No.1 for dental professionals in Scotland
April/May 2012

Scottish Dental magazine

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ONE HOUR VERIFIABLE CPD INSIDE
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The clock is ticking...

Scottish Dental Show 2012 For all the latest news and information, turn to **page 06**

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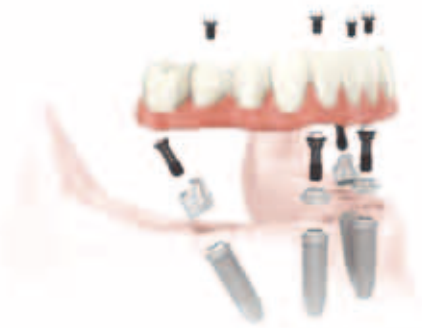

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Editor's desk

with Bruce Oxley

Show and tell

There are only a few weeks left until the Scottish Dental Show kicks off at Hampden Park on 24 May.

For all of us at *Scottish Dental magazine* the show will mark the culmination of many months of hard work and, as the clock ticks down to 24 May, the excitement and anticipation is really starting to build.

We have a great range of speakers from all over the UK representing a wide range of subjects, specialties and professions. From straight up business advice to tax and legal issues through to implant restoration, veneers and endodontics, we have something to interest the entire dental team. And, with up to 12 hours free verifiable CPD available to all GDC-registered delegates, it really is a no-brainer to attend.

There is still plenty of time to register and, while the talks are filling up fast, there are still of seats left for the majority of talks. Just go online and visit www.scottishdentalshow.co.uk for details on how to book.

As well as the great speaker line-up, there will also be more than 100 exhibitors showcasing their products and services at the show. Many will be presenting special offers and discounts so keep an eye out for a bargain.

Included with your latest issue of *Scottish Dental magazine,* you should also have received a copy of the Show Guide. Inside you will find all you need to know about the show – who is exhibiting and where they are, who is speaking and details of where and when.

There is also a bonus CPD article included in the guide which will let you top up your verifiable CPD by reading the article and visiting the website.

We have also decided to include a verifiable CPD article in the magazine (p42) as well, something that we plan to do on a regular basis from now on.

Getting the Scottish Dental Show to this point has truly been a team effort and all we need to do now is wait and welcome the final member of our team – the dental community in Scotland.

See you at Hampden! ■

Bruce Oxley is editor of Scottish Dental magazine. To contact Bruce, email bruce@connectcommunications.co.uk

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April-May 2012

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Biting back

with Arthur Dent

X-ray excess...

Some of you will by now have received a letter from your NHS boards informing you that some practices in your area are being selected for an inspection of your compliance with IR(ME)R regulations by Dr Arthur Johnston, a scientific officer from the Scottish Government.

Indeed, some of you may even be among the 'lucky' ones to receive an IR(ME)R inspection by Dr Johnston! And, like me, you might be thinking that our practice IR(ME)R compliance was already being checked as part of the regular triennial NHS board inspections... but the Scottish Government in its wisdom has decided that further inspections are needed and has instructed Dr Johnston to conduct these.

If you visit www.scottishdental.org you will find examples of all the paperwork required for strict IR(ME)R compliance. It's not exactly light bedtime reading (unless you're an insomniac), but it does have some rather entertaining sections, including "the process for patient identification". It states: "Where possible, the operator must ask the patient to give the three identifiers. The procedure must be positive and active i.e. What is your name? What is your address? What is your date of birth?"

While these processes are perfectly sensible in a larger clinic or hospital where radiographs are taken in a different department distant from the consultation room, in an average general practice they make no sense. The patient might be a regular attender at the practice and certainly will have been in consultation and been examined for some time before the dentist decides that radiographs are required.

It hardly inspires confidence in the patient if their dentist then asks such elementary questions of them when they have been in conversation for several minutes. This example demonstrates the folly of routinely imposing hospital procedures on general practice; in some circumstances these might apply, but very often they do not.

Similar anomalies arise within issues around decontamination, health and safety and many other areas. General dental practice is now suffering from regulatory overload. Regulation should help us manage risk to ourselves, our staff and patients. Risk assessment and risk management is part of our role as healthcare professionals, but I've heard it said that NO risk is acceptable. This is nonsense – absolute risk avoidance is impossible and everything in life is a balance between risk and benefit.

"General dental practice is now suffering from regulatory overload"

Statistically, the most dangerous things we do are to travel in a car or to cross a road, but we all continue to do these things daily. Life is risky but by applying reasonable, balanced and sensible precautions, we can go about our daily lives and minimise the risks, but they can never be entirely eliminated.

The wellbeing and safety of our patients and staff is of great importance, but many of these rules are less to do with safety and more to do with officialdom justifying its existence. Time spent complying with these petty rules, recording our compliance then demonstrating it to yet another inspector means less time spent providing patient care... and isn't patient care what dentistry is all about? ■

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SCOTTISH DENTAL SHOW 2012

It's not too late!

There is still plenty of time to register for the Scottish Dental Show at Hampden Park on 24 and 25 May.

With up to 12 hours of FREE verifiable CPD available to all delegates and more than 100 exhibitors from all sectors of the dental trade, you won't find another event like it in Scotland this year.

Registration for the event is free, as are the tickets to the 40 plus speaker sessions and workshops on offer. But remember, spaces are limited, so in order to guarantee your place at the talks you want to see, register online today at www.scottishdentalshow.co.uk

As well as all the details on the speakers, timings and CPD information, you will find floor plans of the exhibition halls, information on all the exhibitors and their special offers, plus much, much more.

And don't forget, follow us on Twitter @ScottishDental and Facebook.com/ScottishDental for all the latest news and announcements.

Dr Philip Friel looks forward to speaking at Hampden

A "win-win" for the whole dental team

Glasgow dentist Dr Philip Friel will be presenting the final session of the Scottish Dental Show, with his talk 'Treatment options for the reconstruction of the edentulous maxilla'.

He explains why he is looking forward to the event and encourages his colleagues and peers to attend the trade show and conference.

He said: "The world of our profession is so fast-changing with fantastic new advances in treatments and techniques. So, the Scottish Dental Show is a great opportunity to bring many of the companies and individuals at the forefront of these changes to our doorstep.

"We should all aspire to learning what's newest and best"

"We should all aspire to learning what's newest and best out there to benefit our patients.

"The line-up of speakers and the topics being covered mean that Scottish-based dental professionals can not only find inspirational and interesting subjects but they can also tick the CPD box at the same time, so it's a win-win situation."

Dr Philip Friel will be talking at 3.30pm on Friday 25 May 2012 at the Hampden Park event.

Stephen Jacobs urges colleagues to attend

Bearsden dentist hopes the May event becomes a regular fixture in the dental calendar

TESTIMONIAL

Bearsden dentist and immediate past-president of the Association of Dental Implantology Stephen Jacobs is urging his peers and colleagues to attend the first Scottish Dental Show.

He said: "As a regular attender at dental conferences, congresses and exhibitions, as a lecturer, moderator or even a delegate, I find that travelling around the UK and further afield is often a barrier to me attending even more events.

"How refreshing, therefore, to see the very first staging of the Scottish Dental Show, and practically on my doorstep. I urge all dentists in Scotland to support the event and ensure that it becomes a regular fixture in our calendar. Well done to Ann and the team, I am looking forward to it very much."

"How refreshing to see the very first staging of the Scottish Dental Show"

Stephen will be asking 'Are implants easier than teeth' at the Hampden event on Thursday, 24 May. His talk will introduce delegates to the basics of implant treatment and help them to assess which patients in their practice would be suitable for this treatment. He will cover a broad range of options for restoring implants, highlighting which options are most suitable for specific patients.

Stephen, who is the principal dentist at implant referral practice Dental fx, has placed more than 4,000 implants and carried out more than 700 sinus grafts since 1992.

REGISTER NOW!

The Scottish Dental Show (24 and 25 May) will feature more than 100 exhibitors in its bustling trade show and more than 40 speaker sessions and workshops offering up to 12 hours of FREE verifiable CPD for the whole dental team. Registration is also FREE and bookings are being taken online for the various speaker sessions and hands-on workshops. Places are limited for the talks, so book today!

For more information and to register your place, visit www.scottishdentalshow.co.uk

A "must-see" event

Cherrybank dentist excited about Scottish Dental Show

Dr Elaine Halley, principal dentist at Cherrybank Dental Spa in Perth and Edinburgh, has welcomed the addition of the Scottish Dental Show to the calendar.

She said: "The Scottish Dental Show is a must-see event for all GDPs and team members in Scotland. It is so refreshing to see such an excellent line-up of speakers and trade exhibitors on our door-step – and with no entrance fee there is really no reason not to go!

"The speakers are a good combination of well-known Scottish practitioners and those from south of the border who have an interesting message to deliver. A good balance between dentistry, trade sponsors and other specialists who support our industry."

Elaine will be talking at the Scottish Dental Show on Friday 25 May at Hampden Park in Glasgow. Her presentation, entitled 'Edelweiss Direct Composite Veneers' will introduce the advantages of this new technology and show the short and long-term clinical benefits over traditional techniques.

Originally from St Andrews, Elaine set up Cherrybank Dental Spa in Perth in 1995 following a period studying in California. In February 2010 she opened her second practice in Edinburgh.

She has completed master's level work in advanced cosmetic dentistry as taught at the Rosenthal Institute in New York – the first cosmetic dentist in Scotland to have done so. She is also an instructor of advanced cosmetic dentistry at the Eastman Dental Hospital in London.

Elaine is in demand, not only as a cosmetic dentist in Scotland, but also internationally as a lecturer, both to dentists and to business owners. She has written numerous articles, including several on cosmetic dentistry and serves on the editorial board for two national dental titles.

And the winner is...

Scottish Dental Lifetime Achievement Award 2012

Voting for the first ever Scottish Dental Lifetime Achievement Award will close on 1 May, with the winner announced at the Scottish Dental Show's evening drinks reception on Thursday 24 May. So there are only a few short weeks to cast your vote for one of our four candidates: Graham McKirdy, Hew Mathewson, Jim Rennie and William Saunders.

GRAHAM MCKIRDY

Graham qualified BDS from the University of Glasgow in 1979 and was awarded DGDP 1993. He has worked since qualification in general practice and the last 29 years as a partner in practices in Glasgow and Hamilton. He is 98 per cent NHS income based.

He has been a member of the BDA's Scottish Dental Practice Committee (previously SGDSC) since 1991, the SDPC Executive since 2003 and was chairman from 1997 to 2003.

He has also served on several other BDA bodies including the Scottish council, the General Dental Practice Committee, the GDPC Remuneration sub-committee and the BDA Pensions committee. Since 2005, Graham has also served on the BDA's Representative Body and as vice chair of the BDA's Audit Committee.

He is currently chairing the NHS pensions negotiations for the BDA on a UK-wide basis. For 20 years, until 2001, he also held a part-time teaching post at Glasgow Dental Hospital.

HEW MATHEWSON

Hew is a general dental practitioner from Edinburgh who has held a number of roles within the British Dental Association (BDA) and the General Dental Council (GDC).

He served as GDC president from 2003 until 2009 and was the council's first-ever chairman from 2009 until 2010.

His BDA roles have included branch president, chair of the Scottish Dental Practice Committee and the Sick Dentist Scheme Management Group and vice chair of the (UK) General Dental Practice Committee.

Hew continues to be active both in the wider healthcare world and elsewhere in the not for profit and charity sector.

He was awarded a CBE in the 2010 New Year Honours List for services to healthcare.

DR JIM RENNIE

Dr Rennie is the former dean of postgraduate dental education for Scotland. Before retiring in March 2011, he was responsible to the chief executive of NES for the management and delivery of postgraduate dental education in the NHS in Scotland. Working closely with SGHD through the office of the Chief Dental Officer, Jim played a key role in the development and implementation of national strategy and resource allocation for dentistry and the professions complementary to dentistry in Scotland.

He was responsible for managing the workforce development aspects of the 'Action Plan for improving Oral Health and Modernising NHS Dental Services'. Jim also undertook a three-year term as deputy chief executive of NES.

He was awarded the CBE in the 2011 Birthday Honours for services to dentistry.

PROFESSOR WILLIAM SAUNDERS

Prof Saunders has made a very substantial contribution to dentistry in Scotland over many years, having been closely involved in undergraduate and postgraduate dental teaching in both restorative dentistry and endodontics.

His research has had a significant impact looking at, among other topics, the periodontal and cellular responses to endodontic materials, and has sat on two RAE (Dentistry) panels, being vice chair of the 2008 panel.

He has edited specialist journals and acts as consultant to specialist dental manufacturers of endodontic instruments. He is an accomplished clinician who has maintained his clinical practice throughout the periods where he was deeply involved in dental politics and specifically as dean of Dundee Dental School, chair of the Dental Schools Council, and council member of the Royal College of Surgeons of Edinburgh.

Visit www.scottishdentalshow.co.uk to vote for who you think should be presented with the 2012 Scottish Dental Lifetime Achievement Award

SCOTTISH DENTAL SHOW 2012

Have you booked your place?

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- Exciting product launches and demonstrations
- Great networking opportunities
- Launch of the Scottish Dental Lifetime Achievement Award
- A chance to win an iPad 2 by registering online at www.scottishdentalshow.co.uk
- Drinks reception hosted by everyone's favourite BBC sports pundit Chick Young

Venue: Hampden Park, Glasgow
Date: 24 and 25 May 2012

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Celebrating 150 years in style

Achievement. Anniversary sees practice take on new NHS patients

A Stirling practice is celebrating its 150th anniversary with an extension that will enable it to take on a further 1,000 new NHS patients in the next 12 months.

Work at the Platt & Common Dental Practice, owned by husband and wife John and Jennifer Denham, included creating an extra surgery on the ground floor, putting in an LDU, disabled toilet facilities, new reception area, staff room and a dental laboratory with a full-time acrylic denture technician.

The couple, who started work as associates at Platt & Common in 1999, took over the Albert Place practice when the previous owner Douglas Herd passed away. To fund the purchase and undertake expansion work, they secured a European Investment Bank (EIB) loan and a Government-backed Enterprise Finance Guarantee (EFG) loan from Bank of Scotland.

The expansion will take the surgery total up to eight and allow John to continue his role as a VT trainer.

Jennifer said: "Platt & Common is the longest-established dental practice in Stirling, having started with Stirling's first resident dentist, Leon Platt, in 1861. The practice moved to Albert Place in 1964, but the Victorian building required restoration and modernisation to bring it in line with current NHS guidelines.

"We could see the need for expansion, but we required financial backing to ensure the future of the practice and to make our ambitions a reality.

"We approached Bank of Scotland and got some really valuable help from its specialist healthcare team. Securing funding from the bank was also a straightforward process, which is not what we had expected after all the talk in recent years about not being able to get finance.

"When we recruited a new dentist last August, we were able to start taking on about 20-30 new patients a week on the NHS, as well as expanding into new areas of work such as tooth whitening."

Local councillor Paul Eadie cuts the ribbon at the official opening

'Supermarket' dentist opens

INNOVATION

The first NHS supermarket dental practice in the UK has been opened at the Tesco Extra store in Corstorphine.

Owned and operated by Independent Dental Holdings (IDH), the practice is the first venture of its kind in Scotland following similar private partnerships in England.

Sainsbury's and Boots stores in Manchester and London have opened private dental practices, but this is the first NHS practice in a retail environment in Britain.

IDH will rent the space from Tesco, who built the shell next to their in-house opticians for IDH to fit out and equip. With 1,200 patients signed up before the practice opened its doors, IDH and Tesco are hoping that the accessibility and convenience of its location will see the patient list grow.

The practice will open 8am to 8pm, Monday to Friday, 9am to 6pm on Saturdays and noon to 6pm on Sundays. It will be open every day apart from Christmas day. The dentists will be Glasgow graduate Fiona Marriott, Spaniard Jose Romero and Dundee graduate Maksad Al-Nakib.

Top north dental nurse named

An Inverness dental nurse has been named the SVQ Dental Nurse Candidate of the Year for the NHS north region.

Amberley Crooks, who has secured a permanent position as a dental nurse in the Ness Bank Dental Practice, was one of only seven nominees picked out of a class of 42 trainees in the event hosted by NHS Education for Scotland (NES).

The ceremony took place on 6 March at a presentation evening in Inverness.

Amberley was one of six trainee dental nurses out of the 2010 consort chosen by NHS Highland for a two-year training contract.

Following a placement at the Town & County Hospital Nairn, she attended day-

release classes delivered by NES tutors at the Centre for Health Science Inverness. Her assessor Alison Macleod nominated Amberley for the award, and said she was "an extremely good student and incredibly well organised".

Hazel Carroll of Dental Directory, who also hosts the event, picked the winner and Dr Isobel Madden, the assistant director, presented certificates.

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Support. Practitioners offered information on creating Local Decontamination Unit facilities

LDU advice service is launched

George McDonagh in his previous role teaching students at Glasgow Dental School

A specialist Local Decontamination Unit (LDU) advice service is now available for dental practitioners.

Part of Health Facilities Scotland, the advice service is available until August and will be able to assist in many aspects of the planning of new, and the upgrading of existing, LDU facilities.

The service is staffed by two LDU advisors, George McDonagh and Ken Chapman, assisted by LDU support officer Gail Kelly. Prior to taking up their current posts, George was lecturing to BDS students on decontamination at Glasgow Dental School and Ken worked at NHS Greater Glasgow and Clyde, training dental nurses and podiatrists on all aspects of instrument decontamination. Although primarily based at Meridian Court in Glasgow, the two men will be available to travel around the country to help dental professionals.

Along with Irene Black's team at NHS Education for Scotland, George and Ken have been heavily involved with training a wide range of DCPs and they are now ready to help dentists throughout Scotland.

George said: "We are available to advise whether you need help designing and building your LDU, with the procurement of equipment or if you have any specific issues with instruments and decontamination equipment, including benchtop washer disinfectors, sterilisers or dental handpieces.

"To ensure we can provide an efficient service, please inform us as soon as possible should you require our help."

The new LDU advice service can be contacted by email at nss.hfsdeconteam@nhs.net or by calling 0141 207 1875.

Endodontic study group invites case studies

ENDODONTIC MEETINGS

The Scottish Endodontic Study Group (SESG) has announced the dates of its next two meetings.

The SESG was founded in 2010 by Alastair MacDonald, Navid Saberi, David McCulloch, Mark Lang and William McLean.

It aims to provide for the educational and professional development needs in the field of endodontology, and to promote endodontics in primary care. Free membership is open to all general dental practitioners, hospital staff, postgraduate and undergraduate dental students, and dental care professionals.

Previous SESG meetings have included seminars on novel file systems and updates on endodontic practice. The next meeting, 'Case-based discussions', will take place on 28 May from 7pm-9pm at Edinburgh Dental Specialists, 178 Rose Street, Edinburgh EH2 4BA.

Everyone is invited to bring along endodontic cases for discussion – these can be primary treatments, re-treatments, pre-op, mid-treatment or completed cases. It is intended that all participants can discuss management of cases in an open forum.

The next meeting will be on 11 September from 7pm-9pm at The Marina Dental Care, Suite F3, Southbank Marina, Kirkintilloch, Glasgow G66 1NH.

The evening will look at 'NiTi or just Ti – decision making at the endodontic/implant interface', hosted by Stephen Jacobs.

The SESG is at www.sesg.org.uk or on Facebook. If you are interested in attending the meetings they can be contacted at navidsaberi@hotmail.com

Trainer awarded excellence medal

CITY & GUILDS

A trainer from Glasgow has become the first dental nurse trainer to win a City & Guilds Medal for Excellence award.

Moira McKenna, centre manager for Mentor Training Ltd, was presented with her award at a special ceremony in London in April.

She was nominated for her outstanding performance in teaching the level 3 NVQ in dental nursing.

The ceremony at the Roundhouse in Hampstead was hosted by Alex Jones from BBC One's The One Show and the chairman of City & Guilds Michael Howell.

Investment.
Refurbishment closes door on unhappy history

Councillor McFarlane cuts the ribbon alongside practice manager Trudy Starbuck, owner Sheraz Shafiq and staff and patients of the practice

New era for Troon dental practice

A £250,000 investment has refurbished a Troon dental practice and provided the final piece in rehabilitating its once-ailing reputation.

Sheraz Shafiq bought the practice, formerly called Barrassie Street Dental Practice, after its former owner was struck off for what the General Dental Council (GDC) described as "supervised neglect" of more than 100 patients.

Andrew Boyd was removed from the GDC's register in June 2009 after "multiple instances of serious failings... over a lengthy period" were uncovered.

Sheraz bought the practice, now called Troon Dental Studio, in 2009 and last year undertook a major extension and refurbishment programme.

Formerly consisting of two surgeries on the ground floor of the premises, Sheraz has extended to the rear and the practice now includes a third surgery, radiograph room, staff room and, on the first floor, a two-room LDU facility.

The original surgeries have been overhauled, with new equipment and fixtures and fittings replaced. Flat-screen televisions and iPod connections have been installed along with a new computer system.

Officially opening the practice, South Ayrshire Councillor Nan McFarlane, apologised on behalf of Health Secretary Nicola Sturgeon and Public Health Minister Michael Matheson for their absence due to parliamentary commitments.

The leader of the SNP group on the local council, who herself was one of the patients affected by Andrew Boyd's negligence, went on to congratulate Sheraz on "this wonderful 21st-century, state-of-the-art dental practice".

Referring to the practice's "chequered past", Councillor McFarlane said: "I was a patient myself here and I suffered from that. I think that what you have achieved here will finally close the door on what happened, and I am very happy to say that."

Increase in visitors to NEC show

DENTISTRY SHOW

Organisers of the Dentistry Show, held at Birmingham's NEC on 2 and 3 March, have reported a 112 per cent increase in delegate numbers in the last two years.

The event, organised by CloserStill Media Healthcare, attracted 4,917 delegates over the two days – up from 4,270 delegates in 2011 and 2,319 the year before. The number of exhibitors increased from 214 last year to 324, with the exhibition floor growing by two thirds as a result.

By comparison, the BDTA Showcase, held at the NEC in October, attracted more than 10,000 delegates and 375 stands over three days.

As well as the trade exhibition, the Dentistry Show also included more than 60 hours of business and clinical CPD education across six conference streams – future dentist, dental business, aesthetic dentist, hygienist and therapist symposium, nursing network and aesthetic technician.

The main exhibition space also played host to the ever-popular Live Theatre where a number of procedures were carried out in front of a live audience, including implant surgery, whitening and posterior restoration.

Chris Brown, Director of the Dentistry Show, said that additional CPD streams are being planned for the 2013 show covering oral surgery, orthodontics, periodontics, endodontics, paediatric dentistry and maxillofacial surgery.

He said: "The dental community is responding positively to the Dentistry Show's unique format, and we will continue to invest in delivering a broader range of world-class clinical education to dentists across variety of practice disciplines for free."

Dental hygiene link to heart disease

Studies have shown that poor dental hygiene in teens with congenital heart disease can increase the risk of further heart problems.

The findings, heard at a cardiovascular nursing convention in Denmark, have linked irresponsible health risk behaviours such as binge drinking with further complications leading to endocarditis.

Furthermore, teens with congenital heart disease generally have better health practices, apart from their dental health, which suggests that dental hygiene may be a factor in deteriorating health for sufferers of the disease.

Heraeus

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A packed programme!

BDA 2012. Manchester event has something for everyone

With more than 130 speakers, an extensive exhibition and a lively social programme, the 2012 British Dental Conference and Exhibition in Manchester (26-28 April) has plenty to offer.

The event will bring together professionals from across the UK for lectures, seminars and social events.

Topping the bill of clinical speakers in the exchange hall are international experts John Kanca III and Lorenzo Vanini.

John Kanca, a private practitioner known for his expertise in adhesives, will present four lectures focusing on adhesives, pulpal symptoms, ceramics and resin composites. Lorenzo Vanini, a private practitioner and professor of restorative dentistry from Italy, will be presenting two lectures on aesthetic dentistry in the anterior teeth.

Further clinical expertise will be provided by Robert Wassell, senior lecturer and honorary consultant in restorative dentistry at Newcastle University, who will be delivering a session on occlusal pitfalls and how to avoid them, and Anthony Roberts, senior lecturer in restorative dentistry at the University of Manchester, who will be presenting on essential periodontics.

And for those with an interest in endodontics, James Pritchard, clinical supervisor in endodontics at Warwick University, will present a contemporary look at NiTi instruments, their benefits and limitations.

Also not to be missed will be the Thursday morning speech by the event's keynote speaker Professor Susan Greenfield.

A professor of pharmacology at the University of Oxford, Professor Greenfield is author of many popular science books providing insights into the workings of the human brain. She regularly appears at public events, has presented a number of television programmes and is an engaging public speaker.

Seminars to look out for include two special case study sessions on infection control and handling complaints led by speakers from the cruise and hotel industries, offering a unique non-dental perspective.

Other highlights include the live demonstration theatre in the exhibition hall. With space for 70 delegates, practical, hands-on sessions will be presented by a range of clinical experts demonstrating on phantom-head simulators, and leading dentists and advisers will illustrate scenarios through role-play enactments.

"The event will bring together professionals from across the UK"

The extensive exhibition provides the opportunity to meet with a range of suppliers and discuss practice needs, while the new Innovation zone will be the place to see cutting-edge developments in dental technology for the first time.

For further information and to book, visit www.bda.org/conference, plus keep up to date on Twitter @BDAConference and Facebook www.facebook.com/bdaconference

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6 x scaler tips - 2xG1, 1xG2, 1xG4, 1xP1, 1xE1
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PEOPLE HAVE PRIORITY

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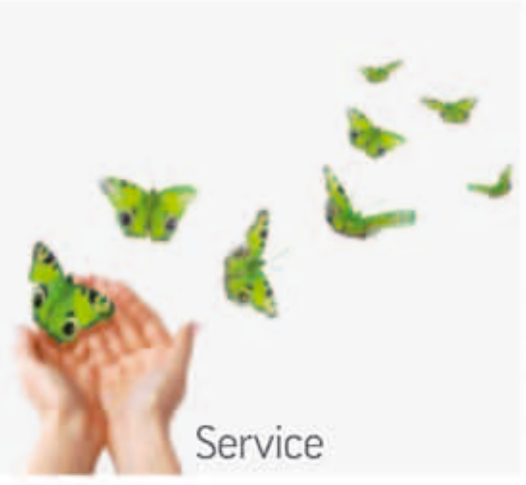

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NAS Scotland p30 | Tissue preservation p60 | Practice profile p69 |

Silver celebrations for Stafford Street

Silver anniversary. Husband-and-wife team mark 25 years

A husband-and-wife team from Edinburgh have marked 25 years in business with a celebration at their west end practice.

Yann and Gilly Maidment took over the dental practice in Chester Street in 1987 and moved to their current premises on Stafford Street in 2006. To celebrate their silver anniversary, patients, staff and referring dentists were invited to a celebration at the practice.

Guests were met by pipers from Fettes College who were invited to the event along with some of their musical classmates including a harpist and a violinist, some of whom are patients at the practice.

Yann qualified from Edinburgh in 1984, the year after Gilly, and after 25 years in practice together, they are still enjoying the experience as much as ever. Yann said: "It really is exciting – 25 years is a long time to be in practice in one place. But it just seems to have gone by incredibly quickly!"

Gilly added: "We haven't lost any of our enthusiasm. We are still keeping up to date and aiming to give our patients the best service we possibly can."

Gilly explained that they have worked hard to retain their patient base over the years, from babies who have grown up in their care to their eldest patient, who, at 99, still has all his own teeth.

Both Yann and Gilly believe their commitment to prevention and their willingness to embrace new technology and products has helped them build up their practice from a small two-surgery NHS practice in 1987 to the modern four-surgery private practice it is today.

Gilly said: "We don't just provide crowns and fillings but aim to keep our patients healthy. That has always been the most important thing."

Aiming for the Horizon

Dental Protection (DPL) is bringing its Horizons roadshow to Scotland this summer, following the resounding success of last year's event.

Horizons will visit Inverness, Aberdeen and Stirling in May, and host guest speakers Sue Boynton, James Foster and Hugh Harvie, among others.

The evening events are titled 'Three Steps to Heaven', and cover topics relevant to all members of the dental team.

www.dentalprotection.org/newsandevents/events/Horizons2012

DENTISTS EXEMPT FROM MUSIC FEES

Dentists who play music in their surgeries are immune from music royalties claims, the European Court of Justice (ECJ) has ruled.

The decision means that practices throughout the European Union are exempt from paying royalties to licensing agencies because the music is not profit and has a limited audience.

This comes as a result of a case brought against a Turin dentist and lead to the issue being raised by Turin's Court of Appeal.

Rainforest remedy to revolutionise pain management

DISCOVERY

An ancient Incan toothache remedy could be about to revolutionise the management of dental pain, according to researchers from Cambridge University.

The remedy, handed down among the indigenous people of the Peruvian rainforests for centuries, is made from an Amazonian plant species called Acmella Oleracea.

Turned into gel for medical use, the first two phases of clinical trials have been described as "hugely successful". Scientists involved with the research believe that, if approved, the new medicine could hasten the end of current reliance on local anaesthetics in dental use and NSAIDs in specific applications.

The drug was brought to the attention of a wider market-place by Cambridge University anthropologist Dr Françoise Barbira Freedman, the first westerner to be invited to live with the Keshwa Lamas in Amazonian Peru.

The remedy has shown no side-effects during the past five years of Phase I and II trials, and Dr Freedman is confident the stringent Phase III trials (multi-location trials across a diverse population mix) will be the final hurdle to clear. If successful, the product could be brought to market in 2014/15.

BARD clinical tips p48 | Timeless principles p50 | Indemnity p75 |

21st-century dental care

Healthcare. New Primary Care Centre in Musselburgh will offer a range of services

The new centre

Work on the £20 million Musselburgh Primary Care Centre, which will include two brand new community dental suites, is on track to be completed this spring.

The new dental surgeries will also feature a recovery room, office, decontamination rooms and storage space to aid the dentists who will work within the building. A hygienist and dental therapist will be available in addition to a maximum of four dental nurses and clinical support workers.

The Salaried Primary Care Dental Care Service (SPCDS) will take over the surgeries when the building is complete, providing additional care for groups of people who hold an increased risk of oral health problems.

The SPCDS currently has a single surgery in Roodlands Hospital for the provision of priority groups in Musselburgh. With the new facilities in Musselburgh, the salaried service will be able to care for the dental needs of the priority groups within their immediate community.

Other facilities to open in the centre include paediatric and adult outpatient clinics, physiotherapy and community nursing.

David Small, General Manager, East and Midlothian Community Health Partnerships, said: "It's exciting to see the development take shape and on schedule to be completed in the spring.

"The new Care Centre will offer 21st-century care for the people of Musselburgh and the wider community of East Lothian."

CAMPAIGN

An advertising campaign has been launched by NHS Grampian to encourage people in the north east that good oral hygiene starts at home.

The Teeth TLC campaign aims to increase awareness of seven steps to a great smile. Adverts will appear on TV, newspapers and radio, as well as on buses.

Teeth TLC comes after studies have found that oral health in Grampian has improved over recent years, with the number of five year olds showing signs of tooth decay decreasing by a quarter from 40.4 per cent in 2005 to 30.6 per cent in 2011.

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From the chairside

with Alison McKenzie

And the results are?

As one of the dental nurses affected by the new legislation of mandatory Continuing Professional Development (CPD) following the registration of dental care professionals (DCPs) in 2008, I was relieved at the time to discover on the General Dental Council (GDC) website an explanation of why it was being introduced, guidance on recording and keeping records, sample templates, advice sheets and examples of information required on a verifiable certificate. The availability of this made the new process of updating knowledge and skills less daunting than it could have been.

The GDC obviously succeeded in their information campaign, according to results published from a recent review based on the views of registrants, providers and GDC stakeholders, 85 per cent of registrants understand the GDC's current CPD requirements.

We are near to the end of the first five year cycle for DCPs, with the revalidation of dentists on the horizon, a path DCPs are set to follow, results from this survey will serve to highlight any relevant changes that should be made and feature as an important part in any review of revalidation policy.

The survey results are available now on the GDC website in more depth but some interesting points highlighted included 39 per cent of dental nurses found motivation and 19 per cent found time as a barrier to CPD. Seventy per cent of registrants personally paid for their CPD and 65 per cent completed it in their own time. Online learning came on top as the most popular choice of learning with 52 per cent, day courses and workplace activities followed closely behind.

According to the survey the positive opinion on CPD showed 60 per cent of registrants seeing it as an opportunity to learn a new skill or technique and 51 per cent as a personal reflection on their skills and abilities. Also encouraging facts of 64 per cent of registrants stated that if it was not mandatory they would still complete CPD, 50 per cent of registrants still believe that the CPD requirement was to maintain registration while 45 per cent of dental nurses believed it was to help comply with standards for dental professionals.

The outcome of the survey looked at the length of the five year cycle only 12 per cent wanted a change, 53 per cent thought it too long, 44 per cent too short. It was felt that some form of monitoring should be in place and the core subjects should stay but a bit more flexibility was required including introducing specialist CPD. Other thoughts were to increase verifiable and relax non-verifiable CPD. Accreditation was also preferred by providers.

"The outcome of the survey looked at the length of the five year cycle only 12 per cent wanted a change"

Five years is an adequate time to complete 150 hours of CPD and I personally would not like to see a reduction in this although I do agree with stakeholders and providers that CPD should form a part in annual reviews or personal development plans (perhaps incorporating monitoring by the employer), at the moment it is the dental nurses' responsibility to comply with requirements but employers will require assurance at some point that their dental nurse has complied with requirements for eligibility for registration in 2013. ■

Man of the cloth

His career has taken him from a tiny village on Lewis to the corridors of power... and back. But Norman Mackenzie has never been happier

Softly spoken, with a lyrical Hebridean accent, Norman Mackenzie comes across as charming and thoughtful. Having spent his entire working life building up his own successful dental practice in central Glasgow, ten years ago he moved back to his home town of Carloway, Lewis, to retire in the house left to him by his parents.

Norman's professional career began in 1958, when he moved to Glasgow to attend university, qualifying in 1964. In 1967, he bought over a family NHS practice in the city's Duke Street after his predecessor – who had succeeded his father – passed away. He spent the next 25 years gradually building up the practice, taking on an assistant, then an associate, another partner and a hygienist.

But he also spent these decades becoming actively involved in the profession's politics, after joining the BDA's local section at the end of the 1960s. He was appointed secretary of the West of Scotland branch in 1980 and elected as its president in 1987.

In these latter roles, he also spent ten years on the association's representative board, attending meetings in London and playing a pivotal role in many of the big decisions of the time. Most notably, he was a member of the GDSC (General Dental Services Committee) from 1987 to 1990, involved in negotiating (and voting in favour of) the hugely divisive 1990 contract.

"I still think the contract the profession had to accept way back in 1990 was not bad at all," he reflects. "We had identified what changes we wanted to take place within the profession, we had researched that with questionnaires to all the dentists and we got most of the things they wanted.

"In the end, it came back to the old problem – there wasn't enough money involved. And that's why the bulk of the profession seemed to turn against it. We were being asked to do extra things, such as emergency care, apparently without any extra money.

"But we knew at the time that the contract was going to go ahead anyway, whatever the GDSC said, so it was really about getting the best deal for the profession within the confines of what was on offer."

The ill feeling created by the GDSC's acceptance of the contract – which had been rejected by a referendum of the profession – effectively ended Norman's political career and he was forced to stand down in 1990. He ruefully notes that, as it worked out, the contract proved so lucrative for the profession that the Government later stepped in to reduce fees.

In 1993, he was appointed chairman of the Scottish Dental Practice Board for three years. At around the same time, he decided to sell his share of the practice to a third partner and see out the rest of his career as an associate.

"I was looking ahead and only had a few years to go until I was due to retire. At that

"I thought rather than get to that point and be forced to sell, it would be better to do it on my own terms"

Norman Mckenzie

time in the 1990s, it wasn't that easy to sell practices. So I thought rather than get to that point and be forced to sell, it would be better to do it on my own terms. I'd said for a while that if the right opportunity came along, I'd sell up."

Norman finally left Glasgow in 2002 to realise his life-long intention to move back north, first to Stornoway – where he spent about 18 months working part-time – and then to his home town of Carloway.

"I'd lived in Glasgow for almost 45 years, but I always went back up to Lewis on my holidays. My parents were up there, my heart was always there and I'd always planned on going back to where I was born and brought up and spent my formative years."

Moving into the family home he had inherited, Norman quickly readjusted to island life: fishing, crafting and rekindling old friendships. The experience evoked many childhood memories, including watching his bachelor uncle, who lived with the family, weaving Harris Tweed in the house's loom shed.

"As far back as I can remember as a little kid, I'd be in the loom shed with my uncle, watching him weaving away the Harris Tweed. I was very friendly with my uncle and would watch him for hours on end, absorbing it all and learning the craft.

"When I was a teenager, I'd have a wee go myself when he wasn't looking. And whenever I came from college or university, I would do a bit of weaving to earn money. But once I qualified, although I would come home, I didn't bother with the weaving, because I didn't need to!"

And, true enough, weaving did not cross Norman's mind for another 40 years, until a chance conversation presented him with an unexpected opportunity.

"The house's loom shed was still there, but the loom had long gone. So it was only by chance that my neighbour mentioned he was getting rid of his loom to get a bigger one. And he was just going to dump it in a skip, so I said in a moment of weakness that I'd take it off him. He wouldn't take any money for it.

"I had it installed in the old loom shed and started weaving bits for myself. I found I thoroughly enjoyed it, reliving my childhood as I was weaving away, and thinking of my uncle who'd been there all his life, and all my neighbours who'd been weaving in those days. All the houses had looms when I was a kid, but the Harris Tweed industry went downhill a bit in the 1980s and nearly disappeared in the 1990s."

Unlike the vast majority of Harris

Continued »

Continued »

Tweed, Norman's is woven on a traditional, single-width 'Hattersley' loom. Although commercial tweed production tends to use larger double-width looms, which give a wider cloth, he has no plans to change his current setup.

"Single-width tweed has a limited market, but I wanted to do it the old traditional way. And it's enjoyable, knowing that I'm keeping the old traditional way of Hattersley single-width weaving alive."

Norman buys his yarn from the local tweed mill and does his own warping (preparing the threads that go lengthways through the tweed). Once a length of tweed is finished, he takes it back to the mill to be washed and stamped with the distinctive Harris Tweed 'orb' trademark.

Today, Norman's pastime has evolved into a successful small business and tourist attraction, a fact which also clearly gives him great pleasure.

"I still see it purely as a hobby," he says. "But I do sell a bit to the tourists who come round in the summer time. At the moment, I've got 30 or 40 different tweeds in my shed and I have visitors every day in the summer.

"I explain the history of Harris Tweed to them and the history of the Hattersley loom. They hopefully enjoy it and I certainly enjoy speaking to them. So really, it's therapeutic and a good hobby for a rainy day, which we have a few of up here I can assure you."

In addition to passing tourist trade, Norman has a select group of mail order customers, including the American author Phyllis Cast – creator of the House of Night series – who uses his tweed in her merchandise.

Asked if he ever misses his old life in Glasgow, Norman just chuckles and replies "only the Sunday papers – we don't get them here.

"I thoroughly enjoy it up here. I'm my own boss and there's no pressure on me," he says. "When you're in an NHS practice, you're on a treadmill, working away all the time. Here, I don't have to worry and I can do as much or as little as I feel like.

"I've got a small fishing boat, so we go out and catch lobsters and I cut my own peats as well. I've also got about 25 Hebridean sheep I look after, so we always have plenty of lamb in the freezer.

"I really couldn't wish for anything more. No, this will be fine for me." ■

ROYAL RECOGNITION

As well as being much admired by colleagues and patients, Norman's work was also recognised with an MBE, awarded to him in 1992 for "services to dentistry".

"That's all it said," recalls Norman. "They never tell you what it's actually for. But I assume it was something to do with my work on the capitation pilots in the late 1980s... I got a bit of friendly stick from people, but everyone was generally happy for me."

The award was presented at Buckingham Palace; an experience with which Norman was "quite chuffed".

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Scottish Dental magazine talks to John Meechan about what it means to come home to Hampden Park for the Scottish Dental Show (24-25 May), his predictions on the future of anaesthesia and the defining moment of his career

John likes the 'Scottishness' of the Forth Bridge

Show return is a real homecoming

Q – You're coming to Scotland in May, how does it feel to be 'playing' Hampden Park?
It's wonderful to be there – I used to live about a quarter of a mile from Hampden Park and, in fact, I'm actually still a regular attendee as I'm a member of the Scotland Supporters Club. I have been going since I was a boy of 13 or 14 but never thought I'd ever be there in a professional capacity. It really is a thrill! It makes me feel like an international professional footballer!

Q – What can delegates expect from your talk at the Scottish Dental Show?
I'm going to be giving an update on what's happening in local anaesthetic research and the latest in equipment and materials. I'll also have a particular focus on the drug articaine and how I think it might change practice.

Q – Who do you think would most benefit from listening to your talk?
I think general practitioners would benefit most from coming, but with anaesthesia being fundamental to dentistry, it would be appropriate for the whole of the dental team.

Q – Can you tell us a little bit about your previous working life in Scotland?
Despite being Scottish, I have only worked in Scotland for a year. In 1977-78 I worked as a house officer at Glasgow Dental hospital and, during the same time, on a Saturday morning at Jim Smith's practice in East Kilbride.

Then I went to Newcastle in 1978 intending to stay and get a year's experience, with the plan to come back to Glasgow, but this never quite happened. I do visit Glasgow regularly, to watch the football at Hampden Park and to visit friends and family, but I do think I'll stay in Northumberland now.

Q – Can you explain for those that don't know, your current professional role?
I'm a senior lecturer at the School of Dental Sciences at Newcastle University – and a consultant at Newcastle Hospitals Foundation Trust. My

"Attending the Dental Show really is a thrill! It makes me feel like an international professional footballer!"
John Meechan

Continued »

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work is a mixture of about 60 per cent NHS service and the other 40 per cent is teaching and research.

For the last 25 years I've concentrated my research into local anaesthesia and am passionate about the subject. This developed in 1985 when Stewart Blair, one of my bosses in oral surgery at Newcastle University, invited me to participate in a project looking at the incidence of aspiration during local anaesthetic delivery. Stewart was a huge influence on me and through that project I developed an obsession for local anaesthesia that I'm proud to say has been the foundation of my career.

If I could give one piece of advice to dental practitioners it would be to treat local anaesthetics with the respect they deserve. They are the most amazing and safe drugs when used appropriately.

The East Neuk of Fife is one of John's favourite places

Q – Looking back over your career, what do you see as the highlights?
My biggest career highlight was being awarded a distinguished science award by the International Association for Dental Research. It was like winning an Oscar!

I was told six months prior to receiving the award in Australia. It is voted for by your international research peers, and I can honestly say it was the greatest professional honour I could have been bestowed.

Q – Where do you see the future of anaesthetics?
I'm not sure things will change that dramatically in the next 10 years. In 100 years I'm sure the equipment will be completely different and there will be a lot more changes.

Clearly, the major issue is the fact that anaesthetics can be uncomfortable to administer and getting rid of that problem, which means ultimately getting rid of needles, would be significant. But that's certainly not going to happen in the short term.

I'm 100 per cent sure that, at some point in the future, we won't be using needles. There are versions of needle–less anaesthetics in development at the moment but they have a limited indication. A guaranteed pain–free anaesthetic will take time to come to fruition and I see this as being one of the biggest innovations in dentistry to come.

Q – What do you love most about Scotland?
I'm incredibly proud to be Scottish. I love The Forth Bridge and Hampden Park for their 'Scottishness' and my favourite places are the West Coast around Port Appin and the East Neuk of Fife.

Q – Could you tell us any Scottish jokes?
I love telling jokes, but I'm afraid I don't have any that could be printed here (laughs). ■

ABOUT JOHN MEECHAN

John received his undergraduate training at the University of Glasgow and obtained his PhD from Newcastle University.

He has worked in general dental practice in Scotland and south Wales, held hospital positions in Glasgow and Newcastle, and university positions in Vancouver and Newcastle.
He is the author of nine textbooks and over 150 papers.
He chairs the dental injection systems working group of the International Standards Organisation.
He is the recipient of a Distinguished Scientist Award from the International Association for Dental Research, a King James IV Professorship from the Royal College of Surgeons of Edinburgh and in 2011 won the Medical Futures Innovations award for Dental and Oral Health.

SCOTTISH DENTAL SHOW

John is speaking at the inaugural Scottish Dental Show at Hampden Park on Friday 25 May at 11-12.30pm, giving 'An update on dental local anaesthesia'.
Septodont, the leading supplier of dental anaesthetics, is proud to be sponsoring John Meechan at the Scottish Dental Show.
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Breaking down the barriers

Many people with autism find visits to the dentist disorientating. But with a few basic adjustments, dentists can make a real, positive difference to the lives of people with the condition, argues Dr Robert Moffat

Imagine that, to the outside world, you appear to be coping well. But, on the inside it's a very different story because the prospect of every social interaction presents insurmountable obstacles.

You can't read facial expressions, so it's hard to differentiate the well-intentioned from those who may wish you harm. Run-of-the-mill behaviour others take for granted – humour, sarcasm, irritation, even flirting – are unlockable, disturbing mysteries to you. The world is a confusing, anxiety-inducing, threatening place. As you struggle to understand it, people see you as difficult, odd, challenging and even obsessive.

You rely heavily on routines to make sense of the world, and become distressed and disorientated by unpredictability. Your senses can be acutely sensitive. Noise, bright lights and smells that go virtually unnoticed by many people can be unbearably overwhelming and disorientating.

At present, 50,000 Scots – that's one in every 100 – live on what is known as the autism spectrum, and have undergone many of these experiences. If your patient register is 2,000, you can realistically expect up to 20 will have autism or Asperger

syndrome, which is a form of autism.

Individuals who are considered to be on what is known as the 'autism spectrum' are in many ways very different from each other.

The range of intellectual ability extends from the severely learning disabled right up to normal or even superior levels of intellect. Similarly, linguistic skills range from those who are mute to those who display complex, grammatically correct speech. All such individuals have difficulties in communication, social situations and understanding the world around them.

A surgery visit can be stressful for any patient, however, it can be dramatically so for someone with this recognised developmental disability. Crying, lashing out, screaming and sometimes even fainting can be typical reactions, particularly in children with the condition who have not been prepared for their appointment. Practitioner, parent or carer can be left with the choice between undesirable, physical intervention or giving up the appointment entirely.

There are a range of reasons why many children and adults with autism can find a visit to the dentist acutely distressing. Some people with autism, particularly children, do not understand the purpose of going to see a man or woman in a white coat who looks into their mouth and uses strange equipment, while they are expected to lie on a chair with a large light positioned on their face. It can sometimes be helpful to establish with the patient the importance of having healthy teeth and gums and the consequences of not having regular appointments.

Dentists are one of the few professionals who we permit to enter our personal space. Most people find this uncomfortable, but understand that the dentist needs to be so close in order to examine teeth. For individuals with autism, this close proximity can be extremely distressing.

Finally, sensory issues are one of the main anxiety triggers at the dentist for individuals with autism. The obvious areas of difficulty will be touch and noise. Mouths are extremely sensitive places and for a person with autism, the sensation of a cold instrument entering their mouth can be very painful. The noise of the drills and cleaning

ABOUT THE AUTHOR

Dr Robert Moffat is the national director of the National Autistic Society (NAS) Scotland. Following his son's diagnosis with a developmental condition, Robert gave up a career in engineering to become his full-time carer. Robert studied psychology and completed a PhD in language impairment in children. Since joining NAS in 2004, Robert developed a hands-on approach, working directly with families, professionals and people on the autism spectrum, as well as managing NAS Scotland's extensive autism support services. He became the organisation's national director in 2010.

"I have always had an interest in this patient group and felt we could make our service more accessible for them"

Lyndsay Ovenstone

instruments can also be a problem. Sometimes the taste of the mouthwash or the paste used will also have an adverse impact.

As a result, people with complex needs such as autism can receive less oral healthcare, or of lower quality, yet they actually need more dental healthcare than many people. The Scottish Intercollegiate Guidelines Network (SIGN) guidelines on preventing dental caries in children with a high caries risk points out that a broad range of physical and learning disabilities can mean a reduced ability to perform self-care and poor oral hygiene. These lead to dental caries, which are often untreated and result in higher extraction rates.

Knowing how autism affects the individual you are likely to come into contact with and planning for their particular requirements can make a positive difference. By making a few practical adjustments, dentists can play an important role in the oral health and wellbeing of patients with autism and even create a positive surgery experience.

Lyndsay Ovenstone, a senior dental officer with the Salaried Dental Service, heads a paediatric dental service, incorporating student outreach, in Bridgeton Health Centre in the east end of Glasgow. Last year, Lyndsay played a leading role in introducing an innovative autism-friendly service for children with the condition.

Lyndsay said: "I have no formal training on autism, although I have attended postgraduate courses and have direct experience of providing care for patients with autism. I have always had an interest in this patient group and felt we could make our service more accessible for them."

With some basic knowledge of autism in place, much can be done in advance to help make an appointment run more smoothly. People on the autism spectrum can feel particularly uncomfortable about the unknown. It can be helpful to provide new patients with information about the surgery in advance so they have some idea of what to expect before they arrive.

Lyndsay continued: "We've now developed talking picture books of the service and the dental team as a way of preparing children in advance of their visit.

"The new talking books contain pictures of the health centre, staff and surgery. The books provide a narrative to accompany each picture as the child works through the pages. These are given to children prior to their first visit to help them learn about what they can expect at the surgery.

"Parents might also be concerned their child will not be welcome at a dental surgery and may not take them for routine care. The books help ensure that parents know they can access our service, as our facilities and experience make it more likely we will be able to meet the needs of their child.

"If it is the individual's first visit to the dentist, you may like to meet them prior to any treatment. You may also want to show them the equipment and how it works."

She added: "Many people with autism don't like clutter – things on worktops, or pictures and posters on walls. We've removed these from view. We've also changed the colours of the walls to make

Continued »

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them less clinical. Children with autism particularly like footprints on the floor too, so these have been purchased and fitted in the centre. Footprints are a form of signage used in hospitals and clinics. Again, this adds to the overall child-friendliness of the environment."

Some patients, particularly children, like to take comforters into the dentist's surgery to help to occupy or distract them. For some people, taking an iPod or having music playing in the background can act as a good blocker to equipment noise.

Lyndsay said: "Our aim is to provide positive sensory stimuli. For example, light patterns and shapes fascinate some children, so we now have a laser projector that produces lights on the ceiling. We also have various toys and resources that were recommended by a colleague who has considerable experience of children with autism."

Based on feedback from its members and supporters, the National Autistic Society (NAS) Scotland has some key advice for dentists on making the surgery experience a positive one for people with autism.

Many with the condition find waiting around for an appointment stressful. Alternatively, they may prefer to wait outside and a member of staff could be identified to collect them when the health professional is ready. If the appointment is likely to be delayed, they may wish to leave the building completely and return at a later agreed time. It may even be worthwhile to book a double time slot. This reduces the chance of you running late and provides enough time not to feel rushed.

During treatment, explain what you are going to do before starting any procedure or examination. The patient may not make eye contact, especially if he or she is distressed. Lack of eye contact does not necessarily mean they are not listening to what you are saying. Using clear simple language with short sentences can be very useful. It is worthwhile avoiding using body language, gestures or facial expressions without verbal instructions. These may not be understood.

Giving direct requests, such as "Open your mouth" is more autism-friendly. If you say "Can you open your mouth?", this may result in the person keeping the mouth closed or simply elicit the answer "yes". The person with autism may not understand you are asking them to do something. Ask for the information you need. A person with autism may not volunteer vital information without being asked directly. Check they have understood what you have said – some people with autism may speak clearly but can lack full understanding.

People with autism tend to take directions literally. If you say "It will only hurt for a minute", they may expect the pain to have gone within a minute. It is important to help the individual realise that this experience does have a time limit. By using visual or auditory timers such as sand timers, buzzers or watch alarms, the patient can have an understanding of this and monitor the length of the experience.

If you have responsibility for staff training, make sure autism-specific training is offered to all staff. NAS publishes many valuable publications for patients and practice staff at www.autism.org.uk/gp

The society also offers specific training for health professionals as well as a range of conferences and seminars. For full details, visit www.autism.org.uk/training or www.autism.org.uk/conferences ■

For further information, visit www.autism.org.uk/working-with/health

"Many people with autism don't like clutter – things on worktops, or pictures and posters on walls"

Lyndsay Ovenstone

ABOUT NAS SCOTLAND

The National Autistic Society Scotland is a leading charity for people with autism and their families.

Its main priority is to support people with autism in accessing the same social, educational and employment opportunities that many of those without autism take for granted.

The NAS provides a wide range of services to help people with autism and Asperger syndrome live their lives with as much independence as possible.

In 2010, NAS Scotland launched its We Exist campaign. Its main aim was to overcome government resistance to creating a strategy that addresses the needs of 50,000 people with autism in Scotland who feel they are unable to access mainstream services and support.

NAS Scotland raised general public awareness of autism in Scotland and the benefits that would come with legislation, not just for people with the condition, but for the nation as a whole.

Thanks to the hard work and dedication of NAS staff, its members and supporters and a range of autism groups, on 2 November 2011, the Scottish Government finally launched its Strategy for Autism and announced funding of £13.4 million to address the needs of families and individuals in Scotland affected by autism. NAS Scotland won the Campaign of the Year title for its We Exist campaign at the prestigious 2011 Herald Society Awards.

NAS Scotland continues to work and campaign so that the one in every 100 Scots with autism can access the basic support they need to fulfil their potential.

The NAS relies on the support of its members and donors to continue its vital work for people with autism.

To become a member, make a donation or to find out more about the work of the NAS, visit the NAS website www.autism.org.uk

For more information about autism and for help in your area, call the NAS Autism Helpline on: 0808 800 4104 10am-4pm, Monday to Friday, (free from landlines and most mobiles).

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Breathing new life into old bricks

Couple Kiki and Andrew Norman have relocated to Edinburgh to transform and expand a 100-year-old practice into a modern facility, decking it out with carefully chosen equipment, writes Bruce Oxley

In a little over three years, Kiki and Andrew Norman have managed to breathe new life into a 100-year-old dental practice in the heart of Edinburgh.

The two Newcastle Dental School graduates, who met in the first year of their undergraduate studies, took over the two-surgery Haymarket Family Dental Practice in 2009 renaming it Haymarket Dental.

They have recently undertaken a significant programme of refurbishment that has seen the addition of a third surgery, and the complete overhaul of the existing facilities.

Kiki, originally from Giffnock in the south side of Glasgow, and her husband Andrew decided to move back up to Scotland after working in the north east of England since graduation. After a year of searching Glasgow and Edinburgh for their ideal practice, it was actually Kiki's mum who found the practice that was to become their own.

Kiki said: "We were keeping our eyes out for a new practice for the first six months and then the last six months we were really properly looking. After all that it was actually my mum who found it. She was on the internet one day and found it on the BDA website!"

The practice ticked all their boxes, including the potential to refurbish it to their own style and standard, and extend to include another surgery. However, one of the first things Kiki and Andrew did when they took over was bring the practice into the 21st century and computerise their day-to-day workings.

The waiting room has been transformed

PHOTOS: JC MACKINTOSH PHOTOGRAPHY

They then set about building up the patient list while planning how they were to renovate and extend their new practice. One of the main selling points when they were looking at the building was the potential to create a third surgery from the existing waiting area. As it stood, the reception was on one side of the corridor, with a large waiting area on the other. Their plan was to turn the larger room into a combined reception and waiting room, and make the smaller reception area into a new surgery.

"We had a clear idea of what we wanted to achieve and we were quite heavily involved with the design"

In January last year, the planning was complete and work began to overhaul the practice. Despite bringing in a project manager to oversee the work and give them assistance with the planning and the paperwork, both Kiki and Andrew were actively involved with the design and planning of the refurbishment. Kiki explained: "We had a clear idea of what we wanted to achieve and we were quite heavily involved with the design and how we wanted the surgeries set up. We chose all the floor coverings, the corian worktops as well as all the fixtures and fittings."

Continued »

Andrew carefully researched which chairs were best for the practice

PHOTOS: J C MACKINTOSH PHOTOGRAPHY

Continued »

The previous October, Andrew had visited the BDTA Dental Showcase in London and scoped out the equipment that they were to need. They were planning on gutting and replacing the majority of the equipment, fixtures and fittings in the practice so they needed to get quotes and see the equipment for themselves.

Kiki said: "We wanted to make sure we got the best equipment for the practice so Andrew went down and looked at the various makes and brands of equipment and got quotes. He also asked colleagues what make of chair worked for them and what they would recommend."

Based on those recommendations, they settled on three Takara Belmont chairs – one Voyager for the new surgery and two Clesta II chairs for Kiki and Andrew's soon-to-be refurbished surgeries. They have also installed intra-oral cameras, a new rotary endo system as well as mini screens on their chairs to show patients dental X-rays.

The whole practice was rewired and replumbed with all the floor coverings, cabinetry and dental equipment upgraded, along with the installation of a fully-furnished LDU. Kiki explained: "The practice was needing updated so we felt that it was best to get it all done at once so that we wouldn't need to do it ever again, hopefully.

"So it was important for us that the refurbishment was carried out to a high standard to reflect the work that we do in practice."

The work was carried out in two phases; first a temporary surgery was installed in the old reception room and half the practice was screened off while work on the two old surgeries and LDU was undertaken. Kiki and Andrew worked a split shift during this time, either 8am-2pm or 2pm-8pm. After a 10-week build, the second phase could begin with the dentists starting to see patients in their brand new surgeries.

The second phase saw the new surgery built in the place of the reception area and the old waiting room turned into a dual-purpose reception and waiting room. And, despite the disruption to patients and staff being kept to a minimum, Kiki explained that it was a difficult time. She said: "It was quite difficult while the work was going on, but we are really happy with it all now.

"It wasn't difficult working in the surgery, but I was aware of the disruption for staff and patients. I was more worried about other people rather than myself, as the waiting room was a bit dusty for a while."

As for the future, Kiki explained that they have probably extended as much as they can, but she revealed that they may look to expand in other ways. She said: "I think that's as far as we can take the practice just now, but I wouldn't rule out buying another practice in the future." ■

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The hidden aesthetic

In our latest look at a live course of implant treatment, Stephen Jacobs describes tissue augmentation

In the last article describing NC's implant treatment, the implant placements were described and following some initial discomfort – more than I would have normally expected – the healing phase was largely uneventful.

At monthly reviews, the shape of the tissue was observed and a normal amount of tissue shrinkage was noticed. *Figures 1 and 2* show the shape of the tissue at three months, and this was despite over-contouring with the anorganic bovine bone xenograft, at the time of surgery.

In some cases in the aesthetic zone, the shrinkage is such that further bulking of the tissue is indicated and for this we usually carry out a connective tissue graft. With aesthetic cases, I always mention this possibility to the patient at the planning stage and include it as a possibility in the treatment plan. That way it does not come as a surprise to the patient when, at this stage, it is suggested that this procedure would enhance the final result.

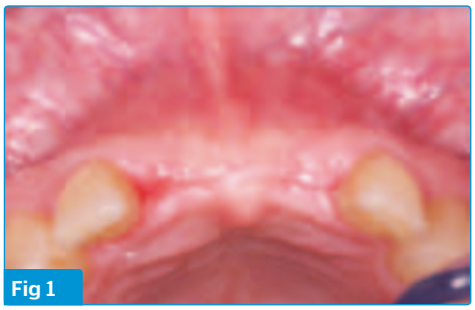
Currently, there are new biomaterials available, taking the form of dermal allografts and two companies, BioHorizons and Geistlich among others, are manufacturing them. I personally am trialling these products.

We discussed in the last article the principles of guide bone regeneration and attempting to regain/retain the architecture of the tissue overlying the implants, reducing the need to augment soft tissue. Furthermore, over the last few years, much research and consequent published literature, has centred around products such as bone morphogenic proteins (BMP's) and foundational tissue engineering principles using platelet rich growth factor (PRGF), platelet derived growth factors rhPDGF and recombinant bone morphogenic protein with acellular collagen sponge (rhBMP-2/ACS).

These products are not available in the UK, however our American colleagues are able to use them, sometimes 'off-label', with the products being fairly expensive and with mixed results. I suppose the jury is still out on this one!

In NC's case I decided to go with the anorganic bovine bone at implant placement combined with autogenous soft tissue graft prior to second-stage surgery, as I have been doing for many years.

The standard procedure involves the harvesting of a sub-epithelial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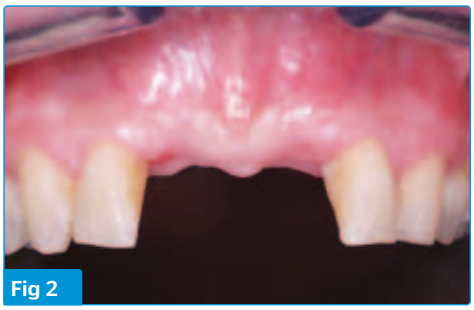
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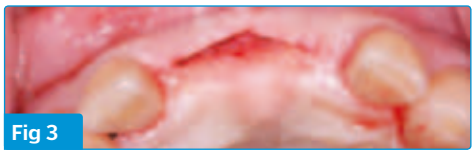
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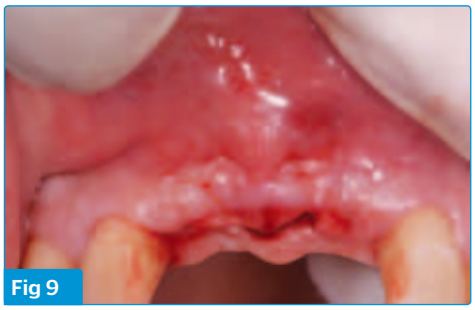
Fig 4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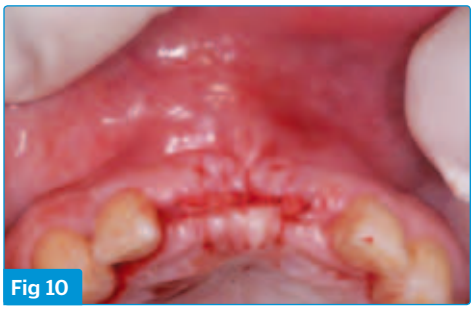
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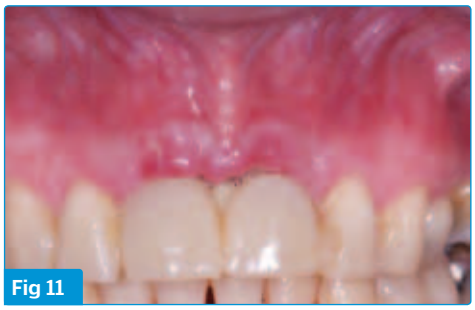
Fig 11

graft of connective tissue. However, in some cases, where there is a shortage of keratinised tissue, we can take what is known as a composite graft, where there is part full thickness with epithelium and part connective tissue.

There are two standard donor sites, one being the maxillary tuberosity and the other being the palate, with the tuberosity producing a more fibrous stable type of tissue and the palate giving us a fattier type of graft. In NC's case, we decided on the palate as the donor site of choice as described by Bert Langer in 1980.

The images show the stages of the procedure. We begin with a crestal split thickness incision extending towards the palate, then a wedge of connective tissue is lifted from the palatal side and brought buccally, a technique called the 'buccal roll' and was first described by Abrams in 1980.

While this helps increase the thickness of the tissue, it is seldom sufficient on its own and is a neat technique that when used in conjunction with a separate graft – as will be described – can usually make the vital difference.

To complete the preparation of the recipient site I then prepare a sub-epithelial pocket by a mixture of blunt and sharp dissection *(Figures 3 and 4)*.

A horizontal full thickness incision is then made in the palate, in this case extending from the distal of the first molar to the mesial of the first premolar, using a micro-surgical blade #67 *(Figures 5 and 6)*. From this horizontal incision the graft is harvested using vertical and horizontal incisions beneath the mucosa. This technique, if carefully carried out will usually result in no need for sutures, thus speeding up healing and reducing discomfort to a minimum. Care must be taken to avoid the greater palatine artery that runs near the vault of the palate just lateral to the midline.

Once harvested, the graft must be kept moist and I use sterile gauze soaked with sterile saline *(Figure 7)*. The graft is oriented in the most advantageous way and placed into the sub-epithelial pocket of the recipient site, and held in position with two horizontal mattress sutures using 7'0 Vicryl Rapide (Ethicon) sutures (*Figures 8 and 9)*.

The crestal incision was then closed with 6'0 interrupted sutures, again Vicryl-Rapide (Ethicon), *(Figure 10)* and the provisional bridge re-bonded after the pontics had been re-contoured with composite so that pseudo-papillae could be shaped.

Figures 11 and 12 show the healing at one week and *figures 13 and 14*, at three weeks. A total healing time of six to eight weeks is required before the next stage can be carried out, this being the uncovering of the implants, known as second stage surgery. This will be described in the next issue.

Interestingly enough, the palatal donor site will completely regenerate, using the principles of form following function, within three months and more could theoretically be harvested, this rarely being the case... not that many patients would allow you!

Post-operative advice centres around the use of analgesia and mouthwashes (0.2 per cent chlorhexidene), however most patients report virtually no discomfort. Post operative haemorrhage from the palatal wound is not uncommon and if the patient is wearing a denture then this can help prevent this eventuality, or even a clear acrylic 'suck-down' stent.

In summary, I find this procedure an invaluable adjunct to enhancing the soft tissue profile in highly aesthetic cases, and can even be used to improve the appearance under conventional bridge pontics. ■

"In some cases in the aesthetic zone, the shrinkage is such that further bulking of the tissue is indicated"
Stephen Jacobs

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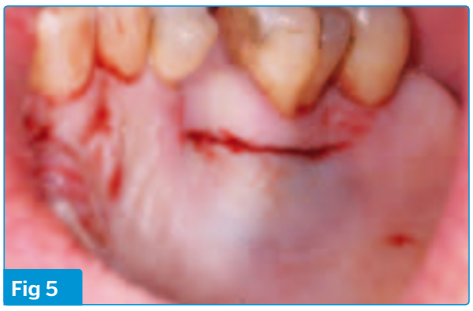
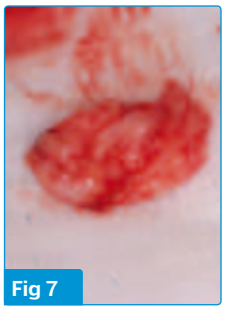


Fig 5


Fig 6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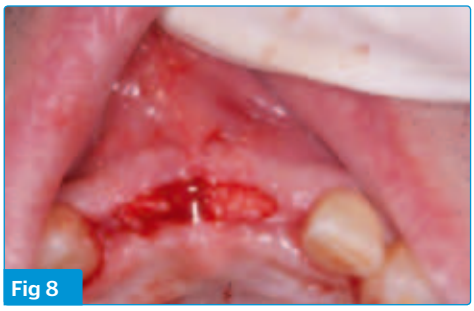
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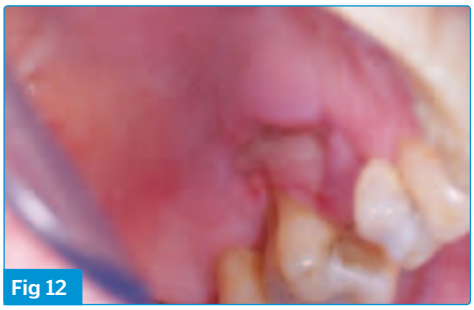
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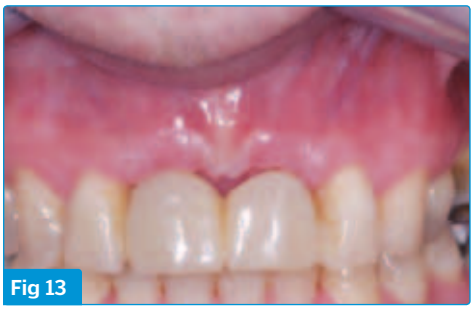
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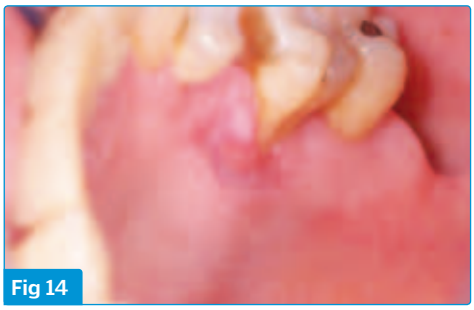


Fig 14

Going under the surgeon's knife

As his treatment enters its final stages, Patient NC marvels at the advances in dental surgery that have kept his pain to a minimum

"Relax, it's just tissue augmentation. Not difficult. Think about it as oral plastic surgery," the good Dr Jacobs soothed.

Oh Lord, plastic surgery! So, it's finally come to this: the painful reality of middle age kicking in. But through my mouth this time.

Now, I know we've been on a bit of a journey (for those following this) to two new front teeth – and so far, I agree, it's been pretty straightforward – but this absolutely was not part of the equation.

I admit, somewhat reluctantly, that there have been occasions when the attractions of the cosmetic surgeon's knife have floated momentarily into my consciousness. For example, when my Significant Other found this talented – for that read: expensive – guy to "fix" her already, as far as I could see, gorgeous eyelids. Or rather closer to home, when my loving family pointed to a magazine picture of Jack Nicholson's "moobs" and groaned: "Daaaad! Gym or knife?"

Think I'm alone? C'mon guys, how many of you out there haven't thought about it, even for a minute? Hold back the years, just a little? Go on, admit it: you hit a certain age and there are a couple of websites you maybe visit just to see how painful it might be to reach that new you. Then, of course, you dismiss it as total nonsense and delete the "history" on the laptop, just in case someone catches you visiting strange websites. Ringing any bells?

But here we are. So, let's do it. "We're" cutting out some tissue from the roof of my mouth and moving it to the space above where my new front teeth are going to be. Easy...he says (Yeah right!).

Now a quick aside: would one of you bright sparks please invent the painless injection into the roof of the mouth: it's the one thing left that is giving "pain free dentistry" a bad name. Okay, you're all moaning that it can't be done: try that argument over penicillin!

Layman's terms here I'm afraid; a section of tissue removed, positioned under a raised flap at the front of my mouth, stitched back up, and me back out in the street in 40 minutes. Amazing.

What's remarkable, from the patient's (my) perspective, is that what was clearly a significantly invasive procedure – to take the tissue – resulted in only a matter of mild discomfort post-operatively, for a few days. After that, it left a dull sensation over the contact area that two to three weeks later also departed, returning the area to normality.

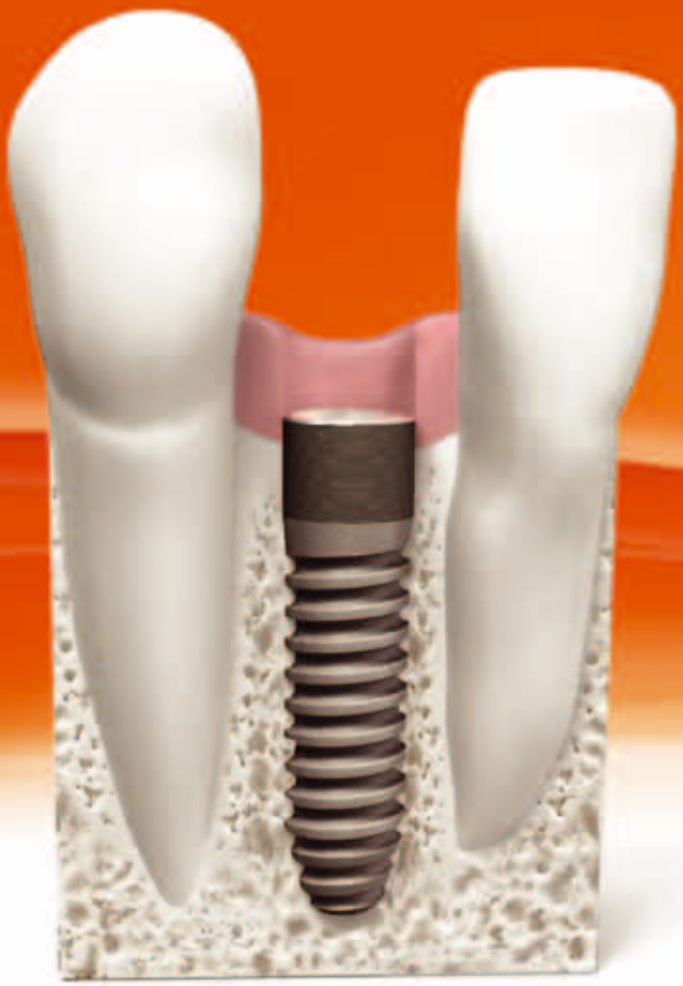
What was even more noteworthy was that having been given all sorts of dire warnings about what the "rebuild" site would look like post-operatively, none of it came to pass. Was it luck or skilled surgery? The latter, I suspect.

The irony, of course, is that in my case, sadly, few people will ever actually see the creative genius of Stephen Jacobs' plastic surgery (except you, of course). It will, for the most part, be hidden above my smile line. I'm hardly going to roll my top lip up and suggest friends gaze upon my new, surgically enhanced gum, am I?

What will, however, be more than apparent to those of you who understand the technicalities of these amazing things, is that creating something from nothing in such astonishing detail is, in my humble view, a remarkable achievement. ■

"I admit, somewhat reluctantly, that there have been occasions when the potential benefits of the cosmetic surgeon's knife have floated momentarily into my consciousness"

Treat small spaces with confidence



Laser-Lok 3.0 placed in aesthetic zone.

Image courtesy of Michael Reddy, DDS

Radiograph shows proper implant spacing in limited site.

Image courtesy of Cary Shapoff, DDS

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1. Radiographic Analysis of Crestal Bone Levels on Laser-Lok Collar Dental Implants. CA Shapoff, B Lahey, PA Wasserlauf, DM Kim, IJPRD, Vol 30, No 2, 2010.
2. Implant strength & fatigue testing done in accordance with ISO standard 14801.
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SPMP10109 REV D SEP 2010

Cast gold restorations

In the second article in our series from members of the British Academy of Restorative Dentistry, Stuart Campbell and Paul Tipton explore an often-neglected material

CPD

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The aim of this article is to review the application of cast gold for the restoration of damaged posterior teeth.

By reading the article and answering the online questions, the reader should understand the advantages of cast gold restorations, the factors important to case planning and the principles of preparation.

Since Taggart described the lost wax technique for producing cast restorations in 1907, gold-based alloys have been used for the restoration of posterior teeth[1].

However, in recent years, many dentists have excluded cast gold restorations from their practice on the grounds that they suffer from poor aesthetics, incur high costs and demand exacting preparations.

Christensen in 2001[2] reported that gold castings accounted for only eight per cent of laboratory-produced restorations. This is supported by Federlin et al[3], who noted a general trend toward ceramic restorations being the preferred choice of patients and clinicians for the restoration of posterior teeth.

Faced with such data, it could be suggested that cast gold restorations have little value in contemporary dental practice. However, it should be realised that many of the modern alternatives to gold alloy are supported by weak, often biased, research and fail to offer many of the advantages of cast gold such as[2,4,5]:

- high fracture resistance
- superior marginal integrity, even after years of function
- coefficient of thermal expansion similar to tooth structure
- corrosion resistance
- does not require adhesive bonding
- biocompatible
- does not discolour tooth structure
- does not wear or abrade the opposing dentition
- minimal removal of tooth structure is required to support occlusal function.

One further advantage is longevity[6-8]. Donovan et al[6] reported on the long-term success of 1,314 cast gold restorations placed in 114 patients over a 52-year period. Results from this study showed that 96 per cent of the gold restorations evaluated were described as being excellent in terms of marginal integrity, anatomical form and surface texture.

In summary, therefore, it may be stated that:

- properly fabricated cast gold restorations can provide extremely predictable long term service
- cast gold should be considered for patients who are more concerned with longevity than aesthetics.

This may explain the findings of both Christensen in 1986[9] and Rosensteil et al in 2004[10] who suggest that most dentists prefer the use of gold alloy for the restoration of their own posterior teeth.

This article may be helpful to clinicians who believe that cast gold restorations may have a part to play in their practice and will consider their successful use under

"In recent years, many dentists have excluded cast gold restorations from their practice on the grounds that they suffer from poor aesthetics"

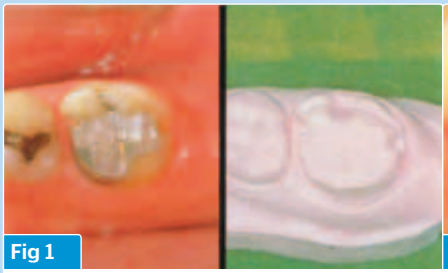

Fig 1

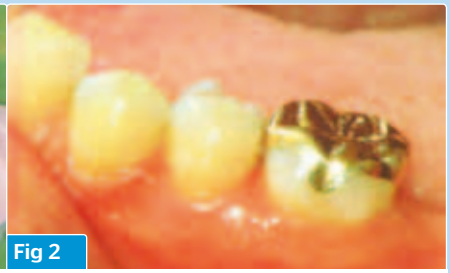

Fig 2

Figures 1 and 2: Preparation of tooth 46 for a three-quarter crown is more conservative than providing a full coverage crown

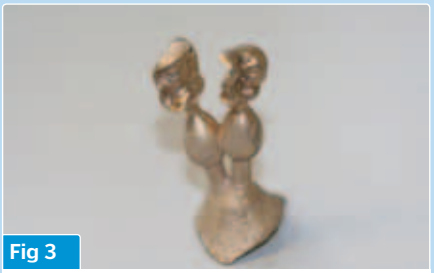

Fig 3

High Nobel Type II Gold Alloy
(Labwork by Kenn Scott, A-Plus,Dundee)

Fig 4

High Nobel Type II Gold Alloy
(Labwork by Kenn Scott, A-Plus,Dundee)

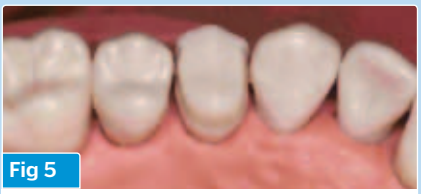

Fig 5

Three quarter-crown preparation. This technique allows the buccal wall of the tooth to be left intact. The preparation is characterised by a chamfer finishing line and proximal grooves that are aligned parallel with the palatal surface

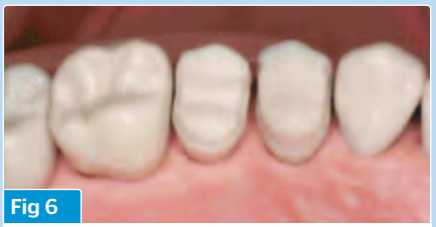

Fig 6

MOD onlay – second premolar: Characterised by a chamfer marginal finishing line located at least 1mm from the occlusal contact on the functional cusp

the following major headings: case selection, composition, restoration design, preparation, try-in and cementation and finishing.

Case selection

On the basis of current information, the provision of cast gold restorations should be based on the following considerations:

- **Aesthetics:**

Aesthetics are a matter of opinion and some patients regard gold as unsatisfactory. Others state that under the right circumstances, cast gold restorations can be provided without showing the gold. If the buccal surface of the tooth is intact, careful placement of the margin can allow the use of gold on the occlusal surface, and yet satisfy aesthetics.

- **Occlusal considerations:**

According to Wise[11], the basic principles of correct occlusal management are to ensure that occlusal forces are directed down the long axes of teeth and that posterior restorations separate immediately in all excursive movements.

This applies to the choice of restorative material by the fact that more space is needed for the disclusion of ceramic and ceramo-metal restorations than for gold. Steep anterior guidance creates more space for posterior disclusion and shallow anterior guidance implies reduced space. Therefore, steep anterior guidance can permit the use of porcelain, whereas shallow anterior guidance indicates the need for gold.

- **Conservation of tooth structure:**

There is more danger to the pulp when greater amounts of tooth structure are removed during tooth preparation. Cast gold restorations require removal of less tooth structure and are therefore less traumatic than all-ceramic and ceramo-metal restorations. *(Figures 1 and 2)*

- **Bruxism:**

The prognosis is poor when porcelain occlusal surfaces are provided in a wearing dentition whereas gold does not wear or abrade the opposing dentition.

- **Laboratory support:**

The production of high-quality cast gold restorations is dependent on excellent laboratory support.

- **Cost:**

Gold restorations incur high costs. However, it should be realised that accurate, carefully cemented gold restorations have a long history of reliability[6-8,11]. Ceramo-metal restorations last for approximately 15 years, though carry a significant biological cost to the tooth. Adhesively retained porcelain and composite indirect restorations are relatively untested. Recognition of these factors will allow both patient and clinician to make a cost benefit analysis.

	Conventional	Adhesive
Extra coronal	Full veneer crown	Occlusal onlay
	7/8 crown	
	3/4 crown	
	MOD onlay	
Intra coronal	MOD onlay	
	Class I	
	Class II inlay	
	Class IV inlay	

Composition

Some clinicians consider that the American Dental Association (ADA) provides a more useful classification of gold alloy than the British Standard (BS 4425)[13]. The ADA classification refers to the proportion of noble metals (gold, platinum and palladium) in the alloy.
The classification is:
High noble: at least 60 per cent noble metals, including at least 40 per cent gold.
Noble: at least 25 per cent noble metals.
Base metals: less than 25 per cent noble metals. *(Figures 3 and 4).*

Typically, high noble alloys are used to produce cast gold restorations. The ADA has divided high gold alloys into four types based on their mechanical properties.

- Type I alloys are weak, soft

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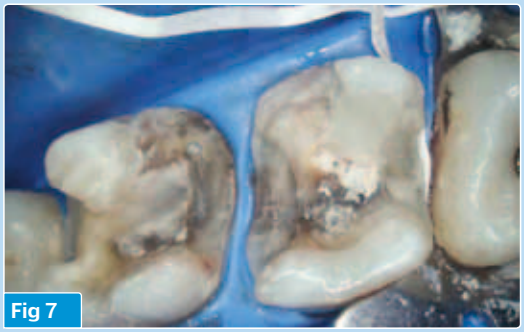
Fig 7

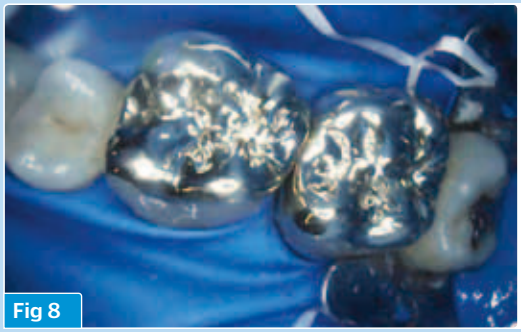
Fig 8

Figures 7 and 8: Prepared teeth are isolated with rubber dam and tried-in

Continued »

and do not harden by heat treatment. Their application is limited in that they are appropriate only in areas not under occlusal stress.

- Type II alloys are considered to have intermediate hardness values and are used commonly for gold restorations where burnishability of margins is more important than high strength.
- Type III alloys are often used to provide gold castings in higher-stress applications where restoration design makes burnishability less important than strength.
- Type IV alloys are strong, hard and non-ductile and are intended for high stress applications such as partial dentures. They are rarely used.

"Advancements in adhesive dentistry have provided clinicians with more options"

The main incentive for the use of low gold alloys is cost. Alloys in this group are susceptible to tarnish and corrosion and have mechanical properties similar to ADA type III alloys. With only moderate ductility, their use is limited to full veneer crowns[14,15].

Restoration design

Traditionally cast gold restorations have been classified as being intracoronal or extracoronal. Advancements in adhesive dentistry have provided clinicians with more options, helping them to restore teeth without destructive preparations and this has led to the development of adhesively retained cast gold restorations. Chana et al[16] demonstrated the use of alumina blasted resin bonded type III gold alloy cement for


Fig 9


Fig 10

Figures 9 and 10: zinc phosphate cement applied to prepared teeth and castings seated

the restoration of worn teeth. The authors reported an 89 per cent survival rate at five year. The restorative applications of cast gold are summarised in Table 1.

Preparation

The design features of conventional gold restorations follow the principles advocated by Tucker[5,14]. The common features of smooth walls, well-defined margins and smooth flowing outlines are considered necessary to produce a well-fitting gold casting. Furthermore, care should be taken to ensure that teeth are prepared down their long axes giving consideration to:

- occlusal reduction
- functional cusp bevel
- resistance and retention
- marginal finishing line.

The preparation features of several gold restorations are illustrated in Figures 5 and 6.

Try-in, cementation, finishing and polishing

Following rubber dam isolation the castings are tried in, and contacts are adjusted as necessary *(Fig 7 and 8)*.

A number of authors believe that zinc phosphate cement is the material of choice for luting conventional cast gold restorations and this is founded on a long history of successful clinical use[4-6]. The clinician can adjust the working time of the cement mix, facilitating the removal of excess and final finishing *(Figs 9 and 10)*.

Adhesively-retained gold restorations are deprived of many of the resistance and retention features of conventional gold castings and their survival is directly related to the success of dentine bonding agents. Several authors have described the use of Panavia Ex cement for luting these restorations[16,17].

Finishing of gold restorations can be readily accomplished using sandpaper discs of varying grit. The disc is rotated carefully at low

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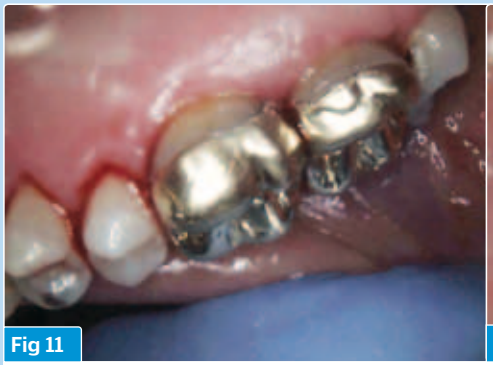
Fig 11

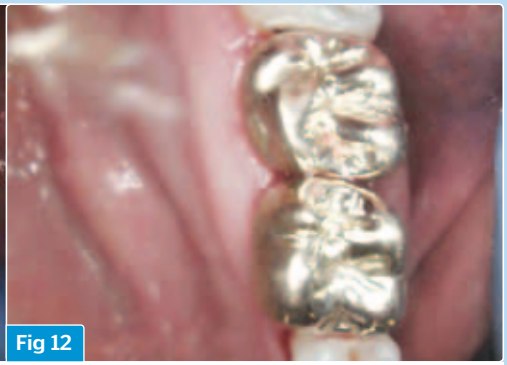
Fig 12

Figures 11 and 12: Rubber Dam removed and final finishing carried out

Continued »

speed moving from gold to tooth in three planes. Finally, the restoration is polished by applying a mixture of pumice and aluminium oxide powder using a rubber prophy cup *(Figures 11 and 12)*.

Conclusion

Cast gold restorations produced with type II or III gold alloys are among the longest-lasting dental materials and have a proven clinical track record[5,6,10,12]. They have a wide application and are useful when space is reduced due to shallow anterior guidance or when wear of the opposing teeth is a concern[5,11].

The preparation techniques are easily learned with practice and are less invasive than those required for all-ceramic and ceramo-metal restorations[14]. Advances in dentine bonding agents have led to the development of adhesively retained cast gold restorations, perhaps the ultimate conservative indirect posterior restoration[15,16].

Despite these advantages, the popularity of cast gold has faded in recent years and this may be attributed to the growth in tooth-coloured alternatives. It should be appreciated however, that many of these restorations are backed by manufacturer's claims and have a weak evidence base.

All patients requiring indirect restorations for their teeth should be informed of the treatment possibilities so that valid consent can be provided. The benefits of longevity and less invasive tooth reduction may be preferred by some patients to the technique required for more aesthetic alternatives. ■

ABOUT THE BARD

The British Academy of Restorative Dentistry (BARD) was set up in 2009 and aims to improve the quality of restorative dentistry by promoting educational opportunities. BARD is the only organisation of its kind to offer a complete training pathway from membership through certification, diploma and on to fellowship. All dental professionals can join the academy and our members benefit from annual scientific meetings and local study clubs, both offering an opportunity to learn from national experts and to network and socialise with like-minded dental professionals.
For more information on the BARD and how to join the academy, please visit www.bard.org.uk

Acknowledgments:
All laboratory work provided by Kenneth Scott RDT, A-Plus Dental Laboratory, Dundee, Scotland.

Further information:
The preparation techniques for cast gold preparations are taught at the following locations:
Tipton Training Phantom Head Course www.tiptontraining.co.uk
British Academy of Restorative Dentistry Edinburgh Study Club www.bard.uk.com
RV Tucker Cast Gold Study Club www.arvtsc.org/

ABOUT THE AUTHORS


Stuart Campbell


Paul Tipton

Stuart Campbell is the principal of Loanhead Dental Practice in Midlothian and chairman of the Edinburgh branch of BARD. His clinical interests are in prosthodontics and implantology. He spent three years training with Dr Paul Tipton in Manchester as well as completing several year-long restorative courses in Europe and the UK. He is the author of several published clinical articles and is currently undertaking an MSc in implant dentistry.

Dr Paul Tipton is an internationally acclaimed prosthodontist who has worked in private practice for more than 30 years. He is the founder of Tipton Training Ltd, one of the UK's leading private dental training academies, and the author of over one 100 scientific articles for the dental press. He was voted in the Top 10 'most influential dentists in the UK' by his peers in *Dentistry Magazine* in April 2011, and was voted in the top five dentists in *Private Dentistry's* Elite 20 poll, January 2012. He is a lecturer on the MSc programme in Aesthetic and Restorative Dentistry at Manchester and also at King's College London (LonDEC). Paul is currently the president of the British Academy of Restorative Dentistry and practises at his clinics in Manchester, Leeds, Chester and London. All details can be found at www.drpaultipton.co.uk

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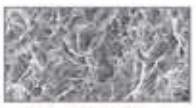

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BARD clinical tips

Using a WAMkey makes crown removal simpler, says Stuart Campbell

Removal of a crown or bridge may be necessary for endodontic or cosmetic reasons, but is often an unwelcome challenge for both dentist and patient.

The use of rotary instruments can risk damage to the supporting tooth and frequently results in the complete destruction of the restoration. This procedure can also be costly in terms of time and equipment, as burs and contra-angle handpieces undergo intense wear and tear.

The WAMkey offers a less invasive technique for the removal of crown and bridgework. The kit comprises a set of three keys with oval-shaped tips, ranging in size from 2.5 to 5mm *(Figure 1)*

To use the device, a four-step protocol is recommended:

1. First, a small window is drilled in the crown using the appropriate bur (Ceramometalivore bur, Swallow Dental). The window is prepared to a diameter of 1-2mm at the area where the interface between the preparation and crown occlusal surface is assumed to be located.

To account for the differences in occlusal reduction, the preparation should be made closer to the occlusal surface for gold crowns, and about halfway between the occlusal surface and the margin for all-ceramic or ceramo-metal crowns *(Fig 2)*.

2. The next step is to locate the stump/crown occlusal interface. It is likely that the dentist will locate this interface in Step 1, in which case he/she can directly proceed to step three.

However, in some cases, the opening will have to be progressively enlarged until the cement seal becomes visible. *(Fig 3)*.

3. Create a tunnel between the occlusal surface of the preparation and the inner side of the crown. Using a cylindrical bur (approximately 1.2mm in diameter), the dentist drills an oval-shaped tunnel between the occlusal surface of the preparation and the inner side of the crown.

The difference in hardness between the dentine and the crown material will guide the dentist with regard to dentine penetration. This technique allows the crown to be reused following a simple repair procedure *(Fig 4)*.

Verify the depth of the tunnel using a rubber-stop inserted onto the smallest

WAMkey device. Ensure that the instrument is positioned as close as possible to the centre of the tooth stump, so as to work as close as possible to the long axis of the preparation during the removal procedure.
4. Simply insert the key all the way to the end of the tunnel drilled in step three and rotate it one quarter-turn. This creates a coupling force between the preparation and the crown's inner side. If the tunnel was properly drilled, this movement should occur in the long axis of the preparation *(Figs 5-7)*.

The shape and surface condition of the WAMkey means a much lower degree of force is required to loosen a crown than with a traditional crown 'puller'. The forces are essentially exerted in the axis of the preparation, provided that the tunnel between the crown and the preparation was drilled as close as possible to the centre of the preparation.

The advantages of the device are:

- quick and simple and easy to use
- little risk to the core
- less wear and tear on rotary instruments
- reuse of the crown or bridge. If the dentist does not modify the margin of the abutment, and the crown still fits the abutment, then a simple repair will enable the crown to fulfil all of its original functions.

The limitations are:

- it is generally not possible to use the WAMkey to remove crowns from anterior teeth owing to their configuration. ■

Fig 1


Fig 2

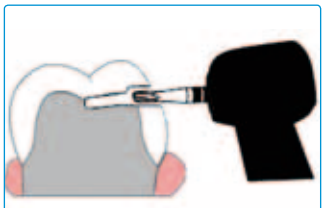
Fig 3


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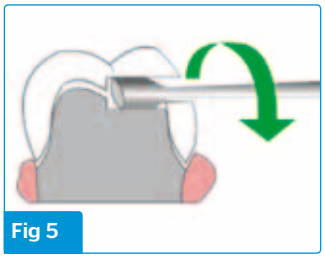


Fig 5


Fig 6


Fig 7

For further information on the WAMkey, contact Paul Harrison, Swallow Dental Supplies Limited on 01535 656 312 or visit www.swallowdental.co.uk
For more informationon the British Academy of Restorative Dentistry, visit their website at www.bard.uk.com
The first BARD study club will be held in Edinburgh on 28 May and will feature a talk by Dr Paul A Tipton.

Trends versus timeless principles

Ian Buckle

addresses the issue of meeting the expectations of clients against practicalities

Over the years, there have been many trends in dentistry and as they come and go they leave their mark – some positive, some negative. As a result, our experience will be greater and dentistry will be advanced and/or changed in some way. Most recently, we have ridden the cosmetic wave, with an emphasis on creating the perfect smile at almost any cost. Patients' desires for immediate results coupled with most dentists preference to pursue a restorative option has probably resulted in some over-zealous tooth preparation.

However, patients who required restoration will undoubtedly have benefited from dentists' greater understanding of smile design. Also the profile and perception of dentistry have been enhanced with patients now appreciating the benefits and desirability of dentistry rather than dentistry being seen as a necessary evil. With an ageing population who want to look good and expect to keep their teeth for a lifespan that has never been longer, the expectations of dentistry have never been greater.

Trends

Trends in dentistry tend to be introduced around new dental tools. For example, the development of increasingly thinner, stronger and more beautiful porcelains, together with improved bonding techniques, have propelled the cosmetic wave. We need to remember that while it is very important to move with the times and embrace new technologies, it is also essential to appreciate the concepts that underlie good dentistry and never forget the timeless principles that have stood the test of time.

These days, much is written about "comprehensive dentistry" as a concept, but what does that mean? Comprehensive or complete dentistry is about treating the patient as a whole rather than as a "mouth" and understanding the balance that exists between function and aesthetics, biology and structure. It is also about understanding the psychological and psychosocial ramifications that exist for each patient.

Sometimes we dwell too much on just one aspect. While patients may ask us to create a beautiful smile, I doubt there are many patients who don't expect health, comfort, function and longevity to be delivered at the same time. Similarly, there are few patients who would accept a functional result that did not at least look reasonable. Understanding and managing the patient's expectations is without doubt the most fundamental part of any treatment plan. Taking the time to do this is crucial to a satisfactory result and a happy patient.

We also need to remember that a patient may not share the vision that we have of how their treatment may end up. There are many tools at our disposal to do this, from digital imaging and diagnostic wax ups to showing examples of completed treatments. It is also often possible to develop a treatment plan in stages, allowing a patient to stop at the point where the result is appropriate for them.

Scheduling treatment

Barry's main concern was that his front teeth continued to break down and he was afraid of losing them. He presented with erosion, decay and attrition together with mild periodontal disease. He was unconcerned about the appearance of his teeth at this stage. However, often such patients desire a more aesthetic result once their initial concerns have been met.

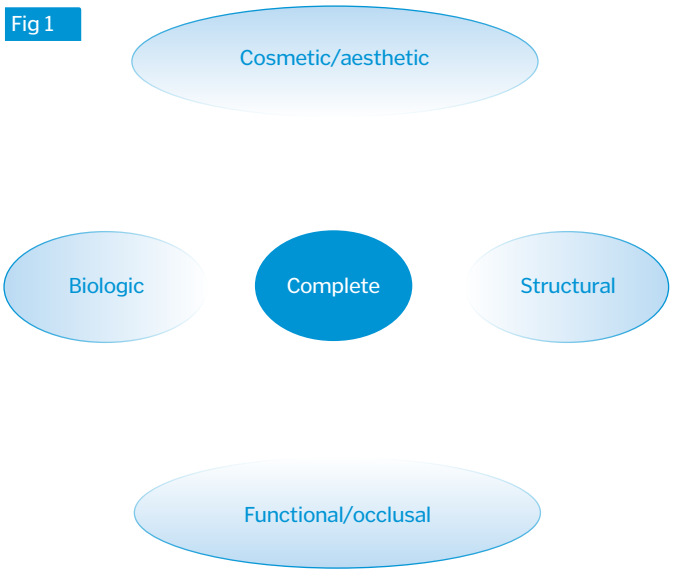
In this case, after initial periodontal therapy and tooth whitening we were able to restore the teeth with a simple single layer composite system to achieve the patient's structural, functional and biological requirements. Once these parameters had been met, the patient was able to reassess his aesthetic goals with a more positive approach. Despite

uneven gingival levels and the basic aesthetic level, the patient was delighted with the result and has continued to maintain an excellent hygiene regime. The treatment was cost effective and fulfilled the patient's needs and desires. While he understands that composite restorations may require some degree of maintenance, he is willing to accept that.

This process of scheduling the treatment or "progressive smile design" can also be very beneficial in helping patients spread the cost of treatment over time, particularly important at these difficult economic times. Employing this approach will almost always ensure a more natural result and certainly produces a solution that is appropriate to meet each patient's individual needs and desires. In order to develop a staged treatment plan, it is very important to understand the treatment options that we have available to us together with the tools and materials that we have at our disposal.

Paul attended wanting to improve his smile while understanding that there was significant structural and biologic damage to his teeth *(Figure 1)*. He was found to have moderate periodontal disease together with erosion, attrition and caries. He also wanted to improve his smile for a trip to America in just three weeks' time! Based on a thorough examination and records process, together with listening carefully to the patient's requirements, we were able to develop a suitable treatment plan that would allow us to continue to work on the patient's periodontal needs while at the same time improving his smile and helping him to envision what could be achieved.

Fig 1



Initial periodontal therapy was commenced and a diagnostic wax- up produced on mounted models. After ensuring that the patient understood the limitations of the procedures to be provided, together with the need for further treatment, single layer hybrid composite restorations were placed in accordance with a stent constructed from the diagnostic wax-up *(Figure 2)*. We were able to meet his deadline for his journey to America and at the same time help him to see how his appearance may be improved.

The patient returned a month later delighted with the result and highly motivated to further improve the aesthetics. After his periodontal condition had been stabilised, porcelain crowns were placed 12,11,21,22 and 23 to restore structure, function and aesthetics *(Figure 4)*. Elsewhere, composite restorations were left in place. The patient was totally satisfied with the treatment provided and maintains his hygiene with renewed vigour.

Treatment options and timeless principles

Forty years ago, Dr Peter Dawson spoke about the concept of complete dentistry. He became known for function and occlusion not because it was the only part of comprehensive dentistry that he taught but because he explained those concepts so well and how they had an impact on every other aspect of dentistry. The tools and materials that we use may have changed but the balance that he spoke about *(Figure 1)* is just as important today as it was back then.

Similarly, he listed the treatment options that are available to us:

- reshape
- reposition
- restore
- reposition bone (surgery).

At first glance, the above treatments look just to be a list of options, but if considered in this order at the treatment planning phase, it will enable us to practise truly minimally invasive

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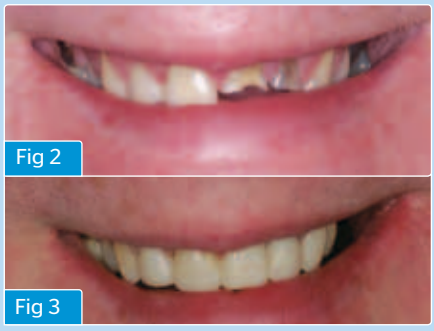
Fig 2

Fig 3

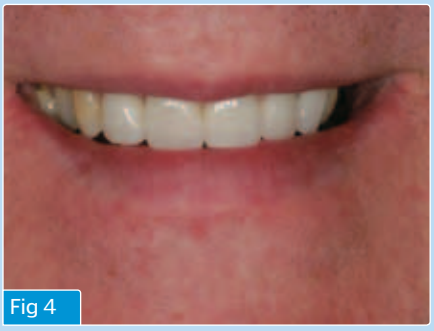
Fig 4


Fig 5


Fig 6


Fig 7


Fig 8

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VENUE	SEMINAR *8.30am-5pm*	LIVE DEMO *8.30am-1pm*
Manchester	Jun 15th 2012	Jun 16th 2012
London Heathrow	Sep 21st 2012	Sep 22nd 2012
Leicester	Oct 5th 2012	Oct 6th 2012
Edinburgh	Nov 2nd 2012	Nov 3rd 2012

Regardless of the latest trends in techniques or materials, these principles will remain the foundation of quality and complete dentistry. You will gain an insight and understanding that will change not only how you practice, but your enjoyment of the practice as well. The focus of the programme is to integrate a comprehensive treatment planning process for any restorative case into your practice.

[redacted]

"When Jim and I started working more closely in the practice together, we very quickly realised that there was no place to hide and that there were gaps in our knowledge. What seemed like simple things like bites and occlusion, insisal edge position, occlusal planes etc. were mostly fine but on the odd occasion things just didn't turn out as we had expected.

Despite there being an abundance of post-graduate training and CPD we struggled to find simple solutions to what seemed to be simple problems.

A chance find on a temporary crown course gave us that solution. Ian was presenting, and over coffee in the break we got a few nuggets of information that helped immediately. We liked Ian's presentation style and decided to take the Dawson Modules. What that gave us was the ability to formalise and simplify the examination, diagnosis, planning and treatment stages. With both myself and Jim taking the course it made things a lot easier to put the theory into practice.

The difference this course has made to my daily working practice has been fantastic, not only has it given me the ability and confidence to take on bigger and more complex cases but it has afforded me the opportunity to practise the kind of dentistry that I wanted to do. Dawson took a scary, often daunting subject, broke it down into understandable concepts and rebuilt it in a simple and logical fashion.

I cannot recommend this course enough for any dentist or technician who wants to raise their standards and produce the kind of results that many practitioners can only dream of. Be careful though, once you've opened the box there's no going back, but can you afford not to!!!"

"An eye opening course and a fantastic experience that has supplied me with the knowledge and the tools to communicate with like minded technicians and dentists."
[redacted]

Continued »

dentistry. The concept of minimally invasive dentistry has been around since the 1970s, but the emphasis of this was solely on the biological aspects of patient care. More recently, there has been a move towards minimally invasive cosmetic procedures with a much greater emphasis on orthodontics (repositioning), tooth whitening and simple bonding procedures (alignment, bleaching and bonding).

Most dentists have always accepted that if the teeth are a good shape but in the wrong position, it is much more appropriate to move the teeth to position rather than to restore them into position. However, many patients would refuse orthodontics because of the time it would take and the appearance of "train track" braces. This has spurred the development of other ways of moving teeth which are much more acceptable to patients.

Lingual orthodontics, ceramic brackets and clear aligners such as Invisalign have become very popular, as has the Inman aligner which is removable, offers quicker treatment times and is less expensive *(Figures 7 and 8)*.

These are just a few of a number of systems available today. Again, it is important to understand that each of these is just a tool to help us in providing a comprehensive and appropriate result. Straight teeth that aren't biologically sound or don't function properly are not a satisfactory result. Orthodontics can also be an extremely important pre-restorative treatment, correcting gingival levels and minimising or eradicating the need for tooth preparation. Many patients will require a combination of treatment options to produce an acceptable result.

Summary

With the development of improved, more patient friendly treatments and the fabulous array of materials we have available to us today, we have never been better placed to practice minimally invasive comprehensive dentistry to fulfil the needs and desires of even our most demanding patients. However, we must remember that to achieve a great solution for any patient it is critical that we listen to them carefully so that we may understand what an appropriate result may be for each individual.

At the same time, we must have our own clear and well-defined goals such that we deliver a treatment that is maintainably healthy, structurally sound, functionally correct and aesthetically pleasing to that patient.

Perhaps most importantly, we should remember that it is understanding the timeless principles and overall concepts that will allow us to use the tools available today or developed in the future for the benefit of our patients keeping them happy and healthy for a lifetime and not just the next few years. ■

ABOUT THE AUTHOR

Ian Buckle is the director of the Dawson Academy in Europe, offering a structured hands-on curriculum at his practice and teaching facility on the Wirral, close to Liverpool and Manchester, and in London. For details of this curriculum or for details of his latest lectures, 'An introduction to Occlusion' and 'Minimally Invasive Comprehensive Dentistry' (available at various locations throughout the UK), visit www.bdseminars.com

Reciprocation – the future of endodontics

An evolution in reciprocation is making the process smother and safer, believes Mark Haigh

Having used many systems for canal preparation over a 25-year span, the practical advantages that the new concept of reciprocation brings over its predecessors has taken the art of canal shaping to a new level.

How many practitioners over decades have cursed their instruments used for canal preparation, whether it is the time taken, effectiveness, transportation, ledging or any other problem that confronts them when matters are not proceeding smoothly?

So what is this new evolution and where is its history?

The 'balanced force concept', with its small clockwise and counter-clockwise movements, was developed more than a decade ago after Roane proposed it in 1985. Balanced forced technique is an additional aid in shaping curved canals with larger diameter hand instruments, but these stainless steel instruments do very little for morale, day-in day-out in practice.

Continuous rotary preparation with nickel-titanium (NiTi), of which most of us have some experience, does not allow us to fully prepare canals without the usage of some hand filing. So it was in 2008 that, after much researching, Dr Ghassan Yared (then professor at the University of Toronto) published a clinical article that had a dramatic effect and raised a few eyebrows – 'Canal preparation with only one reciprocating instrument without prior hand filing: A new concept' (bit.ly/rY9xcw).

This means the instrument is driven first in a cutting direction, then reversed and the instrument is released. The angle in the cutting direction is greater than the angle in the reverse direction, thus the instrument continuously progresses towards the apex.

Having spoken to many of my colleagues, they are still not comfortable in using NiTi rotary instruments to prepare canals. So, for those who are reluctant, the use of one reciprocating file will put a sparkle back into endo and save both in cost and time.

There are three instruments marked with their specific ISO colour for easy identification:

1. R25 – has a diameter of 0.25mm at the tip and an 8 per cent taper over the first 3mm from the tip.
2. R40 – has a diameter of 0.40mm at the tip and a 6 per cent taper over the first 3mm from the tip.
3. R50 – has a diameter of 0.50mm at the tip and a 5 per cent taper over the first 3mm from the tip.

The instruments are made from an M-wire NiTi giving resistance to cyclic fatigue and greater flexibility, more so that traditional NiTi. The cross section is S-shaped.

The new system includes a motor (VDW SILVER RECIPROC Endo motor, Munich, Germany). The menu can be pre-programmed for reciprocation (RECIPROC) and for continuous rotary systems e.g. ProTaper, K3, TriNiTi and Mtwo. Torque and speed settings can be set and stored and the motor also has built-in automatic reverse rotation if the set torque limit is reached.

For obturation, matching gutta-percha cones are included and matching paper points are also supplied with the intro kit. The single instrument for usage is selected based on a preoperative radiograph and a hand-file canal orientation.

If, on the radiograph, the canal appears clear from access cavity to apex, use a size 30 hand instrument and insert gently with a watch- winding action to working length. If the size 30 hand file does not reach working length, retrace this step with a size 20. If the size 20 is inserted to working length (WL), use the R40 (medium canal). If it does not reach the WL, use the R25; if the size 30 hand file does reach the WL, then use the R50 (Large canal).

Reciproc R25 file combining matching Paper and GP point

In reciprocation, the clockwise/counter-clockwise angles are lower than the angles at which the RECIPROC instrument would usually fracture on binding. If a reciprocating file binds in the canal, it will not rotate past its angle of fracture,

thus glide path creation to minimise binding is not required.

So what are RECIPROC's advantages from a surgery/practical point of view?

- single file shaping – no multiple files to contend with
- cheaper than all other rotary systems – blister packaging
- single use – discard after canal preparation therefore eliminating the risk of patient cross contamination
- reciprocation ensures canal centring ability and efficient negotiation of narrow or curved canals
- the canal is totally prepared to a greater taper with only one instrument.

Technique:

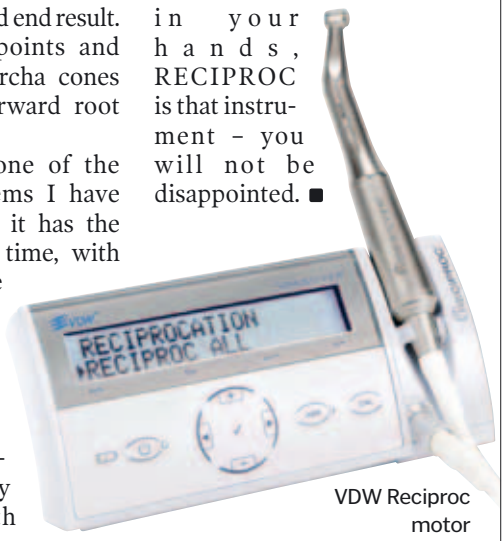
- glide path not required
- RECIPROC file selection
- single file preparation
- irrigation with NaOCI and EDTA before, during and after single file shaping
- risk of instrument fracture is minimised – angle settings are lower than normal rotary fracture angles
- above all, RECIPROC's greatest advantage is it is easy to use.

The hand piece and instrument deliver a smooth, efficient canal preparation to a defined taper, thus a defined end result. Matched paper points and matched gutta-percha cones enable straightforward root canal completion.

I feel this is one of the safest NiTi systems I have used to date and it has the shortest working time, with a lower incidence of complications e.g. canal transportation or blockages. I am aware that current teaching standards are not totally comfortable with the concept of using a shaping/cleaning instrument without initially creating a glide path with a hand instrument; however, reciprocation brings with it a centring ability and this, together with the S-shaped cross section providing an increased cutting ability, allows RECIPROC to follow the path of least resistance i.e. the root canal itself.

Quality Endodontic Distributors (QED) has supported professionals at the forefront of endodontics for over 20 years. I bear testament to that both in practice, and their continued support on courses throughout the UK, and especially in the north of England and Scotland.

RECIPROC is the new concept that will capture the imagination. The advice and knowledge collectively within the team at QED will guide any practitioner through the maze of endodontic instrumentation available, and RECIPROC is at the top of that list. Although new products have constantly come to the frontline, QED will always listen to you as the operator, evaluate your problems and aim to present you with the instrument or materials that will work best in your hands, RECIPROC is that instrument – you will not be disappointed. ■



VDW Reciproc motor

DR MARK HAIGH BDS MFGDP(RCS)

Mark graduated from the university of Newcastle in 1987. He has undertaken extensive studies in restorative dentistry, cosmetic dentistry and is certified in advanced facial aesthetics.
Since becoming a member of the Royal College of Surgeons in 1993, Mark has pursued a career in restorative dentistry – specifically in endodontics, the subject that he now lectures in to postgraduates at the Postgraduate Institute for Dentistry in Edinburgh and the University of Newcastle.

The short haul

Immediate replacement of teeth using titanium implants – a case report

by Arshad Ali BDS, FDSRCS (Eng & Edin), FDSRCPS (Glasg), DRD, MRD, RCS (Edin)

The use of titanium implants in dentistry has provided the clinician with a predictable way of replacing single and multiple teeth. From a patient's point of view, most would prefer to have the tooth or teeth replaced at the time of extraction. This can be done in a shorter time and with reduced discomfort. They will also have their treatment completed in a fewer number of visits.

This paper reports on the replacement of premolar and a molar tooth in the upper right quadrant using immediately placed titanium implants.

Case report

A 52-year-old lady (CM) was referred to Scottish Centre for Excellence in Dentistry by her general dental practitioner (GDP). She'd had a bridge constructed in the upper right quadrant of her mouth many years ago, replacing 15 with 14 and 16 as the abutments.

The bridge had come out on a number of occasions and at the time of referral, it was loose. The patient was not keen to have a partial denture, even on a temporary basis due to her work/life commitments. She had attended another practice for assessment for implant treatment but was informed that it would not be possible to treat her without using a partial denture on a temporary basis.

She was seen by myself in Scottish Centre for Excellence in Dentistry. She was not in any discomfort when she was seen, but she did feel that the bridge was loose. She reiterated that at no time did she wish to have a partial denture. She works as a consultant for an international cosmetics company, meets many people during the course of her working day and also has to give presentations on a regular basis. She felt that a denture would not be comfortable, especially in the early days following the surgery and that it would interfere with speech and eating. She also felt it would reduce her confidence. I could not disagree with any of this!

Medical history revealed that she had an allergy to Augmentin. She had been attending her GDP for routine dental care, brushes three times daily and uses dental floss. She previously had implant therapy to replace 12. She is a non-smoker and drinks two units of alcohol per week.

On examination there was no tenderness around the temporomandibular joints or muscles of mastication. Her oral hygiene was slightly deficient with BPE's of 2-2-2 and 2-2-2.

She had a heavily restored dentition. As mentioned earlier, she'd previously had a bridge replacing 15, with 14 and 16 as the abutments. There was recession around 14 and 16, with reduced keratinised tissue present on the buccal aspect of the abutment teeth. There was also grade one mobility of the bridge. She had a Class I occlusion with anterior and canine guidance.

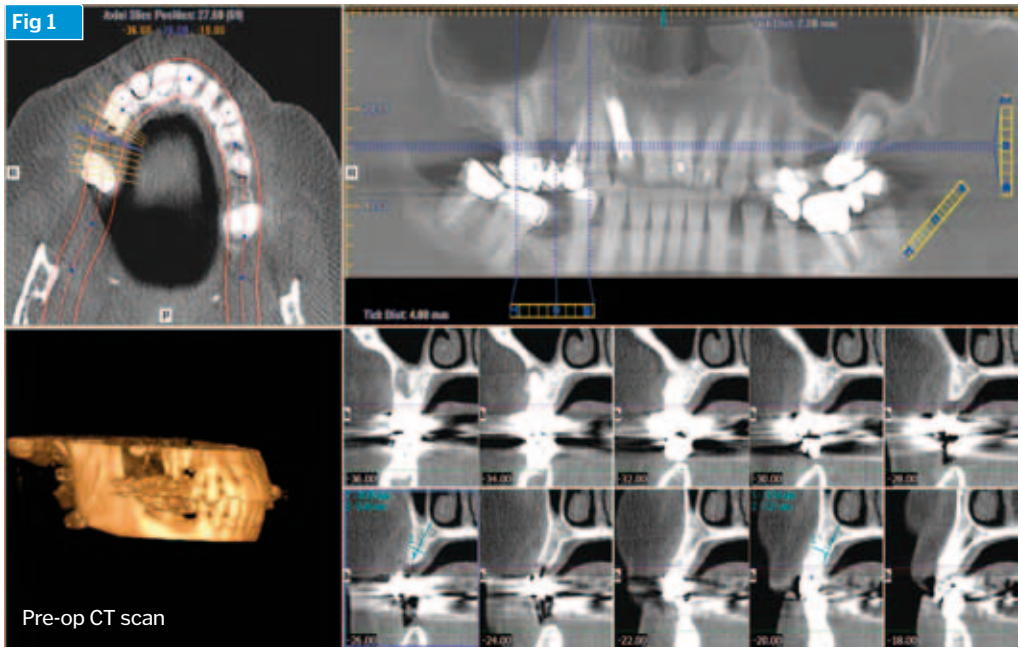
For detailed assessment, a low dose i-CAT CT scan was taken which showed that there was a distal perforation of the post in 14. There was also a small peri-radicular area related to 14, there was adequate bone beyond the apex of 14 in which to place an implant and there was also adequate bone in the 15 position in which to place an implant. Additionally, there was a peri-radicular area related to 16 with limited bone volume in this site.

There were also peri-radicular areas related to 27 and 46. These were pointed out to the referring GDP.

The following diagnoses were made:

- missing teeth
- chronic periodontitis
- heavily restored teeth
- peri-radicular infection
- failing bridgework.

The treatment options were discussed with CM. She had already intimated that she did not wish to have a partial denture even on a temporary basis. Bridgework was not possible due to the lack of a distal abutment and a distal



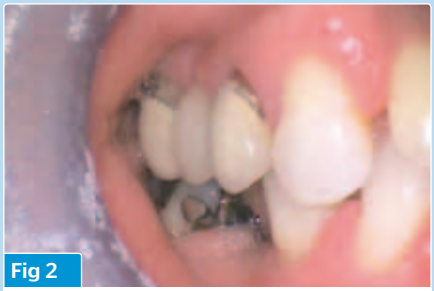


Fig 2
Pre-operative view of the upper bridge in occlusion

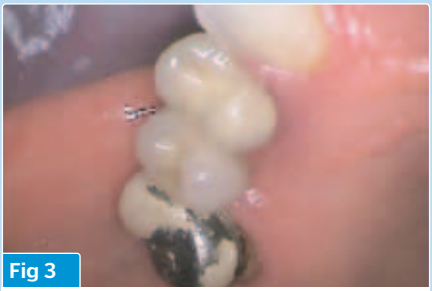


Fig 3
Occlusal view of the bridge showing caries around 16

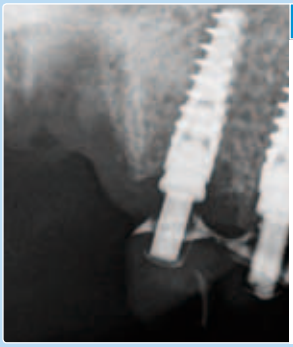


Fig 4
Periapical radiograph of the implants with temporary abutments in place

cantilever bridge from 13 would not give the desired aesthetic and functional outcome.

We agreed to extract 14 and 16, place implants in the 14 and 15 positions and to graft the 16 site, using bovine bone. Further assessment of the CT scan showed that there was sufficient bone volume and adequate quality of bone which should allow good primary stability of the implants and, therefore, allow immediate replacement of the teeth.

An appointment was arranged to carry out this surgery under local anaesthetic. The bridge was sectioned distal to 14 and mesial to 16 and the teeth carefully removed using a periotome. The sockets were curetted. A 15mm regular platform implant was placed in the 14 position and a 13mm narrow platform implant placed in the 15 position.

NobelActive implants were used due to the fact that they do give high initial stability in compromised bone situations. It is also suggested that the implant has bone condensing properties. These implants also have built in platform shifting, which increases the volume into which soft tissue can grow, allowing a better soft tissue interface and more natural looking aesthetics.

The implants were placed with the aid of a surgical guide. The stability of both implants was 70 newton centimeters. I was, therefore, happy to proceed with immediate replacement of the teeth. Immediate temporary abutments were placed and provisional resin crowns constructed to replace 14 and 15.

The patient had minimal post-operative pain, swelling or discomfort and healing progressed satisfactorily. Fixture head impressions for the definitive bridge were taken ten weeks earlier. Custom abutments and a three-unit distal cantilever bridge were tried in and checked for marginal fit, occlusion and aesthetics. The patient was happy with the aesthetics.

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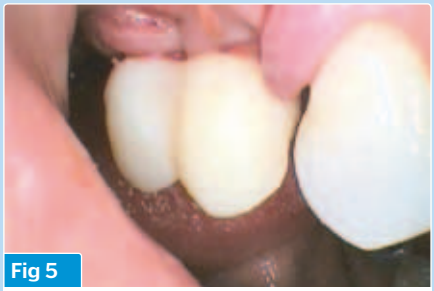

Fig 5
Buccal view of the provisional crowns

Fig 6
Buccal view of the final bridge

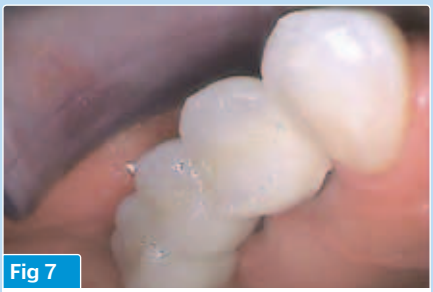

Fig 7
Occlusal view of the final bridge

Continued »

The abutments were torqued to 35 newton centimeters; the abutment screws were covered with cotton wool and a temporary resin cement.The bridge cemented with provisional cement and the excess cement was very carefully removed. The patient saw our hygienist who gave her precise oral hygiene instruction and we emphasised the importance of this to the patient.

Discussion

This case report describes the placement of immediate implants in the rehabilitation of a patient who did not wish to have a partial denture. There is no doubt that the majority of our patients would prefer to have this treatment wherever possible.

There are some situations where it is not advisable to immediately place implants. These include: the presence of acute infection; inadequate bone volume for primary stability; highly aesthetic areas where the outcome may be unpredictable; and in severe bruxists, where excessive loading of the implants may occur. None of these applied in the case of CM and I was therefore confident that we could immediately replace her teeth.

We were able to meet the patient's wish of avoiding a denture, either in the short or the long-term. She is very happy with the outcome and will be followed up regularly over the coming years. ■

ABOUT THE AUTHOR

Arshad Ali is a specialist in restorative dentistry and prosthodontics and also clinical director of Scottish Centre for Excellence in Dentistry. The centre accepts referrals for all aspects of dentistry. Further details can be obtained by telephoning 0141 427 4530, or on their website at www.scottishdentistry.com

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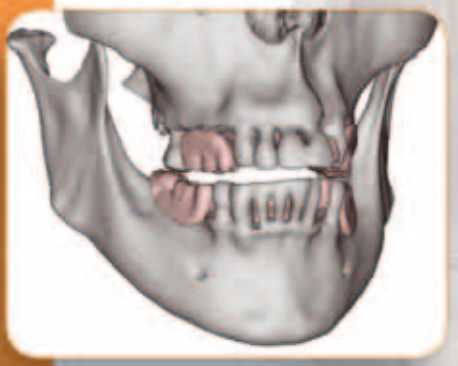

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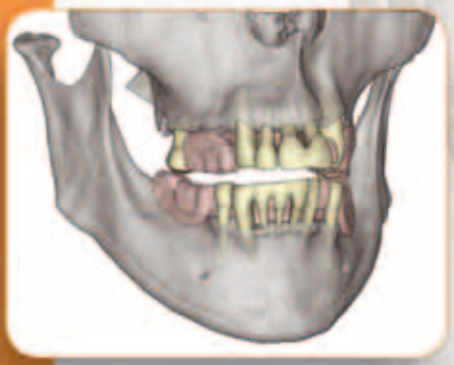

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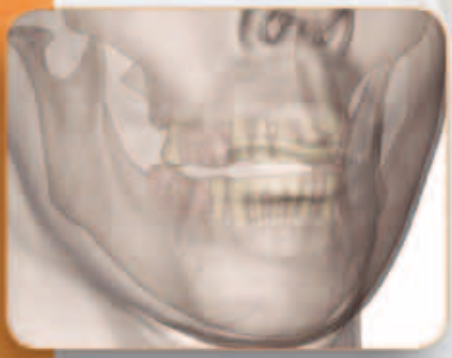

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Creating a strong bond

Olivier Etienne looks at mock-up and tooth tissue preservation techniques in minimally invasive dentistry

During the past 20 years, bonding has no doubt represented a major revolution in dentistry. Constant improvements in terms of bonding to dental tissue, together with technical improvements in ceramic materials, have made it possible to develop aesthetic dentistry with less risk of fracture.

This adhesive revolution has quickly become part of the concept of tissue conservation by providing new types of preparations, mixtures of traditional techniques and new ideas related to bonding. Especially, one crucial clinical factor has become apparent: the difference in bonding quality between dentine and enamel. In fact, due to the nature of these two substrates, enamel bonding is always superior to dentine bonding.

The practitioner must always systematically find the best compromise between sufficient thickness, to ensure strength and aesthetics *(Table 1)*, and maximum conservation of the enamel on the prepared surface. However, when taking into consideration the variations in ceramic translucency and the original shade of the substructure, a more 'aggressive' approach may be necessary in order to better conceal a discolouration. Similarly, pressed-ceramic veneers require more overall thickness than feldspathic ones.

Whenever clinically possible, it is recommended to favour a minimally-invasive enamel preparation that will enhance the longevity of the restoration and prevent post-operative sensitivity. When preparing for this, the varying degree of enamel thickness must be taken into account first. This thickness depends on the patient's age, dental history and, most of all, on possible wear of the enamel.

This loss of thickness can be aggravated, either by abrasive compounds (toothpaste with high concentrations of bicarbonate) or acids (acidic drinks, citrus fruits, etc). In order to optimise the aesthetic result and to get a better preview via the wax-up, detailed clinical observations of the initial wear should be undertaken right from the start.

Normally the natural thickness of the labial enamel of anterior teeth will measure on average between:

- 0.3 to 0.5 mm in the gingival area,
- 0.6 to 1.0 mm in the middle part
- 1.0 to 2.1 mm in the incisal area.

These average values represent a wide range of variations for each patient and for each individual tooth.

Evolution of preparation concepts

Taking these basic requirements into account, several clinical propositions have been suggested to minimise the preparation of dental tissue. Mainly, these propositions are based on the idea of progressive reduction or the idea of controlled penetration.

1. Progressive reduction methods

In progressive reduction methods, a reference point such as an adjacent tooth, the dimension of the cutting tool or a pre-op silicone index are used in order to visually enhance and mechanically control the amount of tooth structure that is to be removed.

The depth cut technique

During preparation of the teeth, the simplest method is to estimate the volume removed by comparison with neighbouring teeth. This three-dimensional visualisation has great operator variability and makes the results not very efficient in terms of tissue conservation.

In order to improve this procedure, vertical grooves can be cut in the tooth at the beginning of the preparation while visually making sure not to penetrate more than the diameter of the bur. As in the previous method, it relies on the contour of the tooth to be restored and therefore has the great advantage of controlling the preparation. If the shape of the tooth can be reproduced in the same proportions, then this is the method of choice *(Figure 1)*.

The index technique

Development of this approach involves using the final morphology of the reconstruction as a reference. This is performed before preparation with an aesthetic wax-up built on the initial plaster cast. Using this model as a guide, it is possible to prepare either a thermoformed transparent matrix (ensuring both control of the preparation and, later, fabrication of the temporary veneers by using it as a mould) or to make one or more silicone indexes

ABOUT THE AUTHOR

Olivier Etienne is an assistant professor at the prosthodontics department of the Louis Pasteur University, School of Dentistry in Strasbourg. He also works in private practice in Strasbourg. He is an international lecturer on the various aspects of prosthodontics and has written more than 30 articles in the French dental journals during the last decade. He has also given more than 80 national and international lectures during the same time.

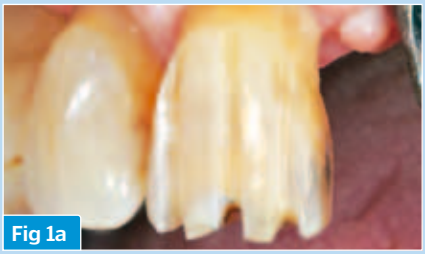
Fig 1a

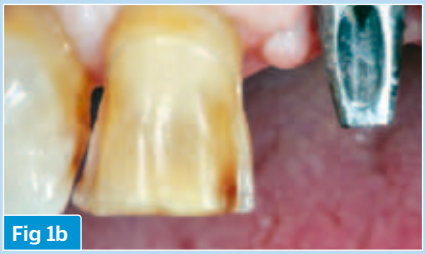
Fig 1b

Figs 1a and b: It is possible to achieve a uniform preparation by using vertical grooves with a thickness that is visually controlled and does not exceed the diameter of the bur

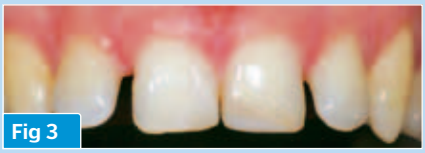
Fig 3

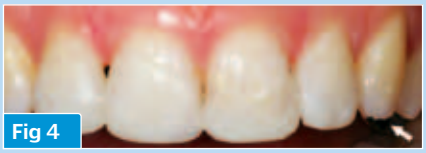
Fig 4

Figs 3 and 4: The aesthetic analysis and the patient's wishes indicate the need for bonded ceramic veneers. With the help of composite resin placed freehand on the labial surfaces an initial chairside impression can be taken. To simulate the shortening of the canines, the teeth that are too long are marked with a black felt-tip pen (arrows)

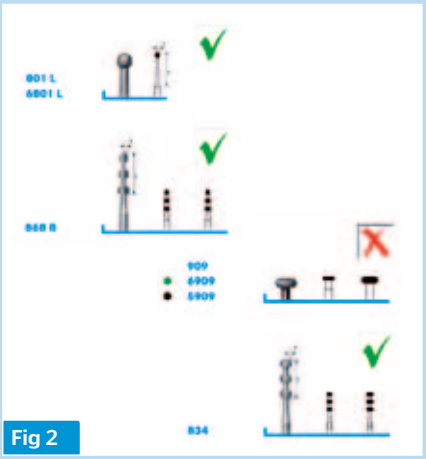
Fig 2

Fig 2: Burs used for the controlled penetration technique. The diameter of the diamond bur and that of the shank make it possible to calculate the depth of penetration. The length of the shank must make it possible to access the tooth's full length


Fig 5

Fig 5: The diagnostic model is modified according to instructions given by the practitioner (impressions, photos etc). The wax-up makes it possible to lengthen and resize the teeth. The new appearance is recorded using a double mix silicone impression in order to optimise precision. This impression will serve as a mould when making the intraoral mock-up


Fig 6

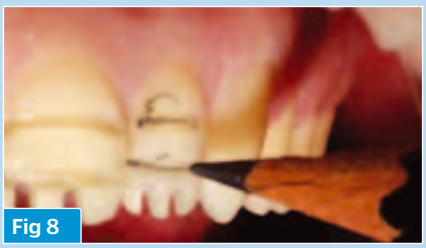
Fig 8

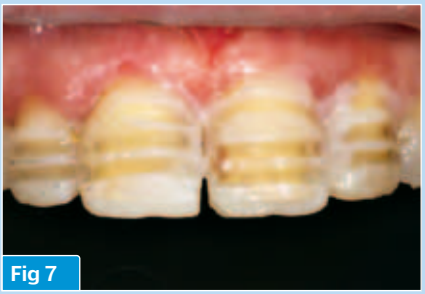
Fig 7

Figs 6 - 8: With the mock-up in place, the bur is moved over the labial surface, in parallel lines, until contact with the shank is achieved. Three to four grooves are sufficient to mark the final depth of the preparation. After establishing the occlusal reference points, the grooves are accentuated with a pencil

to check the preparation.

As P. Magne demonstrated, this option consists of preparing two silicone indexes cut into strips (one for the vertical and one for the horizontal axis), making it possible to assess the reduction of tissue during preparation. This method completely supports the principle of maximum tissue conservation and ensures a predictably consistent outcome. However, this is a complex and time-consuming procedure because frequent use of the control indexes is necessary.

2. Controlled penetration methods

Contrary to the methods described above, the idea of controlled penetration makes it possible to perform a predictable reduction of dental tissue (Table 2) thanks to the use of specially designed burs (Fig 2). Using their shape will physically limit the potential for possible errors.

The direct technique

The first clinical suggestions for this technique recommend the use of specific burs that limit the depth of penetration due to their shape.

While with this technique the depth of penetration is controlled and known, the initial thickness of the enamel cannot be assessed. Also, with time and through varying aetiological wear and tear, there is a natural variation between teeth.

Continued »

"Whenever clinically possible, it is recommended to favour a minimally-invasive enamel preparation that will enhance the longevity of the restoration"

Continued »

Consequently there is no guarantee with respect to enamel preparation.

The indirect technique

The logical evolution of all these concepts was put forward by G. Gürel in 2003: it combines the idea of minimum reduction while considering the volume of the final restorative shape, and also the use of specific burs that make a controlled penetration possible. This technique is based on a simple but rigorous procedure ensuring a high level of reproducibility irrespective of the clinician.

Clinical procedure
Phase one: aesthetic analysis and wax-up

Smile analysis is an indispensable prerequisite for any planned aesthetic restoration. It is based on several well-defined criteria. The changes envisaged are illustrated by modelling with composite resin, applying it directly to the dry tooth without the use of an adhesive *(Figs 3 and 4)*.

Once the desired modifications have been agreed upon (form of teeth, diastema closure, etc), an impression will enable the dental technician to make a more detailed wax-up using a study model *(Figure 5)*. Based on this model, a rigid matrix can now be made either by using thermoforming or with a silicone impression.

Phase two: making the mock-up

The mould is filled with a composite resin (e.g. Luxatemp Star, DMG) and inserted over the patient's teeth until polymerisation is completed. To avoid clogging up the instruments, it is recommended to use a bis-acryl resin for this mock-up and not a conventional powder/liquid system.

Once in place, the matrix will indicate the final restoration and should be left on the teeth as a guide during preparation.

Phase three: a minimally invasive preparation through the mock-up

Depending on the material chosen, the thickness of the restorative material should determine the diameter of the bur and thus the depth of penetration. Once determined, the horizontal grooves are cut into the labial surface ensuring a penetration parallel to the surface, until there is contact with the smooth part of the chuck on the resin of the mock-up *(Figure 6)*.

Once these labial grooves have been made, the occlusal reduction should be undertaken before removing the mock-up *(Figure 7)*. To visualise the depth limit for the preparation better, the bottom of each groove can be highlighted with a pencil or felt tip marker *(Figure 8)*.

The mock-up is removed leaving only the coloured grooves *(Figure 9)*. These are then joined together and the final preparation

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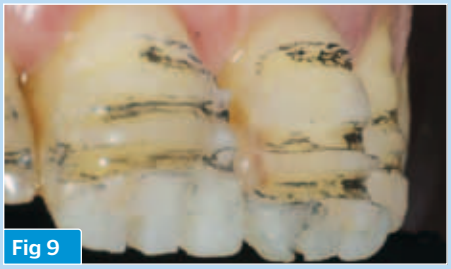
Fig 9

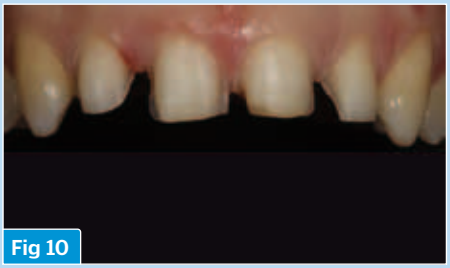
Fig 10

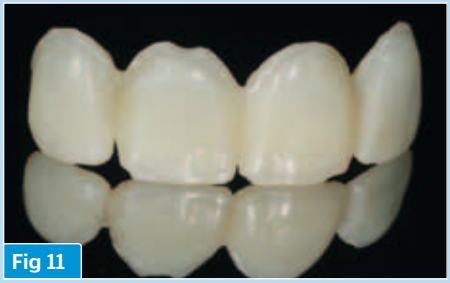
Fig 11

Figs 9 to 11: The remaining parts of the mock-up are removed and allow the practitioner to get a clear view of the guiding grooves. Preparation will continue until the coloured grooves are completely removed, and completed within the proximal zones in accordance with the aesthetic needs. The impression can be used again, when filled with bis-acrylic resin (Luxatemp Star, DMG), in order to make the provisional restorations

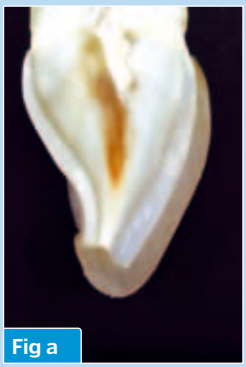
Fig a

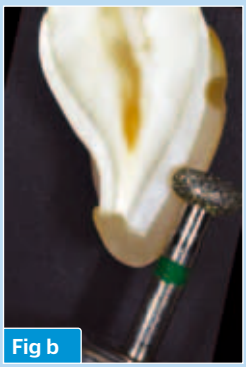
Fig b

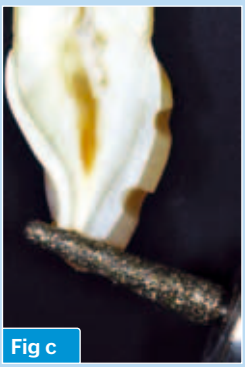
Fig c


Fig d


Fig e

Figs a-e:
The cutting sequence of the procedure:
The resin mock-up in place over the prepared teeth (a). The depth of the grooves do not depend only on the diameter of the bur, but also on the aesthetic template (mock-up) used (b,c). Once the mock-up is removed, the depth of the guide grooves varies (d). It is now possible to finalise the preparation by joining the bottom of the grooves (e). The enamel layer is preserved better and the thickness of the ceramic veneer is standardised

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design is completed *(Figure 10)*. At the end of the appointment, an impression is taken. Then the mock-up impression can be used to make the provisional restoration *(Figure 11)*. A preparation based on this principle of tissue conservation ensures that only necessary enamel surfaces need to be adjusted for aesthetic and functional results.

Limitations of the technique

In certain specific cases, when one or more teeth are malaligned from the desired archform, it will be necessary to prepare and reduce these teeth first. This prevents any risk of incorrect positioning of the thermoformed index or the impression when doing the mock-up. To ensure a perfect placement of the mock-up impression over the teeth, one should check first that the initial reduction is enough with the help of a silicone index.

The labial surfaces are fully involved in this technique. However, when it comes to the palatal area, it is difficult to extend this technique for partial crowns.

With the help of the silicone indexes, it is possible to visually control the situation in static and dynamic occlusion and to ensure a proper thickness of material.

ALL-CERAMIC RESTORATIONS	MINIMUM THICKNESS (IN MM)		
	LABIAL	LINGUAL	OCCLUSAL
All ceramic crowns	1.2	1.2	1.5
Pressed veneers (leucite, lithium disilicate)	0.8	Not applicable	1.5
Feldspathic veneers	0.6	Not applicable	1.5

Table 1 : Minimum thickness recommended for different ceramic types on a non-discoloured substructure

REFERENCE (ISO)	DIAMETER OF CHUCK	DIAMETER OF BUR (ISO)	CUTTING DEPTH
868B	1.6 mm	2 mm (020)	0.4 mm
834	1.6 mm	2.1 mm (021)	0.5 mm
801 L	1 mm (top part)	2.3 mm (023)	0.65 mm
801 L	1 mm (top part)	2.9 mm (029)	0.95 mm

Table 2: ISO references, diameters and cutting depth of selected burs for veneer preparations

Conclusion

Saving tooth structure should be the foremost concern because it ensures both a better longevity and, more importantly, makes future interventions more feasible. Each decision and clinical intervention should be made taking a therapeutic gradient into consideration. When it comes to tissue conservation, it is fundamental to recognise that bonding to enamel is far superior to that to dentine when indications call for adhesive bonding.

In other words, all techniques that make it possible to preserve enamel should be favoured when the thickness of the restoration allows this. The most successful development in this respect is based on the management of the final mock-ups, used as a template for the preparation, associated with drills of optimal shape for a controlled penetration. ■

Full references for this article are available upon request.

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Office shell becomes modern orthodontists, finds Bruce Oxley

A taste of Eden

From left: Elaine Smith, Sabina Kasem, Tom Clarke and the Eden team

After working as an associate in and around Glasgow and Lanarkshire for a number of years, in 2010 orthodontist Sabina Kasem decided it was time to embark on the next stage of her career.

Being a Lanarkshire girl, Sabina set her sights on opening a new practice close to where she was brought up and, with NHS Lanarkshire indicating that there was a significant unmet need in the Coatbridge area for specialist orthodontic services, her plans began to take shape.

After 18 months of planning and preparation, she identified premises on Dundyvan Road and set about turning what was essentially a shell of an office building into a modern orthodontic practice. Local MSP Elaine Smith and Coatbridge MP Tom Clarke provided valuable information and advice to Sabina at this stage with the paperwork and how to get her practice up and running. The two politicians were later welcomed to the practice as guests of honour for the official opening as a gesture of thanks.

Sabina said: "The help that Elaine Smith and Tom Clarke provided us at the beginning was invaluable and it was great to be able to welcome them to the practice at the opening and show them how their encouragement helped us to build this facility."

Eden Orthodontics opened its doors to patients in December and they welcomed the town's parliamentarians to the official opening on 1 March. They witnessed first-hand the new four-surgery practice and expressed their delight at how

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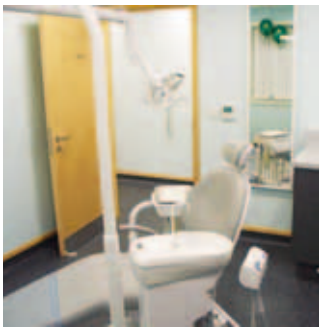
the premises had been transformed.

Unlike some orthodontic practices who favour an open plan layout with several chairs, the four surgeries are all private. Sabina felt that it was important for the patients to feel as comfortable as possible and providing an enclosed surgery for the orthodontist and patients to talk and carry out treatments in private was a vital consideration.

At the time of writing only two out of the four surgeries are in operation but, as the list grows, Sabina will utilise the other two. Her orthodontic dental nurse and team leader Sheree Jeffrey has just started training as an orthodontic therapist and the plan is for Sabina to oversee the overall treatment planning but employ therapists to carry out certain treatments under her supervision. This system has been used successfully in America for many years and Sabina hopes it will prove effective at Eden Orthodontics.

In terms of layout and design, the practice manages to combine a welcoming and comfortable feel without losing sight of the main clinical nature of the premises. Bold watercolours adorn the surgery walls, providing splashes of colour to liven up clinical atmosphere of the surgeries. The light wooden panelling and fixtures and fittings in the reception and waiting area are complemented by the turquoise Eden Orthodontics colours that are interspersed throughout.

Sabina said: "It has been a challenging project but an exciting one and I am really pleased with how it has turned out. The design and build went really well and I'm looking forward to many years treating patients here at the practice." ■



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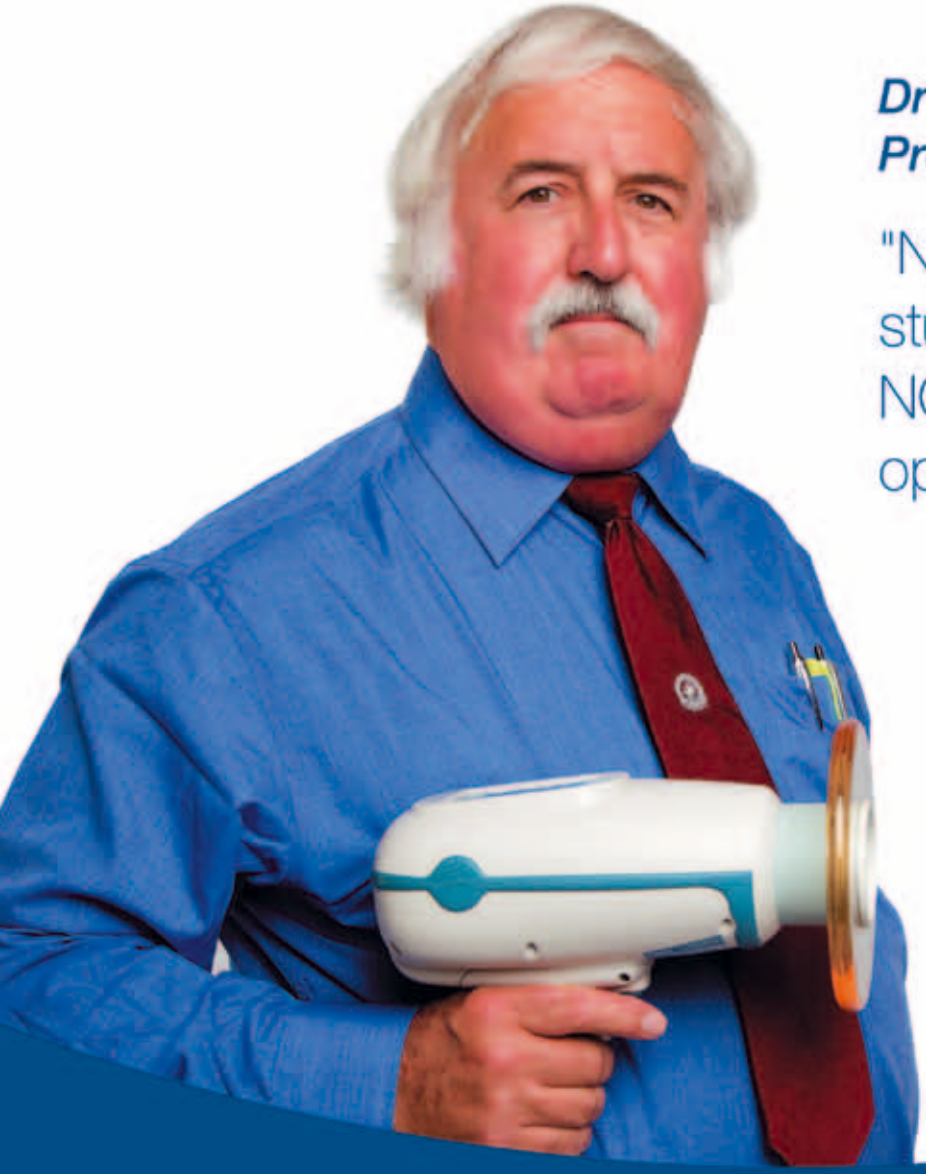

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The person representing you ought to have a vast knowledge of your rights under Article 6 of the European Convention of Human Rights. By definition, fraud is the bringing about of some practical result by means of a false pretence. Of course there is far more to it than that. There are express and implied defences to a fraud allegation.

A successful defence on this issue was argued by myself in the High Court of Justiciary in 2010 (defending a £7 million fraud allegation against nine accused, including a lawyer). Do you know what the defences are? There are currently ten GDPs from Scotland facing charges of fraud with the GDC.

The key to claims in negligence are causation and remoteness of damage. Proactive mitigation is required when a case can not be defended. The individual looking at your case ought to have first-hand knowledge of amounts of damages that are likely to be claimed by patients.

My level of knowledge in negligence claims is extensive and early intervention and, where necessary, negotiation is paramount in such cases.

Negotiation and mitigation are my fortés but only when the other side can prove with evidence, in accordance with the Law of Scotland, that there is a case whether in negligence, professional misconduct, fraud or any other type. There is a clear way forward with respect to your professional indemnity. This is legally qualified dentists with all round legal knowledge who have appeared and represented clients in courts of law ■

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Neil Taylor BDS LLB DipLP

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ABOUT THE AUTHOR

Neil Taylor heads up a new professional indemnity company, Taylor Defence Services Ltd (TDS). He qualified in dentistry in 1991 and worked in Glasgow for 13 years.

While in practice, he undertook a law degree and qualified with the LLB degree in 2003, diploma in legal practice in 2004, solicitor 2005, worked in private practice as a solicitor between 2005 and 2006 and a called member of the Faculty of Advocates in 2007.

He is, to date, the only person who has called as a member of the faculty who is dually qualified in dentistry and law. Neil taught advocacy skills to legal diploma students at the Glasgow Graduate School of Law.

He has resigned as an advocate to provide his expertise for Scottish GDPs. When he left the Bar in February 2012, he was not a solicitor simply putting together a file for counsel, he was appearing in the Court of Session, the High Court of Justiciary and Appeal Courts as counsel representing criminal and civil clients (dental negligence, medical negligence and professional misconduct), and had an extremely high reputation as being a tenacious fighter with excellent advocacy skills.

TDS is a new defence company to support GDPs in some worrying times. TDS, along with Giles Insurance Brokers and Hiscox, have developed a package of professional indemnity that is unrivalled in this field.

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Legal aspects of selling your practice: Michael Royden and Ewan Miller of dental solicitors Thorntons have many years experience advising dentists on the sale and acquisition of practices. The legal aspects of selling a practice are covered, including guidance to protect and assist you before during and after the sale transaction.

Accounting issues when selling your practice: Experienced dental accountants Roy Hogg and Neil Morrison of Campbell Dallas will present taxation issues on the sale of the practice, pre-retirement tax strategies including the use of entrepreneurs' relief, avoiding year end complications and effective planning to minimise your tax liabilities.

Financial planning for retirement: Independent financial advisers John Fearn and Jon Drysdale of PFM provide specialist financial advice to dentists. They consider how you can best forecast and manage income sources in retirement, and develop pre and post-retirement financial planning strategies. The NHS Pension will be covered in detail.

Wills and Estate planning: Nick Barclay of Thorntons is a registered Trust and Estate practitioner and has Law Society of Scotland accreditation as a specialist in Trust Law. Nick's presentation will cover Wills Trusts and Inheritance Tax planning.

FOR MORE INFORMATION AND BOOKING:

The course starts at 10.00 am and finishes at 4.30 pm. To book, please email your name and address to: mandy.wraige@pfmdental.co.uk or call Mandy on 01904 670820. The delegate rate is £50 inclusive of lunch. The course meets the GDC's requirements for verifiable CPD. Early booking is advised as our Edinburgh 2011 course was oversubscribed.

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Top 10 tax misunderstandings

Putting the kitchen sink through the books is not necessarily a good idea, warns Stephen Neville

Over the years, Martin Aitken & Co have contributed articles to various publications on tax matters. Two old favourites are 'comments on the current budget' and 'top ten tax tips'. At the time of writing, the Chancellor has still to deliver his message to the nation, so no budget comments yet!

This time, instead of tax tips, my advice focuses on tax pitfalls. So, if your return is scrutinised, then at least the tax pitfalls have been considered and you have had the chance to deal with any issues well before the inspector comes calling.

My top tips look at tax misunderstandings, those we have often observed and corrected when advising new clients.

HM Revenue & Customs' (HMRC) new penalty regime is now extremely harsh. In the good old days, when HMRC inspectors really did look like Hector the Inspector, a misdemeanour may have been met with a knowing wink and a slap on the wrist. Now, if you think more along the lines of a sharp blow to the stomach, you can imagine how different life is when dealing with Hector.

Look at the HMRC website and you will see penalties galore – the list is long and the correction of errors can be very costly.

Anyway, for the avoidance of doubt, here are some common things to note and avoid:

1. Don't put your spouse through the books if he/she is not involved in any way with the administration of your practice. Using up their 'tax-free' personal allowance will provide you with tax-deductible expenditure, but is hard to justify if they have a full time job elsewhere.

2. Training sessions for refresher courses and conferences do not constitute a family holiday to Disney World. Remember, however, that the costs of attending training courses to update your existing skills are tax deductible.

3. Car claims and motor expenses are under the microscope. It's difficult to justify 100 per cent business use of a Range Rover or an Aston Martin and a sensible approach may be to move away from a bulk per cent disallowance and consider a mileage allowance claim for business miles.

4. If you are trading as a limited company, then a car is almost certainly not a good idea. A mileage claim for any motoring costs is preferable over a costly benefit in kind (unless, of course, you consider a tax-effective energy saving vehicle – where the benefit in kind might not be as severe).

5. A professional loan is not your mortgage. Interest on a loan to introduce funds into the practice is, however, eligible for tax relief. If you raise the funds through your existing mortgage which is under an offset arrangement, you need to be careful when calculating the allowable proportion of the interest. The split is important, so you don't lose any of the tax relief available.

6. Commonly, house expenses are claimed if you use a room as an office in your own home. This can, however, lead to capital gains tax problems when selling your home if the room has been used exclusively for business purposes. To avoid this trap, never use any room exclusively for business purposes.

7. Making people self-employed does not get you out of National Insurance. On a PAYE compliance visit, an employment status questionnaire would be completed. While you are in one room, another HMRC officer could be giving your practice nurse a grilling in another. The outcome may not be as you expect and could be very unpleasant.

8. Salaried posts (taxed under PAYE) still need to be returned on your tax return. Think of PAYE as payment on account of the tax due and not the full tax bill itself on that income.

9. Tax enquiry insurance is a great idea. In the event of an enquiry, the fees incurred in defending your case would be covered under the insurance scheme; however, the cover would not include any additional tax payable.

10. Moving all your money to an offshore bank account is no longer an option either. There is a worldwide clamp down on offshore tax havens.

A good professional adviser will, first and foremost, guide you through the amassing piles of tax law, but he or she should also not be afraid to point out a grey area from one that is well and truly black.

It's always an easy option to tell you to literally shove the kitchen sink through 'repairs and renewals', but, with the new powers available to HMRC and the various new initiatives, the easy option could result in an HMRC enquiry ending in a huge tax bill with interest and penalties to match.

Would you consider this approach worth this risk to save a few hundred pounds here and there? Anyone who says so is not providing you with good advice. ■

ABOUT THE AUTHOR

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- Next course is being held on Saturday 12 May 2012. To book a place or for more information contact **louise@dentalfx.co.uk**

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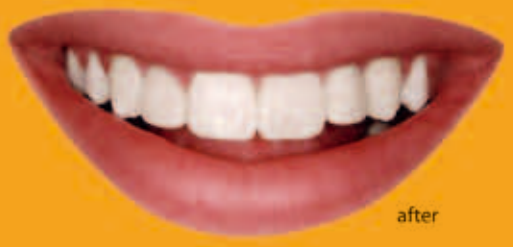
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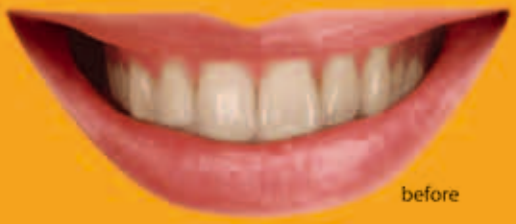
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Dental professionals will see patients from all walks of life over the course of their careers; however, one thing many patients have in common is a certain amount of anxiety over visiting the dentist.

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The UCL Certificate in Sedation and Pain Management from the Eastman is equally advantageous for experienced GDPs who wish to improve their sedation skills, and newcomers who have little prior knowledge in this field.

The course encompasses areas such as physiology, psychology and pharmacology.

For more information, please contact Nisha Gosai at n.gosai@ucl.ac.uk or call 020 3456 1155 or visit www.ucl.ac.uk/eastman/depts/cpd

Accreditation for Oral-B Pro-Expert toothpaste

The British Dental Health Foundation accreditation scheme aims to give guidance to patients by providing reassurance on claims for oral care products.

The foundation has recently accredited Oral-B's new Pro-Expert toothpaste as "breakthrough toothpaste technology".

It is of no surprise that the product passed their stringent accreditation protocol: the product is a breakthrough in dentifrice and is based on a new and patented stabilised stannous fluoride formulation.

Oral-B Pro-Expert not only helps reduce gum problems, but is also proven to be effective against plaque, caries, enamel erosion, hypersensitivity and bad breath.

Personal Trial Kit

A good oral hygiene regimen will involve the use of several different products as it's the unison of both chemical and mechanical plaque removal that ensures sustainable oral health.

Oral-B has put together a Personal Trial Kit for dental professionals, which contains a Triumph 5000 toothbrush, three Precision Clean replacement toothbrush heads, four tubes of Pro-Expert toothpaste (75ml) and one pack of Essential Floss (50m). The kit is available to dental professionals

for their personal use only for£36.61.

If you've ever tried to calculate the annual cost of oral hygiene products, you will realise what a tremendous offer this is. Consequently, these packs are limited to one per dental professional and are only available for a limited period.

The offer is valid until 30 April 2012 and is available from CTS (0173 776 5400), DHB (0845 6017086) and Survival 32 (0118 951 6161).

First anniversary for Oral-B Pro-Expert

Could Oral-B's new Pro-Expert toothpaste be the world's best? After just one year in the market, it got not only the profession and the public excited, but the executive director of the British Dental Health Foundation recently called it "the most significant toothpaste launch of the decade".

Incorporating stabilised stannous fluoride, Oral-B Pro-Expert toothpaste provides powerful, long-lasting

antimicrobial action which fights plaque and gum problems as well as preventing caries.

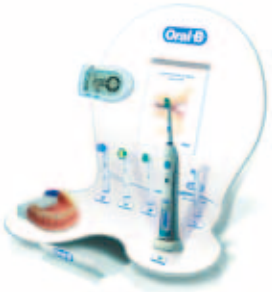
Thanks to the inclusion of polyphosphates in the Oral-B Pro-Expert formulation, this toothpaste protects against calculus formation, staining and plaque accumulation, reducing a further cause of gum problems.

Does your demo unit need an MOT?

Oral-B want to ensure the educational material they provide is appropriate for its intended purpose, which is why most of the ideas are generated from your feedback.

A couple of years ago, Oral-B produced working display models to support dental professionals in their efforts to communicate proper brushing technique. These were provided free and contain a mouth model, all refill heads in the range, educational literature and an Oral-B Triumph with SmartGuide.

Depending on the level of use, some of these units may require an



'MOT' so Oral-B is inviting practices to contact them if any elements of the kit require replacing.

Contact the customer service line on 0870 242 1850.

"It has given the practice a real boost"

Dr Peter Willy is one of the two principal dentists for Hoburne Dental Practice, a private practice based in Dorset. He has recently graduated from the UCL Eastman Dental Institute with a Diploma in Implant Dentistry.

"The course teaches you everything you need to know, from basic concepts up to the latest evidence-based practice," he says. "Being able to place implants on your own patients under direct supervision at the

Eastman is so important to help you get started in practice."

For further information, contact Richard Banks, on 020 7905 1281 or email richard.banks@ucl.ac.uk

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Cattani oil-less compressor technology is so reliable it's been used by the NASA Space Shuttle Program. Back on Earth, Cattani compressors are hand-built to produce high performance systems at affordable prices.

NEW to the range is the Cattani Aria, ideal for one, two or three surgeries. Very compact and quieter to run, the Aria compressor is fully HTM2022 compliant as standard and includes an hour meter for accurate servicing.

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General practice panel gives thumbs up to SDR

DENTSPLY SDR (Smart Dentine Replacement) achieved outstanding feedback from dental practitioners in general practice, in its independent and objective analysis by the PREP (Product Research and Evaluation by Practitioners) panel.

SDR is a bulk-fill flowable composite base for posterior (class I and II) restorations. Its low shrinkage rates and good handling characteristics proved popular with practitioners in the evaluation.

All the evaluators who used a bulk-fill posterior composite technique and flowable product as a bulk-fill base said they would consider replacing their current material with SDR. They also agreed that SDR's dispensing tips were worthy of praise.

For more information, visit dentsply.co.uk or 0800 072 3313. Earn rewards against purchases at dentsplyrewards.co.uk

Septodont – the name you can trust

Septodont, the leading supplier of dental anaesthetics, offers a range of superior products trusted the world over. The company's products are being administered by thousands of dental professionals every day.

Anaesthesia products with names you recognise, but perhaps have not until now associated with Septodont, include Lignospan, Scandonest, Septanest, Pharmaéthyl and Xylonor. Septodont guarantees that all of its anaesthetic products are 100 per cent latex-free, offering the highest level of safety and security possible.

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For further information, please visit www.septodont.com or call 01622 695 520.

The best value dental supplier: fact!

Independent research has now proven what many dentists have suspected for years. When compared to all its rivals, The Dental Directory consistently offers the best prices on dental products.

Strategic Data Marketing LLC (SDM) compares quarterly sales data from all of the UK's major dental suppliers, analysing it on behalf of dental product manufacturers.

When comparing the final selling prices, including all discounts and promotional prices, of 25 top-selling branded products from a range of categories, SDM found customers could save a packet by using The Dental Directory. The company was on average an incisive 5.2 per cent cheaper than its competitors.

For more information, contact The Dental Directory on 0800 585 586, or visit www.dental-directory.co.uk

Trust...

Next generation CarieScan PRO

The CarieScan PRO, the most accurate caries detection and location system in the world, is now faster and easier to use than ever before. The PRO not only indicates when restoration of a tooth is required, but also specifically locates the lesion, allowing restorations (fillings) to be as small and cosmetically acceptable as possible.

Patients and Dentists benefit from a much quicker and more comfortable experience as a result of a functionality upgrade which increases the speed of measurements.

Additionally the classification reading of the 0-100 scale has also been further simplified into High, Medium and Low (H,M,L) probability categories, supported by advice specific to each identified category supporting the dentist with caries treatment and intervention support.

For further information, contact Cariescan on 01382 560 921.

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With dbg360, practices can build a custom accreditation package to address their specific needs, with options available in engineering, training and compliance. If you feel your practice staff could benefit from on-site training in a particular area, dbg360 offers a number of verifiable core CPD and health and safety courses, with CPD certificates available to download at any time upon completion. If your equipment could use regular maintenance and service appointments, this can be arranged.

The dbg360 package also includes the price of membership with dbg and all of the exclusive services this entails. Additionally, all dbg360 customers will gain access to the unique Virtual Compliance Office, an indispensible online tool designed to offer even more compliance support and much more. With all of these features included at a fixed price over three years, dbg360 is exceptionally cost effective.

For more information on how dbg could help your practice, call 0845 00 66 112, or visit www.thedbg.co.uk

WaveOne – the single file endodontic system from DENTSPLY

From the makers of SDR, Citanest and ChemFil Rock comes WaveOne – a single use, single file system designed to completely shape the root canal from start to finish.

Dr Ralph Pickup of Wright, Schofield & Pickup Dental Practice, Lancashire, said: "I have used various NiTi rotary systems over the years, all with particular nuances and requiring multiple files to produce the final desired canal shape. I was initially sceptical that these could be replaced by a single instrument; however, in many cases, the WaveOne does exactly that."

Visit www.dentsply.co.uk or 0800 072 3313. Earn rewards against purchases at dentsplyrewards.co.uk Access webinars and product demonstrations and earn CPD at www.dentsplyacademy.co.uk

Total wipeout

Dürr Dental has merged efficiency and safety into one, with its range of disinfectant wipes. A comparative clinical trial of pre-saturated disinfectant wipes confirmed the high surface coverage of its ready-to-use wipes.

In a performance comparison of seven disinfectant wipes containing quaternary ammonium compounds as their active agent, the FD300 wipes came out comfortably on top by a high margin over the majority of the wipes tested.

These alcohol-free wipes are pleasant to the touch and especially appropriate for delicate surfaces, providing effective protection against a general range of bacteria and especially against viruses such as polio and norovirus. Germs are eliminated after only two minutes of contact time.

The company's FD350 performed similarly well when tested which is perhaps not surprising in view of its extremely short reaction time of 15 seconds.

For more information, call 01536 526 740.

Continuing education to suit you

Every dental professional knows the working day does not begin and end in the surgery and, with the pressures of running the practice business, it can be difficult to find the time to keep up to date with essential continuing education.

The highly acclaimed DENTSPLY Academy offers a range of quality education courses to help dental professionals maintain the edge with the latest clinical advances and techniques, access to leading experts and a wealth of multimedia training resources through the library at www.dentsplyacademy.co.uk and the chance to earn verifiable CPD points.

The 'How To' series offers expert advice and hints on different procedures with CPD questions; live and interactive on line webinars are easily accessed from any location while seminars and hands-on courses across the UK provide face to face learning.

For more information, visit dentsplyacademy.co.uk

New product launch at the Scottish Dental Show!

Heraeus will be launching its new composite line Venus Pearl on stand L4 throughout the exhibition. Come and see for yourself why the new line extension in the Venus Range can benefit you and your patients. Attractive promotions will also be available on Venus Diamond, iBond Total Etch as well as the NEW Gluma Desensitizer PowerGel. Heraeus will also be promoting the UK's number 1 A-Silicone precision impression material, Provil – now available in the Dynamix automatic mixing machine. Finally, are you looking for a new curing light? Visit Heraeus on L4 to find out how you can receive one, free of charge!

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Red Dot Design Award

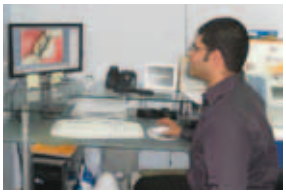
Staying ahead of the curve in the world of design is no easy ambition, especially in a field saturated with creative ideas and products. It is therefore all the more impressive for not just one, but two products from Dürr Dental to stand out from the milieu by winning the prestigious Red Dot Design Award.

With the Vista Scan mini plus, Dürr Dental has developed an image plate scanner that is unsurpassed for ergonomic quality. The revolutionary modular design concept, which skilfully combines both operation and control elements, offers users the freedom to maintain, repair and clean the unit thoroughly.

The Tornado 2 Air Compressor represents another benchmark in technical proficiency. Its uncluttered construction exemplifies efficiency and intelligent functionality.

For more information, call Dürr Dental on 01536 526 740.

Putting pen to computer



As we enter the digital era, oral health education needs to keep pace and chairside software guru has been specifically designed to make education easy and interactive, while at the same time encouraging the uptake of treatment plans.

Assisting patients in understanding the importance of making a healthy choice, guru enables practitioners to customise presentations through the incorporation of individual patient X-rays, intraoral and extraoral images. Patient explanation is augmented with the 'stop, draw, teach' technology, giving the ability to pause animations and annotate directly onto the screen via a tablet and stylus. Additionally, practitioners can address the specific needs of the individual case by recording an audio explanation.

For more information, visit our new website at www.guru-dental.co.uk or call 01622 604 695.

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Save valuable examination time and increase confidence in the accuracy of your diagnoses with the CS 9300 Kodak extraoral imaging system from Carestream Dental. This all-in-one imaging solution incorporates the largest range of clinical applications currently available.

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The CS 9300 provides an outstanding level of detail with the highest image quality in the industry.

For more information, call 0800 169 9692 or visit www.carestream dental.co.uk

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For further information, please contact GC UK on 01908 218 999.

Enhance your root canal treatments with WaveOne

From the makers of SDR, Citanest and ChemFil Rock, WaveOne from DENTSPLY is an exciting development in the preparation of root canals.

WaveOne is a single use, single file system designed to completely shape the root canal from start to finish.

Its unique reciprocating design means that in 90 per cent of cases, only a single rotary file is needed per root canal treatment. Because in the majority of cases only a single file is needed, WaveOne reduces the cost of endodontic treatments, making endodontic treatment far more accessible to patients with a limited income.

Furthermore, WaveOne files give the dentist improved control, while also decreasing shaping times, allowing the clinician to spend more time cleaning the root canal system with enhanced irrigation techniques.

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