brushing with toothpaste as they do to chemotherapy for malignancy except the risk benefit ratio is several orders of magnitude different for the individual recipient. The main issue for the potential for harm from toothpaste relates to the abrasivity of products as a cause for tooth wear and/or hypersensitivity arising from exposed dentine.

Tooth wear - dental tribology

Prevalence figures suggest that tooth wear must be the fourth dimension risk factor for the aesthetics, function and longevity of the human dentitions behind acute trauma, caries and periodontal disease⁸⁻¹⁰. Tooth wear is a composite term introduced to cover non-carious tooth surface loss by attrition, abrasion and erosion^{11,12}. Perhaps the current terminology should be updated to dental tribology to bring the dental profession in line with the scientific body of knowledge of friction, lubrication and wear (tribology). This would seem worthy of consideration since individual wear processes, attrition, abrasion and erosion are peculiar to dentistry and, in tribology, have little or no meaning and in the case of erosion are descriptively incorrect. Thus, in tribology, attrition is two-body wear, abrasion three-body wear and erosion chemico-physical wear^{13,14}. Whatever, it is generally agreed that tooth wear can rarely, if ever, be attributed to a single process but occurs as a result of combinations of the processes even though one may be dominant. A fourth factor may contribute to tooth wear, namely abfraction, by increasing the susceptibility of cervical hard tissues to abrasion and erosion¹⁵. Abfraction is a theoretical concept with evidence drawn from modelling using finite element analysis. Such evidence in turn appears consistent with the wedge-shaped wear lesions seen



Figure 1: Scanning electron micrograph image of a root surface covered by a smear layer. Note that there are no open tubules apparent.

at the buccal cervical area of certain teeth. Essentially, it has been proposed that high tensile stresses due to cuspal flexure on lateral excursions are caused at these sites and lead to microcracks in the enamel and possibly the dentine¹⁵. In everyone some degree of tooth wear occurs within a lifetime but, in a proportion of individuals, the wear reaches pathological levels^{16,17}.

Dentine hypersensitivity

Dentine hypersensitivity is the term used to describe the common, painful condition of the permanent dentition. Largely based on a suggestion in a 1983 publication¹⁸, the term was defined in 1997 after an international conference on the design and conduct of clinical trials for the treatment of the condition¹⁹. The definition states that: "dentine hypersensitivity is characterised by short sharp pain arising from exposed dentine in response to stimuli typically thermal, evaporative, tactile, osmotic or chemical and which cannot be ascribed to any other form of defect or pathology¹⁹ (disease²⁰)". The definition usefully gives a clinical description of the condition and suggests the need to exclude other causes of "dental" pain. As with the tooth wear processes, the terminology can be questioned as to accuracy. Common usage over decades and now the agreed definition, however, suggest that the term dentine hypersensitivity be universally adopted and the use of variant terminology be discouraged. In this respect, the suggestion has recently been made to term the sensitivity associated with periodontal disease and treatment, root sensitivity²¹ since it may have a different aetiology associated with bacterial penetration of the dentinal tubules²², and certainly it does not fit the definition of dentine hypersensitivity. The hydro-dynamic mechanism^{23,24} propounded to explain how appropriate stimuli trigger the painful response in the pulp gives insight into how lesions of dentine hypersensitivity develop. Essentially, dentine has to be exposed and the dentine tubule network opened to permit fluid movement under stimulation⁵. This has led some authors to suggest dentine hypersensitivity is a tooth wear phenomenon whilst acknowledging that much remains unknown or unproven about the aetiology of the condition²⁵.

Thus far, a brief description of the salient features of tooth brushing, tooth wear and dentine hypersensitivity have been given. Already, at a conceptual level, it would not be a giant biological step to consider that the three may be linked. The aim of this paper will

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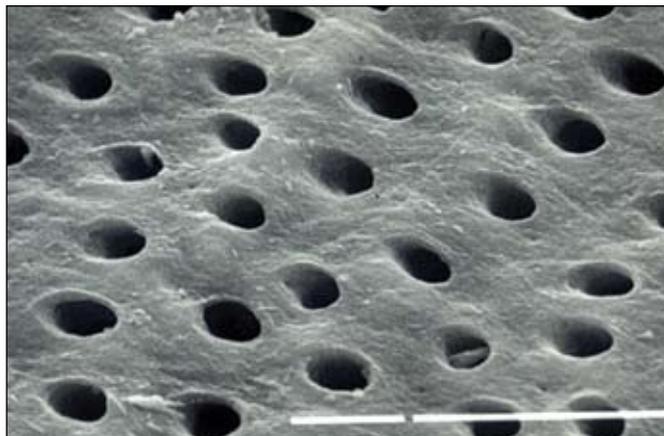


Figure 2. Scanning electron micrograph image of a dentine surface with no smear layer. Note presence of open dentine tubules.

be to consider the available evidence as to whether there is indeed a link. From the outset, it is important again to emphasise that much of the evidence of a link is circumstantial and not evidence-based. Nevertheless, there are numerous publications relevant to the various topics to be discussed and, for the sake of brevity, when possible reviews will be cited in support of statements made.

Does tooth brushing cause tooth wear?

Tooth brushing with toothpaste has been stated as the most common oral hygiene habit practiced by persons living in developed countries²⁶. Today's toothpastes and toothbrushes in the 6,000-year history of 'oral hygiene products' are relatively recent introductions and date back to the early twentieth century²⁷. Previous toothpastes/toothpowders could variably be described as revolting, highly abrasive, erosive and even potentially toxic^{7,27}.

Modern toothbrushes and toothpaste formulations have in place, or in development, national and, more importantly, international standards, which primarily relate to potential safety issues. Most relevant here is the abrasivity of toothpastes²⁸. By definition toothpastes contain abrasive agents, the role of which is to remove stains and other superficial deposits from the tooth surface. Different formulations contain different abrasive agents, some being more abrasive than others. Relative Dentine Abrasivity (RDA) is a numeric scale, which indicates the degree of abrasivity, and is useful for comparison between different pastes. A higher RDA value indicates a greater abrasive formula. The allowed pH range for toothpastes (pH 4-10) could be a cause for concern for tooth wear due to acid erosion but virtually all products worldwide are above a pH that might cause demineralisation (pH 5.5 for enamel, pH 6.5 for dentine), or the contained fluoride balances the low pH effect. Several important conclusions from available data concerning the abrasion of hard tissues by toothbrushes alone and with toothpaste can be found in recent reviews and are as follows^{7,29}.

In normal use:

Toothbrushes alone produce essentially no wear of enamel. Toothbrushes alone, over extended periods of use, measured in years, cause minute amounts of dentine wear, which may be restricted to the smear layer³⁰. The smear layer is an artificial surface structure that is formed when dentine is abraded or cut, The layer is about

one micron thick and made up of collagen and hydroxyapatite from the native dentine. The smear layer covers the underlying dentine and occludes the tubules (see Figures 1 and 2). Tooth brushing with toothpaste causes little or no wear of enamel because, with the exception of the rarely used non-hydrated alumina, contained abrasives are softer than enamel.

Tooth brushing with toothpastes does abrade dentine and, from a study in situ, the rate of wear shows a reasonable correlation to toothpastes' RDA values³¹. The cumulative abrasion suggests a loss of 1mm of dentine in 80-100 years of tooth brushing²⁹.

In abnormal or abusive use:

Tooth brushing with toothpaste will still have little or no effect on enamel, but abrasion of dentine can reach pathological proportions²⁹.

It must be emphasised that these conclusions are at best drawn from studies in vitro, there are a few in situ, and at worst from case or anecdotal reports. Unfortunately, studies in vivo that investigate toothpaste abrasion alone would be difficult, perhaps impossible, to design.

Therefore, the overall conclusion must be that if toothpaste abrasion was the only wear process ongoing in the mouth, in normal use, it would have no clinical significance, except potentially to open dentinal tubules and this will be discussed later. Abrasion by toothpaste, however, is not the only wear process and teeth are exposed to wear by attrition and erosion. It is unlikely that attrition and tooth brushing with toothpaste would co-operate to cause tooth wear except where attrition has exposed dentine, which is subsequently brushed. Abrasion, on the other hand, does have the potential to enhance tooth wear due to acid erosion.

The potential for erosion in the peoples of developed nations is high because of the levels of acidic food and drink consumption^{9,10,32,33}. Also, in some individuals, frequent contact with the teeth by intrinsic gastric acid is an additional erosive problem^{16,33}. Consumption and sales reports of acidic foods and beverages, epidemiology surveys, studies in vitro and in situ and review publications all provide strong evidence that acid erosion is a dominant factor in the tooth wear prevalence figures^{10,33}. Moreover, studies in vitro and in situ/ex vivo indicate that abrasion can co-operate with erosion to increase wear^{34,35}. Indeed, the available data indicates that abrasion and erosion act, at least additively if not synergistically, in the tooth wear process. Relative to the present debate the majority of studies have considered, perhaps rightly so, that tooth brushing alone or with toothpaste is the major adjunctive wear process to erosion: there being some studies on attrition and erosion and simulated abrasion and erosion by fibrous acid foods³⁶⁻³⁸. For both enamel and dentine the marked increase in susceptibility to wear by tooth brushing following prior exposure to acids can be explained by the softening process that parallels the actual bulk loss of hard tissue³⁹⁻⁴¹. The softened zone, which can reach depths of several microns in both enamel and dentine, appears highly vulnerable to

wear from relatively minor physical insults, including the action of the tongue^{38,42}. This clearly raises the issue of the timing of tooth brushing relative to meals or snacks. The preventive rather than therapeutic action of toothpaste must lead to the logical, if not biological suggestion for brushing before meals. Certainly, after meals brushing should be delayed probably for several hours to allow remineralisation.

In concluding this section, the available evidence implicates tooth brushing with tooth wear but outside abusive tooth cleaning such wear will only reach pathological proportions when combined with the more dominant wear process, acid erosion.

Is tooth brushing involved in dentine hypersensitivity?

For dentine hypersensitivity to occur dentine has to be exposed (lesion localisation) and the tubule system exposed (lesion initiation)⁵. Evidence from extracted teeth indicates that this is indeed the case^{43,44}. The question relevant to this debate is whether tooth brushing alone or with toothpaste is involved in either or both lesion localisation or initiation? To expose dentine either enamel has to be lost or gingival recession has to occur. Evidence so far discussed suggests that tooth brushing with toothpaste alone would be unlikely to remove sufficient enamel even at the cemento-enamel junction. Reviews have concluded that tooth brushing is implicated in gingival recession, but the available evidence is circumstantial rather than factual^{45,46}. Stronger evidence is available to implicate other causes for gingival recession, e.g., periodontal diseases and surgery (as their effects are more measurable). In respect of the present debate it is the possible role of tooth brushing in what might be termed 'healthy recession' that needs to be discussed; accepting, of course, that tooth brushing may be co-destructive to the other individual causes for recession. Such data, drawn from epidemiological and clinical studies and case reports, associate tooth sites of high predilection for recession with the greatest exposure to tooth cleaning and the lowest scores for plaque⁴⁷⁻⁵⁰. If tooth brushing is implicated in recession, the mechanism for such has only been hypothesised upon and therefore the importance of factors relating to the individual, the tooth brushing process, the toothbrush and the toothpaste can only be conjecture. Many logical suggestions for the above have been made but so frequently logical and biological thought processes are contradictory. Not surprising, and like dentine hypersensitivity, gingival recession was described as an enigma⁴⁶. Whether tooth brushing alone or with toothpaste could initiate dentine hypersensitivity can be based on some scientific evidence albeit derived largely from studies in vitro and, to a limited degree, in situ. A toothbrush alone, as already stated, has little effect on dentine and removal of the smear layer to open tubules takes the equivalent of several years of tooth brushing of any one tooth³⁰.

Toothpaste changes the story significantly but variably dependent on the formulation. Many toothpastes appear to readily remove the smear layer from dentine to expose tubules and over a relatively small number of equivalent tooth brushing days^{51,52}. Studies in vitro suggest that this effect is a function of both the abrasive and the

detergent systems contained in the product⁵¹. This discussion could be said to indicate that all toothpastes are aetiological factors in dentine hypersensitivity but this is not necessarily the case. Some formulations, although removing the smear layer, then cause narrowing of dentinal tubules presumably by an abrasive smearing process⁵². More interestingly, some toothpastes remove the smear layer and then occlude the tubules with the contained abrasive particles⁵¹⁻⁵³. Most effective in this process appear to be those products that contain artificial silica with a non-ionic detergent: the more common use of sodium lauryl sulphate, an anionic detergent, appears to prevent the attachment of artificial silica to dentine probably by ionic competition. Thus, non-ionic detergent systems, such as pluronic, found in some toothpaste formulations, may provide some benefit in conjunction with artificial silicas.

Finally, in discussing tooth brushing and dentine hypersensitivity, one cannot avoid debating the common use of de-sensitising toothpastes to treat the condition. Although numerous agents have been used in toothpastes to treat dentine hypersensitivity over the years, many of the studies purporting to prove efficacy can be questioned for scientific merit^{5,54}. More recently, studies have tended to conform to the requirements of the classical randomised controlled clinical trial and the recommendations for the design and conduct of clinical trials on dentine hypersensitivity¹⁹. In particular, the studies have focused on products that might be expected on theoretical or laboratory grounds to occlude tubules or block neural transmission at the pulp. Whether these effects actually occur has still to be proven in vivo yet some studies do show a difference in clinical trials in favour of the active versus the control⁵⁵. In conclusion, there does appear to be an association of tooth brushing with toothpaste in the localisation, initiation and treatment of lesions of dentine hypersensitivity.

Is dentine hypersensitivity a tooth wear phenomenon?

The previous section concluded that both positive and negative associations existed between tooth brushing and dentine hypersensitivity. As tooth brushing was also considered from the first section to be associated with tooth wear, this final section considers evidence for attrition and erosion to be associated with dentine hypersensitivity alone or combined with tooth brushing-derived abrasion. There is strong evidence, particularly from case reports, that attrition causes tooth wear and, in parafunctional habits, can become pathological as dentine becomes exposed¹⁶. Interestingly, at least for enamel, one study in vitro demonstrated that erosion, combined with attrition, considerably slowed down tooth wear³⁶. An explanation propounded by the authors was that the contacting enamel surface became very rough under neutral pH conditions but very smooth under erosive pH conditions: frictional forces therefore would be markedly reduced. Clearly, if dentine becomes exposed by attrition alone or when combined with erosion, dentine hypersensitivity could occur. Again, however, this would require the wear to open the tubule system. As will be discussed, if erosion was involved, this opening of tubules would almost certainly

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occur and be consistent with the relatively infrequent presentation of individuals with dentine hypersensitivity at occlusal surfaces who report both grinding habits and high fruit intake^{9,33}. Alone it is not reported how attrition affects exposed dentine; one might suspect that a smear layer would be formed.

At the most common site for dentine hypersensitivity, buccal-cervically, evidence, largely from studies *in vitro* and *in situ*, suggests acid erosion has the potential to both localise and initiate lesions⁵. Thus, studies *in situ* have shown that in some individuals imbibing one litre of soft drink per day, not uncommon in many countries, could remove one millimetre of enamel within a period of a few years⁵⁶. At the buccal cervical region of teeth this would account for more than the enamel thickness at this site. Additionally, as already alluded to, the rate of enamel loss would be accelerated by regular tooth brushing^{34,35}. Once exposed, laboratory and *in situ* research demonstrates that acidic beverages can remove the dentine smear layer to expose tubules after the clinical equivalent of a small number of acid beverage doses³⁰. Moreover, some treatments for dentine hypersensitivity that occlude tubules such as oxalates and calcium phosphates appear acid labile⁵² and may easily be removed. Tooth brushing, even without paste, appears to readily remove a dentine smear layer, which has been exposed to even the briefest of acid erosive insults³⁰. Taken together, these data must lead one to conclude that tooth wear processes are at least associated with dentine hypersensitivity even though such a conclusion is not evidence based in the conventional meaning of the phrase.

Conclusion

The question of 'associations between tooth brushing, tooth wear and dentine hypersensitivity' was posed in the manuscript title. The nature of the majority of the available data used in this review does not allow a more absolute statement concerning association between the three processes to be made other than probably. There does, however, appear to be compelling evidence that tooth brushing and tooth wear are aetiological factors in the localisation and initiation of dentine hypersensitivity. As a result, these processes need to be taken into account when formulating a management strategy for dentine hypersensitivity.

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Scientific

Antibiotic prophylaxis for bacterial endocarditis - a study of knowledge and application of guidelines among dentists and cardiologists

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Abstract

Antibiotic prophylaxis and infective endocarditis is a controversial topic. The compliance with available guidelines among dentists is poor. The dental health education of patients by their cardiologists is inadequate.

Objective: The objective of this study was to investigate the knowledge and application of available guidelines on antibiotic prophylaxis to prevent infective endocarditis among general dental practitioners and cardiologists.

Design: Structured postal questionnaire

Subjects and methods: A list of 515 dentists was obtained from a register held by the Postgraduate Medical and Dental Board. A list of 85 cardiologists was obtained from a national register held by the Cardiothoracic Society of Ireland.

Results: A 31% response rate was obtained from the cardiologists and 37% from the dentists. The majority of the cardiologists (84%) were in hospital practice and 64% of dentists were in private general practice. Cardiologists showed a preference for the AHA guidelines (50%) and more dentists use the BSAC guidelines (56%). The cardiologists were very familiar with the cardiac conditions that pose a risk for dental patients but weak at educating their patients on the importance of good dental health. The dentists were good at identifying procedures that could place their patients at risk but less informed about which cardiac conditions warranted prophylaxis. Decision-making among the dentists with regard to choice of prophylaxis and appropriate treatment intervals was poor.

Conclusions: The knowledge of and compliance with the available guidelines is poor. Dental health education of at-risk patients by their cardiologists and dentists is inadequate. Further regular education of patients, dentists and medical practitioners is required.

Introduction

Bacterial endocarditis is a potentially fatal outcome of dental treatment. Its prevention is a matter of concern for all dentists. The incidence in the UK has been estimated at 20 cases per million population per year, with a mortality rate of 20%¹. Viridans streptococci accounts for 50% of cases of infective endocarditis¹. Bacterial endocarditis of oral origin may be due to spontaneous bacteraemia or by dental treatment. One study estimated that 3.6% of cases of bacterial endocarditis occurred in patients with a history of recent dental treatment². Spontaneous bacteraemias in patients with poor oral hygiene may pose a more significant threat than dental treatment³. However, in the absence of evidence from a randomised placebo-controlled trial, antibiotic prophylaxis must be prescribed.

Antibiotic prophylaxis for the prevention of infective endocarditis in dental patients was first used in 1943⁴. In 1955 the American Heart Association published its first set of guidelines⁵. At the time of this study the most widely used guidelines in the UK and Ireland were those published by The British Society for Antimicrobial

Chemotherapy⁶. The Royal College of Surgeons in England has adopted new guidelines published by the British Cardiac Society in April 2004. Previous studies have shown that compliance with guidelines among dental practitioners is poor⁷. The failure to comply fully with guidelines may account for the fact that the incidence of infective endocarditis has not decreased since the introduction of antibiotic prophylaxis³. Other explanations are that the correct at-risk population is not being targeted⁸ or that our prophylaxis regimens are ineffective⁹.

The aims of this study were to investigate the knowledge and application of available guidelines among general dental practitioners and cardiologists with respect to dentistry.

Materials and methods

Questionnaires were sent to 515 dentists and dental specialists practising in the adjacent region. The names were obtained from a register maintained by the Postgraduate Medical and Dental Board. Questionnaires were sent to 85 cardiologists whose names were obtained from a register maintained by the Cardiothoracic Society

of Ireland. Demographic information included: current area of practice, length of time in practice, type of practice (public, private or combined). Both questionnaires included questions relating to familiarity with current guidelines and their implementation. Dentists were asked about specific clinical situations with regard to prophylaxis.

Results

Twenty-nine cardiologists responded, and 26 completed questionnaires were analysed. The response rate was 31%. The majority of respondents (84%) were in combined public and private practice. In this group 54% had more than 20 years' experience and 27% had been practising for between 10 and 20 years. We asked whether the cardiologists attempted to establish the standard of dental health among their at-risk patients and if they give advice (written or verbal) about endocarditis prophylaxis. The results are presented in Table 1.

Table 1: Cardiologists and Dental Health Advice

	Always % (n=)	Frequently % (n=)	Occasionally % (n=)	Never % (n=)
Do you enquire about dental health?	19.2 (5)	34.6 (9)	46.2 (12)	0
Do you give advice about dental health?	60 (15)	24 (6)	12 (3)	4 (1)
Do you give written advice?	17.4 (4)	4.3 (1)	52.2 (12)	26.1 (6)

Involvement in post-graduate education with specific regard to endocarditis prophylaxis was also investigated and 46.2% of respondents had attended a lecture/course within the past five years that had included information on this topic. Interestingly, 53.8% of respondents had given a lecture/course on this topic within the past five years.

One-hundred-and-ninety-five dentists responded and 189 completed questionnaires were suitable for analysis. The response rate was 37%. The majority of respondents were in private general practice (64%) and 21.7% worked in the public dental service. Specialist private practitioners accounted for 2.6% and hospital practitioners for 3.7% of the total. Combined practice accounted for the remaining 8%. Length of time since qualification ranged from less than two years (one dentist) to more than 20 years (46%). Those in practice for more than 10 years accounted for 35.4% of the total. Attendance at lectures/courses that included information on endocarditis prophylaxis and dentistry was high, with 57.4% having attended such an event. Interest in attending further courses was also high with 91.4% responding yes to this question.

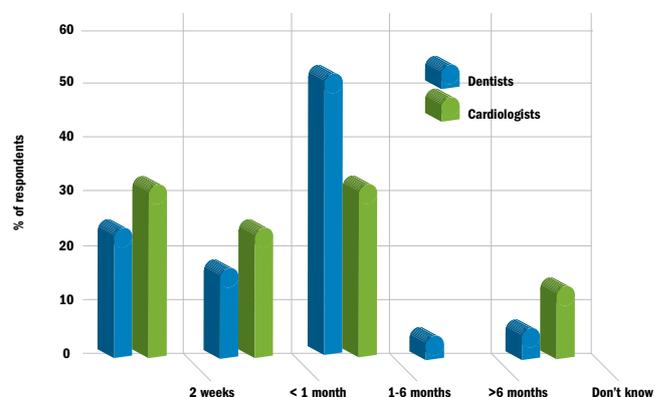
Both groups were asked which guidelines they follow in their practice. The results are presented in Table 2. The dentists' questionnaire offered the option of BNF guidelines and 41.9% stated they followed these guidelines. The BNF guidelines are, in fact, the BSAC guidelines but many dentists appeared to be unaware of this. A worrying 10% of dentists did not know which guidelines they used and 25.6% of dentists followed other guidelines, which included, "as per dental school teaching" and "as per consultant's advice".

Table 2: Preferred guidelines

	AHA % (n=)	BSAC % (n=)	BNF % (n=)	Other % (n=)	None % (n=)	Don't Know % (n=)
Cardiologists (n = 26)	50 (13)	34.6 (9)	-	15.4 (4)	-	-
Dentists (n = 179)	17.3 (31)	14.5 (26)	41.9 (75)	15.6 (28)	0.6 (1)	10.1 (18)

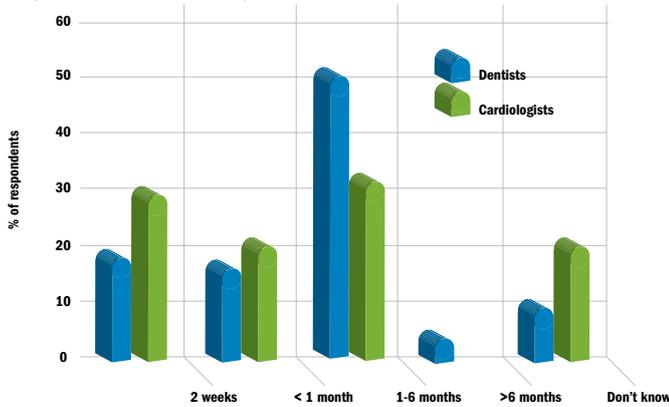
The practical application of antibiotic prophylaxis in the clinical setting was also investigated. Two pairs of questions attempted to elicit similar information from different angles. One pair of questions asked, for each of the two drugs amoxicillin and clindamycin, what time interval clinicians would advise between visits for an at-risk patient requiring two non-urgent treatment visits under local anaesthetic. A second pair of questions asked how many times each drug may be used as endocarditis prophylaxis in the same patient within a one-month period. According to the BSAC guidelines, single-dose amoxicillin prophylaxis can be used twice within a one-month period and should not be used again for three to four months. Clindamycin prophylaxis should not be used at intervals of less than two weeks. The results are presented in Figs.1-4. One third of cardiologists and more than half of the dentists chose the 1-6 month interval option for each drug. The results for the second pair of questions show that 60% of cardiologists and one-third of dentists would use amoxicillin twice within a one-month period. In other words, although many answered correctly that the drug can be used twice within one month, in practice they choose to do otherwise. The dentists were asked whose advice they would seek or what action they would take in a non-emergency situation, if they were unsure about prophylaxis in an individual case. The responses are given in Table 3.

Figure 1: Amoxicillin prophylaxis: visit interval



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Figures 2: Clindamycin: visit interval



Figures 3: Amoxycillin: times per month

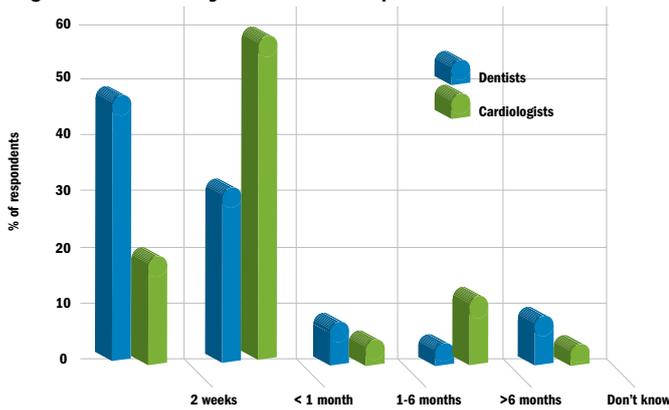


Figure 4: Clindamycin: times per month

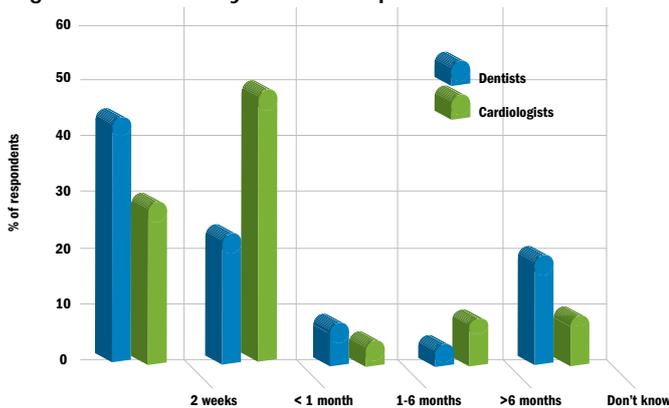


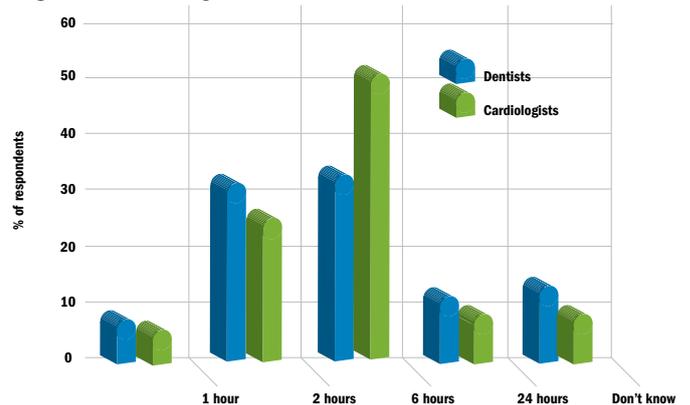
Table 3: Dentists' decision-making in problematic cases

	Give prophylaxis anyway	Consult patient's cardiologist	Consult patient's GP	Consult an oral surgeon	Other
% of respondents	9.7	31.8	57.4	0.6	0.6
(n =)	(17)	(56)	(101)	(1)	(1)

The BSAC guidelines specify that prophylaxis should be taken under supervision. We asked dentists what policy they followed when administering antibiotic prophylaxis. Most dentists (46.2%) instruct their patients to take the medication at home prior to attending and 13% had no fixed policy. More than one-third (38.7%) administer the medication on-site.

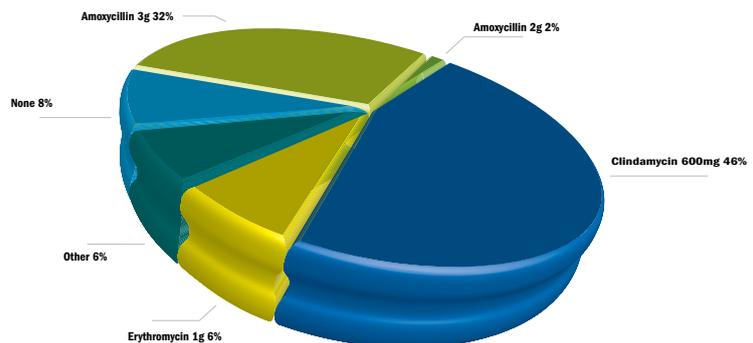
Both groups were asked about the duration of effect of amoxycillin antibiotic prophylaxis. (i.e., for how long could a patient safely receive treatment). The results are shown in Fig. 5. Studies have shown that a single dose of amoxycillin produces a serum level above the minimal inhibitory concentration of most oral streptococci for at least six hours¹⁰. Studies have also shown that use of a mouthwash such as chlorhexidine for at least 30 seconds before treatment reduces the incidence and magnitude of bacteraemia^{11, 12}. Our study found that 49.5% of dentists never use a pre-treatment mouthwash and only 15.4% always do.

Figure 5: Amoxycillin: duration of effect



The following specific clinical scenario was described and the dentists were asked what prophylaxis they would prescribe: "a patient who requires endocarditis prophylaxis but has never had bacterial endocarditis, attends for extraction of a tooth under local anaesthetic; they have just completed a five-day course of Penicillin V". The correct response to this question is clindamycin. This option was chosen by only 46% of respondents. Erythromycin is no longer recommended for prophylaxis. The responses are shown in Fig. 6.

Figure 6: Prophylaxis Choice (Local anaesthetic extraction in patient already on penicillin)



The AHA and the BSAC advise the use of prophylaxis for particular dental procedures. The dentists were asked which procedures they felt required prophylaxis. Over 90% of dentists would prescribe antibiotic prophylaxis prior to procedures such as extractions, scaling and placement of implants. Just over half of respondents would provide prophylaxis prior to periodontal probing. When asked about incision and drainage of a dental abscess, 71.3% replied "always", with 10.5% "sometimes" and 8.3% of dentists admitting to never giving prophylaxis prior to this procedure. The responses to all questions are shown in Table 4.

Table 4: Dentists' answers regarding procedures requiring prophylaxis

	Always	Sometimes	Never	Don't know	Responses out of 189
Surgical extraction	97.8 (180)	2.2 (4)	0	0	184
Forceps extraction	97.3 (178)	1.6 (3)	1.1 (2)	0	183
Periodontal scaling	90.2 (166)	8.7 (16)	1.1 (2)	0	184
Periodontal probing	53.4 (95)	30.3 (54)	12.9 (23)	3.4 (6)	178
Periodontal/endodontic surgery	91.3 (168)	7.1 (13)	1.6 (3)	0	184
Supra-gingival filling	6.0 (11)	19.2 (35)	74.2 (135)	0.5 (1)	182
Sub-gingival filling	48.9 (89)	36.3 (66)	13.7 (25)	1.1 (2)	182
Impressions	2.8 (5)	18.2 (32)	77.3 (136)	1.7 (3)	176
Re-implantation of avulsed teeth	91.2 (166)	5.5 (10)	1.1 (2)	2.2 (4)	182
Implant placement	91.7 (166)	1.7 (3)	0.6 (1)	6.1 (11)	181
Endodontic instrumentation	47.3 (86)	35.7 (65)	15.4 (28)	1.6 (3)	182
Intra-ligamentary anaesthetic	44.4 (80)	17.8 (32)	26.7 (48)	11.1 (20)	180
Placement of orthodontic bands	24.3 (43)	23.2 (41)	33.9 (60)	18.6 (33)	177
Incision and drainage of a dental abscess	71.3 (129)	10.5 (19)	8.3 (15)	9.9 (18)	181
Rubber dam placement	33.0 (60)	36.8 (67)	23.6 (43)	6.6 (12)	182

The dentists and cardiologists were asked about the conditions they consider require endocarditis prophylaxis prior to dental treatment. The combined responses are presented in Table 5. Patients with prosthetic valves always require prophylaxis and 100% of cardiologists but only 94.6% of dentists answered this question correctly. A previous episode of bacterial endocarditis requires prophylaxis in all cases and 98.9% of the dentists but only 92.3% of cardiologists answered correctly. A history of rheumatic fever does not always imply a resultant cardiac problem requiring prophylaxis. Almost 91% of dentists would always prescribe prophylaxis for a patient with a history of rheumatic fever regardless of current cardiac status in contrast to 11.5% of cardiologists. A history of a heart murmur may or may not warrant prophylaxis. Cardiologists confirmed this statement with 92% replying "sometimes". However, 44.9% of dentists "sometimes" prescribe prophylaxis and 48.6% "always" do. Previous coronary artery bypass grafting does not warrant antibiotic prophylaxis. The cardiologists concurred with 91.7% responding "never" but the dentists replied 24.6% "always", 25.7% "sometimes", 39.3% "never" and 10.4% didn't know.

Discussion

There are two available sets of guidelines, those of the American Heart Association and those of the British Society for Antibiotic Chemotherapy. Both guidelines outline a description of at-risk groups and dental procedures that require antibiotic prophylaxis. The AHA has listed several cardiac conditions and divided them into high, moderate and negligible risk categories based on the potential outcome in the event of endocarditis. Prophylaxis for the high and moderate risk groups is advised and the same regime is used for each group. The BSAC has different regimes for patients undergoing local anaesthetic and general anaesthetic procedures and special risk patients are identified, e.g., patients with previous history of endocarditis who require different prophylaxis. The AHA is more specific as to which dental procedures require prophylaxis. The BSAC guidelines specify only tooth extraction, scaling and periodontal surgery. The new recommendations published by the British Cardiac Society have adopted a similar approach to the AHA.

Dentists had good knowledge of bacteraemia - inducing procedures. There was evidence of a lack of understanding of some procedures that do constitute a risk to "at-risk" patients. Periodontal probing¹³, scaling¹⁴, intraligamentary local anaesthesia¹⁵ and rubber dam placement^{16, 17} all require antibiotic prophylaxis. Only 53% of dentists always use prophylaxis for periodontal probing, 44% of dentists always prescribe prophylaxis prior to intraligamentary anaesthesia, and 33% use prophylaxis for rubber dam placement. Worryingly, only 71% of dentists "always" prescribe prophylaxis prior to drainage of a dental abscess with 10% of dentists unsure what to do and 18% of dentists "sometimes" prescribing antibiotic prophylaxis prior to taking alginate impressions.

Compliance with the published guidelines has been shown to be poor^{18, 19, 20}. Our study echoes this. Poor compliance results from inadequate knowledge, poor understanding of the nature of some cardiac defects and failure to maintain an up-to-date medical history. As might be expected the cardiologists had a clearer idea about which cardiac conditions had increased susceptibility to bacterial endocarditis while dentists' knowledge of the less common conditions was scant. In situations where the need for prophylaxis was unclear dentists would seek advice from the patient's cardiologist (31.8%) or GP (57%). Further research into the level of knowledge and understanding of this topic among general medical practitioners would be valuable.

Poor oral health is a risk factor for bacteraemia. It has been postulated that many cases of bacterial endocarditis of oral origin arise from spontaneous bacteraemias. Prevention of dental disease is critical. Cardiologists should advise their patients of the potential risks associated with poor oral hygiene and a neglected dentition. In our study only 19.2% of cardiologists enquire about the dental health of their patients. Regular dental check-ups and preventative treatment should be employed to reduce the need for complicated dental treatment in these patients. This would reduce the potential medical risk and need for antibiotic prophylaxis.

Antibiotic prophylaxis should be administered under supervision. In our study 46% of dentists stated that they would instruct their

Table 5: Answers regarding cardiac conditions requiring prophylaxis (cardiologists and dentists)

C = Cardiologists D = Dentists	D	C	D	C	D	C	D	C	D	C
	Always % (n =)	Always % (n =)	Sometimes % (n =)	Sometimes % (n =)	Never % (n =)	Never % (n =)	Don't Know % (n =)	Don't Know % (n =)	Responses out of 189	Responses out of 26
Prosthetic heart valves	94.6 (175)	100 (26)	3.2 (6)	0	1.1 (2)	0	1.1 (2)	0	185	26
Heart murmur	48.6 (90)	4 (1)	44.9 (83)	92 (23)	2.7 (5)	4 (1)	3.8 (7)	0	185	25
History of rheumatic fever	90.8 (168)	11.5 (3)	7.6 (14)	76.9 (20)	0.5 (1)	11.5 (3)	1.1 (2)	0	185	26
After CABG	24.6 (45)	0	25.7 (47)	8.3 (2)	39.3 (72)	91.7 (22)	10.4 (19)	0	183	24
Following MI	11.3 (21)	0	19.9 (37)	12.5 (3)	57.0 (106)	87.5 (21)	11.8 (22)	0	186	24
Previous bacterial endocarditis	98.9 (185)	92.3 (24)	0.5 (1)	3.8 (1)	0	0	0.5 (1)	3.8 (1)	187	26
Complex cyanotic congenital heart disease	59.9 (109)	92.3 (24)	12.1 (22)	0	4.9 (9)	0	23.1 (42)	7.7 (2)	182	26
Surgically constructed pulmonary shunts	64.1 (118)	69.2 (18)	8.7 (16)	7.7 (2)	6.5 (12)	3.8 (1)	20.7 (38)	19.2 (5)	184	26
Other congenital cardiac abnormalities	46.7 (84)	34.6 (9)	33.3 (60)	61.5 (16)	2.8 (5)	0	17.2 (31)	3.8 (1)	180	26
Hypertrophic obstructive cardiomyopathy	29.8 (53)	15.4 (4)	12.4 (22)	38.5 (10)	9.6 (17)	38.5 (10)	48.3 (86)	7.7 (2)	178	26
Mitral valve prolapse with regurgitation	72 (131)	72 (18)	8.2 (15)	24 (6)	2.2 (4)	4 (1)	17.6 (32)	0	182	25
Marfan's Syndrome	22.6 (40)	16.7 (4)	11.9 (21)	70.8 (17)	2.3 (4)	12.5 (3)	63.3 (112)	0	177	24
VSD	62.2 (115)	84 (21)	9.7 (18)	8 (2)	4.3 (8)	4 (1)	23.8 (44)	4 (1)	185	25
ASD	59.2 (109)	34.6 (9)	10.9 (20)	34.6 (9)	6.0 (11)	26.9 (7)	23.9 (44)	3.8 (1)	184	26
Surgically repaired ASD/VSD with Dacron patch	56.5 (104)	50 (13)	10.3 (19)	34.6 (9)	3.3 (6)	7.7 (2)	29.9 (55)	7.7 (2)	184	26
Surgically repaired ASD/VSD without Dacron patch	42.1 (77)	30.8 (8)	14.8 (27)	30.8 (8)	7.7 (14)	30.8 (8)	35.5 (65)	7.7 (2)	183	26
(PDA)	40.0 (72)	76.9 (20)	8.9 (16)	15.4 (4)	13.9 (25)	0	37.2 (67)	7.7 (2)	180	26
Cardiac pacemaker	15.8 (29)	15.4 (4)	13.6 (25)	26.9 (7)	56.0 (103)	53.8 (14)	14.7 (27)	3.8 (1)	184	26
Coarctation of the aorta	21.5 (39)	58.8 (14)	12.2 (22)	29.2 (7)	13.3 (24)	8.3 (2)	53.0 (96)	4.2 (1)	181	24
Surgically constructed arterio-venous shunt in renal dialysis patient	36.4 (67)	28 (7)	10.3 (19)	24 (6)	9.8 (18)	20 (5)	43.5 (80)	28 (7)	184	25

patients to take the medications at home prior to attending and only 27% administered the medicine in the practice under supervision. Inappropriate prescribing and administration of antibiotics leads to unnecessary exposure of patients to a potentially fatal anaphylactic reaction.

The interest in postgraduate teaching on this topic was encouraging. More than half of dentists stated that they had attended lectures/courses on endocarditis prophylaxis within the last five years and 91% of dentists wish to receive further teaching on this topic. The need for such courses/lectures on an ongoing basis is obvious.

Conclusions

This study echoes the findings of previous studies. Antibiotic prophylaxis for the prevention of bacterial endocarditis remains a

controversial topic and further research in this area is warranted. This study investigated the knowledge and application of current guidelines on antibiotic prophylaxis and infective endocarditis in a group of dentists and cardiologists and highlighted a number of important issues. The knowledge of and compliance with the available guidelines among the dentists surveyed was poor. Furthermore, the dental health education of at-risk patients by their cardiologists and dentists is inadequate. Further regular education of patients, dentists and medical practitioners is required. We feel there that there is a role for the Postgraduate Medical and Dental Board in facilitating such teaching and in encouraging inter-disciplinary co-operation. This would be in the best interests of all our patients.

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Abstracts

An analysis of oral and maxillofacial pathology found in children over a 30-year period

A.V. Jones and C.D. Franklin

Aim

The vast majority of oral diseases are confined to oral tissues, but numerous underlying systemic conditions may present with signs and symptoms within the oral cavity. Since the epidemiology of diseases is variable between regions, the authors carried out Europe's first paediatric-based survey of oral and maxillofacial pathology specimens submitted for diagnosis.

Design

All entries for specimens from children between the ages of 0 and 16 years during the 30-year period from 1973 to 2002 were retrieved and compiled into 12 diagnostic categories.

Results

During the study period, 4406 (8.2%) specimens came from children between the ages of 0 and 16 years, with a male to female ratio of 1.01. The diagnostic category with the largest number of specimens was tooth pathology (22.1%), followed by salivary gland disease (19.1%) and mucosal pathology (12.1%). In all, there were 114 benign tumours of nonodontogenic origin, 43 odontogenic tumours and 31 malignant tumours. The most frequently diagnosed lesions were mucous extravasation cysts, which accounted for over 16% of cases. Periapical pathology in the form of a radicular cyst, residual cyst or chronic periapical granuloma formed almost 13% of all cases.

Conclusions

This survey shows that, while nearly 10% of specimens submitted to the authors' laboratory are from children under 16 years of age, the majority of lesions are of a benign nature, requiring minimal intervention; less than 1% of cases comprise malignant lesions. Odontogenic tumours are relatively rare in this age group; however, certain lesions such as adenomatoid odontogenic tumour and ameloblastic fibroma occur predominantly in children and, therefore, remain an important diagnostic consideration.

International Journal of Paediatric Dentistry 16 (1), 19-30.
doi: 10.1111/j.1365-263X.2006.00683.x

Progression of periodontal disease in the second/third molar region in subjects with asymptomatic third molars

G.H. Blakey, M.T. Jacks, S. Offenbacher, P.E. Nance, C. Phillips, R.H. Haug, R.P. White Jr,

Purpose

To assess the change in periodontal status over time by periodontal probing depth (PD) in the third molar region.

Subjects and methods

The data for these analyses are part of a study of subjects enrolled with four asymptomatic third molars with adjacent second molars in an institutional review board-approved longitudinal trial. Full mouth periodontal probing was conducted to determine periodontal status at baseline and follow-up. Panoramic radiographs were analyzed for angulation and degree of eruption of third molars. Subjects were categorised as those who exhibited at least a 2mm change in periodontal PD between baseline and follow-up in the third molar region, the distal of a second molar or around a third molar, and those who did not exhibit a 2mm or greater change. Subjects with and without changes in PD were compared with Cochran-Mantel-Haenszel statistics. Level of significance was set at 0.05.

Results

Data from 254 subjects with at least two annual follow-up visits were available for analysis. Mean age at baseline was 27.5 years. Median follow-up from baseline to the second follow-up visit was 2.2 years (interquartile range 2.0, 2.6). At enrollment, 59% of the subjects had at least 1 PD \geq 4 mm in the third molar region, one-quarter had a PD \geq 5mm. 24% of the subjects had at least one tooth that had an increased PD \geq 2mm in the third molar region at follow-up. If subjects had at least 1 PD \geq 4mm at baseline, 38% had at least 1 PD deepen by 2mm or more at follow-up. Only 3% of those who had all teeth with a PD of less than 4mm exhibited a change of \geq 2mm (P<.001).

Conclusion

Increased periodontal PDs \geq 2mm were often found in the third molar region for asymptomatic subjects with at least 1 PD \geq 4mm at enrollment, clinical measures that indicated increased periodontal pathology, and a deteriorating periodontal condition.
Journal of American Association of Oral and Maxillofacial Surgeons
February 2006 • Volume 64 • Number 2.

Abstracts

The ability of fruit teas to remove the smear layer: an in vitro study of tubule patency

Jeremy S. Reesa, T. Loyna, W. Rowea, Q. Kunstb and R. McAndrewa

Objectives

Fruit teas are known to have an erosive effect on enamel, but the effects on dentine are unknown. Lesions of dentine hypersensitivity have numerous patent dentinal tubules and the aim of this paper was to examine the ability of various fruit teas to remove the smear layer.

Methods

The erosive potential of a variety of fruit teas was assessed in the laboratory by measuring their pH and neutralisable acidity. Smear dentine specimens were prepared from extracted teeth and the ability of each tea to remove the smear layer was assessed by measuring the diameter and area of the opened tubules and counting the number of patent tubules seen in a unit area using scanning electron microscopy. A 0.2% citric acid solution was used as a positive control.

Results

The pH of the fruit teas ranged from 2.98 to 3.95 and the neutralisable acidity ranged from 10.63 to 33.0 ml of 0.1 M NaOH. All the fruit teas tested were able to remove the smear layer. The mean diameter of the tubules ranged from 0.61 to 1.14 μm and the mean area ranged from 0.31 to 1.03 μm^2 . The number of patent tubules per specimen ranged from 13 to 121.

Conclusion

All the fruit teas tested were found to be highly acidic and able to remove the smear layer.

Journal of Dentistry

Volume 34, Issue 1, January 2006, Pages 67-76

doi:10.1016/j.jdent.2005.03.006

Speeding and maxillofacial injuries: impact of the introduction of penalty points for speeding offences

O.T. Hussain, M.S. Nayyar, F.A. Brady, J.C. Beirne and L.F.A. Stassen

Abstract

On 31 October 2002 the Irish Government introduced a point demerit scheme for road speeding offences. To evaluate the impact of the scheme, we made a comparative assessment of the number of maxillofacial operations necessitated by road crashes at two tertiary surgical centres in the year before and the year after the introduction of penalty points. There were no significant differences in the composition of the groups between the two study periods. There were 57 operations in the year before and 22 in the year after for injuries caused by collisions (a 61% reduction). No changes were seen in the distribution or severity of maxillofacial injuries or in the pattern or severity of other injuries. Severity was assessed using the Abbreviated Injury Scale (AIS) and Maximum Abbreviated Injury Severity Scale (MAIS), and bodily injuries by the Injury Severity Scale (ISS). The number of patients requiring intensive care and the duration of admission to the unit were unchanged, as was the total duration of hospital admission. There were no differences in the requirement for other specialist management.

British Journal of Oral and Maxillofacial Surgery
Volume 44, Issue 1, February 2006, Pages 15-19
doi:10.1016/j.bjoms.2005.07.015

Practice Management

Dismissals - procedures and pitfalls

Unfair Dismissals Acts 1977-2001: who is covered?

Subject to certain exceptions, the legislation applies to employees who:

- Have at least one year's continuous service with the employer; and
- Have not reached the normal retiring age for the employment in question.

Dismissals deemed to be unfair

Essentially the legislation works on the principle that all dismissals falling within its scope are deemed to be unfair unless the employer can prove otherwise. The employer must show that:

- There were good grounds for the dismissal; and
- Fair procedures were followed in effecting the dismissal.

Grounds for dismissal

The legislation sets out certain grounds for dismissal of which the competence, capability or qualifications of the employee, the employee's conduct and redundancy are the most important in practice.

Fair procedures

The importance of following fair procedures cannot be overstated. Many dismissals that on the face of it appear warranted have been held by the EAT as being unfair because fair procedures were not followed.

In one case a security van driver was dismissed for leaving his van open and the engine running while he was collecting coins from a telephone box. The van and the money in it were stolen. He was immediately suspended pending an investigation. He received a call to attend a meeting. There was no mention of any dismissal. Before any discussion took place it was announced that it was a disciplinary hearing. After giving his account to the meeting of exactly what had happened on the day in question, both he and the shop steward were asked to leave the room. When they were called back in the driver was told he was being dismissed.

The EAT found that although the applicant had contributed 30% to his dismissal, the dismissal was unfair and awarded him €10,559.

In another case a driver was dismissed for an alleged drunken incident on a ferry. The driver had previously been warned over drinking on duty. The dismissal however was effected following a heated argument between the driver and the owner. Although the EAT found that the driver had contributed significantly to his own dismissal, they did find the dismissal was unfair because, *inter alia*, he did not get a fair hearing and there were no disciplinary procedures in place. He was awarded €11,427.

From these and other decisions we can glean the following:

1. If there is a disciplinary procedure in place, its provisions should be rigidly observed;
2. If there is no such policy in place then the EAT will impose a

high standard of fair procedures. In particular they will rely on the Code of Practice on Grievance and Disciplinary Procedures, issued by the Department of Enterprise, Trade & Employment in 2000. I would advise employers to study this code of practice carefully as if the procedures set out in it are followed there is a lesser chance of the employee being successful in any claim.

3. The punishment must fit the offence. For example the employer may have gone through all of its disciplinary procedures to the letter but the offence must be one which would merit dismissal.
4. Employees need to be notified clearly of what they are accused of and the potential sanction. If dismissal is contemplated this must be stated.
5. They must be given a fair opportunity to respond to the complaint and offered a right of representation.
6. In cases where poor performance or lack of competence is relied on the employee should be given an opportunity to improve and, if appropriate, additional training. The standards of performance set by the employer must also be reasonable and have been clearly communicated to the employee.
7. An impartial adjudicator should carry out the investigation.
8. Summary dismissal in the sense of being sacked on the spot is rarely justified. The prudent employer should follow a proper disciplinary procedure, which will typically involve the employee's suspension following a full investigation.

Remedies

Claims must be taken within six months of the date of dismissal. Compensation is the usual award made by the EAT though reinstatement or re-engagement may also be awarded. Up to two years' salary may be awarded. This however is rare and in reality the employee can only recover his financial loss, although the EAT has a discretion to award up to four weeks' pay as compensation. The employee is, however, under a duty to mitigate his/her loss

Conclusion

In summary the importance of fair procedure is clear. The employer really has nothing to fear from the legislation providing s/he acts fairly and reasonably in relation to the decision to dismiss and the manner it is carried out.

Three tips

1. Don't act in haste - take legal advice before dismissing someone.
2. Acting fairly is the key - if you don't follow fair procedures you will fall foul of the law.
3. If you need to dismiss someone, do so before they have worked for a year. If you do that his/her remedies are limited.

Andrew Clarke is a partner in Partners at Law solicitors, Dun Laoghaire, Co Dublin and specialises in employment and commercial law. He has advised numerous dentists on the legal aspects buying and selling practices and employing staff. Phone 01-2800340.

Practice management

Marketing and image

Providing the right image is the key element to getting your message across to patients that your practice is modern, progressive and in the 21st Century.

Referral base

The paying public is discerning and takes note of the environment they enter more acutely than ever before. If the dental centre looks great and the patient feels that there is care and consideration for their comfort and well being, with a pleasant place to visit and informative staff and brochures, they are definitely far more likely to stay loyal and spread the good news. A point also worth remembering - 90 per cent of referrals come from women, so the décor must appeal to the female eye.

Critical first impressions

Many dentists know the workings of their surgery intimately and yet have very little idea of how reception works and the space and lighting required by staff to work effectively. Another point worth considering is the space in which the patient waits to see the dentist. When was the last time you sat in your own waiting room and put yourself into the patient's shoes? Do you like what you see? Do you feel comfortable and distracted from where you are, or are you very aware it is a dentist's waiting room? The latter is possibly the case.

So often we have all sat in a waiting room with yellow walls, one bare centre light, no pictures bar a few dental posters, ripped and ancient magazines, broken children's toys, tatty crayons and the ubiquitous fish tank! It is little wonder that the patient is so wound up by the time they enter the surgery? If your waiting room/reception areas are 25 years out of date, how can you expect the patient to believe that your dentistry is up to date, modern and progressive? We can no longer afford to practice 21st Century dentistry and charge 21st Century prices in 19th Century facilities!

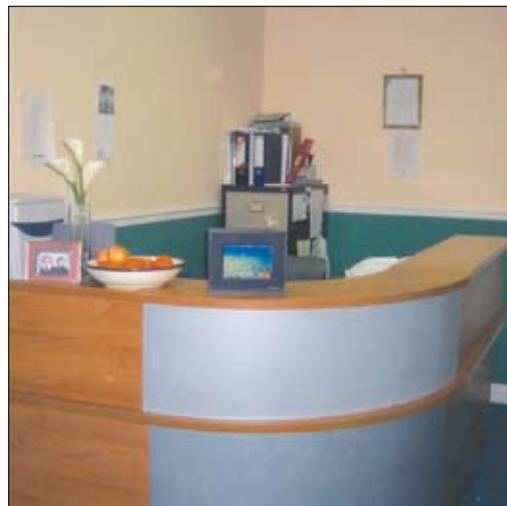
The younger dentist wishing to purchase a practice really does take note of the image they are buying into. The days where the goodwill, equipment, etc, is the prime focus are gone. More female dentists than ever are now purchasing their own practices and are extremely discerning. It does matter to them how the practice is presented.

Practice logo

A practice logo/identity colours are an easy way for patients to identify and remember you. This can be followed through in the internal and external signage, now beautifully produced in coloured perspex/glass and brushed steel fittings. Staff and dentists' uniform should carry the logo. The marketing can extend to the internal practice brochure explaining to patients what is available to them, this in turn leads to the appointment cards, letterheads and compliment slips. Think about installing a flat screen TV with news, kids' programmes or dental info. DVD is becoming extremely popular. A wall-mounted patient information centre with up to date available treatment leaflets, current magazines and fresh newspapers is essential. It also keeps the centre of the room clear from a table.

Professional advice

Seek out a progressive interior designer experienced in the dental field to look at the overall image and produce the wow factor, which is imperative. Family and staff are too close to analyse correctly the requirements from a patient perspective. At the initial meeting, the information to take into consideration should include your vision for the future of the practice, looking at the furniture, lighting, treating children, how large the practice is i.e. two-man, three-man, etc., filing needs, computerisation, staff facilities, etc.



Before and after: use a progressive interior designer experienced in the dental field to look at the overall image and produce the wow factor, which is imperative.

Practice management



Before and after patients' waiting area. Note the addition of a wall-mounted patient information centre with up to date available treatment leaflets, current magazines and fresh newspapers.



Tips

- Upgrade your practice image regularly
- Look into marketing your practice with signage - internal and external, appointment cards, etc
- Think patient comfort at all times
- Create a wow factor
- Do not short change your patients and they will not short change you

Jane Hernon, Flying Colours Image Consultant, can be contacted at info@fullcircleevents.ie.

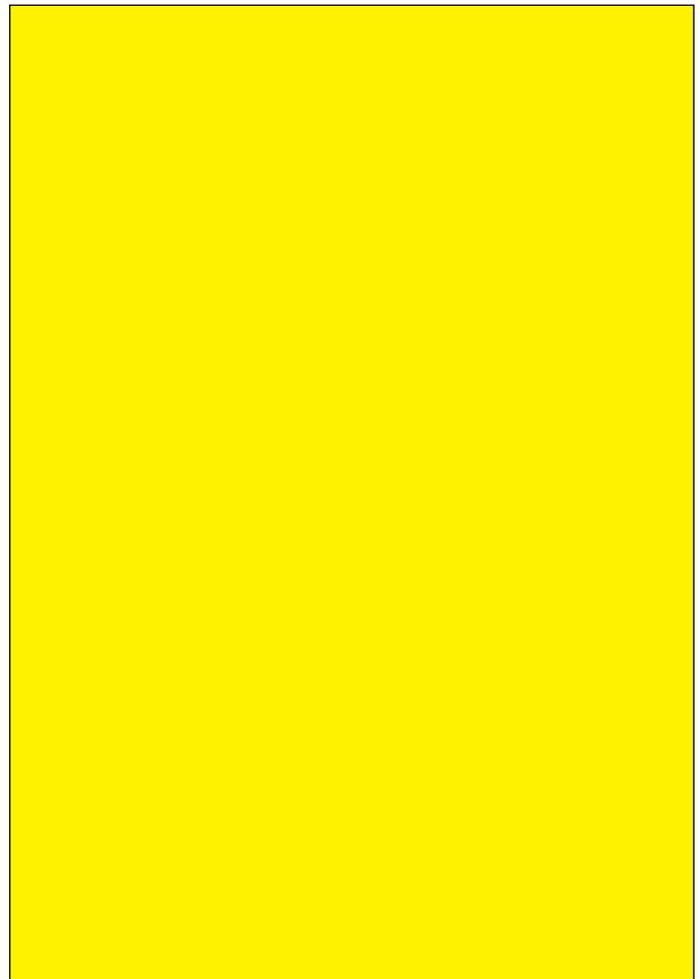
A comprehensive profile on the practice should be gathered to build a new plan which can be drawn up for viewing by the dentist in consideration of both efficient working space and patient comfort. The colour schemes for the waiting area, reception, bathroom and surgeries should be drafted at this stage. Digital photos should be taken of the entire practice so that the images can be viewed at leisure by the interior designer and serious thought can be applied to the new image being created for the specific practice. Also, these photos prove very interesting viewing after the changes have been applied to the practice.

The key element in image change is centered on the colour scheme. The colours chosen should reflect what image you wish to portray and what patients want to be associated with. Even if you are working on a limited budget, a total colour change alone will make a radical difference to the practice. Often, there is a budget constraint and therefore a decision has to be made as to what stays and what will change. In 90 per cent of cases it is the flooring which remains and acts as the colour canvas. Easy on the eye, yet a strong impact is the aim.

Financial outlay

The above changes can be very cost effective, as little as €2, 500 to design the logo (recognised identity) cards, letterheads, signage (internal and increasingly important - external).

A dental practice of approx. 1,000sq.ft revamp to include redecoration, furniture, printing, lighting, etc., would cost in the region of €10, 000 to €15, 000. This comes under the category of repairs and renewals, therefore fully tax relievable. Surely this outlay is worth increasing your new patient no. base, which has to be the life blood of any practice?



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.

For sale

Dental Equipment for Sale. OPG Machine: Cranex DCX2.5. Perfect working order, incl Velopex developer. €4,000. Can be installed. Durr single surgery suction motors (VS 300) x 2 €450 each. Polaroid Instamatic Macro 5 camera, as new with case €550. Tel: 086 8519707. Email: info@ratoathdental.ie

For Sale: OPG x-ray machine. Phillips orthoradix C. Buyer collects from Kerry practice. €2,000. Tel: 087 7552044.

For Sale. Portarlinton, Co Laois and Athy, Co Kildare. Two location practice generating €380K 2004. Freehold buildings, good locations. Open to offers. Principal wants to move South. Period residence also available to any colleague relocating. Tel: 086 1984415.

For Sale. As new, never used: 2 x Progres Dentist Chairs with built-in light and bracket, 2 x Bambi Compressors. Genuine offers only. Tel: 086 8099789.

Dental microscope for Sale. OPMI Pico Carl Zeiss Microscope with integrated video camera, ceiling mounted, little used, excellent condition, just over 2 years old. Phone Surgery: 021 4941810. Mobile 087 2356492.

For Sale. South Dublin, excellent leasehold, low rent, two surgeries, reasonable equipment, great space, good location, low medical card, massive potential, immediate sale, very low prices. Tel: 086 8075273.

Dental practice for sale Galway City, established 15 years, good location, easy parking, owner retiring. Phone 087 6811303.

For Sale. Dublin South - Long established, successful, beside M50. Two man/two surgery. Top class equipment, OPG. Leasehold/freehold. Excellent figures/profits. Very busy. Immediate sale. Tel: 086 8198887.

Experienced x-ray developer for sale. Durr XR24 Pro with light box and automatic fill. The light box is the L26". Cost new €5,750 inc. VAT. Contact Kevin at kortho@oceanfree.net

For Sale. Cork. 15 mins city centre. 1 man, long established. Superb location, leasehold, room to expand. Excellent figures. Reasonable price for immediate sale. Dentist retiring. Tel: 086 8075273.

For Sale. Midlands. 45 minutes Dublin. Long established, single handed. Good equipment, OPG. Excellent figures. Leasehold, goodwill and equipment options. Superb opportunity, wide open. Tel: 086 8075273.

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:

Tom Cullen
Think Media
The Malthouse
537 NCR
Dublin 1
Tel: 01-8561166
Fax: 01-8561169

For Sale - Dublin Centre. One man, 2 surgery. Leasehold large area. Prime position new development. Busy, low medical card numbers. Reasonable price. Principal can stay on. Tel: 086 8075273.

For Sale. North Dublin. Superb opportunity, leasehold, 1,000 sq ft. Medical complex - pharmacy. All ready-to-go facilities. 1,500 houses - nearest dentist 4 miles. Reasonable rent. Tel: 086 8198887.

For Sale. Content of a dental practice, 1 year old. In immaculate condition. Chair Belmont SP CLEO. Autoclave Gaz Europa B. 2 Cyl Compressor/3 surgery. Suction Turbo Jet. X-ray machine etc. Very good price. Contact 087 2281085.

Positions available full-time

Full-time Dental Associate required, for busy computerised Northside Dublin practice, to replace departing colleague. Digital OPG motorised Endo etc. Starting January/February. Please phone 01 8341140 daytime.

Wanted. Full-time Dental Associate. Start January/February 2006. Wicklow/Carlow area. Full book in a busy ethical practice. OPG, modern surgery. Fully qualified staff. View to partnership a realistic opportunity in short term. Phone 059 6482749.

Dental Associate required for modern West of Ireland Practice. Full Book. Immediate Start. Please Contact: (087)9189808.

Dental Receptionist wanted: Full-time position available. Experience preferable. Tel: 01 4961465 between 8-9 p.m.

West Oxfordshire. Highly motivated caring Associate. Required to join a friendly patient-focused dental practice. Prevention orientated with hygienist and full clinical support. Great opportunity for the right candidate. Tel: 01993 845522 (day), 01993 843052 (eve). Email: thedentalcentre@dentalserve.net.

Full time Associate required for busy, private dental practice in Navan, Co Meath. Only 30 miles from Dublin. Modern equipment, Kavo chair with fibre-optics and experienced staff. Position to replace departing colleague. Tel: 046 9072520 or email dentist@esatclear.ie

Experienced Dental Surgeon required -replacing departing colleague. Excellent opportunity to join long established modern practice. January 2006 start. Email: oralcentre@hotmail.com

Locum dentist required full or part-time for immediate start, due to injury. 4 months minimum. Co Meath, 1 hour from Dublin. Busy, modern, friendly practice, full book, Saturdays optional. Please telephone: 087 9359649.

Classifieds

Immediate vacancy for full-time or part-time dentist in Dublin City Centre specialist practice. Fantastic team with excellent remuneration package. Call Emmet on 086 8187373.

Associate required, full or part-time in South Wicklow. Busy practice, replacing full-time dentist. Modern surgeries, OPG, Hygienist, Tel: 087 9747867.

Dental Nurse required for busy Southside general practice, experience preferable but not compulsory. Must be cheerful!! Please contact Tara at 01 6689921.

Wanted. Experienced, conscientious dentist to work between two centres. Full clinical freedom, mixed general practices, full support staff, hygienist and opps. Immediate start to replace departing colleague. Sunny South East. Contact 086 8586673 after 6pm or email qds@eircom.net.

Top class Associate needed. Busy modern South Dublin, full computerised, superb equipment, support staff, permanent position, replacing departing colleague, flexible options. CV to niall@innovatedental.com Tel: 086 8198887.

Superb opportunity for experienced, progressive, considerate Associate. Well established, busy, great location, mixed practice, excellent facilities, all options, part-time, full-time. CV to info@fullcircleevents.ie Tel: 086 8198887.

General Dental Surgeons required. The HSE North Eastern Area is recruiting two permanent GDS for Louth/South Monaghan.

Closing date 16th March 2006. Temporary GDS vacancies also exist. Registration IDC is essential. Salary €54,962 to €81,204. Informal enquiries 042 9385453. Application forms 046 9076452.

Dental Associate required for busy practice in North East. Full/part-time. Tel: 086 3971113.

Cork - experienced associate with a view to partnership in a modern fully equipped dental practice, full or part time. Tel: 087-6756447.

Positions available part-time

Part time Associate required for busy North Kildare general practice, 1 hour from city centre. Phone 01 6273766.

Orthodontist wanted. Permanent part-time position available for an Orthodontist one day per week in Cork or Dublin. Excellent conditions. Telephone Emmet on 086 8187373.

Associate wanted: Part-time Associate required for busy thriving practice in Co Tipperary, Ireland. Modern fully equipped surgery, OPG, hygienist and excellent support team. For further information contact Linda at 087 2281282 or themallpractice@eircom.net

Cork County part-time Associate required for maternity cover - immediate start until September. May lead to permanent part-time position. Tel: 087 7414060.

Experienced Associate required 2/3 days per week for expanding mixed practice. Fully computerised. Email CV to rodandcatherine@hotmail.com or call 087 7721828 evenings/weekend.

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

Part-time Associate required for Dublin 4 general dental practice. Phone: 086 8317719.

Wanted. Specialist Prosthodontist for sessions/days in well equipped and staffed practice, other speciality already in situ, South East, large referral base available. Tel: 086 8586673 after 6pm.

Part-time experienced Associate immediately needed for busy 3 person long established practice in South Dublin. Modern surgeries, OPG, full support staff. Send CV to aoifecox@iol.ie or phone 087 9887821.

Positions sought

VT trained dentist available for full/part time employment in Dublin. Immediate start. Phone 087 9344781.

Experienced Dental Hygienist available for work in the Tipperary areas. Qualified in radiography and administering local anaesthetic. Flexible working hours. Call Claire 087 9081807.

Misc

Two surgeries available to rent in specialist practice, Dublin 3. Full or part-time. Tel: 087 9069303 after 6 p.m.

Irish dentist wishes to purchase a one/two surgery practice in Dublin area. Private/PRSI preferred. Can move quickly. Phone 00 44 1273 728915.

Available to Lease. Four newly built consultation rooms, reception area, waiting area etc. Adjacent to health centre in fast growing midlands town, currently with no dental service. Enquiries to Ciaran O'Hanlon, Tel: 086 0849071, 090 64 38677.

1/4
Slievemore
Clinic

Diary

February 2006

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

IDA GP Group Meeting
Date: February 28, 2006 at 6.30pm
Venue: IDA House, Unit 2, Leopardstown Office Park, Sandyford, Dublin 18.

March 2006

Munster Branch, IDA, "Treatment Planning and Diagnostic Decisions"
Date: March 1, 2006
Venue: Clarion Hotel, Cork
Speaker: Dr Edward Cotter
For further information contact Eamonn Murphy, Secretary of Branch. Tel: 021-4294590.

Munster Branch, IDA, Presidents Dinner
Date: March 3, 2006
Venue: Clarion Hotel, Cork
Further information contact Eamonn Murphy, Secretary of Branch, Tel: 021-4294590.

Southeastern Branch, IDA Annual Scientific Day and Annual Dinner
Date: March 10, 2006
Venue: Faithlegg House Hotel, Waterford
Registration for Annual Scientific Day at 9am. The AGM of Southeastern branch will follow at 4pm. and the Annual Dinner will be at 7.30pm.

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

American Dental Association, Monroe County Dental Society
Date: March 17, 2006
Venue: Fairport, New York
Advances in Sports Dentistry: A Game Plan for Success - Dr Dennis N Ranalli. For further information contact www.ada.org or Lori Bowerman (585) 3859550.

Metropolitan Branch, IDA "Smoking Cessation" and AGM
Date: March 18, 2006
Venue: Alexander Hotel
Speaker: Dr Bernard McCartan

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

Advanced Rotary Hands On Course
Date: March 23, 2006
Venue: The Ferrycarrig Hotel, Wexford
Speaker: Dr Patrick O'Driscoll
This one-day, hands-on course gives delegates the opportunity to successfully shape and fill root canals in extracted teeth using rotary NiTi endodontic instruments, magnification, apex

locators, digital radiography and ultrasonic. In addition, delegates will be given information on dismantling crown and bridges, core and post removal and effective removal of GP, including carrier-based systems. The role of root repair material will also be discussed.

American Dental Association - Seventh District Dental Society of Pennsylvania
Date: March 24, 2006
Venue: State College, Pennsylvania
Predictable Cosmetic Dentistry - Dr Jeff J Morley. For further information contact Dr David Schimmel on (814) 2348527 or www.ada.org

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

April 2006

Nebraska Dental Association
Date: April 2, 2006
Venue: Omaha, Nebraska
"The Team Approach to Periodontal Therapy" - Dr Alan E Fetner. For further information contact Ms Julie Berger (402) 4761704.

Munster Branch, IDA. Talk on Endodontics
Date: April 7, 2006
Venue: Clarion Hotel, Cork
Speaker: Dr John Dermody
For further information contact Eamonn Murphy, Secretary of Branch, Tel: 021-4294590.

American Dental Association - Chester-Delaware County Dental Society
Date: April 7, 2006
Venue: Springfield, Pennsylvania
"Everybody wants to go to Heaven, but nobody wants to die: The Reality of Removable Prosthodontics". For further information contact Dr Barry Cohen, Tel: (610) 4497002.

Irish Dental Association - Annual Scientific Conference
Date: April 27 & 28, 2006
Venue: Royal Dublin Society (RDS), Ballsbridge, Dublin 4
For further information contact Joan Bracken, Tel: 01-2950072, Email: joan@irishdentalassoc.ie

May 2006

American Dental Association - Spokane District Dental Society. The Total Endodontic Experience.
Date: May 18, 2006
Venue: Spokane, Washington
Speaker: Dr John D West. For further information contact Connie Robohn (509) 8380436.

Kazakhstan Stomatological Association - International Dental Exhibition and Scientific Conference
Date: May 25-28, 2006
Venue: Almaty, Kazakhstan
For further information : Tel 8 (3272) 922335, Fax: 8 (3272) 930988 or Email ksa_930@netmail.kz

American Dental Association - Fourth District Dental Society. "Making Clinical Efficiency a Reality"
Date: May 26, 2006
Venue: Saratoga Springs, New York
Speaker: Dr Joseph A Blaes. For further information contact Dr James Galati, Tel: (518) 2750910.

June 2006

Second International Congress of Odontology and Maxillofacial Surgery
Date: June 9 & 10, 2006
Venue: Oulu, Kaunas, Lithuania
All information on website www.balticcompass.com
Advanced Rotary Hands On Course
Date: June 28, 2006
Venue: Hayfield Manor, Cork
Speaker: Dr Patrick O'Driscoll

This one-day, hands-on course gives delegates the opportunity to successfully shape and fill root canals in extracted teeth using rotary NiTi endodontic instruments, magnification, apex locators, digital radiography and ultrasonic. In addition, delegates will be given information on dismantling crown and bridges, core and post removal and effective removal of GP, including carrier-based systems. The role of root repair material will also be discussed.

September 2006

American Dental Association - New Hampshire Dental Society
Date: September 15, 2006
Venue: Concord, New Hampshire
"Everything you wanted to know about street drugs but were afraid to ask" - For further information contact Mr James Williamson, Tel: (603) 2255961.

FDI World Dental Congress - Shenzhen 2006
Date: September 22-25, 2006
For further details contact www.fdiworldental.org

Advanced Rotary Hands On Course
Date: September 28, 2006
Venue: The Conrad Hotel, Dublin
Speaker: Dr Patrick O'Driscoll
This one-day, hands-on course gives delegates the opportunity to successfully shape and fill root canals in extracted teeth using rotary NiTi endodontic instruments, magnification, apex locators, digital radiography and ultrasonic. In addition, delegates will be given information on dismantling crown and bridges, core and post removal and effective removal of GP, including carrier-based systems. The role of root repair material will also be discussed.

October 2006

American Dental Association - 3 Rivers Dental Conference. "Blood, Sweat and Tears: Frontline Management of Dental Trauma"
Date: October 3, 2006
Venue: Monroeville, Pennsylvania
Speaker: Dr Edward J Barrett. For further information contact Dr Jef Mertens, Tel (724) 9414990.



Spring 2006 Quiz

This issue's quiz has kindly been sponsored by Nobel Biocare and the prize is a case of wine.



This 69-year-old lady presented with continual severe painful oral ulceration of two years' duration. She has no associated skin lesions. She is otherwise fit and well and on no medication.

- Q1 What is your differential diagnosis?
- Q2 What single test is diagnostically most useful?
- Q3 What treatment will the patient require?

Submitted by Claire Healy
Specialist Registrar
Oral Medicine Dublin Dental School and Hospital

Winners...
The winner of the Annual Scientific Conference quiz, which appeared in the winter 2005 edition of the JIDA is
Dr Frank Burke
University Dental School and Hospital
Wilton, Cork

Frank wins free conference registration to the 2006 Annual Scientific Conference in Ballsbridge, Dublin.

...and losers
Unfortunately none of the submitted answers were considered close enough to be able to award for the winter 2005 clinical quiz. Better luck next time!

The question was:

This 17-year-old male Caucasian was referred to A/E following routine radiographic assessment prior to orthodontic treatment. OPG and lateral cephalic views show an oval radiolucency, 2.5cm in diameter, in the anterior region of the mandible crossing the midline. What is the differential diagnosis? What is the likely diagnosis?

The answer was:

Differential diagnoses:

- Radicular Cyst
- Odontogenic Keratocyst
- Ameloblastoma
- Median Cysts
- Solitary Bone cyst
- Aneurysmal Bone cyst
- Central Giant Cell granuloma
- Squamous odontogenic tumour
- Calcifying epithelial odontogenic tumour

Diagnosis:

The patient is clinically asymptomatic, with normal sensation in the area, no bony expansion and positive vitality testing.
Radiographically, OPG and lateral cephalic views show an oval radiolucency well demarcated, 2.5cm in diameter, in the anterior region of the mandible crossing the midline.
Needle aspirate produced blood, not arterial.
At exploration under Ia and sedation: no cyst lining, but soft tissue curetted which histologically contained macrophages, giant cells and marked osteoblastic activity.
While more cellular than usual appearances are most in keeping with a solitary bone cyst.
Dr Paul Cashman B.Dent.Sc, Dublin Dental Hospital

