Volume 63 Number 2
April/May 2017

JIDA

Journal of the Irish Dental Association
Iris Cumainn Déadach na hÉireann

IDA
irish dental association

Rule of thumb

First tooth, first visit, zero cavities

1 in 6 Dentists claimed on their Day One Income Protection Cover in 2016

FOR MORE INFORMATION OR TO REQUEST A PERSONALISED QUOTE:

1850 260 261 • info@omegafinancial.ie

www.omegafinancial.ie/dentists

100% of our day one income protection claims have been paid in Ireland since inception.

OFM Financial Ltd t/a Omega Financial Management is regulated by the Central Bank of Ireland.

LEASING FINANCE for DENTISTS

- Dental Chairs
- Computers
- Xray Machines
- Vehicles
- Lab Facilities
- Dental Apparatus

Purchasing new equipment or vehicles? Don't tie up your capital in expensive assets. Contact Omega to find out more about leasing finance options.

1850 260 261
leasing@omegafinancial.ie
www.omegafinancial.ie/leasing

Omega Financial Management

CONTENTS

SIGNIFICANT ANNOUNCEMENT ON DTBS CONTRACT
See page 85

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

For advice to authors, please see: www.dentist.ie/resources/jida/authors.jsp

Published on behalf of the IDA by Think Media, 537 NCR, Dublin 1
T: +353 1 856 1166 www.thinkmedia.ie

MANAGING EDITOR **Ann-Marie Hardiman** ann-marie@thinkmedia.ie
JOURNALIST AND SUB-EDITOR **Colm Quinn** colm@thinkmedia.ie
ADVERTISING **Paul O'Grady** paul@thinkmedia.ie
DESIGN/LAYOUT **Tony Byrne, Tom Cullen, Niamh Short**

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

Total average net circulation 01/01/16 to 31/12/16: **3,227 copies** per issue. *Circulated to all registered dentists in the Republic of Ireland and Northern Ireland.*

FUTURE-PROOF YOUR PATIENTS' **ORAL HEALTH** WITH COLGATE TOTAL®

- **Superior** antibacterial protection for 12 hours*[1,2]
- **Significantly** reduces bacterial load on hard and soft tissue**[2]

Clinically proven protection, Irish Dental Association approved

Colgate

YOUR PARTNER IN ORAL HEALTH

www.colgateprofessional.ie

*Compared to a regular fluoride toothpaste – defined as non-antibacterial fluoride toothpaste.
**Defined as teeth, tongue, cheeks and gums.

1. Kravaphan P, Armonchat C, Triratana T. *J Clin Dent.* 2013;24:20–24.
2. Fine DH, Sreenivasan PK, McKiernan M et al. *J Clin Periodontol.* 2012;39:1056–1064.

EDITORIAL

Prof. Leo F. A. Stassen
Honorary Editor

Progress is possible

The DTBS is being improved, with credit due to our negotiating team, while we can look forward to a superb Annual Conference in Kilkenny.

The mood of relations between Government and the dental profession since the savage cuts to the State's dental schemes has been dire. The High Court may have found that the Government acted legally in its unilateral action to make the cuts, but that's not to say they acted ethically or fairly. Dentists felt aggrieved to the point of betrayal. When the cuts were imposed, we felt that we were no longer partners in the provision of oral healthcare to the population; the Government made us feel that we were the underpaid and undervalued minions of an uncaring, unknowing State. They may be strong words, but they reflect the very deep frustration of dental professionals at not being allowed to provide proper care for their patients. This frustration spilled out at many meetings of the Association over recent years.

It is this background that has made the progress made by our negotiating team at the table with officials from the Department of Social Protection so surprising. The Association's team of Drs Clodagh McAllister, John Nolan, Kieran O'Connor and Tom Rodgers, along with our executives Fintan Hourihan and Roisín Farrelly, has made it clear to members that they have experienced genuine engagement by the Department officials and believe significant progress has been made.

Hard evidence of that progress was the extension of the Dental Treatment Benefits Scheme (DTBS) to cover the self-employed, which commenced last month. From October 2017, the scale and polish treatment will be reintroduced for all eligible patients as a once annually closed grant-in-aid treatment. The fee payable will be increased to €42 and the dentist will also be able to charge the patient up to €15 as an additional co-payment. The protracted periodontal treatment will be reintroduced for certain patients. Financial Emergency Measures in the Public Interest (FEMPI) cuts to the examination fee will be unwound as part of this process. Full details can be read in the Members' News section on page 85. The real message though is that, after years of deep frustration for us and pain for our patients, some progress is being made. Despite all the challenges of recent years, progress is possible and our negotiating team is making a difference.

Many attractions in Kilkenny

This is a bumper edition of the *Journal*. There are several reasons, but the single biggest factor is the preview of the Annual Conference in Kilkenny in May. The mixture of hands-on courses, scientific lectures, trade show, general presentations and social activity is compelling. Readers will get all the details they need in this edition, along with a strong recommendation to attend. If you need a little encouragement, there is no better introduction than our interview with Professor Peter Butler who will deliver the *Journal* lecture at the Conference. Professor Butler's work in facial reconstruction is world renowned and, of course, his late father Norman was one of our colleagues and Dean of the Dublin Dental School and Hospital.

First tooth, first visit, zero cavities

We are grateful to Drs Kirsten FitzGerald and Brett Duane and their colleagues, Drs Eleanor McGovern and Aifric Ní Chaollaí, for their two papers addressing the issue of infant oral health. They stress the benefits of a visit to the dentist in the first year of life and present a review of evidence that demonstrates that such an early visit yields lasting dividends.

Rotation of Editorial Board membership is very important for the development of the *Journal* – and I will return to this topic in the next edition. For this edition one of our new Board members, Dr David McReynolds, has provided a detailed clinical feature on the use of a diagnostic method that can aid the operating dentist when multiple teeth or localised segments of the mouth require crowns. Meanwhile, Dr Susie Sanderson of Dental Protection reminds us of our role in minimising the spread of antimicrobial resistance – we can't just leave it up to the medical doctors.

PLAQUE CONTROL:
'GOOD' CAN BE BETTER

THE PROVEN ORAL CARE COMBINATION

A combined analysis of 29 clinical studies on essential oils has been published in the *Journal of the American Dental Association.*

This showed that after 6 months of using **LISTERINE®**, after brushing and inter-dental cleaning, **37%** of patients had at least half their mouth free from plaque, compared with only **5.5%** of those who just brushed and used inter-dental cleaning.[1]

LISTERINE® contains a unique anti-plaque agent, 4 powerful essential oils. These penetrate the plaque biofilm to kill **97%** of bacteria left behind after brushing.[2] For some patients 'good' can be better.

To see the full study visit http://jada.ada.org/article/S0002-8177(15)00336-0/abstract

Johnson & Johnson
FAMILY OF CONSUMER COMPANIES

www.listerineprofessional.co.uk

1. Arnold RR, et al. J Am Dent Assoc 2015;146:608-622.
2. Johnson & Johnson. Kalla on file.

BRING OUT THE BOLD™

Thinking about dentistry

IDA staff, officers and members have been working hard to plan the Association's future strategy.

I was invited by the Canadian Dental Association to attend its Pacific Dental Conference in Vancouver in March (above). I met with the President, Dr Randall Croutze, President Elect Dr Larry Levin, and Executive Director Mr Claude Paul Boivin, and members of the Board. I also had several interactions with Dr John O'Keeffe, Director, Knowledge Networks, and Canadian Dental Association, who was extremely helpful in setting up meetings and links for me. Our thanks to John, who is a Dublin graduate from 1980 and a great ambassador for Ireland in Canada. The quality of the scientific presentations was superb and the only difficulty was in making choices in terms of what to attend. The hospitality of the Canadian Dental Association was outstanding and they were very complimentary of the quality and character of the Irish graduates who have gone to work in Canada via the reciprocal arrangements that came into being a few years ago. We have a lot to learn from our mutual interactions.

Strategic Council of the IDA think tank

Following the Board Executive and Council meetings on March 31, I organised a special meeting of the Council to look at many of the challenges that face us in our organisation. I am delighted to say that the Council and officers of the Board engaged completely in this process. There were also many representatives from the branches. We had three main points for discussion:
1. CPD and its delivery nationally, regionally and locally; 2. branch structures; and, 3. communications with our membership. I have to compliment all those who attended on a very lively and open discussion, and also on the multiplicity of concrete suggestions and ideas that flowed from the meeting. I appreciate greatly the frank interactions and straight talking, in a very constructive and positive way, that occurred.
Each of the 25 members around the table contributed at least three focused ideas and suggestions, which are being collated by our secretariat and will be very helpful in framing the way ahead for the next number of years. I must give my appreciation to our CEO Fintan Hourihan, our assistant CEO Elaine Hughes, our Communications/Employment Officer Roisín Farrelly, and Dr Garry Heavey, Chair of the IDA CPD Committee, who all made short presentations, and our CPD events administrator Gráinne McQuaid. I am very grateful to all of those involved for giving up their Saturday.

Young and newly qualified graduates

As I discussed in my conference speeches in Galway last year I am very keen to obtain early engagement with our undergraduate students in the dental schools. These students are the lifeblood of the Association and every encouragement should be given to them to join. Also, for newly qualified graduates we are going to increase the number of support documents available in order to help guide them through the first critical years of practice, which can be a daunting time. This also applies to graduates coming from abroad or returning to Ireland following graduation abroad. I had the opportunity to speak to the Cork graduates at their prize giving in UCC just before Christmas and also recently to the Dublin graduates, when they invited me to present on clinical photography in aid of their "DOVE" overseas initiative. I look forward to seeing many more young undergraduates and newly qualified graduates attending our meetings and conferences.

Sympathies

I would like both personally and on behalf of the Irish Dental Association to extend my condolences to Dr Celine Fenlon on the recent passing of her husband, Dr Billy Fenlon. Our thoughts and sympathies are with Celine and her family. I would also like to extend our sympathies to our CEO Fintan Hourihan on the recent loss of his mother.

ASC Kilkenny

I encourage all members to attend our Annual Scientific Conference from May 11-13 in the Lyrath Hotel, Kilkenny. There is an extremely exciting line-up of pre-conference courses, a very strong scientific programme and a number of workshops for both dentists and the dental team. I would like to wish the President Elect Dr Robin Foyle every success with the meeting and I would ask our membership to support him in every way possible over his upcoming term as President. Robin has been a stalwart of the Dental Association over so many years and I have no doubt that he will have a hugely successful Presidency.

Thank you

I would like to extend my sincere thanks to the Officers of the Board of the Irish Dental Association, the members of the Council of the Irish Dental Union, the staff and members of the Irish Dental Association and my own staff for their support to me during my term as President. I really appreciate the courtesy and support I experienced during my term. It has been a pleasure to serve as President of the Irish Dental Association.

Letter to the Editor

Dear Editor,

Many thanks for publishing my letter in the *JIDA* in January 2017. My thanks also to Drs Hal Duncan and Padraig O'Reachtagain for replying with their letters in the February/March 2017 edition.

In Dr O'Reachtagain's case, could the treatment be claimed for as "lancing an abscess"?

In reply to Dr Duncan, I must respectfully disagree that a similar amount of pus drainage through a tooth can be obtained with a suction tip or a syringe compared to that obtained by closed mouth suction. Closed mouth suction is much more powerful, effective and quick.

I was writing with a busy general dental practice in mind, where a few times per week, prompt professional treatment of acute pain or infection is rightly expected. Patients must be "squeezed in". Drainage and a further appointment is preferable to antibiotics and a further appointment. But the treatment must be simple and quick; otherwise, because of time constraints, it won't be used. Usually drainage can be got quickly by opening the chamber – often without local anaesthetic – and sucking.

While I agree with Dr Duncan that endodontic treatment itself should be done under rubber dam, if some filing is needed to help drainage it could not be called real endodontic treatment: it is more akin to "lancing an abscess". One can tie a length of dental floss to the file for safety. Protection of the airway is paramount of course, and contamination must be minimised with cotton rolls or other barriers and use of the surgery aspirator.

If the cavity is then closed, cross-contamination must be minimal, and is irrelevant if extraction is planned.

In addition to reducing antibiotic use, this treatment has the advantage of taking the emergency away so that decisions about the fate of the tooth can be calmly decided later.

Yours sincerely,
Dr Frank McCrea

North and south surgeons meet

The inaugural Oral & Maxillofacial Surgery Study Day, incorporating Ireland and Northern Ireland, was held at the RCSI on February 3. The study day covered many topics in oral and maxillofacial surgery, clinical audits and innovative research. There was a focus on quality of healthcare, and a frank discussion on the management of oral and maxillofacial cases took place.

All oral and maxillofacial units were represented, including St James's Hospital, the Dublin Dental University Hospital, Galway University Hospital, Limerick University Hospital, Cork University Hospital, The Ulster Hospital and Altnagelvin Hospital. Private practitioners from the Ulster Independent Clinic and the Mater Private Hospital, Cork, were also in attendance.

Interesting talks were presented on the topics of the delivery of maxillofacial care in Dublin, facial infection rates in Northern Ireland, quality improvement in maxillofacial care and medicine-related osteonecrosis of the jaw. A very interactive session was held on diagnostic and management dilemmas encountered in practice. A frank discussion ensued between all clinicians in relation to the problems presented.

Prizes were awarded for the best presentations given by NCHDs and the recipients were Dr Chris Wright from Altnagelvin Hospital on his presentation on 'BCC excision margins', and Dr David McGoldrick of St James's Hospital for his paper entitled 'Significance of neutrophil to lymphocyte ratio as a prognostic aid in cancer and in particular its relationship to mouth cancer'.

At the Oral & Maxillofacial Surgery Study Day were (from left): Mr Paddy McCann, Galway University Hospital; Mr Conor Barry, St James's Hospital; Prof. Leo Stassen, St James's Hospital; Mr Dermot Pierse, Ulster Independent Clinic, Belfast; and, Mr Ged Smith, Altnagelvin Hospital, Derry.

The organisers plan to hold this meeting on an annual basis, and would like to thank sponsors GS Medical, KD Surgical, Techno Surgical and Zimmer Biomet for their support.

Diary of events

APRIL

25 **North Munster Branch meeting**
Clinical quick tips: practical tips for everyday practice and AGM

MAY

11-13 **Irish Dental Association** *Lyrath Hotel, Kilkenny*
Annual Scientific Meeting

18 **Irish Society of Dentistry for Children** *Portlaoise Heritage Hotel, Town Centre, Portlaoise*
Annual Scientific Meeting. More details to follow so save the date

JUNE

23 **Irish Society for Disability and Oral Health** *Marker Hotel, Dublin 2*
Annual Conference – 'Dental anxiety and phobia'

SEPTEMBER

15-16 **IDENTEX** *Citywest Hotel, Dublin*

OCTOBER

12-13 **HSE Group of the IDA** *Hotel Kilkenny, Kilkenny*
Annual Seminar


ULTRA TRANSLUCENT
UZir is made from a new formula of Ultra Translucent Zirconia. Its unique combination of translucency and strength (600 MPa) allows you greater flexibility to create a natural and highly aesthetic result for your patient. Ideal for anterior crowns and bridges of up to three units and for single posterior crowns. scdlab.co.uk/UZir.
£84/ €105 Standard UZir Crown
Southern Cross Dental
Translucency that excites.

Quiz

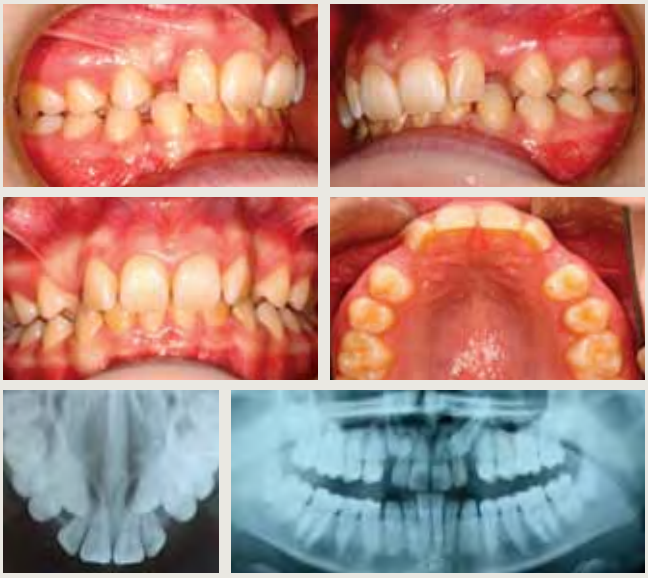
Submitted by Dr Joe Hennessy

A 12-year-old girl presented complaining about 'gaps in front teeth'. On examination, the maxillary canines where found to be unerupted.

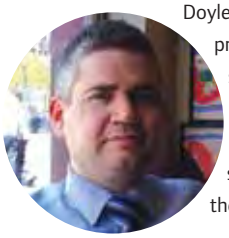
Questions

1. Name three clinical processes you would carry out prior to radiographic examination that would help ascertain the position of the maxillary canines.
   Radiographic tests consisted of a maxillary anterior occlusal and an orthopantomograph (OPG).
2. Name the technique used to radiographically locate an unerupted tooth?
3. What other radiographs can be used for this technique?
4. Where does this technique suggest the maxillary left and right canines are?

Answers on page 112



IDA preferred insurance provider



Aidan Mahon

Doyle Mahon has been appointed as the preferred insurance provider of the IDA. The company states that in the first six weeks of its new scheme for IDA members and their staff, it has delivered savings in 98% of cases quoted on. The company said it is delighted to have been selected as the approved general insurance provider to the members of the IDA. What does this mean for you and your practice?

Your practice

The company states its cover is made to measure with its tailored practice insurance policy, where dentists can obtain and pay for only the cover they need. Doyle Mahon states that it has made savings for IDA members of 20-25%, and up to 50% in some cases. The company's policies can include buildings, contents, liabilities, stock cover and more. It offers a range of standard covers, including DAS Legal Expenses covered as standard. It states that its policies are exclusively with A-rated insurers.

Affinity scheme

There is an affinity scheme for the company's dental clients, which offers significant discounts across all types of insurance the company provides, including:

- home;
- motor; and,
- property owners' insurance.

HSE Group for Kilkenny

The HSE Group Annual Seminar will head to the sunny south east and the city of Kilkenny this year. The event will take place on Thursday and Friday, October 12 and 13 at the Hotel Kilkenny. A wide range of speakers will present on various topics over the two days with a full trade show present on Thursday. This event is a must for any dentist employed by the HSE. Put the dates in your diary now!

Wrigley Grants Programme

The Irish Dental Association, in conjunction with the Wrigley Company Foundation, is delighted to announce a range of dental support grants to fund worthwhile oral healthcare projects around the country. Applications have been submitted and the winning applicants will be announced over the next few weeks.

This is the second year of the initiative and last year five very worthy oral healthcare projects were funded through the scheme.

Dental support grants are available to help fund specific community service projects with a focus on improving oral health and educating participants in this area. Up to seven projects across the country will be funded, with one project receiving funding of €15,000, three receiving €5,000 and three receiving €2,500.

The scheme was open to all IDA members to apply.

ULTRA TRANSLUCENT

UZir is made from a unique formula of Ultra Translucent Zirconia.

CAD/CAM milled restorations

600MPa flexural strength

scdlab.co.uk/UZir

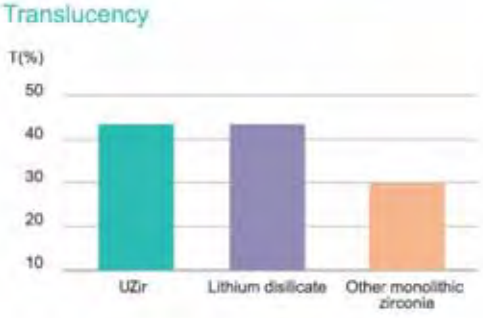
Its enhanced translucency and strength allow you greater flexibility to create a natural and highly aesthetic result for your patient.

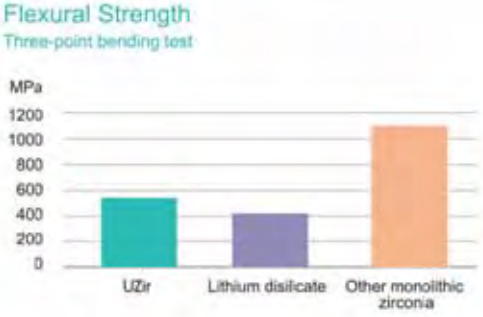
UZir is an ideal choice for anterior, posterior and bridges of up to 3 units.

Fabricated using CAD/CAM technology, you can be assured of a precise fit and predictable result.

This innovative product is highly versatile and provides a wide range of indicators to meet your patient's needs.

Crown & Bridge	Single crown and 3-unit bridge (up to premolar)
Inlay/Onlay	Yes
Flexural strength	600 MPa
Stump Shade	Must be provided as it may affect the final shade
Cementation	Self-adhesive or adhesive resin cements are recommended. Shade of the cement will contribute to the final shade. Please contact our technical team for further information.
Adjustments	Fine diamond with water cooling or diamond impregnated rubber is recommended. Areas must be polished to a high shine with diamond polishing paste afterwards.





Southern Cross Dental

Translucency that excites.

Call us today on (ROI) 048 8772 7100 or (NI/UK) 028 8772 7100.

IDENTEX 2017

For the fourth year running, the Irish Dental Association will partner with the Irish Dental Trade Association (IDTA) and will run hands-on courses, workshops and lectures as part of IDENTEX. Over 60 trade stands will be present over Friday and Saturday, September 15 and 16, which members of the dental profession can visit free of charge. To register for the IDENTEX trade show, log on to www.idta.eu. More details on courses, including how to book, will be available shortly.

Annual Conference 2018

The Annual Conference returns to the City of Tribes and the ever-popular Radisson Hotel in Galway in 2018. The event takes place from April 26-28.

Hands-on endodontic course

A practical hands-on course will take place on Friday, May 26 at the Clayton Hotel, Leopardstown, presented by Dr Pat Cleary, a specialist endodontist based in Dublin. Places are limited so early booking is advised and bookings can be made through IDA House.

Implant course

Quintess Denta is hosting a full-day course 'Introducing the Neodent implant system' on Friday, April 21 in Belfast Castle. Neodent was established over 20 years ago and is currently present in more than 20 countries. Quintess Denta states there is an incredible line-up of speakers, all with years of implantology experience, including Dr Joe Bhatt, who is a specialist in prosthodontics and oral surgery, and John Wibberley, an expert in implantology with a passion for dental technology. Apart from educational talks, there will be a hands-on element, which will give delegates the opportunity to see the benefits of the Neodent system first hand. There is also a focus on digital workflow and the future of technology used in the dental industry. The course is free but spaces are limited. If you would like to attend, contact Quintess Denta online or by phone.

South Eastern Branch

The South Eastern Branch recently had a very successful Annual Scientific Day at the Tower Hotel, Waterford. A full trade show was present and over 50 delegates were in attendance. There were some very interesting topics discussed on the day, including surgical extractions, endodontics, trauma, and facial pain.

Sensitive Dentist of the Year 2017

The Concert Hall at the RDS above proved a terrific venue for the Gala Ball to announce the Awards.
INSET: The 2016 winner, Dr Daniel Collins, with Dr Marie O'Neill and, right, Eilis Tobin of GSK, who sponsor the event.

Will you be Ireland's Sensitive Dentist of the Year 2017? The gala awards ceremony will take place at the glamorous Concert Hall at Dublin's RDS on Saturday December 2 next. Make sure you are nominated!

Any patient can nominate their dentist for the Award either online at www.sensodynesensitivedentist.ie, or on the postcards available from GSK at their stand in Kilkenny at the Annual Conference.

This year we are delighted to announce that we will once again have a second award for Sensitive Dental Team of the Year.

Saving face

Pioneering surgeon **Professor Peter Butler** will address the IDA's Annual Conference in May.

He spoke to the *Journal* about his cutting-edge work in facial reconstruction.

Peter Butler sees his career as very much part of a continuum that goes back through the centuries as extraordinary surgeons have attempted to achieve a 'normal' appearance for patients suffering congenital illnesses, and for those who were victims of terrible trauma. He mentions the Italian surgeon Gaspare Tagliacozzi, who carried out nasal reconstructions in the 1500s, and a visit to the Queen Victoria Hospital in East Grinstead as a junior doctor, which had a significant impact on his own interest in the subject. In East Grinstead during and after World War II, Sir Archibald McIndoe carried on the extraordinary work begun by his cousin Sir Harold Gillies during World War I, using tubed pedicles (a reconstructive technique in which the skin and soft tissue is formed into a tubular pedicle and moved from the source to the target site by anchoring at both ends, significantly reducing infection) to rebuild the faces of badly wounded and burned soldiers. The techniques and technology are better these days, but the processes are essentially the same: "At that time, the outcomes took a long time, but we're better at moving tissues now".

Finding solutions

These days, as Professor of Plastic and Reconstructive Surgery at the Royal Free Hospital and University College London (UCL), Peter works to advance his specialty case by case: "We take on cases where there isn't a solution, in conditions where there isn't really a treatment option".

Many of his patients suffer from scleroderma, a chronic autoimmune condition that causes thickening or hardening of the skin and internal organs. Peter sees patients who have developed a condition called microstomia, where tissues around the mouth tighten until the patient cannot speak properly, or access dental care. The immunosuppressive drugs these patients take make them difficult candidates for surgery, but Peter's team has established a reconstructive methodology: "We've come up with an intervention which we've found reverses the fibrosis so they get back oral continence – their speech improves, tissues feel less tight and the dentist can do dental work".

Peter's other large caseload consists of patients who are post resection for head and neck cancer. He has developed treatments in secondary facial reconstruction for patients who have completed treatment, but still have significant disfigurement and dysfunction: "I see patients who have had a reconstruction that's left them with a large hole in their face, or where the tissue used – because it has been taken from the abdomen or back – is very different to facial skin. It's pigmented differently, it doesn't move, and has no feeling. Following this type of reconstruction, patients can become even more socially isolated than they were before. I use all of our techniques to modify their own tissues and import tissues to reconstruct the defect so that they get a more normal-looking face".

Patients who have received radiotherapy often experience another painful and debilitating problem, a fibrosis or scarring that restricts movement of the mouth and neck. This time, Peter's solution involves stem cells: "We've developed a stem cell therapy, which we now do using ultrasound-guided needle into the affected tissues, and we've found significant reversal of the radiotherapy damage".

This therapy is forming a major strand of Peter's research, another significant aspect of his work: "We're trying to figure out why and how this works, because obviously it would lead on to a new drug development. We already have a human effect, so that's a big advantage. The disadvantage is that we have to reverse engineer it to find out why it works".

Science fiction into science fact

Some years ago, extraordinary images emerged of a mouse with an ear growing from its back. Peter was part of the group that carried out this work, and tissue engineering remains a vital part of his research into better reconstructive techniques: "We've just won an award for an ear reconstructive methodology using that technology and we have a potential clinical trial to start using a polymer-based reconstructive methodology. We're also looking at a combination of that with tissue engineering and prefabrication to recreate jaws and mandibles, as well as the central aesthetic unit – the nose and the nasal ethmoid.

"Even minor disfigurement can cause significant psychological distress. It's a partnership; I usually get the psychologist to see the patient with me so that we work together with the patient, and then the psychology unit helps me to determine when we do the intervention."

"We've already done cases where we've reconstructed mandibles in the leg. This is an established technique but we've moved it on a bit to make mucosa as well as bone. We're working with dentists, using preoperative planning, constructing the implants in the fibula before we transfer them into the mouth. Before, you would bring the fibula up into the mouth and then, when everything settled down about six months later, you would come back and put the implants in it. We've now worked out that you can do the whole lot in the leg before it's transferred".

This is a significant advance in terms of the patient's dental rehabilitation: "When we transferred [the bone] before, we detached it from its blood supply and re-attached it in the neck, which is a pretty standard technique, but the flap of skin we brought with it was extremely thick and it was very difficult to get the abutment to work. Now we don't even transfer the skin. We prefabricate the mucosa in the leg, as well as having the implant in the bone, before we transfer".

This extraordinary and complex surgery is done in collaboration with dentists and maxillofacial surgeons, and Peter says it's the combination of all three skillsets that makes it possible. The team has used this approach in two cases so far, and is about to carry out a total nasal reconstruction using the techniques learned: "Each technique gives you a thought process as to other techniques. Each one builds on the other, which is the way I like surgery to evolve".

Mind over matter

Of course, at the centre of these revolutionary techniques are the patients, many of whom have been through many surgeries and are still suffering the mental distress and social exclusion caused by facial disfigurement. Peter is acutely aware of this, and has built an embedded psychological service into his unit: "We have three psychologists now and when I started off we had none. Even minor disfigurement can cause significant psychological distress. It's a partnership; I usually get the psychologist to see the patient with me so that we work together with the patient, and then the psychology unit helps me to determine when we do the intervention".

It's also about managing patients' expectations of life after surgery: "Every time you do anything to somebody's face they go through a period of re-adjustment in regards to their self-identity, and everybody is different in how we handle this. It's very important to work out who fits in a high-risk or a low-risk category, or where the intervention might help".

All about the face

Peter is perhaps best known for his work in the area of facial transplantation. He was first surgeon to write about the possibility of full facial transplantation in *The Lancet* in 2002, and received ethical approval for the procedure in 2006, but while transplants have taken place in other countries, no suitable case has arisen in the UK. Peter is still very much involved, but acknowledges

Home life

Peter is married to the journalist and broadcaster Annabel Heseltine, and they have four children: twins Mungo and Isabella (14), Rafferty (13) and Monty (10). Peter returns to Ireland every few months to visit family. His father Norman passed away in January 2016, but with his now-retired mum and a brother and sister still based in Dublin, there's always plenty to come home to. He also tries to get home for the occasional rugby match, although that's not possible this year. When he has time away from work, he has an unlikely hobby – salmon fishing: "I particularly like spey casting. It's like doing yoga or a mantra – you get totally absorbed. There's an art to it and you get a lot of practice because you have to cast every two to three steps. Precision is key – and you can see the results of your work pretty instantaneously".

Medical life

Peter's mother Ursula is a retired pharmacist, while his late father, Norman, was an eminent dentist and Dean of the School of Dentistry in TCD. However, it was his mother's brother, a doctor, who inspired him on his own career path. He completed his initial studies at the Royal College of Surgeons in Ireland in 1987, followed by internships at the Richmond and Beaumont Hospitals in Dublin, and surgical training in Dublin and Drogheda. He had already developed a strong interest in plastic surgery and facial reconstruction, and travelled to Harvard to complete a fellowship, followed by some time back in Dublin before he made the move to London, where he has worked ever since.

that the road has been anything but straightforward: "We had a live programme for two years, but out of about 120 potential donors for the recipients we only got three offers, none of which matched. It became increasingly obvious that it was going to be very difficult to deliver something like this in the UK".

One major issue is an understandable reluctance on the part of families to donate facial tissue. Research by Peter's team has shown that for internal organs, even where a patient has previously registered as a donor, families gave consent for donation in only 50% of cases. When it comes to facial and corneal tissue, the numbers are far lower: 10% at most. Another significant issue is immunosuppression, which is known to shorten patients' lives, and for which no satisfactory solution has yet been found: "We haven't given up. We have two patients still interested, but the difficulty for me is if I make them live patients in a process, will I get them a donor?"

Peter is philosophical about the experience, which included some fairly intense media attention, and robust discussions about the ethics of the operation: "I suppose I should have been [disappointed] but I wasn't. I ran into quite powerful individuals in the surgical field who tried to stop it, but I equally ran into other quite well-known figures who were supportive. I also did lots of radio and television, and the different points of view were very interesting. None of them were wrong – they were just different. It was a very interesting experience".

Of course, the long process has also been difficult for those patients who wished to be candidates for the surgery, but Peter says that with developments in techniques and technology, his team has been able to help many of them: "For patients where half or three-quarters of their face has been damaged, we have applied the reconstructive techniques I now use in the head and neck cancer patients. We've got them involved with a group called Changing Faces, and have worked hard to support them, and so a lot of people I originally thought would be candidates have decided not to because they got on so well in the other things we've put in place. That's a good result".

Moving on

And the research goes on, not just in the UK, but with partners all over the world: "Obviously the biggest challenge is to tissue engineer a face, which I still think is quite difficult because facial skin is so difficult, but we can reconstruct mucosa, cartilage, bone, fat tissue, muscle – we can do quite a lot. I do a lot of collaborative work with institutions in the United States and Europe – we collaborate quite freely".

Working almost entirely within the NHS, Peter gets referrals from all over the UK, and occasionally further afield. This means that patients can wait up to a year to see him, and he admits that waiting lists and limited resources are an ongoing issue. Another surgeon might pine for more time, money or resources, but for Peter, necessity is the mother of invention: "I always find a way around a problem. Sure, I've gone to some research institutions in the US where they have such beautiful facilities in comparison to what we have, and it would be great to be so well resourced. We achieve quite a lot on a very small budget. I wouldn't mind if I had the facilities they do and the resources to go with it, but you use what you've got in front of you.

"The one thing I loved about Harvard was the can-do attitude, that failure is part of a process, not the end point, whereas unfortunately on this side of the pond if you fail you're in trouble".

He knows that not progressing to full facial transplant in the UK would be seen by some as a failure, but he sees the good that has come and continues to come from the work: "I now attract very bright students because of the previous work, and that's really interesting – building the next generation of surgeons".

This now includes a master's programme on burns and plastic and reconstructive surgery, which explores all of the different approaches, including facial transplantation, tissue engineering, nanotechnology and stem cell therapy, that could potentially be applied to a reconstructive process. The work they do is potentially for replacement of any tissue, but for Peter it's all about the face and always has been: "I find it really amazing. It's an amazing organ. I keep coming back to it. I go off and do other areas but always come back to the face".

The reasons for this fascination go right back to the beginning of his career: "Throughout my journey, the most impacting patients I've met are the ones that have had significant facial injuries and what they've had to go through, and also how poor the end point is with the methodologies we have available. I came across a patient when I was training as an SHO in St James's in Dublin who had a pan-facial burn – the whole face had gone, and the chest and a bit of the hand. He had scar tissue that was dragging down his lips so he dribbled all the time, and he couldn't look up because his neck had contracted. He was 19: he wanted to go to university, get married. The techniques that we had at the time, which are actually techniques that we still use – skin grafts and flaps – really weren't going to restore him to normal.

"There's a massive unmet need. When you walk out the door in the morning, when we look at anybody, we look at the face first. It's the first thing, unfortunately, that society judges you by. It's a real tough one for the patient with facial disfigurement to walk out the door".

This determination to meet the unmet need of facially disfigured patients is what continues to drive him to take not so much a step-by-step approach as what he calls "a multi-faceted attack", coming at the problem from a number of angles: "Even facial transplant doesn't meet the need. The idea was to replace like with like and it's still not quite there".

He will continue to attack the problems, and to develop the next generation of new technologies, until he can meet all of his patients' needs: "Unless you do it you'll never know".

What's next?

Peter's team has just received an endowment that will enable them to move substantially forward with a project that brings all of these research interests together, the Charles Wolfson Centre for Reconstructive Surgery: "The idea is to try and bring together all the surgical disciplines in reconstructive surgery – plastics, maxillofacial, breast, a whole range of reconstructive techniques – and improve them, to produce clinical trials and evidence around the intervention of these new techniques".

Ann-Marie Hardiman

Managing Editor with Think Media, with an interest in further education and CPD.

Antibiotics don't cure toothache!

Dentists have a large role to play in minimising the spread of antimicrobial resistance and can't leave it up to medical doctors and vets to tackle the issue.

Antimicrobial resistance (AMR) must surely be a subject that is now familiar to us all. It is considered such an urgent threat to human health because there is an emerging risk to all mankind. Because of the increasing ineffectiveness of antimicrobial drugs, common and life-threatening infections will become more difficult to treat successfully, with a significant potential for surgical and medical interventions to become impossible.

It's tempting to dismiss AMR as a problem driven primarily by agriculture and general medical practice. In fact, in Europe and across the world, a "one health" approach to appropriate antibiotic use is being promoted, recognising the intimate relationships between human and animal health. Significant bodies such as the World Health Organisation and the European Commission, along with national governments,[1] are driving strategic collaborations between human and animal healthcare professionals and the public.[2]

Dr Susie Sanderson
OBE BDS FDSRCS(Eng) FFGDP(UK) LLM

Susie works for Dental Protection as a Dento-legal Adviser. She will speak at the IDA Conference 2017.

Why is it dentistry's problem?

It turns out, counterintuitively perhaps, that primary care dentistry is a significant player, responsible for up to 10% of antibiotic prescribing in Europe. Arguably dentistry, consequently, has a duty to view AMR with an honest and critical eye. In Ireland, evidence-based guidance developed by the Dental Antibiotic Stewardship Working Group, a subcommittee of the Strategy for the control of Antimicrobial Resistance in Ireland (SARI) National Committee, is available to assist with the indications for the prescribing of antimicrobials.[3] The choice of antibiotic is largely made on empirical terms in dentistry, and the

first- and second-line recommendations in published guidance are made with the risks of AMR in mind. Guidelines are there to augment clinical judgement but a prudent practitioner would make sure that they were able to justify prescribing outside published guidelines, particularly in the event of a subsequently raised concern about their care of a patient.

Relatively recent research in Wales looking at primary care dentistry revealed that it was likely that between 70 and 81% of prescribing did not follow published recommendations. The reasons were described as multifactorial, some needing further investigation. Indeed, in dentistry, we have notable challenges to responsible prescribing. Unfortunately, many of our patients will ask us to prescribe antibiotics inappropriately. Dental pain is primarily an inflammatory condition and usually best treated by a clinical intervention supported with effective analgesia. Consequently, being offered the more appropriate options of, for example, an extraction or extirpation of an inflamed pulp may not go down so well with treatment-averse individuals.

Planning for the unpredictable

Equally, our own experience tells us that patients frequently present with dental pain as an unscheduled emergency during a busy day, with little time available to provide the correct clinical intervention. Unfortunately, tempting though it is when there is no time to provide the right care, we know that issuing an antibiotic prescription will not cure a hyperaemic pulp and the patient will be on the doorstep the following day after a sleepless night with no relief from their pain. The cycle of unscheduled attendance is perpetuated as a constant disruption to the day's organisation. We really do need to take the time to listen, investigate, make the diagnosis, communicate effectively to secure valid consent for appropriate treatment and then carry it out. That's a long list of things to do when there is only five minutes between other patients to achieve it! But this is surely the best example of a situation where "do it once, do it right" is the mantra that creates winners all round.

Use audit to advantage

An audit and feedback approach to raising awareness of appropriate prescribing and improving compliance with guidelines has been found to be successful in centres in the UK.[4,5] A suitably designed audit[6] will also provide data on the frequency with which patients present on an unscheduled basis with a condition that requires a clinical intervention and the nature of that intervention. These details can inform the structure of an appointment system that can factor into the clinician's schedule a suitable opportunity for the investigation of a diagnosis and active treatment without the risk of wasted surgery time.

It's difficult to imagine a world without effective antibiotics – on average, they add 20 years to each person's life. The serious risk, however, of a post-antibiotic era is not the stuff of science fiction. Regulatory bodies and litigation lawyers are paying far more attention to our prescribing practices, so it's in everyone's interests to get them right. Most importantly, mixed messages are not helpful. We can help our medical and veterinary colleagues to reinforce their strapline: "antibiotics don't cure coughs, colds and sore throats", although it would be good if our patients' doctors also follow our version: "antibiotics don't cure toothache", which has a certain ring to it!

We can counter the rise of antimicrobial resistance by:

- surveillance – of, for example, prescribing patterns, emerging resistance;
- prevention of infection;
- preserving effectiveness of existing drugs; and,
- promotion of new antimicrobial agents and diagnostic technologies.

References

1. UK government five-year plan, 2013-2018. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/244058/20130902_UK_5_year_AMR_strategy.pdf.
2. European Commission five-year plan, 2011. Available from: http://ec.europa.eu/dgs/health_food-safety/docs/communication_amr_2011_748_en.pdf.
3. Dental Antibiotic Stewardship Working Group. Available from: http://www.hse.ie/eng/services/list /2/gp/Antibiotic-Prescribing/Conditions-and-Treatments/Dental/. Accessed March 2017.
4. **Prior, M., *et al.*** Evaluating an audit and feedback intervention for reducing antibiotic prescribing behaviour in general dental practice (the RAPiD trial): a partial factorial cluster randomised trial protocol. *Implement Sci* 2014; 24; 9: 50.
5. RAPiD audit and feedback trial summary (Healthcare Improvement Scotland third annual symposium). Available from: http://www.healthcareimprovementscotland.org/news_and_events/events/3rd_annual_research_symposium/poster_7.aspx.
6. http://www.fgdp.org.uk/publications/antibiotic-stewardship.ashx; www.bda.org/amr.

New dental group acquiring practices

Dental Care Ireland, an Irish-owned dental group, has acquired 11 dental practices nationwide since 2015. Founded by Colm Davitt, former CEO of Euromedic Ireland, and his brother, dentist Dr Kieran Davitt, the group states that its aim is to acquire long-established, trusted and high-quality dental practices, with a view to helping them reach their full potential and ensuring a high-level service for patients.

The company states that its business model frees principal dentists from administrative burden, allowing them to focus on clinical dentistry. Dental Care Ireland upgrades the practices' facilities and technology, and provides administrative support. The business model may be of interest to dentists in the latter stages of their careers.

Colm Davitt, Chief Executive, said: "What sets us apart is the fact that all of our dentists are established, local practitioners with loyal patient bases. We add to that level of quality by ensuring the latest facilities for patients, introducing new services and providing added convenience in terms of both local access and better opening hours".

Mind your money

The ability to predict the future direction of investment markets is important for pension providers. However, the reality is that nobody has perfect foresight and unexpected events such as the election of Donald Trump and Brexit can happen.

Market returns are out of dentists' control but you do have some control over the amount you will pay in fees to providers to manage your pension, and these can make a real difference to returns over time. All else being equal, the lower the fees are, the higher your return will be. Before making any pension commitments, find out how much you will be paying.

Paul King of the Irish Dentists' Approved Retirement Savings scheme said: "We are not simply advocating picking the lowest cost investments. We are saying that paying attention to fees is important and it is something that can have a real impact on investment outcomes".

Many dentists claim income protection

Following a review of its 2016 claims, Omega Financial Management has announced that 16.66% of its dentist clients became unwell and received an illness benefit last year to cover their lost income. Proportionately speaking, this rate is a lot higher than the GP/consultant group average, where one in eight of the company's clients made a claim in 2016.

Dentists are the company's largest day one income protection policy holder group. As a predominantly self-employed profession, most dentists are not entitled to State illness cover, so there are no safety nets if faced with a few weeks, months or longer out of work. Income protection can ensure a replacement income. Many take it out as a precaution, assuming that they are unlikely to ever need it.

What did dentists claim for?

The breakdown of illnesses shows that about half of all dentists' claims related to short-term conditions such as infections, viruses and gastrointestinal illnesses. Ranging from one day to a few weeks, these types of claims can occur multiple times over the course of the year, particularly given the close proximity to patients during cold and flu season. Overall, this can add up to a month or more in lost income.

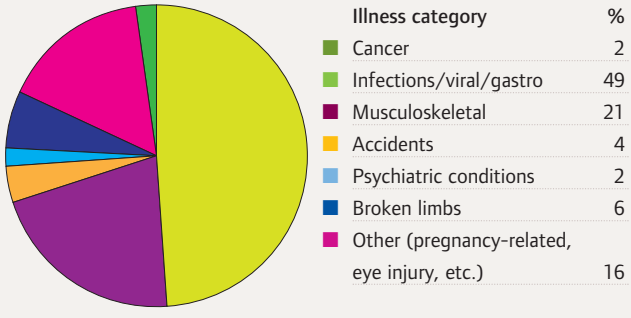


FIGURE 1: What dentists claimed for last year.

Musculoskeletal conditions accounted for 21% of all claims, with back pain/issues forming the majority of complaints in this category. In some circumstances, these cases resolved within a week or two; however, a number were severe enough to keep dentists from work for a couple of months or more.

Accidents and broken limbs account for 10% of dental claims, with a variety of fractures keeping claimants out of work for up to three months. **Figure 1** shows a breakdown of claims by category.

Dental claimant profiles

Some 59% of Omega's dental claimants last year were female. The company said it saw claims for some female-specific circumstances, including pregnancy-related conditions. The average age of a dental claimant was 41, more or less in line with the total average age of 40.

The company states that 100% of its day one income protection claims were paid and that this has been the case every year since the policy was introduced in Ireland. It goes on to state that claimants were paid on a weekly basis until such time that they could return to work, and that this was all on the basis that they submitted a one-page claims form.

Table 1 shows a sample of dental claims the provider received in 2016, their duration and benefits paid.

Table 1: Sample dentist claims and pay-outs from Omega Financial Management in 2016

Illness/injury	Time claimed	Benefit received
Cancer	ongoing	€79,813
Broken arm and wrist	16 weeks 2 days	€24,500
Car accident	4 weeks 3 days	€6,750
Intense lower back pain	2 weeks 2 days	€3,000
Chest infection	4 days	€1,000
Gastroenteritis	4 days	€800
Viral infection	2 days	€500

KIN

Your Partner in Practice!

PameX Limited

INNOVATION IN DENTISTRY

GUMS

INTENSIVE CARE:

KIN GINGIVAL

0.12% Chlorhexidine DG + Alpantha

Antiplaque effect and gum protection

PERIOKIN

0.20% Chlorhexidine DG

Antiplaque effect for localised and intensive care of gums

MAINTENANCE:

KIN B5

Daily control of biofilm and gum protection

SENSITIVE TEETH

SENSI KIN

Protects sensitive teeth

ORAL MUCOSA

KIN CARE

Care of delicate mucosa

TRANEXAMIC ACID GEL

KIN exogel

Bioadhesive astringent gel with tranexamic acid. Suitable for use in dental procedures.

CHILDREN'S ORAL CARE

fluor-kin calcium

Fluoride + Calcium for enamel protection

ORTHODONTIC

ORTHOKIN

Strawberry Mint

Specific oral hygiene for wearers of orthodontic braces

DAILY ORAL CARE

Daily oral care with fluoride and aloe vera

KIN

WHITENING

KIN WHITENING TOOTHPASTE PROGRESSIVE

To whiten and protect enamel

THE PROFESSIONALS' CHOICE

PameX Limited
info@pamex.ie
www.pamex.com
Phone: 094 9024000

KIN

DMI

DMI

April - May 2017

Carestream CS8100 3D Access

Now Carestream's latest cone beam unit is more affordable than ever!

Introducing the CS8100 3d Access - the same model as the popular CS 1800 3d model but with smaller volume sizes of 4x4cm and 5x5cm.
Carestream recognise that not all dentists require a large field of view so they have introduced this version with smaller volumes to make 3d cone beam technology more affordable.
And remember, the CS8100 is also a fully functioning 2D OPG which produces stunning images with low dosage

Carestream DENTAL

Here is the best part!

SPECIAL OFFER ONLY €35,000 Ex VAT

- **The CS8100 3d Access is fully upgradeable to the CS8100 3D unit which has larger volume sizes of 8x5cm and 8x9cm.**
- **For the first six months of ownership, the unit comes with a licence to use the larger volume sizes free of charge**
- **After six months, you can choose to upgrade to the full version for just €13,000 +vat**

Lease for as little as €700+ vat over five years

* Based on a 5 year lease term. Lease subject to underwriting approval. Excludes VAT E & OE
* * Limited number available at this price - subject to stock.

Dublin: 1890 400 405 • Cork: 021 602 0544 • Lisburn: 028 9260 1000
Web: www.dmi.ie www.dmi.co.uk Email: info@dmi.ie

Satisfy your curiosity

Kilkenny is home to the 2017 IDA Annual Conference and here we outline some of the speakers and topics which will be on offer in the Marble City.

This year's IDA Annual Conference takes place from May 11-13 at the Lyrath Hotel, Kilkenny. The Conference is entitled 'Satisfy Your Curiosity' and features many opportunities to do just that.

There will be new features and old favourites. Delegates will see the new Dental Hub, which will feature short 15-minute lectures designed to allow them to quickly pick up a skill to bring back to their practice.

As usual, parallel sessions will run on the Friday and Saturday offering a wide range of topics to suit anyone's interest or area of practice. The separate nurses' programme returns this year and will take place on Saturday. Dental hygienists are welcome to attend any of the sessions on Friday and Saturday.

The events commence with the Pre-Conference Programme on the Thursday, and wouldn't be complete without a packed social programme and a bustling trade show.

The IDU Annual General Meeting will take place at 6.00pm on Thursday, directly followed by that of the IDA.

Pre-Conference Programme

The Pre-Conference Programme on Thursday is almost as packed as the Conference days. It will feature a hands-on course from Dr James Kessler and full-day lectures from periodontist Dr Kirk Pasquinelli and endodontist Dr Stephen Buchanan. Dr Kessler will guide delegates on planning and delivering predictable bonded-ceramic restorations. Dr Pasquinelli will look at the aesthetics of the periodontium, while Dr Buchanan will speak on how in endodontics, everything has changed except the anatomy.

There will also be a number of half-day clinical workshops designed to help dentists make sure they are ready if an inspector comes to the door. These will run in the morning and the afternoon and will cover the topics of: infection prevention and control; water quality including amalgam separators; health and safety at work, sharps regulations; and, radiation licensing. There will also be the opportunity to attend a workshop in medical emergencies.

Colm Quinn
Journalist with Think Media

Lecture programme

There will be two programmes running simultaneously on Friday and Saturday, with a whole host of topics and speakers to choose from. Kicking things off on Friday, James Kessler will look at new restorative materials through the lens of proven principles. John Walsh will explore whether interceptive orthodontic treatment is worthwhile. Kirk Pasquinelli will share his tips on how to make an implant-supported crown look like a real tooth.

Former IDA President Anne Twomey hopes to prepare dentists for the dental tsunami in nursing homes, while outgoing President PJ Byrne will give an update on IDA governance.

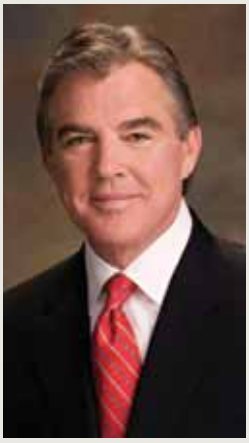
The dental team programme will take place from 2.00pm-3.30pm before both programmes join together for the last two lectures of the day.

Raj Rattan will give his ten critical success factors in general dental practice, which will be followed by a talk by world-renowned surgeon Peter Butler about the fascinating world of facial reconstruction.

Everything starts all over again at 10.00am on Saturday. Eleanor McGovern will talk about the benefits of the first dental visit taking place when the first tooth appears. Pat Ormond will give advice on what to look for when trying to spot oral cancer. Just before lunch, nutritionist Modi Mwatsama will present on the options available for reducing our sugar intake.

Don't miss…

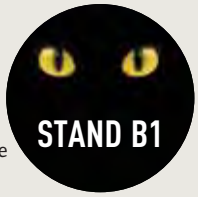
Thursday, May 11
Dr Stephen Buchanan



The expert endodontist travels from California to deliver a full-day lecture on the art of endodontics. He will explain how that no matter what new technology is introduced, the anatomy of the tooth will never change and the principles of treatment remain the same. The lecture will feature HD videos of Dr Buchanan's real-life procedures.

In the afternoon, Stephen Buchanan will examine what new technology is available in endodontics. Both programmes will again merge at the end of Saturday for the final lecture of the Conference on the transition to full dentures, delivered by Ed Cotter.

Dentistry digitised



Henry Schein Ireland states that not only can digitisation help to make the practice of dentistry more streamlined and hence more cost and time effective, it can also make it more exciting.

The company said that: "Through all our combined years in the dental world we have seen some incredible changes and challenges that as an industry we have overcome together. Recently it has been highlighted that another industrial revolution is taking place: the digitisation of our industry".

Continuing, the company said dentistry has a new challenge on its hands: "The continual advances of CAD/CAM, 3D OPGs, chairside milling and digital impressions will once again challenge us all to look at what is best not only for the patient but also for the dental practice".

The company believes it is uniquely placed to offer help, guidance and support to anyone who is ready to embrace digitisation.

Dental nurses' programme – Saturday

PROGRAMME	
10.00am – 10.45am	**Social media and the dental practice** Dental Protection
10.45am – 11.15am	TEA/COFFEE
11.15am – 12.00pm	**Assisting the oral surgeon** Justin Moloney
12.00pm – 12.45pm	**Infection control** Siobhan Carrigan
12.45pm – 1.45pm	LUNCH
1.45pm – 2.30pm	**Behavioural management and the role of the dental nurse** John Walsh
2.30pm – 3.30pm	**Dealing with the older patient** Anne Twomey

OVER 170 PUBLICATIONS WORLDWIDE

Dentine Restoration

Biodentine™

Dentine restoration from the crown to the root

Biodentine™ allows you to maintain pulp vitality in deep cavities and pulp exposures.

Endodontics

BioRoot™ RCS

The paradigm shift in root canal filling

BioRoot™ RCS brings you a superior seal without requiring the use of a complex warm gutta technique.

septodont

Please visit our website for more information

www.septodont.ie or call Gerry Lavery on: +44 (0)1622 695520/+44 (0)7836 255274

Dental Hub

A new feature of the Conference this year is the Dental Hub. The idea is that short, informal educational sessions will be given where delegates can sit in and learn some practical ideas in a short space of time. Delegates can pop into whatever 15-minute session they want, picking from a wide choice.

FRIDAY

10.30am – 10.45am	5 top tips for maintaining equipment
11.30am – 11.45am	Oral hygiene tips for your patients
12.15pm – 12.30pm	Amalgam separation - Minamata
12.45pm – 1.00pm	Handpiece maintenance

SATURDAY

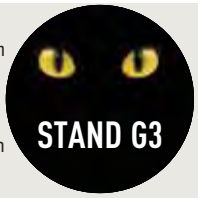
10.30am – 10.45am	Hand hygiene in dentistry
11.30am – 11.45am	What should be included in my emergency drug kit?
12.15pm – 12.30pm	Dental Protection presentation
2.00pm – 2.15pm	An oral cancer exam
2.45pm – 3.00pm	Getting the most from your intra-oral x-rays

New DMI product guide

DMI is launching a new product guide at IDA Annual Conference 2017. The company states that it is the largest and most comprehensive to date, and that the new layout and index make it easier for dentists to find the products they need.

According to the company, the guide includes a full range of the latest consumable products from leading manufacturers. DMI states that a wide range of dental equipment covering every aspect of a dentist's requirements can be found in the publication.

A free copy of the DMI product guide is available from the company. Visit DMI at the IDA Annual Conference.



Don't miss…

JOURNAL OF THE IDA LECTURE

Friday, May 12

Prof. Peter Butler

Renowned surgeon Professor Peter Butler will take delegates into the fascinating world of facial reconstruction. He will speak about what is possible now and how that is being pushed even further all the time.

Social programme

As usual, there will be a wide social programme on offer for delegates to mingle, network and compete. The President's Golf Competition will take place on Thursday, May 11 from 12 noon. Anyone due to attend a Pre-Conference course will be accommodated to play on Wednesday afternoon.

New turbine from NSK

NSK states that its new Ti-Max Z Air turbine series includes one of the most powerful air turbines available to dental professionals, the Z900L. The company goes on to say the device has a small head positioned at an optimal angle to improve operational visibility and access.

One dentist, Patrick Rea of the Sandown Dental and Implant Clinic, Belfast, was loaned the turbine for a ten-day trial in his surgery and said: "This gave me the opportunity to see how the turbine handled in my own environment and I was very impressed as it performed well in a variety of clinical situations, was lightweight and easy to handle even for lengthy periods of time. I have now purchased several".

STAND 20

NSK is offering an extended three-year warranty on the range.

To find out more and view the range of offers available, visit the NSK stand.

Don't miss…

Saturday, May 13
Modi Mwatsama

The nutritionist will explore ways policy and advocacy can reduce our sugar intake. She will look at the drivers of consumption and trends, highlight examples of actions to reduce sugar intake and illustrate some of the opportunities for and challenges to implementation, and outline some recent success in the UK.

Conference delegates, accompanying persons and all trade exhibitors are welcome to play but only registered delegates are eligible to play for the President's Prize. Green fees are €65 per person.

After all the putts are sunk, back at the Lyrath the trade show opening party will be officially opened by newly-inaugurated IDA President, Dr Robin Foyle at 8.00pm. All delegates and trade sponsors are invited to intend, with fun, music and drinks for all.

The black-tie Annual Dinner will take place on Friday at 7.00pm. A drinks reception will start the evening, with dinner and entertainment following. Tickets are €85 and are available from IDA House. All dental team members, trade members and friends are welcome to attend.

Dr Joe Moloney Award

The winner of the Dr Joe Moloney Award is chosen by delegates, who nominate and vote for their favourite lecturer at the Conference. The award is kindly sponsored by the Dental Health Foundation and will be selected on the final day of the Conference.

Dr Tony Costello Memorial Award

Last year DDUH students Claire McGleenon (left) and Safoora Shahab received the Costello Medal from Dr PJ Byrne, President of the IDA.

This is Irish dental students' chance to showcase what fresh thinking they have to offer the profession. Each of the three dental schools can enter a team of two people to give a table demonstration or poster presentation of not more than ten minutes. The IDA will provide a grant for each demonstration.

HENRY SCHEIN®
IRELAND LIMITED

Try before you buy

Start your digital journey today with a FREE 10 DAY CEREC® CONNECT TRIAL.

Call your local CEREC® Specialist
in Cork on 021 429 7818
or Dublin on 01 456 5288
to book

At Henry Schein Ireland we add real value to help you on your digital journey:

- Training – new user training for 2 (one dentist, one team member) included with purchase
- Finance options (deferred payments available for 6 months)
- Practice Analysis and Business Solutions
- Service
- Surgery Design
- Aftersales support.

Taking care of everything dental.

henryschein.ie

• Business Solutions • CADCAM • Consumables • Decontamination • Digital Imaging • Education • Equipment • Laboratory • Lasers • Orthodontics • Service and Repair • Software • Surgical

Two new products from Dentsply

Dentsply Sirona has added two new products to its range. The company says it will soon be bringing Celtra Press, a high-strength, glass, zirconia-reinforced lithium silicate material to the Irish market.

It states that the product is good aesthetically: "The special microstructure, with its particularly fine crystalline structure and high glass content, provides the material with outstanding light-optical properties". Celtra Press ingots, Celtra Ceram, and Celtra Press Investment material will be available later this year.

STAND S5

The company also has another new product available for dentists. Atlantis CustomBase is a solution for patient-specific, single-tooth restorations. The company states that the product eliminates "the time needed for waxing, casting and grinding, increasing predictability of the final outcome and ultimately helping to improve efficiency and profitability".

Dentsply also states: "CustomBase solutions offer technicians total peace of mind should there ever be a problem as all crowns and abutments are covered by a comprehensive Atlantis 10-year warranty and expert customer support".

Septodont's root canal products

Septodont states that its introduction of Biodentine to the UK dental market in 2009 helped to boost the emergence of minimally invasive dentistry. Using similar technology, BioRoot RCS was launched in 2016 to aid situations where root canal treatment is the only option. The company states that the patented tricalcium silicate technology means that both products have outstanding sealing properties with no shrinkage, antimicrobial properties, and that they promote cell regeneration.

According to the company, in the case of Biodentine, this means that more teeth can be saved as it supports pulp healing and triggers dentine mineralisation. It goes on to state that Bioroot RCS gives a superior seal, without the need to use warm techniques, and that the release of calcium hydroxide prevents bacterial growth. The manufacturer also states that BioRoot RCS supports peri-apical healing, thus reducing the risk of RCT failure.

STAND 10

To find out more about these two products, as well as Septodont's anaesthetics and needlestick injury prevention device, Ultra Safety Plus, visit Septodont at the IDA Conference.

Promed among best workplaces

From left: Anthony Markowski; Thomas Brosnan; and, Terence Houlihan of Promed celebrate the win.

Kerry-based medical company Promed was officially recognised as one of the best workplaces in Ireland in February 2017. Great Place to Work publishes three lists each year: one for large workplaces, one for medium-sized companies and one for small workplaces. Promed came out on top in the small workplaces category. The company previously achieved first place in 2015. Companies are assessed based on employee surveys and a 'culture audit' carried out by Great Place to Work.

And a great guy to work for…

STAND B10 + B11

Promed has appointed a new managing director, Barry Russell (left) and states that his appointment signals its intent to grow further. Barry's healthcare career has spanned 20 years and he joins Promed directly from Boston, USA, where he founded a medical devices company, neoSurgical, and led it as its chief executive for over eight years.

Previous to this he worked for Johnson & Johnson and Boston Scientific. Promed states he will continue to build on its reputation within the primary care sector. He said one of his main goals will be to bring his key learnings from the international healthcare market to the Irish primary care sector.

Commenting, he said: "Patients, health providers and industry leaders cannot wait for the kind of primary healthcare system we all wish to see. Irish patients deserve the same level of care as those in North America, Sweden, Holland and other such world-class providers".

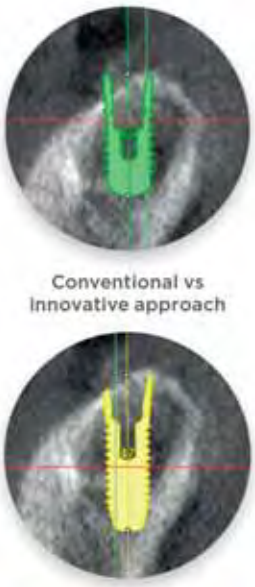
Astra Tech Implant System®

Our world is not flat

Neither is the anatomy of your implant patients

Your world is already full of clinical challenges so why work harder because of conventional thinking? Instead of augmenting sloped ridges to accommodate flat-top implants, it's time to discover a simpler solution by using an implant that follows the bone. Because sloped-ridge situations call for anatomically designed sloped implants.

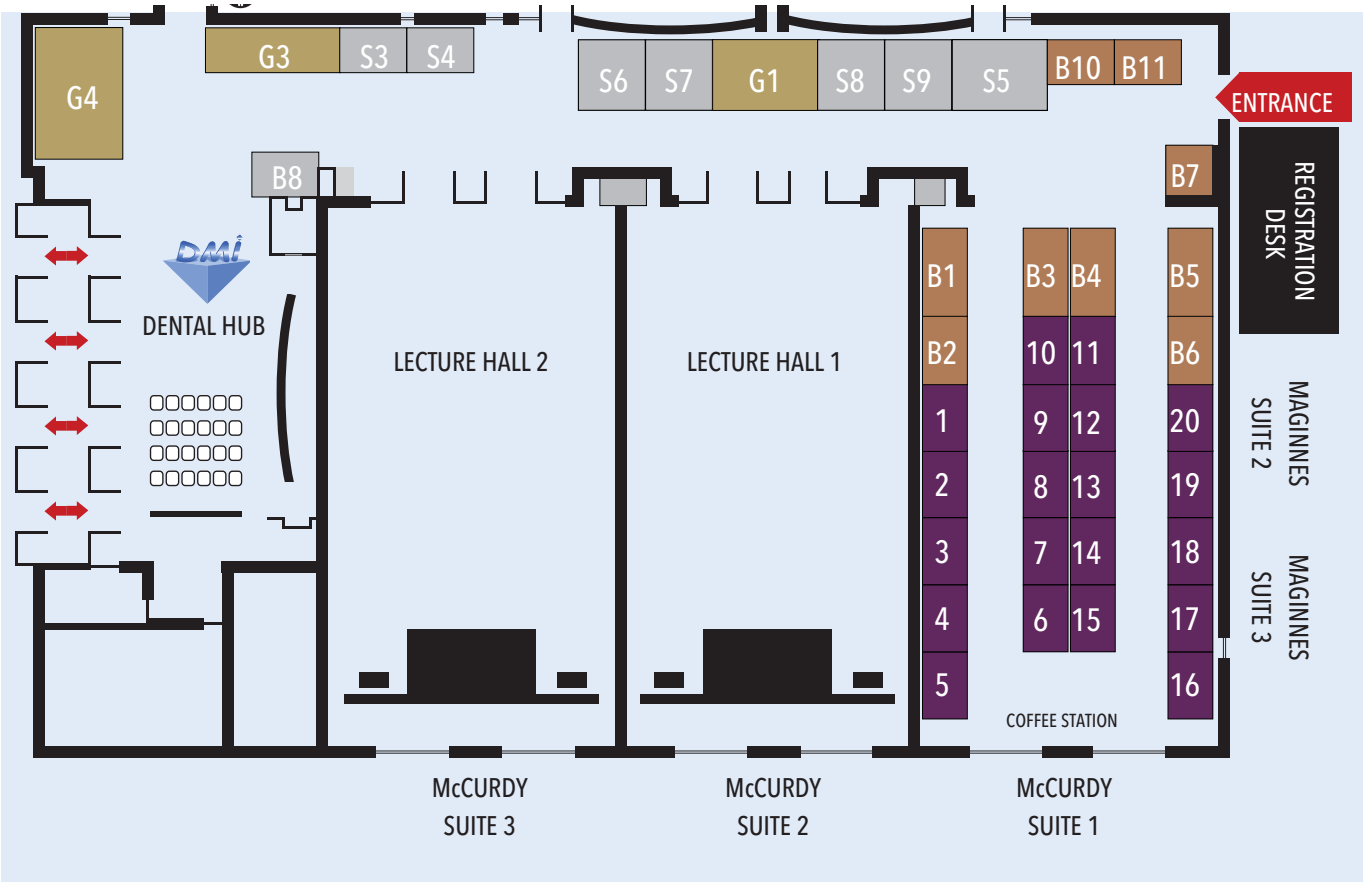
OsseoSpeed® Profile EV – It's time to challenge conventional thinking



Conventional vs Innovative approach

www.profiledentalimplants.com

Dentsply Sirona Implants



GOLD SPONSOR

G1	GSK
G3	DMI
G4	Colgate

SILVER SPONSOR

S3+S4	Swordfish Medical
S5	Dentsply Sirona
S6	Johnson and Johnson
S7	Dentawealth
S8	Coltene
S9	Wrigley

BRONZE SPONSOR

B1	Henry Schein
B2	Pamex Ltd
B3	Southern Cross Dental
B4	Cerezen
B5	Medaccount Services
B6	Zirkonzahn
B7	Nobel Biocare
B8	Zimmer Biomet
B10+B11	Promed

TRADE

1	Heraeus Kulzer
2	Dentech
3	IDT
4	Doyle Mahon
5	DeCare Dental Insurance Ireland
6	Kerr
7	Moore Wealth Management Ltd
8	Initial Medical
9	Q-SIP
10	Septodont Ltd
11	Omega Financial Management
12	Handpiece Harry
13	Optident
14	Dental Protection
15	3M
16	Karma Sales and Services
17	TePe
18	Southern Implants
19	McDowell + Service Dental Laboratory
20	NSK

New appointment at Coltene

Coltene states it is investing in its team by recruiting Nicholas O'Keeffe as its first Territory Manager for Ireland and Northern Ireland. Based in Dublin, Nicholas will give technical support and introduce the latest products and services by Coltene to dental practices, dental schools, laboratories and dental retailers all over Ireland. Nick previously covered the Leinster and south east selling the Kin range of oral hygiene products and should be a familiar face to many practices.

Mark Allen, the new Coltene Country Manager UK and Ireland, who previously covered the Irish market, commented: "This is a great achievement for Coltene to finally have grown our business in Ireland to support a full-time colleague. This can only help to provide better support and communication for dentists in Ireland. I wish Nick every success in his new role with Coltene".

DUBLIN DENTAL UNIVERSITY HOSPITAL

Applications are invited for the post of:

Chief Executive Officer

The Dublin Dental University Hospital is a centre of excellence in patient care, education and research, which enhances the learning experience of our students and the delivery of care to patients in an integrated and balanced way. This is achieved in a safe environment by the effective use of the available resources and in response to the needs of the community through governance, partnership, investment in our staff, valuing diversity and the integration of technology. The Hospital has a unique, and very important, relationship with Trinity College Dublin with which it co-operates in education and training of students.

Role:

The Chief Executive Officer (CEO) is a full-time role to which the Board of the Dublin Dental University Hospital will delegate overall authority, responsibility and accountability for all aspects of the operations of the Dublin Dental University Hospital. The CEO is also the Accounting Officer with the final decision on how the resources of the Dublin Dental University Hospital are employed in the achievement of its strategic objectives.

The CEO is responsible for carrying out the full range of functions and duties normally expected of a CEO in an organisation similar to the Hospital in nature, size, and economic and social significance.

The CEO is a member of the Executive Team which also comprises the Clinical Director and the Dean.

Requirements:

Ideally, the successful candidate should have extensive leadership and broad management experience, a track record of achievement in a complex and results-focused organisation (preferably Health Sector), strong experience of dealing with a wide range of stakeholders, may be a qualified dentist with a proven academic record and, in addition to previous relevant experience and personal skills, an appropriate educational qualification is desirable.

Skills and attributes:

The successful candidate will have excellent resource and people management skills with the ability to motivate staff, demonstrate leadership and strategic skills, be a clear, analytical and decisive thinker and have drive, energy and commitment. S/he must also have good communication and presentation skills, be a good negotiator and be a team player.

Interested candidates need to refer to www.dentalhospital.ie/category/vacancies for full details of the application process:

Applications must be sent to Ita Goggin, Head of HR, ita.goggin@dental.tcd.ie or via post to

Ita Goggin, Head of HR, Dublin Dental University Hospital, Lincoln Place, D02 F859

Closing date for applications is strictly 5.00pm on Tuesday 2nd May 2017

Shortlisting will take place.
Dublin Dental University Hospital is an equal opportunities employer.

Dental Practitioners

can save **up to 40%** in tax relief on **every euro** in pension contributions

(**Apart from the Tooth Fairy** it is the easiest way of saving money we can think of!)

Irish Dentists Approved
Retirement Savings

For Dentists, By Dentists

Independent Advice

New Improved Fund Options

Lower Investment Managers' Fees

Account Details Online

With the top rate of tax at 40%, pensions still represent one of the most significant tax planning opportunities when it comes to shrinking your tax bill. If you are on the higher rate of tax, you can save 40% of any lump sum or regular contributions you pay into your pension.

This is one thing that you can do for yourself to ensure that when you retire you will be able to maintain the standard of living you

enjoy while working.

Acuvest manage the Irish Dentist's Approved Retirement Scheme and currently provide pension services to over 10 per cent of private sector workers who hold a Defined Contribution pension.

Irish Dentists Approved
Retirement Savings

67 Merrion Square South, Dublin 2, D02 CK11.
Telephone: +353 (0)1 634 4510
Mobile: +353 (0)87 9880626
Direct line: +353 (0)1 634 4800

www.irishdentistsretirement.com

To find out what tax relief applies and organise your contribution, please contact us today by

calling **Paul King**
on (01) 634 4510
or emailing
paul@irishdentistsretirement.com

Paul King
Client Manager

From left: Terza Dilshad, hygienist; Dr Sheena Vyas, oral surgery SpR; Dr Malcolm Hamilton, dentist; Dr Naomi Rahman, oral surgeon; Rachna Rai, dental nurse; and, Dr Úna Shields, dentist.

Assessing a patient with the help of a translator.

To Greece bearing gifts

Irish dentists are among those working to assist the huge numbers of refugees currently stranded in Greece.

After seeing the images of the refugee crisis on our screens over the past few years, Dr Úna Shields and I had discussed wanting to do some volunteer work to help. We discovered Dentaid and, through this, Health Point Foundation, two dental volunteering organisations. We contacted them and arranged to fly to Thessaloniki in Northern Greece where there are numerous refugee camps. We fundraised and brought my surgical motor and lots of toothpaste for the children. We met two other dentists from Scotland and England, respectively, and a dental nurse and hygienist from London, and we became a team. In Greece we were introduced to two Health Point Foundation co-ordinators who were also dentists, and they knew how to set up the clinics each day.

Language barriers

On our first working day we drove to Diavata camp, an ex-military barracks where there were approximately 400 refugees. Whole families were housed in container units: mostly Syrian and Kurdish and a few Afghani people. The camp previously held 2,000 people living in tents, but the month before we arrived there was heavy snow so some people had been moved to small hotels in the area. This was the dental base camp so we had the luxury of two dental chairs and suction, all housed within a shipping container.

We were lucky to have translators there who had travelled from Egypt and Australia to volunteer to speak Arabic, and our hygienist was Kurdish so she was able to speak to the Kurds. To speak to an Afghani woman, we had to call our translator's friend in Australia to translate Farsi over the phone!

We quickly started to triage patients and then carry out first-stage root canal treatments, restorations and extractions. Some patients had good oral health and beautiful dental work and others had never seen a dentist before in their life. We were determined to treat our patients with respect and dignity. In one instance we repeatedly asked a young man if he was okay as we were treating him. He smiled and laughed and said: "Yes, I just feel like I'm in a foreign movie!"

We later went to the makeshift school, which had four classes, to give the children oral hygiene instruction, toothpaste and brushes.

The dentist is here!

On our second day we drove to Lagkadikia Camp, which again held approximately 400 refugees. Our clinic set-up was two massage beds in a container and one outside, with a mobile drill unit and no suction or radiographs. Each morning we walked around the camps with a loudspeaker calling out "The dentist is here" in Arabic, Kurdish and English, and the patients

Dr Naomi Rahman
BDentSc DChDent (Oral Surg.) FFD RCSI

Naomi is a specialist oral surgeon who practises in Dublin, Meath and Kildare.

TOP: The intrepid team (from left); Dr Malcolm Hamilton, dentist; Dr Úna Shields, dentist; Dr Sheena Vyas, oral surgery SpR; Dr Ahmed Zaki Alsaleh, Health Point Foundation co-ordinator; Yahya, translator; Dr Naomi Rahman, oral surgeon; Terza Dilshad, hygienist; Rachna Rai, dental nurse; Amani Za, translator; and, Dr Rayyan Abdulwahed, Health Point Foundation co-ordinator.
ABOVE: The best seat in the house!
ABOVE RIGHT: Our dental supplies, kindly donated by our sponsors. [We would like to acknowledge and thank our sponsors, without whom this trip would not have been possible: Pamex; Dental Care Ireland; Curaprox; Happythreads; Coincidental; and, Colgate (who provided us with toothpaste).
RIGHT: *Treating a patient.*

quickly arrived at our door. Úna treated a young girl who had not slept in a month due to toothache. She needed a root canal treatment on an upper central incisor. Her parents were not in the camp so she was living with her siblings. We were all glad she at least got a good night's sleep that night. A Syrian man I treated who spoke good English found out that I love dogs. He returned to the clinic later with a puppy for me to play with and gave me his lunch food rations as thanks for his treatment. I was so touched by this heartfelt gesture.

Our third day found us in Nea Kavala Camp, close to the Macedonian border. We managed to fit the three massage chairs into the storage unit so we were all warm! Again we gave some children oral hygiene instruction and toothpaste.

Extraordinary experience

Every evening we met up with our whole team of co-ordinators, translators and clinical workers and had amazing Greek mezze dinners in Thessaloniki town. The food was beautiful, fresh and inexpensive. We all really bonded on this trip and formed firm friendships as we spent so much time together. We are all still in touch on a WhatsApp group and Facebook.

If you'd like more information, please visit www.dentaid.org or www.healthpointfoundation.

Irish Dental Trade Association

IDTA

2017 IDENTEX

Identex 2017 is Ireland's premier dental exhibition, taking place on September 15th and 16th in Citywest Hotel, Co Dublin.

You are invited

Identex 2017 is Ireland's premier dental exhibition, taking place on September 15th and 16th in Citywest Hotel, Co Dublin.

Over 60 stands showcasing the latest dental innovations. Entry is free but if you pre-register and attend, you could win 2 nights in Citywest Hotel, with dinner on one night. Citywest is offering great value for overnight business stays which are tax allowable. Why not bring your family and/or friends and make a weekend of it?

Enjoy their leisure club, golf course, or take the Luas into the centre of Dublin without the hassle of traffic or parking and visit IDENTEX – all in one weekend. The Irish Dental Association is staging workshops and hands-on courses during both days, with CPD points available for those attending.

See www.idta.eu for further information.

Ready to crown

Maximising clinical efficiency using the dental laboratory to facilitate the planning and execution of crown preparations.

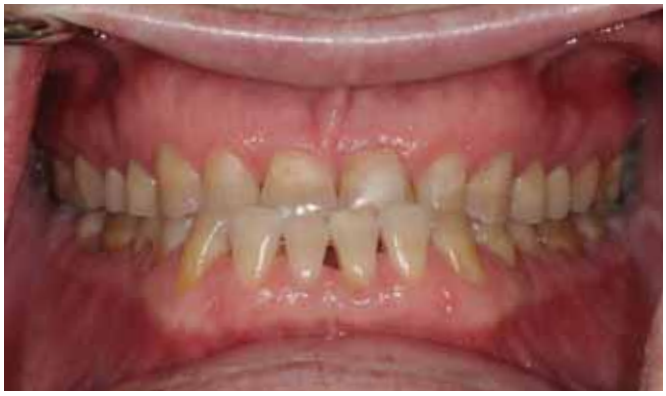


FIGURE 1: The pre-operative presentation of the patient in the maximum intercuspation position.

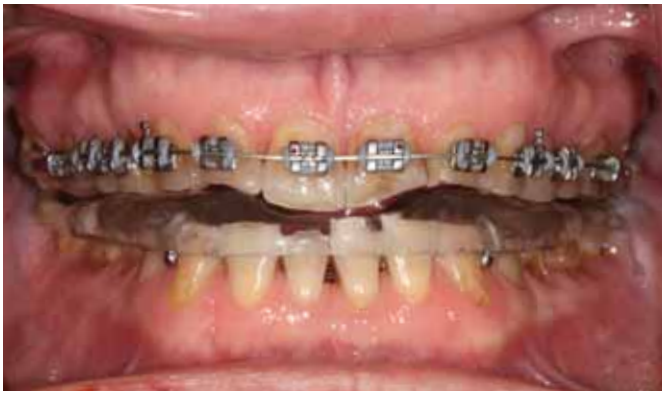


FIGURE 2: An initial course of fixed orthodontic treatment is prescribed on the maxillary arch in order to procline the maxillary labial segment dentition. An occlusal splint on the mandibular arch allows free movement of the maxillary labial segment dentition.

Introduction

When multiple teeth or localised segments of the mouth require crowns, the restorative interventions involved can be psychologically and physically demanding for the operator, patient and dental technician alike.[1,2] It is important that all parties involved in restorations of this nature hold a shared understanding of the expected outcome of treatment, with a realistic, common end goal in mind right from the very beginning. Such clarity of thought and communication is key to avoiding biological, mechanical and aesthetic failures in the planning and execution of advanced restorative treatments. Biomechanically stable and aesthetically pleasing provisional restorations are an essential aspect of treatment, which allow teeth to be prepared and provisionalised over multiple appointments within the comfort zone of the operator and patient.[3] The following clinical article illustrates a diagnostic method which, prior to any invasive treatment at all, can aid the restorative operator in:

1. Determining the feasibility of a proposed treatment plan.
2. Determining the aesthetic acceptability of the proposed restorations from the perspective of the patient and operator.
3. Informing the operator of the tooth preparations required with a view towards conserving tooth structure.
4. Simply provisionalising multiple teeth simultaneously in a biomechanically stable and aesthetically pleasing manner.

These goals can be achieved by making high-quality pre-operative records, which allow the lab to form pre-operative models, diagnostically waxed-up models and provisional shell crowns. The records gathered at this diagnostic stage may be transferred back to the mouth at relevant times to inform the operator, patient and dental technician of the nature of the work required in order to fulfil the treatment plan.

Dr David McReynolds
BA BDentSc MFDS RCSEd

Specialist Registrar in Prosthodontics, Department of Restorative Dentistry and Periodontology, Division II, Dublin Dental University Hospital, Lincoln Place, Dublin 2.
david.mcreynolds@dental.tcd.ie

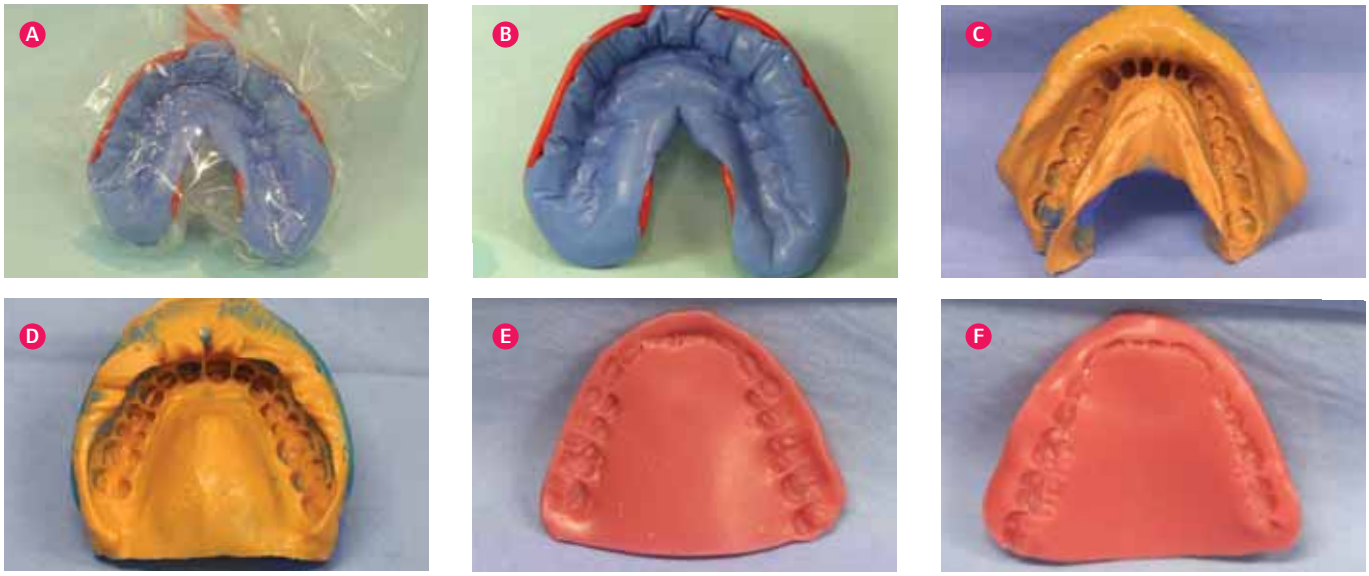
Preface

It is assumed prior to commencement of the following techniques that the mouth has been suitably prepared for reconstructive dentistry, insofar that the periodontal, endodontic and caries status of the dentition is treated, and disease stability has been established and maintained for an extended period of time. Oral hygiene and diet must be persistently and consistently held to a high standard and the patient must be medically and psychologically robust enough to tolerate the necessary procedures. Segmental reconstruction is not straightforward and should only be undertaken by suitably experienced and qualified practitioners.[1,2] This report shows an example of the above described technique, and the treatment of a localised segment of the mouth only, as part of a complex full mouth restoration.

Case report

The patient is a 50-year-old gentleman in good health, whose chief complaint

FIGURES 3a, 3b, 3c: The presentation immediately following debond of the maxillary fixed appliance, now in the first tooth contact position on the rotational arc of closure.



FIGURES 4a, 4b, 4c, 4d, 4e, 4f: Maxillary and mandibular two-stage polyvinylsiloxane impressions, a maxillary transfer bow recording and an interocclusal wax record in the centric maxillomandibular relation position are made immediately following orthodontic debond. The two-stage impression technique illustrated produces exceptionally accurate study models.

was of "worn, discoloured teeth which don't look right". Extra-oral assessment revealed a mild class III skeletal arrangement, high functional lip line and loss of the vertical dimension of occlusion, while intra-oral examination (**Figure 1**) displayed a class III incisor relationship in a dentition severely affected by tooth structure loss which appeared to be of attritive, abrasive and erosive origin, exacerbated by the absence of the anterior determinants of tooth-guided occlusion. There was evidence of generalised mild-moderate clinical attachment loss; however, the periodontal status was stable with good oral hygiene, no evidence of periodontal pocketing greater than 3mm and no evidence of bleeding on probing.

Initial treatment

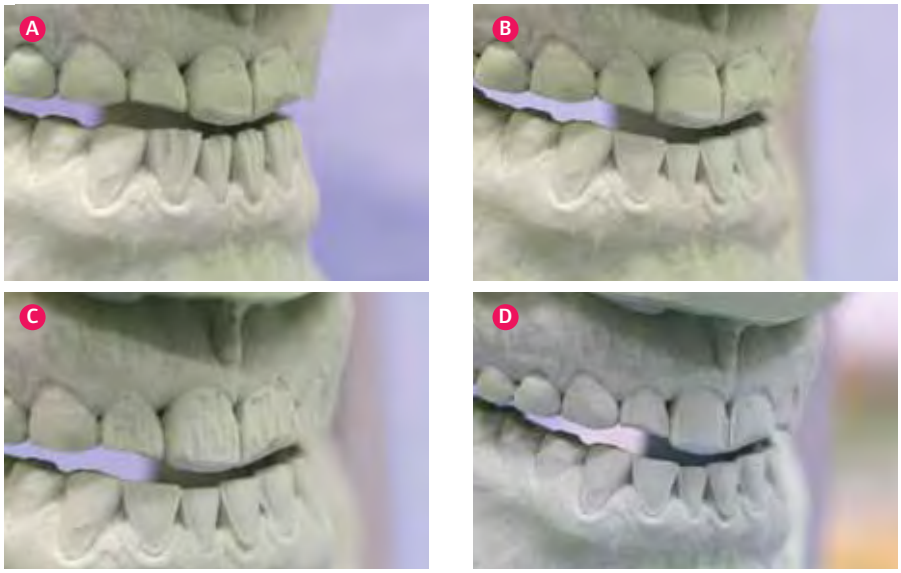
Following a multidisciplinary assessment, an initial course of fixed orthodontic treatment was prescribed in the maxillary arch in order to procline the maxillary labial segment dentition (**Figure 2**). A "bite-raising" appliance is used in the mandibular arch, which allows free movement of the maxillary labial segment teeth during the orthodontic phase of treatment. Initial treatment took approximately eight months and resulted in an edge-to-edge occlusion at the first tooth contact position on the rotational arc of closure (**Figures 3a-3c**). No further orthodontic movement was advisable at this point following a risk–benefit analysis.

Diagnostic method

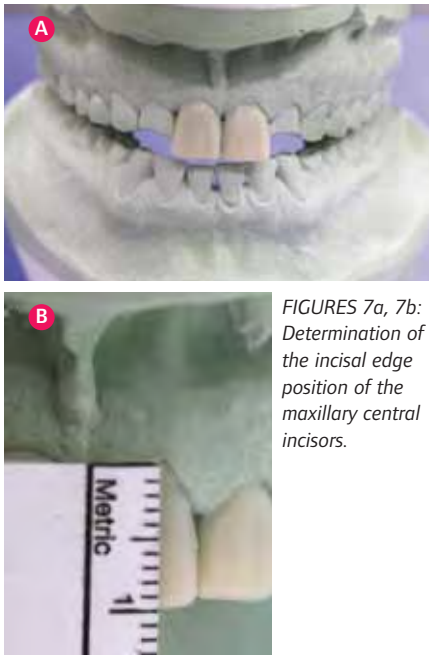
Making preoperative records

Immediately following the debonding of orthodontic fixed appliances, pre-operative records are fabricated (**Figures 4a-4f**). Maxillary and mandibular impressions may be made in a two-stage technique using polyvinylsiloxane. Initial impressions are made using putty only and a polyethylene spacer (**Figures 4a** and **4b**). Once the putty has completely set and the plastic spacer has been removed, the impression can be completed using a light body wash material (**Figures 4c** and **4d**). Polyvinylsiloxane impressions are highly accurate and are robust enough to permit multiple pours, which offers some advantages over alginate in this diagnostic method. A transfer bow recording should be made to relate the resultant maxillary cast to the transverse horizontal hinge axis and an interocclusal wax record is made (**Figures 4e** and **4f**) in the centric maxillomandibular relation treatment position at the proposed vertical dimension of occlusion. These records can be used to mount casts in a semi-adjustable articulator such as the Whipmix 2240.[4] A programmed semi-adjustable articulator will transfer to the lab the patient's midline and interpupillary line, and it allows simulation of mandibular movements, thus determining the occlusal form of the final restorations with a reasonable degree of accuracy. Indirect restorations fabricated in this manner will require minimal occlusal adjustment on fitting.

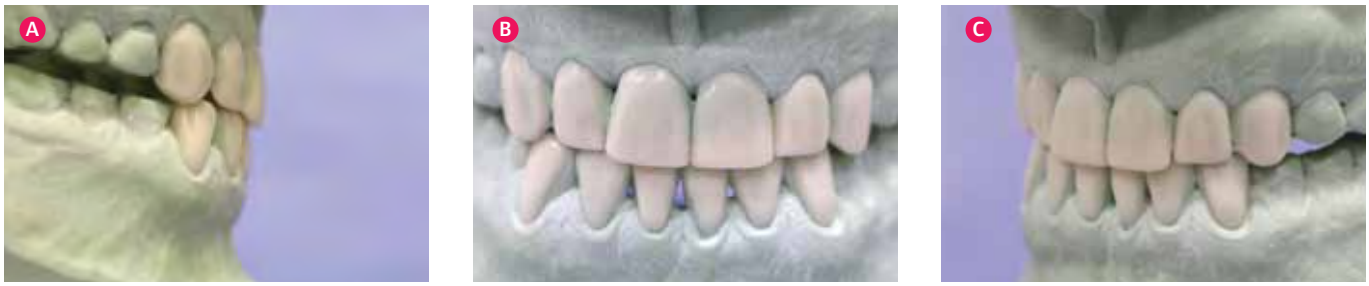
FIGURES 5a, 5b, 5c: Polyvinylsiloxane impressions permit fabrication of models in triplicate, which may be used as pre-operative records, diagnostic wax-up and provisional shell crown models at the dental laboratory.



FIGURES 6a, 6b, 6c, 6d: Shallow depth cuts and trial preparations may be carried out on the wax-up models as a feasibility study, which can inform the operator of the final restorations required to achieve the desired restorative result.



FIGURES 7a, 7b: Determination of the incisal edge position of the maxillary central incisors.



FIGURES 8a, 8b, 8c: The proposed contours of the maxillary and mandibular labial segment dentition once the anterior determinants of the occlusion have been re-established in the diagnostic wax-up.

Fabrication of casts

At the dental laboratory, mounted casts may be fabricated in triplicate from the aforementioned pre-operative records. These casts may be used as follows:

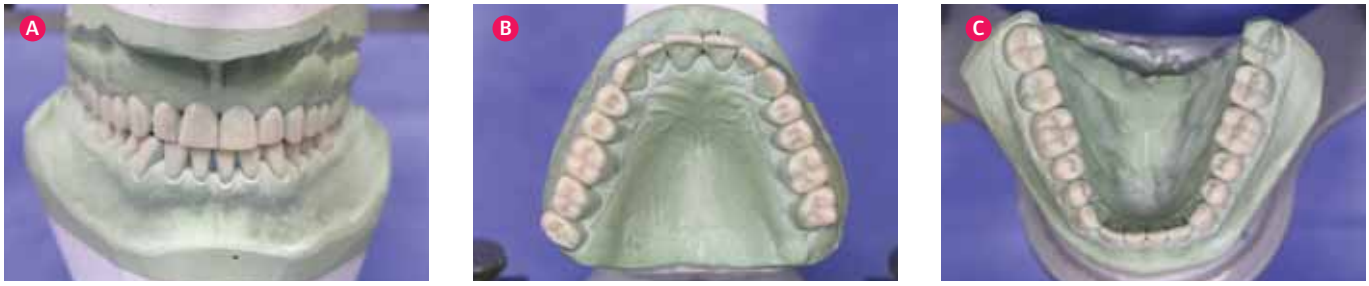
1. **Pre-operative models**

   Pre-operative models (**Figures 5a-5c**) will allow analysis of the existing occlusal scheme and the pre-operative condition of the teeth. Further, they will aid as a starting reference point for treatment planning, which can prove important particularly as the treatment plan is being implemented and changes are made to the dentition. Finally, pre-operative models are an important medico-legal record for complex cases.

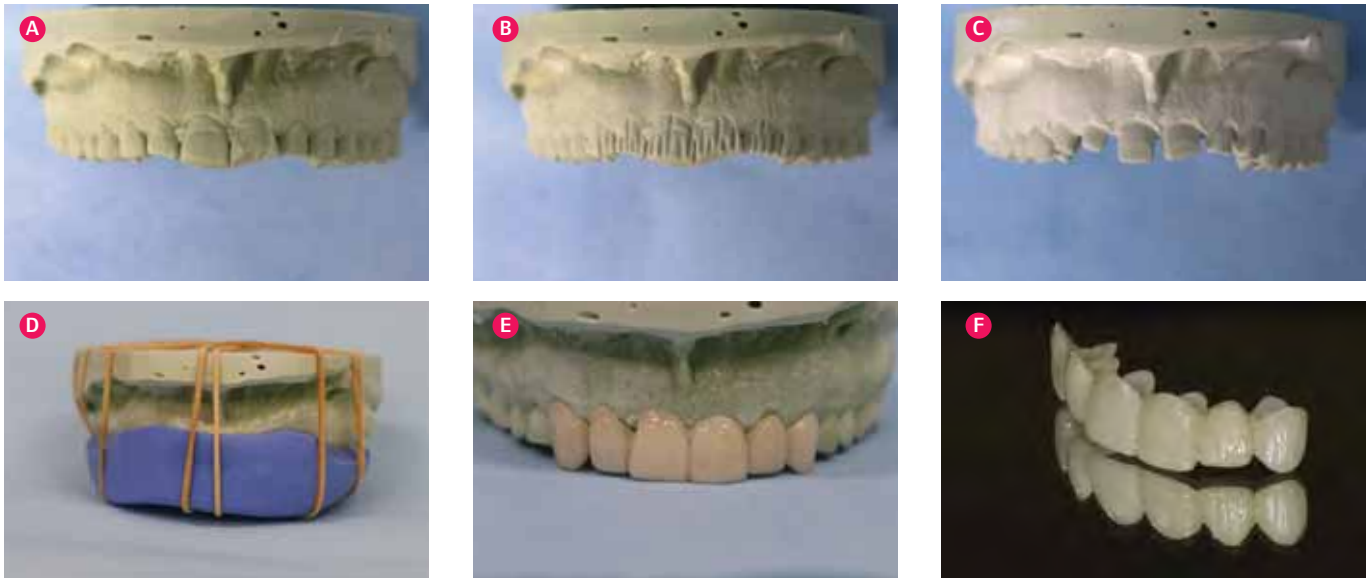
2. **Diagnostic wax-ups**

   The models fabricated for the purpose of diagnostic wax-ups may be modified, within reason, to permit freedom in the design of the final proposed restorations (**Figures 6a-6d**). This is known as a feasibility study and can be used to inform the dentist of the restoration type required to achieve the proposed result. In this case, the feasibility study suggests that full coverage crowns are required in the maxillary labial segment to produce a biomechanically-stable, long-term restoration.

   The incisal edge of the maxillary central incisor (**Figures 7a-7b**) is the "north star" for determination of the new incisor relationship (**Figures 8a-**



FIGURES 9a, 9b, 9c: The appearance of the final diagnostic wax-up. The guidance created by the anterior teeth determines the cusp height and fossa depth in the contour of the posterior teeth.



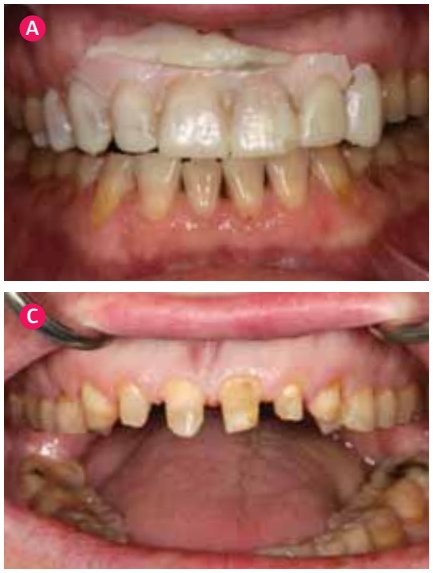
FIGURES 10a, 10b, 10c, 10d, 10e, 10f: Shallow depth cuts and shallow trial preparations are carried out on a third set of models. A matrix made from the diagnostic wax-up is used to fabricate heat- and pressure-processed PMMA provisional shell crowns.

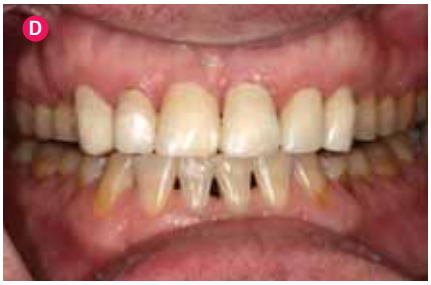
8c), tooth-guided articulation and maxillary occlusal plane, and thus of the contours of all teeth to be restored (**Figures 9a-9c**). Initially, the incisal edge can be waxed to average dimensions according to published data for the population being treated[5] and can be later modified to the subjective preferences of the patient if required.[3]

A well-made diagnostic wax-up permits clear communication between the dental technician and dentist with regards to the desired outcome of treatment and, in combination with a diagnostic mock-up, will highlight pre-operatively any potential limitations of treatment from a biological, mechanical and aesthetic perspective.

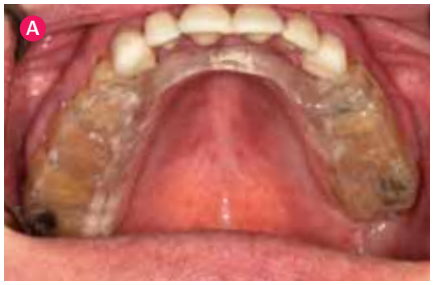
3. **Provisional shell crowns**

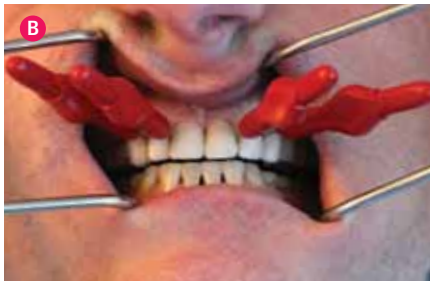
A third set of models produces casts from which provisional shell crowns can be fabricated (**Figures 10a-10f**). Shallow depth cuts and shallow trial preparations are carried out on these models. A putty matrix made from





FIGURES 11a, 11b, 11c, 11d: The aforementioned diagnostic wax-up can be transferred to the mouth to make a diagnostic mock-up, to inform the dentist of the tooth preparations required, and to permit preparation and provisionalisation of multiple teeth in a single appointment.





FIGURES 12a, 12b: Note that attention must be paid to maintaining occlusal and soft tissue stability during the provisional phase of treatment.

the diagnostic wax-up is used to fabricate heat- and pressure-processed polymethylmethacrylate fixed-splinted provisional shell crowns. These provisional shells can be simply relined chairside following the actual tooth preparations and thereby permit preparation of multiple teeth during a single appointment. This simple method makes biomechanically stable and aesthetically pleasing provisional restorations within the comfort zone of the dentist and patient.

Transferring the diagnostic work to the mouth

Using a putty matrix, the diagnostic wax-up may be transferred to the mouth using a bis-acryl material, such as Protemp, prior to any invasive operative procedures (**Figure 11a**). At this point, the patient and dentist can make an informed decision to accept, modify or even decline the arrangement and form of the proposed final restorations. This technique is known as a diagnostic mock-up and it permits a meeting of the minds between the dentist's esoteric understanding of the treatment plan and the lay understanding that the patient may have regarding the proposed treatment outcome. Any disagreements regarding the final outcome may be identified at this early stage before the dentist and patient become committed and effectively locked in to carrying out extensive, complex treatment. Furthermore, this method allows the dentist to assess the effect any proposed changes might have on the vertical dimension of occlusion and the enunciation of sibilant and fricative sounds.

Once all involved parties have accepted the proposed treatment plan the diagnostic mock-up may be used to inform the dentist of the tooth preparations required to achieve the desired outcome. Depth cuts may be prepared into the diagnostic mock-up (**Figure 11b**) prior to completing the initial tooth preparations (**Figure 11c**) with a view towards conserving tooth structure.

Finally, the provisional shell crowns can be seated in the mouth with a putty matrix, using the unprepared posterior teeth as indexing points to allow accurate positioning of the provisional shells. Adjustments of the intaglio surfaces of the shells may be required to permit accurate positioning if the shells are too thick in any areas. The shells may be relined using a chairside polymethylmethacrylate material such as Duralay Crown and Bridge. Care is required at this stage to prevent inadvertent binding as the reline material sets, particularly when multiple preparations are involved. On full setting of the reline, the margins and embrasure spaces can be trimmed to allow for excellent marginal fit (**Figure 11d**). Note that attention must be paid to ensuring occlusal and soft tissue stability throughout the provisional phase of treatment (**Figures 12a–12c**).[6] Now that initial preparations have been completed and the teeth have been well provisionalised, due time and concentration can be paid to refining each tooth preparation at the leisure of the dentist and patient at subsequent appointments.

Acknowledgements

The author thanks Dr Thérèse Garvey for the orthodontic planning and treatment seen in the initial phase of treatment.

References

1. **Ibbetson, R.J., Setchell, D.J.** Treatment of the worn dentition: 1. *Dent Update* 1989; 16: 247-253.
2. **Ibbetson, R.J., Setchell, D.J.** Treatment of the worn dentition: 2. *Dent Update* 1989; 16: 300-307.
3. **Mizrahi, B.** Modified complete-arch impression technique for facilitating esthetic and biomechanical precision in complete-arch rehabilitation. *J Prosthodont* 2011; 20: 474-487.
4. **Quinlan, P.** Articulators, facebows and interocclusal records. *J Ir Dent Assoc* 2016; 62: 101-104.
5. **Condon, M., Bready, M., Quinn, F., O'Connell, B.C., Houston, F.J., O'Sullivan, M.** Maxillary anterior tooth dimensions and proportions in an Irish young adult population. *J Oral Rehabil* 2011; 38: 501-508.
6. **Wiens, J.P., Priebe, J.W.** Occlusal Stability. *Dent Clin North Am* 2014; 58: 19-43.

First tooth, first visit, zero cavities: a practical approach to the infant oral health visit

Précis

Get it done in year one! A practical approach to an infant oral health visit is presented to encourage commencement of oral healthcare at this important age.

Abstract

The IDA adopted a formal policy on children's oral health in 2011. There is increasing evidence to support early dental visits for children. The background to the infant oral health visit is discussed and a systematic approach to the practicalities of the visit is offered. General dental practitioners are encouraged to offer the first oral health visit before the first birthday, and this paper aims to give them practical advice concerning this visit. The feature is accompanied by a companion paper that reviews the literature pertaining to the topic, and serves to complement the recent clinical feature published in the *Journal of the Irish Dental Association*.

Journal of the Irish Dental Association 2017; 63 (2): 99-104.

Introduction

The Irish Dental Association (IDA) adopted a formal policy on children's oral health in 2011.[1] This was the second policy position paper from the Association, highlighting its standing on child oral health promotion in Ireland. This standpoint is echoed by the World Health Organisation (WHO),[2] the European Academy of Paediatric Dentistry (EAPD),[3] the American Academy of Pediatric Dentistry (AAPD),[4] and the British Society of Paediatric Dentistry (BSPD).[5] Given the preventable nature of dental caries, early identification of the children at risk and the utilisation of appropriate preventive measures by the dental team are to be encouraged.

The Irish standpoint

Measures supporting public dental health in Ireland have achieved enormous progress, particularly for children. There has been a reduction of 75% in the mean decayed, missing, or filled teeth (DMFT) index scores for 12-15 year olds and in the mean DMFT scores for five year olds between the 1960s and 2002.[6] Community water fluoridation was one of the greatest public health successes of the 20th century,[7] being effective in both disadvantaged and non-disadvantaged communities. The dental profession should continue to work hard to advocate for continued community water fluoridation.

Fluoride toothpastes were introduced into Ireland in the 1970s. Supported by

Dr Kirsten FitzGerald
BDentSc MS (Texas) FFD (RCSI)
Consultant Paediatric Dental Surgeon,
Our Lady's Children's Hospital, Crumlin, and
Dublin Dental University Hospital

Dr Aifric Ní Chaollaí
BA BDentSC MDentSc (Leeds) MPaedDent (RCPSG)
Paediatric Dentist at Dental Care Ireland, Cabinteely
and the Northbrook Clinic, Ranelagh

Dr Eleanor McGovern
BDS MFD MDentCh (Paediatric Dentistry)
Consultant Paediatric Dental Surgeon,
The Children's University Hospital, Temple Street

Dr Brett Duane
BDS MAM (Health) MPH PHD
Associate Professor, Dental Public Health,
Dublin Dental University Hospital

Corresponding author:
Dr Kirsten FitzGerald, Dental Department, Our Lady's Children's Hospital, Crumlin
E: kirsten.fitzgerald@olchc.ie T: 01-409 6549

This link http://bit.ly/2iNCSII contains four demonstration videos on examining and brushing infants' and toddlers' teeth, which were made with the support of UCD and the Genetics Department at Our Lady's Children's Hospital Crumlin.

TABLE 1: Resources for practitioners

Source	Title	Year
Oral Health Services Guideline Initiative (University College Cork, Ireland)	Oral Health Assessment[15]	2012
	Pit and Fissure Sealants[16]	2010
	Prevention of Dental Caries in Children and Adolescents[17] (includes Caries Risk Assessment Checklist)	2009
	Topical Fluorides[18]	2008
Scottish Intercollegiate Guidelines Network (SIGN)	Dental interventions to prevent caries in children[19]	2014
Scottish Dental Clinical Effectiveness Programme (SDCEP)	Prevention and Management of Dental Caries in Children[20]	2010
Childsmile	Professionals[21]	
European Academy of Paediatric Dentistry (EAPD)	Guidelines on Prevention of Early Childhood Caries[3]	2008
	Guidelines on the use of fluoride in children[22]	2009
American Academy of Pediatric Dentistry (AAPD)	Guideline on Caries-risk Assessment and Management for Infants, Children, and Adolescents[23]	2014
	Guideline on Infant Oral Health Care[14]	2014
	Guideline on Periodicity of Examination, Preventive Dental Services, Anticipatory Guidance/Counseling, and Oral Treatment for Infants, Children, and Adolescents[24]	2013
Nova Scotia Dental Association	Knee-To-Knee Training Video[25]	2013

more than half a century of research, the benefits of fluoride toothpastes are firmly established. Full-strength formulations (1,450ppm) are best, and twice a day use, without rinsing afterwards, increases the benefit.[8] Full strength fluoride toothpaste is now recommended for all children in Ireland over the age of two, and for high caries risk children under that age.[9]

Medicines formulated for children are subject to the European Medicines Agency's "Guideline on pharmaceutical development of medicines for paediatric use",[10] which states: "Frequent and/or high doses of sweetening agents should preferably be avoided in paediatric formulations intended for long-term use. The use of cariogenic sugars should be carefully justified". Doctors are encouraged to prescribe sugar-free formulations where available and appropriate.

Unfortunately, the absence of a current oral health policy, the lack of up-to-date epidemiological data, and the decline in access to care for adults of lower socioeconomic status in recent years are signs of the underfunding and low priority given to oral health and dental services in Ireland. Without doubt, these issues have an impact on our children's oral health both directly and indirectly. There appears to be some lack of awareness among parents and non-dental healthcare providers around the issue of early childhood caries, its causes, effects and the measures that can be employed to prevent its occurrence. Infant feeding practices are important in the development of early childhood caries, and frequent ingestion of sugar-sweetened drinks and snacks are high-risk factors for both caries and obesity. There is very limited care provided by the public dental services for pre-school children in Ireland. This is concerning as dental caries is the most common chronic disease of childhood in Ireland, a situation which is echoed internationally.

Oral health-related quality of life and general health

The WHO accurately describes the impact of poor oral health, particularly caries, on the child and family: "Severe caries detracts from children's quality of life: they experience pain, discomfort, disfigurement, acute and chronic infections, and eating and sleep disruption as well as higher risk of hospitalisation, high treatment costs and loss of school days with the consequently diminished ability to learn. Caries affects nutrition, growth and weight gain. Children of three years of age with nursing caries weighed about 1kg less than control children because toothache and infection alter eating and sleeping habits, dietary intake and metabolic processes".[2]

The IDA, in its policy on children's oral health,[1] values oral health as "an integral part of the overall health and well-being of children", which reflects the WHO standpoint. Health spending is limited by the available resources. Current per capita public spend on health in Ireland is in the region of €3,100 per annum, based on a total public health expenditure of €14.2bn in 2015,[11] for a

population of 4.58 million at the 2011 census. It is easy to see how operative treatment (restoration and extractions) of a dentition affected by severe early childhood caries, which is likely to require general anaesthesia, could deplete per capita healthcare resources very quickly. A health promoting and preventive strategy is urgently needed, in line with early child health strategies.

Preventable nature of oral disease in childhood

Dental caries is largely preventable. The reader is directed to the companion paper by Duane *et al.*, published in this edition of the *Journal*.

The dental home

Central to many effective models of oral healthcare is the concept of the dental home: the patient-centred, family-friendly relationship between healthcare provider and patient that fosters primary oral healthcare, and enables appropriate referral to secondary and tertiary services as needed.[12] The emphasis is on the relationship between the dentist (or other suitable healthcare provider), their team, and the family. This is akin to the medical home, which is usually facilitated by the general medical practitioner, supported by a practice nurse and with a network of local, regional and supra-regional referral pathways. Most pre-school children in Ireland lack a dental home, but the available oral health workforce, led by dentists, could be organised and developed to provide a dental home for all children. The workforce would consist of the obvious: dentists; dental hygienists; dental nurses; and, oral health promoters. Some less obvious members of the healthcare team such as public health nurses, general medical practitioners and area medical officers have also been recruited in some healthcare systems internationally to serve as the first point of contact for risk assessment and implementation of caries preventive measures.

Rationale for timing of the first oral health visit

Antenatal oral healthcare for expectant mothers is recommended as a good first step in establishing a healthy oral environment for the mother-baby partnership. Given that transmission of cariogenic bacteria is thought to occur around the time of eruption of the first tooth,[13] and in light of the normal developmental milestones and dietary changes of children in the first year of life, timing of the first oral health visit to coincide with these events is sensible. Weaning from milk to solid foods is recommended around six months, and dietary habits begin to become established. Preventive advice can be given at appropriate times in a format known as anticipatory guidance, which involves giving proactive advice and counselling that focuses on the child's needs at different stages. In this way, parents receive tailored advice that meets their child's current and upcoming developmental needs. Both the EAPD and the AAPD recommend that children should have their first dental visit with counselling during the first year of life.[3,14] Offering an infant oral health visit can help build a family-friendly environment, enhancing a dental practice.

Special healthcare needs

Children with special healthcare needs such as craniofacial anomalies or other medical, physical or intellectual conditions can be at increased risk of developing dental caries, and may also be at increased risk from the effects of the disease. They should receive targeted preventive care in line with the best available evidence. The early oral health visit can help identify these children and afford them an increased level of protection to counteract their vulnerability.

Clinical guidelines and toolkits

There are many useful guidelines and clinical practice toolkits available to the practitioner to aid them in their management of the young child with and without caries.[3,14-25] These resources, both Irish and international, are listed in **Table 1**.

Baby steps: a systematic approach to the infant oral health visit

For practitioners who wish to offer the infant oral health visit in their practice, some new knowledge and skills may be needed, and it is hoped that the following advice and systematic approach will facilitate both the practitioner and the family. An example of a systematic approach to the visit that may be useful is given in **Appendix 1**. The visit should include a formal caries risk assessment, which is generally best achieved with the aid of a tool such as the Caries Risk Assessment Checklist (CRAC),[17] which is suitable for all children, or a specific tool aimed at the 0-3 age group such as the AAPD's Caries-risk Assessment Tool (CAT).[23] It is important to remember that caries risk is dynamic, and regular reassessment of risk is appropriate.

The reader is directed to the recent clinical feature published in this *Journal* for a systematic approach to the infant oral health visit.[26] Having clear aims and objectives for the visit, employing techniques to minimise stress for all involved, using a systematic or *pro forma* approach to the history, examination and advice, and being prepared to manage or refer as appropriate if disease is encountered, should all help to make the visit enjoyable, beneficial and rewarding for all.

Troubleshooting

Although it is most unusual to find cavitated caries in children under one year of age, it is possible to find demineralisation. Such a finding may be disappointing, but it should be considered an opportunity to highlight issues early before cavitation occurs, and with appropriate advice and aggressive preventive measures, much of this disease can be arrested. Infants with early signs of caries should be placed on three-month recall for fluoride varnish application and review. At home, these high-risk infants should have their teeth brushed with a full-strength fluoride toothpaste (1,450ppm), with careful advice around how much to apply to the brush to minimise the potential for fluorosis. Dietary advice should emphasise the importance of water as the only safe drink for all babies at night time. Milk (cow's or formula) taken from a bottle throughout the night is highly cariogenic and this practice is to be highlighted and strongly discouraged. The authors find that photographs of carious incisors are a useful visual aid for educating parents who may be reluctant to discontinue night-time use of a bottle of milk.

Fluoride varnish should be applied for all children at this visit. The teeth should be dried with gauze, and varnish applied with a brush or gloved finger, to areas of high risk in particular. Concerns around fluoride toxicity with respect to fluoride varnish application are addressed by careful consideration and discussion of the appropriate dose. Fluoride varnish 22,600ppm (e.g., Duraphat or Profluorid) contains 22.6mg fluoride per ml. The correct dose for children under six is 0.25ml. The toxic dose of fluoride ingestion is estimated at 5mg of fluoride per kg of child body weight. The average one year old weighs approximately 9kg, and so the dose of 0.25ml of varnish, containing 5.6mg of fluoride, being approximately one-tenth of the toxic dose, is well within safe levels. Application up to four times a year is also safe with respect to concerns around chronic ingestion. A blob 5-7mm in diameter will be

FIGURE 1: Correct (0.25ml) amount of fluoride varnish for infants. One cent coin and micro brush for size comparison.

FIGURE 2: Fluoride varnish single-dose packet (0.25ml).

adequate (**Figure 1**). Single-dose packaging conveniently combines a brush with a small volume of fluoride varnish (**Figure 2**). Many of the single dose varnishes available on the market are 0.4ml in volume, but Premier's Enamel Pro Varnish comes in a bubblegum flavour in a 0.25ml single-dose packet.

Appendix 1 – Baby steps: a checklist for the infant oral health visit

History

- ☐ Child perinatal and ongoing medical history
- ☐ Caries risk assessment (CRAC or AAPD)
- ☐ Feeding practices (use of bottles of milk or other sweet liquid while asleep, between meals food and drink exposure)
- ☐ Systemic and topical fluoride status (water, formula and toothpaste)
- ☐ Non-nutritive sucking habits (thumb/soother)
- ☐ Trauma

Examination

- ☐ Knee-to-knee position
- ☐ Dry teeth with gauze, use a prop if needed
- ☐ Examine for caries, trauma and abnormalities of dental development, and soft tissues
- ☐ Toothbrushing demonstration, three-sided brush (**Figure 3**) if needed
- ☐ "Lift the lip" demonstration

Preventive care

- ☐ Remove any soft and hard deposits
- ☐ Apply 5% NaF fluoride varnish to erupted teeth

Treatment of severe early childhood caries (SECC)

- ☐ White spot lesions (**Figure 4**): this is SECC. Apply fluoride varnish, educate about oral health and diet. Advise home use of a smear of 1,450ppm fluoride toothpaste twice daily, without rinsing after brushing
- ☐ Cavitated lesions in upper incisors: manage as above, plus consider interim therapeutic restoration (ITR) with glass ionomer as a preventive

FIGURE 3: An example of a three-sided toothbrush (Dr Barman's) in sizes for adults, children and toddlers. Available from www.sensationalkids.ie, www.amazon.co.uk, and from pharmacies nationwide.

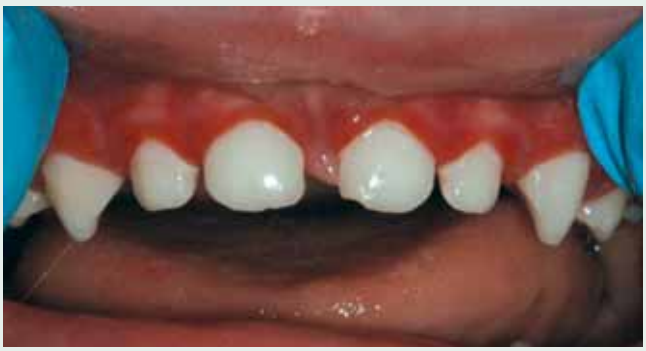


FIGURE 4: Demineralised maxillary incisors in a child under three years old. This is severe early childhood caries. Note the inflamed gingivae as a result of plaque accumulation.

As children get a little older, examination can be resisted a little more strongly. Correct use of the knee-to-knee position is invaluable, and practitioners are advised to learn this simple yet effective technique by watching videos available online.[25] Informed consent for the examination should include adequate discussion of the method of examination, the likely time it will take, and a reassurance that the toddler's protest is entirely normal. By the same token, a toddler's protests about tooth brushing at home are reassuringly normal. Parents can be advised to brush a baby's teeth using the knee-to-knee position (two adults required), or on the bed or couch at home. Specialised three-sided brushes are recommended (**Figure 3**), perhaps with the use of a plastic toothbrush handle as a mouth prop if needed.

Prolonged non-nutritive sucking habits may be identified at the first oral health visit, and the orthodontic effects (anterior open bite, narrowed maxillary arch, protruding maxillary incisors) may already be evident. Parents should be advised to use only orthodontic soothers, and to discontinue their use by around 18 months of age.

If it is identified that parents are using inappropriate foods for weaning, such as those with a high sugar or salt content, general nutrition advice should be given, and onward referral to a general medical practitioner or public health nurse may be necessary.

Some well-meaning, but poorly-informed parents begin using fluoridated toothpaste for their infants earlier than the recommended age of two years. For the infant identified as being at low risk for dental caries, the use of fluoride toothpaste is to be discouraged until two years of age, when the enamel of the permanent incisors is quite mature, and so the risk of cosmetically concerning fluorosis is low. It should be emphasised, however, that use of full-strength fluoride toothpaste is appropriate for high-risk children in this age group, as the caries-preventive effects outweigh the risks of fluorosis.

and therapeutic approach. Consider specialist referral

- ☐ Large cavitated lesions in incisors (**Figure 5**): manage as above, plus consider specialist referral. Use full coverage restorations, particularly if compliance for prevention is an issue (**Figure 6**)

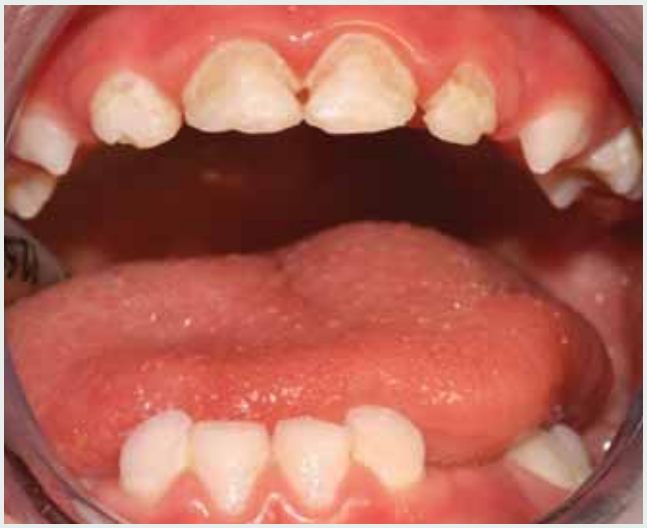


FIGURE 5: Cavitated caries in the maxillary primary incisors. Note plaque and demineralisation of mandibular incisors and all first molars, and very young age. This child subsequently had full coverage restoration of all the erupted teeth.

- ☐ Extensive disease (**Figure 7**) with/without pulpal involvement: manage as above, plus consider referral to a specialist provider for definitive care

Establishing the dental home and periodicity of review

- ☐ Discuss ongoing relationship between dental team and patient in terms of the "dental home"
- ☐ Determine the interval for periodic review (three, six or 12 months) based on risk
- ☐ If needed, refer to a specialist provider, with arrangements for follow-up at the dental home

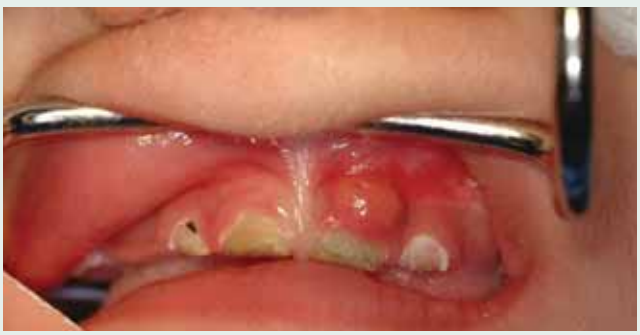


FIGURE 7: Extensive caries with pulpal involvement and abscess formation in an infant, secondary to prolonged ad lib *night time feeding.*

FIGURE 6: Preoperative severe early childhood caries, buccal and lingual surfaces of maxillary incisors, and immediate postoperative restored maxillary primary incisors (NuSmile Zirconia crowns 52,51,61,62). Note the stainless steel crown restorations of the first primary molars.

Key points for the infant oral health visit

The key points for the visit can be summarised as follows:

- caries risk assessment – includes medical, social and dental history;
- knee-to-knee examination;
- preventive care – oral hygiene demonstration, toothpaste advice, fluoride varnish;
- education – weaning, diet, drinks, pacifier use/cessation; and,
- establish the dental home.

Summary

The first oral health visit should be carried out within the first year of life. This affords the practitioner the opportunity to convey suitable preventive advice, to identify potential problems early, and to place children at high caries risk on the appropriate preventive programme. The general dental practitioner is encouraged to examine and provide oral healthcare and advice for infants and young children, and the resources, advice and techniques presented here aim to facilitate practitioners who wish to include this service in their practice.

References

1. **Irish Dental Association**. Children's oral health. *Journal of Irish Dental Association* 2011/2012; 57 (6): 284.
2. **Sheiham, A.** Oral health, general health and quality of life. *Bull World Health Organ* 2005; 83(9): 644. Epub 2005 September 30.
3. **European Academy of Paediatric Dentistry**. Guidelines on Prevention of Early Childhood Caries: An EAPD Policy Document [Internet]. 2008. [undated: cited January 12, 2017]. Available from: http://www.eapd.gr/dat/1722F50D/file.pdf.
4. **American Academy of Pediatric Dentistry**. Policy on Early Childhood Caries (ECC): Classifications, Consequences, and Preventive Strategies. [Internet] Chicago: American Academy of Pediatric Dentistry; 2015 [undated: cited January 12, 2017]. Available from: http://www.aapd.org/media/policies_guidelines/p_eccclassifications.pdf.
5. **Fayle, S.A., Welbury, R.R., Roberts, J.F.; British Society of Paediatric Dentistry.** British Society of Paediatric Dentistry: a policy document on management of caries in the primary dentition. *Int J Paediatr Dent* 2001; 11 (2): 153-157.
6. **Whelton, H., O'Mullane, D., Harding, M., Guiney, H., Cronin, M., Flannery, E., *et al.*** North/South survey of children's oral health in Ireland 2002. Brunswick Press Ltd, 2006. [cited January 12, 2017]. Available from: http://www.lenus.ie/hse/bitstream/10147/119028/1/OralHealthReport.pdf.
7. **Centers for Disease Control and Prevention**. Ten Great Public Health Achievements in the 20th Century [Internet]. Atlanta: Centers for Disease Control and Prevention; no date [updated April 26, 2013, cited January 12, 2017]. Available from: http://www.cdc.gov/about/history/tengpha.htm.
8. **Marinho, V.C.C., Higgins, J.P.T., Logan, S., Sheiham, A.** Fluoride toothpastes for preventing dental caries in children and adolescents. *Cochrane Database Syst Rev* 2003; Issue 1. Art. No.: CD002278.
9. **Forum on Fluoridation**. Dublin Stationery Office, 2002. [cited January 12, 2017]. Available from: http://www.fluoridesandhealth.ie/download/documents/fluoridation_forum.pdf.
10. **European Medicines Agency**. Guideline on development of pharmaceuticals for paediatric use. London: European Medicines Agency. 2013 [cited January 12, 2017]. Available from: http://www.ema.europa.eu/docs/en_GB/document_library/Scientific_guideline/2013/07/WC500147002.pdf.
11. **Department of Health, Information Unit.** Health in Ireland: Key Trends. Dublin: Stationery Office, 2015. [cited January 12, 2017]. Available from: http://health.gov.ie/wp-content/uploads/2015/12/Health_in_Ireland_KeyTrends2015.pdf.
12. **American Academy of Pediatric Dentistry**. Policy on the Dental Home. [Internet] Chicago: American Academy of Pediatric Dentistry; 2015 [undated: cited January 12, 2017]. Available from: http://www.aapd.org/media/Policies_Guidelines/P_DentalHome.pdf.
13. **Berkowitz, R.J.** Mutans streptococci: acquisition and transmission. *Pediatr Dent* 2006; 28 (2): 106-109; discussion 192-198.
14. **American Academy of Pediatric Dentistry**. Guideline on Infant Oral Health Care. [Internet] Chicago: 2015 [undated: cited January 12, 2017]. Available from: http://www.aapd.org/media/policies_guidelines/g_infantoralhealthcare.pdf.
15. **Irish Oral Health Services Guideline Initiative**. Oral Health Assessment: Best practice guidance for providing an oral health assessment programme for school-aged children in Ireland. 2012 [undated: cited January 12, 2017]. Available at: https://www.ucc.ie/en/ohsrc/guidelines/.
16. **Irish Oral Health Services Guideline Initiative**. Pit and Fissure Sealants: Evidence-based guidance on the use of sealants for the prevention and management of pit and fissure caries. 2010 [undated: cited January 12, 2017]. Available at: www.ucc.ie/en/ohsrc/guidelines.
17. **Irish Oral Health Services Guideline Initiative**. Strategies to prevent dental caries in children and adolescents: Evidence-based guidance on identifying high caries risk children and developing preventive strategies for high caries risk children in Ireland (Full guideline). 2009 [undated: cited January 12, 2017] Available at: www.ucc.ie/en/ohsrc/ guidelines/.
18. **Irish Oral Health Services Guideline Initiative**. Topical Fluorides: Evidence-based guidance on the use of topical fluorides for caries prevention in children and adolescents in Ireland. 2008 [undated: January 12, 2017]. Available from: www.ucc.ie/en/ohsrc/guidelines/.
19. **Scottish Intercollegiate Guidelines Network (SIGN)**. Dental interventions to prevent caries in children. Edinburgh: 2014. (SIGN publication no. 138). [March 2014; cited January 12, 2017]. Available from: www.sign.ac.uk.
20. **Scottish Dental Clinical Effectiveness Programme**. Prevention and Management of Dental Caries in Children. Dundee: 2010 [undated; January 12, 2017]. Available from: http://www.sdcep.org.uk/published-guidance/caries-in-children/.
21. **Childsmile**. Professionals. [Internet] [undated: cited January 12, 2017]. Available from: www.child-smile.org.uk/professionals/index.aspx?.
22. **European Academy of Paediatric Dentistry**. Guidelines on the use of fluoride in children: an EAPD policy document. *Eur Arch Paediatr Dent* 2009; 10 (3): 129-135. [undated: cited January 12, 2017]. Available from: http://www.eapd.gr/dat/82C0BD03/file.pdf.
23. **American Academy of Pediatric Dentistry**. Guideline on Caries-risk Assessment and Management for Infants, Children, and Adolescents. [Internet] Chicago: 2015 [undated; cited January 12, 2017]. Available from: www.aapd.org/media/ policies_guidelines/g_cariesriskassessment.pdf.
24. **American Academy of Pediatric Dentistry**. Guideline on Periodicity of Examination, Preventive Dental Services, Anticipatory Guidance/Counseling, and Oral Treatment for Infants, Children, and Adolescents. [Internet] Chicago: 2015 [undated: cited January 12, 2017] Available from: http://www.aapd.org/media/ policies_guidelines/g_periodicity.pdf.
25. **Novia Scotia Dental Association.** Knee-To-Knee Training Video. [Internet] 2013 [cited January 12, 2017]. Available from: www.youtube.com/watch?v=9hu Dzl5OpbQ&sns=em.
26. **FitzGerald, K., McGovern, E., Ní Chaollaí, A., Duane, B.** Baby steps: a systematic approach to the infant oral health visit. *Journal of Irish Dental Association* 2016; 62 (3): 158-160.

First tooth, first visit, zero cavities: a review of the evidence as it applies to Ireland

Précis

Appropriate preventive dental advice and care should commence early in life. In this narrative review, an infant oral health visit is recommended and the reasons for this advice are discussed.

Abstract

Statement of the problem: There is increasing evidence that the first oral health visit should occur before 12 months of age. Anecdotally, most children in Ireland are not seen at an optimal age.

Purpose of the study: To review the benefits, on both an individual and population basis, of children receiving oral healthcare before 12 months of age, and to apply the appropriate available evidence to the current oral health landscape in Ireland.

Results: From an individual perspective, there is published evidence of the benefits of infants attending a dentist before the age of 12 months. These benefits include the opportunity to risk assess the child, provide tailored oral health education and institute preventive care. From an oral health promotion perspective, there are additional benefits of providing population level programmes for children at an early age.

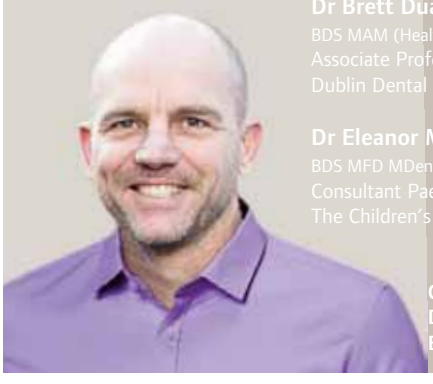
Conclusions: Introduction of the first dental visit by 12 months of age should be firmly on the health agenda here in Ireland.

Journal of the Irish Dental Association 2017; 63 (2): 105-111.

Introduction

In recent years several studies have demonstrated that dental caries is already well established by the time a child reaches three years of age. In Scotland, for example, three-year-old children had a caries prevalence of 25%, with a higher rate of 32% in children living in deprived areas, when examined in 2007/2008.[1] In England in 2013, 12% of three-year-old children had experienced dental decay and those children with dental disease had approximately three teeth that were decayed, missing or filled.[2] Gussy *et al*. recently followed 467 Australian mother/child pairs at one, six, 12, 18 and 36 months of age and demonstrated that the prevalence of caries increased from 8% of children at 18 months of age to 23% of children at 36 months of age. Gussy's paper highlighted that the optimal time period for screening and prevention of oral disease should be early, ideally before 12 months.[3]

Most children in Ireland (anecdotally) visit their dentist at a much later age. Within Ireland, the Health Service Executive (HSE) has a statutory requirement to provide dental services free of charge both to preschool children and school children attending State primary schools referred from child health service and school health service examinations.[4] The salaried HSE public dental service



Dr Brett Duane
BDS MAM (Health) MPH PHD
Associate Professor, Dental Public Health,
Dublin Dental University Hospital

Dr Aifric Ní Chaollaí
BA BDentSC MDentSc (Leeds) MPaedDent (RCPSG)
Paediatric Dentist at Dental Care Ireland, Cabinteely and the Northbrook Clinic, Ranelagh

Dr Eleanor McGovern
BDS MFD MDentCh (Paediatric Dentistry)
Consultant Paediatric Dental Surgeon,
The Children's University Hospital, Temple Street

Dr Kirsten FitzGerald
BDentSc MS (Texas) FFD (RCSI)
Consultant Paediatric Dental Surgeon,
Our Lady's Children's Hospital, Crumlin, and
Dublin Dental University Hospital

Corresponding author:
Dr Brett Duane Associate Professor, Dental Public Health, Dublin Dental University Hospital
E: Brett.duane@dental.tcd.ie T: 083-804 3070

provides emergency, routine and preventive oral health services to children up to 16 years of age and to people of all ages with special needs.[5] The resources, priorities and service interventions vary considerably within and between regions. The HSE also operates a school dental programme where nationally, school children and children with special needs are screened in selected classes.[6] It is possible that children who attend national school and do not present with a dental emergency do not receive dental care until they are screened by the HSE at six to eight years of age, with the possibility of even later attendance for some. In some areas, it is possible that this screening is delayed due to resourcing issues.

In the UK, dental caries has been reported as the most common reason for children between five and nine years of age to be admitted to hospital for treatment under general anaesthesia (GA), equating to 31% of all GAs administered to children in that age group.[7] This dental treatment under GA is concerning due to the GA-associated morbidity and risk of mortality. The financial burden is considerable: in England it has an estimated cost of £30 million (2012).[8-10]

There may be some underestimation in the numbers of children reported to have had dental treatment provided under GA in the UK.[11] Within Ireland, the lack of reliable data is also apparent with recent national discussions having highlighted this uncertainty.[12] Within the Irish Healthcare Pricing Office's report for the year ended December 2014, it is noted there were 8,406 procedures carried out in acute hospitals for dental-related morbidity for children under 15 years, with 4,320 patient discharges relating to dental care in under 15s.[13] It is likely that the majority of these patients' discharges were related to GA. There is, however, some debate about the number of GAs undertaken for children for dental care, which has been reported in October 2015 by the HSE as being 3,600 per year in Ireland.[12]

It is certain that dental caries is problematic. Not only does the disease significantly impact on child well-being,[14] but societally it is an expensive and time-consuming problem to treat, both for the State, and for parents of children who elect to be seen privately. Internationally, early childhood caries (ECC), defined as the presence of decay in one or more primary teeth in a child younger than six years of age, is reported to affect 28-82% of children.[15] ECC is also a strong predictor of caries in future life.[16] From a public health perspective it is important, therefore, to do as much as possible to reduce the occurrence of ECC. Primary prevention (before dental decay develops) is key.

This paper reviews the recent evidence for the benefits to infants aged 12 months or less of attending a dentist. It reviews the types of oral health interventions that can be delivered either on an individual basis or in a population programme to the infant, and applies that evidence to addressing the issues in the context of the Irish health system.

Methods

A review was undertaken of all papers which addressed the following question: what are the benefits to infants aged 12 months or less of attending a dentist, specifically: pathology/soft tissue; early dental prevention; caries prevention; fluoride varnish; tooth brushing; nutrition; education of parents/behavioural change of parents; and, health visitor referral (Ireland: public health nurse visits after birth and at six weeks)?

For the purpose of this review only randomised controlled trials (RCTs) and systematic reviews published in the English language within the last 10 years were searched, using the databases Web of Science, Embase, CINAHL and PubMed. The review was not intended to be systematic, but was undertaken to find relevant evidence to answer the question, and produce a narrative review on the topic of interest. This was not a systematic review; therefore, tools were not used to assess quality and bias. Two individual authors (B.D. and K.F.) assessed each paper for its relevance to the research question and to the Irish landscape. Both individual interventions and population approaches were considered.

Table 1: Summary of interventions that can influence the oral health of a child.

Perform risk assessment
Provide oral health education using a motivational interviewing approach
Prevention: fluoridated water; fluoride gels; varnishes; and, mouthwashes
Oral health promotion
Others with possible benefit: CPP; and, xylitol

Results from the review

From an individual perspective there is significant evidence of the benefits of infants attending a dentist before the age of 12 months. The interventions that can influence the oral health of a child can be seen in **Table 1**, and each is discussed in more detail below. The interventions are then discussed in the Irish context and with reference to cost-effectiveness.

Performing a risk assessment

To prevent caries in children, high-risk individuals should be identified at an early age before problems occur. Babu and Doddamani state that risk factors should be assessed in mothers during prenatal care and strategies should be adopted, including anticipatory guidance, behaviour modifications (oral hygiene and feeding practices) and establishment of a dental home by one year of age for children deemed at risk.[17] Seeing children at an early age enables a clinician to carry out a formal caries risk assessment that analyses both risk factors/indicators and protective factors, and then to design an appropriate intervention tailored to a child's individualised risk. An example of a caries risk assessment tool is given in the UCC guidance.[18]

The strategy of risk assessment for caries is used within the Scottish Childsmile programme – a targeted preventive programme that has been successful in reducing the prevalence of caries in children in Scotland.[19] Children who are considered to be at high risk within Scotland are given appropriate support by a dedicated team of dental health support workers, including support for behavioural modification (oral hygiene and feeding practices).[17]

In addition to the risk factors/indicators and protective factors as described in the UCC guidance,[18] there are additional risk factors identified in the literature, which contribute to the development of dental caries in children. There have been a number of reviews demonstrating both the evidence of a vertical transmission of *Streptococcus mutans* from mother to child, and the increased risk this can cause to a child's oral health.[20-22] Hooley demonstrated high caries rates within single-parent families, large family sizes, low education, minority ethnicity, immigrants, and poor living conditions.[23] The Scottish Intercollegiate Guidelines Network (SIGN) 138 document lists dietary habits, oral hygiene, microbiological risk factors, socio-demographic markers and previous caries experience as risk factors for dental caries in children.[24] In Kumar *et al.'s*

systematic review of parent-related factors on dental caries in the permanent dentition of six- to 12-year-old children, children with highly-educated, professional and high-income parents were at lower risk.[25] The relationship between higher caries rate and deprivation is well documented and apparent in recent epidemiological surveys.[1] Leong *et al.* outlined a number of risk factors that can increase a child's risk of dental caries.[21]

Oral health education

An oral health education programme should include a common risk approach and advice on common risks in oral and general health, including advice on diet, adequate intake of fresh fruit and vegetables, reduced sugar intake, smoking cessation, etc.

Due to the relationship between diet and caries,[26] influencing diet is an important part of any oral health prevention programme. The diet that children are exposed to in their early formative years influences the development of their taste and food preferences, highlighting the need to intervene early.[27] Obesity and dental caries are significantly associated with the consumption of foods high in sugar and are more pronounced in those of lower socioeconomic status. Soft drink consumption provides a significant source of added sugar to the diet and contributes around 5% to average total energy intake in men aged 19-24 years.[23,28] Obesity is one of the primary challenges to public health, so the need for immediate preventive action is warranted.[29] Hooley suggests that the level of health knowledge and skills possessed by parents will influence children's diet choice, as well as the level of physical activity within their lives, which in turn influences their weight.[23] Dentists can play an important role in supporting healthy feeding practices and improving long-term health in these children.[31]

The type of health education that takes place in dental practices traditionally involves giving oral hygiene and diet advice rather than using the newer motivational interviewing (MI) approach. There are a number of reviews that have investigated the effectiveness of traditional oral health education on reducing caries risk. Kay and Locker looked at the effectiveness of health education and its relationship to oral health improvement.[32] The authors could not conclude that oral health education was effective in reducing oral disease indices. There were only improvements in oral health in programmes which included fluoride. Harris *et al.* reviewed five studies looking at one-to-one dietary interventions within a dental setting. In this review, each study demonstrated a change in dietary behaviour.[33] A third, more recent paper, by Chaffee *et al.* noted that there was no difference in infant oral health when oral health education was provided by one group of healthcare workers who had received training and the other group of workers who had not received such education.[34] The majority of evidence suggests therefore that a simple oral health improvement programme consisting of education only is unlikely to be effective at reducing oral disease.

MI is an approach that is based on psychology and defined by Miller and Rollnick as a technique based on evidence, centred on the individual and individually tailored. MI involves setting goals and providing client-centred counselling in an attempt to elicit behavioural change.[35] For more information on this please refer to Curtin's useful paper.[36] Yevlahova (2009) performed a review of 32 studies and demonstrated that MI interventions were the most effective method for altering health behaviours in a clinical setting.[37] Ismail (2011) evaluated the effectiveness of a tailored educational intervention on oral health behaviours and new untreated carious lesions. One group received both MI and a DVD, with booster calls six months after the intervention, while the other group received just the DVD. After six months of follow-up, the parents who received MI and DVD were more likely to have changed oral health behaviour. There was, however, no change in new untreated carious lesions.[38] Six months is also a short time period to assess the development of untreated lesions. In contrast, Harrison performed a cluster randomised pragmatic effectiveness trial testing MI in Canadian indigenous children. When the children were examined at 30 months of age there was a substantial preventive effect for dental decay.[39]

Leong suggests that oral health promotion leaders need to identify, as part of the oral health promotion programme development, why some health behaviour programmes are adopted and others are not. Strategies often do not sufficiently consider the socio-cultural content or behavioural determinants that influence individual behaviour. Factors identified in his review that may add further complexity include the broader social determinants of health such as identified by Marmot.[40] These five key areas (determinants) are also defined by healthy people to include economic stability, education, social and community context, health and healthcare, and neighbourhood and built environment.[41]

Preventive care

The relationship between fluoride and caries reduction was first demonstrated by Dean in 1944.[44] Topical fluoride reduces dental disease by reducing demineralisation and encouraging remineralisation of the tooth surface.[45] Splieth has also demonstrated the considerable cost benefits of using fluoride in reducing the cost of operative dentistry over the life course.[46] Fluoride can be delivered through water fluoridation, toothpaste, gel, varnish and mouthwash. From the studies reviewed it is clear that there is consistent and strong evidence that the use of fluoride can significantly reduce dental caries. The best available evidence suggests that fluoridation of drinking water supplies reduces caries prevalence, both as measured by the proportion of children who are caries free and by the mean decayed, missing or filled teeth (DMFT) score.[47] The fluoridation of Irish water has had significant impact on the reduction of dental caries, with the most recent studies confirming lower caries rates in children living in fluoridated areas compared to children living in non-fluoridated areas.[48] In 2014, €3.9 million was spent on water fluoridation with an estimated cost of €1 per person per year.

In Ireland, fluoride toothpaste is readily available. The Cochrane review on fluoride toothpastes provides considerable evidence as to the effectiveness of toothpaste in caries reduction with a child who brushes with fluoride toothpaste having 23% less caries than a child who does not. The review, however, only found a reduction in caries for fluoride concentrations of 1,000ppm and above.[49] Widespread use of fluoride toothpaste is considered responsible for much of the significant decline in caries since the 1970s.[50]

There are a number of studies that demonstrate the efficacy of school toothbrushing programmes. A study by Jackson *et al.* (2005)[51] demonstrated an overall caries rate reduction of 10.9% compared to controls and a study by Pine *et al.*[52] (2007) showed a reduction in the proportion of children with dental decay with a preventive fraction of 0.44 in school-based toothbrushing programmes.

Ellwood[53] demonstrated that access to toothpaste and toothbrushes was also a factor in reducing caries prevalence. When toothpaste containing fluoride at levels of 440ppm or 1,450ppm was posted at three-month intervals to children from the age of one to five years, the children who received the toothpaste had significantly less caries.

Marinho *et al.*[54] (2015) recently updated their review on the effectiveness of fluoride gels and showed a 28% reduction in dental caries in permanent teeth, with fluoride gel used once a year to several times a year. There was only low-quality evidence to show a reduction in caries of 20% in the primary dentition. A Cochrane review on fluoride varnish[55] demonstrated a reduction in dental caries of 37% in primary teeth and 43% in permanent teeth compared to controls. These studies included children from as young as 12 months of age. The evidence is so strong that HSE guidance recommends fluoride varnish applications for children at high caries risk.[48]

There are other preventive agents that could be used at an infant oral health visit for high risk children; however, the evidence for their effectiveness is not strong. A recent Cochrane review, for example, could not demonstrate that chlorhexidine varnish or gel reduces tooth decay or reduces the bacteria that encourage tooth decay.[56] There is some early work looking at the efficacy of probiotics at reducing dental disease, but the evidence is conflicting[57,58] and more research is needed before probiotics could be considered as clinically relevant. Similarly, casein phosphopeptide-amorphous calcium phosphate (CPP-ACP) is also used as a caries-preventive agent, but a recent review by Raphael and Blinkhorn could not find evidence of its efficacy.[59]

There have been a number of clinical studies looking at the effect of xylitol on dental caries. These can be grouped into direct effects (where the xylitol is consumed directly by the person, and its effect on their oral health) and maternal consumption studies (the theory is that by consuming xylitol at a specific point in the child's life, just before the teeth erupt, that mothers can influence the type of bacteria they pass onto their child). Looking at the evidence for a direct effect of xylitol, Riley *et al*. showed that fluoride toothpaste containing xylitol provided additional benefit, but could not find any conclusive evidence to demonstrate that any other xylitol-containing products could prevent caries.[60] Looking at the maternal consumption of xylitol, Lin recently reviewed the evidence and showed a significant reduction in *mutans streptococci* (MS) transmission in mothers who consumed xylitol.[61] However, the evidence is of low to moderate quality.[62] A recent paper by Duane[63] reported no statistical difference in MS transmission between children whose mothers consumed xylitol and children whose mothers did not. However, it is possible that this was because the control group consisted of children who were enrolled in the Childsmile programme.

Effective oral health promotion

An effective oral health promotion programme for the younger child according to the Ottawa Charter would build healthy public policy, create supportive environments, strengthen community actions, develop personal skills of individuals and reorient health services.[64] An oral health promotion programme should be embedded across all health areas including child health teams, community programmes, and dental services. Sir Michael Marmot would argue that an oral health promotion programme is not only about education, but would also ensure that every child would have the ability to maximise their capability and have control over their lives.[40]

In England, parents are encouraged to take their child to the dentist when "their first milk teeth appear".[65] English dental teams are encouraged to follow a preventive programme known as: 'Delivering better oral health'.[66] The American Academy of Pediatric Dentistry gives similar advice, with parents being encouraged to bring their child to a dentist no later than after their first birthday.[67]

In Scotland, an oral health improvement programme, Childsmile, in line with the Marmot Review,[19,40] has adopted a population/proportionate universalism approach to improve the oral health of its population. The programme works both within community dental services targeting schools and nurseries, and all NHS dental practices. This programme ensures every child has access from six months of age to Childsmile, with different support offered to targeted groups of children along the life course. Within the community all children receive free toothbrushes at various stages before school, with all three and four year olds attending nursery school receiving toothbrushing as part of the nursery programme. In areas of higher risk of dental disease, children receive both fluoride varnish programmes and toothbrushing programmes in the first few years of primary school. As part of Childsmile, all parents are encouraged to register their baby with a dentist as soon as possible after birth, or by the time they are six months of age.[68] Health visitors encourage parents to bring their child to a dentist, and also provide toothbrushes and toothpaste at an early age. In a Childsmile practice the dental team all supports the oral health of a child, with specially trained extended duties dental nurses allowed from the General Dental Council to apply fluoride varnish, and provide oral health resources and oral health education to high-risk children. The government provides additional payments to Childsmile practices, including a payment for fluoride varnish to high-risk children. The Scottish oral health programme has reduced caries prevalence by half since its inception in 2007, enabling children to start to have comparable oral health status with their English peers.[69]

In Ireland, no nationwide early oral health programme has been established, and the guidelines developed in collaboration with the HSE and UCC have not been fully implemented.[70]

Screening

Screening, including dental screening, is an integral part of Government-funded health services in Ireland. The school-based dental screening service in Ireland enables some children to receive dental care for defects identified. It also enables eligible children to gain access to the orthodontic pathway. Within the UK, population screening in school-aged children from six to nine years of age was carried out until 2006. At that time, the UK national screening committee suggested there was no evidence that this was effective and the recommendation was that screening should stop.[42] The US Preventive Services Task Force (USPSTF) believes that the current evidence is insufficient to assess the potential benefits and harms of routine screening examinations for dental caries performed by primary care clinicians in children from birth to five years of age.[43]

Dental home, and the need for a team approach

According to the American Academy of Pediatric Dentistry, the dental home is the "ongoing relationship between the dentist and the patient, inclusive of all aspects of oral healthcare delivered in a comprehensive, continuously accessible, co-ordinated, and family-centred way". The dental home should be established at no later than 12 months of age and includes referral to dental specialists when appropriate.[71] Using the medical model the dental home concept could be used to improve families' access to dental care.[72]

The Dental Council in Ireland states that: "A dentist is best placed within the dental team to provide leadership, develop a vision of patient care, promote integrity, openness and fairness within the dental team and ensure a holistic approach to the patient's care".[73] Internationally, in recent decades there has

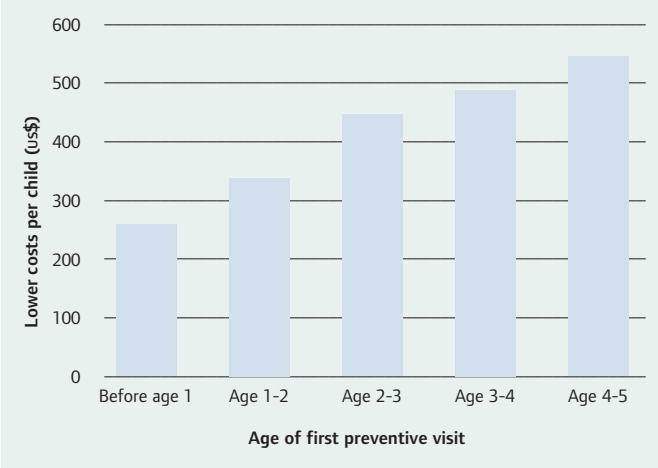


FIGURE 1: Lower costs for early dental intervention.[72]

been a growing use of the team approach, which can be advantageous in the delivery of oral healthcare. The General Dental Council in the UK for example has mandatory registration of dental nurses, dental technicians, dental therapists, dental hygienists, orthodontic therapists and clinical dental technicians. Within Ireland, it is this team approach that could be very helpful to provide cost-effective dental care for infants. Within the UK, for example, dental nurses with extended approved training can provide fluoride varnish as part of an oral health promotion programme.[74]

In other countries there is an even wider approach to delivering oral health promotion. In Ohio, USA, nurse practitioner teams were utilised to increase dental workforce capacity. The team trained registered dieticians and nursing students to provide oral health assessments and place fluoride varnish, with a resultant expansion of access to oral health and reduced dental caries.[75] Within Scotland, in Childsmile, an important part of the health visitor's role is to identify children at risk and support their entry into a child oral health pathway.[76]

The team approach is limited within Ireland due to the Dental Act, which restricts the scope of practice more narrowly than its UK equivalent. However, a guidance document 'Strategies to prevent caries' has recommended the need for public health nurses, practice nurses, GPs and other primary care workers who have regular contact with young children to have training in the identification of high caries risk preschool children and in completing an oral assessment as part of their child health record.[18] This has yet to be implemented nationally.

Cost-effectiveness

Savage undertook an analysis of the effects of early preventive dental visits on subsequent utilisation and costs of dental services among preschool-aged children.[77] The investigation studied a longitudinal cohort of children in North Carolina, coding their care as either preventive or restorative. The age of the first visit had a significantly positive effect on dental-related expenditures, with the average dental-related costs being less for children who received earlier preventive care. Results need to be interpreted carefully as there are significant biases in their selection. Parents who provide an optimal oral health environment in their homes may also, for example, be more likely to access earlier dental care. Within this study, children from racial minority groups had significantly more difficulty in finding access to dental care as did those in counties with fewer dentists per population. Lee[72] demonstrated the cost-effectiveness of early dental visits (**Figure 1**).

It was demonstrated that an average total cost of care over five years for a child in US dollars ($) rises from around $250 if a child is seen for prevention before age one, to around $550 if the child is not seen for prevention until aged four to five years.

Anopa recently calculated the costs of the Childsmile nursery toothbrushing programme in Scotland to be £1.8 million per year. The estimated costs of dental treatment in 2001/2002 were £8.8 million per year, which decreased to £4.7 million by 2009/2010.[78] The authors noted that these cost reductions were more than two and a half times the cost of the Childsmile nursery preventive programme implementation.

Discussion

From the papers reviewed there are distinct advantages in seeing children in the dental setting from a very young age. There is a high-quality body of evidence that children should have early oral health visits, not just for economic reasons but for optimal oral and systemic health. This review has demonstrated the evidence for the need to perform a risk assessment, the need for better tailored oral health education (using an MI type approach), with preventive care offered as an integrated oral health promotion plan, either on an individual or population basis.

In Ireland, the advice that is given in a preventive care booklet for babies and young children encourages parents to take their baby to the dentist when their first teeth start to appear.[79] However, in the HSE, such a service is at present limited to children with special healthcare needs.

From an Irish perspective, there would need to be changes made to a number of services to optimise oral healthcare for children. A primary care strategy would need development to allow a higher number of children to access care. For those children who are not accessing care, and this appears to be most preschool children, systems need to be developed to identify children at high risk of caries, with system changes to enable public health nurses, practice nurses, GPs and other primary care workers who have regular contact with young children to have both training in the identification of high caries risk preschool children and in completing an oral assessment as part of their child health record.[18]

In addition to a national system of identifying children at risk of caries, pathways need to be developed and funded so that children can receive high-quality education and prevention to improve their oral health. Publicly-funded, high-quality, evidence-based dental treatments should be available to children for whom preventive care is not entirely successful.

Conclusion

This review presents conclusive evidence that investing early in oral health yields lasting dividends. It is certainly possible, with appropriate early intervention, to maintain the oral health of the one-year-old child. And it is eminently possible to avoid the development of dental caries in the young child and the need for dental treatment under GA or otherwise. Introduction of the first dental visit by 12 months of age should be firmly on the health agenda here in Ireland.

References

1. **McMahon, A.D., Blair, Y., McCall, D.R., Macpherson, L.M.** The dental health of three-year-old children in Greater Glasgow, Scotland. *Br Dent J* 2010; 209 (4): E5.

2. **Public Health England.** Dental public health epidemiology programme. Oral health survey of three year old children 2013. A report on the prevalence and severity of dental decay. 2013. [Accessed May 10, 2016]. Available from: http://www.nwph.net/dentalhealth/reports/DPHEP%20for%20England%20OH%20Survey%203yr%202013%20Report.pdf.
3. **Gussy, M., Ashbolt, R., Carpenter, L., Virgo-Milton, M., Calache, H., Dashper, S., *et al.*** Natural history of dental caries in very young Australian children. *Int J Paediatr Dent* 2016; 26 (3): 173-183.
4. Health (Dental Services for Children) Regulations, 2000. Available at: http://www.irishstatutebook.ie/eli/2000/si/248/made/en/print). [Accessed May 10, 2016].
5. **PA Consulting Group/HSE.** Strategic Review of the Delivery and Management of HSE Dental Services. 2010.
6. **Irish Dental Association.** Dental Care in Ireland. [Accessed May 10, 2016]. Available from: http://www.dentist.ie/your-oral-health/dentistry-in-ireland.137.html.
7. **Health and Social Care Information Centre.** NHS Dental Statistics for England – 2013-2014. London, UK: 2014. [Accessed May 8, 2016]. Available from: http://www.hscic.gov.uk/catalogue/PUB13531/nhs-dent-stat-eng-2013-14-sec-quar-rep.pdf.
8. **Department of Health.** Reference costs 2012 to 2013. London: DH; 2013. [Accessed May 10, 2016]. Available from: https://www.gov.uk/government/publications/nhs-reference-costs-2012-to-2013.
9. **Bridgman, C.M., Ashby, D., Holloway, P.J.** An investigation of the effects on children of tooth extraction under general anaesthesia in general dental practice. *Br Dent J* 1999; 186 (5): 245-247.
10. **Department of Health.** A Conscious Decision: A Review of the Use of General Anaesthesia and Conscious Sedation in Primary Dental Care. London, UK, 2000.
11. **Robertson, S., Ní Chaollaí, A., Dyer, T.A.** What do we really know about UK paediatric dental general anaesthesia services? *Br Dent J* 2012; 212 (4): 165-167.
12. **Brennan, C.** Varadkar dismisses claims 10,000 Irish children have teeth extracted in hospital each year [cited May 10, 2016]. Available from: http://www.thejournal.ie/children-teeth-extractions-2389382-Oct2015/.
13. **Healthcare Pricing Officer.** Activity in Acute Public Hospitals in Ireland. [Accessed May 10, 2016]. Available from: http://www.hpo.ie/latest_hipe_nprs_reports/HIPE_2014/HIPE_Report_2014.pdf.
14. **Drummond, B.K., Meldrum, A.M., Boyd, D.** Influence of dental care on children's oral health and well-being. *Br Dent J* 2013; 214 (11): E27.
15. **O'Keefe, E.** Early childhood caries. *Evid Based Dent* 2013; 14 (2): 40-41.
16. **Thomson, W.M., Poulton, R., Milne, B.J., Caspi, A., Broughton, J.R., Ayers, K.M.** Socioeconomic inequalities in oral health in childhood and adulthood in a birth cohort. *Community Dent Oral Epidemiol* 2004; 32 (5): 345-353.
17. **Girish Babu, K.L., Doddamani, G.M.** Dental home: Patient centered dentistry. *J Int Soc Prev Community Dent* 2012; 2 (1): 8-12.
18. **University College Cork.** Oral Health Services Research Centre. Strategies to prevent dental caries. [Accessed May 10, 2016]. Available from: http://www.dentalhealth.ie/download/pdf/shortguidelines.pdf.
19. **Macpherson, L.M., Ball, G.E., Brewster, L., Duane, B., Hodges, C.L., Wright, W., *et al.*** Childsmile: the national child oral health improvement programme in Scotland. Part 1: Establishment and development. *Br Dent J* 2010; 209 (2): 73-78.
20. **Parisotto, T.M., Steiner-Oliveira, C., Silva, C.M., Rodrigues, L.K., Nobre-dos-Santos, M.** Early childhood caries and mutans streptococci: a systematic review. *Oral Health Prev Dent* 2010; 8 (1): 59-70.
21. **Leong, P.M., Gussy, M.G., Barrow, S.Y., de Silva-Sanigorski, A., Waters, E.** A systematic review of risk factors during first year of life for early childhood caries. *Int J Paediatr Dent* 2013; 23 (4): 235-250.
22. **da Silva Bastos, Vde.A., Freitas-Fernandes, L.B., Fidalgo, T.K., Martins, C., Mattos, C.T., de Souza, I.P., *et al.*** Mother-to-child transmission of Streptococcus mutans: a systematic review and meta-analysis. *J Dent* 2015; 43 (2): 181-191.
23. **Hooley, M., Skouteris, H., Boganin, C., Satur, J., Kilpatrick, N**. Parental influence and the development of dental caries in children aged 0-6 years: a systematic review of the literature. *J Dent* 2012; 40 (11): 873-885.
24. **SIGN 138.** Dental interventions to prevent caries in children. [Accessed November 22, 2014]. Available from: http://www.sign.ac.uk/pdf/QRG138.pdf.
25. **Kumar, S., Tadakamadla, J., Kroon, J., Johnson, N.W.** Impact of parent-related factors on dental caries in the permanent dentition of 6-12-year-old children: A systematic review. *J Dent* 2016; 46: 1-11.
26. **Palmer, C.A., Kent, R., Loo, C.Y., Hughes, C.V., Stutius, E., Pradhan, N., *et al.*** Diet and caries-associated bacteria in severe early childhood caries. *J Dent Res* 2010; 89 (11): 1224-1229.
27. **Birch, L.L.** Development of food preferences. *Annu Rev Nutr* 1999; 19: 41-62.
28. **Henderson, L., Gregory, J., Irving, K., Swan, G.** The national diet and nutrition survey: adults aged 19-64 years, volume 2: energy, protein, carbohydrate, fat and alcohol intake. London: TSO, 2003.
29. **Hayden, C., Bowler, J.O., Chambers, S., Freeman, R., Humphris, G., Richards, D., *et al.*** Obesity and dental caries in children: a systematic review and meta-analysis. *Community Dent Oral Epidemiol* 2013; 41 (4): 289-308.
30. **Skouteris, H., McCabe, M., Swinburn, B., Newgreen, V., Sacher, P., Chadwick, P.** Parental influence and obesity prevention in pre-schoolers: a systematic review of interventions. *Obes Rev* 2011; 12 (5): 315-328.
31. **NHS Health Scotland.** Oral Health and Nutrition Guidance for Professionals (2012). [Accessed January 28, 2015]. Available from: http://www.healthscotland.com/documents/5885.aspx.
32. **Kay, E.J., Locker, D.** Is dental health education effective? A systematic review of current evidence. *Community Dent Oral Epidemiol* 1996; 24 (4): 231-25.
33. **Harris, R., Gamboa, A., Dailey, Y., Ashcroft, A.** One-to-one dietary interventions undertaken in a dental setting to change dietary behaviour. *Cochrane Database Syst Rev* 2012 (3): CD006540.
34. **Chaffee, B.W., Feldens, C.A., Vítolo, M.R.** Cluster-randomized trial of infant nutrition training for caries prevention. *J Dent Res* 2013; 92 (7 Suppl.): 29S-36S.
35. **Miller, R., Rollnick, S.** *Motivational Interviewing: Preparing People for Change.* New York: Guildford Press, 2002.
36. **Curtin, S., Trace, A., Ziada, H., Crowley, E.** Motivational interviewing for dental clinicians. *J Ir Dent Assoc* 2014; 60 (1): 35-37.
37. **Yevlahova, D., Satur, J.** Models for individual oral health promotion and their effectiveness: a systematic review. *Aust Dent J* 2009; 54 (3): 190-197.
38. **Ismail, A.I., Ondersma, S., Jedele, J.M., Little, R.J., Lepkowski, J.M.** Evaluation of a brief tailored motivational intervention to prevent early childhood caries. *Community Dent Oral Epidemiol* 2011; 39 (5): 433-448.
39. **Harrison, R.L., Veronneau, J., Leroux, B.** Effectiveness of maternal counseling in reducing caries in Cree children. *J Dent Res* 2012; 91 (11): 1032-1037.
40. **Marmot, M.** UCL Insitute of health Equity: Fairer lives Healthy lives. *The Marmot Review.* [Accessed May 10, 2016]. Available from: http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review.
41. **Office of Disease Prevention and Health Promotion.** Social determinants of health. Available from: www.healthypeople.gov/2020/topics-objectives/topic/ social-determinants-of-health.

42. **UK National Screening Committee.** [Accessed May 10, 2016]. Available from: http://legacy.screening.nhs.uk/policydb_download.php?doc=422.
43. **Moyer, V.A., US Preventive Services Task Force.** Prevention of dental caries in children from birth through age 5 years: US Preventive Services Task Force recommendation statement. *Pediatrics* 2014; 133 (6): 1102-1111.
44. **Dean, H.T.** Post-war implications of fluorine and dental health: epidemiological aspects. *Am J Public Health Nations Health* 1944; 34 (2): 133-143.
45. **Clark, M.B., Slayton, R.L., Section on Oral Health.** Fluoride use in caries prevention in the primary care setting. *Pediatrics* 2014; 134 (3): 626-633.
46. **Splieth, C.H., Flessa, S.** Modelling lifelong costs of caries with and without fluoride use. *Eur J Oral Sci* 2008; 116 (2): 164-169.
47. **Treasure, E.T., Chestnutt, I.G., Whiting, P., McDonagh, M., Wilson, P., Kleijnen, J.** The York review—a systematic review of public water fluoridation: a commentary. *Br Dent J* 2002; 192 (9): 495-497.
48. **University College Cork.** Topical Fluorides. Evidence-based guidance on the use of topical fluorides for caries prevention in children and adolescents in Ireland.
49. **Walsh, T., Worthington, H.V., Glenny, A.M., Appelbe, P., Marinho, V.C., Shi, X.** Fluoride toothpastes of different concentrations for preventing dental caries in children and adolescents. *Cochrane Database Syst Rev* 2010 (1): CD007868.
50. **Moore, W.J., Corbett, E.** The distribution of dental caries in ancient British populations. II. Iron Age, Romano-British and Mediaeval periods. *Caries Res* 1973; 7 (2): 139-153.
51. **Jackson, R.J., Newman, H.N., Smart, G.J., Stokes, E., Hogan, J.I., Brown, C., *et al.*** The effects of a supervised toothbrushing programme on the caries increment of primary school children, initially aged 5-6 years. *Caries Res* 2005; 39 (2): 108-115.
52. **Pine, C.M., Curnow, M.M., Burnside, G., Nicholson, J.A., Roberts, A.J.** Caries prevalence four years after the end of a randomised controlled trial. *Caries Res* 2007; 41 (6): 431-436.
53. **Ellwood, R.P., Davies, G.M., Worthington, H.V., Blinkhorn, A.S., Taylor, G.O., Davies, R.M.** Relationship between area deprivation and the anticaries benefit of an oral health programme providing free fluoride toothpaste to young children. *Community Dent Oral Epidemiol* 2004; 32 (3): 159-165.
54. **Marinho, V.C., Worthington, H.V., Walsh, T., Chong, L.Y.** Fluoride gels for preventing dental caries in children and adolescents. *Cochrane Database Syst Rev* 2015 (6): CD002280.
55. **Marinho, V.C., Worthington, H.V., Walsh, T., Clarkson, J.E.** Fluoride varnishes for preventing dental caries in children and adolescents. *Cochrane Database Syst Rev* 2013 (7): CD002279.
56. **Walsh, T., Oliveira-Neto, J.M., Moore, D.** Chlorhexidine treatment for the prevention of dental caries in children and adolescents. *Cochrane Database Syst Rev* 2015 (4): CD008457.
57. **Stensson, M., Koch, G., Coric, S., Abrahamsson, T.R., Jenmalm, M.C., Birkhed, D., *et al.*** Oral administration of Lactobacillus reuteri during the first year of life reduces caries prevalence in the primary dentition at 9 years of age. *Caries Res* 2014; 48 (2): 111-117.
58. **Taipale, T., Pienihäkkinen, K., Alanen, P., Jokela, J., Söderling, E.** Administration of Bifidobacterium animalis subsp. lactis BB-12 in early childhood: a post-trial effect on caries occurrence at four years of age. *Caries Res* 2013; 47 (5): 364-372.
59. **Raphael, S., Blinkhorn, A.** Is there a place for Tooth Mousse in the prevention and treatment of early dental caries? A systematic review. *BMC Oral Health* 2015; 15 (1): 113.
60. **Riley, P., Moore, D., Ahmed, F., Sharif, M.O., Worthington, H.V.** Xylitol-containing products for preventing dental caries in children and adults. *Cochrane Database Syst Rev* 2015(3): CD010743.
61. **Lin, H.K., Fang, C.E., Huang, M.S., Cheng, H.C., Huang, T.W., Chang, H.T., *et al.*** Effect of maternal use of chewing gums containing xylitol on transmission of mutans streptococci in children: a meta-analysis of randomized controlled trials. *Int J Paediatr Dent* 2016; 26 (1): 35-44.
62. **Richards, D., Duane, B., Sherriff, A.** Maternal consumption of xylitol for preventing dental decay in children. *Cochrane Database Syst Rev* 2012: CD010202.
63. **Duane, B.** Improving oral healthcare in Scotland with special reference to sustainability and caries prevention. [Doctoral thesis] 2015.
64. **World Health Organisation.** Ottawa Charter for Health Promotion (1986). [Accessed November 26, 2014]. Available from: http://www.who.int/health promotion/conferences/previous/ottawa/en/.
65. **NHS Choices.** Baby teeth. [Accessed May 10, 2016]. Available from: www.nhs.uk/livewell/dentalhealth/pages/careofkidsteeth.aspx.
66. **Public Health England.** Delivering better oral health: an evidence-based toolkit for prevention. [Accessed January 27, 2015]. Available from: https://www.gov.uk/government/publications/delivering-better-oral-health-an-evidence-based-toolkit-for-prevention.
67. **American Association of Pediatric Dentistry.** Frequently Asked Questions. [Accessed May 10, 2016]. Available from: www.aapd.org/resources/frequently_asked_questions/#311.
68. **NHS Scotland.** Childsmile at the dentist. [Accessed May 10, 2016]. Available from: www.child-smile.org.uk/parents-and-carers/Childsmile-at-the-dentist.aspx.
69. **Deery, C., Owen, J., Welbury, R., Chadwick, B.** Dental caries in children and the level of repeat general anaesthetics for dental extractions. A national disgrace. *Dent Update* 2015; 42 (4): 305-306.
70. **University College Cork.** Irish Oral Health Services Guideline Initiative. [Accessed September 6, 2016]. Available from: https://www.ucc.ie/en/ohsrc/guidelines/.
71. **American Association of Pediatric Dentistry.** Definition of Dental Home. [Accessed May 10, 2016]. Available from: http://www.aapd.org/media/policies_guidelines/d_dentalhome.pdf.
72. **Lee, J.Y., Bouwens, T.J., Savage, M.F., Vann, W.F.** Examining the cost-effectiveness of early dental visits. *Pediatr Dent* 2006; 28 (2): 102-105; discussion 92-98.
73. **Dental Council Ireland.** Scope of Practice. [Accessed October 6, 2016]. Available from: http://www.dentalcouncil.ie/files/Scope%20of%20Practice%20-%20Guidance%20(approved)%20-%2020141203.pdf.
74. **Gnich, W., Deas, L., Mackenzie, S., Burns, J., Conway, D.I.** Extending dental nurses' duties: a national survey investigating skill-mix in Scotland's child oral health improvement programme (Childsmile). *BMC Oral Health* 2014; 14: 137.
75. **Biordi, D.L., Heitzer, M., Mundy, E., DiMarco, M., Thacker, S., Taylor, E., *et al.*** Improving access and provision of preventive oral health care for very young, poor, and low-income children through a new interdisciplinary partnership. *Am J Public Health* 2015; 105 (Suppl. 2): e23-e29.
76. **Scottish Government.** Universal Health Visiting Pathway in Scotland. [Accessed May 11, 2016]. Available at: http://www.gov.scot/Resource/0048/00487884.pdf.
77. **Savage, M.F., Lee, J.Y., Kotch, J.B., Vann, W.F.** Early preventive dental visits: effects on subsequent utilization and costs. *Pediatrics* 2004; 114 (4): e418-e423.
78. **Anopa, Y., McMahon, A.D., Conway, D.I., Ball, G.E., McIntosh, E., Macpherson, L.M.** Improving Child Oral Health: Cost Analysis of a National Nursery Toothbrushing Programme. *PLoS One.* 2015; 10 (8): e0136211.
79. **Health Service Executive.** Dental Care for Babies and Children. [Accessed May 10, 2016]. Available at: https://www.hse.ie/eng/health/az/D/Dental-care-for-babies-and-children/.

A randomised controlled clinical trial comparing small buccal dehiscence defects around dental implants treated with guided bone regeneration or left for spontaneous healing

Jung, R.E., Herzog, M., Wolleb, K., Ramel, C.F., Thoma, D.S., Hämmerle, C.H.

Purpose: The aim of the present randomised controlled clinical study was to test whether small bony dehiscence defects (≤5mm) left to heal spontaneously result in the same clinical and radiological outcome as defects treated with guided bone regeneration (GBR).

Materials and methods: A total of 22 patients who received at least one implant with a small bony dehiscence defect were enrolled in the study. If the defect height was ≤5mm, the site was randomly assigned to either the spontaneous healing (SH) group or the GBR group. In the SH group, the defect was left without any treatment. In the GBR group, the defects around the implants were grafted with deproteinised bovine bone mineral (DBBM) and covered with a native collagen membrane. Clinical and radiographic measurements were performed six months after implant placement, with a re-entry surgery at the time of crown insertion and the subsequent follow-up appointments at three, six, 12 and 18 months after loading. For statistical analyses, the mixed linear model was applied for the clinical and radiographic measurements observed around the implants. Simple comparisons of the location of the measurements in the two independent groups were performed with the Mann-Whitney U-test. In addition, the mixed model assumptions were checked.

Results: The implant and crown survival rate 18 months after loading was 100%, revealing no serious biologic or prosthetic complication. The mean changes of the buccal vertical bone height between implant placement and re-entry surgery after six months revealed a small bone loss of -0.17 ± 1.79mm (minimum -4mm and maximum 2.5mm) for the SH group and a bone gain of 1.79 ± 2.24mm (minimum of -2.5mm and maximum of 5mm) for the GBR group, respectively (P = 0.017). Radiographic measurements demonstrated a slight bone loss of -0.39 ± 0.49mm for the SH group and a stable bone level of 0.02 ± 0.48mm for the GBR group after 18 months. All peri-implant soft tissue parameters revealed healthy tissues with no difference between the two groups.

Conclusion: Small bony dehiscence defects left for SH demonstrated high implant survival rates with healthy and stable soft tissues. However, they revealed more vertical bone loss at the buccal aspect six months after implant insertion and also more marginal bone loss between crown insertion and 18 months after loading compared to sites treated with GBR.

Clin Oral Implants Res 2017; 28 (3): 348-354.

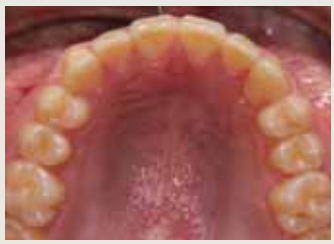
Periodontitis and incident type 2 diabetes: a prospective cohort study

Winning, L., Patterson, C.C., Neville, C.E., Kee, F., Linden, G.J.

Objectives: The aim of this study was to investigate periodontitis as a risk factor for incident type 2 diabetes mellitus (T2DM) in a group of men aged 58-72 years.

Methods: One thousand three hundred and thirty-one dentate, diabetes-free men in Northern Ireland underwent a detailed periodontal examination during 2001-2003. Follow-up was by biannual questionnaire and for those reporting diabetes their general medical practitioner was contacted to validate diabetes






Quiz answers

Questions on page 62

1. i) Observe for the presence of buccal or palatal bulge;
   ii) palpate the buccal sulcus and palatal surface in the canine region to locate canine bulge; and,
   iii) inspect the inclination of the maxillary lateral incisors. The canine can place pressure on the lateral incisor root, which can result in tipping of crowns. If the crown is inclined buccally, the canine is likely to be buccal. If the crown is tipped palatally, the canine is likely to be palatal.
2. Parallax technique: the apparent movement of an object as a result of the actual movement of the radiograph tube. If the object moves in the same direction as the radiograph tube, it is considered lingual (palatal). If the object moves in the opposite direction to the radiograph tube, it is considered buccal. This is the same lingual, opposite buccal, or SLOB, rule.
3. Parallax can be performed in a vertical or horizontal dimension. To perform a vertical parallax a maxillary anterior occlusal (65°) and an OPG (7°) are used. The radiographic tube moves down vertically. Horizontal parallax can be performed using two periapicals with a 30° shift between them, in the horizontal plane. It can also be accomplished by comparing a periapical (taken at 65°) and a maxillary anterior occlusal.
4. When comparing their position in the maxillary anterior occlusal radiograph and in the OPG, both canines have moved coronally relative to the maxillary lateral incisor. The radiographic tube has also moved coronally (down).
   When applying the SLOB rule we ascertain that both canines are ectopic in a palatal position.

The canines were surgically exposed and aligned as part of fixed appliance therapy.

type, treatment and diagnosis date. Cox's proportional hazard models were used to estimate the effect of periodontitis on incident diabetes. Multivariable analysis included adjustment for various known confounders.

Results: The mean age of the men was 63.7 (SD 3.0) years. There were 80 cases (6.0%) of incident T2DM. Follow-up was for a median period of 7.8 years (IQR 6.7-8.3). After adjusting for confounding variables, the hazard ratio (HR) for incident T2DM in men with moderate/severe periodontitis versus those with no/mild periodontitis was 1.69 (95% CI 1.06-2.69), p = 0.03.

Conclusion: There was evidence in this homogenous group of dentate men, that those with moderate to severe periodontitis had a significantly increased risk of incident T2DM.

J Clin Periodontol 2017; 44 (3): 266-274.

Quality of life changes in children following emergency dental extractions under general anaesthesia

Wong, S., Anthonappa, R.P., Ekambaram, M., McGrath, C., King, N.M., Winters, J.C.

Objectives: To assess the changes in the oral health-related quality of life (OHRQoL) of 221 preschool children who presented to the emergency department with the consequences of untreated dental caries requiring dental extractions under general anaesthesia (DEGA).

Methods: Two hundred and twenty-one healthy preschool children, who required emergency DEGA, were recruited over a period of 12 months. Each child's parent or caregiver completed the early childhood oral health impact scale (ECOHIS) questionnaire, both prior to the DEGA and at the two-week post-treatment visit. Data were analysed using repeated ANOVA with adjustments for multiple comparisons using the Bonferroni tests, with the significance level set at 5%.

Results: In total, 126 participants, with a mean age of 4.02 and a mean decayed, missing or filled teeth (DMFT) score of 8.27 (SD = 4.13), completed the two-week post-treatment questionnaires. The overall ECOHIS, CIS, and FIS scores decreased significantly ($P < 0.001$) after emergency DEGA, demonstrating large effect sizes. The biggest decrease in prevalence after emergency DEGA was observed for the items of pain in teeth, trouble sleeping, being irritated or frustrated, difficulty drinking food, and parents being upset.

Conclusions: The OHRQoL of preschool children who presented to the emergency department with the consequences of untreated dental caries was significantly improved following emergency DEGA.

Int J Paediatr Dent 2017; 27 (2): 80-86.

A qualitative investigation into patients' perspectives on edentulousness

Meaney, S., Connell, B.O., Elfadil, S., Allen, F.

Objectives: This study explored the experiences of edentulous patients for their perceptions of tooth loss and patient attitudes to treatment options for rehabilitation of the edentate state.

Methods: Purposive sampling was used to recruit edentate patients with varying denture-wearing experience from two dental hospitals in the Republic of Ireland. Sixteen edentate patients, aged 59 to 83 years, of whom 12 were women and four men, were interviewed. Interviews were transcribed, and thematic analysis was undertaken.

Results: Findings from this study reflect previous studies, whereby some patients indicated dissatisfaction with the functionality of their dentures. The majority of participants had no regret regarding the loss of their teeth, and despite dissatisfaction with dentures, they would not consider other forms of treatment. Finance was not considered an issue in determining whether to seek out treatment by these participants. These participants expressed a reluctance to get new dentures in case they were more problematic.

Conclusion: This study illustrates that some elder edentate patients were dissatisfied with the functionality of their dentures and raised concerns about the quality of dentures which may be provided to them by dentists. These participants identified clinical dental technicians as a preferred point of contact for their care. Consideration should be given to new oral healthcare delivery models which are accessible and acceptable to future elders.

Gerodontology 2017; 34 (1): 79-85.

CLASSIFIEDS

SITUATIONS WANTED

Gentle, kind and very caring general dentist is looking for an opportunity. Special interest and strong experience in paediatric dentistry. Dublin area preferred. Email happytoothdublin@gmail.com.

Very experienced dentist available to work as a locum/associate in Kerry/Limerick/Cork. Based in Kerry. Email kerrydentist21@gmail.com.

Enthusiastic, friendly and hardworking dentist (certified implantologist) based in Dublin, looking for a part-time position in Dublin, long experience in prosthetic and surgical treatments. Contact wisdomtooth111@gmail.com.

Motivated female dentist with five years' experience available for full/part-time work in the Cork/Kerry area. Available from April onwards. Email corklocumdentist@gmail.com.

SITUATIONS VACANT

Dentists

Strabane – Fantastic opportunity for a general dentist to join our well-established practice in Strabane. Position offers an existing list and modern working environment three to five days per week. Candidates must be General Dental Council (GDC) registered. To apply email tina.thomas@oasis dentalcare.com.

Shannon: experienced general practitioner required for newly-built dental clinic in Skycourt Shopping Centre. Excellent staff and equipment. OPG, digital radiographs, etc. Must be hardworking and flexible with good level of CPD. Email shannon@alexandradental.ie for more information, or call 061-315 228.

Work in Newfoundland, Canada. An opportunity to practise in a beautiful, clean province that is a short plane ride from home. We have a Trinity College graduate who has had a very successful career. Contact Necoll at officemanager@nf.aibn.com.

Advertisements will only be accepted in writing via fax (01-295 0092), letter or email (fionnuala@irishdentalassoc.ie). Non-members must pre-pay for advertisements, which must arrive no later than **May 10, 2017**. 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	€80	€160
26 to 40 words	€95	€190

The maximum number of words for classified ads is 40.
If the advert exceeds 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
- Equipment for Sale/To Let

Classified adverts must not be of a commercial nature. Commercial adverts can be arranged by contacting Paul O'Grady at Think Media.

Part-time dentist required, in our longstanding, small, general dental practice in north Dublin. The days are Wednesday, Thursday and Friday. Please email th.andrianos@hotmail.com with CV.

Co. Galway. Full-time dentist position available. Monday to Friday with the odd Saturday. 65/35 private/GMS. Modern practice – digital. Email seaportdental@hotmail.com.

Part-time dentist required for family practice in Glasnevin. Mainly private. Initially one day going to two days. Possibility of becoming a partner after one year. Email orthosull@gmail.com.

Full-time dentist required for busy city centre surgery to cover maternity leave in our mixed practice with a view to a permanent position in our fully private digital practice. Email: smile@rdent.ie.

Dentist required for new practice in Wexford town – state-of-the-art facilities/full back-up – CV to southeastdental46@gmail.com please.

Deansgrange Dental Clinic has a fantastic opportunity for an experienced general dentist in a state-of-the-art facility to replace a colleague. Private practice with ortho, implant, hygiene and general dentistry. CBCT, 3D printer, Cerec, etc. Applications to careers@deansgrangedental.ie.

Dentist for Co. Clare practices, established 20 years, very modern clinics, digital OPG/xrays, computerised. Must be willing to travel between Ennis and Kilrush (main centre is Kilrush). Large GMS/private list, would suit part-time or full-time. Email niallmcrty@gmail.com.

Experienced dentist, well-established dental practice. Excellent location, full patient list. Highly experienced dental nurses in place. Busy practice located in south Dublin city centre. Email julie@omalleyhr.ie.

Dentist wanted for Tuesday afternoon/evening slot 2.00pm-8.00pm. Busy private practice in southwest Dublin. Room to increase hours if we find the right candidate. Modern practice with high clinical standards. Email mayberrydentalcare@gmail.com.

Experienced, enthusiastic dentist needed in busy, computerised, technologically advanced Co. Galway practice with excellent support team. Email CV and letter of application to fiacloirconagaillimhe@gmail.com.

Dublin – Exciting opportunity for an enthusiastic, experienced general dentist to join our modern, well-equipped, well-established Smiles Dental practice in Waterloo Road, Dublin 4. Position offers existing patient list and five days per week. Candidates must be IDC registered. Email joanne.bonfield@smiles.co.uk.

Dentist required for busy 60:40 (private:GMA) practice in Kilkenny city. Full-time, ideally immediate start. Email dentistkilkenny@gmail.com.

Dentist wanted for two to three days per week in growing surgery located in Dunboyne. Immediate start. Please contact pklinowski@gmail.com with a CV.

Dublin – Exciting opportunity for an enthusiastic general dentist to join our modern, well-equipped, well-established Smiles Dental practice in Tallaght. Position offers five days per week. Candidates must be experienced and IDC registered. Financial joining incentive available. Email joanne.bonfield@smiles.co.uk.

Co. Wicklow – Smiles Dental is looking for a passionate dentist to join our state-of-the-art practice in Bray. Established practice offers modern facilities and is fully computerised. Must have experience and be IDC registered. Financial joining incentive available. Email joanne.bonfield@smiles.co.uk.

Dentist required to take over list of retiring principal in a very busy west Cork practice. Email with CV to sgdentistlongford@gmail.com.

Enthusiastic dentist required for newly established practice Cavan town. Immediate start, Private/GMS/SW. Computerised, digital, state-of-the-art

technology. Excellent support staff including hygienist, periodontist, orthodontics. Experience and IDC registration essential. Submit CV to info@mcgarritydental.ie.

Dentist/Managing Clinical Director needed in rural northwestern Canada. Must be proficient in molar endodontics, surgical extractions, complete/partial dentures, crowns. Graduates from 2012 eligible to apply. Annual basic salary: €80,000 with benefits. Work/immigrant visa sponsorship available. Email northerndentalcentre@gmail.com.

Exciting opportunity for an enthusiastic general dentist to join our modern, well-equipped and well-established practice in north Dublin. Part-time position for three days a week. Wednesdays, Thursdays and some Saturdays till 2.00pm. Candidates must be experienced and IDC registered. CVs to Michelle.Teeling@smartdentalcare.co.uk.

Dublin – weekend work – exciting opportunity for an enthusiastic general dentist to join our modern, well-equipped, well-established Smiles Dental practices in Dublin. Position offers Saturdays and/or Sundays. Candidates must be IDC registered. Email joanne.bonfield@smiles.co.uk.

Dún Laoghaire – Smiles Dental has an exciting opportunity for a passionate dentist to join our brand new state-of-the-art practice in Dun Laoghaire. Must be experienced and IDC registered. Guaranteed earning for the first few months. Email joanne.bonfield@smiles.co.uk.

Clondalkin Dental is looking for a passionate dentist with implant and oral surgery experience to join our brand new practice with modern facilities, fully computerised with digital x-rays and CT scanner. Must have experience and be IDC registered. Email anne@clondalkindental.ie.

Associates

Experienced associate with a view required to replace departing colleague of eight years in busy, long-established, multi-surgery practices in northwest (short commute from Sligo). Great team, very high turnover. Fully developed book. CVs to northwestdentaljob1@gmail.com.

A growing dental practice based in Dublin looking for an experienced, motivated and passionate dentist to join our team. IDC a must. Preferable experience working within Ireland an advantage. Email eslattery@onsiteservice.com.

Dental associate position available one day a week in the south-east. Brand new a-dec chair. Digital OPG and intra-oral. Qualified staff. Hygienists. Visiting specialist. Mixed practice. Very relaxed and friendly. Please email adecdental365@gmail.com.

North west Ireland. Dynamic, flexible, self-motivated and experienced associate required. Immediate start. Full week. Busy, well-equipped practice. Knowledgeable and supportive staff. Excellent figures with good earning potential. Email with CV and personal profile to rachelmccafferty71@gmail.com.

Full-time dental associate required for a practice in the greater Dublin area. Full-time position in a modern, computerised practice with excellent support staff. Full book and great earning potential. Email laura.cowman@dentalcareireland.ie.

Dental associate position available in south Co. Meath. Modern, computerised practices with digital x-rays. Full-time or part-time position. Email with CV and personal profile to meathdentist@gmail.com.

Experienced associate with a long-term view required to replace departing colleague of three years in busy, computerised, long-established multisurgery practice in Ennis. Great team, great support. Initially part-time. CVs to gbrowne.ennis@gmail.com.

Experienced, enthusiastic associate with great people skills required in busy, progressive practice in Gorey. Long-term view required. Great team, great support. OPG, hygienist, computerised. Four days a week to start. CVs to info@ocdental.ie.

Experienced and enthusiastic dental associate required in busy multidisciplinary Donegal practice. Digital radiographs, OPG equipment, Kodak CBCT scanner, CEREC equipment. High commission rate. Apply to josephbonner@me.com.

Clonmel, Co. Tipperary. Experienced associate required for maternity leave. Long-established, busy practice. Currently two days per week, potential to increase. Modern computerised surgeries, digital radiographs, hygienists, excellent staff. Good earning potential. Must be hard working, enthusiastic and friendly. April start. Email locumclonmel@gmail.com.

Part-time associate required for fully computerised, modern and predominantly private practice in Dublin 3. Experienced nurses and dental hygienist available. Enthusiastic candidate required. Email pauleggles@gmail.com.

Motivated and experienced associate to take over full book in busy, long-established, multi-surgery practice. High remuneration. Fantastic opportunity. CVs to westmeathdentist@gmail.com.

Enthusiastic associate needed part-time for state-of-the-art practice in north Wicklow. Must be prepared to work at least one late evening and Saturday mornings. Minimum three years' post-qualification experience and IDC registered. Email CV to dentaljobnorthwicklow@gmail.com.

Kilkenny City. Part/full-time (four to five days, flexible) associate – modern computerised practice located in a primary care centre. OPG, hygienist, oral surgeon. Email ayrfielddentalpractice@gmail.com.

Experienced associate required for a very busy north Cork practice. Friendly work environment. Position starts in July. Please send CV to northcorkdentist@gmail.com.

Dental associate required in busy modern SW Dublin practice (just off M50) to assist existing dental associate. Starting end April part-time and for three full weeks in July-August. Please contact Wendy on wmunroe@eircom.net.

Experienced and enthusiastic associate required for busy, well-equipped and computerised practice in Westmeath. 30 minutes from M50. Excellent team support and remuneration. Private/GMS. General practice experience. IDC registered essential. Email info@kinnegaddental.ie.

Dental associate required for practice situated on Co. Wicklow/Co. Carlow border. Modern practice with digital x-rays, computerised records and rotary endodontics. Part-time position of two days per week (days flexible) and some Saturdays per month (Saturdays all private patients). Must have IDC number. Queries to Ldental99@yahoo.ie.

Associate dentist (experienced) to work two days per week or full-time if preferred with view to purchase. Letterkenny, Co. Donegal. Past experience of working in Ireland or UK essential. CV to adrianmillen@tiscali.co.uk.

Locums

Dentist required as locum from March 6 to April 3. Mondays, Tuesdays, Fridays. For more information, email alex@whitesmiledental.ie, or Tel: 087-050 6633.

Locum dentist required in Limerick practice from June 2017 to January 2018 for maternity cover. Please email CV to cornmarketdental@gmail.com.

Locum dentist to cover principal on maternity leave, mid-May. Private practice. Digital radiographs, OPG, CBCT, Exact software. Possibility of continued hours in the future after maternity cover. Experience mandatory, good

attitude and eagerness to learn. Email drodonovan@alexandradental.ie.

Specialist/limited practice

Canada – St. John's, Newfoundland. Paediatric dentist needed NOW. Looking for a dynamic, energetic and exceptionally motivated paediatric dentist to join LOL dental, paediatric dentistry and orthodontics. Part-time or full-time. Renumeration: $1,200 per day guaranteed (Canadian funds) or 35% of net collection. Contact drlynanaseri@gmail.com.

Endodontist required part-time in general/specialist practice in southeast – 50 minutes by M50 – prosthodontist, orthodontist, oral surgeon/implants on site – days/hours to suit – full back-up assured. Please contact southeastdental46@gmail.com in confidence.

Specialist orthodontist to join a thriving, modern, busy, primary care centre. Existing orthodontic list, increasing and expanding rapidly. Immediate start, west Dublin. Great support staff. Excellent remuneration. Flexible hours. Reply to positionspecialist@gmail.com.

Orthodontist wanted to join specialist practice in Co. Wicklow. One day per fortnight initially with view to increasing. Reply to louisdevereux@msn.com.

Wanted – oral surgeon to replace departing colleague in an existing, modern, specialist practice in Galway. Part-time. Long-established book. Email paul@paulmccabe.ie.

Dental nurses/practice managers/receptionists

Fantastic opportunity for an experienced dental nurse. Busy clinic working in different locations around Dublin. Wide range of dental procedures. Great opportunity to learn from experienced dentists and improve your current skills. Email eslatter@onsiteservice.com.

Practice manager wanted for southside dental practice in Dublin 14 (www.thefreshbreathclinic.ie). Dental nursing experience is mandatory. Exact SOEUK computer experience preferable. Full-time job with immediate start. Please send CV to tfbc16@gmail.com.

Full-time dental nurse required for practice in Dublin 18 to include a half-day on Saturday. Please email CV to admin@cdpractic.com.

We are looking for a part-time dental nurse to work 30 to 34 hours per week in our busy specialist dental practice in Dublin. This position is to start in March. Please email your CV to Michelle.Teeling@smartdentalcare.co.uk.

Nurse receptionist required for top-class, busy, progressive practice in the south east. Must be a professional, enthusiastic, caring, empathic team player with great people skills. IT skills crucial, experience helpful, good renumeration, high job satisfaction. Contact info@ocdental.ie.

Full- or part-time experienced dental nurse required for dynamic and friendly practice in the Cork area. Car helpful but not essential. CVs to weneedadentalnurse@gmail.com.

Part-time/full-time dental nurse required for a busy, modern, computerised, award-winning dental practice in Co. Meath (approximately 40 minutes north of Dublin). We are looking for a highly motivated individual to join our professional team. Contact dentaljobireland1@gmail.com.

Deansgrange Dental Clinic requires a full-time nurse in a busy, modern dental practice based in south Co. Dublin. Experience preferred. Please send cover letter and CV to careers@deansgrangedental.ie.

Dental nurse required for award-winning south Dublin practice. We look forward to hearing from you. CV to rosemary@eircom.net.

Receptionist required four to five days per week in busy practice on Main St, Dundrum. SOE/Exact experience preferable but not essential. Please reply with CV to dr.moroney@dentalclinic.ie.

Part-time qualified dental nurse required to work initially on Fridays in busy practice on Main St, Dundrum. Please reply with CV to dr.moroney@dentalclinic.ie.

Full-time dental nurse/receptionist required, city centre practice, Cork. Reply by email to aidanmon@eircom.net.

Full-time qualified dental nurse (experience desirable but not essential) required in the Cork city area to join dynamic and friendly orthodontic practice. Apply to info@corkclinicorthodontics.com. We look forward to hearing from you.

Booterstown dental practice requires an experienced dental nurse. Full- and part-time position available. Great location next to the DART line. Forward CV to booterstowndentalpractice@gmail.com.

Dental nurse required part-time for a busy modern practice in Ennis. Email gbrowne.ennis@gmail.com.

Hygienists

Part-time hygienist required in Spiddal. Initially one day every two weeks. Minimum contract of one year. Minimum of €170 earnings per day. Email lod@orthocosmetics.ie.

Full time dental hygienist required for large, friendly and relaxed north Dublin practice. Good salary guaranteed for working a four-day week (not including Saturday) with flexible hours. Please email your CV to balbriggandentalcare@mail.com.

Hygienist needed one day a week, fully booked. Must have strong communication skills and enjoy working as a team. Modern practice, digital x-rays, etc. Emails only please to dentalpracticekildare@gmail.com.

Experienced hygienist (two to three years) required for modern, award-winning, state-of-the-art clinics in Dublin city centre. Initially part-time and maternity cover with a view to long-term. Email hello@docklandsdental.ie.

Deansgrange Dental Clinic requires a full-time hygienist in a busy, modern dental practice based in South County Dublin. Experience preferred but not essential, new grads are welcome to apply. Please send cover letter and CV to careers@deansgrangedental.ie.

Dental hygienist required for sessions in a busy multi-surgery practice in Midleton, Co. Cork. Must have gentle hands and the ability to put patients at ease. Ideally Tuesdays and Thursdays. Please email CV to carmel@corabbeydentalclinic.ie.

PRACTICES FOR SALE/TO LET

A dental suite comprising two surgeries, with separate sterilisation, available to lease in busy primary care centre in Blessington. Suitable for start-up or relocation. Large catchment area in commuter distance of Dublin. Please respond to andrewcox204@gmail.com.

Naas, County Kildare. Three treatment rooms to let in existing dental surgery. Suit dental specialist. Recent renovation, air-conditioned, lift access to upper floors. Flexible terms. Email info@naasdentalcentre.ie.

Established state-of-art three- to four-surgery private practice for sale in Cork area. Specialist skills a bonus. All modern equipment and digital radiographs. Email claire.ring@smilesandmore.ie.

Co. Donegal. Long-established dental practice for sale. Two full-time dentists. Owner retiring. Enquires: forsale.dentalsurgery@gmail.com.

Fantastic opportunity. Bright, newly-refurbished unit in prominent location,

D14. Great catchment area underserved by dental profession. Reception, two consultation rooms, various x-ray/storage rooms. Parking available to front. New lease. No key money required. Contact Vincent Finnegan Limited: 01-298 4695/087-270 9273.

Galway City. Long-established two-surgery practice for sale. Owner retiring. Email galwaydentist2017@gmail.com.

Specialist room to let. Surgery to let in multi-surgery practice in Ennis. Suit oral surgeon or endodontist. Fully computerised, OPG, hygienist. Flexible terms. Email gbrowne.ennis@gmail.com.

Spacious, bright surgery to rent within a well-established dental practice in Dublin 4. Full administrative back-up, digital intra-oral imaging, electronic charting, very well appointed – would suit recently graduated or established endodontist looking for base. Email cog75@eircom.net.

South west Dublin. Three surgeries, fully equipped, busy, long-established, community-based practice, large passing trade, fully computerised, OPG/hygienist, strong new patient numbers, excellent figures, large potential to expand, flexible property options. Email dublindental2017@yahoo.com.

Costa Blanca, Spain. Dental practice for sale. Fully private (no insurance), English-speaking patient base, within a medical centre. Single chair in spacious room, fully equipped. Turnover 200k on 30hrs/wk. Overhead 55%. Locum possibility early May. Email dragnar@rocketmail.com.

Premises available immediately – Bunclody, north Wexford. Five rooms, separate car park. Previously used as dental practice for last 15 years. Beside/separate to busy medical practice in excess of 6,000 patients. Tel: 086-807 8335 after 6.00pm.

Dental practice for sale, south east coastal town, Co. Wicklow. Two modern surgeries, Main St location. Freehold premises. Practice established 40 years – owner retiring. Price to include freehold and equipment. Tel: 086-221 6814, or email malonejb@gmail.com.

EQUIPMENT FOR SALE

For sale – PRO LITE headlight – New – with accessories. Ultra lightweight, hands-free operation, eliminates adjustment of overhead light, battery up to 18 hours. Adaptable to all eye wear. Two-year warranty from September 10, 2016. Price €580. Contact 085-131 62131.

For sale – Sirona XG5 Digital OPG machine. In excellent condition with great image quality. €10k ono. Selling as need 3D machine now. Email renmoredental@gmail.com.

For sale: full contents of dental surgery due to retirement. Contact Gerard, Tel: 087-219 3670, or email germannix@gmail.com.

Learning to speak up

Dr Eimear Norton is a paediatric dentist in practice at Clonmel Children's Dental Clinic in Co. Tipperary. She is a member of the South East Branch of the IDA.

What led you to first get involved in the IDA?

After I graduated I went to work in Kilkenny and my principal dentist, Dr Roger Ryan, highly recommended that I join the IDA and brought me along to my first meeting. The South East Branch is a very strong, social branch so it was great to meet other dentists working in the area. It's hugely reassuring to talk to colleagues and see that we're all experiencing the same issues.

What form did that involvement take?

As a general dentist, my involvement was fairly passive; I would go to meetings and conferences but I wouldn't say a word. Later, I left general practice and went back to college for three years to qualify in paediatrics, and during that time I didn't have a lot of involvement with the IDA. When I graduated I moved back to Clonmel and set up my practice, and at that stage I became more active. I joined the committee and took turns as Treasurer and Chairperson of the Branch. It was hugely rewarding. I can now say that I appreciate the work that goes into organising and chairing meetings. Being on the committee forces you to engage with everybody. It takes you out of your comfort zone, but I now have friends from that time that I might not have otherwise.

What is your involvement now?

I'm not on the committee now – I'm too busy at the moment with my own children and my practice! But I do go to the meetings and the Annual Conference, and I'm a lot more active at them; I'm not afraid to speak up anymore. I'm also very lucky to be regularly invited to speak on paediatric topics at meetings and I enjoy that.

What has your involvement in the IDA meant to you?

Since I set up my own practice the support services that the IDA offers have been fantastic. The resources available on practice management, interpreting legislation, radiology, data protection, HR, etc., are really excellent. All the information you could need is there, both on the website and on the phone if you need it.

What has been the single biggest benefit of IDA membership for you?

Socially it's invaluable. Nothing else allows you to engage with colleagues over a cup of tea and discuss the happenings of the wider dental world. For me, that's probably the most important part of it.

How would you like to see the Association progress into the future?

I would love to see the Association progress even further at local level, but that's up to members – we are only as strong as our members and people need to go to meetings and get involved. I also hope that the IDA will keep building the supports available on the website – I know that they are growing all the time.

Finally, I hope that the Association will continue to advocate for our patients to Government and in the media. It's so important to let the wider public know about dental and oral health issues. Recent campaigns about the number of children undergoing extractions under general anaesthetic and the focus on dental health in older people in nursing homes are excellent examples of the IDA in action.

The IDA has the power to advocate on our behalf. There are a lot of 'alternative facts' out there about dentistry, so it's important that these oral health campaigns have the weight of the IDA behind them – I'm delighted that it's happening.

Eimear is originally from Kilkenny, and when she's not looking after the dental health needs of the children who visit her practice in Clonmel, she's kept busy taking care of her own two children, Niamh, who's two, and John, who's seven months old. She finds that running her own practice helps to deal with the pressures of being a working parent, as it gives her the freedom to structure her hours more flexibly. She also does a bit of running when she gets the time, although not as much as she'd like.

Dental Protection

RISK

How to manage it, not take it.

FREE TO DENTAL PROTECTION MEMBERS

Managing Clinical Risk Roadshow 2017

Manage your risks. Practise safely. Avoid the pitfalls of cosmetic dentistry in general practice.

Renowned international speaker Dr Martin Kelleher will team up with Dental Protection's Dr Sue Boynton and Dr Stephen Henderson to present to you the latest developments and understanding when it comes to safe dental practice in Ireland.

Dental Protection members: Free
Non-members: €100

13 JUNE	CORK
14 JUNE	GALWAY
15 JUNE	ATHLONE
17 JUNE	DUBLIN

FIND OUT MORE
dentalprotection.org/roadshow

Earn CPD and RiskCredits

DON'T MISS OUT, BOOK TODAY
Call **+44(0)113 2410530** | Email **events@dentalprotection.org**

4947 04/17

HELP KEEP YOUR PATIENTS ON A JOURNEY TO HEALTHY GUMS

CORSODYL® TOOTHPASTE IS CLINICALLY PROVEN TO REDUCE PLAQUE, BLEEDING GUMS AND INFLAMMATION

4X greater plaque removal*[1]

48% greater reduction in bleeding gums*[1]

Recommend Corsodyl® Toothpaste to help patients maintain their gum health between dental visits.

*Removes more plaque than a regular toothpaste after a professional clean and twice daily brushing.

Reference: 1. Data on file, GSK, RH02434, January 2015.

CHGBI/CHCSYL/0134/16