

# DENTAL TRIBUNE

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## UK NEWS

A new study on AI and ChatGPT outlines its role in shaping the future of dentistry.

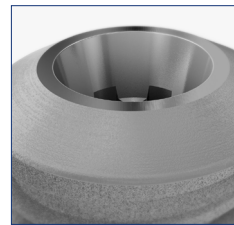
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## UK NEWS

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## EVENT

Bredent's pioneer in Immediate<sup>3</sup> tour lands in Rome on 22-23 September 2023.

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## Growing patients and changing expectations: Meeting the challenge with digital transformation

Dr Guy Deeming and Dr Simonetta Meuli detail how they approach younger patients, the technology they rely on and why treating them is entirely different from treating adults.

Setting the scene for his view on the importance of a digital workflow, Dr Deeming explains there's now a big gap between teenagers and middle-aged adults. He stresses that Generation Z – those born between 1997 and mid-2000s and Generation Alpha – youngsters born after 2012 are a “visual demographic”, adding: “They want everything on-demand and they want it to

adapt to their needs in a very dynamic fashion, and we, as orthodontists and as service providers must try to find a way to embed that visual, on-demand element into their experiences. Being a digitally adept and dynamic organisation that can evolve and recognise the need to change is absolutely essential if we are going to future-proof ourselves for the needs of Generation Alpha and beyond.”

This includes using social media to reach younger patients, because they look to their contemporaries on social platforms for advice and reviews.

“Half of Gen Z use YouTube to search for opinions and information before they make a purchasing decision. And 40% use TikTok and Instagram in a similar way. Our practices are now on TikTok. 90% of traffic is coming from mobile phones, with a massive skew towards that younger generation. So, if your services are not accessible via a mobile device in an instant – in that on-demand fashion, you are going to be missing all the opportunities to serve that younger and growing community,” says Dr Deeming.

Technology, he points out, not only offers treatment in a form that suits

younger patients, it also offers them the all-important customer experience. “That’s about virtual care. It’s about using the different technologies to engage the patients throughout the treatment, monitor their progress with you so they can see how their teeth are moving, so they feel involved and feel like their treatment will be more successful.”

In terms of specific technologies, Dr Deeming highlights Invisalign Smile View which allows patients to generate their own virtual smile improvements via a selfie. “A tool that builds that hope, excitement and engagement with the process so that

the patient can then take that next step.”

“Using technology in front of our patients helps them to feel like we’re part of their world. The next part of that is the Invisalign Outcome Simulator Pro. Once we have our scans, we can then demonstrate how our skills come into play by modifying that simulation in real time on the iTero scanner to show them the tweaks and the artistry of orthodontic tooth movement, to create that excitement.”

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## Digital dental pioneer and ‘The Smiling Dentist’ Dr Alif Moosajee shares his dental life lessons

Alif Moosajee is the award-winning Principal Dentist of Oakdale Dental and the author of the book *The Smiling Dentist*. Being at the forefront of technological advancement in dentistry, Alif has become a sought-after speaker both nationally and internationally in the disciplines of Digital and Implant Dentistry. With a mission to give back and to also help improve the standards in dentistry, Alif created his Smiling Dentist YouTube Channel and runs his study clubs in Leicester both with the aim to disseminate knowledge to his peers in all facets of professional and personal excellence.

Dr Moosajee shares his dental story.

### Who inspired you to become a dentist, and who continues to inspire and influence you?

I did work experience in year 10 in preparation for my GCSEs. At that point, I thought I either wanted to be a doctor or a lawyer so I had one week at a magistrate’s court, but un-

fortunately school couldn’t organise a week GP practice so they ended up putting me in a dental practice. I believe they thought that I might not even notice! It ended up being the best thing that ever happened to me because I absolutely loved shadowing the dentist who was there. Her name was Dr Sabrina Khan at Wexham Road dental surgery in Slough, which is where I grew up.

I actually had the opportunity to visit the practice again recently and they were absolutely wonderful and welcomed me so nicely. I can certainly say that I owe my decision to becoming a dentist in a large part to her.

### What were your career expectations, and have these been exceeded?

Yes! I was expecting to have a nice steady job that I felt good about doing, and also financially rewarded me well enough that I would be comfortable. I expected that I would sit in my surgery and treat patients all

day every day. What I didn’t realise, was just how many opportunities there are for dentists to have such an amazing variety within their career.

I now work three days a week clinically, I run a business looking after staff and finding opportunities to look after patients and their experience in even more fun and interesting ways.

I’m also a lecturer, a published author, and also a presenter of my Smiling Dentist YouTube channel. In my young, limited way, I thought my rewards would be financial for joining this profession, but I realise now that the rewards are myriad and that’s a wonderful thing to have discovered.

### What challenges have you faced?

Challenges are there and the struggle is real, but in order to overcome all of the challenges, I feel I have to

be my best self and bring my ‘A-game’ every day.

I know some people might think that’s daunting and arduous, but without the motivation to be my best self, it’s very seductive and easy for me not to be. Getting comfortable in that way is a sure-fire way to short-change myself out of leading the best life that I can. With respect to managing specific challenges, one must always understand and acknowledge when things have not gone the best way that they could and try to reflect and find a way to ensure that things go better the next time

### What have you learnt?

There is no shortcut when making sure that patients experience the best dentistry you can offer them. Make sure that the clinical work you do is excellent. However, what I have really noticed transforms success in the business of dentistry is focusing on the experience of the patient. If

you can obsess about giving patients the best possible experience, you will always do well.

### What you would do differently if you could start again?

I had a very mediocre career for my first ten years. I wasn’t confident about my abilities and skills and languished for too long. If I had improved my mind-set and realised that, even if you are not naturally gifted, then through application and dedication and hard work you can get better, then I would have been able to achieve more in the early part of my career.

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► Page 1 - Growing patients and changing expectations: Meeting the challenge with digital transformation

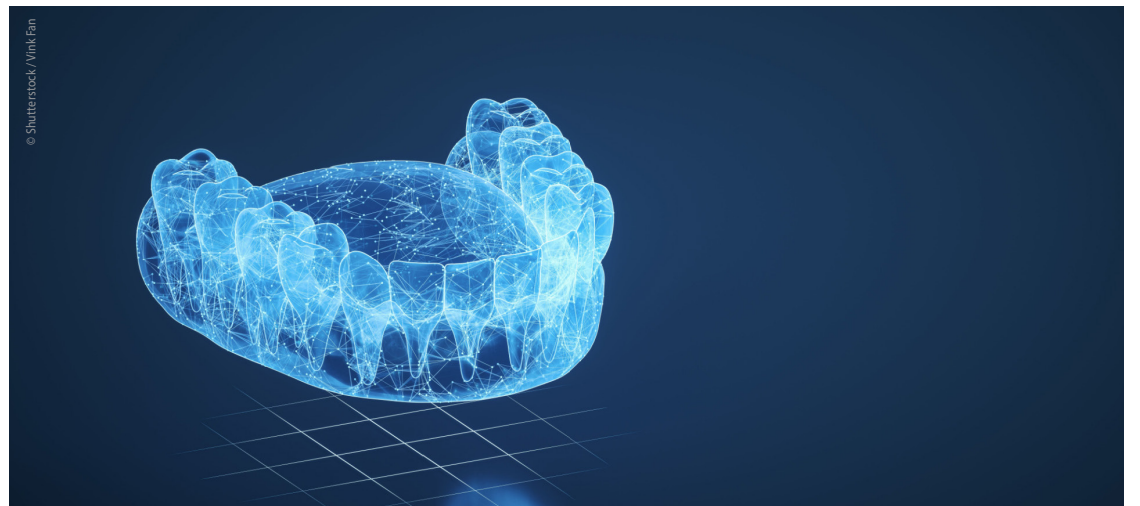
And Invisalign Virtual Care allows for effective, efficient interaction throughout the treatment journey: "Because teenagers don't want to be inconvenienced", Dr Deeming says. "We can give them that always-on feeling through the app, and we can give our younger patients control over their treatment, through the ability to share and communicate and have interaction directly with your team without always having to go through their parents. Align is now making it so much easier for us to engage our patients in the way they want to be engaged."

### Interceptive orthodontics with Invisalign First

Dr Simonetta Meuli, explains that she relies heavily on digital tools to support her consultancy work, particularly the iTero Element 5D Plus Mo-

bile imaging system, whose Cloud capabilities allows her to work in a more flexible way, even when travelling. Even more important for younger children, a scan is pain-free. She favours using interceptive orthodontics incorporating Invisalign First, which she says has advantages, such as reducing the incidence of pre-molar extractions, orthognathic surgery and root reabsorption, while also increasing the long-term stability of the alignment of the lower incisors. She also stresses that interceptive orthodontics made it unnecessary to solve every issue immediately, but instead recommended a concise focus using the digital planning workflow, to plan simple procedures, beginning with the upper arch.

Dr Meuli uses iTero Niri technology to detect interproximal cavities and the iTero scanner's SnapShot feature to help patient communication and acceptance of treatment. Echoing



Dr Deeming's views on how teens are the 'visual' generation, she adds: "Communication through images has become an important language that can influence people's minds – transmitting strong emotions. They are also one of the most powerful means of virtual story-telling."

Dr Meuli also highlights the importance of planning using ClinCheck Pro when embarking on an Invisalign First treatment to enable informed decisions, which she says is particularly relevant for early orthodontic treatment in mixed dentition.

She is also an advocate of monitoring patient progress and underlined what she sees as a responsibility to keep track of young patients' cases over extended periods as they grow. In conclusion, she said that all patients respond positively to the digital environment, and children in particular, who accept it as "the norm".

## A new wellbeing platform is on a mission to support everyone working in dental practice

Canny Dentists is a brand-new social network for everyone working in dental practice. Conceived and founded by dentist Dr Jatinder Ubhi and advertising and marketing professional Andrew Phillips, the closed group aims to unite dental professionals, no matter how senior or junior their practice role, in a space that supports their emotional, physical and financial wellbeing.

Says Ubhi, who has worked in both the NHS and private practice, and now owns his own clinics: "Being a dentist can be quite an isolating profession and myself and my colleagues have been through various struggles. We also have a kind of bravado, which means if we need help, we don't ask or don't know where to ask. Post-COVID I thought it would be great to create something that united the entire profession – not just dentists, but everyone behind the mask."

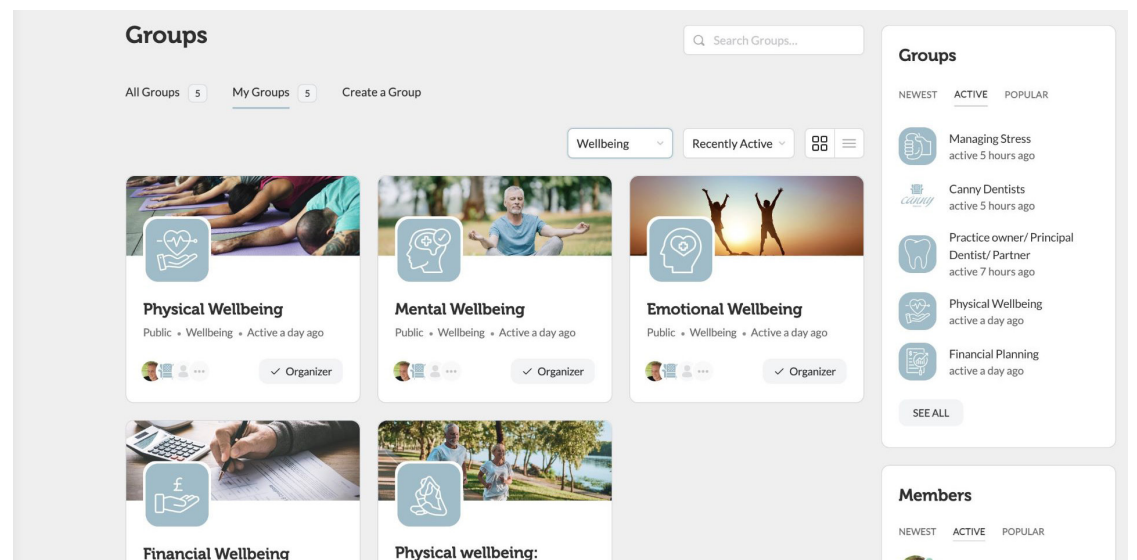
He adds that where other medical professions have support networks, nothing similar exists that unites everyone working in dentistry, or that isn't purely focused on the clinical aspects of the profession. "That's why Canny Dentists aims to focus on what people do in their personal lives that make them feel and perform better at work: It's saying, 'forget you're a dentist, a nurse or a practice manager...How are you

feeling, what support do you need?' And then opening that up to peer-to-peer support, alongside signposting to a directory of services and resources where people can access additional help if they need it."

The platform, which is currently still in its test phase, is designed to be intuitive to navigate, with many familiar features similar to those on other social media sites – an infinite scroll newsfeed, notifications, groups and a chat function, but with content uniquely tailored to each user.

Phillips explains new members are asked a series of questions to ensure their Canny Dentists experience is bespoke to them: "One of the challenges with Facebook, for example, is that it just bombards you with tonnes of content, whether you want it or not. We're trying to create an experience that only shows things people are interested in; new members are put into groups with like-minded people who share their interests, so their newsfeed only includes those topics," he says, stressing that it's easy for to filter the site according to interests, or the type of advice someone might be seeking.

And to ensure Canny Dentists suits members' needs, the test phase sees around 100 dentists, therapists, hygienists and practice managers helping Ubhi and Phillips to hone



content and the user experience. "We've got a vision of how Canny Dentists should be, but the test will ensure it's what the profession actually wants and needs and will benefit from it," says Ubhi.

Phillips adds that Canny Dentists also features content, including podcasts, from experts both inside the dental profession and parallel markets. "For example I've recently interviewed the former head of performance at Exeter Chiefs Rugby Club to talk about performance, and how you can get the best out of your day. The site will also include things such as how to spot if someone else is struggling and how to be supportive with-

out being intrusive. So, we're offering learning from experts, but also learning from each other, because the peer-to-peer communication is really, really important." He adds that as Canny Dentists evolves it will include webinars with experts, plus online and in-person events and meet-ups.

The initial aim is for around 15,000 members, and while Canny Dentists is, for now, primarily aimed at people working in dental practices based in the UK, Ubhi and Phillips expect it to attract professionals from other countries. "Plus, in this increasingly nomadic world we live in, people can

work from anywhere, so we have potential to scale," he adds.

Canny Dentists is the first 'Canny' branded platform under the wider Canny Healthcare business created by Ubhi and Phillips, which gives them scope to expand into other sectors. "If we can get the format rights, we can roll out Canny Doctors, Canny Chiropractors, or Canny Opticians," Phillips concludes.

To find out more about Canny Dentists, visit the website <https://canny-dentists.com>.

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### What are your proudest professional achievements?

I'm really happy that after a career of being a general dental practitioner I am now in the privileged position of being able to limit my practice to implant dentistry as this is the facet of dentistry that I like the most and feel I can serve my patients best with.

I'm also really proud to have been selected to be on the editorial board of publications, and also now a judge for the awards as this gives me the opportunity to interact with the next generation of dentists who want to achieve the best that they can and gives me an opportunity to shape and influence that process. I also love lecturing and being in a classroom and being able to teach other

dentists things that I hope will be useful for them.

### What products would you struggle without?

I found out my confidence in providing dentistry improved dramatically when I adopted digital dentistry. I've been a CEREC user for many years now, and I've taught the CEREC new user training for many years as well. I use it for my implant planning and for fabrication of guides, and this again gives me huge confidence in knowing that when I plan a particular position for an implant, then I want to make sure that it gets there, and guided implant workflow and a digital workflow has allowed me to do that.

Other things that I have noticed from a practice point of view to work well are making sure that patients are maintained well and having seen the

difference between the health of patients who use manual and electric brushes it's clear to me that recommending electric brushes for all patients is a win-win. My particular preference is for Sonicare, but I believe all electric brushes represent step in the right direction for our patients.

### What have you got planned for the future?

I am going to be lecturing for the implant MSc program in Manchester at the ICE dental hospital on the topic of Planning for surgical success. I will also be lecturing at the Dental Tubules Student Congress, on the topic of communication.



## New study on AI and ChatGPT outlines its role in shaping the future of dentistry



ChatGPT is an artificial intelligence (AI) powered language model, capable of generating human-like text based on context and past conversations. A new study from researchers in China investigates the future applications of AI, and ChatGPT, within dentistry.

Artificial intelligence has promoted recent progress in digital health for many years. AI-equipped applications in dentistry have been found useful in analysing medical imaging, including diagnosing dental caries, periodontitis, and implantitis, and

assisting oral and maxillofacial surgery with surgical planning. Besides the imaging data, audio data analyses can also benefit from deep-learning applications, as speech is one of the most important functions of the oral structure. Dental education is another emerging application. ChatGPT stirred up lots of interest among millions of scientists and engineers on account of its impressive human conversational response as a chatbot. However, its potential impact on revolutionising a series of technologies is more significant. Research, published in the *International Journal of Oral Science* provides an insight into its potential use in dentistry.

The study authors suggest that ChatGPT has served as a valuable tool to assist medical education for more effective instruction and analysis of teacher-student interaction. Medical writing can be assisted or even accomplished by ChatGPT which enables efficient documentation. Furthermore, language challenges in medical research or clinical processes can be alleviated by ChatGPT.

They continue to observe that AI technology has promoted clinical applications by improving patient outcomes, streamlining processes, and reducing costs. In clinical practice, AI has achieved striking success in analysing patient data.

Equipped with a cross-modal encoder, a single large language model can manage multi-source data and conduct advanced natural language reasoning to perform complex clinical operations. This has the potential to revolutionise dental diagnosis and treatment, which indicates a promising

avenue for clinical application and research in dentistry. However, the researchers caution that challenges with AI in dentistry may include data privacy, data quality, and model bias.

As technology continues to evolve, we can expect to see even more innovative applications of AI in clinical settings, ultimately leading to more effective healthcare services tailored to the needs of patients.



# MSc in Advanced General Dental Practice:

Comprehensive support to pass the ORE, plus a deep-dive into clinical governance



Egyptian dentist Dr Ahmed Wasfy practises in the northeast coastal town of Whitby following his completion of a Master's in Advanced General Dental Practice (AGDP) at the College of Medicine and Dentistry (CoMD). Here he explains how the College not only helped him prepare for part two of his Overseas Registration Exam (ORE), but also how it took him through the legislation and regulations essential to UK practice.

I've now worked for a year as a private dentist and am currently waiting for approval to practice under the NHS. I originally graduated in 2003 so most of my experience was in Egypt, until 2016 when I qualified as

a member of the Royal College of Surgeons in the UK. It was then that I thought it would be a good idea to move my career to the UK.

In 2021, I joined the CoMD's Master's in Advanced General Dental Practice. I had already passed part one of the ORE, but at that point I couldn't sit part two because the pandemic had put a stop to the exams... I eventually sat part two during my second term at the College.

## Extensive preparation

Aside from all the training covered by the MSc, the College also helped me to prepare for the exam in lots of ways. Firstly there was a lot of prac-

tice on phantom heads, so I had prolonged training over several months. The equipment in the college is almost the same as that used in the ORE, so even during the exam it felt like just another practical session in the college – something particularly helpful for me because I tend to get very anxious. I also found the lectures given by Dr. Ziad Al-Ani very, very beneficial to passing the ORE.

Another major benefit of the MSc was the focus on clinical governance and how dentists practising in the UK must comply with the numerous regulations imposed by the different governing bodies, such as the NHS, the GDC and CQC – it's so important to be aware of all those. I've found

there is no real difference in actual dentistry techniques between the UK and Egypt, but the legal and regulatory circumstances are significantly different.

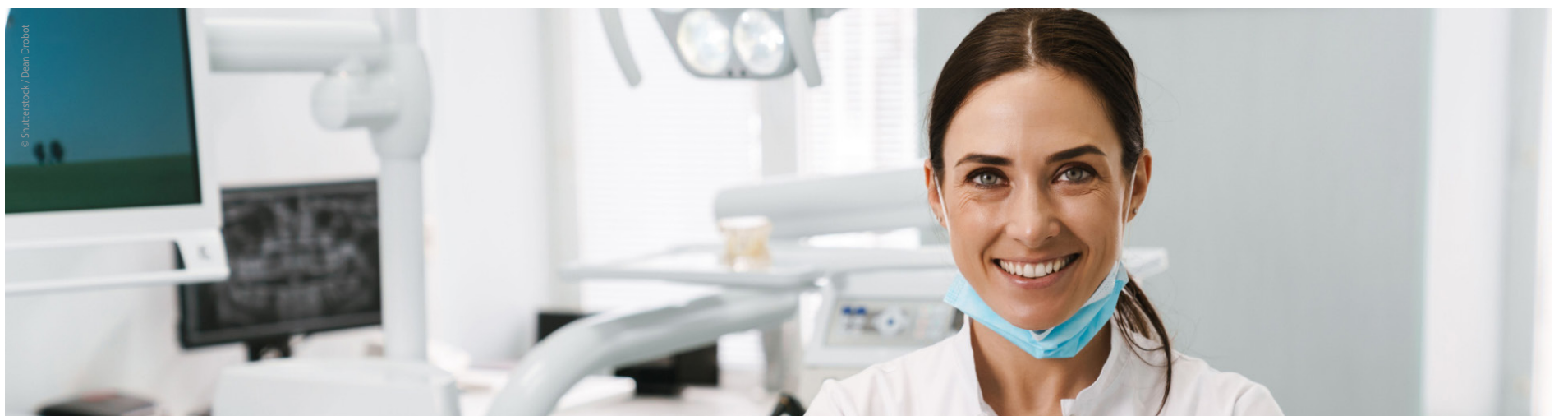
## Support into work

I'd certainly recommend the CoMD to other dentists looking to practice in the UK, for all the reasons I've cited; the fantastic preparation towards the ORE, which is more extensive and extended than compared to other courses, while the parts of the curriculum focused on dentistry and medical legal issues are very beneficial to anyone starting their career in the UK.

The College is also helpful in helping dentists looking for work in the UK too. It offered me lots of support immediately following my registration, but I didn't really need it because I was offered work quickly, but the College was very ready to help me. Looking to the future, I'm now considering joining another CoMD Master's, this time in Clinical Implantology. I did some implants in Egypt, but only straightforward cases, but now I'd like to develop expertise here, and the MSc will give me additional training before taking my career in that direction.

To find out more, visit <https://comd.org.uk/course/msc-in-advanced-general-dental-practice>.

# European dental qualifications will continue to be recognised in the UK for the next five years



The General Dental Council (GDC) has welcomed the announcement from the Department of Health and Social Care (DHSC) that standstill provisions providing for automatic recognition of European dentists' qualifications will be retained for a further period of five years.

Around 17% of all dentists on the UK register have European qualifications and made up 37% of all dentists who joined the registered in 2022. They

make an invaluable contribution to the UK dental workforce.

Legislative reforms providing the GDC with the powers to amend rules for the registration of those who qualify outside the UK were provided just three months ago. The additional time provided by the extension of standstill arrangements will allow for modernisation and meaningful improvements to regulatory processes before additional capacity

for the assessment of European qualifications is needed.

The continuation of the automatic recognition of European dentists' diplomas means that the process for those dentists to join the UK register will remain, including checks on language, health and character. The announcement will also reassure those who have left the UK to study dentistry in Europe that their qualifica-

tion will be recognised in the UK when they return.

While this latest extension is welcome, there are concerns about ongoing uncertainty for professionals and regulators, as the extension of arrangements is again temporary, the need for a further review yet to be determined, and the timetable for full-scale reform of the GDC's legislation remains unclear.

Stefan Czerniawski, executive director of strategy, said, "We are pleased that the government has agreed with our arguments that the current arrangements for recognising European dental qualifications should continue for the time being. Although in the longer term we believe there is a strong argument for a single approach to international registration, now is not the time to disrupt the flow of new entrants to the UK dental workforce."

# How to increase your Google reviews:

The new technology driving next-generation personalised patient engagement

Google reviews provide a huge opportunity to generate more patients. Pioneering new technology from Follow.App Care helps dental practices create a seamless patient follow-up experience – stimulating valuable Google reviews.

"Follow.App Care can help you increase your Google ranking", promises founder Dr David Holmes. "The top 10% of UK dental practices have a near perfect rating and over 150 reviews, which helps actively generate new patients. But for most practices in the UK, Google isn't helping – or is actively hurting – your business", Dr Holmes explains.

## Where you do rank?

Do you know how your practice ranks against dental groups that use Follow.App Care? Clinics using Follow.App achieve four times more Google reviews.

The Follow.App.Care system delivers automated notifications to patients post-appointment. The pre-emptive technology, based on each dental experience, checks in on patients,

provides post-procedural recommendations, invites rebooking for future treatment and prompts feedback on their experience – and invites patients to post a Google review, adding value to the practice's online presence.

"We've only had five star reviews since we've used Follow.App Care", says Dr Mark Hughes. "Rather than having to chase the patient manually and to ask over and over again, the system prompts them to do it and guides them to leave a review in an automated fashion, which is a huge help for the team. What we have noticed is that we're consistently getting reviews without having to ask. We're still asking in person and following up those that have left a lovely comment but haven't written a review. But the automated ones are pretty steady and quite reflective of the number of patients that we see. It means that we're guaranteed to get reviews even if we do nothing."

This chart outlines how the impact Follow.App Care can have on a practice's Google reviews. Negative re-

views, in red, reduce, whilst positive reviews, in green, can double.

Recent data from Follow.App.Care shows that it takes five months on average to improve Google ratings, while 70% of practices achieve this in less than four months – with the help of Follow.App.Care.

"Follow.App.Care is the only way we've managed to achieve significant traction with Google reviews.", says John Townend, Marketing Director at Real Good Dental Group.

"During the two-month pilot, we saw a 9.9 times increase in monthly Google reviews. One practice went from 3.2 to 4.2 stars, another from 3.8 to 4.5 stars, another from 3.9 to 4.5 stars. Because we're now maintaining this level of good reviews throughout the

year, we're now rolling it out to all group practices."

## How it works

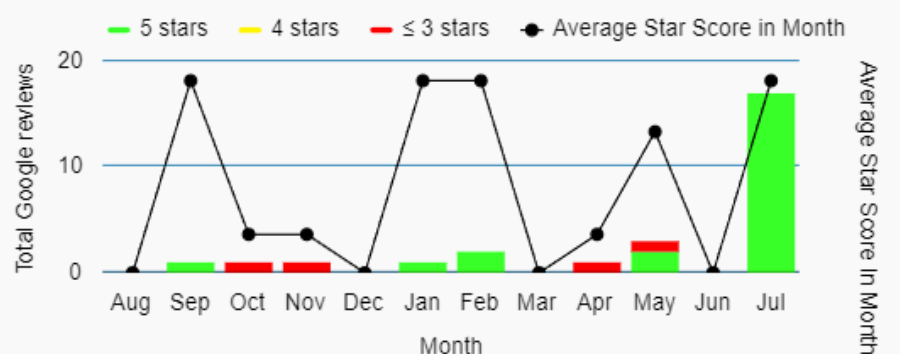
1. Integration: Integrates with your practice management system to automatically extract the data needed to ensure appointment notifications trigger patient communications.
2. Communication: Makes patients feel cared for, while checking up on post procedural health, requesting feedback, rebooking their next appointment and prompting reviews.

3. Results: Results are analysed and collated in the Follow.App.Care web application where clinics can resolve flagged issues or sit back and watch Follow.App.Care work for them by garnering improved Google reviews.

More than 5,000 dentists have already used Follow.App.Care - predominantly in the UK and Australia, and millions of patients have connected with them through the app. For more information please visit <https://www.followapp.care>.

## Google Reviews

The number of google reviews you've been generating. Refreshed 24/07/2023, 03:50



# Gum disease linked to buildup of Alzheimer's plaque formation

While many patients don't associate oral disease with serious health problems, increasing evidence shows that oral bacteria play a significant role in systemic diseases like colon cancer and heart disease. Now, new research shows a link between periodontal disease and the formation of amyloid plaque, a hallmark of Alzheimer's disease. Oral bacteria traveling to the brain causes brain cells to become dysfunctional, promoting neuroinflammation.

In their paper, *Microglial cell response to experimental periodontal disease*, published in the Journal of Neuroinflammation, Forsyth scientists and their collaborators at Boston University demonstrate that gum disease can lead to changes in brain cells called microglial cells, which are responsible for defending the brain from amyloid plaque. This plaque is a type of protein that is associated with cell death, and cognitive decline in people with Alzheimer's. The study provides important insight into how oral bacteria makes its way to the brain, and the role of neuroinflammation in Alzheimer's disease.

"We knew from one of our previous studies that inflammation associated with gum disease activates an inflammatory response in the brain," said Dr Alpdogan Kantarci, senior member of staff at Forsyth and a se-



nior author of the study. "In this study, we were asking the question, can oral bacteria cause a change in the brain cells?"

The microglial cells the researchers studied are a type of white blood cell responsible for digesting amyloid plaque. Forsyth scientists found that when exposed to oral bacteria the microglial cells became overstimulated and ate too much. "They basically became obese" Dr Kantarci said. "They no longer could digest plaque formations."

The finding is significant for showing the impact of gum disease on systemic health. Gum disease causes lesions to develop between the gums and teeth. The area of this lesion is the size of your palm. Dr Kantarci explained, "It's an open wound that allows the bacteria in your mouth to enter your bloodstream and circulate to other parts of your body." These bacteria can pass through the blood/brain barrier and stimulate the microglial cells in your brain.

Using mouse oral bacteria to cause gum disease in lab mice, the scien-

tists were able to track periodontal disease progression in mice and confirm that the bacteria had travelled to the brain.

They then isolated the brain microglial cells and exposed them to the oral bacteria. This exposure stimulated the microglial cells, activated neuroinflammation and changed how microglial cells dealt with amyloid plaques.

"Recognising how oral bacteria causes neuroinflammation will help us to develop much more targeted

strategies," said Dr Kantarci. "This study suggests that in order to prevent neuroinflammation and neurodegeneration, it will be critical to control the oral inflammation associated with periodontal disease. The mouth is part of the body and if you don't take care of oral inflammation and infection, you cannot really prevent systemic diseases, like Alzheimer's, in a reproducible way."

This study is the first time that scientists caused periodontal disease with mouse-specific bacteria and could study the effects of same-species oral microbiome on the brain. Having same-species bacteria and cells brings the test closer to replicating what the process looks like in humans.

The research team consisted of Rawan Almarhoumi, Carla Alvarez, Theodore Harris, Bruce J. Paster, and Alpdogan Kantarci of Forsyth, and Christina M. Tognoni, Isabel Carreras, and Alpaslan Dedeoglu of Boston University. This study was supported by a grant from the NIH/NIA (R01AG062496) awarded to Drs Dedeoglu and Kantarci).



# Bredent's Pioneer in Immediate<sup>3</sup> tour lands in Rome on 22-23 September 2023

Bredent has announced that it has partnered with Sirio Roma to provide professionals with a new Pioneer in Immediate<sup>3</sup> event which will present 'implant solutions tailored to the patient'. The event will be hosted at The Sheraton Parco De'Medici, Viale S. Rebecchini, Roma over two days on 22 (2:00 pm to 5:45 pm) and 23 September (9:00 am to 4:30 pm).

Bredent medical offers augmentation-preventing therapies in the field of implantology (SKY implant systems) and antimicrobial photodynamics (HELBO). The company is a pioneer in the field of immediate loading implantology – including SKY fast & fixed implant therapy.

During the two-day event delegates will be immersed in an array of lectures and live surgeries from a line-up of renowned experts in the implant sector. The first day will look

at the A.B.C.I. Protocol, biotechnical approach to immediate loading and ANCi protocol, egotechnical approach to immediate loading, with Drs Ricardo Ciolli and Nazzareno Cappelli. Delegates will be pre-

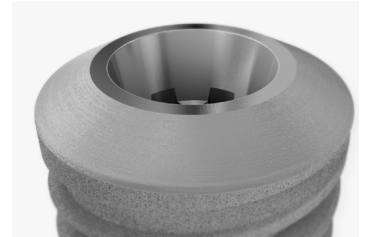


sented details of a radiological evaluation of cases for implant purposes by Dr Luigi Rubino and will also be introduced to the "One abutment

one time" technique, which encompasses the integration and tissue response with hybrid abutment in BioHPP, presented by Dr Fabio De Pascalis.

On Saturday, delegates will be privy to a live surgery session showcasing bredent's whiteSKY zirconia implants with Dr Andrea Borghonovo.

The lectures will also cover the applications of photodynamic techniques in the surgical and non-surgical therapies of peri-implantitis, by Dr Gianpaolo Poli, and the prevention of peri-implantitis: medical history and therapies by Professor Luca Viganò.



The event will end with a second live surgery session entitled 'Simplified approach to the rehabilitation of edentulous arches' with Drs Giovanni Ghirlanda and Carlo Baroncini.

Throughout these Pioneer in Immediate<sup>3</sup> lectures, bredent medical will highlight its philosophy of holistic patient management which embraces an interdisciplinary approach among the specialists in the dental practice and laboratory during an era of fast-paced digitalisation.

Tissue-related implant management is the optimal combination of HELBO

therapy to ensure safe osseointegration, SKY and copaSKY implant systems for excellent bone preservation and prosthetic components/materials which ensure a hermetic soft tissue seal, while respecting biomechanical principles, backed by complete digital workflows with the company's ALL-in-One concept as a complete solution provider.

For more information about this event, please visit and register at <https://www.sirioroma.org>.

## MiSmile founder shares the central role philanthropy plays in the business



MiSmile founder Dr Sandeep Kumar is passionate about helping patients achieve their dream smile. After witnessing the essential support Operation Smile provides for people with cleft lip and cleft palate, Dr Kumar put his organisation's substantial support behind the charity with an innovative initiative – sharing a donation for every Invisalign treatment performed. He shares the role corporate responsibility plays within his business.

The MiSmile Network is an umbrella organisation, comprising independent dental practices located across the UK. Their founder Dr Kumar shares: "By 2014, I was the biggest provider of Invisalign outside London in the country", says Dr Kumar. "I wanted to help other dentists in the UK grow their businesses too, and teamed up with Align Technology to develop MiSmile. Now we are

a strong community of 350 practices across the country. The business is doing phenomenally."

Dr Kumar outlines why he wanted to support a charity. "In 2016, my business was doing very well and my team was getting bigger and bigger. I felt a sense of responsibility to give part of what I was doing to those who needed it, as I felt I was in a very privileged position. I can't do anything half hearted, and went to Madagascar with Operation Smile to see in person how the charity helps people with cleft conditions. What I saw blew me away. They were changing the lives of the patients, as well as the whole families. The moment of joy of the patient and parents' faces was very touching."

"Operation Smile is helping people to smile who wouldn't be able to without support", continues Dr Kumar. "I feel very connected with their work, because we're also making people smile. The charity is at the heart of our philanthropic support."

MiSmile started to contribute to Operation Smile in 2018, and aims to raise £1million for the charity. "Last year, we raised £70,000, with a total of £200,000 in the years we have been supporting them. We all feel like we're part of something bigger than ourselves."

If not treated, infants born with cleft conditions have nine times the risk of dying within the first year of life. They may be rejected by their families or communities. They may be unable to

feed or have problems speaking due to the palatal perforation. Operation Smile provides treatment for people with cleft conditions, on medical missions or in cleft centres Operation Smile has set up and trained local medical professionals to run in developing countries around the world.

MiSmile raises money for Operation Smile in two ways: "We contribute £7 per case to the charity. £3 comes from the MiSmile community members, and £4 is donated by me and my team. As our community is getting bigger, the more we raise for Operation Smile, so it's a real win win. Once a year we hold a conference and gala dinner, with a focus of raising money for Operation Smile through an auction and raffle."

Dr Kumar outlines the role dentists can play in philanthropy. "As dentists, we are in a very privileged position. We work very hard and have had to make a lot of sacrifices to get to where we are, but dentistry is a very privileged and good profession. I believe you owe it to the world to share whatever you have. There are people who don't have the same advantages we have."

As MiSmile grows, so does the support for Operation Smile. "We are planning to launch MiSmile in UAE, and then will be announcing a collaboration with orthodontists. And every case we work on helps Operation Smile. That will never change."

Dentists play an essential role on Operation Smile medical missions,

including restoring or removing teeth with infections and decay, creating a healthy environment for treatment and giving essential preventative advice. There are a number of ways UK dentists can help support Operation Smile including fundraising, raising awareness in your practice or on social media.

Operation Smile carries out hundreds of medical missions to help people with cleft lip and cleft palate. Just £150 provides one child with cleft lip or cleft palate with a life-changing operation.

MiSmile Network is the fastest growing network of Invisalign-focused GDPs in the UK

The MiSmile Network provides a unique opportunity to be part of a successful dental brand with a unique support business growth support model, whilst allowing dentists to lead, control and drive their clinical practice.

For more information, visit [www.operationsmile.org.uk/fundraise](http://www.operationsmile.org.uk/fundraise).





# Perspectives for oral regeneration

Botiss introduces new biomaterials

Botiss biomaterials impresses with innovations in bone regeneration, treatment comfort, and optimization of systemic factors for therapy success.

The international driver of innovation in the field of dental biomaterials, botiss biomaterials GmbH, is enriching the dental market with three groundbreaking new solutions, which the company presented at a press conference during IDS. NOVAMag membranes and screws made of resorbable magnesium enable new regenerative measures while avoiding the need for secondary surgeries. cerabone plus, the exclusive mix of bovine bone and hyaluronate directly out of box, is captivating the field of dental bone regeneration with its excellent handling properties. BotissCARE provides a simple and fast point-of-care solution to optimise vitamin D levels and thereby improve oral regeneration.

## Innovations for optimal solutions in every situation

In the holistic treatment of bones, soft tissues, and aesthetics, suitable and coordinated biomaterials make an essential contribution to the construction and regeneration of oral tissues as well as support in surgical procedures. Dr Svenja Rogge, head of new developments and techniques at botiss, explains: "We work closely with scientists and clinicians to continuously develop new solutions that meet the requirements in practice." Since its founding in 2009, the Germany-based company has been expanding its portfolio, with a

recent focus on biological factors and their influence on wound healing. Now botiss impressed the dental community at the IDS and most recently at the German ITI Congress with the two new products NOVAMag and cerabone plus, which support tissue regeneration with their special physical properties. Additionally, a product line for testing, analysis and supplementation of vi-



tamin D is offered from now on.

## Stable and absorbable magnesium for GBR

The NOVAMag product line includes membranes and screws that are completely resorbed within a few months. This eliminates the need for secondary interventions for removal and increases comfort for patients and practitioners. Dr Giorgio Tabanella (Italy) explains, "Compared to titanium meshes and titanium-reinforced membranes, the handling is definitely easier." The unique

material properties and the combinability of individual NOVAMag products with other biomaterials open up new treatment options for a variety of indications. Dr Akiva Elad (Israel) presents the "Magnesium Membrane Shield Technique" as an alternative to the invasive and time-consuming gold standard for this treatment. In his recent publication<sup>1</sup>, the technique

demonstrates the straightforward use of this novel material and enables an uncomplicated introduction to the novel material.

## The plus for handling and performance — bovine bone with hyaluronate

Hydrating, shaping and applying - with the combination of long-term stable granules and biopolymer, cerabone plus is captivating the field of dental bone regeneration for some time. As the only xenogeneic bone substitute material with hyal-

uronate directly from the blister, it forms a "sticky bone" after hydration, offering unique application comfort. Dr Rafael Block Veras (Germany) explains: "The product is very comfortable to use and apply intraoperatively."

For Prof. Anton Sculean (Switzerland), the biopolymer as an important component of connective tissue is interesting for regenerative dentistry for one more reason: "Hyaluronic acid has been shown to enhance the proliferative, migratory and wound healing properties of cell types involved in soft tissue wound healing, thus pointing to its potential indication in oral reconstructive procedures." Dr Koray Feran (United Kingdom), who uses cerabone plus in many clinical situations, adds: "soft tissue healing over it has been excellent."

## Measurement and optimisation of vitamin D — A success factor for oral regeneration

The importance of vitamin D for the health of oral soft and hard tissues has been widely recognized. Dr Miguel Stanley (Portugal) emphasizes that vitamin D is essential for the normal functioning of cells involved in wound healing and regeneration and may reduce the risk of complications after oral procedures and accelerate the healing process. Dr Stanley has been regularly measuring his patients' vitamin D levels for the past four years and urges his colleagues at the botiss press conference to do the same. He states: "As doctors of the oral cavity, when performing complex surgery, we should

measure vitamin D, supplement it, and provide this additional support to our patients."



Dr Miguel Stanley

Instead of a blood draw by a general practitioner and time-consuming laboratory diagnostics, botissCARE offers a simple and reliable vitamin D testing system that provides results in just 15 minutes directly in the clinic using a drop of blood from the fingertip. If a vitamin D deficiency is detected, which is the case for over 50% of the European population, the high-quality vitamin D3+K2 spray allows convenient supplementation, creating an optimal foundation for subsequent treatments. Dr Jochen Tunkel (Germany) agrees, stating: "In my practice, the botissCARE system represents a valuable new component in my implantological and periodontological treatment concepts."

1. Elad, A., Rider, P., Rogge, S., Witte, F., Tadić, D., Kačarević, Ž.P. and Steigmann, L. Application of Biodegradable Magnesium Membrane Shield Technique for Immediate Dentoalveolar Bone Regeneration. *Biomedicines* 2023, 11, 744.

# Aligner Dental Academy announces accreditation pathway



When a dentist becomes a member of the Aligner Dental Academy they are demonstrating their commitment to continually developing their knowledge and skills in order to offer patients optimum care and results. It also gives them an opportunity to immerse themselves in an environment with peers and experienced mentors, as well as always-on access

to support and guidance to ensure clinical excellence with every patient they treat. By doing so they will be able to ensure they are best-equipped to catapult their careers. Not only does membership of the Aligner Dental Academy confer access to all the education, support, events and mentors, but dentists can

elevate their status within the profession to peers as well as patients as they have the option to apply to become 'Accredited' and ultimately become a 'Fellow' of the Academy.

## Growing status

To achieve this, members are required to complete an application as well as submit clinical cases for review by The Academy's Clinical Board. If the requirements are met and the dentist achieves the minimum 85% pass mark, they will receive Accredited Member status. In order to become an Aligner Dental Academy Fellow, members need to first have become Accredited. They are then required to have been 'published' in a recognised clinical publication and will then be required to complete a case presentation session and viva with the Clinical Board.

## Membership levels

Members who dedicate the time and energy to their learning journey can then attain accredited member status with the Academy, providing patients with an invaluable measure of their treating GDP's knowledge and expertise.

According to Aligner Dental Academy Co-Founder Dr Barry Buckley: "The longer a dentist spends with the Academy – attending educational events and sharing peer-reviewed cases with the group – the more their status within the Academy can improve, from a Registered Member to an Accredited Member, right up to becoming a Fellow of the Academy."

All Accredited and Fellows of the Academy also receive the following benefits:

- An official certificate for Accredited members and a plaque for Fellows.
- A digital collateral pack including badges for social media and websites, profile banners and marketing material to showcase your achievement.
- Patient facing collateral pack explaining the value being an Accredited Aligner Dental Academy Member or a Fellow confers on patients
- Patient facing blog and social media posts pack to further illustrate the dentist's achievement.

Membership of the newly formed Aligner Dental Academy is being heralded as a badge of excellence and commitment to best practice GP Aligner Therapy, through gold standard continued education, mentoring and career support, as well as conferring a recognised accreditation pathway.

# Evolving business systems into 2023 and beyond

An article series on five basic systems to improve practice management—Part 4: Leadership and Management

By Chris Barrow, UK

In previous articles of this series, I have referenced the seminal work *The E-Myth Revisited* by Michael Gerber. I looked at financial systems in Part 1, practice marketing in Part 2 and the patient experience in Part 3. In Part 4, I would like to address the topics of leadership and management—terms which are often misunderstood, transposed and confusing. In this article, I want to focus not so much on the performance of people but on their behaviour and highlight the behavioural habits that characterise great leaders and managers in dental practice.

## What is the difference between leadership and management?

Leadership is about your relationship with people. Management is about the deployment of systems. You cannot lead systems. You cannot manage people. You can lead people. You can manage systems. As a practice owner, you must be a good leader of good managers. As a practice manager, you must be a good leader of your team and in charge of systems.

### Leadership

Let me give you my own definition of good leadership:

- you are the custodian of the vision;
- you are the example of on-brand performance and behaviour;
- you are brilliant at effective delegation.

### You as custodian

You have a three-year vision, a 12-month plan, 90-day goals, monthly management objectives, a weekly focus and daily tasks. You share the vision, plan and goals with all your team on a regular basis—and they understand and accept that the vision, plan and goals evolve all the time. You imbue every aspect of the business and every member of your team with the passion and excitement you feel.

### You as example

If you are late, everyone can be. If you are untidy, everyone can be. If you are miserable, everyone is!

You are on stage, in the spotlight, 24/7! You must be in first and out last, must possess an eye for detail and must be aware of everything and everyone. You must be able to read a 1,000-word newsletter after everyone else—and spot the typo they all missed. You must lead your team, your clients, your suppliers, your advisers, your strategic alliance partners, your family, your friends and (sometimes) yourself. There is no time off!

### You as delegator

You delegate everything that does not involve your unique abilities and invest 80% of your time in your unique abilities, leading the team the other 20%—because your team members are the managers of your business (and your life). To do so, you explain what you want in clear terms, describe the outcome you are looking for and agree on a deadline for completion. You then back off and do not micromanage, but neither do you back off too far—into abdication. In delegating, you accept that the best team players will get it right 90% of the time and mess up 10%—that will be how they learn.

### Management

Everything you ever needed to know about business is embodied in the fundamental systems originally identified by Michael Gerber and about which I have said much in my series of articles so far:

1. financial systems (discussed in Part 1);
2. lead generation systems (marketing, discussed in Part 2);
3. lead conversion systems (treatment plan presentation and conversion, discussed in Part 3);
4. customer relationship management systems (the patient experience, also discussed in Part 3);
5. operational systems (clinical governance and compliance); and
6. people systems (creating, leading and managing the team, discussed in this article).

member the circus act of a performer spinning plates on top of sticks? We look on in amazement as the artist adds more and more plates—and great show is made of letting plates lose momentum, wobble and almost fall—but just in time, the artist reaches the stick and spins, and the plate regains momentum. As the artist does that, at the other end of the line, another plate begins to wobble. The audience loves the “risk” that a plate will fall. We love to watch others take risks like that—the plate spinner, the trapeze artist, the walker balancing on the high wire.

How often does your life seem like the plate spinner’s act? We have a habit of making our lives too complicated: too many relationships, too many patients or clients, too many apps on our devices, too many appointments in the calendar, too many decisions to make, too many emails to reply to. Too many times, we poke our noses into things we should not bother with (bright shiny objects—I am terribly guilty of this) or we micromanage people who do not need or appreciate it.

We have too many plates to keep spinning. Plate spinners know their limits. Do you know yours? Think about the plates you have spinning—and ask yourself:

- Do you have enough?
- Do you have too many?
- What can you do to simplify your life?

- Opportunities—where do you see your greatest chances of success, both personally and professionally?
- Threats—what can stop you, drag you down, block you, damage you?

## The controversial subject of tolerations and how to remove them

Clients understand that personal and professional evolution is about deciding what you want more and less of in life—and doing something about it. If you want more money, more time, greater fitness, more clients, more qualifications, and if you want less travel, less paperwork, less procrastination, less stress, less having to do everything, then take action!

If only it were that easy. Ask yourself what you must remove from your life before you can move forward.

We all tolerate things that do not work properly, situations that are not right and relationships that do not work, in our personal and professional lives. Those tolerations slow us down, eat into our self-confidence and prevent us from moving for-

Chris Barrow

has more than 50 years of work experience and has been active as a consultant, trainer and coach to the UK dental profession for over 25 years. His main professional focus is through his Extreme Business company, providing coaching and mentorship to independent dentistry around the world via virtual consultancy, practice visits, a workshop programme and an online learning platform. His blog, Thinking Business, enjoys a strong following. During the COVID-19 pandemic, Barrow created the Regeneration Coaching Programme to help practices to survive lockdowns and to bounce back higher after their return to work. More information on his work can



When I first conducted this exercise for myself, many years ago, I decided that what I wanted to do more of was public speaking, writing, coaching and content development and that I would focus all my efforts and finances on creating an environment in which I could spend 80% of my time on my unique abilities and 20% of my time doing “everything else”. Take a sheet of paper. Draw a line down the middle. Head the left-hand column “My unique abilities”. Head the right-hand column “Everything else”. Start writing and determine what your unique abilities are.

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In his fourth article on evolving practice business systems, dental consultant Chris Barrow explains that the secret to successful leadership is sustainability, maintaining a constant pace over time.

## Are you any good as a leader or manager?

It can be useful to conduct a SWOT analysis on yourself before you start to consider how you can lead others and manage systems:

- Strengths—what do you consider to be your strongest capabilities? When do you feel in the zone?
- Weaknesses—how do you let yourself down? When do you feel outside of your comfort zone?

ward. The job you hate, the commute that wears you out, the computer that does not process data fast enough, the team member who is not on-brand, the patient or client who drives you nuts.

Make a list of all the tolerations in your life. Let me warn you—this is scary stuff—it will move you outside of your comfort zone—trust me and be brave.

## Learning to delegate effectively

Delegation is an essential aspect of time management. We are all doing too much—some more than others. How do we delegate well? The first step you should have already completed by listing your unique abilities in the left-hand column and everything else in the right-hand column. The second step is to identify who

First, read *The E-Myth Revisited* and learn the principles. Second, read *The E-Myth Dentist* and learn how the principles apply in practice (declaration of interest—I am co-author but receive no royalties).

## Performing and behaving like a leader or manager

How do you find the time to be a great leader or manager? Do you re-



you are going to delegate “everything else” to.

For example, in my personal life, I delegate:

- housekeeping to the cleaners;
- gardening to the gardener;
- holidays, social occasions and special events to my wife;
- my work–life balance calendar to my business manager, Phillippa Goodwin.

In my professional life, I delegate:

- finance to my accountant, Doug Murphy (hand-picked because he is also a mentor);
- calendar, calls, meetings, travel, accommodation, even lost property to Phillippa;
- branding and marketing to my daughter, Rachel Barrow, who runs her own marketing agency.

The third step is often problematic—the act of delegation:

- Explain and agree on the task—give a full and proper brief.
- Agree on the resources required.
- Agree on what the outcome will look like.
- Agree on any cost implications.
- Agree on a deadline.
- Agree on the method of reporting back.

For simple tasks, this is far too complicated. In situations like that, you can rely on the individual to whom you have delegated the task to use their common sense—if they do not have any, they should not be work-

ing for you! For more complex tasks—like building a website—you must have these agreements in place.

The secret of attractive leadership is to then step back and leave your team to get on with it. The reason I am successful at delegation is that I do not interfere when the task has been agreed on—in any event, I am busy with other things. My support team love it that I trust them enough to make their own decisions—it gives them a sense of purpose in their work that they do for me; they own it. An empowered team, entrusted with responsibility, will increase your effectiveness by an order of magnitude that far surpasses the investment you make in them.

### How leaders and managers communicate

How often do you communicate with your internal support team? Not often enough. How do I know that? Because part of my work is dealing with the consequences. My all-time number one saying is “All problems exist in the absence of a good conversation.”

Those conversations can be one-on-one or team meetings. Here is a meeting schedule I devised some years ago for “perfect practice” and to minimise the risk of relationship and communication problems in any business:

#### Daily

A 15-minute daily huddle before the curtain is raised, to review the good and bad points of the previous day and to preview the day ahead

#### Weekly

A 30-minute weekly reflection on the best and worst bits of the previous week and agreement on what we can learn and how we can evolve

#### Monthly

A 3-hour (half-day) monthly review of all key aspects of the business:

- financial performance;
- marketing results;
- customer relationship management highlights;
- pipeline and sales;
- operational issues;
- team well-being.

#### Quarterly

A full-day quarterly meeting that covers the items in a monthly meeting in the morning and that involves team training on any of these in the afternoon

#### Annually

An annual getaway that includes an overnight ideally in a location away from the practice location, dedicated to:

- the same agenda as for the quarterly meeting but with the annual review on the first morning;
- fun on the first afternoon;
- party and awards on the first evening;

- plans for the coming year on the second morning;
- fun on the second afternoon.

Appraisals are yesterday’s leadership tool. The concept of sitting down with an employee once a year for “judgement day” is Industrial Revolution stuff—not the connection revolution of today. I agree that individuals require personal progress interviews however. If you decide on them, here is your meeting agenda:

Part 1—questions for the team member to answer:

- What do you like best about working here?
- What do you like least about working here?
- What would you most like to change about your work here?
- In what area would you appreciate some further training?

Part 2—feedback I would like to give to you:

- What I like best about the work you do is ...
- What I like least about the work you do is ...
- What I would most like you to change about the work you do here is ...

Just about every survey of employee satisfaction ever undertaken has come to the same conclusion: that people stay in a job when they feel genuinely appreciated, can see a career pathway for themselves, feel well paid for what they do and are

having fun—in that order. It is not all about the money.

### Closing

Success is defined as “doing what you love to do, with the people you love doing it with, when you love doing it”.<sup>1</sup> The secret of long-term success is sustainability—not short sharp shocks on training courses but the ability to maintain that 80% pace for mile after mile, for month after month, stretching into years. Great leaders and managers are those who follow these guidelines relentlessly and consistently over long periods. I love being a tortoise, and people seem to enjoy my leadership and management style.

### Reference

1. Morris T. True success: a new philosophy of excellence. New York: Berkeley Books; 1995. 294 p.

# The fundamentals of succeeding in dentistry today

Dentistry is progressing at fast pace, and dental practices need to adapt or die, says Dr Simon Chard, speaking ahead of his presentation to delegates at the forthcoming Align Technology UKI Forum Live, when he will share his views on a dental practice of the future.

He says digital technologies such as 3D printing, artificial intelligence (AI) and robotics will change the shape of dentistry in the next five to ten years – more so than the combined developments of the past 30 years.

He predicts: “I’ve been chairside milling my restorations for many, many years, but I believe 3D printing will eventually surpass milling. The beautiful thing about 3D printing is you get the accuracy, you get the speed, but it’s a much less significant capital investment than with milling, so I think the adoption from dentists will be much faster as a result.”

“I think AI and having an AI assistant to support you in your clinic with note taking and radiographic diagnostics will be widespread, while advances in Smile Design and the capabilities of software such as exocad CAD/CAM in smile visualisation is going to be here much faster than we think. Workflows will also be really, really streamlined.” And he adds: “There’s also some really exciting ad-

vances in implant therapy – haptic-enhanced robotics to help improve the accuracy of implant placements.

To future-proof themselves, he warns dentists they must adapt. “A mindset of adaptability will be important for dentists in preparing for the changes to come. To paraphrase a saying ... ‘it’s not the fastest or the strongest that succeeds, it’s the one that’s most adaptable to change’. It’s about having an open mindset and not being restricted by dogmas of previous years. But that doesn’t mean jumping into every different technology that presents as soon as it arrives, because obviously there’s lots of companies looking to benefit financially from the technological advancement and not all of these technologies will succeed. However, having that open mindset, doing your research and adopting it pragmatically will reap multiple rewards for all parties involved in dentistry.”

### A.B.C.D

Dr Chard sums up what he believes are the key fundamentals of dentistry today with his his AI and airways, biological, cosmetic and digital (A.B.C.D) approach. These will form the pillars of his Align Technology UKI Live Forum presentation, as he explains: “It is really important for all

of us as dentists, both for the protection of our own businesses, but also for the better treatment of our patients, to stay abreast of the latest advances in technology; with the advent of **AI**, those changes will happen even faster. Directly through things such as radiographic diagnostic assistance, to software that can design restorations, and indirectly in the way that the hardware will advance much, much faster with this increased processing power,” he says, adding that **airways** are another important consideration in dentistry: According to some estimations one billion people globally may have undiagnosed sleep apnoea<sup>1</sup> and dentists are in a very unique position to be able to diagnose those patients. After the correct diagnosis, there are also relatively simple treatment modalities that dentists can prescribe, or we can refer them to the correct sleep physician.

Dr Chard also stresses the **biological** link between the mouth and the whole body...both the mouth leading to issues in the body and issues of the body being vitally important to things going on in the mouth. “For this we look at the microbiome and the linkage of systemic illnesses with periodontal disease and implant failure, and other issues of oral health. So it’s really not looking at the mouth

as a silo but looking at it as a part of a living human being,” he stresses.

He also points to the advent of technology and improved techniques, that places even more responsibility on dentists to be biologically responsible and ethical with regards to **cosmetic** dentistry provision: “How can we practice cosmetic dentistry in the most minimally invasive way possible? This includes things such as no prep porcelain veneers following Invisalign treatment and a more conservative approach to full arch implant work.”

Last, but by no means least he underlines the importance of embracing **digital** technology. “As we’ve seen in many industries, if you don’t adapt, then your business can very quickly die... AI, robotics or technology to streamline workflows, make it a really exciting time to be a dentist. The next five years will show the biggest changes in dentistry that we’ve seen in the past 30.”



#### Dr Simon Chard

practices cosmetic and implant dentistry at Rothley Lodge Dental just outside London.

He sits on the board of directors for the British Academy of Cosmetic Dentistry and has a strong focus towards achieving optimal aesthetic results using minimally invasive techniques.

### Reference

- Benjafeld, A.V. et al. (2019) ‘Estimation of the global prevalence and burden of obstructive sleep apnoea: A literature-based analysis’, The Lancet Respiratory Medicine, 7(8), pp. 687–698. doi:10.1016/s2213-2600(19)30198-5.