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Journal of the Irish Dental Association

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Price differences, competition and the real culprit

The recent National Consumer Agency survey proved the Association's contention that there is real competition in dentistry, but deflected attention away from the real culprit in relation to funding of oral healthcare – the Government.

Our Association has responded to the recent National Consumer Agency (NCA) survey on dental and medical fees by pointing out that the survey results are hard evidence of competition in the industry. The survey pointed to significant differences in fees charged for dental examinations and treatments around the country. It also claimed that only 32% of dentists nationwide display their fees.

In response to the survey results, the IDA pointed out that the variation in fees showed that there was real competition in the sector. Speaking on Newstalk FM's breakfast show, our CEO, Fintan Hourihan said that this is a positive finding. "I think people would be far more worried and dentists would be accused of far worse things if all of the prices were very similar," he stated.

The reality pointed out so eloquently by Fintan on Newstalk and elsewhere is that dentists would have been accused of all sorts of calumny had the survey shown that prices were very similar everywhere. So being criticised for having differences in fees is ironic at best – and galling too. Dentistry in Ireland reflects the standard provided in a difficult health market which is ignored by Government. There is also the charge that dental treatment is cheaper in Northern Ireland. We have recent research showing that operating costs are significantly higher in the Republic. In fact, operating costs in Northern Ireland are 40% lower than they are in the Republic of Ireland and there is significant state support for dentistry in Northern Ireland as opposed to the Republic. Dentists in Northern Ireland are fortunate to receive Government support enabling them to decrease the oral health/dental costs for patients. Dentistry in the Republic continues to be fully self-financed by dentists.

On a wider front, I understand the Association has received correspondence from the NCA regarding a proposed code of practice in pricing, and will consider this in due course.

Restricted in giving advice

And what is the reality of giving advice on dental fees? It is that we cannot as an Association make any statements or recommendations on fees. Therefore, we looked to guidance from the Dental Council about fees and their advice is clear. Dentists may give indications of fees for routine items, but any complex items require an examination before a proper estimate can be provided to the patient. In a very real sense, in relation to pricing, dentists can feel damned if they do, and damned if they do not.

The Association has long since promoted the idea of price transparency, and in accordance with that, supports the placing of price lists in dental practices. Additionally, the number of dentists who display their fees has increased by one-third in the past 12 months – from 25% in the equivalent NCA survey published in June 2009 to 32% in the latest survey – and further, the Association has commissioned research showing that 97% of dentists have reduced or frozen their fees in the past 12 months.

The biggest culprit

A further real sore point in our profession is that the Government's role, brought on by the forced recession, is being ignored in this debate. The State itself is the biggest culprit in terms of contributing to the cost of dentistry specifically and oral healthcare in general because they have decimated both the PRSI scheme and the medical card scheme. We need to work very hard together to refocus the debate about oral healthcare in Ireland and put the spotlight very firmly on the Government's appalling actions in cutting the very minimal supports that had been in place. This policy will lead to huge demands on oral healthcare in the future, with a need for higher level dentistry, having eliminated the preventive aspects of early exposure and simpler techniques.

We have made good progress in recent months in getting our points across. We need to continue to agitate collectively and engage fully in the debate about what is in the best interests of our patients.



Leo r. A. Stassen.

Prof. Leo F. A. Stassen Honorary Editor

PRESIDENT'S NEWS

A positive view

DR BILLY DAVIS presents his first President's news.



IDA President Dr Billy Davis has the support of the team at IDA House (from left): Fintan Hourihan; Dario Gioe; Mena Sherlock; Dr Billy Davis; Elaine Hughes; Mary Graham; and, Clare Dowling.

It is a great honour to write my first President's News for the *Journal* of the Irish Dental Association.

Firstly, I would like to thank all the delegates who turned up in great numbers to the IDA Annual Conference in Galway. It was a great success and enjoyed by all. Our international speakers were of excellent calibre. For some of them our conference was their only European engagement for the year, and this proves the integrity of the event. Our own homegrown speakers offered us many 'Pearls of Wisdom' along with invaluable advice, and magnificently represented the Irish dental profession at the highest level. A special thanks to our trade sponsors whose support we are as ever grateful for. Thanks and congratulations on a great job to the conference organising committee, under the chairmanship of Dr Pat Cleary. Elaine Hughes co-ordinated every last detail, and Dr Denis Daly, Dr Aisling MacChesney, Dr Paul McEvoy and Dr Paul Moore worked tirelessly during the past year preparing for the event.

Turning to the year ahead, I will endeavour to serve you as best I can as President of the Association. I do not underestimate the difficulties we are facing. It is quite clear that the past is a different place. I believe it is important for all branches of dentistry to now stick together and stand up for what is right and is in the best interests of our patients. We have an excellent support staff in Sandyford, with Fintan Hourihan, our CEO, Elaine Hughes, Assistant CEO, and their team of Clare, Mena, Eileen, Mary, Fionnuala and Dario, who will endeavour to help us through these difficulties.

Now we appear to have hit a perfect storm. This means that we all have to make a painful adjustment. I truly believe we will emerge stronger in the end once we adhere to our moral and ethical principles of providing the best care we can to our patients. I would also encourage every member to support one another as best you can.

On a positive note, I am encouraged by the feedback received in Galway. It is encouraging to see great levels of energy and enthusiasm among members. The structure of the Association allows all members to have a say in the policy-making of the Association. I would encourage all members to get involved in the Association either at local branch level or in the national council or committees.

Many thanks for appointing me as President of the IDA. It is indeed a pleasure and an honour for me. I was delighted to meet so many of you at the pre-conference tour of the branches and in Galway, and I look forward to meeting the rest of you during the next year.

Dr Billy Davis President

Cork University Dental School launches new dental nursing initiative



Students undertaking the full-time clinical training placement: Back row (from left): Orla Spillane; Luanda Keavney; Claire Lester; and, Michelle Stone. Front row (from left): Michelle Seward; Aoife O'Mahony; Leigh Johnston; and, Ciara Moloney.

In November 2009 Cork University Dental School and Hospital launched an initiative to offer full-time clinical training positions for student dental nurses to gain their clinical experience within the Dental School. This initiative was introduced as a result of continued interest in the dental nursing profession by prospective students who were not employed as trainee dental nurses in practice – which is required to undertake the National Dental Nurse Training Programme of Ireland – and whose preference was to obtain their qualification by studying full time.

In the pilot of this venture, eight students were chosen from interview and offered clinical training placements in Cork University Dental School and Hospital. These students attend the Dental Hospital on a daily basis, where they obtain their clinical experience under the supervision of consultancy staff and registered dental nurses.

The students attend each clinic for a number of weeks and rotate to each area to gain experience in all aspects of clinical dentistry pertaining to dental nursing. In addition to this, these students also undertake the National Dental Nurse Training Programme of Ireland, where the didactic component of their study is delivered using a variety of teaching methodologies, including videoconferencing and web streaming.

The past few months have seen these students develop their skills to the highest standards and they have integrated well with staff and students alike, by providing support and assistance in the clinical areas. Professor Finbarr Allen, Dean of the Dental School says: "This is our first intake of full-time dental nurse students at the Dental School and Hospital, and we are very pleased to be able to offer this training in house. Aside from the expansion of training programmes on offer here, it also allows dental students to work with dental nurse trainees, and improves the understanding of fourhanded dentistry and teamwork. For all students concerned, the experience will prepare them for working in a general practice environment in a way that we haven't been able to provide for in the past".

Staff members have been quoted as saying that when the student

dental nurses are on holidays "they are greatly missed in the clinical area". Overall, this seems to be a positive experience for the student dental nurses and the staff of the Cork University Dental School and Hospital, and we hope here in the Dental Hospital that this initiative will continue throughout the coming years.

For more information on this initiative, please contact Siobhán Murray Shakeshaft, Tel: 021-490 1160, or Email: siobhan.murray@ucc.ie.

PDS Seminar 2010

The annual Public Dental Surgeons Seminar will take place at the Clarion Hotel, Sligo, from October 6-8 next.



I lost my heart to a Galway Pearl!

A very big thanks to all who made the IDA Annual Conference 2010 such a wonderful success for the 700 delegates who attended at the Radisson Hotel, Galway. The organising committee wish to thank most sincerely the excellent speakers and all our Trade Sponsors without whose support the Conference would not have been possible.



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Heart disease link quantified – Government folly proved again

A new study which establishes a clear link between poor dental hygiene and an increased risk of heart disease proves the folly of the Government's decision to dismantle the Medical Card and PRSI dental schemes, according to the Irish Dental Association.

In a recent study, experts from University College London found that people who never or rarely brush their teeth are 70% more likely to suffer heart disease than people who brush twice a day. While dentists have been aware of the link, the new study is the first to measure and quantify the benefits of daily brushing. Dr Billy Davis, IDA President pointed out that the study comes shortly after the HSE dismantled the Medical Card Dental Scheme, specifically banning dentists from treating card holders for the very gum disease that poses the risk of a heart attack.

"Periodontal treatment was one of the routine treatments ruled out by the HSE for medical card holders. We have pointed out that the cuts do not make any financial sense and this study underlines that. If you treat a person for gum disease today, as well as safeguarding that person's future health you are saving the health service tens of thousands of euro in future years," Davis concluded.

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IDA President attends BDA meeting



IDA President Dr Billy Davis made a presentation to British Dental Association (BDA) President Dr Amarjit Gill at the BDA's Conference and Exhibition in Liverpool recently.

New report shows key role of public schemes in oral health

The Association has stated that HSE cuts to the medical card and PRSI schemes are going to wipe out significant improvements that have been made in oral health in Ireland over the past 30 years.



According to the newly published *O'Neill Report 2010*, the oral health of Irish citizens has improved and there has been a reduction in health inequalities for adults and children since 1980. The report says that this is the

result of a number of factors including water fluoridation, self-care and the contribution of Irish dentistry. The report also highlights the role the Public Dental Service has played in improving the dental health of children under 16, and the success of the needs-based system that operates here in reducing health inequalities.

The report by Ciaran O'Neill, Professor of Health Technology Assessment at NUI Galway, also found major differences in the state supports available to dentists in the Republic and Northern Ireland (NI). While dentists in NI receive approximately €37,000 in practice allowance grants, no such support is available in the Republic of Ireland. The report also found that the sector supports 1,990 jobs directly, and 2,488 support jobs, including hygienists, technicians and assistants.

Welcoming the publication of the report, IDA Chief Executive Fintan Hourihan said it was a timely reminder of the progress that has been made in recent years by the profession. "This report shows the huge advances that have been made in the oral health of the nation thanks in large measure to the expertise and commitment of dentists in Ireland," he said.

He described the HSE's decision to annihilate the medical card scheme at less than 24 hours' notice as nothing less than a cynical and contemptuous decision.

"This is a particularly reprehensible move as the 1.6 million people who are going to suffer most are the people in greatest need of treatment," he concluded.



Figure 1

QUIZ

Submitted by Mr Darren McCourt, specialist oral surgeon.

This patient was referred for an implant assessment to restore the right mandibular first molar site. An incidental radiographic finding was noted (**Figure 1**). Three years after treatment of this lesion a second lesion was noted in the dentoalveolar region of the right posterior mandible.



Figure 2

- What is the most likely differential diagnosis of the lesion in Figure 1 and how would you confirm your diagnosis?
- 2. What is the most likely diagnosis of the lesion in Figure 2?
- 3. What are the treatment options for this type of lesion?
- 4. What is the postoperative review protocol after removing this lesion?

Answers on page 142

Dental Waste Management



New survey indicates 6,000 Irish patients per annum receive corrective treatment following dental work abroad

A new survey by the Irish Dental Association indicates that in the past 12 months 6,000 people who travelled abroad for dental treatment have had to receive corrective treatment on their return to Ireland. According to the survey, 75% of Irish dentists say they have provided treatment to patients in these circumstances.

Commenting on the survey, Dr Donal Blackwell, outgoing President of the Association, said he was shocked at the numbers of people needing corrective treatment. "This survey supports the findings of a separate study last August, which also found that three-quarters of dentists have provided corrective treatment to Irish people who went abroad for treatment. What we didn't know then was the precise number of patients affected and this is truly shocking. Common problems include too much dental work being done over too short a time frame, unnecessary work being done and poor materials being used by dentists abroad," he said. The findings have prompted the IDA to remind dental patients contemplating treatment abroad to ensure that the dentist who is treating them – and not just the dentist who might examine them in Ireland pre departure – is registered with the Irish Dental Council. "If the dentist is registered with the IDC patients will at least have some come back if the treatment goes wrong."

Dr Blackwell advised anyone who required dental treatment to check with a local dentist in the first instance to see what work is required and to get a valid price comparison.

"This is not like buying a computer or a phone abroad. This is a personal health issue and every situation is different. People need to focus on the quality of the care and the work they will receive and not just on the short-term price. We believe a patient's lifelong dental health is best protected by establishing a long-term, professional relationship with a local dentist whom the patient trusts and feels comfortable with."

Dentists call for public health warnings on soft drinks

Dentists have called on the Minister for Health and Children to introduce 'public health warning' labels for carbonated soft drinks. Dentists say the warning would be similar to the health warning that is currently carried on tobacco products and would increase public awareness of the negative impact these products have on oral and general health.

The call was made in a motion at the annual conference of the Irish Dental Association in Galway. In a related motion, dentists also called on the Minister to introduce legislation to ensure that the sugar content of food and drinks is highlighted.

Dr Billy Davis, incoming President of the IDA, said the purpose of both these measures would be to encourage consumers to consider the dental health risk every time they buy a soft drink or snack. "In Ireland

New dentists speak up

Newly qualified dentists face considerable difficulties setting out in their careers, and require support from colleagues and from the Irish Dental Association. This was the message from the open forum on newly qualified dentists, which took place at the IDA Annual Conference in Galway.

Dr Ryan Hennessy of the newly formed Recently Established Dentists Group addressed a range of issues affecting young dentists. He spoke of the difficulties facing new graduates, who move from student to professional overnight, with no business training or support structures. He also discussed the relationship between the associate and the employing principal dentist, particularly the difficulties that can arise around contracts of employment.

Dr Hennessy spoke about the difficulties that recent graduates are experiencing in finding employment in the current climate, and said that many are considering emigration. Many principals look for up to three years' experience when hiring an associate. we have one of the highest per capita rates of soft drinks consumption in the western world at over 100 litres per capita per annum, an average of at least one 330ml can per day. There are also increased general health risks, with people who consume excess sugar suffering higher rates of heart disease and diabetes. The health warning system has really worked well for tobacco and alcohol products and it is time for similar warnings to be placed on food and drink products so that consumers can make a fully informed choice," he said.

A motion sponsored by Dr Davis called on the HSE to engage dentists in a screening programme for oral cancer as part of the national cancer control programme. There were also several motions condemning the cutbacks to the PRSI and medical card schemes, while another motion deplored the reduction in public dental services to children and adults with special needs brought about by the HSE recruitment ban, and called for an exemption for all public dental services posts.

He pointed out that associates and new graduates have a range of skills that could be of use to existing practices, but that these are underutilised. He argued for principals seeing their associate as a resource in terms of technology – effectively a free IT consultant, who could facilitate access to Twitter or Facebook and assist with building a web presence for the practice.

Dr Hennessy also touched on the issue of stress in those starting out in dentistry. Young dentists may not feel that they have anyone to turn to as they get used to the world outside university, or indeed the world of business if they eventually decide to establish their own practice.

He stated that the Recently Established Dentists Group plans to host a seminar in the near future to address these issues, and encouraged colleagues to get involved with the Group.

In other presentations, IDA CEO Fintan Hourihan presented statistics regarding changes in dentistry in Ireland and Dr Garry Heavey offered advice on business management to young colleagues starting out.

Pearls of wisdom for all in Galway

Almost 700 delegates enjoyed the excellent IDA Annual Conference in the Radisson Hotel, Galway, from May 13 to 15.



Outgoing IDA President Dr Donal Blackwell passes on the chain of office to new President Dr Billy Davis.



Sean Gallagher of TV's Dragon's Den offered business advice.



Dr John Drummond, President of the British Dental Assocation, offered a toast at the Annual Dinner.



IDA CEO Fintan Hourihan addressed the Association's AGM in Galway.



Dr Paddy Crotty presents the Moloney Award to Dr Seamus Sharkey.

With mounting pressure from increasing costs and falling incomes, and the fallout from devastating government cutbacks to the PRSI and medical card schemes, IDA members could be forgiven for being downbeat. However, members rose to the occasion by turning up at this year's 'Pearls of Wisdom' Annual Conference in Galway in huge numbers to show solidarity as a profession and demonstrate their determination to get through the bad times.

At the AGM, GDP meeting and forum for recently qualified dentists, members were assured that the IDA will continue to advocate for members, and for the oral health of the nation. CEO Fintan Hourihan assured members that the Association would do everything in its power to support them through advocacy, education and training, and positive media coverage. On that note, it was reiterated that volunteers are needed nationwide to act as spokespersons for the Association and the profession at local level,



From left: Dr Claudette Christie, Director, BDA Northern Ireland; Dr Richard Graham, President, BDA Northern Ireland; Dr Billy Davis; Professor Sean Tierney, President IMO; and, IDA CEO Fintan Hourihan.

and members were reassured that every support, including media training, will be made available to those who come forward. As ever, there was an excellent trade show, which was extremely well attended by delegates. The social programme was also a resounding success, and the Annual Dinner on Saturday night was undoubtedly the social highlight of the weekend.

Feedback on this year's conference was overwhelmingly positive, and the organising committee, ably chaired by Dr Pat Cleary, came in for particular praise. The photos on these pages give a flavour of what was a very successful weekend (for more photos, see the electronic version of the JIDA on www.dentist.ie).

Presentations

Members of the whole dental team were treated to a fascinating range of presentations from eminent local and international speakers



Pictured with Dr Billy Davis at the trade show were David Kiernan, Aoife Moran and Finbarr O'Riordan from Colgate.



Carina Edwards of Wrigleys and Dr Billy Davis.



Professor Joseph Massad offered the ultimate impressioning experience at his workshop.



Rita Bauer explains how to capture the perfect makeover.

who defied the ash cloud to make their way to Galway. For many of the visiting speakers, the IDA conference will be their only international speaking engagement. Local speakers also did the Association proud with presentations on an impressive range of topics. The internationally known founder of Dentaltown, Dr Howard Farran, explained how he employed business principles that he learned from his father, who owned and ran nine restaurants, to build up a \$3m dental practice. The principles included: a good location in a retail setting; a great name (Today's Dental); a recognition that women make 89% of all healthcare decisions in the family; recognising that retention of staff is critical in establishing trust with patients; and, incentives for patients to come into the practice.

Rita Bauer of the University of Toronto gave a lively and informative presentation on using digital photography as both a clinical and a marketing tool. Rita gave guidelines on the composition of clinically correct before and after photographs, and also gave tips on how to take a flattering portrait of the patient once treatment is completed, which works as an excellent marketing tool for the dentist. She reviewed the latest equipment, and assured delegates that it is not necessary to spend a fortune to achieve impressive results, once a few simple techniques have been mastered.

Professor Stanley Malamed used video segments to emphasise the importance of training in basic life support for the whole dental team. He encouraged dentists to keep an AED machine in their practice and to train all staff to use it, and discussed the importance of having a practice protocol for dealing with emergencies, with specific roles allocated to staff members.

Dr Brian Edlin of Dental Protection addressed delegates on record keeping. In a litigious world, it is more important than ever to fully and accurately record the entire interaction with a patient, from initial visit to final treatment. He also gave information on dentists' responsibilities with regard to data protection, and emphasised the importance of contacting one's dental indemnifier immediately on receipt of any legal correspondence.

The final speaker on Friday afternoon was businessman Sean Gallagher of TV's Dragon's Den. Sean told the assembled delegates



Mairéad Nestor and Maureen Walsh from VHI DeCare with Dr Billy Davis.



From left: Helen Tully; Dr Donal Tully; Dr Lorna McCourt; Dr Garry Heavey; and, Fiona O'Shaugnessy.



Dr Yvonne Finlay getting hands-on instruction at the Thursday workshop.



Delegates had the opportunity to improve their crown lengthening technique.



Dr James O'Reilly, Fine Gael Spokesperson for Health and Children, with Councillor Hildegarde Naughton of Galway City Council.

that as professionals who provide a service and receive a fee, dentists are business people. He said that the key to surviving the downturn is to have a strategy to maintain and build the business, built around specific goals. He spoke about the importance of connecting with people, whether with staff, with new and existing patients, or other business people in the local area, and encouraged delegates not to fear change, but to prepare for and embrace it.

Saturday's parallel sessions dealt with a range of clinical and management topics, with local and international speakers addressing two packed meeting halls throughout the day.

Dr Donal McDonnell gave a comprehensive overview of radiographic technique selection and its influence on interpretation of results. He used video presentations to demonstrate the correct technique when taking periapical, bitewing and panoramic radiographs, and advised delegates to familiarise themselves with the relevant legislation.

Dr Stephen Parker took a fascinating look at the use of laser energy to treat oral soft tissue, describing both the physics behind the technology on offer and the many practical applications that are possible in the general dental practice.

Drs Aisling O'Mahony and Anne O'Donoghue presented tips for optimal aesthetics of anterior teeth, describing how they use the experiences gained with patients in the cleft lip and palate clinic in St James's Hospital in general practice.

Dr Dympna Daly offered tried and tested principles of paediatric dentistry based on her experience in her practice in Galway. She emphasised the need to care for the primary dentition, and not to underestimate its importance. She also gave advice on treatment planning, anaesthesia and equipment.

Noel Kelsch gave an impassioned presentation on the dental professional's approach to patients suffering from addiction, emphasising the dentist's role as a first point of contact with health or support services in many instances.

Professor Brian O'Connell discussed what works in prosthodontics, comparing a range of research, and pointing out that the evidence is there to guide practitioners, not to dictate.



Dr Howard Farran of Dentaltown.com had plenty of marketing tips to offer in two presentations.



Drs Daire Shanahan, Neil Condon, Paul Hooi and John Bowe enjoying the social side of the conference.

Presidents Cup



Dr Emlyn Bratton is presented with the President's Cup by Dr Billy Davis.

The Annual Presidents Cup took place in Galway Golf Club on Wednesday May 12. Dr Emlyn Bratton, Donegal, was the overall winner with Dr Kevin O'Regan coming in second and Dr David Patton in third place. Other winners included:

Fourth place: Mary Halpenny Front Nine: Marty Fitzpatrick Back Nine: Tommy Maguire Gross: Emlyn Bratton Longest Drive (the Dr Gary Boyle Memorial Cup): Emlyn Bratton Closest to the Pin: David Whittaker



The Davis family: John, Clodagh, Billy and Brian.

Costello Medal



Costello medal winners Chloe Kassis-Crowe and John Reidy, representing Dublin Dental School and Hospital with Mrs Jacqueline Costello and Dr Billy Davis.

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- You must be highly committed to quality dentistry.

- You must have excellent oral and written communication skills.
- We have also invested in the CEREC system and have the benefit of our clinical director Dr John Rautenbach as your in-house established colleague to help you with this if you need help!
- You must be willing to commit to living and working in this very special environment as the practice is situated in the Orkney Islands in one of the safest communities in the country. We have access to quality schools, outdoor pursuits, in fact whatever we need for a great quality of life. We can also access the rest of the country relatively quickly by superb air links.

Finally you will earn a very substantial salary as evidenced by our existing colleagues who are delighted to testify and act as referees.

Emailyour CV in the first instance to me, Dr John Barry on johnbarry@thedentalplan.co.uk.

Earl's Palace Dental Centre, Watergate Kirkwall, Orkney, Scotland Tel 00 44 1847 894989 Email johnbarry@thedentalplan.co.uk

New Dental Registrar



The Dental Council has announced the appointment of David O'Flynn as the Council's new Registrar. He replaced the long-serving previous Registrar, Thomas Farren, who retired late last year. Mr O'Flynn formally took up his appointment in January. However prior to this he had been the acting Registrar for the period from July to December 2009. He joined the Dental Council from

An Bord Altranais, the regulatory body for nursing and midwifery in Ireland where he held the position of Director of Operations.

Mr O'Flynn is an accountant and a member of the Chartered Institute of Management Accountants. He has significant knowledge and experience of health regulation in Ireland from the seven years he was with An Bord Altranais. He was responsible for the Finance, Information Technology (IT), Human Resources and Technical Services Departments in An Bord Altranais and supported the Executive and Board in delivering on the Board's statutory duties in relation to registration, education and fitness to practise. Prior to joining An Bord Altranais Mr O'Flynn held a number of senior financial positions in both the semi-state and private sectors.

He joined the Council at an interesting and challenging time both for the Dental Council and for health regulation in Ireland. Health regulators in Ireland are being challenged to provide better and more effective regulation as a result of recent high profile incidents in the health sector. The implementation of the findings of the Commission on Patient Safety and Quality Assurance set out in the report *Building a Culture of Patient Safety* is a priority for the Government and will result in changes to the way that fitness to practise is managed by regulatory bodies as well as the introduction of a credentialing system to improve the flow of information between regulatory bodies, healthcare institutions, the Health Service Executive (HSE) and other bodies.

Mr O'Flynn is responsible for implementing the Council's new continued professional development (CPD) initiative. In preparation for the forthcoming legislative changes, the present Council is setting out a voluntary scheme of CPD for the profession This is an important development because under the Dental Council's Code of Practice pertaining to Professional Behaviour and Dental Ethics dentists have an obligation to maintain their professional knowledge and skills.

In the medium term Mr O'Flynn will be responsible for implementing a new Dentists Act on behalf of the Council. Based on the changes introduced for other health professionals it is almost certain that the majority of members of the Council under the new legislation will not be dentists and that there will be a significant increase in public interest representation and patients. As well as the probable requirement for all dental healthcare professionals to demonstrate ongoing CPD as a condition to maintaining registration there are also likely to be changes to the way that the Council regulates training institutions and to the fitness to practise and registration process.

The Association congratulates David O'Flynn on his appointment.

Colgate sponsors special edition of American Journal

Colgate recently sponsored a special edition of the *American Journal of Dentistry*. It presented the results of studies performed testing an 8% arginine-calcium carbonate desensitising paste, which is based on Pro-Argin technology, a combination of arginine and insoluble calcium compound. The introduction paper in the *Journal* is an overview of

dentine hypersensitivity. Another paper was a double-blind, stratified, randomised clinical study showing the beneficial effects of the 8% arginine-calcium carbonate desensitising paste used immediately after scaling procedures and its sustained relief over four weeks. Another paper presents the results of a double-blind, stratified, randomised clinical study showing the successful desensitising effect of the 8% arginine-calcium carbonate paste tested when applied as a preprocedure to professional dental cleaning.



Stream IT and AV Solutions is an authorised sales and service provider for MacPractice – the complete Mac solution for a dentist's office. Denis Ryan of Stream was present at the Annual Conference where he demonstrated the MacPractice software on a variety of Mac computers.

AIDI meeting



The winner of the AIDI Golf Cup, sponsored by the Journal of the Irish Dental Association, was David Greham of 3M. David is pictured (left) receiving the Cup from the President of the AIDI, Pat O'Brien.

AMERIC

IOURNAL

The members of the Association of the Irish Dental Industry met recently for their Annual General Meeting. Among the topics discussed were the state of the dental trade at present; the effectiveness of dental trade shows; the accuracy of industry statistics; the potential for CPD credits for dentists attending members' events; training of personnel working in the industry; and, various items relevant to the industry and the profession.

New Nobel Biocare website



Nobel Biocare has undertaken a complete redesign of its website for dental professionals. Dentists will find the new website at www.nobelbiocare.com/dental.

According to Nobel Biocare, the site boasts a new structure, improved functionality and usability, all new content – including an industry-leading resource library – and focuses on an interactive and intuitive user experience.



Luxatemp-Flourescence is supplied in a choice of delivery systems.

Luxatemp-Fluorescence: naturally fluorescent

Luxatemp-Fluorescence is DMG's bisacryl composite for temporary crowns and bridges. According to DMG, its special fluorescence matches the fluorescence of natural teeth. This makes temporaries look more natural and lifelike than ever before – virtually indistinguishable from natural teeth. Featuring the same perfect material properties and outstanding biocompatibility that has made Luxatemp-Automix Plus a worldwide success and number one in the USA, Luxatemp-Fluorescence is available in a wide range of shades including Bleached Light. It offers a natural appearance in all lighting conditions, excellent polishability, high flexural strength, high abrasion resistance, exceptional fit, low setting temperature, and freedom from methylmethacrylates and peroxides.

Luxatemp-Flourescence is supplied in a choice of delivery systems including Smartmix, which means it can be mixed and directly applied without the use of a mixing gun. Its small tips help to ensure economical use by minimising waste. It is also available in Automix cartridges for those who prefer conventional gun delivery systems.

Made in Germany – presented in Galway



Claire Austin on the Voco stand in Galway.

According to Voco, several innovative products for different indications were presented at the IDA Conference in Galway. These included lonolux, the light-curing glass ionomer restorative that combines the advantages of glass ionomer cement and composite. In addition to the already introduced AC version, lonolux is now also available in the particularly economical hand-mix version.

With Perfect Bleach Office, the proven Perfect Bleach product range has been supplemented with a chairside version. The new complete set permits office bleaching of five patients. It facilitates the bleaching of individual or multiple discoloured teeth in only one visit. Discolourations are quickly, safely as well as durably lightened with the bleaching gel that features a 27% hydrogen peroxide concentration. The practical QuickMix syringe prevents mixing errors; it enables the dentist to provide only the correct amount needed of the highly concentrated bleaching gel for each use. The reaction time for Perfect Bleach Office is only circa 10 minutes. The gel does not require additional activation once it has been applied to the teeth. Effective, gentle gingiva protection is carried out with the use of the kit's composite-based LC Dam. Last but not least, Remin Pro, the protective dental care with hydroxyl-apatite and fluoride, serves as a regeneration measure after bleaching, professional cleaning and orthodontic treatments. Remin Pro is easy to apply, can be used daily and is especially well-suited for use at home. Remin Pro is available in three flavours (mint, melon and strawberry) and it is the ideal supplement to the oral care and prophylaxis offered by the dentist.

Good Karma

Karma Dental Ltd is to present two one-day seminars on contemporary bondontics in September. Dr Ray Bertolotti, Clinical Professor in Biomaterials Science at the University of California, will conduct the seminars.

Tooth-whitening directive finally being put to the vote

After years of discussion, the debate on the tooth-whitening directive might be nearing conclusion. DR TOM FEENEY offers an update on recent developments.

Background

The European Commission proposed a new draft directive on tooth whitening products, which aims at adapting to technical progress the Council Directive 76/768/EEC in order to implement the opinion of the Scientific Committee on Consumer Products (SCCP) of December 18, 2007, on hydrogen peroxide.

The SCCP report concluded the following:

- a) the use of oral hygiene and tooth whitening products containing up to 0.1% hydrogen peroxide does not pose a risk to the health consumer;
- b) the use of tooth whitening or bleaching products containing more than 0.1% and up to 6% hydrogen peroxide present or released from other compounds or mixtures in those products may be safe if certain conditions are satisfied, such as: i) an appropriate clinical examination to ensure the absence of risk factors or other oral pathology of concern; and, ii) the exposure to these products should be limited in a manner that ensures that the products are used only as intended in terms of frequency and duration of application; and,
- c) tooth whitening or bleaching products containing levels above 6% hydrogen peroxide are not considered safe for use by the consumer.
 As a result, the new draft directive establishes that:
- As a result, the new draft directive establishes that
- Concentrations from >0.1% to ≤6% hydrogen peroxide present or released should only be sold to dental practitioners and, for each cycle of use, the first use should only be carried out by dental practitioners or under their direct supervision if an equivalent level of safety was ensured.
- Concentrations of >6% hydrogen peroxide present or released should only be sold to dental practitioners and only used by dental practitioners or under their direct supervision if an equivalent level of safety was ensured.

The CED welcomed this directive since it protects patient safety, promotes the CED's objectives of high standards of oral health and dental care and, most importantly, confirms the position of the profession.

CED activity

On February 8, 2010, Stuart Johnston (Chair of the Working Group [WG] on Tooth Whitening), Stefaan Hanson (Member of the WG Tooth Whitening) and Sara Roda (CED Brussels Office) attended a meeting of the Standing Committee on Cosmetic Products at the European Commission with all Permanent Representations of Member States to discuss:

- i) the new draft directive on tooth whitening products; and,
- ii) the engagement of the CED to record and report to the

Commission via their respective national associations, and in turn via the Council of European Dentists, the undesirable effects reported or observed by dentists, which result from the use of tooth whitening products, as well as to co-operate on market surveillance activities performed by the national market surveillance authorities in the dentists' professional premises.

Some Member States, in particular, France, Germany, Poland and Spain, did not support the draft directive and were against the market surveillance checks.

The arguments from these four Member States were the following:

FRANCE: France questioned the market surveillance activity performed by the national market surveillance authorities in the dentists' professional premises. They stated that it was necessary to have a law to allow this surveillance. And in this case, the paper that explains the CED commitment does not have a legal basis in order to demand this type of surveillance. France also stated that in terms of market surveillance the competences to check the products and the different types of use and effects are not the same.

SPAIN: The Spanish authorities explained that it would not be a problem for them to report undesirable effects, since that obligation already exists at national level. For market surveillance checks there is no national legal basis in Spain to order an inspection at dental offices. In addition, the department responsible for inspecting cosmetic products is not the same as the one responsible for inspecting health issues. Spain concluded by saying that they had a lot of difficulties accepting the draft directive since it would mean a huge change in their cosmetics legislation. They had never thought that a cosmetic product could only be handled by health professionals. Furthermore, if they opened this as an exception it would never again be understood that this was/is a cosmetic. Also, according to their health legislation, dentists cannot sell products in order to avoid personal economic interests in the sale of certain products.

GERMANY: Germany commented that the directive posed a problem since it would create a new system regarding cosmetic products and, consequently, generate internal problems. Also, they did not agree with the argument that hydrogen peroxide was only safe if used by dentists. **POLAND:** Poland had doubts on market surveillance and the restrictions to limit the sale only to dentists. Also, they faced a problem regarding tooth whitening products available on the internet and stated that it was not possible to know if the products were sold to a dentist or not. At the meeting, Stuart Johnston explained that there is an increase in the use of tooth whitening products by non-dentists, which could be dangerous. Dentists are the most competent professionals to use these products, since they have the professional skills and the scientific knowledge to do so. Furthermore, they are bound by an ethical code and they use the tooth whitening products on an evidence base. Stuart Johnston concluded by mentioning that the concentration limits for the use of hydrogen peroxide in tooth whitening products established in the draft directive is a result of a scientific study from the SCCP. This study did not reflect economic interests but only consumer safety.

The CED Brussels Office was informed that the European Commission has put to a written vote in the Standing Committee on Cosmetic Products (SCCS) a proposal aimed at adapting to technical progress the Council directive 76/768/EEC (Cosmetics Directive) in order to implement the opinion of the SCCP (currently replaced by the SCCS), of December 18, 2007, on hydrogen peroxide, in its free form or when released, in oral hygiene products and tooth whitening products.

As a result, the CED Brussels Office prepared a briefing package with a summary of the SCCP report, the European Commission proposal, and a list of points to make, and contacted the four Member States in question, via their national associations, encouraging them to lobby their Member States delegates.

The Spanish Dental Association has requested a meeting with its national authority and is still waiting for a date. France will not change

its opinion. The German Dental Association already had a meeting with its national authorities but its national authorities continue to be reluctant to support the draft directive.

Poland now holds the key. In fact, according to the European Commission, if the Polish Chamber of Physicians and Dentists succeeds in convincing their Member State delegate to change their opinion, the draft directive might come forward. The Polish Chamber of Physicians and Dentists had sent a letter to the competent authorities requesting them to reconsider the government's position and promising full co-operation in any efforts to do so. They are still waiting for a reply and for a date for a personal meeting.

Next steps

The next meeting of the Standing Committee on Cosmetic Products will take place in June 2010 and the CED's commitment will again be demonstrated in one of the meeting's working documents. The CED Brussels Office will continue to encourage CED members, in particular in Poland, to lobby their national authority, and to report on any relevant developments. The Irish Dental Association has already been in touch with the Irish authorities to strongly point out the need for support in the forthcoming vote.



Facing up to the challenges

The new President of the Irish Dental Association is an expert in restorative work. He'll bring his considerable political, professional and social skills to dealing with the difficult issues facing the Association in the coming year.



William (Billy) Davis was born in Wexford town, the second of three children – two boys and a girl – and reared there except for two years when the family moved to Cork. Educated in the local CBS, he didn't know what he wanted to do in life until a chat with his brother around the Easter before his Leaving Certificate. His brother was about to qualify in dentistry and Billy developed a strong belief that anything his brother could do, he could do better! He also liked the idea of being able to work for himself. While his father worked for CIE, his mother owned and ran a newsagent's shop in Wexford town and Billy had first-hand experience of what it was like to run a business.

Life, as Billy found out, has a funny way of pointing you in certain directions. While studying dentistry at UCD, a planned summer job in General Motors in Michigan fell through. So an uncle arranged for Billy to work in a dental laboratory in Grand Rapids. Billy got what he considered to be great training and was set on the path to restorative dentistry. Qualifying in 1974, Billy worked in both Ireland and the UK, before going to Indiana University to study for an MSD in 1976. Again, life took an unusual twist. Billy met his wife-to-be, Clodagh, a teacher, the night before he was to leave for the US. The romance

A sporting life

Billy was a keen rugby player – and a gaelic football player – in his youth. He tells the story of returning to CBS Wexford after two years in the CBC in Cork where he had learned to play rugby. This was the era of the ban and the appearance of young Billy arriving to school with a rugby ball tucked under his arm wasn't entirely welcome. A back injury put paid to his playing career with Wexford Wanderers around the time of the Leaving Certificate.

blossomed by correspondence. Christmases were spent in Ireland, while Clodagh came out to the States to visit for the summers.

Billy spent a short while as an Associate Professor in Indiana University but says himself: "I was always a home bird". He returned to Ireland in September 1979 and got married a month later. Two-and-a-half years were spent as an associate with Colm O'Sullivan in Leeson Street, Dublin, before Billy set up his own practice limited to restorative dentistry in Stillorgan. He later became the second person ever outside of the United States to obtain a Diplomate of the American Board of Prosthodontics. Billy and Clodagh live nearby in Blackrock and have three children: Brian (29); Conor (26); and, John (24).

After many years of active membership and officerships within the Irish Dental Association, Billy was elected to its highest role, the Presidency, at its Annual General Meeting in Galway on May 13 last. He comes into office at a challenging time. One colleague observed that Billy and Brian Lenehan could have a lot in common. However, it is evident that he is acutely aware of what is going on within dentistry and deeply committed to dealing with even the most difficult issues.

Golf has been Billy's great sporting joy and he learnt to play on idyllic summer days around the links at Rosslare. He quickly achieved a low handicap and proceeded to earn his colours at UCD and gain representative honours with Irish Universities.

In recent years, he prefers to play when the seasons are a little more welcoming, so during winters he turns his attention to the gym.

The competitive streak remains highly focussed however, as evidenced by a second place in last year's Ulster Seniors Championship, where he shot 70, 73.

You come into the office of President at one of the most difficult times for dentistry in decades. What is your assessment of the current state of the Irish dental profession?

Our profession is certainly going through a difficult time at the moment. Recent Government cuts reduced the state support for dentistry by 35%, and that is before the recent letter reducing the medical card scheme to an emergency service. The current recession has resulted in many of our patients losing their jobs and most of those still in employment have seen their take-home pay reduced significantly.

Uncertainty in the short-to-medium term has meant that, like with everything else, patients are only inclined to spend on what is absolutely necessary. The recent survey by Behaviour and Attitudes has shown that we are adapting as a profession. The research demonstrated that we are anxious to cope with the current economic situation and look after our patients who are in need of treatment. Approximately half of the dentists surveyed have reduced their fees for the most common treatment items – examinations, fillings, etc. – and one-third are looking at offering patients access to dental payment plans. I am delighted to have the support of our CEO Fintan Hourihan and Assistant CEO Elaine Hughes, who head up a very motivated, enthusiastic and skilled team in our office in Sandyford.

What can the Association do and what is it currently doing that will help dentists?

The Association is resisting these cuts, is fighting for the care which our patients deserve and are entitled to, and is insisting that agreements made are honoured. With all the changes that are taking place at the moment, and the various issuances that are coming out from Government and others, the lot of the dental practitioner is becoming an increasingly difficult and sometimes a lonely one. There is an increasing abundance of rules and regulations that we all work with and need to conform to, and it can be very difficult to stay abreast of the changes that are taking place. The dissemination of the required information is a role that the Association does very well. The office in Sandyford responds every day to very many queries in relation to all aspects of dental practice and is a great source of information and support to many.

What do you hope to achieve in your term of office?

Being aware that the Association needs to constantly change and respond to the changing environment, we have just completed a strategy review. It allowed us to look at how we can be as effective as possible over the coming years. Among the areas looked at were: putting the patient first; engaging our members; advocacy; public affairs management and education; and, continuing professional development.



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INTERVIEW

On reduced entitlements under the Medical Card Scheme

"It has been shown that those with medical cards have a higher incidence of dental disease and these are the people that will be most affected by these changes. It is difficult to understand."

On appointing a Chief Dental Officer

"I think that if we had a Chief Dental Officer, many of the problems that we are currently dealing with may have been avoided. As to when an appointment will be made it does not seem likely in the short term."

Any prospect of receiving the sort of support that medical GPs receive here or that dental GDPs receive in the North?

"In a word – no. And certainly not in the short term."

On dentists helping themselves

"Be proactive. Engage in further education to offer an improved and wider range of treatments to our patients. Embrace the new technologies and perhaps consider offering more varied office hours to facilitate patients."

On the profession's relationship with the dental trade

"The dental trade and the profession are on the same dental team. The profession appreciates that there has been a reduction in the cost of many dental materials, and understands the need to support the dental trade."



Each aspect has been given a leader and a small committee to ensure that the proposed activities are activated by their target dates. I would like to see the activities that are identified as happening within my term of office being put into action and completed.

In regard to 'putting the patient first' we would like to see a work programme relating to quality and patient safety issues formulated before the end of the year.

Engagement with our members would be facilitated by making the IDA more relevant to all interest groups. A review of the branch structure will be undertaken now as the pattern of attendance has changed and new roads are making many venues more accessible. I would like to see the IDA increasingly become the authoritative and primary advocate for patients and dentists in promoting not just better dental health but better health. I hope to help strengthen the patient-centred approach.

We know that we are not just the suppliers of a commodity to our clients but rather caring healthcare providers to our patients. We want to help improve the overall health of our patients as well as their oral health. We want dentistry to be seen as a more integral member of the general health professions. There is much that we have in common with our medical colleagues and our patient's best interest is best served by effective communication between us and the medical profession. Emerging science suggests an increasing

relationship between oral disease and broader health problems. Heart disease, stroke and diabetes are perhaps the strongest of these associations. Researchers have found that people with periodontal disease are almost twice as likely to suffer from coronary artery disease as those without periodontal disease. To explore these relationships further and to benefit all from that knowledge, we have initiated a consultation process with our colleagues in the Irish College of General Practioners. I look forward to seeing this process lead to greater co-operation and communication, which will result in better patient care.

What is your assessment of this Government's attitude to dentistry?

I think that it is becoming increasingly obvious that dentistry is very low in the Government's list of priorities. When it comes to supporting us in our objectives, it almost seems as though they are forgetting that our patients young and old are subject to a disease process that can result in pain and suffering and consequent general health complications. This can be prevented and treated where necessary by effective dental care.

What do you anticipate that the new Dentists Act will contain?

We expect the new Dentists Act to put continuing professional development on a statutory footing and that CPD will become mandatory for all dentists. We also expect the composition of the Dental Council to change in line with the recent changes in composition of the Medical Council. This is likely to result in a minority of dentists on the Council, and related changes in the processes stipulated for fitness to practice hearings. From the Association's point of view, I think we will have to work harder to communicate and advocate for the best interest of the profession.

Are you happy with how CPD is being developed and how the IDA is helping to provide it?

The Association has a proud history in relation to continuing education and is now embarking on a number of initiatives which will benefit our members including the online learning project which has been launched at the meeting in Galway. This should greatly facilitate our members in meeting and tracking their educational requirements for their continuing professional development. We also are planning the preparation of educational material for the public through DVDs and the new website, the proposal for which is out to tender and which we hope to have commissioned and online around the end of the year. We are also looking at providing online learning opportunities via the website.

How healthy is the Association in terms of membership and finances?

The Association has a membership of approximately 75% of practising dentists. While this is satisfactory we would like to see this percentage improve. The financial state is a reasonably healthy one at the moment, but with the possibility of some legal challenges to the recent cutbacks, it is imperative that a satisfactory fighting fund be mantained.

How should the dental profession address the problems of patients returning from abroad and needing corrective treatment?

We must encourage patients who are considering going abroad to first visit their local dentist and see what treatment is required and recommended and what the cost would be. As we know when all aspects are taken into consideration, what seemed like a very attractive option to go abroad, may not be so attractive after all, especially when aftercare is taken into consideration.

While realising that they have to be responsible for for their own decisions, I think that we need to be sympathetic to the problems of patients returning with unsatisfactory treatment carried out abroad, as we are to all patients who present with difficulties.

What message would you most like to convey to members through the Journal?

That their Association is a very active and caring professional body which is working hard on behalf of its members and is particularly aware of the current difficulties. It is vitally important that members engage with and participate in the Association: the more involvement that there is the more that will be achieved. Every effort will be made to be proactive with the media and to focus on all the good things that we can and do do.

We as members want to improve our ability to educate, foster and maintain the health and wellbeing of our patients, not just their oral health, but their general health.



Diabetes mellitus and its relevance to the practice of dentistry

Diabetes mellitus is a syndrome of abnormal carbohydrate, fat and protein metabolism that results in acute and chronic complications due to the absolute or relative lack of insulin. Globally, it is expected that the number of people with diabetes will increase, and as a result dental practitioners will encounter an increasing number of patients affected by this chronic condition, which may have implications for the provision of safe and appropriate dental treatment. This article aims to provide an overview of diabetes and to discuss aspects of the condition relevant to dentistry. The article also discusses the management of diabetic emergencies in a dental practice setting.

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Introduction

Diabetes mellitus is a syndrome of abnormal carbohydrate, fat and protein metabolism that results in acute and chronic complications, and is due to the absolute or relative lack of insulin. The disease is a significant global public health problem and is a major source of morbidity and mortality in the world today.

Globally, it is expected that the number of people with diabetes will increase from the current estimate of 150 million to 220 million by the year 2010 and to 300 million by the year 2025.¹ Consequently, dental practitioners will encounter an increasing number of patients with diabetes presenting for dental treatment in years to come.

This article aims to provide an overview of diabetes and to discuss aspects of the condition relevant to dentistry.

Prevalence

In 2005 the estimated population prevalence of type 1 and type 2 diabetes in adults was 4.7% in the Republic of Ireland. This equated to just over 141,000 adults. Taking into account population change and assuming the most realistic scenario that obesity rates will continue to rise in a linear fashion, the population prevalence of diabetes in adults in 2015 will be in the order of 5.6% (193,944 adults) in the Republic of Ireland.²

Classification of diabetes mellitus

There are three main categories of diabetes:

- 1. Type 1 (insulin-dependent diabetes mellitus), which results from an absolute insulin deficiency.
- 2. Type 2 (non-insulin-dependent diabetes mellitus), which is the result of insulin resistance and an insulin secretory defect.
- Gestational diabetes presenting for the first time during pregnancy, which occurs in 2-5% of all pregnancies.

Impaired glucose tolerance (IGT) and impaired fasting glycaemia (IFG) (**Table 1**) are intermediate conditions in the transition between normality and diabetes. Patients with these conditions are now referred to as having 'pre-diabetes' and are at high risk of progressing to type 2 diabetes mellitus, although this is not inevitable. IGT and IFG are associated with metabolic syndrome, which includes obesity (especially abdominal or visceral obesity), dyslipidaemia of the high triglyceride and/or low high-density lipoprotein (HDL) type, and hypertension.

Diagnosis

The criteria for diagnosis of diabetes include symptoms of hyperglycaemia (polyuria, polydipsia, unexplained weight loss, visual blurring, genital thrush, lethargy) associated with a raised random venous plasma glucose (\geq 11.1mmol/I) level, or a raised fasting plasma glucose level (\geq 7.0mmol/I) in the presence or absence of symptoms, with the test being performed on two separate occasions.

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Acknowledgement: The authors would like to thank Professor Seamus Sreenan, Consultant Endocrinologist, Connolly Hospital, Dublin 15, for kindly reviewing this article.

TABLE 1: Impaired glucose tolerance and impaired fasting glycaemia. ⁴		
Fasting plasma glucose level	Diagnosis	
<5.6mmol/I 5.6-6.9mmol/I ≥7mmol/I	Normal fasting glucose Impaired fasting glycaemia Provisional diagnosis of diabetes	
Two-hour postload glucose level	Diagnosis	
<7.8mmol/l	Normal glucose tolerance	
7.8-11.1mmol/l	Impaired glucose tolerance	
≥11.1mmol/l	Provisional diagnosis of diabetes	

TABLE 2: Type 1 and type 2 diabetes mellitus at a glance.			
	Type 1 diabetes	Type 2 diabetes	
Epidemiology Genetics	Younger patient HLA D3 and D4 linked	Older patient	
Aetiology	Autoimmune	Insulin resistance,	
Presentation	B cell destruction Polydipsia, polyuria, weight loss, ketoacidosis	B cell dysfunction Polydipsia, polyuria, fatigue and weight loss, though often asymptomatic; can present with micro- or macrovascular complications.	

If there is any doubt, an oral glucose tolerance test is used. This involves giving the patient 75g of glucose in 300ml of water to drink the morning after an overnight fast. Venous plasma glucose levels are taken just before and two hours after the glucose. The test is positive if the two-hour plasma glucose \geq 11.1mmol/l.³

Pathophysiology

Type 1 diabetes mellitus was formally known as insulin-dependent diabetes mellitus and is an autoimmune disease. It is most commonly diagnosed in young patients but can manifest at any age. Pathologically it is characterised by lymphocytic infiltration and destruction of insulin-secreting cells of the islets of Langerhans in the pancreas, causing insulin deficiency. These patients require lifelong exogenous insulin and without it, diabetic ketoacidosis (DKA) can develop, which may result in coma or death.

Type 2 diabetes mellitus was formally known as non-insulindependent diabetes mellitus and is a group of disorders characterised by hyperglycaemia. However, unlike type 1 diabetes mellitus, patients are not absolutely dependent upon insulin for life, even though many of these patients are ultimately treated with insulin. It is associated with obesity and lack of exercise, and has a higher prevalence in Asian men. It typically affects the over 40s but more and more cases are now being diagnosed in the teenage population. Type 2 diabetes mellitus may go unnoticed for years because symptoms are typically mild, non-existent or sporadic, and usually there are no ketoacidotic episodes. Because it may go unnoticed for long periods, type 2 diabetes may already be associated with microvascular (i.e., retinal, renal), macrovascular (i.e., coronary, peripheral vascular), and neuropathic (i.e., autonomic, peripheral) complications at the time of diagnosis (**Table 2**).

Long-term complications

The long-term complications associated with diabetes mellitus can be broadly characterised as either macrovascular or microvascular in nature. Macrovascular complications arise as a result of accelerated atherosclerosis. The atherosclerotic processes are made worse by the presence of other conventional risk factors, such as smoking, hypertension and dyslipidaemia.

1. Macrovascular complications

Heart disease and stroke

People with diabetes are two to four times more likely to die from heart disease than people of similar age without diabetes.⁵ People with diabetes are also two to four times more likely to suffer a stroke than a person without diabetes.⁶ Together, heart disease and stroke account for about 65% of deaths in people with diabetes.⁵

Amputations

More than 60% of non-traumatic lower limb amputations occur in people with diabetes and the rate of amputation for people with diabetes is 10 times higher than for people without diabetes.⁵

2. Microvascular complications

Diabetic retinopathy

Diabetes is the leading cause of new cases of blindness in adults between the ages of 20 and 74 years.⁶ Approximately 20% of patients with type 2 diabetes mellitus have evidence of diabetic retinopathy at the time of diagnosis.⁶ Cataracts and glaucoma are also commonly seen in people with diabetes.

Diabetic nephropathy

Nephropathy can result in elevated urinary protein excretion in a person with diabetes in the absence of other renal disease. Patients may ultimately develop end stage renal disease (ESRD) with renal failure. Diabetes accounts for approximately 35% of all new cases of ESRD in the United States and is the leading cause of newly diagnosed ESRD. People with diabetes comprise the fastest growing group of renal dialysis and transplant recipients.⁶

Peripheral neuropathy

About 60-70% of people with diabetes have mild to severe forms of nervous system damage. The results of such damage include impaired sensation or pain in the feet or hands, slowed digestion of food in the stomach, carpal tunnel syndrome, and other neurological problems.⁵

Sexual dysfunction

Diabetes significantly increases the risk for sexual dysfunction.

Medical management

Diet therapy and lifestyle modification are key factors in the management of diabetes mellitus. The goal of diet therapy is to prevent complications that result from hyperglycaemia. Tight blood glucose control prevents microvascular complications in both type 1 and type 2 diabetes mellitus.⁷ Although glycaemic control may not be as effective in reducing macrovascular complications, aggressive therapies targeting blood pressure, lipid levels and smoking cessation are effective in preventing macrovascular complications.⁸

Type 1 diabetes mellitus

Insulin replacement therapy forms the mainstay of treatment in patients with type 1 diabetes mellitus. Approaches to insulin replacement include:

- 1. Subcutaneous insulin administration either by basal/bolus regime with multiple daily injections, or by continuous subcutaneous insulin infusion.
- 2. Implantable insulin pumps.
- 3. Whole pancreas and pancreatic islet transplantation.

Subcutaneous insulin therapy

Insulin therapy should ideally mimic the physiological release of insulin, which is characterised by a continuous basal secretion, to prevent fasting hyperglycaemia, as well as mealtime insulin release to prevent post-prandial hyperglycaemia.

The basal/bolus insulin regime is currently the most commonly employed treatment and involves subcutaneous administration of a long-acting basal insulin (e.g., Glargine/Detemir), which suppresses glucose production between meals and overnight, and a bolus injection of fast-acting insulin (e.g., Aspart/Lispro/Glulisine) at mealtimes to produce a peak coinciding with absorption of ingested carbohydrates and thus prevent post-prandial hyperglycaemia.

Continuous insulin infusions can be achieved by using an insulin pump. The external pump can provide an excellent method of administering exogenous insulin, which more closely mimics the actions of a normal functioning pancreas than multiple daily injections. Insulin pumps also make it possible to deliver more precise amounts of insulin than can be injected using a syringe. This supports tighter control over blood sugar, reducing the chance of long-term complications associated with diabetes. However, the pumps are expensive, and carry a risk of infection because of the need for an indwelling cannula, and a risk of ketoacidosis, as only rapid-acting insulin is used and it has a short duration of action so that the sugar level can rise rapidly in the event of a pump malfunction.

In the past, insulin was derived from animal sources; however, recombinant human insulin has now become the preferred source.

Implantable pumps and the artificial pancreas

Implantable pump technology involves surgical placement of an insulin pump in the body, which can remain in situ for many years. The pump is designed to deliver short, frequent pulses of insulin into the peritoneal cavity, where it can be more rapidly and predictably

TABLE 3: Oral hypoglycaemic agents and their mechanism of action.

Oral hypoglycaemic agent	Mechanism of action
Biguanides, e.g., metformin	Increase insulin sensitivity, reduce
	gluconeogenesis and, importantly, help maintain weight loss
Sulfonylureas, e.g, gliclazide,	Increase insulin secretion. Can result
glimepiride, glipizide, glibenclimide	in unwanted hypoglycaemia
Thiazolidinediones, e.g.,	Increase insulin sensitivity
rosiglitazone, pioglitazone	
Alpha-glucosidase inhibitors,	Decrease the breakdown of starch
e.g., acarbose	to sugar in the gastrointestinal tract
Incretin mimetics, e.g.,	Stimulate insulin release and inhibit
exenatide, liraglutide	glucagon release. Reduce appetite
	and may cause weight loss
DPP IV inhibitors, e.g.,	Prolong the action of endogenous
vildagliptin, sitagliptin	incretin hormones, thereby
	stimulating insulin release and
	reducing glucagon

absorbed than in the subcutaneous tissue. If this technology can some day be successfully linked in with a continuous blood glucose monitoring system to form a closed loop system and allow real-time control of the blood sugar levels, then the system would effectively work like a mechanical artificial pancreas. In 2006, the US Food and Drug Administration (FDA) said that a mechanical artificial pancreas system has enormous potential benefit for a substantial proportion of patients with diabetes and flagged the concept as priority within its Critical Path Initiative.⁹ As a result, much research has been targeted at developing an artificial mechanical pancreas and it would now appear that the technology is certainly on the horizon and only requires more sophisticated applied engineering, not basic science breakthroughs.¹⁰

Transplantation

Whole pancreas transplantation can be undertaken in isolation, in combination with kidney transplantation, or after kidney transplantation. Its success can be limited by the availability of organs, graft failure and morbidity associated with long-term immunosuppressive therapy and complications arising from the surgery.¹¹

Islet cell transplantation involves injecting islet cell grafts from a donor pancreas into the liver of the recipient. Early studies into the efficacy of intensive immunosuppression combined with multiple infusions of islet cells from multiple donors showed huge promise.^{11,12} However, long-term follow-up studies disappointingly showed that essentially all individuals lose islet graft function over time and thus insulin therapy is again required in most patients within five years.¹³

Type 2 diabetes mellitus

Patients with type 1 diabetes mellitus invariably require insulin replacement therapy, whereas patients with type 2 diabetes may be managed initially by diet modification and increased exercise alone,

but may progress to medical therapies such as oral hypoglycaemic agents (OHA) and then insulin depending on the level of blood glucose control. Examples of some of the agents and their mode of action can be seen in Table 3.

Oral manifestations of diabetes mellitus 1. Gingivitis and periodontitis

Prolonged poor glycaemic control has been associated with an increased incidence and progression of gingivitis, periodontitis and alveolar bone loss. $^{\rm 14,15}$

Recently, a prospective longitudinal study of 628 Pima Indians with diabetes, aged 35 years and over, showed that periodontal disease is a strong predictor of mortality from ischaemic heart disease and diabetic nephropathy, adding further evidence to the link between oral health and diabetes.¹⁶ The exact mechanisms of action are not fully understood; however, current areas of research examine alterations in host response, subgingival microflora, collagen metabolism, vascularity, gingival crevicular fluid and heredity patterns.

2. Dental caries

The relationship between diabetes and dental caries has been investigated, but no clear association has been clarified. However, studies have reported a greater history of dental caries in people with diabetes.¹⁷

3. Salivary gland dysfunction

People with diabetes have been reported to complain of dry mouth, or xerostomia, and experience salivary gland dysfunction.¹⁸ Xerostomia in diabetes mellitus occurs because glycosuria induces an osmotic diuresis and is not due to an effect on salivary glands per se. Diabetes can also be associated with sialosis.

4. Oral mucosa disease

There are reports of a greater prevalence of lichen planus;¹⁹ however, it appears likely that this may represent a lichenoid drug reaction to medications used in treating diabetes or its associated complications.²⁰

5. Oral infections

Opportunistic infections such as oral candidiasis are encountered in poorly controlled diabetic patients. This may be due to a combination of immunosuppression and salivary hypofunction.²¹ It has also been shown that patients with elevated salivary glucose levels carry candida intra-orally more often than those with lower glucose levels.²²

6. Oro-facial sensory disturbances

Burning mouth or tongue has been reported in patients with diabetes, possibly as a result of xerostomia and/or secondary candidiasis. It has also been suggested, but not clearly established, that burning tongue may occur in patients with severe diabetes mellitus as a result of diabetic neuropathy.²³ It has also been reported that people with diabetes have a blunted taste response, which displays a degree of specificity to glucose.²⁴

Dental treatment considerations for patients with diabetes Patients with well-controlled diabetes can often be treated in a similar way to non-diabetic patients.

The measurement of glycosylated haemoglobin, or HbA1c, is an excellent measure of long-term (six to 12 weeks) glucose regulation. For people with diabetes, the goal is to maintain HbA1c levels below 7% (normal range in health is 4-6%). HbA1c levels above 9% strongly indicate poorly controlled diabetes. The most recent value may be recalled by the patient or may be available to the patient's general medical practitioner and can be requested in an effort to assess glycaemic control.

- Patients with diabetes, especially those with poor glycaemic control, require more frequent oral examinations to monitor and aggressively treat gingival and periodontal disease.
- 2. Emphasis should be placed on preventive measures.
- 3. Morning appointments should be offered where possible, as patients with diabetes are often more stable and better able to tolerate dental procedures in the morning. Furthermore, short multiple appointments are more suitable than a single prolonged appointment.
- 4. The use of antibiotics for the prevention of post-operative infection in patients with diabetes who undergo dentoalveolar surgery has become a controversial talking point in recent years. Traditionally, the provision of prophylaxis to this group of patients has been commonplace. However, it has been largely based on anecdotal evidence due to a lack of good quality research in this area. Barasch et *al*²⁵ recently conducted a review of the literature and highlighted the fact that there are few good quality studies available that attempt to investigate the infection rates in patients with diabetes who undergo surgery within the mouth. It was also noted that there is overwhelming evidence demonstrating the greater incidence of postoperative infection and poorer outcomes in patients with diabetes undergoing general and cardiothoracic surgery. The mouth can be regarded as a unique environment due to the fact that the oral mucosa has an extensive vascular supply and that saliva has antimicrobial properties that are protective for wound healing. Therefore, it is difficult to directly extrapolate from the studies conducted in general surgical patients. Nevertheless, it would seem prudent to provide prophylactic cover to patients who are known to have poor glycaemic control and who present for dentoalveolar surgery as a precautionary measure until more evidence becomes available. In the absence of guidelines, this decision will ultimately rest with the individual practitioner as he or she must weigh up the risks and benefits of providing cover.
- Oral-facial infections require close monitoring as systemic involvement can proceed rapidly and may require hospital admission for observation and administration of an intravenous antibiotic regime. Dentoalveolar infections have been reported to precipitate DKA in patients with type 1 diabetes mellitus.²⁶
- 6. Many drugs such as non-steroidal anti-inflammatory drugs, monoamine oxidase inhibitors, and some antifungal and antibiotic agents can interact with oral hypoglycaemics and may potentiate their hypoglycaemic actions. Dentists should be encouraged to check the interaction section of the British National Formulary when prescribing for patients on these drugs.



FIGURE 1: Algorithm for the management of hypoglycaemic episodes.²⁸



FIGURE 2: Glucagon intra-muscular injection kit.

Diabetic emergencies

Hypoglycaemic crisis

Hypoglycaemia is potentially fatal, and accounts for approximately 2-4% of deaths in patients with diabetes on insulin replacement therapy.²⁷ Normal blood glucose is maintained at 3.6-5.8mmol/l. Cognitive impairment develops at levels <3mmol/l; however, the threshold for symptoms can be highly variable. The most common precipitant is a relative imbalance of therapeutically administered insulin or oral hypoglycaemic medications versus actual required insulin. This may result from unplanned exertion, insufficient carbohydrate intake or excessive insulin administration. Alcohol is also a common hypoglycaemic precipitant.

Hypoglycaemia may present as sweating, tachycardia, hunger, trembling, irritability, irrational or violent behaviour, altered or loss of



FIGURE 3: Deltoid intra-muscular injection location.

consciousness, and seizure. A glucometer, if available in the surgery, can be used to confirm the suspicion of hypoglycaemia. Treatment will depend on the level of consciousness. Appropriate treatment will result in 90% of patients making a full recovery within 20 minutes (Figure 1). Medical follow-up is wise to identify the precipitating event.

Glucagon administration

It may take five to 10 minutes for Glucagon to work and it requires the patient to have adequate glucose stores. Re-check blood glucose with a glucometer if available after 10 minutes to ensure that it has risen to a level of 5mmol/l or more, in conjunction with an improvement in the patient's mental status.

It is important, especially in patients who have been given Glucagon, that once they are alert and able to swallow, they are given a drink containing glucose and if possible some food high in carbohydrate. The patient may go home if fully recovered and if they are accompanied. Their general medical practitioner should be informed and they should not drive (Figures 2 and 3).

Hyperglycaemic crises

DKA and hyperosmolar non-ketotic hyperglycaemia (HONK) are caused by absolute or relative decreased insulin levels. High levels of plasma glucose cause an osmotic diuresis, with sodium and water loss, which can lead to hypotension and shock. In DKA, the normal compensatory hormonal mechanisms are overwhelmed and lead to increased lipolysis. This results in the production of non-esterified fatty acids, which are oxidised in the liver to ketones.

DKA most commonly occurs in the young patient with type 1 diabetes. It usually develops gradually over one to three days, and may be the initial mode of presentation.

Symptoms include polydipsia, polyuria, anorexia, vomiting and abdominal pain. Deep rapid breathing (Kussmaul breathing) and

acetone smell on the breath is suggestive of DKA in a patient with type 1 diabetes mellitus.

These conditions develop relatively slowly and abrupt onset in the dental surgery is unlikely. However, if suspected, then prompt transfer to the emergency department is required. If a decrease in the level of consciousness or coma develops then alert the emergency medical services, commence basic life support and give supplemental oxygen.

Conclusions

Diabetes mellitus is a significant global public health problem and is a major source of morbidity and mortality in the world today. The number of people affected by the disease is predicted to increase as population obesity rates are rising. As a result, dental practitioners will encounter an increasing number of patients with diabetes presenting for dental treatment in years to come. A patient with well-controlled diabetes can often be treated in a similar way to a patient who does not have diabetes. However, if the condition is poorly controlled, more aggressive preventive measures and treatment are required, as this group is more susceptible to dental disease.

Diabetic emergencies, especially hypoglycaemic events, can present in the dental practice setting, and dental practitioners should be aware of its presentation and emergency management.

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Gerodontology – how big is the challenge in Ireland?

Précis

Changing patterns of ageing and oral disease require new policies for managing the oral health of older adults. This paper makes suggestions as to how this could be approached.

Abstract

Population trends suggest that the Irish population is ageing, and that this population will have substantial treatment needs. These patients will be better informed than previous generations, and will demand treatment aimed at preserving a natural dentition. This will impact upon delivery of oral healthcare and manpower planning needs to consider how to address the increased demand for dental care. Poor oral health is associated with systemic health problems, including cardiovascular disease, respiratory disease and diabetes mellitus. It also has a negative impact upon quality of life, and the World Health Organisation has encouraged public healthcare administrators and decision makers to design effective and affordable strategies for better oral health and quality of life of older adults, which, in turn, are integrated into general health management programmes. Treatment concepts such as minimally invasive dentistry and the shortened dental arch concept are discussed in the context of these demographic changes and recommendations.

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Oral healthcare delivery context in the 21st century

Currently available evidence from population surveys indicates that the proportion of adults over the age of 60 years is expanding rapidly across the European Union countries, including the Republic of Ireland.¹ This trend mirrors the arrival of the 'baby boomer' generation into early old age. As the population ages, dental health surveys indicate that the proportion of older adults retaining natural teeth into old age is increasing.^{2,3} The trend of increasing tooth retention (as opposed to total tooth loss, which has been steadily decreasing over the past 30 years) has been welcomed as a sign of improving dental health. However, chronic dental and oral diseases such as dental caries and periodontal disease continue to be a significant health problem among older adults in Ireland.² Furthermore, the influence of cigarette smoking on periodontal and oral mucosal disease has been documented and the need for dentists to give smoking cessation advice is recognised.⁴

The natural history of pathological processes affecting teeth indicates that the effects of these diseases are progressive and cumulative. As stated by Petersson,⁵ this rapidly changing global disease pattern is closely linked to changing lifestyles, which include diets rich in sugars, widespread use of tobacco and increased consumption of alcohol. These lifestyle factors also significantly impact on oral health, and oral diseases qualify as major public health problems owing to their high prevalence and incidence in all regions of the world. Like all diseases, they primarily affect the disadvantaged and socially marginalised populations, causing variable degrees of pain and suffering, impairing function and impacting on quality of life. Traditional treatment of oral diseases is extremely costly even in industrialised countries, and is

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unaffordable in many cases. Accordingly, a major challenge for the dental profession will be to plan oral healthcare for older adults that is affordable, readily accessible and that positively impacts on their quality of life.

In a recent publication, the World Health Organisation has highlighted the paucity of research into the oral health needs of older adults.⁶ Building and strengthening research capacity in public health are highly recommended by the WHO for effective control of disease and the socioeconomic development of any given country. The WHO Oral Health Programme encourages public healthcare administrators and decision makers to design effective and affordable strategies for better oral health and quality of life of older adults, which, in turn, are integrated into general health management programmes. This has yet to occur in the Republic of Ireland, but the national oral health policy review offers the opportunity for this to be considered further.

A further concern relates to people living in institutionalised care, such as voluntary homes and private nursing homes. The quality of oral healthcare for institutionalised elderly patients has been described as poor, and characterised by lack of access to appropriate assistance with basic needs such as oral hygiene procedures. This may also reflect the notion that oral health issues are not prioritised relative to other health issues. However, in reviewing the evidence currently available, MacEntee^{7,8} has argued that the health gain in providing good oral healthcare to frail older people would be significant, and has urged that this issue be addressed with concerted effort by oral healthcare professionals and administrators. Approximately 20,000 adults live in such homes in Ireland, and have limited access to dental care. It seems likely that this number will increase given life expectancy trends. Many of these will suffer from debilitating conditions such as Alzheimer's disease, and require dentistry outside of traditional primary care settings. Elderly patients in nursing homes often have poor oral health because of difficulties in maintaining a sufficient level of personal oral hygiene and difficulties in accessing professional dental care. Hence, a relationship between poor oral hygiene and bacterial pneumonia or lower respiratory tract infections has been suggested in the literature.⁹ Given their special needs, consideration must be given to how access to affordable care can be improved for this vulnerable group of patients. The aims of this paper are two-fold:

- to discuss the impact of poor oral health on the elderly in light of research findings over the past 10 years; and,
- to describe a minimally invasive approach to restoration of partially dentate elderly patients.

Oral health status of Irish adults over 65 years of age

The most recent population survey of Irish adults was published in 2007,² and the data suggest that the policy of systemic water fluoridation has had an impact. Since the previous oral health survey in 1989, there has been a significant reduction in caries prevalence. However, this ranges from 34% in 16 to 24 year olds, to 5% in 65+ year olds, suggesting that the older adults in Irish society have not benefitted to the same extent as younger adults from fluoridation of water supplies. In terms of caries prevalence, there is significant regional variation and treatment needs are higher for medical card

holders than for those not in possession of a medical card. Caries experience in the 65+ age group continues to be high, with a mean DMFT (decayed, missing, filled teeth) score of 25.9 in Irish adults. At present, the mean DMFT of 35 to 44 year olds is 15, with the difference suggesting ongoing caries experience requiring management going into old age. On the positive side, there is less untreated disease now compared with 1989, and the F component is now larger relative to the D and M components. However, as a consequence, the burden of maintenance of restorations is also likely to increase over time. Periodontal disease is prevalent in older adults, and significantly associated with cigarette smoking. Among those wearing partial dentures, approximately one-third of those examined had disease of the teeth and/or periodontal tissues that required treatment. In terms of tooth retention, the percentage of 35 to 44 year olds with 20 or more natural teeth rose from 68% in 1989 to over 90% in 2002. As this cohort will be the 'future' elderly, it seems reasonable to suggest that there will be a large decrease in edentulous patients in the future. The survey also suggests that there is a change in attitude of Irish adults towards their oral healthcare. When questioned about their attitudes to oral healthcare, those adults under the age of 65 years were:

- a) more likely to choose restoration over extraction of teeth;
- b) more likely to be unhappy with the prospect of wearing partial dentures; and,
- c) more likely to be unhappy to lose all natural teeth.

In summary, these nationally representative data suggest that treatment need is relatively high, and management will be driven by patients' desire to maintain teeth and avoid dentures if possible. The cohort of patients currently over the age of 65 years has not had the benefit of a lifetime of exposure to fluoridation, and therefore their disease experience differs from the 35 to 44 year old cohort. The prevalence of disease continues to be high, and a lot of work will include the repair/replacement of restorations in teeth affected by dental caries. These data suggest that our ageing population will present significant management challenges to the dental profession and healthcare policy makers in Ireland. In considering this issue, it is important to consider the benefits of good oral health, and how this can be achieved, and the burden of maintenance reduced.

Impact of oral disease on health

It is unfortunate that oral disease and subsequent tooth loss have not been recognised as a significant healthcare problem outside of the dental profession. A recent editorial in *The Lancet*¹⁰ highlighted that cardiovascular and respiratory diseases shared common risk factors (e.g., smoking, glycaemic control and diet) with oral diseases, and that prevention of oral disease was critical. It was argued that oral healthcare was a relatively neglected issue, and needed to be addressed. Over the past 10 years, a growing body of evidence has been made available from population surveys and clinical trials, which highlights the importance of good oral health in the context of general health. In addition, systemic diseases and their treatment can have adverse effects on the oral cavity through an increased risk of dental disease, reduced salivary flow and loss of oral comfort.

However, there is increasing evidence of more substantive relationships between oral disease and cardiovascular disease, diabetes mellitus and respiratory disease. Given that there is certainly a unidirectional, and possibly a bidirectional, link between oral and general health, the benefits of a disease-free mouth to older adults are considerable.

Periodontal disease is an inflammatory condition of the structures supporting natural teeth caused by plaque bacteria. The gingival microvasculature provides a potential path of entry for periodontal pathogens to the general circulation and such bacteria have been found in atheromatous plaques.^{11,12} Pro-inflammatory mediators including C-reactive proteins, which play an important role in atherothrombosis, are also elevated in the presence of periodontal inflammation. Evidence is also emerging that improvements in oral health and treatment of periodontal disease can improve endothelial function.¹³

Type 2 diabetes mellitus is a well-recognised risk factor for periodontal disease as the formation of advanced glycation end products within the periodontal tissues are thought to promote an exaggerated inflammatory response. Epidemiological evidence illustrates that periodontal disease is more prevalent and more severe in people with diabetes compared with the general population. Periodontal inflammation produces a number of cytokines in the inflamed tissues, which antagonise insulin. Signalling molecules, including tumour necrosis factor, interleukin 1 and interleukin 6 can enter the general circulation via the periodontal microcirculation and produce their effects at distant sites. With reduced wound healing also a consequence of diabetes mellitus, the enhanced inflammation of the tissues can lead to marked periodontal destruction.^{14,15} Recent evidence has suggested that the presence of periodontal inflammation may itself contribute to poor glycaemic control. Such a view is supported by studies, which illustrate that control and treatment of periodontal disease improves glycaemic control and diabetic outcomes.16

In a recent position paper, the American Dietetic Association¹⁷ stated that: "Oral health and nutrition have a synergistic bidirectional relationship. Oral infectious diseases, as well as acute, chronic, and terminal systemic diseases with oral manifestations, impact the functional ability to eat, as well as diet and nutrition status. Likewise, nutrition and diet may affect the development and integrity of the oral cavity, as well as the progression of oral diseases".

The loss of natural teeth is related to diminished nutritional intake, especially in older adults. In studies of nutrition in adult populations, poor quality diets have been reported in adults missing natural teeth and wearing partial and complete dentures.¹⁸⁻²⁰ The reasons for this are thought to be difficulty in chewing hard foods such as raw vegetables and fruit and decreased sense of taste. Conversely, there is some limited evidence that improvement of dentition and oral health generally has very positive effects on these parameters. In the UK National Diet and Nutrition Survey of people aged 65 years and over, Sheiham *et al*²⁰ reported on the oral health of the participants in the survey. A consistent finding in their report was that dentate individuals had higher daily intake of protein, fibre, calcium, iron and vitamin C

than their edentulous counterparts. This has implications for general health in adults, as poor diet may lead to deficiency of nutrients, and illnesses such as osteoporosis, atherosclerosis and bowel disease. Although nutritional state is influenced by factors such as age, socioeconomic status and general health, it would appear that dental status is an important co-factor. Poor nutritional status is apparent in elderly edentulous adults, particularly those living in institutions. Although there are many factors that influence food selection, it seems likely that preservation of a critical number of natural, disease-free teeth is a significant factor facilitating a healthy diet. These UK findings have been confirmed in other studies of frail older people, including in Finland²¹ and Brazil.²² The risk of malnutrition in frail older people is such that Poulsen and co-workers²³ have recently recommended that oral examination should be part of routine hospital admission procedures for geriatric admissions.

In an Irish context, studies undertaken in the Cork Dental School and Hospital have shown that edentulous patients are at moderate risk of poor nutrition status. In one of these studies,²⁴ 35 independently living edentulous patients (23 female, 12 male) ranging in age from 52-77 years (median 65 years) agreed to take part in a study of the impact of new dentures on diet and quality of life. Prior to treatment, all subjects completed a questionnaire, which contained a number of validated social resources, oral health-related quality of life and the short form of the Mini Nutritional Assessment (MNA). Three-quarters of the sample felt that they had no nutritional problems. However, approximately 70% reported that they had changed their food choices because of dental problems. The mean MNA score pre treatment was 6.23 (±1.48), which would be in the medium risk range. The post-treatment MNA score remained very similar to the pre-treatment score, suggesting that provision of new complete dentures had not altered food consumption behaviour.

In a separate study,²⁵ we assessed the nutrition status of partially dentate adults (including adults wearing partial dentures) and found that the mean short form MNA score was 8.41 (\pm 1.04). This suggests that partially dentate adults are at a lower risk of poor nutrition status than edentulous adults, thus emphasising the benefit of retaining a functional natural dentition.

Impact of oral disease on quality of life

As populations age and lose teeth, their quality of life may be expected to change, particularly with respect to the way that their oral condition impacts on day-to-day activities. This may happen as a direct result of altered function due to tooth loss, but possibly also as a result of changes in perceptions and values that occur with increasing age. A number of other factors may modify this process, for example the social and cultural norms to which populations are exposed. Quality of life is affected in some way by oral health in the majority of people. Understanding the relationship between age-related dental and cultural influences and quality of life has relevance if we wish to measure oral health inequalities within and between populations. A recently published study used nationally representative population datasets to explore the relationship between age, tooth loss and oral health-related quality of life.²⁶ It reported that age and tooth loss are



FIGURE 1a: Shortened dental arch in an older adult. Sufficient contacts on anterior and premolar teeth remain to provide adequate oral function without a prosthesis.



FIGURE 1b: Shortened dental arch extended using bi-lateral, cantilevered resin-bonded bridgework.

closely associated, but have independent effects on oral health-related quality of life. Tooth loss (which is associated with increasing age) is associated with more negative impacts, while increasing age independently results in fewer. In all of the populations and subpopulations studied, a complete or almost complete natural dentition was associated with the best oral health-related quality of life.

Dental care of older patients - new treatment concepts

It would thus appear that good oral health is not just about teeth, and is important and relevant to the broader domains of health and quality of life. Our aim should be to encourage good oral health, and to facilitate maintenance of a healthy dentition. In the past, oral healthcare for older adults was dominated by tooth extraction and provision of dentures, and this may no longer be acceptable to older adults. A number of studies have suggested that partially dentate adults are not happy with the prospect of wearing dentures to replace missing teeth.^{27,28} In addition, removable partial dentures are associated with higher risk of root caries and periodontal inflammation. Compliance with wearing partial dentures has proved to be variable, with non-wearing of dentures reported to be as high as 40% in some studies.²⁸ Accordingly, there is a need for research to further determine the type of care most acceptable to older adults, and which reduces the burden of dental disease attributed to the provision of partial dentures. Some researchers have suggested that older adults have different functional needs to young patients and therefore do not need a complete natural dentition. Furthermore, the WHO suggested that a goal for oral health in the year 2000 should be that adults retain for life a healthy, functioning dentition of at least 20 teeth and not require an oral prosthesis to replace missing teeth.²⁹ The so-called shortened dental arch (SDA) concept has been proposed as a means of providing a functionally acceptable dentition³⁰ (Figure 1a). These functionally oriented treatment strategies aim to reduce the burden of maintenance for older adults, and have been advocated

as a means of providing a natural, functional dentition. Where necessary (for example, to help stabilise a maxillary complete denture), shortened dental arches can be extended using either cantilevered bridgework (Figure 1b) or implant-retained crowns. A recent randomised clinical trial has compared the outcomes of restoration of lower shortened dental arches by removable partial dentures and those lengthened by cantilevered, resin-bonded bridgework.³¹ The authors reported that patients in both groups were equally satisfied with treatment but, critically, the incidence of new disease was significantly lower in the group provided with resinbonded bridgework. They also reported that the burden of mechanical maintenance was much higher in the partial denture group.³² The implication of this is that a more conservative approach to replacement of teeth (i.e., application of the shortened dental arch concept) can provide satisfactory oral function at substantially less biological price to the dental and periodontal tissues. This is the only available randomised trial with long-term follow-up data, and it would be helpful if this study could be repeated in other settings.

A further issue has been the constant repair cycle, and the burden of replacement of restorations over the course of a lifetime. Caries continues to be a significant challenge in older adults, and prevalence of root caries has risen in line with tooth retention trends. Our knowledge of the caries process has advanced now to the extent that we have the ability to reverse early carious lesions using chemotherapeutic agents such as topical fluoride or chlorhexidine. The concept of 'extension for prevention' is now outdated, and current concepts of caries management are focused on repair rather than replacement of failing restorations in teeth. The availability of more predictable bonding of adhesive materials to teeth has been a major step forward and should significantly reduce the need for amalgam restorations. Unfortunately, some remuneration systems (e.g., the DTSS) seem to regard adhesive materials as 'cosmetic', and thus they are not allowed as a restorative material for posterior teeth.



FIGURE 2: Excavation of caries with a minimally invasive technique. This cavity will be restored with direct composite resin.



FIGURE 3c: Biotene™ system for prevention of caries for the patient with xerostomia shown in Figures 3a and 3b.



FIGURE 3a (above), 3b: Caries management in a patient with xerostomia using ART. Teeth 32 and 33 have been restored with resin modified glass ionomer cement.

This is a limited view, and needs to be reviewed by policy makers. The 'minimally invasive dentistry' (Figures 2, 3a, 3b) concept is intuitively much more suited to the needs of older patients, and should be encouraged in any review of the existing remunerative schemes. At its

FIGURE 4a (above), 4b: Use of the shortened dental arch concept and ART for an elderly patient (74 years of age). Adhesive restorations placed in 22 and 23 present for six years. Resin bonded bridge replacing 24 present for nine years.

most basic level, atraumatic restorative treatment (ART) offers a suitable alternative for patients whose circumstances make attendance at a dental surgery difficult or impossible. ART involves the removal of dental caries tissue with hand instruments only and filling of the

resultant cavity with an adhesive restorative material such as glass ionomer cement or resin-modified glass ionomer materials. Many studies have reported good survival rates of ART in permanent and primary teeth in children, and to a limited extent in older adults, compared to conventional techniques with amalgam.^{33,34} In addition to that, the ART concept is considered to be a patient-friendly approach as it does not require the use of rotary handpieces or local anaesthesia. Where there is evidence of xerostomia ('dry mouth'), a variety of topical agents is now available to help reduce caries risk and improve oral comfort. One such example is the Biotene[™] system, which includes mouthwashes, gels and toothpastes containing bioactive enzymes designed to protect teeth and soft tissues (Figure 3c). The patient shown in Figures 4a and 4b typifies the use of minimally invasive dentistry in an elderly patient. He has been missing the maxillary molar teeth for many years, but did not feel the need to replace them. However, when the left maxillary first premolar was extracted, he disliked the impact this had on his appearance. He had a low caries risk, but has had some cervical caries treated conservatively using ART. Given that he had a good standard of oral hygiene, and had no objective or perceived need to wear a removable partial denture, it was decided to limit treatment goals to replacing tooth 24. This was achieved using cantilevered, resin-bonded bridgework retained on 25. He was very satisfied with the outcome, and this bridge has been in situ for approximately nine years with no further intervention required.

The potential impact of population demographics and trends in oral health status should be considered in any future manpower planning. There has been a patient-led shift in the paradigm for care of older patients away from dental extractions towards conservation of teeth. It therefore seems likely that demand and need for dental treatment will rise, and the burden of maintenance of ageing dentitions will sharply increase in the forseeable future. The need for dental care in residential homes for frail elderly people will rise, and the potential role for dental hygienists and therapists in the management of these patients needs to be considered. These trends must influence the content of undergraduate teaching curriculae, and access to care provided in outreach clinical facilities by supervised dental students has been used elsewhere for this agenda. Some elderly patients will have special needs, and the role of this developing specialty (special needs/care dentistry) in the management of these patients needs to be defined in an Irish context.

Conclusion

Clearly, the ageing population presents a new challenge to the dental profession and policy makers. Good oral health is important, and removal of risk factors and control of oral disease is likely to have positive impacts on health in general. Recently developed treatment concepts for elderly patients need to be embraced to ensure that a functional, natural healthy dentition is achieved for as many of our older adults as possible, and to shift the focus of care towards prevention of further disease and reducing the burden of maintenance. This includes evidence-based oral health promotion strategies, individualised prevention advice and minimally invasive

treatment of dental caries and restoration of missing teeth. The recommendation is also based on the premise that oral healthcare programmes for older adults must address their specific needs, recognise diversity in demand, and be readily accessible and affordable for public fund providers.

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Impact of a retained instrument on treatment outcome: a systematic review and meta-analysis

Panitvisai, P., Parunnit, P., Sathorn, C., Messer, HH.

Introduction

Fracture of root canal instruments is one of the most troublesome incidents in endodontic therapy. This systematic review and metaanalysis aims to determine the outcome difference between retained fractured instrument cases and matched conventional treated cases.

Methods

The MEDLINE database, EMBASE, Web of Science, and the Cochrane Database were searched. Reference lists were scanned. A forward search was undertaken on identified articles. Papers citing these articles were identified through the Science Citation Index to identify potentially relevant subsequent primary research. A systematic data extraction sheet was constructed. Data in these studies were independently extracted. Risk differences of included studies were combined by using the generic inverse variance data and fixed effects method. A two-stage analysis was conducted. The first was limited to case-control studies, and the second included case series in which data were available for teeth with and without periradicular lesions.

Results

Two case-control studies were identified and included, covering 199 cases. Weighted mean healing for teeth with a retained instrument fragment was 91%. The two studies were homogeneous. Risk difference of the combined data was 0.01, indicating that a retained fragment did not significantly influence healing. Overall, 80.7% of lesions healed when a periapical lesion was present, compared with 92.4% remaining healthy when no lesion was present initially (p<0.02).

Conclusions

On the basis of the current best available evidence, the prognosis for endodontic treatment when a fractured instrument fragment is left within a root canal is not significantly reduced.

Journal of Endodontics 2010; 36 (5): 775-780.

Long-term, retrospective evaluation (implant and patientcentred outcome) of the two-implant-supported overdenture in the mandible. Part 2: marginal bone loss

Vercruyssen, M., Quirynen, M.

Objective

In part 2 of this long-term, retrospective study on the two-implantsupported overdenture in the mandible, the annual marginal bone loss was evaluated in detail, and parameters with a significant effect on the annual bone loss were verified.

Material and methods

For all 495 patients with an overdenture in the mandible at least five

years in function, data up to their last follow-up visit had been collected, including long-cone radiographs (taken at the abutment connection and after years one, three, five, eight, 12 and 16 of loading) and probing data at their last evaluation. General information (medical history, implant data, report on surgery) was retrieved from the patient's file. Two hundred and forty-eight patients had been clinically examined recently. For the others, information on bone level and probing depths were retrieved from the patient's files, as all patients had been enrolled in our annual follow-up schedule.

Results

The mean annual bone loss on a site level (without considering the first year of bone remodelling) after three years of loading was 0.08mm/year (SD=0.22, n=1105), after five years of loading was 0.07mm/year (SD=0.14, n=892), after eight years of loading was 0.06mm/year (SD=0.12, n=598), after 12 years was 0.04mm/year (SD=0.07, n=370), and after 16 years of loading was 0.05mm/year (SD=0.05, n=154). Ongoing bone loss was seen in a number of implants (n=26), with the annual bone loss exceeding 0.2mm. Some factors clearly showed a significant impact on bone loss: smoking (\geq 10 cigarettes/day), GBR, the presence of dehiscence, and bone quantity (the latter only during the first year). The probing data showed a favourable condition, with <1.2% of the approximal pockets being \geq 6mm, and 4.1%=5mm.

Conclusions

The mean annual bone loss over the study period was <0.1mm/year after the first year of loading. However, a small number (2.5%) of the implants showed continuing bone loss.

Clin Oral Impl Res 2010; 21 (5): 466-472.

Evaluation of maxillary sinus anatomy by cone-beam CT prior to sinus floor elevation

Neugebauer, J., Ritter, L., Mischkowski, R.A., Dreiseidler, T., et al.

Purpose

Surgical complications during sinus floor elevation are frequently caused by septa in the maxillary sinus. In this study, the prevalence of septa was retrospectively determined via three-dimensional imaging to assess the necessity for appropriate imaging prior to sinus floor elevation.

Materials and methods

The cone-beam computed tomography scans of 1,029 consecutive patients were evaluated to assess the prevalence of septa, taking into account patient age and sex, as well as the number and orientation of septa and their locations. If septa were present, the height was measured and the orientation was determined.

Results

Septa were found in 47% of patients and 33.2% of sinuses. There was

ABSTRACTS

no statistical difference in prevalence with respect to age, sex, or side. Most patients with septa showed one septum in one sinus (24.6%); 13.7% showed one septum in each sinus. Other combinations (up to three septa per sinus) were found in 8.7% of patients. Septa were most commonly located in the first molar region (256 septa), followed by the second molar region (225 septa), the third molar region (144), the second premolar region (136), the first premolar region (44), and the canine region (five). The mean septal height was 11.7 ± 6.08 mm for septa in a sagittal orientation (n=206, 25.3%; maximum height of 37mm), and 7.3 ± 5.08 mm for those oriented transversely (n=608, 74.7%; maximum height of 36mm). The variance was larger for the sagittal orientation group (37.03mm) than for transversely oriented septa (25.9mm).

Conclusion

Septa were found in 47% of the patients in this sample. Appropriate imaging prior to performing sinus surgery seems justified, since complications and the success rate of sinus floor elevation are clearly related to the presence of septa.

Int J Oral Maxillofac Implants 2010; 25 (2): 258-265

Should edentulous patients be constrained to removable complete dentures? The use of dental implants to improve the quality of life for edentulous patients

Turkyilmaz, I., Company, A.M., McGlumphy, E.A.

Background

Nowadays, there is some speculation among dental educators that the need for complete dentures will significantly decrease in the future and that training in their provision should be removed from the dental curriculum.



Figure 1

Answers (Questions on page 113)

- 1. Keratocystic odontogenic tumour/central giant cell lesion/ ameloblastoma confirmed by incisional biopsy.
- 2. Recurrence of keratocystic odontogenic tumour.
- 3. Enucleation or marsupialisation of cyst with removal of wisdom tooth. This patient had the cyst enucleated and the wisdom tooth extracted without complication.

4. The odontogenic kertaocyst is a histopathologically and behaviourally unique, specific entity. It is the most aggressive and recurrent of all the odontogenic cysts and shows characteristics resembling both a cyst and a benign tumour. Most (60%) arise

Objective

To sensitise the reader to the functional shortcomings of complete denture therapy in the edentulous patient and present restorative options, including implants, to improve edentulous quality of life in these patients.

Methods

Information retrieval followed a systematic approach using PubMed. English articles published from 1964 to 2008, in which the masticatory performance of patients with implant-supported dentures was assessed by objective methods and compared with performance with conventional dentures, were included.

Results

National epidemiological survey data suggested that the adult population in need of one or two complete dentures will increase from 35.4 million adults in 2000 to 37.9 million adults in 2020. Clinical studies have shown that the ratings of general satisfaction were significantly better in the patients treated with implant overdentures post delivery compared with the complete denture users. In addition, the implant group gave significantly higher ratings on comfort, stability and ability to chew. Furthermore, patients who received mandibular implant overdentures had significantly fewer oral healthrelated quality of life problems than did the conventional group.

Conclusion

Implant-supported dentures, including either complete overdentures or a hybrid prosthesis, significantly improve the quality of life for edentulous patients compared with conventional removable complete dentures. Therefore, the contemporary dental practitioner should consider other options as well as conventional removable complete dentures to restore edentulous patients.

Gerodontology 2010; 27 (1): 3-10



Figure 2

from dental lamina rests or from basal cells of oral epithelium and are thus primordial-origin odontogenic cysts. The remaining 40% arise from the reduced enamel epithelium of the dental follicle and are thus dentigerous-origin odontogenic keratocysts. This clinical identification is important because recurrences are more frequently seen after treatment of the primordial-origin type. Published recurrence rates for odontogenic keratocysts vary widely from 5% to 70%. Patients are normally reviewed radiographically once a year for five years, although primordial type keratocysts can occur at any time and have been observed to develop 10 years after the original treatment.

SPECIAL FEATURE

A new context for oral healthcare

Dr JAMES TURNER, Chairman of the General Dental Practitioners Committee of the Association, says that in light of reduced State support for oral healthcare, members should, among many options for their practice development, carefully consider availing of dental insurance and membership plans.



Dr James Turner, Chairman of the General Dental Practitioners Committee, says that dentists in general practice should explore all methods of encouraging patients to attend their practice.

The world of Irish dentistry has been rocked by the savage cuts imposed by this Government on both the DTSS and DTBS schemes. It means that the provision of proper preventive oral healthcare is likely to be severely affected. This is bad news for the health of our nation and we have a professional duty of care in relation to the oral healthcare of the country. The Irish Dental Association is fighting hard on all possible fronts to lessen the impact of the cuts on our population's oral heath and to restrict the impact of the cuts.

We believe HSE cutbacks to the Medical Card and PRSI schemes have the potential to wipe out significant improvements which have been made in oral health in Ireland over the past 30 years.

According to *The O'Neill Report 2010*, the oral health of Irish citizens has improved and there has been a reduction in health inequalities for adults and children since 1980. The report says this is the result of a number of factors including water fluoridation, self care and the contribution of Irish dentistry.

Welcoming the publication of the report at the Irish Dental Association's annual conference in Galway, the IDA Chief Executive Fintan Hourihan said it was a timely reminder of the progress which has been made in recent years by the profession.

Commenting on the cutbacks, Fintan said: "This is a particularly reprehensible move as the 1.6 million people who are going to suffer most are the people in greatest need of treatment. If a short-term expedient approach is adopted and funding is withdrawn for routine treatments we will end up paying the price long into the future. Look at the health system today. Even after the Celtic Tiger years we are still paying the price for the cutbacks of the 1980s".

Healthcare is our primary concern

The oral health of our patients is, and always will be, our primary concern. We also have businesses which we have to sustain and which are essential if there is going to be any prospect of decent dental care in Ireland in the future.

In that context, and given the enormously challenging public finance situation, it is apropriate to consider all appropriate means of encouraging patients into the dental practices of Ireland.

Thus the Irish Dental Association invited dental insurance companies and membership scheme providers to address its meeting in Croke Park in January. Our attitude is that we welcome products which encourage better attendance by our patients. We have, of course, certain fundamental principles to which we adhere:

- these products must allow us to operate in a manner that fully respects our clinical autonomy; and,
- dentists should always be able to set their fees in keeping with best competitive practices.

It is our intention in the Association to offer guidance to members contemplating availing of the opportunities presented by these schemes.

In the following pages you will find information provided by the insurance companies that chose to take part in our special feature. All of them were present in Croke Park in January. It is for you to judge which is the best way to improve business for your practice. Part of that judgement can be aided by the information you gain from the plan providers. We encourage all members to explore all methods of providing excellent care for their patients, including the appropriate use of these plans and schemes.

Denplan: payment plans by dentists for dentists

Denplan originated the dental plan concept 25 years ago, born out of the desire of two dentists to maintain their independence and support their colleagues in providing quality, preventive dental care, and encourage patient loyalty to their practice.

Still the UK's leading dental payment plan specialist, our underlying philosophy is unchanged. Denplan supports your independence, your practice and your patients. You set your own fees according to your individual circumstances; it is your choice to benefit from the flexibility of our range of plans. We recognise that every practice is different and we offer a wholly bespoke approach.

Your patients have the option of paying a monthly fee, set by you and designed to cover your practice costs and desired income. The payment plans also include Worldwide Dental Injury and Dental Emergency Insurance cover for unexpected dental accidents or issues. You benefit directly from a predictable income, while your patients can budget for affordable quality care from you, the dentist they know and trust.

Denplan goes further. Our belief in being 'by dentists for dentists' means that we have an unrivalled knowledge of dental practice. This has enabled us to develop a range of products and value added support services to help you develop your practice and your team even further, and to enhance your future. Our quality assurance programme, professional training (eligible for CPD), and business and marketing support are highly regarded by our many thousands of UK member dentists.

As part of the AXA family, Denplan benefits from the financial strength of our parent group while having great autonomy in the way we operate our own business. Together with AXA Ireland, we aim to use the synergy of our recognised brands to support dentists in Ireland by bringing together local knowledge and our proven professional support services, as evidenced over the past 24 years.

To speak to one of our Ireland Consultants, who can work with you to help and guide you through your decision making process, call us now on 1 800 812 936.



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The Dental Plan – promoting dental health

The world of Irish dentistry can clearly now be separated as B.C. and A.C. Before Christmas and after Christmas! When I have been discussing the concept of membership plans with my Irish classmates and other fellow Irish dentists for the previous 15 years up until before Christmas, there was simply no interest at all. That has definitely changed as evidenced by the huge amount of dentists who I talked to in Galway at the IDA Conference. My stand was busy with colleagues asking the main questions relating to membership plans so here is the ideal forum to get these questions dealt with.

How does your plan operate?

It is a plan designed to promote dental health through regular attendance and prevention. Obviously this means encouraging patients to attend regularly for examination and have thorough cleaning and OHI advice. Many of our practices provide radiographs also and treatment for sensitivity. There usually is a tiny element of out of hours and emergency and trauma insurance included for a tiny premium. The monthly fees are set in association with an analysis of each individual practice and we do not prescribe or dictate anything. The scheme is 100% branded to the practice and the note on the patient's direct debit simply states "The Dental Plan". What could be more descriptive than that each month for the patient?

Why should Irish dentists choose us over the competition?

The answer is simple. We are dentists. We understand dentistry and through our operations director Dr John Barry we know Irish dentistry. We run practices ourselves where these schemes are hugely successful. We know what works and what does not.

Are we here to stay?

We have established relationships with a very significant number of practices already. We have established a base in Dublin and we now have recruited two more business development executives with 30 years customer service experience each, as well as our head of business development being based in Ireland.

What are the key benefits?

Depending on the practice profile and the attitude to change and development, we are confident that we can show our fellow dentists how to come out the other side of this downturn in far better shape long term with much more stable businesses future proofed against threats from the State or anyone else.

DentalPlan

Created for Dentists Designed for Dentists Owned by Dentists

What makes The Dental Plan' different?

- Dentist owned and managed
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- Grows your profitability

Plan for YOUR future today Tel: (01) 526 2556 www.thedentalplan.co.uk

Use our combined 75 years of experience in the dental profession to have a fresh look at your business and help you grow. By pulling together in the same direction we can all be stronger.

> A stake in the company Cash rebates bi-annually Quality CPD events

Change YOUR Future Control YOUR Business

The Dental Plan Lld, (3 Upper Baggot Street, Second Floor, Dublin 4, Ireland SPECIAL FEATURE

HSF health plan

Helping families in Ireland for over 60 years

With HSF health plan patients can have an affordable way to cover the costs of everyday healthcare. The plan covers families for the simple day-to-day health costs such as dental and optical bills, as well as providing over 35 valuable benefits that help patients get cash back for a wide range of treatment and out-of-pocket expenses.

When patients visit their dentist (or any of the other options available on the plan), HSF health plan reimburses the patients directly with up to 100% of the cost of the bill. It's that simple. And with contributions starting at \in 2 per family, per week, there is a plan to suit everyone's budget.

Flexibility and peace of mind

With HSF health plan, all the administration of the plan is run by us.

With the flexibility of a combined Dental & Optical Benefit, offering up to \in 800 per year benefit, your patients can have the peace of mind that should they need extensive treatment or just simply an annual check up, scale and polish they have the funds available to recoup the costs of the treatment they need.

Affordable care

Our office in Ennis, Co Clare, manages all aspects of the health plan from applications to claims handling. Having the HSF health plan for your patients ensures that they can afford to see you for regular check-ups, and should they need extensive treatment, they can relax knowing that with HSF health plan, they can afford to keep their teeth healthy.



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SPECIAL FEATURE

Practiceplan Supporting the business of dentistry

Practice Plan is the leading practice-branded membership scheme provider in the UK and we have been supporting dentists in implementing their tailored schemes since 1995. So, how can we be of assistance to you?

Well, taking into account the changes to the PRSI scheme, you will undoubtedly be reassessing your future and considering how best to adapt to your new circumstances to ensure you retain a successful practice. And, one method that has been successfully adopted by thousands of dentists is the introduction of one of our custom-branded dental plans.

Implementing a dental plan can not only help your patient's budget monthly for their oral care by spreading the costs of their dentistry, but it also helps to encourage regular attendance. And, by implementing a custom-made plan, designed specifically to suit you, it assists in reinforcing patient loyalty by bonding your patients to your practice, in turn providing you with a secure and consistent income. At Practice Plan, we firmly believe that all dental practices are different, which is why from the offset we take the time to get to understand your unique goals and aspirations. From the first appointment, to regular reviews, we help to take your practice in the right direction by gaining a full understanding of your practice needs. Then, we make it our priority to tailor, not only the types of schemes we provide, but also the type of service and support we deliver to each of the dentists who trust us to help them take their business, and future, in the direction they want to.

We are a company committed to excellence, an Investor in People, one of the few companies to be accredited with the title of "an extraordinary company to work for" by Best Companies and currently hold 34th position in the Sunday Times 100 best companies to work for.

So, if you would like assistance in planning your way forward and building a plan that suits the direction your heading, then please call (01) 664 4888 or visit www.practiceplan.ie

helping you plan your way forward

Now is the time to start planning your future.

But before you make any decisions, we can help you investigate your options, so you are sure you are making the right decisions.

From carrying out a comprehensive financial review of your practice to helping you develop a practice plan tailored to your specific needs, we can help you secure your future and keep your identity.

If you would like to find out more visit www.practiceplan.ie or call (01) 664 4888.





Vhi DeCare Dental – affordability and freedom

How do your plans operate?

Vhi DeCare Dental insurance plans operate by providing financial assistance towards the cost of regular dental care. Plans are purchased by individuals and by employers who purchase our insurance plans as a benefit for their staff and families. Our plans cover adults and children.

The member/patient pays the dentist in full for treatment. The patient then submits a claim form to us with an itemised receipt that allows us to process the claim according to the terms and conditions of their plan.

Why should Irish dentists choose Vhi DeCare Dental over competitors?

Vhi DeCare Dental is the first and leading commercial dental benefit provider in Ireland, covering more Irish individuals, families and members of employer groups than any other brand. Hallmarks of Vhi DeCare Dental plans include affordability, freedom to see any dentist and friendly customer service.

What are the key benefits to Irish dentists of your plans?

We currently work with dentists to provide information to the public about all aspects of oral health through our website and the Vhi DeCare Dental Directory. The Directory has many features which can help promote your dental practice including free listing of services, map with directions to your practice, and a link to your website. Join the directory for free by completing a data form downloaded from our website at http://www.ddii.ie and fax to 09493 62685.

What back-up facilities do you have to serve Ireland?

Our business in Ireland is supported by a world class claims processing facility and dedicated Customer Services Teams for our Irish business in Claremorris and Kilkenny. A team of professional dental staff is based in our Claremorris and Dublin Offices. DeCare Systems Ireland, based in Cork, services our Irish and US operations. We process 28,000 claims a day – over 90% within 10 days.



Regular dentist visits are the starting point for better oral health.

Vhi DeCare Dental connects dentists and patients – with plans that encourage members to visit a dentist regularly for all of their oral health care needs. Members have complete freedom to see any registered dentist.

More patients for you, improved oral health across Ireland, brighter smiles all around. Find out more about Vhi DeCare Dental insurance by contacting: 094 937 2277 or iedentists@decare.com or www.ddii.ie





DeCare Dential Insurance Instand, Ltd., is a registered dential insurance underwriter and administrator, regulated by the Financial Regulator. Registration # 383762. The Voluctary Houth Insurance Board (Insting as Wir Hoathcare) is an agent of DeCare Dential. Vhi Heathcare is a Multi-Agency Mermediary regulated by the Financial Regulator.

Handling complaints

In the latest article in Dental Protection's series on risk management, ANDREW COLLIER discusses one of the least pleasant aspects of practice – dealing with complaints.

Complaints are not pleasant for any of us. They are almost always very unhappy occasions. They not only cause us stress and strain but there is always the lurking fear of potential for further action by solicitors or the Dental Council.

It must make sense therefore to try and prevent complaints occurring in the first place, just as we try to prevent caries and periodontal disease, by efficient recognition and appropriate action.

Unfortunately, as we know from experience, prevention is not always sufficient. We must therefore have the skills and the ability to recognise and defuse potential complaints as early as possible. This needs thought on our part and training for our staff, but also a clear system for handling complaints from the earliest stage. Each complaint will have different circumstances but the objective remains the same: to find a solution that is acceptable not only to the patient but to the whole dental team as well.

Good complaint handling is not just helpful to us in reducing our stress levels; it also makes financial and commercial sense. Many businesses recognise the advantages of what is known as complaint recovery. They have found that the time and effort put into handling a complaint well, and hopefully resulting in a happy outcome, can often produce benefits much greater than the resources put in. If patients are pleased with the way their grievance has been handled they are much more likely to be enthusiastic supporters of the practice. They tell their friends and relatives. A good outcome is likely to stay in their minds when the original complaint has been forgotten. The opposite of course is true if the matter is poorly handled.

Ideally, therefore, the complaint needs to be recognised and resolved within the practice. Sometimes, of course, this is not possible, and the first time we may be aware of patient unhappiness is a letter from them or their representative. However, in the majority of situations problems can hopefully be 'contained' and resolved by us. In-house resolution is far better for us, for our team, and for the patient as well. Good complaint handling is therefore important; it not only keeps the whole dental team happy, but also has clear professional and goodwill/commercial benefits.

So what is good complaint handling? Having a clear complaints system

Prevention and resolution of complaints should be handled under a clear protocol of recognition and action. The complaint may be (apparently) trivial, and the action needed small, but if the system picks it up then it can be contained and resolved quickly, and the patient will not take their grievance elsewhere. However serious or minor the complaint may be, our system is then in place to respond appropriately. Some problems may only need a simple verbal explanation. Conversely, if a written complaint is received then a prompt written acknowledgement will hold matters until a full reply can be provided. The system should also make a clear record of the complaint and the actions taken.

Training in complaint handling

Dealing with complaints is not easy. Criticism is not easy to take. It is very personal. There is an understandable temptation to react emotionally. It pays therefore to be trained, and to train others, in the skills of recognition and prevention. Nominating staff for specific roles, particularly the initial recognition and acknowledgement of the complaint, is also important. Complaints can affect all of the team, so their role in recognition and resolution is vital.

If you think a patient is unhappy, ask them if this is so, and find out why and what they want

Sometimes patients are clearly making a complaint. At other times this may not be so obvious, particularly during a busy working day. However, we and our staff are good at reading body language. We do it all the time. While it may therefore feel uncomfortable to be almost inviting criticism or complaint, if caught early the matter usually has a better chance of being contained within the practice and being resolved successfully.

Act as quickly as possible to recognise and resolve the complaint

Every circumstance is different but generally speaking complaints are more likely to be cleared up successfully if rapid action is taken. Conversely, if patients think that their complaint is being ignored then they are much more likely to go elsewhere. They will also take away, and perhaps spread, an adverse message about the practice.

Conclusion

Complaints are almost always unhappy and stressful occasions for the whole dental team. Not only that, there is the risk of progression elsewhere, if we cannot resolve the problem. While a successful remedy within the practice may not always be possible, it frequently is. It makes sense therefore for the whole dental team to be trained to recognise discontent and to act quickly and effectively to prevent and resolve it, within a clear system. Complaint handling is an important and rewarding skill for the dentist and dental team.



Andrew Collier LLM BDS

Andrew worked as a dental practitioner for 20 years and as a clinical teacher at Leeds Dental Hospital. He is a dento-legal adviser with special responsibility for members of Dental Protection who work as university teachers or dental school staff. Andrew is also part of the team that handles cases for members working in Ireland.

PRACTICE MANAGEMENT

Practice building – an evidence-based approach

SHEILA SCOTT offers valuable advice on building your practice.



With the dust settling on the PRSI change and the medical card fund expected to be slashed at the time of writing, it's no surprise that Irish dentists are a little apprehensive about the future.

But there is plenty that practices can do to ensure continued regular attendance from loyal patients, and to encourage more new patients:

Start by finding out what your existing patients think is really important to them when they visit their dentist. In the UK, I have surveyed thousands of patients and found that most patients most value:

- a. trusting their dentist (that means 'the practice' as much as 'the dentist'); and,
- b. treatments to ensure that teeth and gums stay healthy.

In most practices patients are also looking for evidence that the practice is 100% clean and following cross infection procedures, and for reassurance that patients will be seen quickly in an 'emergency' and that problems will be sorted. It's also very important to them that they are being screened for oral cancer and that their dentist is skilled enough to be let loose inside their mouths!

So far, the picture looks similar in Ireland – with the possible caveat that Irish patients (have been allowed to) believe that 'sorting dental problems' is relatively more important to patients than it is in Scotland, England and Wales.

Once you have identified what is 'most important' to your own patients, you can then organise care and communications to make it clear to patients how their needs are being met – and this is what builds 'value for money', loyalty and referrals to friends and colleagues.

Do make sure that the focus of your regular exam is on 'health screening and monitoring' rather than allowing patients to think that you are 'looking for holes in their teeth'. Start by telling patients that you are going to check to see how healthy their mouths are – or better still, ask them if they know how healthy their mouths are, instead of opening with the world wide favourite of dentists: 'Any problems?' (This common opening question simply highlights to patients that the purpose of the exam is to look for things to fix – and, of course, if there is nothing to fix, why should they

return before they experience obvious pain or a problem?) The practices I work with offer nine-, 10-, 12-, and 14-point dental health checks, and the dentists follow defined protocols for checking, recording and communicating the results of the specified number of checks made each time. Patients are always impressed and the most common response after their first one is: "I've never had an exam like this before!" (Of course they have – dentists just haven't been very good at giving patients feedback about what they've been doing!) Another potential response is to tell a friend about this new style 'health'-based exam.

Bo not build your practice on too many promotions for cosmetic dentistry. Although there is still significant interest in cosmetic improvements and makeovers, the importance of this element is well down the list of what patients 'want' from their dentist – and of particular relevance is the fact that large proportions of patients definitely do not have an interest. In fact, this large uninterested proportion is very suspicious about the perceived 'hard sell' of cosmetic dentistry. The opportunity is there in all practices, but you must be careful about how it is introduced to patients, and it is best if cosmetic dentistry is offered in the context of a clear approach to keeping patients as healthy as possible.

Do encourage all your patients to keep up their visits to your hygienist. After all, for most of your patients, isn't it more important that they visit the hygienist to learn how to care for their mouth every day at home than it is to keep regular visits to their dentists? For success in this aspect, you must give every patient clear information about what the hygienist does for them (surely she helps to keep them dentally healthy – exactly what they most value?) and how (by showing them the skills, tools and techniques they need to control the factor that does all the damage to teeth and gums). In my practices, the words 'scale and polish' and 'cleaning' as descriptors of the hygiene appointment are banned, as these words do not convey to patients exactly what the hygienist does for them. Worse, they allow patients to expect only the least important part of the hygiene visit. Please watch your language!



If you could use some new patients and if your patients feel that 'sorting of dental problems' is really important to them, do make sure that you have a very clear policy for emergency or problem solving' appointments. Monitor the number of phone calls you get each day of the week, and each week of the month, and make sure you always have time set aside to handle the 'usual' amount of emergency cases for each day - preferably keep this time towards the end of each day, so that your callers can organise to come in shortly after they call. Make your conditions for these appointments very clear - I prefer set fees for these appointments so that receptionists can reassure patients about costs immediately. They should also be able to tell callers that the set appointment time and fee can 'get most patients out of trouble'. You could also have clear information about your problem solving appointment on your website and signage, to reassure potential new patients that you could help them, but do also make sure that you encourage these new 'emergency' patients to return for full health screening/dental health checks at a later date.

Finally, don't lose your patient's trust over insecurity in another key area. Please discuss with your team ways in which they can make sure that patients are left in no doubt about your attention to sterilisation and preventing cross infection. Patients across the world are now judging practices by the standards they believe are practised in cross infection control - we have heard of patients walking into east coast USA practices asking to see the practice's sterilisation records, and certainly we know that new patients who are asked to write a 'stream of consciousness' record of their visits always mention what they see of sterilisation processes. So please mention the word 'sterile' or 'sterilisation' at least once during each patient visit ('Please pass me a sterile pointy thing?' 'I'll take this for sterilisation?' 'Here's your sterile tray for Mary, Dr Dentist?'). Please ensure great signage on the door of the sterilisation room, or pointing towards the sterilisation centre at the back of the practice. Please do watch what you touch with gloved hands - use tissues or take your gloves off to use pens, computer keyboards, light switches or record cards. And if anyone is caught outside a surgery with gloves on (and no tray of instruments or x-ray in the one gloved hand) there should be an immediate €5 fine levied! Patients seeing you do seemingly innocent everyday tasks with gloves on is a far bigger crime than the \in 5 pays for! They think you are wearing gloves to protect yourselves, not them, and they are very very scared! After all, they know exactly what infections they can get from their dentist!



Sheila Scott is a dental business and marketing consutant. She helps practices to develop their businesses and spoke at the conference in Croke Park in January.

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Classified advert procedure

Please read these instructions prior to sending an advertisement. Below are the charges for placing an advertisement for both members and non-members. Advertisements will only be accepted in writing via fax, letter or email (fionnuala@irishdentalassoc.ie). Non-members must pre-pay for advertisements, which must arrive no later than July 16, 2010, 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 for 12 weeks.

Advert size	Members	Non-members
up to 25 words	€75	€150
26 to 40 words	€90	€180
Non-members must send in a cheque in advance with their advert.		
The maximum number of words for classified ads is 40.		

POSITIONS WANTED

- Skilled Irish dentist available for part/full-time associate position, clinical sessions in Dublin or locums nationwide. Conscientious, caring TCD graduate with 15 years experience. Email: nicgearailt@gmail.com.
- Cork graduate with six years experience seeks associate/locum position in the Galway region from June. Tel: 087-652 7658, or Email: dentistgalway@yahoo.com.
- I am an experienced, hardworking, friendly Dublin graduate dentist, seeking locum work in Dublin city from July until September. Quick to fit in, flexible and reliable. Available for interviews outside of working hours. Email: galwaydentist@gmail.com.
- Friendly, hard working and responsible dentist with experience of private/public practice seeks part-time employment in greater Dublin area. Email: dentist.pm82@gmail.com.
- Experienced, hard working TCD graduate seeks part/full-time associate position in greater Dublin area from June. Tel: 085-720 9629, or Email: jamiegcummins@gmail.com.
- Very experienced dentist available for modern private practice in West Dublin area – surgical wisdom teeth, cosmetic dentistry, endo, implant. Email: elopasso27@hotmail.com.
- Italian orthodontist, TMD and facial pain specialist (CV http://www.orthotmj.splinder.com/) is looking for one-month internship during summer to improve his spoken English. Future partnership possible. Email: alexugolini@hotmail.it.
- I am a hard working, experienced Cork graduate, seeking part-time work in South eastern region of Ireland. Email: kkdentist1@gmail.com.
- Conscientious, hardworking Cork graduate, three years NHS experience, seeks locum/permanent position in Munster/Southeast. Available from June onwards. Tel: 087-413

Only if the advert is in excess of 40 words, then please contact: Think Media

The Malthouse, 537 North Circular Road, Dublin 1. Tel: 01-856 1166 Fax: 01-856 1169 Email: paul@thinkmedia.ie

Please note that all classified adverts MUST come under one of the following headings: Positions Wanted Positions Vacant Practices for Sale/To Let Practices Wanted Unwanted/Second Hand Equipment for Sale

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

2350, or Email: dentistwd@gmail.com.

- Dentist available for locum work in Cork City and County July 1 to August 20. Tel: 086-832 3405.
- Ambitious, flexible and reliable dental hygienist with excellent organisational and interpersonal skills seeks employment in the Leinster area preferably, all other areas considered. Please contact Carol, Tel: 087-227 3736, or Email: caroldowney@hotmail.com.

POSITIONS VACANT

- Galway city centre general practice seeks an associate for immediate start. Private-public mix with superb conditions and package. Email: emmet@smiles.ie.
- Full-time associate required for a very busy practice in Lucan and Maynooth. Modern facilities and excellent established income. Applicant will be required to work late evenings and Saturdays. Contact Maria or William, Tel: 01-610 5022, or Email: maria.d.kavanagh@primacare.ie.
- Newcastle Upon Tyne, UK. Full-time associate and locum required for busy, VT-approved, modern NHS/private practice. Fully computerised, with digital x-rays, OPG and hygienist. Please contact Shabin, Tel: 0044 7930 537 047 (mobile), or 0044 191 286 9156 (work), or Email CV to: thedentalcareclinic@ hotmail.com.
- Dental associate required for dental surgery in West of Ireland. Immediate start. Full-time position, private and m/c patients. Please email: receptiondent@gmail.com.
- Full-time associate in Bray close to Dublin. Computerised and digital radiography, Cerec. Start July. Minimum two years experience. Email: CV to drmurphyjohnj@yahoo.co.uk.
- A great opportunity exists for two full-time associates to join our practices one in Dublin and one in Waterford City with an

immediate start possible. Excellent conditions. Contact us now by Email: emmet@smiles.ie.

- Associate position, start July, in Dublin South West. Email: adasethsmith@gmail.com.
- Partner/associate wanted to take over associate's book. Email: adasethsmith@gmail.com.
- Dental associate required to join very busy practice. Experience preferred but will consider newly graduated motivated associate. Immediate start. One hour, 15-minute drive from Dublin. Mullingar area. Modern surgeries, computerised, OPG, hygienist, with excellent support staff. Tel: 044-966 2444, or Email: info@dentistsireland.com.
- Part-time associate required for busy, fully computerised dental practice in Navan, Co. Meath to replace retiring colleague. Digital OPG, Kabo chair and qualified staff. Email: fiacla1@eircom.net.
- Dentist required for new, computerised practice in Dundrum. Part/full-time position. Immediate start. Email: reception@rfdentalclinic.com.
- Dentist required in West of Ireland. Lucrative opportunity. New suites as part of medical complex. Tel: 086-811 2729, or Email: aislinnco@hotmail.com.
- Dentist required three to four days per week, Cork. Modern city centre practice. Full hygienist, OPG, etc. Apply to Charles Haly, 35a Mary Street, Cork, or Email: charliehaly@ericom.net.
- Wanted orthodontist Cavan. Visiting orthodontist required to join established orthodontic practice within a busy Cavan dental clinic. Tel: 049-433 2488, or Email: churchstreetdental@eircom.net.
- Orthodontist required three to five days per week to join established specialist practice in Clontarf. Newly renovated, on-site lab, sterilisation room, off-street parking, fully computerised, digital radiographs. Fully equipped surgery also available to let to specialist practitioners, e.g., oral surgeon/paedodontist. Tel: 087-906 9303, Email: shona@clontarfbraces.ie.
- Orthodontist required for private sessional work in bright busy general practice in Ireland's South East. Substantial list. Contact Hugh, Tel: 086-838 3483, or Email: hughbradley@gmail.com.
- Oral surgeon with implant placement experience required two days per month to replace departing colleague in multiple practice with other visiting specialists – full back-up assistance given – one hour from Dublin in southeast region. Please Tel: 087-266 6524.
- Endodontist/oral surgeon required for sessions in Cork. No set-up costs involved. Newly equipped state-of-the-art practice with complete range of endodontic/oral surgery equipment and instruments (surgical microscope, rotary endodontics, Sybronendo elements, digital imaging, computerised practice management). Tel: 087-903 4541.
- Dental hygienist required for very busy practice in Dublin. Modern surgeries, OPG, computerised. Immediate start. Email: info@dentistsireland.com.
- Part-time (three days per week) dental nursing position available in multi-specialist practice, leading to eventual full-time post. Position available immediately. Please send CV by Email to info@naasdental.ie.

PRACTICES FOR SALE/TO LET

- Space available in orthodontic practices in Swords and Charlemont Clinic, D2, (opposite LUAS stop). Fully equipped, x-ray facilities, pay and display parking. Would suit endodontist, periodontist, prosthodontist or oral surgeon. Email: suzanne@dublin orthodontics.ie.
- Dental surgery available in Ennis, Co. Clare. To share with two other dentists and hygienist. Would suit general dentist or specialist. Replies to Box No. BN310.001.
- Practice for sale. Long-established practice for sale, Waterford City Centre. Busy location. Would suit general dentist. Tel: 086-807 5273.
- Practice to let Dublin city centre. Great location, ample parking, medical/dental centre, full PP, 1,000+ square feet, potential development plans available – 'wow' factor. Reasonable rent, flexible lease options, ground floor – excellent visibility. Must be seen quickly. Tel: 086-807 5273, or Email: niall@innovativedental.com.
- 750 sq ft dental surgery to let in Booterstown, Co. Dublin. Flexible lease terms. Tel: 086-255 8160.



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DIARY OF EVENTS

JUNE 2010

European Society of Dental Ergonomics - Annual Meeting

June 4-5 Ghent University Hospital, Ghent, Belgium "An ergonomic way of sitting, looking and organising in dental practice. An analysis of important aspects". For further information contact www.esde.org or secretary-general@esde.org.

Australian Healthcare and Hospitals Association Conference – 'Chomping into Reform – improving the delivery of oral and dental health'

June 8-9 Melbourne, Victoria, Australia For further information, Email: changechampions@bigpond.com or visit www.changehcampions.com.au.

The World Aesthetic Congress 2010

June 11-12 Queen Elizabeth II Conference Centre, London For further information, Tel: 0044 1923 851 777, or visit www.independentseminars.com/wac.

The Irish Society for Disability and Oral Health – Annual Conference – 'Wet mouths vs dry mouths'

June 18Crowne Plaza Hotel, Blanchardstown, Dublin 15Details of programme can be downloaded from www.isdh.ie.

OCTOBER

IDA Public Dental Surgeons SeminarOctober 6-8Clarion Hotel, SligoFor further information contact Dario in IDA House, Tel: 01 295 0072.

EFAAD – The European Federation for the Advancement of Anesthesia in Dentistry – Annual Meeting

October 14-15The Royal and Ermitage Resort, Evian-Les Bains, France For further information see www.efaad2010.squarespace.com

NOVEMBER

 FTI 2010 – The 2nd Future Trends in Implantology International

 Dental Conference

 November 11-13
 Florence, Italy

 For further information contact www.ftidental.com.

Orthodontic Society of Ireland Meeting – Damon Symposium November 19-20 Four Seasons Hotel, Dublin Speaker is Dr Alan Bagden.



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- Clinically proven to significantly reduce bacteria for 12 hours^{2,3}

Evidence-Based toothpaste



1 Loesche WJ. Dental Carles: A Treatable Infection. Springfield, Illinois: Charles Thomas; 1982:64-66. 2 Amornchat C, Kraivaphan P, Triratana T. Mahidol Dent J. 2004;24:103-111. 3 Kruger IJ, Murphy CM, Sullivan RJ. Demonstration of the sustained effect of Colgate Total by confocal microscopy. Poster presented at: American Association for Dental Research; March 7-10, 2001; Chicago, IL. Abstract 1031.

Trade name of medicinal product: Colgate Total Toothpaste, Active ingredients: Triclosan 0.3% w/w, Sodium Fluoride 0.32% w/w (1450ppm F). Indications: To reduce dental caries, improve graginal health and reduce the progression of periodontitis. Dosage and administration: Brush the teeth for one minute twice daily. Children under 7, use a pea-sized amount, if using fluoride supplements, consult your Dentist. Contraindications: None Known. Individuals with known sense ties should consult with their dentist before using Special warnings and special precautions for use: Children under 7, use a pea-sized amount. If using fluoride supplements, consult your Dentist, Interactions with other medicines: None known. It is important to note that as for any fluoride containing toothpaste in children under systemic fluoride ther It is important to evaluate the total exposure to fluoride (fluorosis). Undesirable effects: None known. Legal classification: GSL. Product authorisation number: PA3205/1. Product authorisation holder: Colgate-Palmolive (UK). Ltd. Guildford Business Park Middleton Road, Guildford, Surrey GU2 8/2. Recommended retail price: €1.59 (50ml tube). €2.59 (100ml tube). Date of revision of text: August 2009.



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