GDC lays out three-year road map

Under-fire regulator announces changes to fitness to practise process

By DTI

LONDON, UK: The General Dental Council (GDC) has announced legislative change that will see the introduction of case examiners to streamline its fitness to practise process. By reducing the number of cases heard by the regulatory body, the organisation hopes to save £1.8 million per year.

According to the GDC, case examiners will carry out the decisions currently made by its Investigating Committee. They will be able to make agreements with dental professionals to help them meet the required standards through training, allowing the person to practise under supervision of another registered dental professional or by allowing him or her to work if he or she meets certain conditions.

“When someone is being investigated by the GDC, we recognise this places the person under considerable stress and anxiety,” commented Director of Fitness to Practise at the GDC Jonathan Green on the change. “While we absolutely have a duty to protect patients by taking swift action against those who should not be practising dentistry, we must make the entire process as efficient, seamless and timely as possible by providing the necessary support.”

The organisation received over 3,000 cases in 2014 according to its annual report. Approved by both the Houses of Parliament and the Scottish Parliament, the new legislation will come into effect on 13 April. It is part of a three-year road map aimed at making dental regulation in the UK more effective, the organisation said.

In addition to the introduction of case examiners, improvements will be made to the current complaints system, which will be addressed locally when possible. Further goals are to enhance transparency and to improve patient information.

“We want patients to be able to make informed choices about their care so when they visit a dentist or dental care professional, they are confident that the treatment they receive is from someone who is qualified and trained to deliver the best possible care,” William Moyes, Chair of the GDC, commented. “We also want to help the profession to continuously improve by using our standards as a guide and sharing best practice to deliver the best quality of care to every patient, in every setting, every time.”

By reducing the number of cases heard by the regulatory body, the GDC hopes to save £1.8 million per year."

Teeth myth debunked

By DTI

LONDON, UK: New research has now shown that oral health in the UK is comparable to, or even slightly better than, in the United States. The study that was conducted by researchers from both sides of the pond found that compared to the British, Americans, and particularly women, have less of their own teeth left. Furthermore, in the UK, mainly elderly people are affected by edentulosity, but in the US, missing teeth were found to be more prevalent in middle-age groups.

Although similar large social disparities in oral health were deemed to exist in both countries, people with a lower education and income generally tended to have better teeth in Britain. The oral health status of the wealthy and educated, however, was much better in the United States, the researchers found.

For the study, which was published in the Christmas edition of the British Medical Journal, the researchers from universities in London, Boston and Bogotá, Colombia analysed and compared data from the British Adult Dental Health Survey 2009 and the U.S. National Health and Nutrition Examination Surveys from 2005 to 2008.

It is the first study to have directly compared oral health data between the two countries.
CBT successful in reducing phobia

By DTI

LONDON, UK: The latest government figures estimate that one in ten people in the UK suffer from dental anxiety. New research from King’s College London involving pretreatment use of cognitive behavioural therapy (CBT) has shown that the method is largely effective in helping patients overcome their fear of treatment.

In a study involving patients suffering from high levels of dental phobia, the researchers found that the overall majority were able to undergo treatment without sedation after having undergone therapy at the Dental Institute Health Psychology Service at Guy’s and St Thomas’ NHS Foundation Trust. Only six per cent of the patients surveyed had to be treated with sedation.

“Our study shows that after average five CBT sessions, most people can go on to be treated by the dentist without the need to be sedated,” said Tim Newton, lead author and Professor of Psychology at Applied to Dentistry.

A short-term therapy, CBT has been shown to help with depression and a number of anxiety-related disorders, such as obsessive-compulsive disorder and bulimia. Typically, over six to ten sessions, a therapist aims to help patients change their thoughts with counseling and breaking negative thought cycles. © Pressmaster

“The main focus of the charity is to raise awareness amongst the general public, particularly groups that are often confronted first with dental trauma like teachers or paramedics so that when dental trauma occurs, they are able to take the right steps. “It is really simple, we want anyone and everyone to know that if they knock an adult tooth out of their mouth, they should pick it up, rinse it in water, stick it back into position. If this is not possible, place the tooth on a glass of milk.” Serpil said. “So, PICK IT LICK IT STICK IT is what she and her team recommend.”

Registration for the 2016 congress is still open. For more information, visit dentaltrauma.co.uk/DentalTraumaConferences.aspx.
The DTI publishing group is composed of the world’s leading dental trade publishers that reach more than 650,000 dentists in more than 90 countries.

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Cochrane finds crowns superior to dental fillings

By DTI

DUNDEE, UK: The Cochrane Oral Health Group in Manchester has recently updated one of its reviews, finding any kind of preformed crown to be superior to fillings in the treatment of severely decayed primary molars and primary molars that have undergone pulp treatment. The results also suggest that out of all fitting methods, the Hall technique causes the least discomfort and problems for patients.

Named after its inventor, a Scottish dentist, the Hall technique uses a preformed metal crown that is fitted over the tooth with no local anaesthetic, casual tissue removal or tooth preparation. First introduced a decade ago, it was originally developed as a non-invasive treatment for decayed primary molars.

For their review, the researchers looked at the clinical outcomes of several studies comparing fillings with crowns that were fitted with either conventional methods or the Hall technique. They also included studies that compared preformed crowns with restorative caries management, as well as preformed metal crowns with preformed white crowns.

While the review found no evidence of the superiority of one crown type to another, the results showed that teeth restored with preformed crowns compared with fillings are less likely to develop problems or cause pain overtime.

"Crowns are recommended for restoring primary molars that have had a pulp treatment, are very decayed or are badly broken down. However, few dental practitioners use them in clinical practice," the researchers said in the report.

With the review, the researchers originally sought to determine whether the clinical outcome of primary teeth restored with preformed crowns or with fillings was in any way related to the extent of their decay.

The review updates a previous version on the subject, originally published by the group in 2007.

New discovery helps strengthen bonding of titanium implants to bone

By DTI

BRISTOL, UK: Scientists at the University of the West of England (UWE) Bristol have discovered a new way to improve the bond between titanium implants and bone. They found that a bioactive lipid called lysophosphatidic acid (LPA) interacts with vitamin D to enhance bone-forming cell function. Based on this finding, the researchers have developed an LPA coating for titanium implants to help strengthen the bonding properties of implants to bone.

"Many implants used in surgery are made out of titanium. These include joint replacements, screws and plates for fixing broken bones and dental implants," said Dr Jason Mansell, a senior lecturer in Biomedical Sciences at UWE Bristol, who led the study.

"Implants work well when the patient’s own bone joins onto the titanium using the body’s own natural healing processes. When this joint forms properly it is extremely strong, however in some cases, the patient’s bone fails to join strongly to the titanium and therefore the prosthesis works loose and ultimately fails," Mansell explained.

Although the success rates of dental implants are high, ranging between 88 and 99 per cent in the literature, several factors, such as bone quality and quantity, as well as infection, can cause dental implants to fail, making reimplantation necessary. The new LPA coating, developed by the researchers, could further improve the success rate of dental implant treatments.

LPA is a naturally occurring fatty molecule that acts with vitamin D to promote bone-forming cell function, the researchers discovered. "This is a very exciting discovery as few agents are known to enhance the actions of vitamin D on bone forming cells. Vitamin D is vital for bone health because it enhances bone forming cell function. Therefore, agents that can co-operate with vitamin D could find place as a coating on titanium to encourage better bonding to the patient’s bone," Mansell said.

Based on this knowledge, the scientists developed an LPA coating for titanium implants. "We have found a way of joining LPA onto titanium using a simple process at room temperature. Recently we also discovered that our novel coating also deterred the attachment of bacteria, this is particularly exciting as it means we have a potential dual-action titanium implant material," Mansell stated.

The next stage of the project, which is currently seeking further funding, will examine the robustness and stability of the coating, as it would need to withstand the rigors of storage, sterilisation and the physical forces it would be exposed to when implanted into the body.

The study, entitled “Fluorophosphonate-functionalised titanium via a pre-adsorbed alkane phosphonic acid: A novel dual action surface finish for bone regenerative applications”, was published online ahead of print in the Journal of Materials Science: Materials in Medicine on 24 December 2015.

Funding brings Manchester diagnostic tech closer to market launch

By DTI

MANCHESTER, UK: New diagnostic technology developed by a University of Manchester spin-out that could help detect early-stage enamel caries faster could soon be ready to enter the market, as the developer has recently announced that it has received funding from a Northern England investor.

In a commitment to expand to the North of England, Mencis Fund Management has said it will invest over a quarter of a million pounds in the new software, which is claimed to be capable of spotting early caries and other potential problems before they develop into something more serious.

A brainchild of University of Manchester spin-out Manchester Imaging, the software uses technologies like active shape models and active appearance models, which are already used in medicine and face recognition, for example, to analyse dental radiographs in order to find early signs of caries.

According to Manchester Imaging CEO Tony Travers, it is the first time that this kind of modelling has been applied to dentistry.

Traditional methods of early caries detection include the use of laser-induced fluorescence or detection gels, which may however be unreliable.

"Manchester Imaging’s computer-aided diagnostic software has been developed to overcome the problems of early-stage identification through the use of pioneering technology that pinpoints the first traces of decay at the touch of a button," Travers told Dental Tribune.

"It integrates seamlessly with existing digital X-ray and practice software."

According to Travers, the technology could be market ready as early as 2017. Another funding round for investors is anticipated for this year.

In addition to caries detection, Manchester Imaging is working on other imaging technologies for use in dental implantology, for example.
“Prevention of sex trafficking is our ultimate aim”

An interview with York dentist Dr Andrea Ubhi

Sex trafficking remains a major issue in many parts of Asia, not only in sex tourism hot spots like in Indonesia or Thailand but also in smaller countries like Nepal. UK-based charity Asha Nepal (hope for Nepal) tries to prevent children becoming involved in the sex trade and helps victims of trafficking and sexual abuse in the country to re-establish themselves in society. Dental Tribune UK spoke about the organisation’s work and its impact on the lives of survivors with one of the charity’s trustees, Dr Andrea Ubhi from York, who is to take over as chairperson later this year and who runs one of the country’s leading private dental practices.

Dental Tribune: Dr Ubhi, you run a successful dental practice in York. How did you first become involved with Asha Nepal?

Andrea Ubhi: I have been involved with a few charities over the years, however, it has been difficult for me to find as much time as I wanted to give to charity work, as I have been busy building up my dental practice and in addition to bringing up three children. Several years ago, I sold one of my practices, an NHS practice, and that reduced my workload, finally giving me the time and money to expand my interest in charity. Although I had never really focused on women’s issues before, knowing that men and women are equal in the world, I decided to become involved in Asha Nepal, as I had been becoming increasingly aware of the issue of trafficking and Asha was at a small size where I thought my management skills would be of better use than in a larger organisation and, frankly, I wanted to know exactly where my money was going.

Nepal usually does not make the headlines when it comes to sex trafficking. To your knowledge, how extensive is the problem in the country?

Although its neighbour India has much more children involved in sex trafficking, estimated at one million, about 10,000 girls from Nepal are tricked into going over the border each year and trafficked, and they end up as sex workers in the major cities. When you actually consider the difference in size of population between the two countries, proportionally this is a large number. One of the greatest issues is poverty. Attending a reasonably good school requires school fees. That is why many children in Nepal do not have the opportunity to go to school. The only thing they are often left to do is to work in domestic labour, often from as young as the age of four, and they are at risk of sexual abuse.

Once a child is in domestic labour, there is also a high risk of being trafficked. Sometimes, this happens insidiously: someone might say that he or she has a better job in the next town, then someone might offer the child a job in Delhi, which in the end turns out to be captivity in a brothel.

How is your organisation helping victims of sex trafficking in Nepal itself?

Some of the girls who come to Asha have been trafficked and rescued from cabin bars in the tourist district of Kathmandu. They started as dancers and were then forced into the sex trade. What is great about Asha Nepal is that it does not provide an orphanage or children’s home as such but a transitional home. Asha seeks to work with the child’s or teenager’s immediate family or the extended family to help the child/teenager transition back safely into the community. Asha offers counselling after trauma, provides education and a safe home, and Asha’s social workers work with the children to give parenting training, life skills and access to safe accommodation so that the child/teenager can return to living at home and be re-integrated into the community. Independence is one of our main aims.

Asha Nepal also works with the mothers of poor families, for example, the father may be unemployed, drink too much or abandon his family altogether. If there are issues with providing for the family, Asha Nepal assists with emergency rent and food so that the mothers can get on their feet. Asha has a job coordinator who helps mothers or trafficking survivors obtain a place in a training programme and then work.

How many of the children you look after find their way back into society?

All of them. In some cases in which children have been trafficked or are victims of sexual abuse by their own family and are in high danger of being re-trafficked, there is no hope of safe reintegration with their own family. Asha assigns such children to foster families. They remain there with Asha until they are old enough to be integrated into society independently when they are adults.

The April earthquake last year had a devastating effect on the country’s infrastructure. Has this affected your work and, if so, to what extent?

When I went over in September, they were still terrified because it was not just only one earthquake, but about 300. There were continual tremors and many people were sleeping outside, even when it was cold and raining. While the destruction in Kathmandu was

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![Image of Dr Andrea Ubhi with Asha Nepal children. © Asha Nepal, UK](Image 550x145 to 757x406)
significant, in the north-eastern re-
gion almost four out of five houses
were destroyed or significantly
damaged. When we spoke with one
of the children’s ministers in that
area to find out what the need was,
she said that there were about
7,000 children displaced through
the earthquake. Throughout the
Sindhupalchowk border, guards
were checking papers of children
going out. There was such an in-
creased risk of trafficking and they
were trying to reduce that. All chil-
dren had to have papers that al-
lowed them to exit the area.

Generally, our work became
more complicated and more ex-
pensive, as prices rose throughout
the earthquake period. On top of
that, there is the recent fuel crisis
that Nepal has been facing over
the past few months, as no oil or
gas has been available from India
for political reasons. This has
slowed the country down, which
is such a shame considering how
difficult the year had already been
with the earthquake. It has also in-
creased the cost of our work again
owing to the increased costs of sup-
plies because of the increasing
costs of petrol and transport.
Nepal is a landlocked country, so
everything has come through
India or China. If there is a block-
ade, it poses a significant problem
to the entire infrastructure in
Nepal.

You are soon to take over the re-
sponsibility of chairperson from re-
tiring Asha founder Peter Bashford.
What will the focus of your work be
in the years to come?

I want to see the team consoli-
date. The organisation has grown
dramatically in the last two years,
going from eight to 23 employees.
Currently, we are looking after
107 children, of whom 51 are in our
residential care.

We want to concentrate on re-
integration into the community
and more community support,
which means fewer children in res-
idential care and more supported
by our social welfare team in the
community. This way, we keep
children more independent and
prevent them from being insti-
tutionalised.

However, prevention of traffick-
ing is our ultimate aim. We have
just started a new Facebook page
for teenagers in Nepal, called
“Keeping SAFE”, to teach them to
avoid traffickers and recognise
their tricks. The page has an enor-
mous following, with up to a quar-
ter of a million people viewing
each post. We are also planning
to go into schools and hold pre-
sentations about the dangers of
trafficking, not only for the chil-
dren but also for the teachers so
that they can teach their future
pupils about the tricks that traf-
fickers use to force children into
domestic or sex labour and how to
avoid being trafficked.

Dr Ubhi, thank you very much for
the interview and good luck for the
future.

For further information, please visit
www.asha-nepal.org.
Roots Summit 2016
Premier global forum for endodontics takes place in Dubai

By DTI

DUBAI, UAE: This year’s ROOTS SUMMIT, which has drawn dental professionals to various locations all over the world in the past decade, will take place from Nov. 30 to Dec. 3 at the Crowne Plaza Dubai hotel in the United Arab Emirates. Aimed at updating participants about the latest in endodontic treatment, an unparalleled series of lectures and workshops will be held by global opinion leaders in the field.

Although the meeting will focus exclusively on the latest techniques and technologies in endodontics, the organizers have strongly encouraged not only dentists specializing in the field to attend but all who have an interest in endodontics, including general dentists and manufacturers and suppliers of endodontic products. Overall, about 700 attendees are expected.

Over the past 15 years, the ROOTS SUMMIT has grown significantly. The community originally started as a mailing list of a large group of endodontic enthusiasts in the 1990s. After the establishment of a dedicated Facebook group three years ago, membership increased from 1,000 to more than 20,000. Today, the group is composed of members from over 100 countries.

Previous ROOTS SUMMITS have been held in Canada, the US, Mexico, Spain, the Netherlands, Brazil and last year in India. These meetings have been known for the strength of their scientific programs and their relevancy to clinical practice. The lectures, workshops and hands-on courses scheduled for this year’s meeting will be no exception. More than 15 distinguished experts are presenting during the conference.

For the summit in Dubai, the organizers have partnered with Dental Tribune International (DTI) and the Dubai-based Centre for Advanced Professional Practices (CAPP) for the first time. With its international network, composed of the leading publishers in dentistry, DTI reaches more than 650,000 dental professionals in 90 countries through its print, online and educational channels, as well as a number of special events.

Over the past decade, CAPP has been able to establish first-class standards for continuing dental education programs not only in the UAE but also across the Middle East. Since 2012, CAPP has been affiliated with DTI as a strong local partner in the Middle East.

Based on the successes of previous ROOTS SUMMITS, the organizers anticipate a large turnout for this year’s meeting. Various sponsorship opportunities are available, including booth space, as well as sponsorships of workshops, hands-on courses, meeting bags and social events.

Online registration for the ROOTS SUMMIT is now open at www.roots-summit.com. Dental professionals are also invited to join the ROOTS Facebook group and like the ROOTS SUMMIT 2016 Facebook page.
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European Aligner Society paves way for future orthodontics

By Claudia Duschek, DTI

VIENNA, Austria: The increasing number of adult patients seeking orthodontic treatment but expressing concerns regarding aesthetics and comfort, has given rise to alternatives to conventional fixed appliances over the past decade. Until now, however, there has been no independent forum for examining aligners as a primary orthodontic appliance. At the first congress of the European Aligner Society (EAS), Dental Tribune spoke with Ritesh Sharma, Marketing Director at Align Technology, about how the establishment of the independent aligner body could change the way orthodontics is practised.

“The struggle we faced prior to the establishment of the EAS was that we did not have an independent forum to validate the claims of manufacturers. In addition, the foundation of such an independent body was essential from the consumer’s point of view. Patients needed an institution from which they could obtain independent advice,” Sharma told Dental Tribune in Vienna. “About two years ago, at our European advisory board meeting in Brussels, we therefore discussed the idea of launching an aligner society with the orthodontists who went on to become founding members of the EAS, including Dr Les Joffe, who was one of the first orthodontists to treat patients with Invisalign in the UK. We received an overall very good response from all parties involved.”

Today, over 30 per cent of an estimated 2.6 million orthodontic cases a year worldwide are suitable for Invisalign treatment, but only 7–9 per cent of patients are actually treated with this clear aligner system. According to Sharma, this is soon to change through increasing awareness of the benefits of alternative treatment options among patients and dentists alike, as well as the rapidly growing importance of digital technologies.

“The reason for this is to educate dentists on the system to treat malocclusions and educating orthodontists about the potential it offers in treating malocclusions and educating orthodontists about the potential it offers in treating patients with Invisalign,” Sharma said. “The work of the EAS, we want to ensure that patients know that they have a choice and do not have to accept metal braces. However, our efforts can only succeed if dentists believe that aligners are the right choice for the patient. Therefore, the primary aim of the society is to educate dentists on the system.”

Moreover, orthodontics needs to keep pace with technological advancements, he explained. “Brackets and wires have been used for orthodontic treatment for more than 150 years with hardly any adaptation to modern technology. We believe that patients should not be treated with technologies that are obsolete!”

By DTI

STRAASBOURG, France: Requiring dental regulators in countries within the European Economic Area (EEA) to inform each other once a dental professional has been prohibited or restricted from practising, the newly implemented European Alert Mechanism aims at improving transparency in European dentistry.

The new EU legislation, which came into effect on 18 January, provides that a Europe-wide alert be issued within three days of a decision to prohibit, suspend or restrict a professional’s practice—even on a temporary basis—in another EEA state.

As a minimum, national regulatory bodies, such as the General Dental Council in the UK or the National Board of Health and Welfare in Sweden, will need to include the respective professional’s name, as well as his or her date and place of birth, in order to allow other regulators to identify that individual.

Furthermore, the alert must indicate the period for which the restriction applies, including the date on which this decision was made. Although the alert must not contain any background information or justification of the restriction, concerned regulators may request further information.

“We are delighted that this system has come into effect, it gives patients much greater visibility and security when it comes to their oral health,” commented Dr Nigel Carter, OBE, Chief Executive of the British Dental Health Foundation, on the new legislation. “This will hopefully lead to an improvement in standards of dental practice.”

In this context, Carter pointed to the increasing trend of dental tourism and the potential pitfalls associated with it. Although some countries still do not have any formal system of registration for dentists, Carter expressed his belief that “mechanisms such as this make for a much more transparent profession and greater patient protection.”
How to succeed in the Middle East

By Dental Tribune International

The Middle East is considered one of the fastest growing dental markets worldwide. Quality and innovative technology have been at the centre of interest for the region’s dentists, practitioners and manufacturers as dentistry has advanced from basic treatment to state-of-the-art oral health care. A record number of companies from the UK took the opportunity to exhibit at this year’s UAE International Dental Conference and Arab Dental Exhibition (AEEDC). Dental Tribune spoke to three first-time exhibitors about the problems and promises of entering the market.

Ten years ago, one could hardly have imagined a spike in interest in 3D printing in Middle Eastern digital dental laboratories. Now, the region’s dental industry is rapidly adopting new technologies such as intra-oral scanning and CAD/CAM to keep up with the rising demands of its increasingly affluent patients. Digital dentistry, a technological revolution most UK dental practices are already familiar with, has entered the region within the last few years. Interest from the Middle East in modern dental instruments however is not limited to digital solutions. Dentists have begun to look for high-quality endodontic and implant systems, as well as developed cosmetic dentistry as the next rising star in the region. The dental industry in the UK, a market with significant domestic growth owing to its wide range of products and companies, has been promoting its expertise at trade fairs in the region, such as AEEDC.

The first UK pavilion at AEEDC was established in 2007 with eight companies exploring the market and its numerous business opportunities. From then, the number of professional visitors has doubled, from 20,000 to more than 40,000 in 2016, and so has the number of UK companies. “The UK pavilion contained 12 UK exporters and we are delighted that this represented a 50 per cent increase in the size of the UK pavilion compared with our last attendance in 2014,” remarked Edmund Pfofflin, Policy and Public Affairs Director at the British Dental Industry Association (BDIA). “The Middle Eastern and Gulf region markets continue to offer significant sales opportunities for UK dental exporters as countries continue to invest in the provision of dental services. The opening up of the Iranian market also provides a host of new sales opportunities for UK exporters.”

Iran—the next big market?

For many British companies, both AEEDC and Dubai have been considered an excellent opportunity to expand into the Gulf and Middle Eastern markets such as Iran. For instance, daily two-hour flights between Tehran and Dubai have long fostered trade between the two countries, while European and American companies have yet to profit from the short distance. At the trade fair, many exhibitors noted a significant increase in visitors from Iran, welcomed as a result of the suspended United Nations’ sanctions that hindered business for years. The UK government has now seen the opportunity to transfer its technical expertise to Iran and therefore encourage its industries to reinvest in the country. As competition for dental products is still relatively low, it seems like the right time for the British dental industry to enter the market.

Quality Endodontic Distributors was established in 1989 in Peterborough in the UK at a time when the endodontic materials and methods we take for granted today were at their very beginnings. The supplier of rubber dams, lubricants and endodontic instruments chose to exhibit in Dubai because of the global market promises new opportunities for growth. “We went to Chicago before, but the trend moved across to Dubai. Here, we primarily met dentists, dealers and manufacturers from the region. It is important to build up a dealer network here to succeed,” said Edward R.S. Conduit, sales and marketing director of the company.

OsteoCare Implant System was already working with distributors from Kuwait when it decided to pursue further opportunities in the region and exhibit at AEEDC. The company looked for dealers for each country instead of targeting the whole region.

“In order to succeed, dental companies need to raise brand awareness and partner with as many local distributors as possible, as regional differences exist,” according to Head of Operations Dave Stephens. “We particularly looked for distributors in the UAE. We have had incidental sales for about 20 years, but the business has quite changed in this time.”

The competition for implants has increased at home and abroad so we had to make sure our products remained visible. We are not into fast trends, but assure simplicity and quality in Dubai. We provide dental implant systems for all ranges, as well as also hands-on courses on placing them correctly.

Understanding the dos and don’ts

OsteoCare approached UK Trade & Investment (UKTI) and the BDIA and spoke to business advisors before planning its show participation. UKTI and BDIA offer numerous training opportunities to help companies to identify their markets and establish a considered pathway before starting to export. They advise that UK companies still seek legal advice and work with established networks. Successful export to the Middle Eastern and Gulf states further requires Arabic-speaking people living in the same time zone.

Although language has not been a barrier, as English has dominated business in Dubai and most of the region, Arabic remains the world’s fourth most important language on the Internet after English, Chinese and Spanish, according to Google. Hence, any UK company looking for online sales could significantly increase traffic and customer engagement by setting up a website in Arabic. Also, it is good to know that pay-hydrogen peroxide or carbamide peroxide, was another first-time exhibitor. The company drew a large crowd to its stand owing to the region’s rising demand for whitening solutions not based on light. “Cosmetic dentistry is an aspiring if not giant market in the Middle East. Our syringes, pastes and complete kits with home and office gels made quite an impression in Dubai,” said Dr Sanjay Patel, Director of Enlighten.

“There is still an educational process taking place in the region,” he added. “I would compare this market to the situation in Europe ten years ago. Now, this market is asking for light-activated products while we stopped using lights in 2006 in favour of our new whitening solutions. Dubai succeeds at bringing together countries that are relatively close by, such as Egypt and India. Here in Dubai, we also experienced strong interest from Sudan, a market we would not have thought about before. Now, the process of turning interest into actual distributors and clients will take at least a year. This is how business works here.”

Even though the UK remains Enlighten’s most important market, management decided early on to export to Germany, the Netherlands, Finland, Spain and France. While a number of companies in the UK are still pursuing success in the domestic market, there are numerous opportunities abroad and it would appear that the Middle East is certainly one of them.
The role of the hygienist in the 21st century

By Victoria Wilson, UK

Since the recent launch of the Emirates Dental Hygienists’ Club in the UAE, it could not be a more appropriate time to discuss the growing role of the hygienist in the twenty-first century. The prevalence of preventable dental disease within the region prevails, and the need for a focus on the core strategy to overcome such disease needs to be addressed.

The dental hygiene profession was founded over 100 years ago by Alfred Fones in the US for the promotion of oral health and prevention of disease. The fundamental ethical responsibility of the dental hygienist is the pursuit of the promotion and restoration of oral health. The dentist’s role certainly highlights that the main difference in overall sustainable oral health care for every patient in serving the public.

In a recent survey carried out among dental professionals in the UAE, it became evident that a very small percentage of dentists actually work with dental hygienists. It found further that a limited number of dentists are proactive about integrating hygienists into their practice model. This highlights the potential requirement to further incorporate dental hygiene into dentistry if the existing inequalities of oral health are to be overcome. This will require an extended workforce of dental hygienists, the expansion of educational facilities and further efforts towards including dental hygienists in existing practices in both public and private health care.

Another recent survey carried out in the region asked dentists how many of their patients are healthy. Regrettably, only a very small percentage reported having patients with good oral health. This again highlights the need for the skill set of the dental hygienist in oral health promotion and prevention of disease.

According to the findings of a further survey in the region, dental hygienists felt that very little of their total skill set was being utilised. This reflects the further need to ensure current dental hygienists’ skills are being used to the maximum potential.

A global re-evaluation of requirements is needed to ensure that there is greater utilisation of hygienists in the provision of dental care with efficient and effective use of health care resources. Through evaluating the dental profession’s ability to provide care within the core skill sets, it is mandatory that the necessary steps be taken to ensure maximum effectiveness of an integrated dental and health care profession to optimise on reducing the prevalence of preventable dental disease.

It has been advised in a recent extensive report that future public health care policies will be orientated towards recommending behavioural support and adopting the common risk factor approach for oral health promotion.

Dental hygienists in public health care settings can positively affect patients by offering preventive care outreach services. Improvement in the quality of life for individuals was noted through improving health outcomes.

Ref. 843 = 2 capsules of powder with 250gms each and 2 vials of liquid
Ref. 846 = 5 capsules of powder with 250gms each and 5 vials of liquid
Becoming a principal, now what?

By Amanda Maskery, UK

Buying your first dental practice is a major milestone in your career and your life. But while it brings opportunities, becoming the owner of your own business also brings challenges for which you must ensure you are prepared. It is enormously important that you be aware of what you are taking on before you decide to become a principal and entrepreneurial, and it is essential you seek advice if in any doubt.

From the moment you begin to consider taking on your own practice, you need to be considering your position. Can you secure sufficient funding to purchase your own practice? Beware of the pitfalls of a 'cheap' practice. Thorough due diligence is crucial and your lender will require assurance of this.

Exiting your current practice also needs careful consideration, can you commit to handing in your notice before you exchange contracts? This may affect the timescale of the transaction if not planned properly.

There is also the issue of the outgoing principal and whether to retain his or her services. Fraught with the complexities of having to keep the practice running smoothly, it is crucial you seek advice about the potential to bring in a new principal, who may be a trusted partner in your future practice or a new business associate.

Exiting your practice post-completion. There is also the issue of the outgoing principal and whether to retain his or her services. Fraught with the complexities of having to keep the practice running smoothly, it is crucial you seek advice about the potential to bring in a new principal, who may be a trusted partner in your future practice or a new business associate.

There are also the risks and requirements of being a business owner. Are policies of insurance up to date? Are you aware of the key commercial contracts at your practice and their terms? Do you know your duties to your employees and associates and their entitlements under their contracts of employment? Furthermore, if you are a sole trader, you will have personal liability for business debts to your creditors. Financial planning is also crucially important, on both a business and personal level.

Regulation is another area of responsibility, and you must ensure you can maintain your practice and treatment to the requisite regulatory standard. You must have a set of policies in place should the local area Service, which may take several months.

Through proper planning, securing a well-negotiated purchase agreement and carrying out thorough due diligence, you should be in a position to immediately begin working and be able to start seeing and treating patients as soon as possible.

However, post-completion, once you take ownership of your practice, the considerations are ongoing. Much more of your time will be taken up with administration, which is something that is often underestimated. If you have targets, be they units of dental activity or purely financial, you must ensure you are continuing to maintain the level and quality of treatment.

What may seem like a minefield at amanda.maskery@sintons.co.uk.

Amanda Maskery is one of the UK’s leading dental lawyers. She is Chair of the Association of Specialist Providers to Dentists (ASPD) in the UK and a Partner at Sintons law firm in Newcastle. Amanda can be contacted at amanda.maskery@sintons.co.uk.
LONDON’S TOP 10 ATTRACTIONS

1. BRITISH MUSEUM
The world-famous British Museum exhibits the works of man from prehistoric to modern times, from around the world. Highlights include the Rosetta Stone, the Parthenon sculptures and the mummies in the Ancient Egypt collection. Entry is free but special exhibitions require tickets.

2. NATIONAL GALLERY
The crowning glory of Trafalgar Square, London’s National Gallery is a vast space filled with Western European paintings from the 13th to the 19th centuries. In this iconic art gallery you can find works by masters such as Van Gogh, da Vinci, Botticelli, Constable, Renoir, Titian and Stubbs. Entry is free but special exhibitions require tickets.

3. NATURAL HISTORY MUSEUM
As well as the permanent (and permanently fascinating!) dinosaur exhibition, the Natural History Museum boasts a collection of the biggest, tallest and rarest animals in the world. See a life-sized blue whale, a 40-million-year-old spider, and the beautiful Central Hall. Entry is free but special exhibitions require tickets.

4. TATE MODERN
Sitting grandly on the banks of the Thames is Tate Modern, Britain’s national museum of modern and contemporary art. Its unique shape is due to it previously being a power station. The gallery’s restaurants offer fabulous views across the city. Entry is free but special exhibitions require tickets.

5. THE LONDON EYE
The London Eye is a major feature of London’s skyline. It boasts some of London’s best views from its 32 capsules, each weighing 10 tonnes and holding up to 25 people. Climb aboard for a breathtaking experience, with an unforgettable perspective of more than 55 of London’s most famous landmarks – all in just 30 minutes!

6. SCIENCE MUSEUM
From the future of space travel to asking that difficult question: “who am I?” the Science Museum makes your brain perform Olympic-standard mental gymnastics. See, touch and experience the major scientific advances of the last 300 years; and don’t forget the awesome Imax cinema. Entry is free but some exhibitions require tickets.

7. VICTORIA & ALBERT MUSEUM
The V&A celebrates art and design with 3,000 years’ worth of amazing artefacts from around the world. A real treasure trove of goodies, you never know what you’ll discover next: furniture, paintings, sculpture, metalwork and textiles; the list goes on and on... Entry is free but special exhibitions require you to purchase tickets.

8. TOWER OF LONDON
Take a tour with one of the Yeoman Warders around the Tower of London, one of the world’s most famous buildings. Discover its 900-year history as a royal palace, prison and place of execution, arsenal, jewel house and zoo! Gaze up at the White Tower, tiptoe through a medieval king’s bedchamber and marvel at the Crown Jewels.

9. ROYAL MUSEUMS GREENWICH
Visit the National Maritime Museum - the world’s largest maritime museum, see the historic Queen’s House, stand astride the Prime Meridian at Royal Observatory Greenwich and explore the famous Cutty Sark: all part of the Royal Museums Greenwich. Some are free to enter; some charges apply.

10. MADAME TUSSAUDS
At Madame Tussauds, you’ll come face-to-face with some of the world’s most famous faces. From Shakespeare to Lady Gaga you’ll meet influential figures from showbiz, sport, politics and even royalty. Strike a pose with Usain Bolt, get close to One Direction or receive a once-in-a-lifetime audience with Her Majesty the Queen.

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Plaque, sugar, obesity, diabetes and smoking

Reassessing risk factors for periodontal disease

By Prof. Crawford Bain, United Arab Emirates

Traditionally, dentists have been taught that both dental caries and periodontal disease develop and progress as a direct result of patients’ over-frequency consumption of refined sugars and patients’ failure to remove bacterial plaque effectively. Miller’s aetiological theory of caries development and the non-specific plaque hypothesis based on Lae’s work in the 1960s allow dentists to present a simple cause-and-effect explanation to patients.

Since then, the dental profession has blamed patients’ poor oral hygiene for periodontal breakdown and dental caries while often failing to diagnose and treat other contributing causative factors. Unfortunately, while plaque is generally a necessary ingredient of common dental diseases, the explanation contained in these theories of its pivotal role is simplistic given current knowledge. This brief article will attempt to put the more significant risk factors in context.

Plaque

Gingivitis is a naturally bodily response to bacterial accumulation and as such is non-specific. Effective plaque removal will generally reverse gingivitis. The concept of inevitable progression from gingivitis to destructive periodontitis if oral hygiene is not good is, however, flawed. Figure 1 shows a 46-year-old patient with non-existent oral hygiene over several years. Figure 2 shows the same patient one month later after around 90 minutes of scaling and polishing by a student dental hygienist. He had no active caries and no more than ten per cent bone loss.

It has become increasingly evident that while some patients are “susceptible” to periodontal breakdown, others are more “resistant”. Common among these host-based factors leading to greater breakdown are the presence of diabetes and a smoking habit.

Diabetes

Several authors have demonstrated a clear relationship between degree of hyperglycaemia and severity of periodontitis, and has been diagnosed, and 934,300 people have impaired glucose tolerance, a prediabetic state of hyperglycaemia, or elevated levels of blood sugar.1

In the UK Prospective Diabetes Study, it was found that Type 2 diabetes which reduce their HbA1c by 1 per cent are 19 per cent less likely to suffer caries, 16 per cent less likely to suffer tooth fractures and 41 per cent less likely to suffer amputation or death due to peripheral vascular disease.

Smoking

We have known for over 20 years that smoking increases the risk of periodontal breakdown. Odds ratios for developing periodontal disease as a result of smoking constitute a range: 2.5 to 3.97 for current smokers and 1.68 for former smokers,2 and 3.35 for light smokers to 7.28 for heavy smokers. A smoker with 20 pack years (20 cigarettes per day for 20 years) is up to 600 per cent more likely to lose teeth owing to periodontal disease, whereas a patient with poor plaque control has around 15 per cent risk of progressing to destructive periodontitis. Why then do we refer to hygiene phase therapy when smoking is a much greater risk factor than poor oral hygiene? How many dentists spend as much time on smoking cessation counselling as on oral hygiene instruction?

Sugar

Traditionally, teaching on caries prevention has focused on the number of sugar exposures per day, especially between meals. Academic paedodontists suggest that providing there are two daily exposures to fluoride in toothpaste, a maximum of six sugar exposures a day is unlikely to lead to significant enamel decalcification.

However, a large study conducted in 2005 by Bernabe et al evaluated 1,702 adults over in years and concluded that “the amount of, but not the frequency of, sugars intake was significantly associated with periodontal breakdown Odds ratios for developing periodontal disease were 4.35 for heavy smokers, 2.43 for light smokers and 1.68 for former smokers, whereas a patient with poor plaque control has around 15 per cent risk of progressing to destructive periodontitis. Why then do we refer to hygiene phase therapy when smoking is a much greater risk factor than poor oral hygiene? How many dentists spend as much time on smoking cessation counselling as on oral hygiene instruction?”

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Surgical intervention

Smoking is a much greater risk factor than poor oral hygiene. How many dentists spend as much time on smoking cessation counselling as on oral hygiene instruction? It is clear that the simple story of plaque control preventing progression of common dental diseases is largely fiction rather than evidence-based fact. While effective oral hygiene will always be a significant part of the management of dental diseases, the modern dental professional must be equally aware of the other common risk factors outlined in this article.

Obesity

The third National Health and Nutrition Examination Survey showed that body mass index was significantly associated with periodontal disease. Other studies have indicated a less strong association, and with the compounding variable of blood sugar levels in prediabetics, it is presently unclear whether obesity is in fact an independent risk factor or is associated with the established role of diabetes. Regardless, obesity is a known risk factor for Type 2 diabetes and cardiovascular problems, and it is part of the dental profession’s role to inform patients of these interrelationships.

Recent research in England has suggested that 4.1 million obese patients would benefit from gastric band or bypass (bariatric) surgery. Currently, around 8,000 people a year receive the treatment on the National Health Service (NHS). If all 4.1 million were offered surgery, the researchers estimate it would aver 1,500 heart attacks and 40,000 cases of Type 2 diabetes over four years.

They don’t, however, discuss potential costs of this surgery, which can vary from £3,000 to £3,500. According to NHS England, 13,000 per procedure, this would total around an additional £67 billion in health costs. Nor is there much discussion on death rates (0.5 to 1 per cent with the present skill level of surgeons) Even if surgical skills do not diminish, we should assume a mixture of 1,400 and 14,000 additional deaths. It is likely that comprehensive periodontal treatment of all obese/prediabetic patients would be significantly less costly and, hopefully, result in fewer if any fatalities.

Conclusion

It is clear that the simple story of plaque control preventing progression of common dental diseases is largely fiction rather than evidence-based fact. While effective oral hygiene will always be a significant part of the management of dental diseases, the modern dental professional must be equally aware of the other common risk factors outlined in this article.

Reference notes

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5. It thus appears that, at least in adults, “how much” is more important than “how often” with regard to sugar consumption. This is all the more significant since DMFT measures real outcomes over significant time spans, while many studies on both caries and gingivitis are very short term and use surrogate outcomes, such as de-carcalcification on an enamel sample, or plaque and gingivitis indices.

6. The publication Type 1 Diabetes in Adults: National Clinical Guideline for Diagnosis and Management in Primary and Secondary Care (updated in July 2014) was compiled by a consensus reference group made up of 30 members.

7. These included physicians, endocrinologists, nurses, oral health professionals, dieticians, podiatrists and lay people, but no dentists. Its 375 pages make no mention of dentistry or periodontal disease. The National Institute for Health and Care Excellence document on Type 2 diabetes, also updated in 2014, too fails to mention dentistry or periodontal disease.

8. Figure 2 shows the same patient one month later after around 90 minutes of scaling and polishing by a student dental hygienist. He had no active caries and no more than ten per cent bone loss.

9. The concept of inevitable progression from gingivitis to destructive periodontitis if oral hygiene is not good is, however, flawed. Figure 1 shows a 46-year-old patient with non-existent oral hygiene over several years.

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The sweet miracle of xylitol

By Dr Deborah Horch, Germany

There is a reason that the health departments of Italy, Japan and Finland recommend the use of xylitol for active oral care. An increasing number of national dental associations in Europe have also begun to follow that recommendation.

What is so special about xylitol? Is there any evidence to support its claimed properties, such as being anti-cariogenic and able to advance enamel remineralisation? These and other questions are matters of current debate among experts. It is fact that the very extensive Turku study, which was conducted between 1970 and 1976 (Table I), showed an 85 per cent reduction in caries in patients consuming xylitol compared with a control group. These results sparked a wave of follow-up studies. Many studies conducted under the umbrella of the World Health Organization have since confirmed a significant caries reduction of between 50 and 85 per cent.

Why then has xylitol not become commonplace by now and why is it still being debated? In addition to lack of awareness, a possible explanation could lie in economics. Xylitol as a raw material is 20 times more expensive than sugar in production and much more costly than other sugar substitutes. Processing is more labour intensive, as well as more costly, and therefore less attractive for manufacturers. In contrast to synthetic sweeteners like aspartame and acesulfame, the taste of xylitol is not prolonged.

Xylitol cannot replace fluoride entirely. It should rather be regarded as a valuable addition to dental prophylaxis. Critics of xylitol often point to the effectiveness of fluoride, but may not consider that both substances complement each other perfectly. Xylitol is within reach even when no toothbrush is around. It is for a reason that the European Food Safety Authority (EFSA) has confirmed health claims that chewing gum only sweetened with xylitol is anti-cariogenic and highly effective against caries. As a rule, as many products containing xylitol as possible should be used in daily practice. In order to achieve extraordinary results in patients, the use of chewing gum sweetened only with xylitol is recommended.

The latest analysis by German consumer watchdog publication ÖKO-TEST (September 2015 issue) of a variety of chewing gums only rated brands containing xylitol as ‘good’ or ‘very good’, while some of the global competing products containing other sweeteners were rated only as ‘fair’ or ‘poor’. There are plenty of good alternatives to chewing gum, such as boiled sweets and xylitol powder, which compares almost one to one to granulated sugar in its sweetness. In order to benefit fully from its positive properties, five grams of xylitol a day is generally recommended. An intake of 50 grams for adults and 30 grams for children is well tolerated. In order to ensure that products only contain xylitol and no other sweeteners, the list of ingredients should be checked.

Table I: Overview of relevant studies.

<table>
<thead>
<tr>
<th>Research center</th>
<th>Duration in years</th>
<th>Dose g / day</th>
<th>Reduction of caries incidence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Turku, Finland</td>
<td>2</td>
<td>67</td>
<td>&gt;85</td>
</tr>
<tr>
<td>2. USSR</td>
<td>2</td>
<td>30</td>
<td>73</td>
</tr>
<tr>
<td>3. WHO - Thailand Polynesia Hungary</td>
<td>2.3–2.7</td>
<td>20</td>
<td>37–49</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>14–20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2–3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Montreal, Canada</td>
<td>1–2</td>
<td>1–3,9</td>
<td>52</td>
</tr>
<tr>
<td>5. Ylivieska, Finland</td>
<td>3</td>
<td>7–10</td>
<td>59–84</td>
</tr>
<tr>
<td>6. Dayton, OH</td>
<td>1.8</td>
<td>bis 8.5</td>
<td>80</td>
</tr>
<tr>
<td>7. Ylivieska, Finland</td>
<td>Van der Mutter - Kind</td>
<td>21 months</td>
<td>6–7</td>
</tr>
</tbody>
</table>

Fig. 1: Xylitol was originally harvested from birch bark.

Fig. 2: Xylitol blocks streptococcus mutans. © Makinen KK, et al. (1989) Caries Res 23, 261-267—Fig. 3: Molecular structure of xylitol—Fig. 5: Glycaemic Index

Fig. 4: Xylitol blocks streptococcus mutans. © Makinen KK, et al. (1989) Caries Res 23, 261-267—Fig. 5: Xylitol is also favoured by diabetics. © D. Fritsche: “Diabetes: Der Ernährungskompass”, Gräfe und Unzer Verlag, Germany (2008)
From straightforward to complex cases

The new NimrodAligner and why it can be the ultimate orthodontic removable aligning system

By Nimrod Tal & Lauren Flannery

As a dental practitioner, helping your patient look to improve their smile by undergoing orthodontic treatment with one of the many aligning systems available can be a very daunting decision to make when it comes to choosing the right system. Whatever their lifestyle, the attributes most commonly sought after are typically comfort, discreetness and for the treatment time to be as speedy as possible. Depending on the case, it can sometimes be quite difficult to achieve all of these aims within one single aligning system, as each are designed to achieve very specific and individual movements, and not all are designed to do this with the whole arch.

As an orthodontic laboratory, we are introduced to hundreds of very individual cases on a weekly basis, where more often than not patients will have specified that the above attributes are key to their decision making process when we assess for the appliances that will be best suited to their particular case. After having been faced so regularly with the task of assisting our clients to make the decision that will benefit their patients in as many aspects as they can, we had a thought — what if the advantages of each of these aligning systems were combined, and the disadvantages eliminated? It was from this that the idea of our brand new NimrodAligner stemmed.

Designed to move from 5-5 in all directions, and also widen the molars (Fig. 5), the NimrodAligner comprises of lingual and labial arch wires attached to individual cups that seat on the palate or the lingual area, that are attached to molar cups. After having spent four years researching the most effective components and combining them using prototypes with 3D printers, we have combined the biomechanics of straight wire, Clear Aligners and a spring aligner to decrease in popularity, mostly due to the fact that they are not particularly aesthetically pleasing and can therefore encourage a feeling of embarrassment for adults when in public. Combined with hours of clinical time spent fitting and repositioning the individual brackets, hygiene problems owing to not being able to brush or floss properly, as well as the discomfort of their often sharp exterior both labially and lingually, it is no surprise that they are not as often requested as more popular removable aligners. The NimrodAligner has the fixed brackets wire biomechanics incorporated within the removable appliance so clinical time is extremely minimal. The teeth and gums can also be cleaned to the proper standard and at only 2 mm in thickness (Fig. 5) — as opposed to the standard 3 to 3.5 mm thickness of fixed brackets — so the overall feel is very anatomically friendly.

Clear Aligners are the most anatomically friendly appliances on the market today, and are mostly popular because of just how discreet they are. Despite these advantages, the force and pressure induced during the initial days of wear can be very painful. Although a sign that they are working as they should, the aligners tend to become passive as time passes and are typically only at their most active in just the first seven days. On the other hand with the NimrodAligner, MTJ wires ensure that the pressure is gentle yet provide continuous support.

Multiple Clear Aligner trays can also become very tedious for both patient and dentist, particularly when frequent appointments are necessary and stages of interproximal reduction (IPR) have to be carried out. IPR can be a huge factor in the progress of Clear Aligners as each aligner is made to incorporate the necessary IPR after each stage, and the fit of following trays will be affected if not enough has been done. This is not a problem for the NimrodAligner as it will not affect the fit of the appliance if there has been insufficient IPR on the previous appointment. The patient can continue to wear it and IPR can be completed where necessary on the next appointment.

Similarly, spring aligners can also continue to be worn and fit correctly in between appointments if not enough IPR has been done previously, however they’re widely known for limited movement to just four incisors. It may be good for labial/lingual movement using the ‘squeeze’ effect, and some rotation, but Clear Aligners can often be required to finish.
In some instances, a separate expansion appliance may be required prior to treatment, which essentially boosts costs and adds time onto treatment overall. We have reduced this concern by offering this stage for such cases within the NimrodAligner singularly. The arch can gain molar width by pre-setting the molars in a wider position when it comes to making the movements on our 3-D system, and the connecting bar can act as a spring thanks to its flexibility. The rest of the teeth will continue to be aligned during this process.

In more complex cases however whereby a separate expansion appliance is unavoidable, two Nimrod-Aligners will be provided. The caps will not fit on the teeth that are blocked in otherwise, so the initial appliance will create space for the blocked teeth. Once they have been exposed, the second appliance would be provided to sit on all of the teeth.

During our research and production stages, we aimed to create the ultimate orthodontic removable aligning system that could potentially be the answer to the prayers of dentists and patients alike. We have reduced clinical time dramatically by removing the time-consuming hassle of fitting appliances such as fixed brackets by providing a bespoke pre-aligned appliance that simply needs to be placed on the teeth. We have taken into consideration the fact that multiple appliances can sometimes be necessary to achieve the desired result, and have eliminated the need for this by designing the Nimrod-Aligner in a way that allows the entire arch to move in any direction. In case expansion is also required, we have this incorporated (Fig. 1).

We have adapted the force and pressure of the movement to be effective for just sixteen hours a day, allowing the patients to remove the appliance for an entire eight hour working day if they wish, to grant the roots a sufficient amount of time to recover.

By combining all of the positive aspects of different orthodontic appliances, the NimrodAligner can be suitable for most cases from straightforward to complex.

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"We will be able to treat pretty much everything in the future"

An interview with Dr Graham Gardner, UK, President of the European Aligner Society

The European Aligner Society is an international organisation established in 2005 that aims to promote education and research in aligner therapy. Trained in South Africa and with 22 years of clinical experience, Dr Graham Gardner has been running his own private practices in the UK since 2008. In an interview with Dental Tribune, the EAS President shares his ideas and views about the importance of aligners in orthodontics and about the EAS, which he believes will become the society for aligner therapy.

Dental Tribune: Dr Gardner, you have been working with aligners for more than a decade now. What convinced you initially of this treatment method and what are the main advantages in your experience?

Dr Graham Gardner: From the beginning of my career in the early 1990s, a time when ceramic brackets and lingual braces became available, I was certainly aware of the fact that aesthetic appliances were going to be the future of orthodontics.

In 2001, I was fortunate to attend a certification course for Invisalign, which was truly a watershed moment in my orthodontic career because I saw the value and potential of aligner therapy for both dental professionals and patients. In my opinion, aligner therapy opened the door for a huge cohort of patients who would not have considered orthodontic treatment in the past.

Over the past decade, aligners have become mainstream orthodontics and I definitely see this trend continuing and expanding. With the technological advancements, including 3-D printing, that allow the clinician to diagnose, plan the treatment and render manufacture and the product itself more cost-effective. For example, 3-D printers could allow individual practices to print their own aligners in the future.

Overall, with technological advancements and increasing patient acceptance, we will be able to treat pretty much everything in the future in my view.

How have developments in the European and the overseas market differed?

Dentistry as a profession is very conservative and dentists in the US, for example, are perhaps a bit more progressive. However, with regard to aligners, I no longer rely on data from America and I believe there is a great difference between Europe and America. The movement is global and I suspect the advancements we are now seeing in Europe will match those in America and Asia, where aligner therapy is also very popular. There are always regional differences, also partly related to legal restrictions, but the trend towards aligner therapy is a global phenomenon.

In your professional opinion, how does the EAS address the current trends in orthodontics?

Aligner therapy has come of age and is now a genuine appliance system with which we can treat the majority of malocclusions. At the moment, however, aligner therapy is still a fairly expensive form of orthodontics. Thus, I hope that improvements in materials and 3-D printing will facilitate oral hygiene and hence facilitate orthodontic therapy. Moreover, the event offered manufacturers an independent forum for exhibiting their solutions.

Can dental professionals look forward to another EAS congress next year?

Based on the success of the inaugural event over the past weekend, we definitely want the congress to become a regular event in the calendar. While we are planning to hold the EAS congress every two years, we will be organising smaller regional forums on a continuous basis throughout every year.
Individuals play the game, but teams win championships

What it takes to build the ultimate practice unit

By Lina Craven, UK

It is said that all teams are groups, but not all groups are teams. What separates the two is interdependence. A true team is focused on a common purpose; team members support one another and enhance each other’s work and contribution. Andrew Carnegie captured this accurately when he said, “Teamwork is the ability to work together toward a common vision. It is the fuel that allows common people to attain uncommon results.”

I know that achieving the ultimate team is possible, because when I was a dental nurse many years ago in America, I was part of an ultimate team. What made us great was our leader, Dr Derick Tagawa. He and his partner had a very clear vision and they knew exactly what was needed from each one of us to ensure the practice achieved its desired results. In turn, each one of us knew that every challenge we faced was an opportunity for personal, professional and practice growth.

Practices with a motivated, focused and empowered team produce excellent results; consequently, patient satisfaction is high and practitioners realise increased financial rewards. Achieving such a team is not pie in the sky, but it does require complete commitment from the whole team. Based on my own experience of being a part of a highly performing team and my observations as a consultant to practices, here are my key principles for the creation of an ultimate team.

Do not confuse being the boss with being a leader. Leaders set the tone for the practice. They lead by positive example. Successful teamwork starts at the top with leaders who provide strategic vision and establish team goals. Effective leaders clearly define their vision and share it with their team to establish a common purpose.

Any successful relationship can only survive if values are shared, believed and agreed upon; values like honesty, respect, integrity. The key to ensure the entire team agrees on the same values and is prepared to work by them. According to the world’s finest flight demonstration team (the Blue Angels, US Navy), “without shared values, peak performance isn’t possible,” and “a team’s values must align with its purpose, mission, and actions.”

Every team member, from the leader to the cleaner, must learn to communicate clearly and effectively. Successful relationships are built on positive, honest and open feedback. Is information shared openly and honestly in your team? Does gossip or negative chatter exist in your practice? Team members must learn to address concerns, deal with conflict and accept responsibility for the success of other team members. When conflict occurs, it must be dealt with honestly, directly and openly as soon as possible and in line with the team’s adopted values.

Foster positive attitudes and creative thinking—attitudes can either make or break the team dynamics, so there is no place for negative people.

Do all your team members have a clear and up-to-date job description? Are they all qualified to undertake their roles? Are there written procedures for every area of the practice? I often hear team members say they are not sure who is responsible for something, or they do not have a job description, or they were promised something but have not yet received any owing to the practice being too busy. 

It is said that what motivates individuals the most is recognition—a pat on the back or a word of praise here and there does a job well done. Embrace this principle and, although it may feel awkward at first, if it is done often enough becomes a habit. Sam Walton, founder of Wal-Mart Stores, said: “Appreciate everything your associates do for the business. Nothing else can quite substitute for a few well-chosen, well-timed, sincere words of praise. They’re absolutely free and worth a fortune.”

Building the ultimate team does represent a challenge, but once achieved it is hugely rewarding. There is no point implementing one principle in isolation. It is like baking a cake without the eggs.
**Conservative smile design for the general dentist**

By Dr Rami Chayah, Lebanon

**Abstract**

This article discusses the advantages of short-term anterior tooth alignment using the Inman Aligner system, particularly for general dentists. The article will give a brief description of the Inman Aligner appliance and its use in short-term orthodontics, and it will answer three major questions the general dentist should ask himself or herself during the treatment planning process. In support of this treatment modality, three case scenarios general dentists see daily will be given as examples.

**Introduction**

General dentists face the daily challenge of performing instant veneers for patients with misaligned anterior teeth who refuse orthodontic treatment, many of whom regard fixed orthodontic treatment as too long a commitment for achieving their desired aesthetic results. In today’s fast-paced life, some patients are not prepared to wait or to go through long treatments. One of the greatest benefits of short-term anterior alignment is that many people who would refuse comprehensive orthodontic treatment may accept short-term removable alignment techniques such as the inman Aligner system.

The Inman Aligner is a simple removable appliance, a modification of the removable spring retainer. It uses super-elastic coil springs to apply highly efficient light and consistent forces on both the labial and lingual surfaces of the anterior teeth (Figs. 1 & 2). The appliance is fabricated on a cast on which, based on a surgical model, the anterior teeth needing correction have been removed and reset in the ideal position in wax on the working cast. When the patient wears the appliance, the built-in forces generated by the spring coils will correct the malocclusion, the built-in forces generated by the spring coils will correct the malocclusion.

What distinguishes the Inman Aligner appliance from other short-term orthodontic systems such as Invisalign (Align Technology) and Six Month Smiles is its low cost, low risk and short learning curve for general practitioners. Only one appliance is used from the start to the end of the treatment. Sometimes, several clear aligners may be used to de-rotate resistant canines. The system is well received by patients because it is fast and relatively cheap. It also accommodates today’s active lifestyle. Usually, most cases take from six to 16 weeks. Patients can take the appliance out during meals or work meetings.

As with any other treatment technique, the Inman Aligner has its limitations. Hence, case selection is imperative, as the Inman Aligner is not suitable for posterior orthodontic treatment or Class II or III treatment. Only certain types of movements are possible and some patients will still need conventional orthodontic treatment or interceptive treatment. Certain criteria should be met before treatment proceeds. At consultation, other orthodontic alternatives should be offered. The dentist must quote for the long-term retention maintenance and should look for any skeletal discrepancies. Compromises must be signed off.

**Treatment concept and case presentation**

Dentists need to consider three questions about treatment during the treatment planning process. The first question: can the patient’s teeth be...
The first case presented is a good example of a scenario relevant to the question above. The patient was a young woman at college who presented at my office requesting a full smile makeover of 20 veneers, she desired a “Hollywood smile” as expressed in her own words. Her complaint was the extracted maxillary right and left central incisors, the incisal edge wear on the maxillary central incisors and mandibular anterior teeth, the pointy shape of the maxillary and mandibular canines, and the yellow colour of her teeth overall (Figs. 4a and 5). It could be argued that it would be highly unethical to prepare the sound enamel, transforming her incisal edges into stumps for the rest of her life, especially at this young age. After long discussion and explanation of the disadvantages of the shortcut method of preparing her teeth for ceramic veneers, this option was excluded. Several other options were available and discussed with her, but because she wanted a smile enhancement in a short period of time, conventional fixed orthodontic treatment was also excluded. After checking her bite, it was observed that there was insufficient interocclusal space to shift the maxillary central incisors forwards without opening the bite. However, the patient accepted use of the Inman Aligner system owing to its flexibility in that the wearer is able to remove the appliance for several hours a day and because of its short treatment time. The maxillary left central incisor would have been aggressively prepared had it been treated restoratively.7–9 By using a simple anterior alignment technique, the treatment took only eight weeks to straighten the teeth and a great deal of sound enamel tissue was preserved by conservatively resolving the unesthetic appearance of the maxillary teeth (Figs. 22 and 23).

The treatment plan was to follow the ARR protocol (alignment, bleaching and bonding). This concept still constitutes a smile maker but in a very conservative manner. Taking into consideration her age and her sound enamel tissue, this was agreed to be the most progressive means of carrying out her smile enhancement. First, her maxillary teeth were aligned using the Inman Aligner with an expander for nine weeks. Two extra-clear aligners were used in the last two weeks of treatment to de-rotate the maxillary left lateral. Once the maxillary teeth had been aligned and in the two weeks of treatment, the teeth were bleached with custom-fitted super-sealed trays (Fig. 6). Now that the maxillary teeth had been straightened and whitened, the patient became more aware of the differential wear on the incisal edges of her anterior maxillary and mandibular teeth. Incisal edge bonding using composite was considered using a simple direct technique. The patient was very happy with the final result (Figs. 7–9).

The second case to be considered was the retracted maxillary central incisors. Once the clear aligners were used in the last expander for nine weeks. Two extra-clear aligners were used in the last two weeks of treatment to de-rotate the maxillary central incisors (Figs. 20 and 21). His mandibular teeth were also crowded, but for some reason, his concern was only with his maxillary teeth. He had started to hide his smile in front of his friends, feeling embarrassed to show his maxillary teeth. After the full orthodontic examination and discussion about all of the treatment options, including comprehensive orthodontic treatment, the patient chose the removable Inman Aligner system owing to its flexibility in that the wearer is able to remove the appliance for several hours a day and because of its short treatment time. The maxillary left central incisor would have been aggressively prepared had it been treated restoratively.7–9 By using a simple anterior alignment technique, the treatment took only eight weeks to straighten the teeth and a great deal of sound enamel tissue was preserved by conservatively resolving the unesthetic appearance of the maxillary teeth (Figs. 22 and 23).

The treatment plan was to align the teeth first and then to re-evaluate the restorative work needed (Fig. 20). The appliance was used for 12 weeks and only worn for 8 to 10 hours a day. During the last three weeks of alignment, the patient began to bleach his teeth. By week 12, the teeth were straight and a very conservative manner. Taking into consideration the ethical dilemma general dentists face every day. We often have cases with overlapping anterior incisal and mandibular canines in our office.

The patient presented in this case was bothered by the look of his over-lapping maxillary central incisors (Figs. 20 and 21). His mandibular teeth were also crowded, but for some reason, his concern was only with his maxillary teeth. He had started to hide his smile in front of his friends, feeling embarrassed to show his maxillary teeth. After the full orthodontic examination and discussion about all of the treatment options, including comprehensive orthodontic treatment, the patient chose the removable Inman Aligner system owing to its flexibility in that the wearer is able to remove the appliance for several hours a day and because of its short treatment time. The maxillary left central incisor would have been aggressively prepared had it been treated restoratively.7–9 By using a simple anterior alignment technique, the treatment took only eight weeks to straighten the teeth and a great deal of sound enamel tissue was preserved by conservatively resolving the unesthetic appearance of the maxillary teeth (Figs. 22 and 23).

The second question to be considered regarding treatment would some of the teeth be aggressively prepared or end up with root canal treatment if treated with restorative dentistry without alignment and would the overall outcome be better with alignment rather than without? This question addresses the ethical dilemma general dentists face every day. We often have cases with overlapping anterior incisal and mandibular canines in our office.

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Conclusion

The goal of this article is to encourage general dentists to reflect on the importance of considering short-term teeth alignment alone or in conjunction with restorative dentistry when treating patients. Hopefully, these three questions and cases will prompt readers in thinking through the process of this treatment modality.

Disclosure

Dr Chayah is the trainer for Inman Aligner Training in the Middle East. He provides hands-on full-day certificate courses to general practitioners.

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Editorial note: A complete list of references is available from the publisher.

Dr Rami Chayah runs a cosmetic dental practice in Lebanon with an emphasis on minimally invasive dentistry. He seeks to help his patients to photograph for his passion for photographs and videography. He believes that through his personalised dental approach, he can demonstrate a more positive way of practising dentistry, helping other dentists to view the dental domain in a different way.

You can reach Dr Chayah through his social media: Facebook.com/ramichayah and Instagram.com/ramichayah

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