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INTERVIEW

Learn more about the upcoming Digital Dentistry Show, which will be held from 28 to 29 June in Berlin, in this interview with implant dentist Dr Henriette Lerner.

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CLINICAL CASE

This case on guided implant placement and restoration highlights the integration of various digital tools and techniques to achieve a predictable and satisfactory outcome.

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BDCDS 2024

Read more about this year's British Dental Conference & Dentistry Show and its stellar line-up of speakers, which was held in May in Birmingham.

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Recruitment, retention and remuneration in dental offices

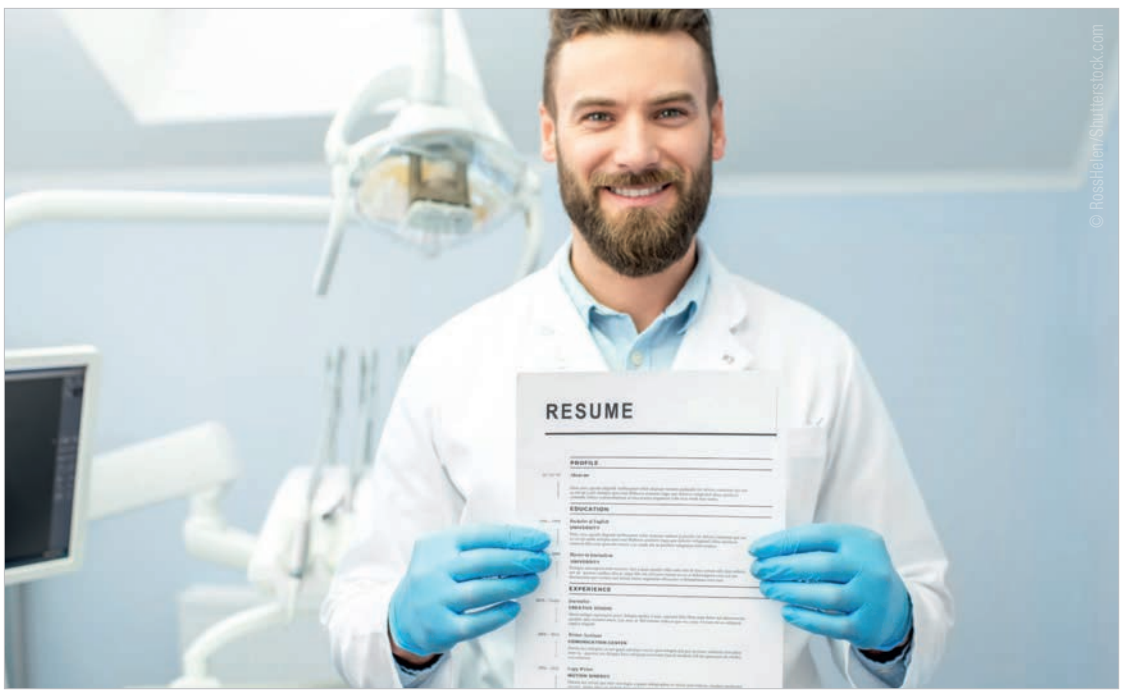
Keeping team members happy in a challenging economic environment.

By Chris Barrow, UK

Recruitment, retention and remuneration have recently become a pressing matter in many dental practices in the UK. In this article, I will discuss leadership and management of teams, with a particular focus on younger team members. However, I want to emphasise that it is not an article about what is wrong with the younger generation of clinicians and team members. Instead, I aim to explore the underlying causes of current challenges and propose a few practical solutions.

The issue of the three Rs—recruitment, retention and remuneration—is currently populating my inbox, messages and conversations every week. These are some actual examples from my clients:

- "Numerous adverts online, posts on social media and newsletters to patients have not generated a single enquiry for the employed position in our practice."
- "We recruited a new member for our front-of-house team. After the interview, references and paperwork, they failed to turn up on the first morning. When contacted later that week, we were informed that a pay increase at their original place of work had been accepted."
- "My new practice manager resigned after just three weeks, stating that he was unable to meet the demands of the position—even though the responsibilities were spelled out very clearly during the interview and induction process."
- "My dental associate has requested flexible hours to accommodate childcare, wants to drop from four to three days a week and is asking for an upward review of their remuneration package."
- "Our dental hygienists have formed an unofficial committee and have sent me screenshots of social media sites on which hygienist pay scales much higher than ours are being posted. They are demanding a review."
- "Dental nurse wages in the area are on a steep climb, and I simply cannot afford to keep up, given the current financial position of the business."



More and more dental offices are having difficulty finding new employees or keeping existing staff members.

I could go on—this is just a sample—but I suspect that by now you get the picture. If none of these conversations reflect what is going on in your business, then congratulations—although I am tempted to add "just you wait!". If you hear echoes of what is being said in your staff rooms and corridors (as well as on WhatsApp into the dead of night), then join the club.

Why is it that the three Rs have recently become a burning issue? In the UK, I think we can start with Trussonomics and the cost-of-living cycle, events that have left many people less well off than they have been for a very long time. As a 70-year-old empty nester, I have been only marginally affected by the inflation and geopolitical crises that have changed the basics for many. However, as a father of five adult children and grandfather of five grandchildren, I understand the pressures.

As a dental consultant, I advise my clients how to best navigate this cycle. As I said at the beginning of this article, there is nothing to be gained by blaming the youth of today for having less resilience or different priorities than we may have had in earlier decades—

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UK urged to update dental antibiotic guidelines for potential endocarditis patients

Researchers call on NICE to reconsider current guidelines.

By Franziska Beier, Dental Tribune International

Infective endocarditis (IE) is a potentially life-threatening heart infection that is caused by dental bacteria in around a third of cases. A recent review led by researchers from the University of Sheffield confirmed that dental patients at high risk of IE should be given antibiotics before undergoing invasive dental treatment. As antibiotic prophylaxis is currently not recommended in the UK—in contrast to other countries around the world—the researchers are urging UK healthcare authorities to update the guidelines.

"Infective endocarditis is a rare but devastating heart infection in which around 30% of people die within the first year of developing it," commented lead author Prof. Martin Thornhill, from the University of Sheffield's School of Clinical Dentistry, in a press release. "There are currently 400,000 people at high risk of developing IE in the UK, and this number is increasing each year due to the growing number of patients having cardiac interventions," he added.

People at increased risk of IE are patients who have undergone cardiac interventions such as prosthetic heart valves, valve repairs and congenital heart disease repairs. In approximately 30% to 40% of cases, IE is attributed to bacteria originating from the oral cavity, owing to poor oral hygiene or as a result of invasive dental procedures.

Other guideline committees

In 2023, the European Society of Cardiology (ESC) updated its IE guidelines, strongly recommending antibiotic prophylaxis before invasive dental procedures for high-risk patients. The American Heart Association is aligned with this view and reaffirmed the need for antibiotic prophylaxis to prevent IE in those at high risk in its 2021 guidelines.

In contrast, the UK's National Institute for Health and Care Excellence (NICE) recommended against this practice in 2008, owing to insufficient evidence of efficacy and concerns about adverse reactions, and has not reviewed its recommendation since 2015. Although other guideline committees around the world had similar concerns, recommending antibiotic prophylaxis was continued, since the risks of developing IE were considered to far outweigh any risks of giving antibiotic prophylaxis to patients susceptible to IE.

New evidence

Previous research from 2015 conducted by the University of Sheffield showed high compliance with the NICE guidance in the UK and identified an 88% decline in antibiotic prophylaxis prescribing since 2008. In addition, it found a significant increase in IE incidence after this change. Another university study from 2022 found that dental patients at high risk of IE should receive antibiotics before undergoing invasive treatment such as extractions or oral surgery.

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Page 1 “Recruitment”

today is where we are, and we must “take the current when it serves or lose our ventures”. As a result, I am advising my clients to remember these wise words that “all problems exist in the absence of a good conversation”.

I have invested some time over the last year in good conversation with my children (a professional dog walker and rental property manager, an expert in nuclear waste disposal, a medical representative for a prosthetics company, a branding, marketing and design freelancer, and a probation officer—mixed bag, right?) so that I can fully understand what it is like being them financially. In addition, I have kept a close eye on my support team (only two people), quietly making sure that the macroeconomic situation is not affecting their ability or desire to work for me. As leaders, we have a duty of care to do that.

I will share with you some tough love that I have been giving my clients recently: to deal with the three Rs, you have to activate the three Ps—pricing, productivity and profitability. This means boldly increasing your prices, actively supporting your fee-earners to increase their production and keeping a very close eye on the profitability of every one of your products and services.

At the end of the day, your team do need pay rises to keep pace with what is going on. You are going to have to pay top dollar to attract and keep the right people. Resistance to that is a road to nowhere. So where is the extra money going to come from?

Tactic 1: The price rise

Cutting to the chase, many of my clients have implemented 25% price rises across the board in the first quarter of this year, and the unanimous feedback has been that “we had a few grumbles, but nobody left”. Put your prices up—you are worth it.

Tactic 2: Work with your fee-earners to increase average daily production

I have advised my clients on improving communication with their existing clinicians to foster a mutually beneficial relationship. Here is how you can support your clinical team:

- Invest time and effort into the internal and inbound marketing systems to generate new patient enquiries.
- Ensure that the front-of-house team are properly trained to handle all patient enquiries and deliver a first-class patient experience.
- Use the treatment coordinator to triage new patient enquiries and help to manage the sales pipeline.
- Give the team access to an intra-oral scanner (with training) to assist with patient communication.
- Train the team on effective treatment plan presentation skills.
- Ensure that the team members have access to the very best clinical equipment and administrative support.
- Provide clinical mentoring.
- Provide supportive sales performance management.

Here is what you can expect from your team members in order for them to support your clinic:

- Attend the morning huddles, with particular reference to marketing opportunities, each day.
- Work with the treatment coordinator to manage new patient flow, pipeline and end-of-treatment reviews.
- Learn how best to use the intra-oral scanner in patient diagnosis and communication.
- Learn how to create effective treatment plan presentations using technology, including video.
- Invest in communication skills training.
- Take part in regular peer review meetings.
- Be a team player.
- Accept performance targets on days worked and average daily production.

Survival and prosperity through the next few years are going to be dependent on a realisation that the economic landscape has changed, that the younger members of our teams have had little experience in how to navigate the work environment and that, ultimately, patients are going to have to pay more. We have a collective duty to guide our younger colleagues, not just as grandparents and parents but as employers and fellow professionals.

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 be found at www.coachbarrow.com.

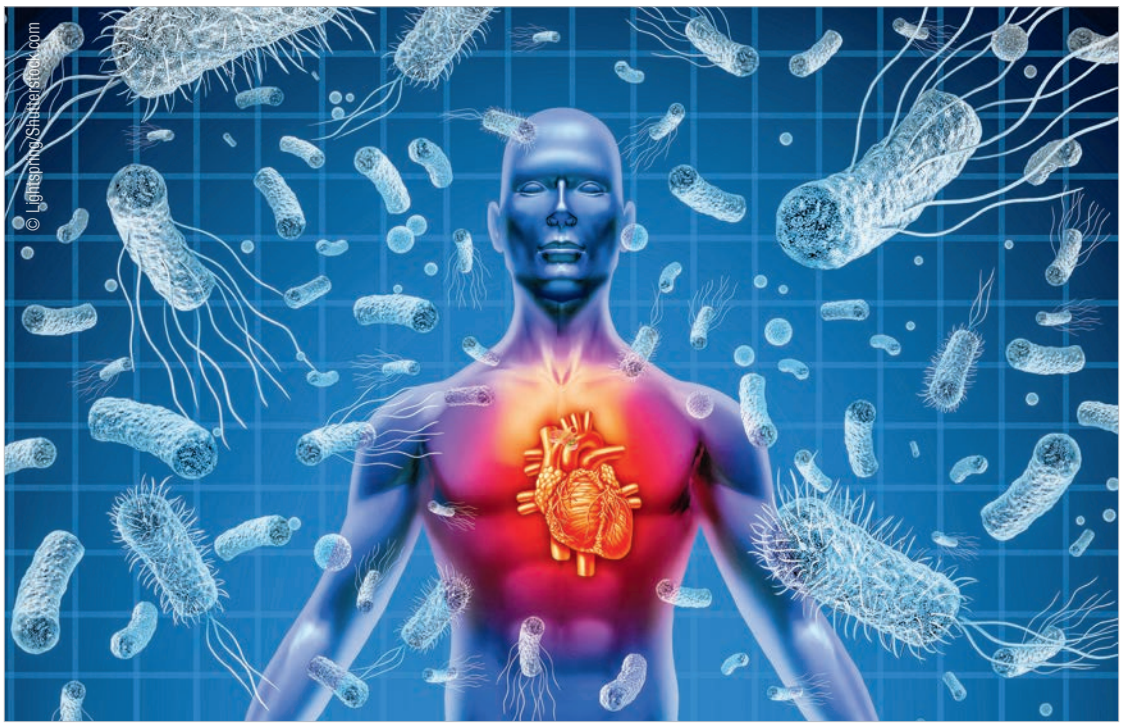
Page 1 “UK update”

The recent review by the university observed that the risk of IE in high-risk patients after invasive dental procedures is one in 1,000, dropping to one in 3,333 with antibiotic prophylaxis. For extractions, the risk decreased from one in 100 to one in 1,000 with antibiotic prophylaxis, and after oral surgery, the risk reduced from one in 40 to one in 500 when antibiotics were administered. In contrast, the risk of a significant adverse drug reaction after amoxicillin antibiotic prophylaxis was found to be one in 250,000 prescriptions.

The study authors stated that, when taken together, the reviewed studies support an association between invasive dental procedures and subsequent IE, particularly in high-risk patients.

Call to action

Based on their results, the researchers have urged NICE to review dental antibiotic prophylaxis guidelines in the UK. “All major guidelines committees around the world, such as the American Heart Association and the European Society for Cardiology, recommend that those at high risk of infective endocarditis should receive antibiotic prophylaxis before undergoing invasive dental procedures. We are urging NICE to review its guidance so that high-risk patients in the UK receive the same protection against IE that is afforded to patients in the rest of the world,” emphasised Prof. Thornhill.



The UK and Sweden are the only countries in Europe that advise against the use of antibiotic prophylaxis for patients at high risk of infectious endocarditis.

Ideally, NICE would adopt similar recommendations to those of the 2023 ESC guidance, resulting in a uniform approach across Europe, said the study authors.

Cost-effectiveness

Prof. Thornhill also highlighted the economic impact that updated guidelines would have: “Our previous study showed that prescribing antibiotic prophylaxis would be cost-effective if it prevented just 1.4 high-risk patients per year from developing infective endocarditis. So, by preventing between 40 and 260 cases per year antibiotic prophylaxis would be highly cost-effective and would likely save the [National Health Service] in excess of £5.5 million [€6.4 million]* annually as well as generating substantial health gains for those at risk of endocarditis.”

The recommendation of administering antibiotics prophylactically for patients deemed at risk of contracting IE is an internationally debated topic. Sweden and the UK are currently the only countries in Europe that restrict the use of antibiotics. In contrast to the results of the University of Sheffield, a Swedish study from 2022 found no increase in IE cases after the use of antibiotics was reduced in 2012.

The review, titled “Endocarditis prevention: Time for a review of NICE guidance”, was published on 5 March 2024 in *The Lancet*.

* Calculated on the OANDA platform on 1 April 2024.

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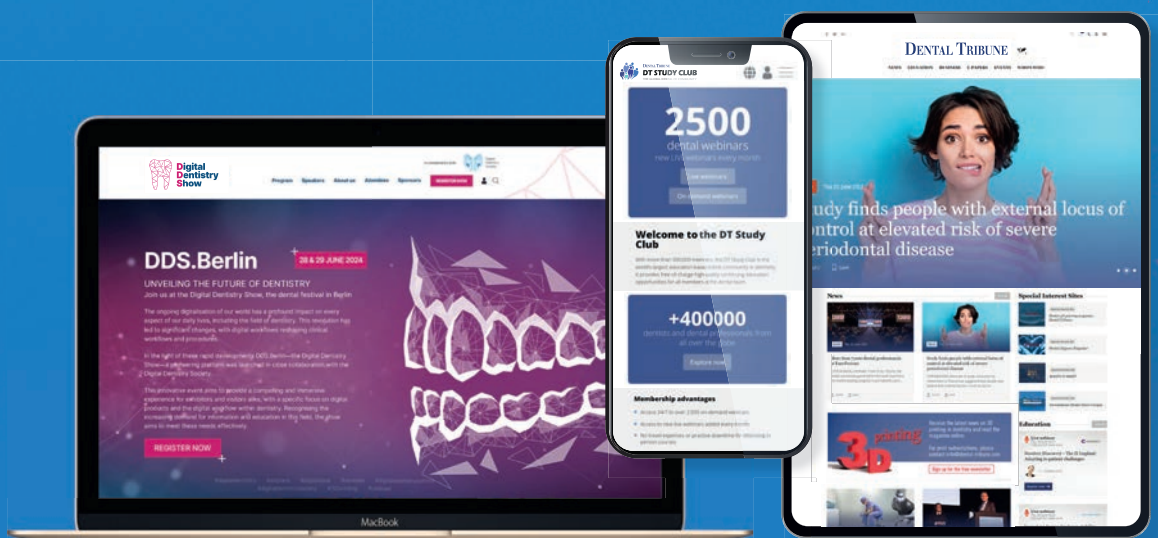
Celebrating **20 years** of **Dental Tribune International**

The global voice in essential dental media

For **20 years**, Dental Tribune International has been at the forefront of dental media, education, and events, shaping the global landscape of dental knowledge dissemination. With a presence in over **90 countries**, Dental Tribune International stands as the world's largest dental network, connecting professionals and industry representatives across the globe. Our commitment to providing essential information to the dental community is unwavering. Since our inception in Leipzig, Germany, in 2003, Dental Tribune International has flourished into a powerhouse. Our integrated approach merges print, digital, and educational media, offering a myriad of marketing channels to engage with the vast dental community worldwide. As we celebrate this milestone, we proudly merge our anniversary with our esteemed German forerunner company, OEMUS MEDIA. With roots dating back to 1994, OEMUS MEDIA has evolved into a pivotal player and trusted partner in the dental landscape, setting trends and standards in the German-speaking markets. Together, Dental Tribune International and OEMUS MEDIA bring forth over **50 years** of collective industry expertise, reflecting our commitment to innovation, quality, and service excellence.

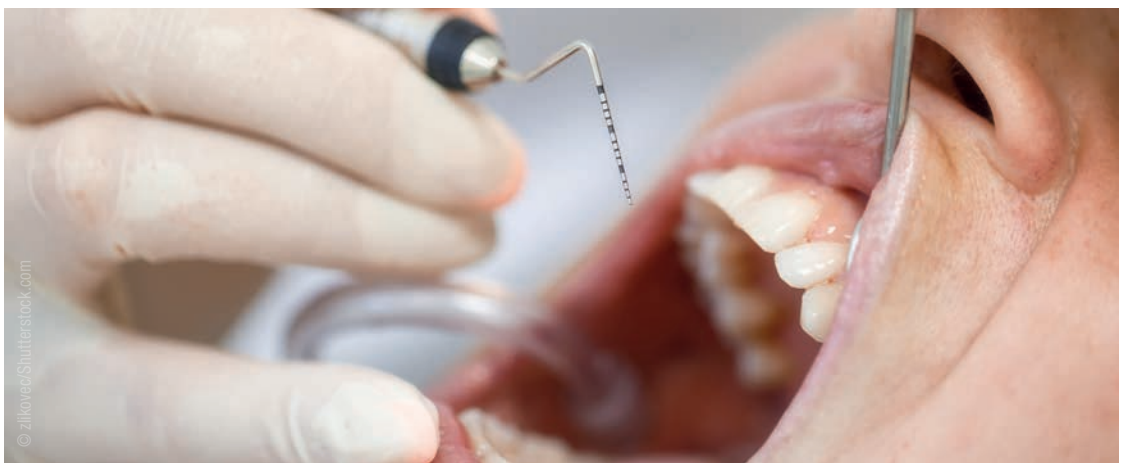


Research shows minimally invasive non-surgical treatment effective for intra-bony defects

New approach has potential to save costs and is more patient-friendly.

By Franziska Beier, Dental Tribune International

Despite improvements in treatments, intra-bony defects are associated with progression of periodontal disease and tooth loss unless they are treated with complex surgeries. Now, in a first-of-its-kind multicentre study, researchers from the Faculty of Dentistry, Oral and Craniofacial Sciences at King's College London analysed the clinical and radiographic outcomes of intra-bony defects treated with a non-surgical approach and found it to be a viable treatment option.



Minimally invasive non-surgical therapy in patients with intra-bony defects aims to minimise tissue trauma and enhance wound healing by avoiding surgical incisions and suturing.

Despite its successes, regenerative surgery is associated with morbidity, complications and high material costs. Outcomes are not always predictable, and clinical failures and incomplete success have been reported. Consequently, there has been a shift towards more patient-friendly alternatives such as minimally invasive non-surgical therapy (MINST). This approach aims to minimise tissue trauma and enhance wound healing by avoiding surgical incisions and suturing. However, as the predictability, generalisability and wide applicability of MINST remain unclear, the research team's goal was to assess the effect of MINST in intra-bony defects.

Fig. 1: Baseline **(a–c)** and 12-month follow-up clinical photographs and radiographs **(d–f)** of a distal intra-bony defect affecting a mandibular right lateral incisor. Probing pocket depth reduced from 12 mm to 3 mm on the distobuccal aspect of the mandibular right lateral incisor after minimally invasive non-surgical treatment and splinting. *(Image: © 2024 Mehta et al., licensed under CC BY 4.0)*

The study evaluated data on 48 patients with one or more intra-bony defects who were treated in private practice in the UK, Italy and Spain. The patients received Step 1 and Step 2 periodontal therapy, including MINST. Clinical and periapical radiographic data was analysed at the beginning of the treatment and 12 months thereafter.

The mean total radiographic defect depth was reduced by 1.42 mm, and the defect angle increased by 3°. Statistically significant improvements in probing pocket depth (PPD) and clinical attachment level (CAL) were seen at 12 months compared with baseline. A PPD of 4 mm or less was achieved for 66.7% of the defects, and 58.3% of the defects gained 3 mm in CAL in addition. Deeper and narrower-angled defects showed greater radiographic and clinical improvements, respectively.

"These findings agree with the outcomes reported in previous single-centre studies on MINST, providing additional confirmation that an atraumatic technique, which minimises tissue damage and trauma while promoting gingival margin stability and reducing chairside time, can substantially improve intra-bony defects," stated the study authors. However, they emphasised that achieving the clinical goal of a PPD of less than 5 mm and no bleeding on probing may require surgical intervention in some cases.

In addition, the researchers stated that the main limitations of this study were the lack of a control group, the exclusion of smokers, which limited the generalisability of findings, and the use of non-standardised radiographs.

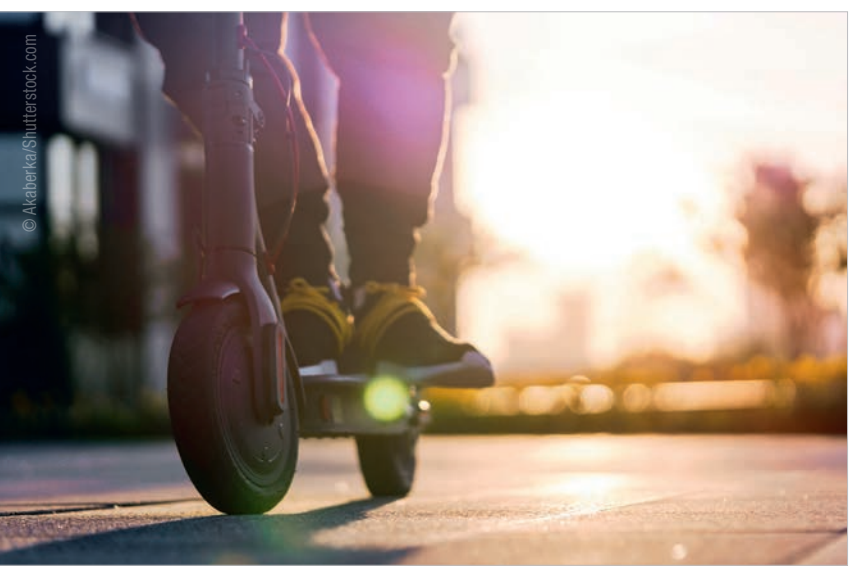
"The outcome of the study suggests the validity of this method as a potential technique to save many teeth with advanced gum problems, without the need for surgery," said co-author Dr Luigi Nibali, professor of periodontics at King's, in a press release. "This has the potential to save costs for the NHS [National Health Service] and the patient, and the treatment is of course a lot more patient-friendly," he added.

The study authors emphasised that MINST should be considered a viable treatment approach and that its effectiveness should be validated in the form of further controlled multicentre studies.

The study, titled "Minimally invasive non-surgical periodontal therapy of intrabony defects: A prospective multi-centre cohort study", was published online on 6 May 2024 in the *Journal of Clinical Periodontology*, ahead of inclusion in an issue.

E-scooters: A new source of dental trauma

Need for specialised treatment and preventive measures at dental practices.



A rise in e-scooter accidents and related dental injuries in the UK present a new challenge for healthcare providers, particularly in dental trauma management.

Since their introduction a few years ago, electric scooters have continued to gain popularity in urban mobility worldwide. Alongside this rise, a significant increase in associated traumatic injuries has been documented. A recent UK study has outlined a surge in dental injuries resulting from e-scooter accidents, emphasising the need for specialised treatment and preventive measures at dental practices.

In 2020, the UK authorities first published guidelines and initiated trials on e-scooter use to alleviate transport congestion and pollution across the country. Subsequently, this study reviewed patient records from major trauma centres in the UK to identify e-scooter-related dental injuries that occurred over the following two years. It revealed that facial trauma, including complex maxillofacial injuries, is increasingly common among e-scooter riders, often resulting from collisions with pedestrians or obstacles and from falls owing to improper scooter handling.

In February this year, another study by the same group of researchers from Queen Elizabeth Hospital Birmingham looked at maxillofacial trauma caused by e-scooters. This study found that falls were the predominant cause of these injuries, accounting for 44.3% of cases, and that soft-tissue lacerations were the most common type of maxillofacial trauma, representing 38.0% of the injuries.

The study results suggest that e-scooters have introduced a new risk factor for dental trauma. The researchers concluded that it is crucial for healthcare providers to recognise signs of both head and non-dental injuries in affected patients. They added that continued research is necessary to improve and tailor dental public health interventions effectively.

The study, titled "E-scooter-related dental injuries: A two-year retrospective review", was published online on 1 May in the *British Dental Journal*, ahead of inclusion in an issue.

Government claims about NHS dental availability are deceptive, leaving mothers untreated

Estimated 1.25 million missed maternity dental appointments since onset of the pandemic.

By Anisha Hall Hoppe, Dental Tribune International

Throughout their pregnancy and for the first year after giving birth, mothers in the UK are entitled to free dental care through the National Health Service (NHS). However, recent debates in Parliament regarding potential extensions of these benefits to other vulnerable groups, such as cancer patients, have highlighted significant gaps in the system, exacerbated by the COVID-19 pandemic. Amid these discussions, the British Dental Association (BDA) has brought to light concerning statistics on the decline in dental care access for new mothers in a press release.

More than a million mothers in the UK are missing out on free dental care owing to funding flaws within the National Health Service.

Prior to the pandemic, the NHS handled over 840,000 maternity claims for dental care per year. These numbers dramatically decreased to 245,967 in the 2020–21 period, slightly recovered to 490,298 in 2021–22 and reached 542,353 by 2022–23, indicating a loss of estimated 1.25 million maternity dental appointments since the onset of the pandemic. This drop is alarming, considering the heightened dental risks associated with pregnancy caused by hormonal changes that increase gingival sensitivity and vulnerability to plaque. Additionally, changes in dietary habits and morning sickness during pregnancy can exacerbate deterioration of oral health.

Commenting on the situation, BDA Chair Dr Eddie Crouch emphasised the need for a substantial overhaul rather than superficial changes, saying, "Many patients have a strong claim for free NHS dentistry, but sadly those who already have it are seeing few benefits."

The implications of these missed appointments extend beyond periodontal health, as research suggests that infections resulting from dental problems can lead to severe adverse effects for both mother and child. Dr Crouch commented further: "Pregnant women and new mums are eligible because of the material risk to their teeth and gums. But 1.25 million have missed out, and there's little sign of recovery."

The BDA has criticised the funding mechanisms for NHS dentistry, arguing that the reliance on charges is inappropriate and that many groups would justifiably qualify for exemptions. Recent data also indicates that there simply are not enough NHS dentistry resources to meet the needs of all patients.

The government's recent attempt to address these issues with a recovery plan for NHS dentistry was met with significant scepticism by the dental community. The BDA declared the recovery plan as "unworthy of the title". A poll conducted by the BDA among dentists in England revealed that only 3% believe the plan would lead to their practice accommodating more NHS patients. Worse, 43% anticipated the plan would result in even fewer NHS patients at their practices, and only 1% of respondents felt the plan could achieve the government's goal of providing dental care to all in need.

To further complicate the issue, the Secretary of State for Health and Social Care the Right Honourable Victoria Atkins corrected the record in Parliament after mistakenly claiming the plan was supported by £200 million (€234 million)* in "new" money when in fact the plan reallocates underspends of the existing £3 billion budget—a budget that has seen negligible increases over the past decade. The government also claimed that 500 practices are now accepting new patients owing to this funding, but this was met with disbelief. It appears that, rather than indicating yes or no regarding whether they are taking new patients, NHS practices are now showing that they can take new patients "when availability allows". According to Dr Crouch, "Government needs to park the spin, and deliver a serious plan to restore access to millions."

* Calculated on the OANDA platform on 7 February 2024.

Ireland to have its first community-based dental school

Ireland struggles to provide NHS appointments, new school provides hope for the service.

Many individuals in Ireland who have difficulty in getting a National Health Service (NHS) dental appointment today will remember a time when their local dentist's office was a cornerstone of the community. According to educators, a primary care-based approach to dental education could help to re-establish community-centred oral care by reducing access barriers and establishing greater connections between young dental professionals and local populations. As Ireland struggles to provide NHS appointments, news of the country's first community-based undergraduate dental programme has provided hope for the service.

A new undergraduate BDS programme in Ireland will bring students into meaningful contact with NHS patients from the beginning of their coursework and embed community engagement in the curriculum.

A long-term collaborative agreement between the University of Plymouth's Peninsula Dental School and the Royal College of Surgeons in Ireland (RCSI) University of Medicine and Health Sciences laid the foundation for the new undergraduate BDS programme. According to an article in BDJ Student, the partnership will support RCSI in its adoption of a "comprehensive and bespoke curriculum [that] is designed to equip graduates to deliver excellence in dental care for patients in a primary care setting, improving their oral and general health near where they live". The five-year RCSI programme is set to begin in September next year, and its first graduates are expected to be donning their academic regalia in summer 2030.

The Peninsula Dental School broke the mould of UK dental education when it was founded in 2006, bringing students into meaningful contact with NHS patients from the beginning of their coursework and embedding community engagement in the curriculum. The dental school was the first in the UK to incorporate side-by-side training of different dental professionals, mimicking a clinical setting. The school was shortlisted for the Times Higher Education Awards 2023 and won the Outstanding Contribution to the Local Community category for its delivery of primary care to thousands of children, asylum seekers and other vulnerable members of society.

Prof. Ewen McColl, head of the Peninsula Dental School, told BDJ Student: "Since the Peninsula Dental School was established, more than 600 graduates have taken their learning and applied it to their careers, making enormous differences to patients and dental care delivery where they work. The creation of Peninsula Dental Social Enterprise, which sees students treat NHS patients under supervision and address oral health inequalities, has seen over half a million treatments delivered to people who might not otherwise have been able to access them."

"Access to dental care is a huge issue in the UK and Ireland, so to be able to work with and support RCSI to have an impact in their community is a huge next step, and we look forward to accompanying them on their journey," Prof. McColl added.

Can dentists help patients experiencing food insecurity?

Study finds dental clinicians are well placed to direct patients to supportive services.

By Anisha Hall Hoppe, Dental Tribune International

Food insecurity affects 17% of households in the UK, according to a 2023 government survey. This lack of consistent access to sufficient nutritious food for a healthy life, often due to economic hardship, has social, well-being and health impacts and can lead to poor health outcomes, such as dental caries. A new study investigating the views and capabilities of dental professionals in dealing with the effects of food insecurity within the context of oral health care has found that, while dental clinicians are well placed to direct patients to supportive services, they lack the confidence to do so.

Finding solutions for patients experiencing food insecurity needs to be done with both sensitivity and a collaborative spirit.

An anonymous survey administered to 698 members of the British Society of Paediatric Dentistry, for which the response rate was 9.6%, found that 80.3% understood the link between food insecurity and poor oral health. However, confidence in addressing food insecurity directly was notably lower, many citing a lack of training and resources as major barriers. Despite recognising their role in advising on dietary impacts on oral health, dental professionals expressed varying levels of comfort in discussing the broader social issue of food insecurity with patients.

Almost 95% of those who responded felt that diet was a major component of oral health, and 96% agreed that it was up to dental professionals to offer dietary counselling. Roughly 80% felt that they had adequate knowledge to offer this kind of advice. Just 37% felt confident in their ability to identify individuals who may be experiencing food insecurity, and even fewer (33%) felt they would be able to address the topic with their patients.

Some of the respondents expressed the belief that there were other services better placed to help individuals experiencing food insecurity. One commented: "I don't think this is my job to have these discussions. There are other more appropriate services who can provide this information." Another said, "I do not believe it is the role of dentists to act as social workers. I would of course direct families I felt were struggling to services which may help with this, but I do not feel that dentists should be the ones to be leading these discussions."

In response to the survey results, the study authors suggested that, because clinicians expressed discomfort in discussing the topic owing to social stigma and not wanting to embarrass the patients, there was room for options such as screening tools to better gauge patient status and coaching skills for clinicians who sought to feel more comfortable discussing the topic. Additional proposed interventions included better provision of necessary resources and improved signposting in local communities, all done with sensitivity to avoid patients in need feeling uncomfortable.

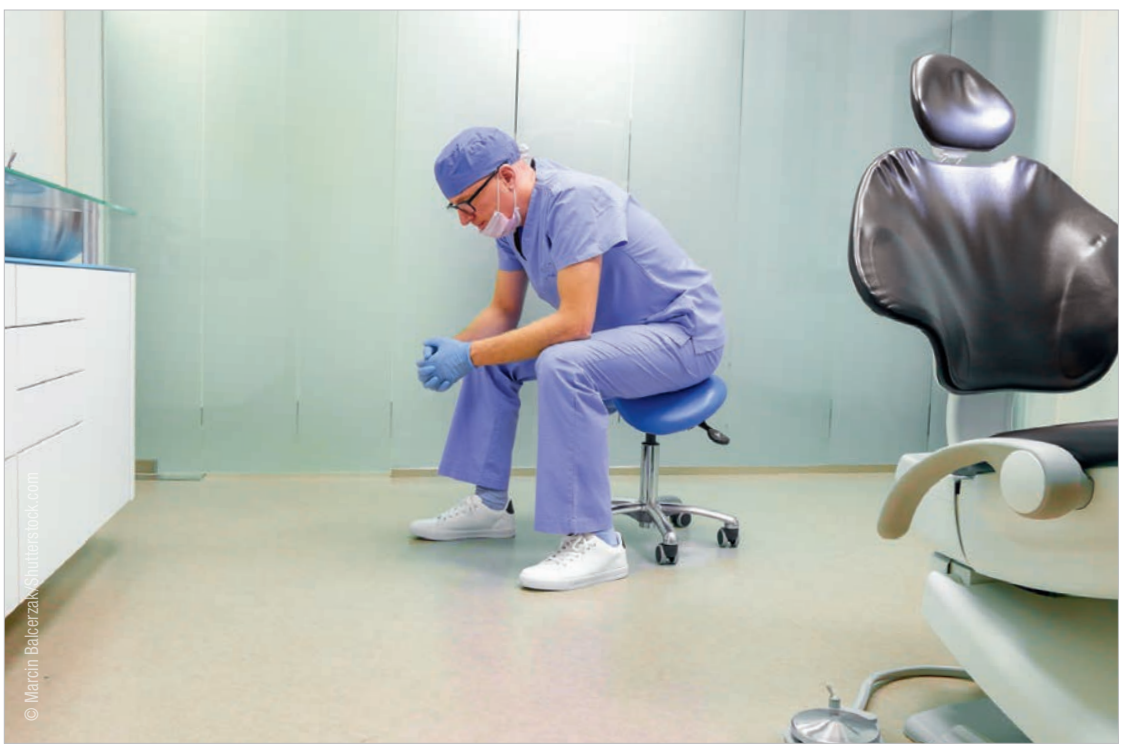
It was further suggested that collaborating with patients who have previous experiences with food insecurity would best help with designing solutions. One survey respondent said, "Just be open and ask as part of the assessment." Another said, "If parents and children are engaged and relaxed, they may well talk about food insecurity" and advised "being sensitive to the fact that people with food insecurity may feel stigmatised whilst appreciating the 'rights of the child'". Yet another suggested that "being able to offer practical, realistic and holistic advice is very important in a non-judgemental way".

The study, titled "Food insecurity and the dental team: A pilot study to explore opinions", was published online on 18 March 2024 in *BDJ Open*.

UK's largest dental faculty releases manifesto aimed at combating the deepening oral care crisis

Key recommendation is to prioritise a prevention-focused approach.

As access to publicly funded dental healthcare continues to deteriorate for many people across the UK, the Faculty of Dental Surgery of the Royal College of Surgeons of Edinburgh on 20 May released a critical declaration setting out a range of measures it recommends to curb the crisis. The current situation is the result of a tightening of National Health Service (NHS) funding, which has led to reduced availability of appointments and stress among overloaded clinicians.



The UK's largest dental faculty has proposed a range of governmental measures to curb a deepening dental crisis.

The reduction in NHS funding means that dentists cannot take on new publicly funded patients with the limited fees on offer. Across the UK, waiting lists and waiting times continue to increase for publicly funded dentistry, and the BBC reported that nine out of ten dental practices were not accepting new NHS-funded adult patients for treatment. This has had various consequences for both patients and clinicians. Faced with an inability to obtain appointments, patients have resorted to travelling long distances to seek care or—alarmingly—attempted to perform their own dental work. In response to higher operational costs and tightening public funding, dentists generally have demonstrated a lack of morale, according to another report published last month. It also found that two-thirds of dentists across the UK often think of leaving dentistry.

In an attempt to redress the situation, the Faculty of Dental Surgery has released a manifesto that outlines a range of governmental measures it believes are needed to prevent the situation from worsening further. Commenting on the recommendations, Prof. Grant McIntyre, dean of the faculty, stated on the university's website: "We are pushing for a full-service redesign that supports all members of the dental profession, crucial for the future of NHS services across the four nations. This isn't just about dental health either—the lack of access to dentists is having a knock-on effect on detection and early management of head and neck cancers."

A key recommendation of the manifesto is that NHS dental funding should prioritise a prevention-focused approach, thereby reducing the number of patients seeking dental care in the first instance. The document also highlights the central importance of attracting and retaining dentists within the public sphere. It proposes a requirement for dental trainees to spend two years within an NHS practice in order to prevent them leaving for better-paid work in the private sector and emphasises the need to financially incentivise the recruitment of dentists into priority areas. As well as a desire for greater government funding, the manifesto argues that existing underspend in primary care dentistry should be retained within the dental sphere and not redirected to other healthcare areas. The document also tackles the issue of dentists' burnout and stress, emphasising that greater clarity is needed around their access to NHS mental health services.

“Digital dentistry represents the present and future of our practice”

An interview with Dr Henriette Lerner, past President of the Digital Dentistry Society.

Dr Henriette Lerner.

By Dental Tribune International

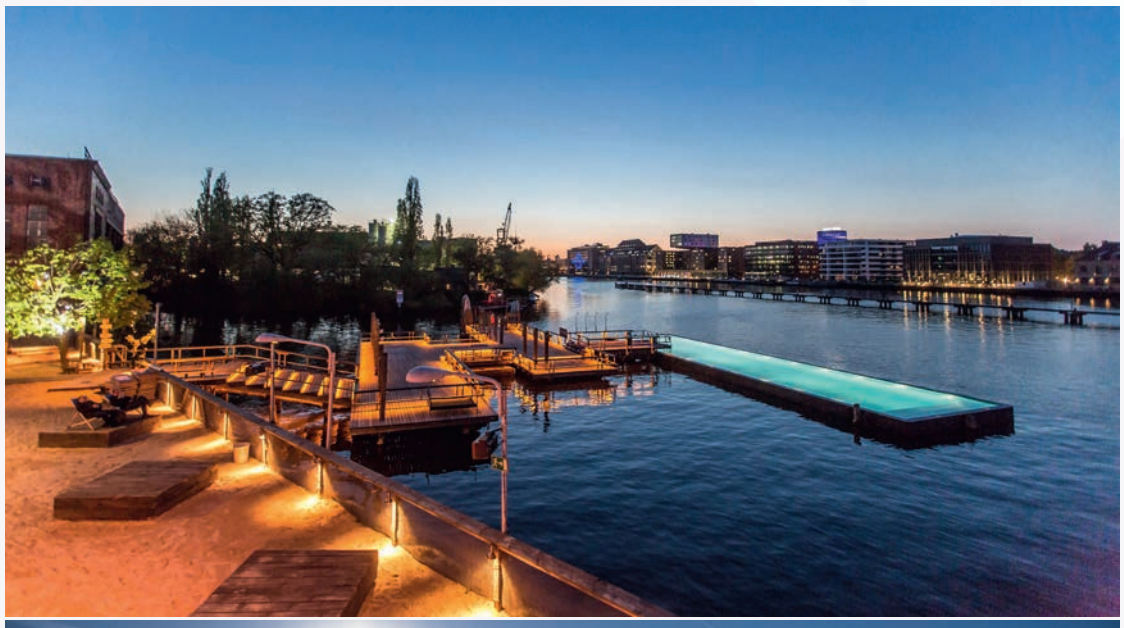
The DDS.Berlin platform and the Digital Dentistry Society have collaborated to stage an unparalleled experience in digital dentistry: the Digital Dentistry Show—taking place in June. To gain some insights, Dental Tribune International spoke with past President of the Digital Dentistry Society Dr Henriette Lerner, who is a prominent implant dentist and the owner of HL Dentclinic and Academy in Baden-Baden in Germany, about the purpose and significance of the show for digital dentistry. In this interview, she also gives some valuable recommendations on the pivotal role of education in this transformative era.

The 2024 Digital Dentistry Show will offer cutting-edge knowledge and skills that will help dental professionals better navigate technological advancements in the field. *(All images: © Markus Nass)*

Dr Lerner, can you share insights into the genesis and evolution of the partnership between DDS.Berlin and the Digital Dentistry Society? What were the key motivations and objectives for this collaboration, particularly in the context of advancing digital dentistry practices?

Digital dentistry represents the present and future of our practice. It is a new discipline that requires the integration of the newest technologies in a scientifically validated and predictable manner in daily practice. The mission of the Digital Dentistry Society is to explore the latest technologies, validate them through studies and quality standards, and disseminate them through structured educational paths. The value of this event lies in the convergence of the newest technological companies in one location and the sharing of the clinical applications of these technologies through workshops and lectures. The Digital Dentistry Show also introduces a completely new format, being designed to be an open-door event and to attract free visitors, thus inviting the new generation to the dentistry of the future. The event even includes a party!

> “The face of dentistry is evolving daily through innovative solutions brought forth by various industry participants.”



Above: The Badeschiff is a picturesque floating public swimming pool area overlooking the Spree river. **Below:** Attendees will also have access to the Sonnendeck of the Escobar, where they will be able to enjoy delicious food and drinks.

Digital dentistry is rapidly transforming the landscape of dental care, from diagnostics to treatment planning and execution. In your view, what are the most groundbreaking advancements in digital dentistry that are currently shaping the industry?

The face of dentistry is evolving daily through innovative solutions brought forth by various industry participants, including practitioners and inventors. Among the groundbreaking areas of technological development is artificial intelligence (AI), particularly the branches of AI focusing on enhanced technological accuracy and speed. This is an enormous field that is growing exponentially. Augmented and mixed reality are replacing written information flows in dental practice management, patient education and teaching. Guided surgery is at the edge of revolutionary changes, as are robotics and bioprinting.

Looking ahead, what challenges and opportunities do you foresee in the integration of digital technologies in dental practice? How do you envision the role of platforms such as DDS.Berlin and organisations such as the Digital Dentistry Society in addressing these challenges and leveraging these opportunities to further the field?

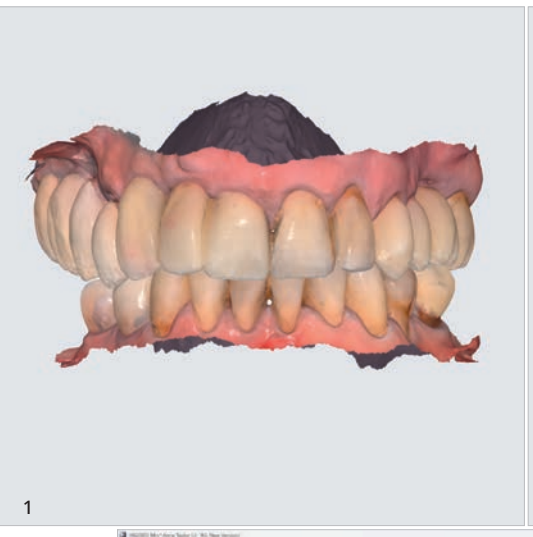
The challenge lies in facilitating the adoption of digital technologies, helping to overcome current fears and moving away from old traditions. The greatest opportunity for facilitating the transition to digital dentistry is through providing education and information that seek to reduce the time and effort required to learn to use new technologies. Here, education such as offered by the Digital Dentistry Society has a role, especially because it is currently the largest scientific society in digital dentistry. Together with organisers of international events such as the Digital Dentistry Show, which will be promoted globally in the future, we can exponentially accelerate the awareness, professional knowledge and technological parameters of our new dentistry.

Editorial note: More information about the Digital Dentistry Show, which is scheduled for 28 and 29 June at the Arena Berlin, can be found on the event’s website: www.dds.berlin/en. This interview was published in 3D printing—international magazine of dental printing technology *vol. 4, issue 1/2024.*

Dr Henriette Lerner

is the founder and director of HL-Dentclinic and Academy in Baden-Baden in Germany, which is a clinical, teaching and research facility of Goethe University in Frankfurt in Germany. Her expertise encompasses clinical research, advanced techniques in the digital workflow of complex implant cases, soft- and hard-tissue augmentation techniques, biomaterial research, dental and implant aesthetics, and the planning of complete oral rehabilitation with immediate implants.

Guided implant placement and restoration: A comprehensive approach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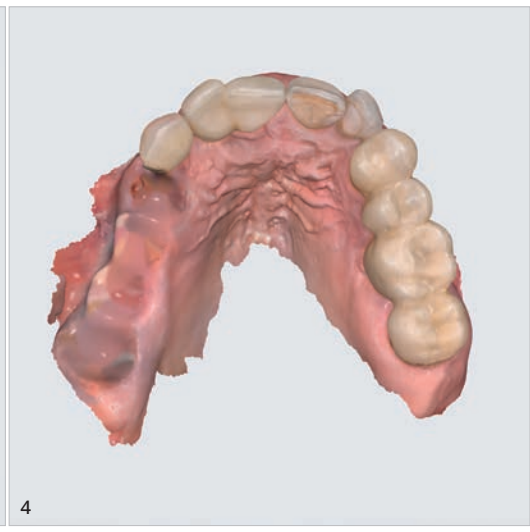
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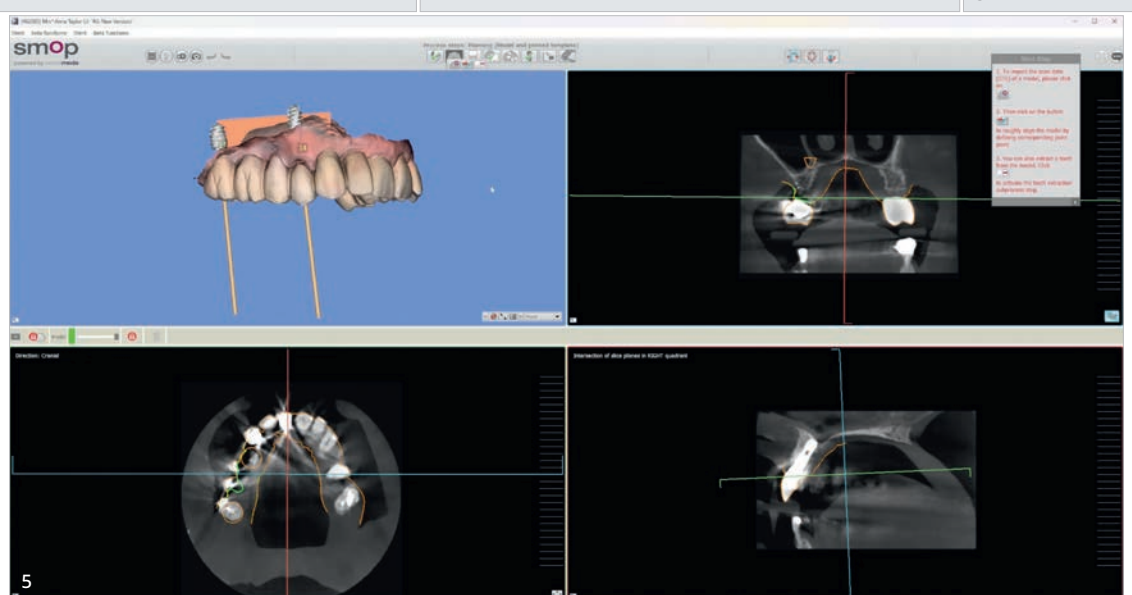

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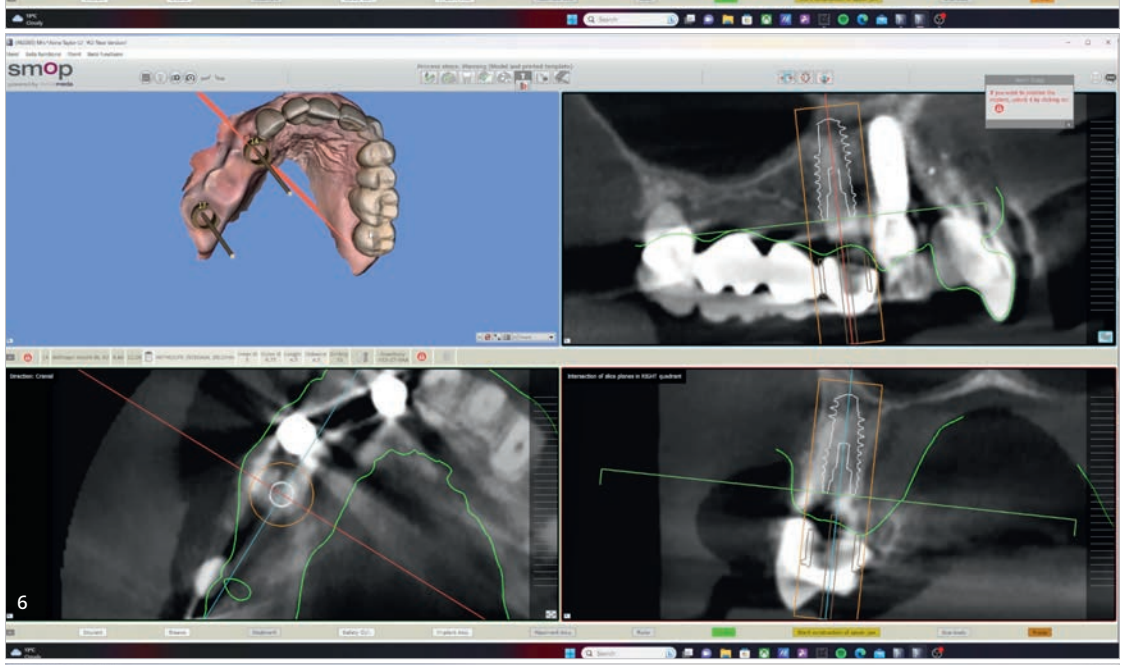

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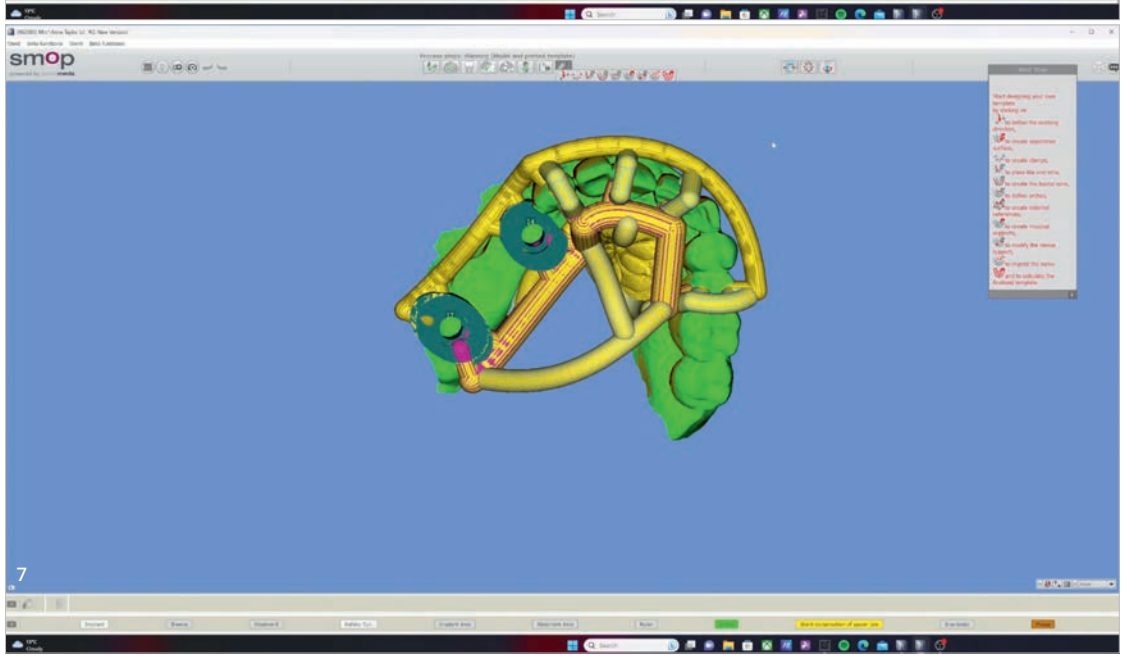

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By Dr Adam Nulty, UK

Introduction

The evolution of digital dentistry has revolutionised the way dental procedures are planned and executed. This case highlights the integration of various digital tools and techniques to achieve a predictable and satisfactory outcome.

This case report describes the successful management of a failing maxillary right bridge using advanced digital dentistry techniques. The process involved virtual extraction, CBCT planning, guided surgery and in-house milling of the final prosthesis.

Case presentation

Upon initial examination, a 67-year-old female patient, in good health and with no known medical issues, presented with a failing bridge extending from tooth #14 to tooth #17, anchored on teeth #14 and 17 (Figs. 1 & 2).

Virtual extraction

Using the Medit Design tool, the bridge and abutment teeth were removed, employing a precise scan obtained from the Medit i700 intra-oral scanner (Figs. 3 & 4). This initial step laid the foundation for the subsequent phases of treatment, ensuring accurate planning and execution.

Implant planning

The implant planning phase was conducted utilising both CBCT scans and the intra-oral scan for comprehensive assessment. Using SMOP guided surgery software (Swissmeda), a detailed plan was prepared. This plan included the placement of Axiom X3 implants (Anthogyr), strategically positioned to effectively support a four-unit bridge (Figs. 5–7).

Surgical guide fabrication

For precise execution of the implant placement, a surgical guide was fabricated. The guide was printed on a MAX UV printer (Asiga) with KeyGuide resin (Keystone Industries; Figs. 8–10). After washing, INTEGRAL sleeves (Anthogyr) were placed before the final post-processing polymerisation (Figs. 11 & 12).

Implant placement

On the day of implant surgery, the bridge and abutment teeth (teeth #14 and 17) were removed (Figs. 13–17). The implant placement procedure was carried out with the aid of the surgical guide and the INTEGRAL guided surgery kit. Immediate implant placement was followed by the placement of healing abutments. The sockets were augmented using bovine xenograft.

Restoration

After an eight-week healing period, the scan bodies for accurate digital impressions were seated, and a digital impression was taken (Figs. 18 & 19). Custom gold-anodised titanium abutments and a cement-retained lithium disilicate bridge (Prometa Kronos) were designed (Figs. 20–31). The custom abutments were milled by Simeda. However, I completed the surgical guide planning and the CAD of the final bridge and milled the final bridge in-house.

Results

The patient achieved a functional and aesthetically pleasing result with the new bridge (Figs. 32–36). The integration of advanced digital techniques ensured a predictable and satisfactory outcome (Figs. 37–41).

Discussion

The integration of digital dentistry into clinical practice has been a transformative evolution in the field. The case presented here underscores the importance of a comprehensive digital workflow in modern implant dentistry. The use of virtual planning, guided surgery and in-house milling ensured precision and reduced the overall treatment time.

Virtual planning and guided surgery

The utilisation of virtual planning tools, such as Medit Design and SMOP, allows for a more predictable surgical outcome. Mangano et al. highlight that digital workflows, including virtual planning and guided surgery, improve the accuracy of implant placement, reduce surgical time and minimise postoperative complications.[1] This precision ensures that the implant is placed in the most optimal position, reducing the risk of complications and ensuring the longevity of the implant.

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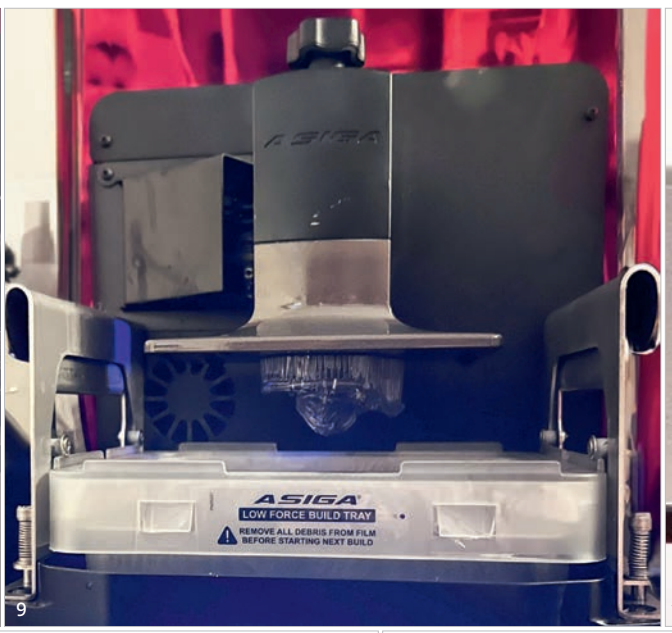

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Immediate implant placement

Immediate implant placement, as executed in this case, has its advantages. Chen and Buser emphasise the benefits of immediate implant placement, including reduced treatment time, preservation of soft and hard tissue, and improved aesthetic outcomes.[2] This method not only speeds up the treatment process but also results in greater patient satisfaction owing to the reduced number of visits and faster recovery.

Digital impressions and in-house milling

The Medit i700 scanner was instrumental in obtaining accurate digital impressions. According to Nulty, the trueness and precision of digital scanners, including the Medit i700, are remarkable, ensuring that the final prosthesis fits perfectly.[3] Furthermore, in-house milling, as done in this case, provides the clinician with greater control over the design and fit of the final prosthesis, leading to improved patient satisfaction.[4]

3D printing and accuracy

Nulty compared the trueness and precision of various 3D printers, including the MAX UV, and found them to be highly accurate.[5] The MAX UV was statistically superior to the others, having an overall trueness of under 35 µm, ensuring that the printed surgical guides fit precisely during surgery.[5] The accuracy of such printers is crucial in ensuring that the surgical guide aligns perfectly with the patient's anatomy, supporting successful implant placement.

> "Digital dentistry [...] can offer patients a swift and precise treatment plan."

Material selection

The choice of bovine xenograft for socket augmentation is supported by studies that have shown its efficacy in preserving alveolar ridge dimensions after extraction.[6] Additionally, the use of lithium disilicate, known for its excellent aesthetic properties and durability, for the final bridge aligns with the current trend in restorative dentistry.[7]

Collaborative approach

Collaboration between different digital tools, materials and experts, as seen in this case, is a testament to the multidisciplinary nature of modern dentistry. Such an approach ensures that patients receive the best possible care, combining expertise from various domains.

Primary stability and implant design

One of the critical aspects of successful dental implant placement is achieving excellent primary stability. Primary stability refers to the mechanical stability of an implant immediately after placement, and it is a crucial factor in determining the success of osseointegration and the overall outcome of the implant procedure.


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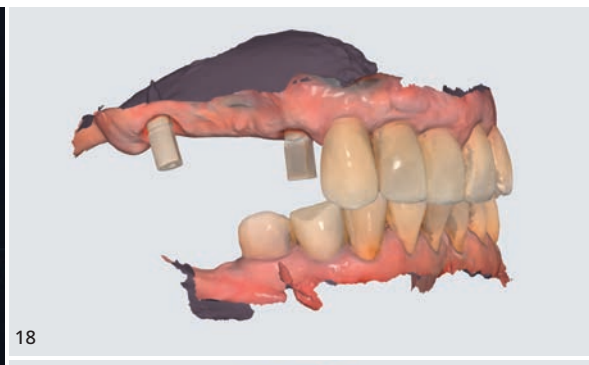
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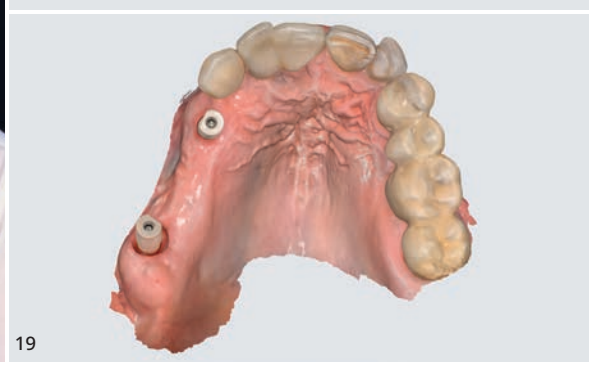
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