Test may overestimate mercury exposure from amalgam fillings

A common test used to determine mercury exposure from amalgam fillings may significantly overestimate the amount of the metal released from fillings, according to University of Michigan (U-M) researchers.

Scientists agree that dental amalgam fillings slowly release mercury vapour into the mouth. But both the amount of mercury released and the question of whether this exposure presents a significant health risk remain controversial.

Public health studies often make the assumption that mercury in urine (which is composed mostly of inorganic mercury) can be used to estimate exposure to mercury vapour from amalgam fillings. These same studies often use mercury in hair (which is composed mostly of organic mercury) to estimate exposure to organic mercury from a person’s diet.

But a U-M study that measured mercury isotopes in the hair and urine from 12 Michigan dentists found that their urine contained a mix of mercury from two sources: the consumption of fish containing organic mercury and inorganic mercury vapour from dental amalgams.

Nigel Carter OBE, commented: “Minute amounts of mercury from dental amalgams and methylmercury from fish that undergoes a type of chemical breakdown in the body called demethylatation. The demethylated mercury from fish contributes significantly to the amount of inorganic mercury in the urine.”

Chief Executive of the British Dental Health Foundation, Dr Nigel Carter OBE, commented: “Minute amounts of mercury from dental amalgam do escape from dental amalgam and are absorbed into the body, some of it into the central nervous system. Everyone has a small amount of mercury in their system, measurable through their blood and urine. On average a UK adult absorbs about nine milligrams of mercury a year from all environmental sources – about a sixth of which comes from amalgam fillings. “Most people with dental amalgam fillings containing mercury show less than five micrograms per litre of urine. Nearly all dentists have levels below 10 micrograms per litre. Compared with this, the maximum permitted level of exposure to mercury for industrial workers in the US will produce levels around 155 micrograms per litre, which is still considered safe by medical authorities.

“Confirmed cases of allergic reaction to amalgam are extremely rare – fewer than 100 cases have been reported worldwide. This is an extremely small number in relation to the many thousands of millions of amalgam fillings that have been provided to patients since the material was developed.”

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More than 200,000 children start smoking every year

Almost 360 children a day take up smoking

Around 207,000 children aged 11-15 start smoking in the UK every year according to new research published by Cancer Research UK.

This means that nearly 570 children are lighting up and becoming smokers for the first time every day. The new figures show this number has jumped by an extra 50,000 from the previous year, when 157,000 started smoking.

Around 27 per cent of all under 16s have tried smoking at least once - equivalent to one million children. Eight out of ten adult smokers start before they turn 18.

With so many children starting to smoke each year, that is why we are acting to put the government to its word by making a commitment to plain, standardised packaging of tobacco. Research has shown that children find the plain packs less appealing and are less likely to be misled by the sophisticated marketing techniques designed to make smoking attractive to youngsters.

A public consultation on the future of tobacco packaging closed in August 2012 and there has been no decision announced from the government on whether this will proceed.

Sarah Woolnough, Cancer Research UK’s executive director of policy and communications, said: “With such a large number of youngsters starting to smoke every year, urgent action is needed to tackle the devastation caused by tobacco. Replacing slick, brightly coloured packs that appeal to children with standard packs displaying prominent health warnings, is a vital part of efforts to protect health. Reducing the appeal of cigarettes with plain, standardised packs will give millions of children one less reason to start smoking.

“These figures underline the importance of sustained action to discourage young people from starting. Smoking kills and is responsible for at least 14 different types of cancer. Standardised packaging is popular with the public and will help protect children. We urge the government to show their commitment to health and introduce plain, standardised packs as soon as possible.”

Wales launches five-year plan oral health plan

Wales’ Chief Dental Officer (CDO), David Thomas, has launched the Welsh Government’s National Oral Health Plan on the same day a survey shows a decrease in tooth decay in Welsh children.

During a visit to a Primary Care Dental Unit at St David's Hospital, Cardiff, the CDO David Thomas welcomed the results of the survey, and outlined the aims of the five-year Plan:

“A dental survey of five-year-olds published today by the Welsh Oral Health Information Unit confirms just over 41 per cent of children in Wales currently experience dental decay and whilst this figure is still too high it represents a decrease of six per cent since 2007/08.

“The data also shows for the first time there is no evidence of widening inequalities, and dental disease levels in children are improving across all social groups in Wales.

“The National Oral Health Plan looks to the future and outlines an agenda for improving oral health, reducing oral health inequalities in Wales over the next five years and beyond.”

An integral part of the Plan is the Welsh Government’s National Oral Health Improvement Programme, Designed to Smile, which has more than 78,000 members now taking part.

Stuart Geddes, BDA Director for Wales, said: “We welcome the Welsh Government’s intention to ‘vigorously address this inequality in experience of child tooth decay’, and their call to Health Boards to ensure strategic action is taken to meet the oral health needs of all groups of the population.

“However, dentists and their teams have worked hard to deliver improvements in oral healthcare in Wales, and need continued support in terms of adequate funding, to deliver the aspirations of the Oral Health Plan.”

GDC launch Polish version of patient leaflet

A Polish translation of the General Dental Council's (GDC) Smile patient leaflet has been launched online.

Available as a PDF on the GDC website www.gdc-uk.org, it explains the role of the GDC; what patients can expect from their visit to a dental professional; and what they can do if they’re unhappy with their experience.

The Smile leaflet is also available in print in English and in EasyRead format.

The EasyRead version features larger font, pictures to support and help explain the text, shorter sentences and language that sounds natural when spoken. The PDF is compatible with screen readers with tagged images and can be printed or ordered from the GDC website.

The final version was user checked by the Making it Easier Group which gave its seal of approval to the leaflet.

Smile can be downloaded as a PDF in Welsh, Polish, Bengali, Chinese, Punjabi and Urdu from the GDC website.

Melon extract could treat cancer

A Saint Louis University (SLU) researcher has received a $594,425 grant from the Lottie Caroline Hardy Charitable Trust to continue her research on cancer with a natural substance.

Ratna Ray, Ph.D., professor of pathology at SLU, is studying the effect of the extract from bitter melon, which is often used in Indian and Chinese cooking, on head and neck cancer cells.

“The goal of our study is to see if a complementary alternative medicine treatment based upon bitter melon can stop the spread of head and neck cancer,” she said.

In a controlled lab setting, she previously found that bitter melon extract activated a pathway that triggered the death of cancer cells, stopping them from growing and spreading. The effectiveness of using bitter melon extract to treat breast cancer in people has not been tested.

“Have we pretty good indications that bitter melon extract works in cancer cell lines to halt the growth,” Ray said. “I think it might be effective to treat solid tumours, and our grant will help us to get pre-clinical data to show whether something looks promising in fighting breast cancer could work in other cancers.”

If bitter melon extract stops the growth of cancer cells in animals, the findings could lay the groundwork for studying the treatment in a phase I clinical trial of human patients who have head and neck cancer, Ray said.

“Treatments for head and neck cancers often include surgery and radiation, which impacts a patient’s quality of life, such as how he or she feels, looks, talks, eats and breathes. It’s important to develop additional new therapies that are effective and much less invasive,” Ray said.

Bitter melon, a vegetable that is a staple of diets in India and China, is also a folk remedy in those countries for treating diabetes. Metformin, a drug developed to treat diabetes, is used for cancer therapy. Ray hypothesized that a folk medicine for diabetes also might work to treat cancer.
I must admit I was tempted to put some dubious news in to honour the fact that April 1st is indeed April Fool’s Day. But I decided that I would give you a little quiz here instead.

Story one: One of the first tasks that the new Pope Francis I had to do when elected was to call his dentist and cancel his upcoming appointment.

Story two: Golfing star Justin Rose has fallen foul of US PGA golf chiefs after withdrawing from a tournament mid-round complaining of a painful wisdom tooth.

Story three: Dental Tribune’s Joe Aspis was the winner of the football quiz at a comic relief fundraiser hosted by a dental marketing company.

Which isn’t right? Answers on an email please...

Coming up this month is the BDA Conference and Exhibition, to be held this year in London. This year will be a special one, not only will I not have to stay in a hotel as I live 30 minutes from the venue, but this year the BDA has launched a new tiered membership, a huge reformulation for the 150-year-old Association.

There has already been much discussion about the move in forums and discussion groups around the profession. For me, I think it is a great move and shows that the new structure of BDA management is really trying to change things to be more responsive to modern dentists’ needs. I urge you to take a look at the new structure and make up your own mind.

Luke Barnett becomes Bridge2Aid Unity Partner

Luke Barnett Dental Laboratory is delighted to have become a Unity Partner of the Bridge2Aid charity. A shocking statistic is that 70 per cent of the world’s population has no access to emergency dental care. If you were in agony, how would you cope?

Luke explains, “I found that figure horrifying and tried to put myself in the position of a person with excruciating toothache, knowing nothing could be done. That galvanised me into doing something about it.”

By becoming a Unity Partner, Luke and his team are sponsoring the training of a Tanzanian Clinical Officer in Tanzania so that less people will have to face this nightmare in future. “I think that all successful businesses should give something back and help make a difference. In fact it has also helped inspire my team and give us all a focus away from the bench”, Luke noted.

If you and your dental practice would like to find out more about becoming a Unity Partner please visit http://www.bridge2aidunitypartnership.org
Human microbe study provides insight into periodontitis

Scientists at the Oak Ridge National Laboratory (ORNL) have found the genetic code of bacteria, which could lead to treatments for periodontitis, according to a new study.

The finding, published in Proceedings of the National Academy of Sciences, profiles the SR1 bacteria, a group of microbes present in many environments, ranging from the mouth to deep within the Earth, that have never been cultivated in the laboratory.

Human oral SR1 bacteria are elevated in periodontitis, a disease marked by inflammation and infection of the ligaments and bones that support the teeth.

Scientists also found that the SR1 bacteria employ a unique genetic code in which the codon UGA - a sequence of nucleotides guiding protein synthesis - appears not to serve its normal role as a stop code. In fact, scientists found that UGA serves to introduce a glycine amino acid instead.

"This is like discovering that in a language you know well there is a dialect in which the word stop means go," said co-author Mircea Podar of the Department of Energy lab's Biosciences Division. Podar and Dieter Soll of Yale University led the team that also included scientists from DOE's Joint Genome Institute who contributed to the analysis of the single-cell sequencing data.

The researchers believe the altered genetic code limits the exchange of genes between SR1 and other bacteria because they use a different genetic alphabet.

UK tissue expander secures £1.2m research grant

Oxtex Limited, a recent spinout from the University of Oxford, will soon begin work with researchers at the University of Malaya to develop its novel hydrogel tissue expanders to treat crossbite and transverse maxillary hypoplasia.

Jan Czernusza, Lecturer in Materials at the University of Oxford, and Chief Technical Officer of Oxtex, led the research into the development of the hydrogel-based tissue expander. He said, "This is a significant grant and we are delighted that the University of Malaya has recognised the potential of our products to treat deformities of the jaw. We are confident that the research into tailoring the device for oral applications and the resulting clinical trials will lead to long-term benefits for an even broader range of surgical procedures."

Crossbite is a common problem in clinical dentistry. It can be painful and affects nearly one-in-ten of Malaysia's population.

Associate Professor Zamir Radzi and Professor Noor Hayaty Abu Kasim of the Faculty of Dentistry at the University of Malaya said, "The established technique for mild to moderate cases of crossbite is to use a quadhelix - a spring loaded appliance – that moves the teeth outwards over a period of time. Whilst these are established techniques, there is a 50 per cent chance of relapse. The use of a self-expanding hydrogel offers tissue expansion at a precisely controlled rate to produce increased surface area of the targeted soft tissues. Their action can also be delayed to allow swelling to commence after a predetermined time - normally one to two weeks after implant - to allow the tissues to settle. This new approach is expected to reduce significantly the tendency to relapse, leading to better patient outcomes."

The £1.2M High Impact Research grant from the Ministry of Higher Education, Malaysia will fund three Doctorate and four Masters places over a period of four years, and is expected to generate 55 scientific papers and at least one patent.

Dental anaesthesia more effective with mannitol

An improvement may be in order for the most common dental anaesthetic. The inferior alveolar nerve block is the most commonly used form of local anaesthesia for mandibular restorative and surgical procedures. A study found that the addition of the drug mannitol significantly increases the effectiveness of this anaesthetic.

The journal Anesthesia Progress presents a study testing the efficacy of lidocaine with epinephrine compared with equal amounts of lidocaine with epinephrine plus mannitol. After injection of the anaesthetic, the subjects' teeth were electric pulp tested for sensation. Pain of solution deposition and postoperative pain were also measured.

Failure rates of 10 per cent to 50 per cent for the traditional formulation of lidocaine and epinephrine have been reported. One reason may be that, because of the perineural barrier around the nerve, the anaesthetic solution does not completely diffuse into the nerve trunk. With mannitol, the anaesthetic solution permeates the nerve trunk in greater amounts, increasing the efficiency of the anaesthetic.

The same 40 patients were given both drug combinations in two separate appointments at least one week apart. To blind the experiment, random five-digit numbers were assigned to each anaesthetic formulation, so neither the patients nor the personnel administering the anaesthetic knew which formulation was being given.

An electric pulp tester was used to test the sensitivity of the patients' teeth. A drop of toothpaste acts as a conductor of the electric current to the tooth. After the injection of the nerve block, different teeth were tested once a minute in a repeating pattern for a total of 60 minutes. The patients also rated their experiences of lip numbness and postoperative pain on a scale of 0 to 5.

No significant differences were found between the two treatments for pain of solution deposition and postoperative pain. However, the mannitol treatment in this test was shown to be more effective for all teeth, offering a greater level of pain relief for dental patients.
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Celebration of world’s undisputed lingual leader

Didier Fillion, the orthodontist who has done more than any-

one else to further the cause of lingual systems, especially in the UK where he works part-time, was celebrated by the British Lingual Orthodontic Society (BLOS) at its Spring meeting.

Having been a founder member of BLOS in 2005, he went on to become its first Chairman and then first President. He was also a founder member of the French, European and World lingual societies. He has been a regular speaker at BLOS events and was on the programme at the Spring meeting with a talk called: ‘Yes we scan!’

Rob Slater, a BLOS committee member who, with Asif Chatoo, was also a founding member of BLOS, paid tribute to Dr Fillion. He told the audience how Didier learned about the lingual technique directly from its inventors in the 1980s but then, after it went out of fashion in the 1990s, he maintained a practice dedicated to lingual.

In the 21st century, as new and more sophisticated lingual systems were brought to market, Didier was available to teach and inspire younger practitioners.

Dr Slater continued: ‘Didier was there at the birth of modern lingual orthodontics and has continued to be at the forefront of new technologies. He has been a great ambassador for orthodontics in the UK and with this in mind the committee agreed that he should be recognised for his work and it is an honour for me to present him with the Life Membership of BLOS’.

The framed certificate of life membership and a Map-pin and Webb decanter were the gifts which marked the end of Dr Fillion’s era as BLOS President. He is soon to chair the meeting of the World Society of Lingual Orthodontics in Paris in July.

Mouth cancer screening accreditation scheme launches

UK dentist and Mouth Cancer Foundation Ambassador, Dr Philip Lewis, plans a life-saving presentation to delegates at the BDA Conference and Exhibition at 12:15 pm on Saturday 27th April 2013. Dr Lewis explains how by carrying out thorough head and neck cancer checks at routine appointments lives will be saved. The presentation is the formal launch of the Mouth Cancer Foundation’s new screening initiative, the Mouth Cancer Screening Accreditation Scheme.

The scheme will recognise dental practices that demonstrate a visible commitment to increasing public awareness of mouth cancer screening to all patients and to establish a documented referral pathway with a local specialist department.

Awareness is integral to achieving early detection of head and neck cancers, thus saving lives. The Mouth Cancer Foundation will accredit dental practices that meet certain criteria and routinely participate in oral cancer screening. Full membership includes access to a dedicated section of the charity website and free one hour CPD element as well as professional development and training modules suitable for all members of the practice to ensure regular screening benefits practice patients.

The Mouth Cancer Screening Accreditation Scheme aims to improve outcomes for head and neck cancers in accordance with The British Dental Association’s occasional paper for the early detection and prevention of oral cancer and NICE guidelines. It offers a realistic approach for dentists who seek to adopt best practice in oral cavity examination and opportunistic screening.

The scheme embraces recent Care Quality Commission, Information Governance and Clinical Governance requirements and necessitates the recommendation by the General Dental Council for continuous professional development for the management of oral cancer for dental professionals.

The Mouth Cancer Screening Accreditation Scheme is open to any dental practice whose clinicians are registered with the GDC. For more information or to join please contact the Mouth Cancer Foundation via info@mouthcancerfoundation.org or call +44 (0) 1924 950 950 for more information.

Studies support efficacy of light- accelerated tooth movement

Biolux Research Ltd. saw two of its sponsored research studies on photobiomodulation results presented at the International Association of Dental Research/American Association of Dental Research General Session and Exhibition in Seattle, March 20-23, 2013. These presentations included clinical evaluation of both efficacy and safety of Biolux-patented Light Accelerated Orthodontics™ technology and devices.

The first presentation is Photobiomodulation for Orthodontic Tooth Movement. This study was a multicentre study including the University of Alabama at Birmingham, Mahidol University in Bangkok, Thailand, and private practices in North America.

Clinical evaluations of fixed appliances

The research evaluated the effect of the novel photobiomodulation device on the rate of tooth movement during the alignment phase of orthodontic treatment with fixed appliances, and included upper and lower arches in 75 test subjects and 17 controls. The results, as measured by rate of change of Little’s Irregularity Index over the course of the alignment phase, showed a statistically significant 2.5-fold increase in tooth movement in the patients treated with photobiomodulation.

The second presentation is Radiographic Analysis of Teeth after Photobiomodulation Therapy. This study evaluated whether the use of photobiomodulation in conjunction with fixed orthodontic appliances led to any significant change in root resorption, to address the concern that accelerating tooth movement with light treatment may lead to increased root resorption.

Twenty patients were evaluated with cone beam computer tomography before and after orthodontic treatment, and no statistically significant findings were noted for root length change at the end of treatment compared to the start of treatment, for either anterior or posterior teeth. Also, no clinically significant changes between root lengths were noted above 0.5 mm.

“We are very pleased to work with such great investigators in evaluation of our Light Accelerated Orthodontics™ technology and products, and are excited about the clinical research results presented at the IADR/AADR,” states Dr. Peter Brawn, founder and chief scientific officer of Biolux Research Ltd.
The importance of quality - BDTA

More than 25 members of the dental press gathered at the Park Plaza Sherlock Holmes Hotel in Baker Street on 15 February to mark the launch of the BDTA Dental Showcase 2015 marketing theme and brand new website.

The Sherlock Holmes venue was chosen to link with this year's theme of 'seeing what's new in dentistry', which features the popular Showcase dental character with a detective's magnifying glass, helping bring to life the idea of delegates at Showcase searching out the latest in their field.

Guests gathered for drinks and a catch up before Tony Reed, Executive Director of the BDTA, introduced the theme and thanked the press for their continuing support of BDTA Dental Showcase. This was followed by lunch in a room that included pictures and memorabilia of the popular detective stories.

Tony Reed commented, “The launch of the BDTA Dental Showcase 2015 theme to the press was a great opportunity to highlight the importance of this prestigious event. With the rise in popularity of the Internet and the recent cases of suspect dental equipment being sold online, quality trade shows from trusted associations such as the BDTA offer dental professionals an opportunity to buy with confidence.”

BDTA Dental Showcase is the UK's largest and most popular dental exhibition and this year's theme reinforces all that is great about the event: the ability to view, touch and experience all that is new in dentistry, all under one roof”.

BDTA Dental Showcase 2015 will be held at Birmingham NEC from 17-19th October.

To find out more about BDTA Dental Showcase 2015 and register for tickets visit: www.dentalshowcase.com now!

Expansion of dental teams made easier by 2013 Budget

New impetus has been given to practice-owners wanting to appoint more staff members thanks to George Osborne’s 2013 Budget.

In a variety of ways, he has cut the staffing costs of employers as well as making it easier for potential employees to move home or organise childcare says Charles Lynam, a Partner in dental accounting specialists UNW LLP.

Following the Chancellor’s Budget announcements before a rowdy House of Commons, Charles listed some of the key benefits for practice owners and their teams:

• A new “Employment Allowance” which will result in a saving in Employers NIC up to £2,000.

• Help with the purchase of new-build homes for those trying to get on the property ladder. So long as the property is worth less than £600k and the purchaser can find five per cent for the deposit, the Government will provide an interest free loan of 20 per cent.

• An uplift from £5k to £10k in employer loans that can be made without giving rise to a taxable benefit on the employee – helpful for season rail tickets or other transport (or indeed new build house purchase?) – will come into effect from 6 April 2014.

• Childcare discount of 20 per cent up to a value of £1,200.

The tax free Personal Allowance will be increased to £10,000 from 6 April 2014, a year earlier than planned (and coming on top of the increase from £8,105 to £9,440 already announced from 6 April 2015). This could help team members working part-time or starting work half way through the tax year.

Also from April 2015 there will be a single rate of Corporation Tax of only 20 per cent for all companies of whatever size and irrespective of whether more than one is under common control. This is a genuine tax simplification measure which will benefit all incorporated dental practices and particularly those practitioners who may currently own and operate more than one limited company. It may also encourage yet more practices to go down the incorporation route.

More investigations for more people

From 2 April 2015, the Health Service Ombudsman will be investigating more complaints and sharing more information with the NHS, including dentists, marking the first step in delivering plans to have more impact for more people.

Under the new plans, once a complaint meets some basic tests it will usually be investigated. This means the Ombudsman service will be investigating and sharing the learning from thousands more complaints each year. The changes will benefit individual complainants, public services and the wider public.

For complainants, an independent organisation will have looked at their complaint and made a formal ruling on it. For organisations complained about, including dentists, GPs and other NHS providers, they will benefit from seeing, commenting on and learning from more of the cases the Ombudsman looks at. This will help them improve public services.

The new approach is also a response to what public organisations themselves want from the Ombudsman service: which is to share more learning from the cases it looks at. This will also support the drive across public services to use complaints to identify service failure and deliver service improvement, especially in light of the recent findings by the Mid Staffordshire Public Inquiry.

Julie Mellor, the Health Service Ombudsman said: “We’ve responded to feedback from public services, parliamentarians and our public research. That’s why we will begin investigating more complaints from the beginning of April.

We want complaints to make a difference and help improve public services for everyone. There will be more opportunities for service providers to learn from complaints which can be used to improve public services. We still want complaints to be resolved locally wherever possible.”

Health Service Ombudsman will be increasing their level of investigations

Portugal wins the World Cup!

Portugal triumphed in the recent Comic Relief ‘Mini World Cup’ Challenge, which was organised by Manan and has raised more than £1,000 so far.

In a bid to raise money for Red Nose Day, Manan Ltd brought together some of the biggest names in dentistry for a table football tournament hosted by Manan, DPAS, Purple Media, and Dental Tribune competing for the “World Cup” at Manan’s offices in Haddenham, Buckinghamshire.

“Team Portugal”: Quentin Skinner (left) and Manan’s Matthew Fearn

Dental Tribune’s Joe Reed, Executive Director of the Dental Tribune’s Joe Aspas; “kneepie uppies”; FIFA on Xbox; and the spinning bike challenge. All proceeds went directly to Comic Relief.

Donations can still be made online via http://my.rednoseday.com/spinner/mananminiworldcup
Challenging times ahead as NHS Commissioning Board succeeds PCTs
A report from the recent Dental Law and Ethics Forum meeting

The framework necessary to underpin the commissioning of dental services is not yet in place for all specialties just weeks before the NHS Commissioning Board (NCB) is set to come into force, warned Kathy Harley, Dean of the Faculty, speaking to the Dental Law and Ethics Forum on March 15th.

Immediate challenge
The timeframe for the changes to commissioning of NHS dental services has been difficult for all those working within the Commissioning Board, and there is an acceptance that services cannot change overnight. The immediate challenge, said Miss Harley, will be to achieve a safe transfer of all dental services from Primary Care Trusts to the NHS Commissioning Board.

The Dental Faculty of the Royal College of Surgeons of England welcomes its involvement in the development of the Care Pathways which are being developed by the Commissioning Board to assist in the local commissioning of services. However, Miss Harley expressed concern that Care Pathways for only two dental specialties, Paediatric Dentistry and Oral Surgery, were complete. Work is currently underway on the development of the Periodontology Care Pathway and will eventually be developed for each dental specialty with the aim of achieving continuity of care.

Miss Harley explained the new structures and the need to develop a workforce who could be readily identified as capable of providing “enhanced” skills. She explained that three levels of care providers had been created: GDPs were considered to be Level one, Specialists/Consultants Level three and a new grouping at Level two equate to practitioners with ‘enhanced’ skills.

Consistency
In order for consistency and continuity of care across the whole of England, it is important to develop an appropriate training pathway and assessment recognisable by all. This will facilitate the NCB, Area Teams and Local Dental Networks to establish a new architecture and framework with the development of single operating procedures and policies.

The Faculty has set up a group to take this work forward accepting that there is much to be done in a very tight schedule. Aware that training schedules are already underway in a number of Deaneries, Miss Harley expressed the desire to ensure that there is consistency across the Deaneries and the need to prevent widely differing training schemes and assessments being developed to achieve the same outcome.

Miss Harley’s second topic was the change in European regulations on bleaching and the concern that this procedure might now be prohibited for under 18s. Using some of her own material - she works as a consultant in Paediatric dentistry - she showed her audience the highly pleasing treatment undertaken on teenagers which could now be considered “illegal”. Many of her patients had enamel blemishes affecting their front teeth as a consequence of a childhood illness, e.g. chicken pox, inherited disorder or trauma to the primary predecessor. Effective management of the enamel blemishes can be achieved with bleaching which avoids the need for more invasive treatment.

Resolving confusion
Dialogue is currently underway, she said, between the Department of Health, GDC and other interested bodies to resolve the confusion in this area as this deserving group of patients should not be managed with destructive removal of enamel and the provision of veneers and crowns to improve the appearance of their teeth. Likewise children who have discoloured incisors following an earlier incidence of trauma, who for years have been managed by bleaching, should not be excluded.

For more information about the Dental Law And Ethics Forum, visit the website: http://www.dlef.co.uk

‘The timeframe for the changes to commissioning of NHS dental services has been difficult for all those working within the Commissioning Board’
Planning for the future
Richard Lishman discusses ways to keep your finances straight

With so much to be considered, trying to get ahead financially can be exhausting. It seems that dentistry has become as much about business as it has about providing a committed clinical service. So it is vital that dentists take monetary matters seriously, as skill and hard work are no longer enough to prosper. Generally speaking, financial success is not just about making the right fiscal decisions, but more a case of not making the wrong ones. In order to succeed financially there are many aspects which need to be considered.

Where is your money going?
It may sound like the obvious thing to do, but the only way to gain a firm understanding of your financial situation is to first assess exactly what your money is being spent on. As with so many things, the key to financial success is through careful planning. A lack of preparation could potentially lead to hundreds if not thousands of pounds being wasted. A simple and effective way of keeping an eye on where your money goes is to look through your bank statement each month, listing all major outgoings. Once you have a reasonable idea of how your money is being spent, you should seek to review your financial situation regularly. When you know where your money is going, it is much easier to direct it into the places that it should be going.

Where should your money be going?
No matter what the percentage of your income that you decide to invest, it has to be invested in a way that suits you. With an array of different investment opportunities available, choosing which one to use can be a tricky decision. The first thing to consider is what your own individual circumstances are and the amount of money that you are able to invest. These factors will impact upon which route will be most beneficial to you. For example, ISAs can be a remarkably effective way of building up long term tax efficient savings for someone who is looking to invest using a combination of monetary and share options.

Planning for the future
Looking to the future is essential when embarking on any kind of investment opportunity. A dentist whose focus is secured firmly on the present is less likely to make the right decisions.
decisions, the prudent dentist will always plan investment with a consideration of what is yet to come.

Planning for retirement is extremely important for anyone. Every dentist should have a retirement accumulation goal, which as you would expect takes time and meticulous planning to calculate. To meet their accumulation goal there are five variables that will have to be managed. These are: retirement income needed, savings needed, investment return assumption, risk assumption and retirement date. Each one of these variables will be affected by one another, so managing them efficiently will certainly prove worthwhile in the long run. Similarly, it also pays to have an annual savings goal, many advisers suggest that this amount should be around 20 per cent, though obviously this figure will vary depending on individual circumstance.

Staying in control Planning for the future, as has already been noted, is reliant upon financial behaviour in the present. So when any major financial decisions are made, it will need to be assessed as to how they will impact upon other goals. For instance, a dentist may have to forgo savings because an unexpected tax bill comes through. By managing your financial situation in the proper way, there should be no reason for unexpected bills, thus you will not be thrown off course from completing your financial goals.

Another aspect of financial management and one that requires close attention is debt. It is worth having a plan for managing payments, this way it is still possible to save. It goes without saying how dangerous getting in to debt can be. Whilst it is possible to manage a small amount of debt, more serious amounts can have a catastrophic effect. Should debt begin to spiral out of control it is wise to seek assistance from an IFA before it gets worse.

Whether it is advise on debt or choosing a way to appropriately invest your money, one of the biggest mistakes a dentist can make is to think that they have to tackle these issues alone, they don’t. There are now many IFAs who specialise in assisting those who work in the dental industry. These Companies are fully aware of the fiscal challenges that present themselves to those who work in the dental industry and know the best ways of combating them. Enlisting the help of a specialist IFA will make assessing your financial situation and forming suitable goals easier and more manageable. By following the above guidelines a prosperous future is in your grasp.
Wow, just get a look at that bad boy!" It’s high fives all round as yet another successfully completed restoration is unveiled before a grateful and admiring patient. “I can’t even tell which tooth you’ve fixed" they purr. You feel your chest swell as you bask in the knowledge of a job well done.

Then it happens. They turn from the mirror, all smouldering menace and jaw-jutting attitude and as they deliver the immortal lines “How long is that going to last then?” and you degenerate into incoherent stammering. Sound familiar? How strange the change from major to minor.

However, as I write we’ve just reached the end of this latest phase of the MSc, namely the Research and Statistics module, so I’ve now got all the answers.

“Evidence”, a conjurer’s word of such power that the phantoms of those haunted late years in general practice can now be set to flight. I can now ditch the dull pragmatism necessary to survive the zany egg and spoon race that passes for dental practice these days, and really give it to them straight! Strange how potent the power of Evidence Based Dentistry; however did we cope before Dave Sackett et al?

Thankfully there’s “evidence" to support just about any clinical claim. If I may plagiarise (for once) the late great Groucho Marx, “this is my evidence, and if you do not like it, I have other evidence’

‘If I may plagiarise (for once) the late great Groucho Marx, “this is my evidence, and if you do not like it, I have other evidence’

More than a tale told by an idiot, full of sound and fury, signifying nothing, I have no evidence for this last statement, but what the hell? Shockingly, it appears most research is poorly conducted or even worse, motivated by commercial advantage or for the advancement of researcher’s careers. There are so many types of research “bias” I’ve lost count. Consequently we have been involved in the fine art of trashing research papers for the last 12 weeks. What of truth is left I wonder, when the trashing

This is my evidence, but I have others...

Ken Harris discusses from the University of Manchester Research and Statistics module of the MSc in Restorative & Aesthetic dentistry

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Endobiz v3 - free endodontic clinical record and practice management software

Richard Kahan tells you why you should download EndoBiz Remote Version 3 from www.endobiz.co.uk

On November 19 2012, after programming work spanning 17 years, I announced at the British Endodontic Society annual regional meeting that my endodontic clinical record and practice management software, EndoBiz, would be available free of charge for unrestricted and unlimited use.

What led to this surprising decision?
The dental software industry in the UK is mostly divided between two mega-corporations who bought up all the competition during the nineties and noughties. Their unassailable domination allows them to dictate their terms to users, and when it comes to requesting additional functionality and software specific to the needs of niche users, their business model will not provide.

This was my position in 1995, setting up a specialist endodontic practice with specific software requirements to enable a higher level of clinical note taking that truly reflected superior clinical expertise, with the ability to save time and money in efficiency, and to allow secure access to the record system from anywhere and at any time.

Do it yourself
With no software package coming close to my requirements and the big players turning a deaf ear to my requests, I decided to write it myself.

EndoBiz version 5 was completed and then tested throughout 2011. It was written as a corporate level cloud-based, fully customisable internet solution for specialist endodontic referrals practices from the ground up, using the latest web programming protocols. This is in stark contrast to most other dental software programs, which have been written many years ago for single practices legacy platform. Improvement has been through modules bolted on to maintain some ‘newness’ to keep the punters happy and revenues streaming in.

The EndoBiz development process was long and complex (much longer than anticipated), and subsequently very expensive. However, the result impressed fellow specialist endodontists, referring practitioners and patients, as well as being described in PC Pro magazine (June 2012) by resident network specialist Steve Cassidy as “a superbly constructed, beautifully designed solution that no-one has heard about”.

Clarity of vision
The “no-one has heard about” is what I have to work on at present. I am unwilling to lose the clarity of vision and dedication to specialist endodontics by selling out to a larger corporation software house. Yet, as I have found, competing with these giants is unrealistic for anyone without the deepest of pockets.

So how does a small (but impressive!) independent software developer survive in this corporate world? I hope and believe it can be through grass-roots level support.

So how does a small (but impressive!) independent software developer survive in this corporate world? I hope and believe it can be through grass-roots level support.

Richard Kahan is a specialist endodontist and Director of the Harley Street Academy of Advanced Endodontics. He managed Digital World on his Sinclair ZX81 at an early age and went from there to BBC Basic and trying to disrupt the new computerised instrument ordering system at the Royal London Hospital during the 1980s. His software never has bugs, it just occasionally develops random features.
Irrigation for the root canal and nothing but the root canal

Dr Phillipe Sleiman discusses chemical preparation of the canals

Irrigation is a major step in endodontic treatment. A variety of chemicals are used to achieve what I like to consider the chemical preparation of the root canal system.

Sodium hypochlorite (NaOCl) is a major component of the chemical preparation, mainly owing to its ability to attack the collagen component of the pulp tissue, and it is very cost-effective. However, one of the problems of using NaOCl is its safety, especially during its delivery inside the root canal system and the ability to limit its delivery strictly to root canal space and nothing but the root canal space.

Going beyond the limit of the root canal space causes serious problems, the gravity of which depends on the amount of NaOCl passing to the margins of the periodontal ligament or even attacking the periodontal ligament. A small amount can result in pain or discomfort after treatment, whereas a larger amount, especially in cases of large and/or open apices, can accidentally be delivered inside the maxillary bone, travel via veins and arteries to primary anatomical organs and cause extensive, serious and very dangerous reactions. It is possible that the majority of such incidents are treatable with steroids and antibiotics, as they are limited to muscle and bone inflammation and slight reversible necrosis.

Sometimes we are not that lucky. Irrigating the last few millimetres in the root canal space is an important key to treatment success, and a certain amount of NaOCl may be delivered into the maxillary sinus especially in the area of the maxillary second premolar and first molar. The case discussed below was the result of accidental NaOCl delivery into the maxillary sinus.

Case report

The patient was referred to my office for a complaint regarding the maxillary molar. After examining the patient and looking at her preoperative X-ray, I saw nothing wrong with the existing root canal treatment, at least concerning the roots, but found a vague image in the sinus that I thought could be related to the maxillary molar and could be the cause of the problem. I asked my assistant to take a panoramic X-ray, which demonstrated a much larger problem inside the sinus but at that point I did not realise the scale of the issue.

Turning back to the patient, I went into some questions related to the issue, such as “Do you have problems breathing through your nose on this side?”, “Can you describe to me the pain or discomfort you are having?”, “Can you tell me if anything unusual happened during your previous root canal treatment?” and “What were the indications for this treatment several months before?” The patient, quite unexpectedly, told me that during the procedure she had, had a chlorine taste in her throat arising from her nose as if a liquid was dripping internally. Also, after the treatment was over and she was on her way home, a strange liquid with a chlorine smell began dripping from her nose.

Upon hearing that, I asked the patient to have a CBCT scan of the maxilla because it was necessary to establish the situation in the sinus. The patient was nervous and anxious, so I asked the radiology centre if they could capture the CBCT scan for her on the same day as a favour.

A couple of hours later, the patient returned to my office and I took the time to examine the images. In the panoramic view, it was clear that half of the sinus was filled with inflammatory tissue (Fig. 2), in the sectional views, I noticed that the posterior wall of the sinus was non-existent in some places (Figs. 3–5). Potentially, it could be the position of the patient during the root canal procedure that made NaOCl stagnate on the posterior wall.
and aggravate the damage. The patient was informed of my opinion and recommended to see her otorhinolaryngologist, who took over the case, since it was already beyond the specialty of the dental profession and so she did.

Conclusion
As we have seen, what seems to be a normal root canal treatment can hold serious implications for human health. Although it is very true that we need irrigation to clean the root canal system, those chemicals need to be limited to the root canal system only, as even a few drops of NaOCl approaching the periodontal ligament may create an inflammatory region and area of tissue damage as a result of an aggressive chemical reaction.

Sometimes this process is limited and may only cause minor discomfort for a couple of days, but when the amount of chemical is larger more severe problems may occur, for which the use of steroids and antibiotics is recommended. A major accident can still happen at any time when an amount of chemical travels outside the oral cavity and causes a more serious complication.

One of the safest options that we currently have at our disposal is the EndoVac system (SybronEndo), which is designed specifically to deliver fresh irrigant all along the root canal system and, most importantly, to clean the last 5mm of the root canal system using the MicroCannula. It allows us to be certain that no chemicals can go beyond the limits of the root canal space, nor cause any serious or even minor damage.

I would like to thank Yulia Vorobyeva, interpreter and translator, for her help with this article.

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Iatrogenic errors before and after non-surgical root canal treatment

Dr Rafaël Michiels

Several reports in the literature describe iatrogenic errors during root canal treatment. The most common errors include perforations, ledging, transportation, zipping, over-extension, file separation and underfilling. Little emphasis is placed on the preparation of a tooth before starting root canal treatment, or on the finishing of the tooth after obturation of the root canal system. On various online forums and in several clinical articles, beautifully executed root canal treatments are shown with coronal restorations that are less than ideal. This is a serious problem, since it has been demonstrated that a successful outcome depends not only on adequate root canal treatment, but also on adequate coronal restoration. In this article, I will elaborate on these aspects and present a case as an example.

Before starting root canal treatment As endodontists, we are specialised in the treatment of root canal systems. However, sometimes we focus on this only, forgetting that there is more to a tooth than a root. When a patient comes into our office, often he will have (a) symptomatic apical periodontitis. Whether the tooth has been treated before is somewhat irrelevant in the scope of this article. The first thing that we, as practitioners, should try to determine is the cause of the problem. The most cited causes are previous inadequate root canal treatment, primary decay, recurring decay, worn restorations and poor restorations overall. If the tooth has not undergone root canal treatment previously, then the cause of the problem is most likely one of the coronal factors. It is important to address this. After all, what is the point of performing a beautiful root canal treatment if the primary cause of the problem is not treated?

The best way to do this is by removing the old restoration completely, followed by full caries removal. This may sound logical, but it is not. There are certain disadvantages with this approach, and it is these disadvantages that guide many practitioners in their decision-making. Removing an existing restoration might result in the sacrifice of healthy tissue and it might make it more difficult to obtain proper isolation with a rubber dam. Another factor is time; removing an old restoration is time-consuming and even more so if a build-up is required before endodontic treatment.

These are some reasons that many practitioners choose to leave the old restoration in place. This can compromise the treatment outcome and is a risk that can be avoided. Fortunately, there are advantages too. By removing the old restoration and subsequently all the caries, the practitioner eliminates one of the major causes of failure and can assess immediately whether the tooth is restorable and thus avoid unnecessary treatment. Another advantage is that it is necessary to fabricate a completely new restoration afterwards, which avoids patching up of old restorations. Overall, the advantages are greater than the disadvantages and the only thing it requires from the practitioner is a change in behaviour and some perseverance.

After root canal treatment Once root canal treatment has been completed, often we need to send the patient back to the referring dentist. In this case, an adequate temporary restoration must be placed. Typically, a temporary filling material like Cavith (3M ESPE) or a glass ionomer cement is used. A cotton pellet or some other form of space maintainer is generally placed underneath this temporary filling. This is done because the referring dentist then has easier access to the pulp chamber so that he can gain better retentive when placing the permanent restoration.

There are several disadvantages to this approach. Leaving space between the temporary restoration and the canal orifices puts the patient at risk of contamination. As practitioners we can not guarantee that the patient will show up for the permanent restoration, sometimes the appointment is cancelled for a variety of reasons. Another risk is fracture of the restoration and/or tooth. If that happens the gutta percha can be exposed to saliva, which too might lead to contamination. Ideally, however, the tooth should be restored immediately after the root canal treatment has been carried out. This means that the endodontist places the permanent restoration.

Advantages with this approach are:
• It saves the patient a visit to his regular dentist
• The tooth is already isolated, creating the ideal environment for a restoration
• It saves the referring dentist time, which he can spend on other treatments
• It offers the endodontist some variety in the treatments he performs, enabling him to broaden his skill set

Again, this only requires a change in behaviour of the practitioner and some perseverance. It will also require that the referring dentist allow the endodontist to place the restoration. The endodontist will have to upgrade his skills, so that he can also create beautiful coronal restorations.

Following, is a case that illustrates the advantages and disadvantages of the above-mentioned...
approaches.

When I had just graduated as an endodontist, a 56-year-old male patient was referred because he was experiencing some mild pain in his left mandibular second molar. I was acting as a third-line practitioner in this case. Another endodontist did not wish to begin treatment and finally referred the patient to me.

The tooth was diagnosed as having symptomatic apical periodontitis and was previously treated inadequately, including a separated instrument in one of the mesial canals (Fig. 1).

In the first visit, I removed the gutta percha from the mesiolingual canal, and cleaned and shaped it completely. The separated instrument was located in the mesiobuccal canal, but I could not remove it completely. I left the distal canal untouched. Calcium hydroxide was used as an interappointment dressing, and the tooth was restored with a cotton pellet and glass ionomer cement. An initial error was made by not removing the old restoration and caries completely.

One month later the patient returned in agony. When I re-opened the tooth, a great deal of pus and blood came out of the tooth. I then tried to bypass the remainder of the fragment in the mesiobuccal canal, but perforated the root with a 15.04 ProFile (DENTSPLY Maillefer; Fig. 2). I also retreated the distal canal in this session and fractured a small piece of a 25.06 ProFile in the apical part, but could bypass it. I then filled the canals again with calcium hydroxide and sealed the tooth with a glass ionomer filling.

One month later, I saw the patient again for the completion of the treatment. He no longer had any symptoms. I restored the perforation with grey MTAngelus (Fig. 3). I obturated the canals with gutta percha and Topseal (DENTSPLY Maillefer) using warm vertical condensation. I sealed the cavity with Fuji IX A1 (GC) immediately on top of the gutta percha (Fig. 4). I then referred the patient back to the dentist for a permanent restoration, with the explicit advice to have the distal restoration replaced too.

Nine months later the patient returned to my office for another tooth. I decided to take a follow-up radiograph of the left mandibular second molar to see if healing was favourable. The patient had not experienced any complaints since I completed the treatment and the radiograph showed a favourable apical outcome. However, the permanent restoration was less than ideal (Fig. 5). I had to refer the patient back to the dentist for a new restoration.

Conclusion
Looking back upon this case, I can conclude that I should have removed the old restoration and the caries at the start of the treatment. Positively, it was good that the glass ionomer filling was placed immediately above the canal orifices, preventing contamination via a leaky restoration. Ideally, I should have finished the restoration myself.

It required a change in my behaviour and some perseverance to begin to perform cases in accordance with the aforementioned approaches, as can be seen in Figures 6, 7 and 8.

About the author
Dr Rafael Michiels graduated from the Department of Dentistry at Ghent University, Belgium, in 2009. In 2009, he completed the three-year postgraduate programme in endodontics at Ghent University. He works in two private practices specialized in endodontics in Belgium. He can be contacted at rafael.michiels@ontzenuwen.be and via his website www.ontzenuwen.be.

Fig. 8_Post-op radiograph, with temporary glass ionomer restoration.

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In endodontic treatments, Nickel-Titanium instruments in continuous rotation optimize root canal shaping. Generally, rectilinear and barely curved root canals with a round or oval section do not cause difficulties and can be prepared by using all standard techniques. However, particularly thin and moderately or strongly curved canals with a laminar section are more difficult to shape and involve a considerable risk of failure.

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Instrument fracture can occur either through material fatigue caused by a significant number of compression-tension cycles or through torsion due to obstruction of the instrument’s tip in the canal.

A certain number of factors such as the pressure exercised on the contra-angle head, the speed of rotation and the number of clinical applications favor the occurrence of instrument separation.

In addition to these procedural mistakes, instrument diameter, taper, profile and machining as well as canal curvature are crucial for the occurrence (or not) of instrument fracture.

Continuous rotation versus reciprocating technique

In recent years, we have seen several alternating movement systems (clockwise – counter-clockwise rotation) come forward, destined to limit instrument separation, for example M4® (Sybron Endo), Endo-Eze AET® (Ultradent), EndoExpress® (Essential Dental System), WaveOne® (Dentsply) and Reciproc® (VDW).

The alternative movement technique varies between 30° and 90°, being thus either symmetric or asymmetric, depending on the manufacturer. The kinetics of reciprocation reproduces the manual movement of the intra-canal file, restricts the risk of instrument fracture and facilitates the penetration into calcified canals.

The systems with a 90° alternating and symmetric movement require a large instrumental sequence whereas the systems limited to a 50° movement have a restricted cutting capacity and a tendency to extrude dentine and pulp debris towards the periapex.

The latest generation systems with an asymmetric range do not require any pressure being exercised on the contra-angle head.

Although an evolution of the GIROMATIC® technology seemed to be possible, the new One Shape® instrument is used in continuous rotation. The acknowledged benefits of this rotational dynamic are an excellent tactile sensation and a remarkable cutting efficiency.

The difficulty in the instrument’s development lies in its...
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zone is essential for the success of each endodontic treatment. An over instrumentation beyond the apical limit with wide tapered NiTi files always results in apical taping, over obturation with apical transgression and a defect in the three-dimensional sealing.  

Expert opinions differ considerably concerning the perfect diameter and taper for the preparation of the last apical third. A circular preparation of the constriction or an apical limit prepared with a diameter of 40/100mm and a .06 taper is not “cleaner” than a preparation with a diameter of 20/100mm and a .08 taper. However, the precise determination of the apical limit and its verification during the operation are vital for a successful endodontic treatment.

The working length actually evolves during the root canal preparation due to the instrument’s linear action.

Protocol
The One Shape® method helps to carry out a safe root canal preparation provided that the simple protocol is applied. As for all the root canal preparation methods the pulp chamber opening has to be sufficient for a direct access to the canal system. Dentin overhangs have to be eliminated. The real challenge in endodontics is to locate the canal path, make it permeable and secure it down to the working length.

The exploration of the root canal is accomplished by using either a MMC 15 type manual file or mechanized instruments such as G-Files® 12/100mm or 17/100mm. In the case of a strongly curved canal path, the coronal part of the canal has to be widened and straightened by using EndoFlare®. This procedure also restricts the bending stress on the instrument during the preparation of the canal's most apical portion. After validation of the exploration process, the pulp chamber has to be thoroughly irrigated using sodium hypochlorite (three per cent to 5.25 per cent).

The action of the One Shape® instrument starts with a downward movement of a few millimetres into the canal at a rotational speed of 400 rpm. As soon as a resistance is encountered, a low range up and down movement has to be carried out. This brushing movement on the canal walls facilitates the access to the apical third.

To accurately measure working length and achieve apical patency, a thin diameter file connected to an electronic apex locator will guarantee maximum precision. This determination method of the apical limit after enlargement of the coronal 2/3 yields reliable and reproducible results, particularly in long and curved canals. As a matter of fact, the working length varies significantly during root canal shaping.

A MMC 15 file retraces the canal path, frees the foramen from any obstruction and activates the irrigation solution. This verification of the apical anatomy is particularly important when using a single instrument method, since over instrumentation leads to significant post-operative symptomatology.

The use of an electronic apex locator is highly recommended, especially regarding their current precision after elimination of constraints in the coronal third.

Conclusion
One Shape® – the single file system for root canal shaping – is a solution destined to practitioners who face the following difficulties:

- reluctance to adopt new techniques
- aseptic chain organisation
- insufficient and inadequate root canal preparation
- appearance of overhangs and constraints
- mechanised instrument separation
- complex instrumental protocol
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Are you missing out on potential patients?

Results of the Patient and Public Survey 2012 showed people from lower social grades and non-white people are less engaged with dentistry. Amanda Atkin considers why

Recent a report of the findings of the Annual Patient and Public Survey 2012 was published. It is based on research commissioned by the GDC and carried out by Ipsos MORI. This survey followed one done a year earlier and was designed to find out patient and public awareness of the GDC. As in the previous study, a sample of around 1,600 people in Great Britain and Northern Ireland were interviewed face-to-face. This time there were also ten qualitative (qualitative information is typically descriptive rather than numerically based) telephone interviews.

The survey produced some interesting findings, one of which I shall explore here. The Executive Summary included this paragraph: The third theme running through the findings is the correlation between social grade and ethnicity, engagement with dentistry, and expectations. The results suggest that people from lower social grades and non-white people are less engaged with dentistry in a number of ways. For example they are less likely to have visited the dentist recently, are likely to visit less often or to have never visited a dentist, feel less fully informed about their treatment*, and are less aware of the GDC. This may in turn negatively affect their expectations of the complaints process and giving feedback.

(*) a footnote makes the point that the weighted base size of non-white respondents here is under 100.)

Later in the report it states: Therefore the GDC may wish to consider communicating more effectively with less-engaged people on one hand, and making the service and its structures more universally accessible on the other. This could involve reviewing the style and language of communications, for example.

What impression does your website give? I looked at a random selection of nine websites of private and NHS practices in parts of the Midlands, in London, in the south-west and in Leeds. The overwhelming number of images showed white people as ‘patients’. In fact, I only came across two photos of black people – one in each of two practices. Where images of a team were shown, two practices included brown people.

Now I fully appreciate that few (probably none) of these images were of actual patients. To include photographs of patients is difficult and potentially expensive as you need their written consent and a professional photographer. Very likely, the images are from stock photography and may well have been chosen by the website design company.

Does this mean there are not many stock photographs of smiling, happy-looking black and brown people available? I looked at a popular stock photography website www.shutterstock.com and searched for ‘black people happy’. It yielded more than 1,000 results and included individuals, pairs and groups of black people of both genders in casual and formal attire, in a variety of poses, all smiling and with different backgrounds or none. Searches for ‘brown people happy’ and ‘Asian people happy’ yielded a similar variety of images but fewer at around 100,000. Of course, you wouldn’t necessarily want to portray only people of one particular ethnic background or skin colour on your website so I then searched for ‘mixed ethnic happy people’. This produced nearly 10,000 images. There are also stock agencies that specialise in multi-ethnic images – such as www.blendimages.com

‘Let’s consider your team. Assuming you have good recruitment policies, you will have engaged people from the local community regardless of gender, race, ethnicity, religion and age. They should therefore represent a small cross-section of your local community and the potential patients within it. In which case, what could be better than showing images of your team? Doing so has additional bonuses – patients meet people with whom they are already familiar visually and such images show pride in your staff and their pleasure in working for your practice.

Do images on websites matter? How much does showing ‘patients’ of a mix of ethnicity really affect attitudes to a dental practice? This is clearly going to be difficult to answer. I’ll start by quoting a recent article by Bim Adewunmi in the New Statesman online. Under the headline ‘Melanin without tokenism: black people are slowly being allowed to be normal on TV’ she pointed out that: ‘Sainsbury’s has a black family with the little boy doing the dishes to the surprise of his parents, and Tesco’s campaign also makes use of another, sipping on champagne in the kitchen on

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Christmas Day. Baileys’ Blondie-soundtracked ad features several hues and shades. As a lifelong telly addict, I can’t lie: it’s all kind of thrilling.’

Unsurprisingly, I can find no specific research that points to the effectiveness or otherwise of including black and brown people on your website (and, indeed, in your marketing generally). However, The African-American Consumers: Still Vital, Still Growing 2012 Report, by market research company Nielsen Holdings N.V. does provide a comprehensive appraisal of the situation in the USA. It quotes: ‘Marketers underestimate the opportunities missed by overlooking Black consumers’ frustration of not having products that meet their needs in their neighborhoods. This frustration is potentially further compounded by the low level of inclusion of Blacks in television programs, advertising messaging and point-of-purchase communication. Companies that don’t advertise using Black media risk having African-Americans perceive them as being dismissive of issues that matter to Black consumers.’

What’s the reading level of your website?
If you wish to attract as wide a group of patients as possible, it’s no good if your website text demands a high level of education to be readable. According to the News International website, The Sun newspaper reaches 7.5 million readers of which 2.6 million are in the demographic classification ABC1 – so 4.7 million must be C2 (skilled working class), D (working class) and E (eg state pensioners or widows, casual or lowest grade workers). It therefore seems reasonable to suggest that The Sun is accessible to a wide range of people from lower social classes.

You can check the readability of text easily and at no cost – there are several websites that do so. I chose www.readability-score.com because it is one of the ones that gives scores for a number of different readability formulae (I won’t explain their differences here).

For a passage from a headline article in The Sun online the readability scores were:
- Flesch-Kincaid Reading Ease – 68.7 (the range is 0 to 100 where 100 indicates easiest readability)
- Flesch-Kincaid Grade Level – 8.5 (this and the scores below represent the number of years in education in the USA education system. Scores over 22 would mean graduate level text)
- Gunning-Fog Score – 10.5
- Coleman-Liau Index – 9.6
- SMOG Index – 7.1
- Automated Readability Index

I then took some text from the homepages of dental practice websites selected at random. The Flesch-Kincaid Reading Ease scores ranged from 69.5 to 43.9 and the Average Grade Level results range from 8.0 to 13.9. By way of comparison, the scores for this article are: Flesch-Kincaid Reading Ease 56.9 and Average Grade Level 10.2 – suggesting some dental practice websites require a higher reading ability than what I’ve written here. I suggest you check your own website text for readability and, if necessary, make changes to make it accessible to the widest group of the population.

You can check the readability of text easily and at no cost – there are several websites that do so’

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About the author
Amanda Atkin runs Atkinspire Ltd and offers practices support, training and consultancy on information governance, CQC compliance, National Minimum Standards and HTM 01-05. Her bespoke service supports practices as they embed the required standards within their daily routines – to ensure a high quality service and patient safety at all times.

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DT

Clinical Innovations 2013
Celebrating 10 years of innovation
Yester day we had our visit from the Care Quality Commission.

We received a telephone call on Friday informing that the visit would take place the following Tuesday. I don’t work on Fridays so we really only had a day to ensure everything was in place.

As we all know there is an element of anguish when you know you are about to be inspected, however on the other hand I believe that the standards that are set by the profession should be in place and if they are nobody has anything to worry about.

Human behaviour

On the Monday the younger staff were agitated wondering if they would be asked any questions, this is just normal human behaviour. I suppose in a sense I was wishing it was over but I wasn’t concerned about the evidence that we may have been asked for.

Two ladies arrived, one being the lead, the other making notes, they were both very pleasant, and made you feel at ease. We did have a staff meeting beforehand and it was decided just to be ourselves, if we don’t pass we only have ourselves to blame. Everybody in the profession is aware of the legislation surrounding dentists and if there is a problem these inspectors should find it.

This is where I feel it for the single-handed practitioner, trying to achieve targets whilst ensuring all the admin side is up to date plus all the other evidence that is required; it’s a task for a manager to produce; it’s a task for a manager, followed by interviewing four patients with their record cards.

Although they make it clear their intention is not meant to disrupt our day I will say that they do need an empty surgery or meeting room where they can be left will all the various files of legislation that we have. My own office is so small we couldn’t have accommodated them in there.

‘Although they make it clear their intention is not meant to disrupt our day I will say that they do need an empty surgery or meeting room where they can be left will all the various files of legislation that we have’

Following this, they asked to speak with the principal and three members of staff one being an apprentice nurse. The cross infection nurse was interviewed and was asked to show protocols of cross infection procedure.

A short guided tour of the practice was also requested.

Following this I left them to look at dental records plus all our paperwork. The whole process took around three hours. Finally we received feedback although we were told that if anything was wrong they are not allowed to inform you how to put it right.

We were assessed on five outcomes in total.

The whole process took around three hours. Finally we received feedback although we were told that if anything was wrong they are not allowed to inform you how to put it right.

The questions we were asked were various, they did seem to concentrate on the employment files, so if you haven’t a procedure in place now is the time to implement. In my employment folder I have template evidence of:

- Application forms for employment
- Acceptance/rejection letters
- Interview questions
- Interview assessment forms
- Letter of request for references
- Letters for Occupational Health
- CRB applications
- Evidence that employees can work in the UK
- Copies of Contracts
- Job descriptions
- Induction programme
- HEP B evidence
- GDC and Medical Protection
- Certificates
- Training agreement

I then have a folder which shows evidence of all the above for every member has been collected.

Apart from the employment checks they were also interested in audits, especially HTM 015, Practice leaflet to which they took, I was also asked to translate the wording, and I was to produce accident forms and equipment service validity.

Disability access, emergency procedures, cleanliness of the practice and condition of chairs etc, were also mentioned.

I was also asked what was the procedure for mentoring long term existing staff in addition to apprentices.

This was just a rough idea of what to expect. I found the experience fine; they were friendly made me feel at ease, it wasn’t a problem and certainly not worth being stressed about.

If you know you have everything in place you have nothing to worry about.

My next article may read different, as I await the formal report which will appear on the CQC Website.

About the author

Jane Armitage is an award-winning practice manager and has almost 40 years industry experience. She is currently a practice manager for Thompson & Thomas, and holds a Vocational Assessors award. She is also a BDA Good Practice Assessor, BDA Good Practice Regional Consultant, and has a BDA Certificate of Merit for services to the profession. She has her own company, JA Team Training, offering a practice management consultancy service, which includes bespoke audits and covering all aspects of practice management with a path way if required for managers to take their qualification in dental practice management. If you’ve any mem bers of the early 1970s or any specific choices of topics you’d like addressed, call Jane on 01144 543546 or email jae@indcal.co.uk.
Dental appeal for “HIP Z” Zanzibar
Ike Fazal calls for help with a charitable cause...

Zanzibar (“The Spice Island”) 80 Km off the coast of Tanzania, East Africa conjures up so many exotic images: white sandy beaches, warm turquoise seas, beautiful, old world Arab architecture, a mystical, long forgotten place, unspoilt, because time really stood still …

It is all that...but there is another side to Zanzibar, which brings a special kind of visitor... Dr Ru MacDonagh, a Consultant Urologist from Taunton, Dr Jon Rees, my doctor at Nailsea, Bristol; amongst several other medical professionals, who have a strong, innate desire to help others less fortunate than ourselves.

These doctors have been instrumental in setting up “HIP Z” (Health Improvement Project, ZANZIBAR), a British Charity in a joint venture agreement with the Ministry of Health, Zanzibar.

The singer Peter Andre is also now involved with HIP Z, helping to raise awareness of the lack of medical facilities and extremely low life expectancy on Zanzibar. See http://www.dailymail.co.uk/tvshowbiz/article-2098246/Peter-Andre-visits-Zanzibar-mission-help-bring-better-healthcare-island.html

Development
Over the past few years HIP Z has grown to encompass organisation and management of two charity hospitals, which offer essential very low cost treatments for up to 250,000 of the islanders, who would otherwise be unable to afford surgical, maternity or other even basic primary health care.

“This is a really ambitious plan, one which I would like to assist and enable, as a UK-based dentist with East African origins and many fond childhood memories’

Retired Brighton based dentist Dr Feroz Jafferji, originally from Zanzibar, returned to the Island three years ago and linked up with old classmates to set up “DENTAL HELP AFRICA” many years ago, we were overwhelmed with almost 600 parcels arriving from all over the UK, over two years!

We hope to better that this time, and also request most of you, who are generously donating whatever you feel has some use, to be kind enough and use your own packaging and postage in sending items to this worthwhile cause.

We do have “a man and a van” available, so are able to collect certain essential large equipment by mutual agreement, if you feel your items have some useful life and could contribute to “HIP ZANZIBAR” whose detailed wishlist for the Makunduchi & Kivunge Hospital Dental Clinics, Zanzibar (we need at least two of each item):

1. Complete Treatment centres (chair, spittoon, light and drill delivery system) something robust yet simple to maintain (filling) and impression materials, of all kinds; linings, restorative (filling) and impressions materials, surgical sutures, dressings, gauze, root canal items, local anaesthetic items
2. Complete Restorative centre.
3. Capsule mixers and amalgamators
4. High speed turbines and contra angle handpieces
5. Consumable materials of all kinds; linings, restorative and impression materials, surgical sutures, dressings, gauze, root canal items, local anaesthetic items
6. Stools
7. Anythings else dental that may be useful

Sincere thanks in advance to all offers of help. I will post more pictures in due course of both clinics. Of course volunteers who wish to donate their time and skills are always welcome to apply.

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http://www.hipz.org.uk
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Dental appeal for “HIP Z” Zanzibar
Ike Fazal calls for help with a charitable cause...
Setting Up On Your Own

Hiring staff and engaging associates and hygienists

Hiring the correct staff with the correct capabilities is essential for your practice to run efficiently and effectively. When taking on new staff, there are many laws, rules and regulations that you need to follow. This may seem daunting but complying with the rules and regulations and looking after your staff will ensure that your business is effective and profitable.

There is no regulated hiring process in the UK and you are able to adopt whatever system you like when hiring new staff. However, the key rule is that the hiring process should not discriminate against any protected characteristics e.g. disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion and belief, sex and sexual orientation.

Additionally, dental practices have a responsibility to ensure that appropriate CRB checks on applicants for any position within the practice that qualifies for such a check is carried out. In addition to dentists, this is likely to include health visitors, nursing staff, dental technicians and so on. This may in certain circumstances also include front office reception staff - depending on their duties - which can vary greatly depending on the size of the practice. The requirement for a check and the level of check is dependent on the roles and responsibilities of the job and the type of contact with vulnerable groups.

For any relevant positions, current registration (and any conditions) with the relevant regulator ie the General Dental Council, should be checked together with confirmation of inclusion on an appropriate Performers List.

The employer should ensure that the employee can work in the UK and keep copies of proof (passport/visa etc) as failure to have such proof can, should the employee be found not to be entitled to work, lead to substantial fines for employers. You will also need to register as an employer with HMRC.

Under section one of Employment Rights Act 1996, employers are obliged to provide employees whose employment is to continue for more than one month with a written statement of certain terms of their employment. This must be given to the employee no later than two months after their employment begins. It is better however to provide a written contract of employment.

More often than not the employment relationship is left undocumented. Employers will therefore rely on verbal understandings and agreements as developed over the working relationship. Employers may be reluctant to introduce written contracts to their staff not only because they are time-consuming to prepare and implement but also for fear of alienating staff by presenting a formally written document which can be perceived to be inflexible. It is undeniable however that a written contract of employment is paramount to any employer/employee relationship. All employers should have a written contract of employment so that they can be certain about the terms on which their employees operate. The value of any written documentation is simple - it enables parties to have a clear understanding of what has been agreed thereby cutting down on disagreements at a later date.

You will also need to decide which would be the best option for you, part time or full time employees? Terms of employment for a part time employee should be no less favourable than for a full time employee (albeit proportional) unless it is objectively justifiable not to offer same (or better) terms. If there is a difference, this must be clearly documented.

In addition to hiring employees, you may look to engage self employed persons such as dental hygienists or associates. In much the same way as employing staff, you should also have written agreements in place with self-employed persons.

You will need to ensure that you have adequate HR policies and procedures in place so that there is a clear and well defined written framework enabling staff to be aware of the operation of the practice. This is usually contained in an Employee Handbook and Office Manual and will include matters such as grievance procedures, general practice information, health & safety, training, equality and diversity etc. A copy should be provided to each employee when they commence their employment.

Next month: Management of the Practice

About the author

Puja Patel is a member of the Commercial Team at Lockharts and works primarily in advising dentists, dental care professionals and dental corporate bodies on the commercial aspects of dentistry.

To book your place on one of PFM Dental’s verifiable CPD courses please email mandy.wraige@pfmdental.co.uk or call Mandy on 0845 2414480.
Easy and Accurate Provisional Restorations

Steven Miller provides practical tips to ensure success with provisional restorations

Dr. Steven Miller, Associate Faculty of the Dawson Academy and Past President of The American Academy of Cosmetic Dentistry provides reliable techniques on how to provide Easy and Accurate Provisional Restorations Whether the treatment plan is a few single restorations or a full mouth rehabilitation, the first step is always a Comprehensive Examination! Provisional restorations play a far more important role than just a transitional role while the laboratory fabricates the definitive restoration. Of course they function to protect the dentin and pulp from thermal, chemical, mechanical and bacterial damage, but there is much more.

They are adjusted for ideal aesthetics, phonetics and function. Provisional restorations provide the dentist, patient and dental laboratory with “in vivo” information, as the patient test drives the restoration. Especially when changing aesthetics and function, feedback is obtained regarding contour, shape, incisal edge position, overall aesthetics and function. When dealing with periodontal procedures, such as grafting, crown lengthening and implants, they serve as a great healing evaluation tool. Accurate records including photographs and mounted models of patient approved temporaries provide the laboratory with a functional prescription for the definitive restorations.

Whether the treatment plan is a few single restorations or a full mouth rehabilitation, the first step is always a comprehensive examination. Once we have confirmed stable dental health, the treatment planning process can proceed.

There are two patient scenarios that I will describe.

Patient one: Stable function, no aesthetic wants and minor restorative needs, such as a quadrant or less

My dental assistant takes a PVS impression and takes an alginate matrix around the quadrant. A push-pull impression is being taken. This is the provisional kit, while the final impression is being taken. This technique provides an accurate temporary with well-fitting margins and biological contours.

The next step is quiet thinking time and utilizing the functional-aesthetic checklist guide. This checklist creates a problem list that includes the biological, structural, functional, and aesthetic components of a smile. It helps create a vision with the end in mind. That vision is then translated into the 3D architectural plan, the wax-up. The wax-up that incorporates the findings from the FE checklist is one of the most important steps for consistent predictable success.

Prior to the appointment, my dental assistants fabricate from the wax-up the Siltec Putty matrix that has been relined with a light bodied PVS, and place it on the articulator to register the opposing arch to guide the matrix accurately. We also make a Mini-Star vacuum formed clear matrix on a solid model of the wax-up. This clear matrix acts as a guide to visualize clearance and also can be used as a provisional matrix.

After the preparations are completed, we utilise either the Bis-acryl lock-on or the Bis-acryl remove and contour technique to fabricate the provisional. After the margins and gingival embrasures have been developed, the 80 step provisional adjustment guide developed by Dr. Dawson is utilised in the mouth. Phonetics, incisal length, centric stops, anterior guidance and long centric are all developed.

The patient is re-appointed with-in a week for refinement, verification and after approval, records. These records include mounted models of the approved provisional and the Dawson photographic series. Matrices and a custom incisal guide table are fabricated by the lab to communicate all the information. The definitive restorations are then created without guesswork.

This technique provides reliable, predictable and accurate provisional that allow restorative dentistry to be less stressful and fun. Provisional restorations play a far more important role.

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Ian Buckle will be speaking at the UK’s largest and most prestigious dental events. The British Dental Conference & Exhibition, Thursday April 25 - 27, The Clinical Innovations Conference 17 & 18 May & Dentistry Live June 7 2013.

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Dental Directory.

Designed specifically to help dental practitioners keep up-to-date with their dental skills, Healthcare Learning: Smile is proud to present the 10th Clinical Innovations Conference 2013, in collaboration with the AOGD and The Dental Directory.

Amongst the confirmed line-up of highly respected speakers will be the Endodontic Specialist, Dr Richard Sandall. Having been in private practice for over 20 years, Dr Sandall is well known within the dental profession and I found the event to be very well organised while providing a wide range of education to all delegates. “It was a unique opportunity to participate in a great, and really felt that delegates were responding to what I was saying. “In order to keep up with such a fast-paced profession, I think it is important that clinicians employ a variety of learning methods, and one of these should definitely be attending events such as the CIC. “I believe this to be a very useful way for practitioners to update their knowledge and skills.” Richard will be joining a fantastic programme of speakers which include Nasser Barghi, Irfan Shahir Shamsuddin is an associate at Park Dental Practice in Oxfordshire. She successfully completed the Orthodontics Certificate with the UCL Eastman Dental Institute in May 2013. “One highlight of the course was the mix of seminar and laboratory-based teaching. The course is comprehensive and it was great to have the opportunity to be taught and then practice procedures in phantoms高度重视,” says Dr Shamsuddin.

“Both the live surgery lectures and the visual notes were very good teaching facilities and labs, all of which helped me to gain insight into the practice.”

“Thanks to the live surgeries, we had the chance to interact with the high quality endodontic instructors, who were excellent, and I was very impressed by the teaching and the skills of the endodontic teams.”

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Pandodontic Dentistry Training With UCL Eastman "First class" Dr Shahir Shamsuddin is an associate in Park Dental Practice in Oxfordshire. He successfully completed a Postgraduate Certificate in Pandodontic Dentistry with the UCL Eastman Dental Institute in May 2013. “One highlight of the course was the mix of seminar and laboratory-based teaching. The course is comprehensive and it was great to have the opportunity to be taught and then practice procedures in phantoms高度重视,” says Dr Shamsuddin.

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GC is at the forefront of research and development and regularly introduces new products to the market. The next product to be launched is the GC EnamelProtect, a solution designed to protect enamel.

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25 Clinical Tips

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BDS Principal and General Dental Practitioner

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BDS, MF GDP, MSc
General Dental Practitioner

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FOR FURTHER INFORMATION: Professor T.C. Ucer, BDS, MSc, PhD, Oral Surgeon, Oaklands Hospital, 19 Lancaster Road, Manchester M6 8AQ.

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