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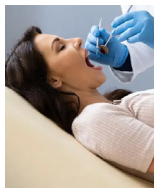
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VOCO: A legacy of innovation, excellence and commitment to dentistry

In conversation with VOCO's director, Olaf Sauerbier.

By Dental Tribune ASEAN

For over 40 years, VOCO has been at the forefront of dental innovation, setting global benchmarks in quality and technology. Founded in 1981 in a small garage, the company has grown into an industry leader while staying true to its family-driven values. Through continuous research and development, VOCO has introduced groundbreaking dental materials that have transformed clinical workflows, making treatments more efficient and reliable. Its commitment to excellence has earned the trust of dental professionals worldwide, reinforcing its reputation as a pioneer in the field.

Now under the leadership of Managing Director Olaf Sauerbier, VOCO continues to push boundaries with groundbreaking materials like GrandioSO Unlimited and cutting-edge

digital dentistry solutions. By integrating advanced CAD/CAM technology and 3D printing materials, the company is at the forefront of modern dental care, offering innovative solutions that enhance precision and patient outcomes. With a presence in over 100 countries and strong partnerships with universities and research institutions, VOCO remains dedicated to education, collaboration, and the development of next-generation dental solutions. As the industry evolves, the company remains steadfast in its mission to combine tradition with innovation, ensuring that dental professionals have access to the best tools and materials available.

Turn to page 2 for an exclusive conversation with Olaf Sauerbier on VOCO's journey, innovations, and vision for the future.



Olaf Sauerbier, President of VOCO.

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A breakthrough in dental robotics: Lupin Dental unveils the future

By Dental Tribune

The world of dentistry takes a historic leap forward as Lupin Dental successfully deploys its revolutionary Lupin Dental Robotic System in a clinical setting. Conducted at Bharati Vidyapeeth Dental College and Hospital, Pune, the groundbreaking trial showcases the system's precision in performing minimally invasive tooth preparation for aesthetic veneers.

With six patients already treated, industry experts hail this as a major advancement in digital dentistry, promising enhanced efficiency, accuracy, and a transformed patient experience. The system's ability to execute procedures with unparalleled consistency not only reduces human error but also ensures optimal preservation of tooth structure, leading to better long-term out-

comes for patients. As the technology continues to evolve, its potential applications in other dental treatments are already being explored, signaling a new era of robotic-assisted dentistry.

Turn to the center page for the full story on how this innovation is redefining dental procedures worldwide.

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Buying a scanner will be as essential as buying a dental chair

By Dental Tribune International

As digital workflows become the new standard, Dr. Ahmad Al-Hassiny shares his expertise on

innovations, and what's next for clinicians embracing digital transformation.

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VOCO: A legacy of innovation, excellence, and commitment to dentistry

Inside VOCO's four-decade journey of innovation and excellence—an exclusive conversation with Managing Director Olaf Sauerbier on the company's vision for the future of dentistry.

By Dental Tribune ASEAN

For over four decades, VOCO has been synonymous with high-quality dental materials and groundbreaking innovations. As a family-owned company since its founding in 1981, VOCO continues to set the benchmark in the global dental industry, combining heritage, precision, and forward-thinking research to provide cutting-edge solutions for dental professionals worldwide.

A strong foundation rooted in family values

The story of VOCO is one of vision, resilience, and dedication. Founded by Dr. Hans-Joachim Sallach in a private garage, the company quickly outgrew its humble beginnings and moved to Cuxhaven Harbour within two years. Today, VOCO stands as a global leader in dental materials, with its headquarters in Cuxhaven undergoing its sixth major expansion.

Despite its remarkable growth, VOCO remains a family-led business, managed by Olaf Sauerbier, his wife, and his nephew. Their leadership is built on long-term strategies, open communication, and a shared commitment to innovation. "We think long-term and always focus on healthy growth," says Sauerbier. "Our short official channels and a helpful, open approach define our culture at VOCO."

Unwavering commitment to quality and innovation

Quality is at the heart of VOCO's operations. All products are researched, developed, and manufactured at the company's state-of-the-art headquarters in Cuxhaven, ensuring consistent excellence and adherence to the highest industry standards. The company's commitment to quality is further reinforced by rigorous testing and a certified quality management system, making its German-engineered products highly trusted worldwide.

"At VOCO, product safety and quality are our top priorities,"



VOCO's leadership team, driving innovation and excellence in dental solutions.

Sauerbier explains. "Our research and development teams work tirelessly to develop innovative solutions that address the evolving needs of the dental community."



Inside VOCO's state-of-the-art facility.

This dedication to innovation has led to the creation of revolutionary dental materials, such as the GrandioSO Unlimited, a universal composite that allows

layer thicknesses of up to 4mm, significantly enhancing efficiency and aesthetics in dental procedures. VOCO is also making strides in digital dentistry, offering CAD/CAM and 3D printing materials, providing cutting-edge solutions for modern dental practices.

A global presence with a local approach

With exports accounting for over 80% of its total sales, VOCO has established itself as a truly international brand. Despite its global reach, the company maintains a strong local focus, with dedicated teams in the USA, Brazil, China, and Australia

that understand regional market needs and deliver tailored solutions.

"We believe in maintaining strong relationships with our partners, many of whom are family-run businesses like ours," says Sauerbier. "This allows us to communicate on an equal footing and provide exceptional customer service worldwide."

Driving the future of dentistry

Looking ahead to 2025 and beyond, VOCO is poised to introduce a new wave of innovative products designed to enhance efficiency and patient outcomes. Alongside its advancements in

restorative materials, the company is pioneering new fluoride varnishes and MTA cements to support pulp vitality and improve dental care standards globally.

Moreover, VOCO is deeply committed to education and collaboration, partnering with over 150 universities and research institutions worldwide. These partnerships not only drive innovation but also ensure that dental professionals have access to the latest research and technological advancements.

A culture of excellence and responsibility

At VOCO, excellence is more than just a standard—it's a mindset ingrained in every aspect of the company's operations. "We don't just want to meet expectations; we aim to exceed them," says Sauerbier. This philosophy extends beyond products to the company's employees, partners, and the community at large.

As a family-run business, VOCO prides itself on fostering a culture of responsibility, teamwork, and mutual respect. From maintaining a fair and cooperative approach with partners to actively supporting local communities in Cuxhaven, VOCO is more than just a manufacturer—it's a trusted partner in the global dental industry.

The VOCO difference

Under the leadership of Olaf Sauerbier, VOCO continues to redefine the future of dentistry with its unwavering commitment to quality, innovation, and customer satisfaction. "We are and will remain a family business," Sauerbier affirms. "Our success is built on teamwork, shared values, and a relentless pursuit of excellence. Every day, we strive to inspire dental professionals worldwide."

With a heritage of excellence and an eye toward the future, VOCO is not just keeping pace with the dental industry—it is leading the way.



A moment with the VOCO team, dedicated to delivering high-quality dental products and shaping the future of dentistry.



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Integrating special care dentistry into your general dental practice

By Dr. Norjehan Yahaya

Special Care Dentistry is defined as "the field of dentistry which is concerned with the oral health management of people with physical, intellectual, medical, psychiatric conditions, or a combination of these factors, whose delivery of oral health care necessitates specialized techniques or methods in meeting their complex requirement" (Malaysian Dental Council). This field caters for those individuals with disabilities who are 16 years and above.

As medical care has markedly advanced worldwide, there are an expanding number of people with special needs in the population. One such group would be geriatric individuals. Changing demographic trends demon-

strate that the number of elderly individual is increasing. In 2024 from the Department of Statistics Malaysia data, there are 3,949 900 elderly out of the total population of 34, 058 800. This counts for 11.6% of the population. It is expected that Malaysia will become an ageing nation by 2030 when 15% of the population comprises of elderly.

poor oral health is critical for adequate management. However, not all patients with disabilities require specialist care and management because not all disabilities prevent oral hygiene practice. This entirely depends on the type and severity of the patient's disability. In addition, oral hygiene status is also related to whether patients live dependently or independently and at home or in an institution. Furthermore, if patients with disabilities can access dental services and are able to communicate details of their dental problems (without compromised verbal communication, cognitive impairment or behavioural problems), they can actually seek dental care from the mainstream dental setting i.e: your dental practice.



Fig. 1: Examination done outside of dental surgery setup.

Chronicity of illness and disease status cannot be considered in isolation as several significant factors are impacted by oral health status and must be considered in order for comprehensive care to be achieved. More individuals are retaining their teeth longer and the population of ageing patients with special needs is also increasing. This increase potentiates the demand for special care dentistry in a dental practice to manage the complexities associated with these patients' disabilities, medical and social conditions. Understanding that patients' general health can be compromised by

the ability to identify and understand psychological or behavioural problems associated with special needs patients is considered one of the integral components in management and care for this group. Unfortunately, this is something that cannot be entirely taught in an undergraduate dental training program. Clinical experience plays a major and important role in identifying and managing this problem. Effective communication provides reassurances, attention and moral support for these patients. These skills may be learnt after years of clinical experiences.

Essentially there are several ways to overcome the challenges in managing patients with special needs. A proper preparation for the dental management should be considered. An understanding of the patient's condition certainly helps for the preparation. For example, a patient with intellectual disability and

behaviour challenge comes into your dental clinic due to a toothache.

- Treat the patient as a person not the intellectual disability.
- You can begin with small talk and makes the patient feels comfortable.
- Show your empathy towards patient instead of sympathy.
- It is important to make an observation of patient's mood for the day and listen to what he/she likes or dislikes.
- Make an attempt to build a rapport with patient by connecting and relating to his/her needs.
- Bare in mind that this whole process requires a team effort including your dental surgery assistants and carer/family members.

Here, I shall share several tips and tricks when handling special needs patients which you can practise in your dental practice:

Clinical scenario 1: What if my patient does not want to come into the surgery room?

- You can do the oral examination at a non-conventional setting such as in a non-crowded waiting area, in an enclosed room or in the toilet in front of a mirror (Fig.1).

Clinical scenario 2: What if my patient cannot sit at the dental chair?

- Sit your patient on a normal firm chair and place it to the wall to prevent movement (Fig.2). This method can be used for oral examination and simple dental procedure. After several visits with enhance rapport, patient may sits on the dental chair.
- You can use the knee method (patient sits down on his/her wheelchair and clinician sits facing in front of the patient).
- Perform standing position dentistry for patient on a wheelchair.



Fig. 2: Setup of patient who refuse to sit on a dental chair.

- May utilise portable dental equipment for dental procedures.

Clinical scenario 3: What if my patient does not allow regular examination?

- You may want to introduce yourself as a teacher instead of as a dentist. Most patients have high respect for teachers. You may develop a good rapport with this trick.
- Some patients (those who are easily confused or feeling threaten with covered face) may want to see the dentist's face during communication therefore you can wear a face shield for infection control and provide facial vision for the patient (Fig. 3).
- Use toothbrush instead of mouth mirror during examination. You may want to get the carer/family members to help you to hold the toothbrush and pretend as if they want to brush the patient's teeth and at

the same time you are able to do the examination.

Clinical scenario 4: What if my patient does not like me or have a specific favourite dentist/ popstar?

- During examination, if patient does not seem to have a good rapport with you, you may want to consider getting your associate or colleagues to perform the second oral examination with gentle reassurance. This is called rescuing technique.
- Show a picture of his/her favourite dentist/person or a picture/video of the popstar while doing the oral examination. I have a patient who likes to watch hair commercial during dental treatment.

General dentists should be able to manage special care patients within the scope of practice, to be able to identify, assess and treat oral health issues presented by individuals with special needs. However, in some complex cases or significant challenging behaviour, referral to a specialist might be necessary depending on the severity of the patient's condition.

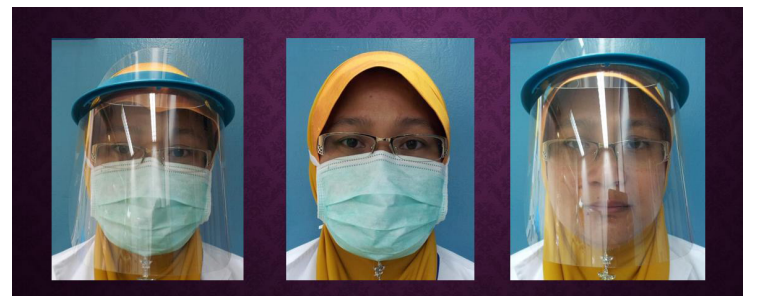


Fig. 3: Avoid using face shield during examination and maintain eye contact with the patient.

About the author



Dr. Norjehan Yahaya is a Specialist in Special Care Dentistry at Kuala Lumpur Hospital. She graduated with a Doctor of Dental Surgery from Dalhousie University in 2002 and earned her Doctor of Clinical Dentistry from the University of Melbourne. A pioneer in Special Care Dentistry in Malaysia, she has contributed to developing policies and guidelines, including for the management of haemophilia. Her clinical focus is on dental care for medically complex cases, especially patients with bleeding disorders.



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exhibition

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8,000

delegates

700+

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companies

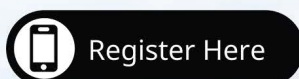
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Connecting the dots: The crucial link between oral health and airway function in children

By Dental Tribune Middle East

Dental Tribune Middle East had the pleasure of speaking with Dr Rafif Tayara, a distinguished consultant pediatric dentist with a passion for holistic care, and a book author, and a mother of three. In this insightful interview, Dr. Tayara shares her journey into pediatric dentistry, her dedication to airway health, and her collaborative approach to providing comprehensive care. She sheds light on the crucial connection between oral health, sleep, and overall well-being, offering valuable guidance for both parents and aspiring dentists.



Dr Rafif Tayara, Pediatric Dentist & Oral Health Ambassador. (Image: Dr Rafif Tayara)

Let's start with your personal story. What inspired you to pursue pediatric dentistry, and how did you become interested in exploring the connection between airway health and dental care?

Pediatric dentistry was always a specialty that inspired me since I was an intern at a children's hospital in Canada. After I became a specialist pediatric dentist and started my private practice in the GCC, I noticed that I was seeing a relapse of caries in children despite good hygiene and a healthy diet. From there, my investigation into sleep dentistry and airway health began, and I started adopting a more holistic approach to pediatric dentistry. I learned to unlearn what I had been taught before and tried to connect the dots again based on evidence-based data and updated knowledge.

Airway health is not typically

associated with dentistry at first glance. Could you explain how the two are connected and why it's particularly important in pediatric care?

In our quest for optimal health, we often compartmentalize different aspects of our well-being. We see dentists for our teeth, doctors for sleep issues, and specialists for airway problems. However, these elements are deeply interconnected. The state of your oral health, the quality of your sleep, and the functionality of your airway are intricately linked, creating a holistic picture of your overall health. Understanding this connection can lead to better health outcomes and improve your quality of life.

Oral health significantly influences sleep quality. One common issue is obstructive sleep apnea (OSA), a condition where the airway becomes partially or completely blocked during sleep. This

blockage often occurs due to the position of the jaw or tongue, enlarged tonsils, or excess tissue in the airway. Individuals with OSA experience repeated episodes of interrupted breathing, leading to fragmented sleep and reduced oxygen levels.

Dentists play a critical role in identifying and managing sleep-related disorders. They can spot early signs of sleep apnea, such as worn teeth from grinding (bruxism), a large tongue, or a small jaw. Dental appliances, such as mandibular advancement devices (MADs), can help keep the airway open during sleep, significantly improving sleep quality and reducing the risk of related health issues. In children specifically, the earlier we detect airway issues, big adenoids, or large tonsils, the earlier we can help the child restore their sleep quality, correct dysfunctions, and guide their fa-

cial growth.

"We can now, through this holistic approach of pediatric dentistry, reguide the jaws of the child early in life to optimize airway, sleep, health and wellness for life."

You advocate for a holistic approach in your practice. What does a holistic approach to airway health in pediatric dentistry look like in day-to-day patient care?

We look at a child coming into our practice with different eyes. We don't just see "teeth"; we discuss with parents the child's lifestyle, cognitive behavior, quality of sleep, breathing patterns, posture, tongue function, speech,

and diet. This allows us to understand how their teeth and jaw status are a consequence of their overall health.

Working as a multi-disciplinary team, combining ENT specialists, pediatricians, and myofunctional therapists, is key to a successful and stable treatment plan.

For parents and caregivers, what are some early signs of airway issues in children that might go unnoticed? How can a dentist help address these problems early on?

One of the earliest signs parents may notice is if their child is mouth-breathing at night, snoring, or grinding their teeth. A pediatric dentist is one of the first healthcare providers who can detect a problem in tongue function and breathing patterns during their clinical and radiographic exams.

How does compromised airway health in children affect their overall well-being, including physical development, sleep, and behavior?

Compromised airway health in children increases the incidence of cavities and infections in their mouths, affects their concentration span, cognitive behavior, energy levels during the day, and brain function.

Mounting research links obstructive sleep breathing with a wide range of consequences, such as:

- High blood pressure and other cardiovascular problems
- Metabolic disease

- Poor growth (related to growth hormone secreted during deep sleep)
- Increased risk of neurocognitive and behavioral problems
- Speech and language concerns
- Poor facial development

Chronic mouth breathing, often due to nasal congestion or structural issues, can also lead to sleep disorders. It forces the mouth to compensate for the restricted nasal airflow, affecting the quality of sleep and leading to conditions such as snoring and sleep apnea.

A holistic approach often involves working with other healthcare professionals. How do you collaborate with other specialists, such as ENT doctors, sleep specialists, or orthodontists, to ensure comprehensive care?

Our team includes all those specialists who assess the child within their area of expertise. Pediatric ENT doctors assess the airway for enlarged adenoids and tonsils for example, as well as testing for allergies, once the pediatric dentist has suspected an airway obstruction during his initial exam. We usually coordinate our treatment plan based on each specialist's role and schedule the

treatment stages accordingly.

For parents, what advice would you give to ensure their child's airway health is not overlooked? And for aspiring dentists, what steps would you recommend to integrate a focus on airway health into their practice?

Start integrating oral health check-ups within the medical check-ups of your child early in life, with the first dental visit at one year old, or if you see teeth appearing in your child's mouth before one. Gain knowledge on topics like sleep and airway health before or during pregnancy planning. Look for a specialist pediatric dentist who focuses on

a holistic approach for your child.

In conclusion, understanding the vital connection between oral health, sleep, and airway is essential for achieving optimal health. By taking a holistic approach and addressing these interrelated factors, you can improve not only your oral health but also your sleep quality and overall well-being.

AEEDC Dubai 2025 wraps up with landmark deals

By Dental Tribune International



This year's AEEDC meeting in Dubai proved a remarkable success, stimulating important business opportunities as well as showcasing a wide range of innovative dental products and services. (Image: INDEX Holdings)

DUBAI, UAE: The 29th UAE International Dental Conference and Arab Dental Exhibition (AEEDC Dubai) concluded last week with deals collectively surpassing AED 20 billion (MYR24 billion*). AEEDC Dubai is the world's largest annual scientific dental conference and exhibition, and this year welcomed over 85,000 visitors and participants from 177 countries and featured 5,328 brands, represented by 3,924 international companies. The unparalleled success of AEEDC Dubai 2025 further solidifies the UAE's position as a global hub for innovation and development in dentistry.

Speaking to the press after the event, the chairman of AEEDC Dubai, Ambassador Dr Abdul Salam al-Madani, expressed his immense pride in the extraordinary success of AEEDC Dubai 2025. He highlighted the event's significant achievements, including record-breaking participation and groundbreaking scientific and technological advancements in dentistry. He emphasised that the conference is a premier platform for knowledge exchange and strategic networking, ultimately elevating oral healthcare in the region and beyond.

Dr al-Madani further underlined that AEEDC Dubai exemplifies the continuous evolution of the UAE's dental industry, strengthening the nation's status as a world-class hub for innovation and excellence in the field. He stated, "The UAE is not only a distinguished tourist destination but has also become the definitive hub for medical tourism. The country is home to many of the most esteemed names in dentistry, and AEEDC Dubai continues to reinforce Dubai's standing as the epicentre of international exhibitions and conferences. Moreover, the event is pivotal in advancing international cooper-

ation, revolutionising healthcare services and facilitating the exchange of cutting-edge medical technologies and practices."

The third day of the AEEDC Dubai 2025 Conference featured the 22nd annual meeting of the Global Scientific Dental Alliance (GSDA), a network of dental experts committed to the promotion of oral health education. The meeting, led by GSDA Scientific Chairman Prof. Abdullah R. al-Shammery and GSDA Chairman Dr al-Madani, was attended by 412 representatives of over 200 international entities, including hospitals, academic institu-

tions, dental associations and health ministries. The event also welcomed a distinguished group of university representatives and dental school delegates from around the world.

During the meeting, attendees discussed recommendations from the latest scientific studies, focusing on public health awareness and preventive oral healthcare. The discussions emphasised the importance of international collaboration in dental continuing education and research.

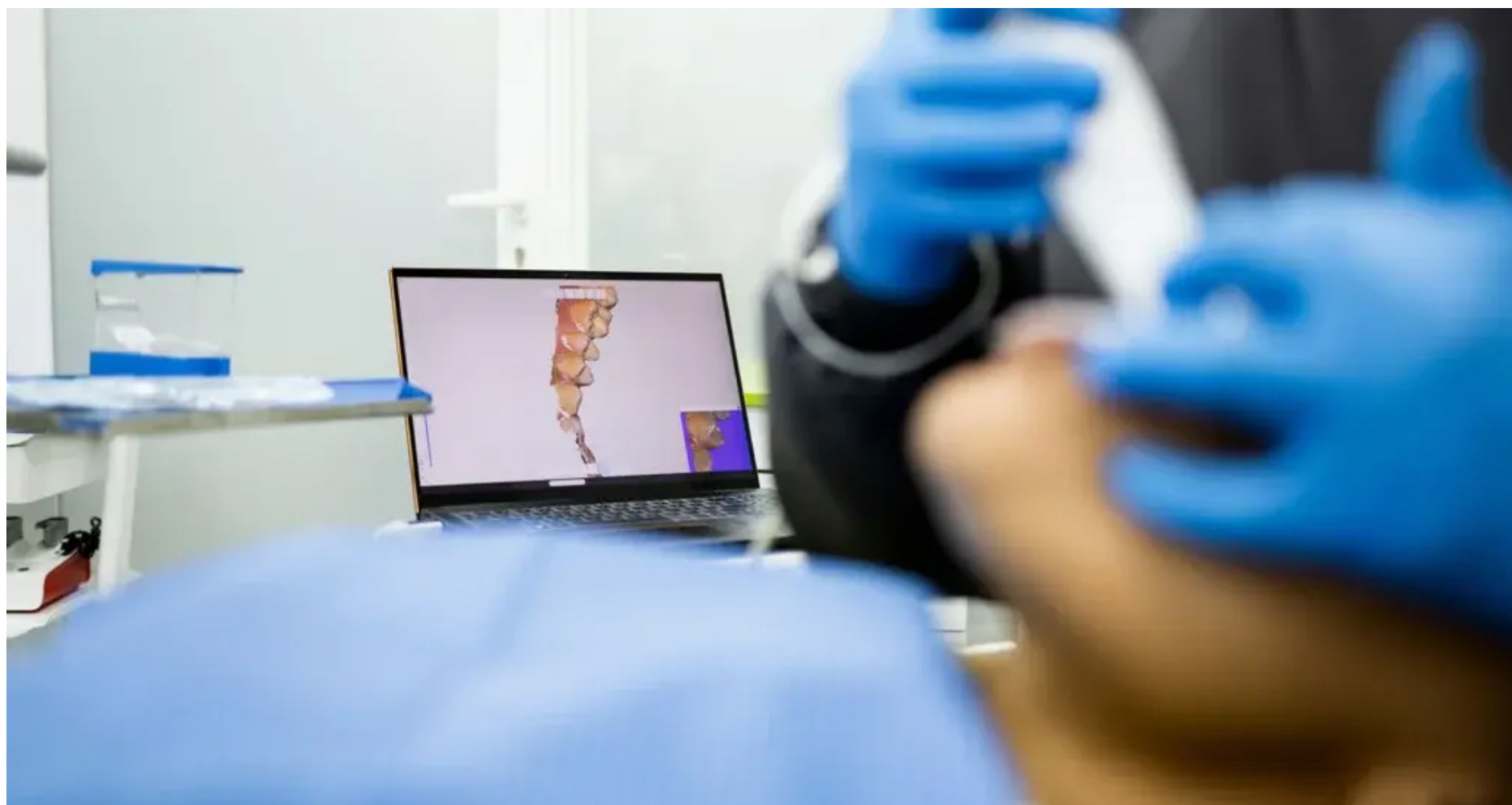
The GSDA meeting serves as a key platform for dental experts and practitioners from around the world to connect and exchange knowledge on the latest advancements and innovations in oral health. Through these meetings, the GSDA aims to enhance scientific education in dentistry, encourage knowledge-sharing and develop best practices that contribute to improving oral health globally.

Prof. al-Shammery stated: "Improvement in dental education and oral healthcare promotion, especially serving the community, is the reason why the GSDA is successful. There exists dedication, unity and loyalty among our members globally. Moreover, the number of members is increasing year after year, which inspires us to continue. The 22nd meeting is another milestone indeed, generating much productivity and more partners and sponsors."

Editorial note: Calculated on the OANDA platform for 6 February 2025.

Buying a scanner is going to be as essential as buying a dental chair

By Anisha Hall Hoppe, Dental Tribune International



Dentistry is undergoing a radical transformation as intra-oral scanners increasingly replace conventional impressions. (Image: Yiistocking/Shutterstock)



Dr Ahmad Al-Hassiny

With his extensive experience in using and reviewing scanners, and as the founder of the Institute of Digital Dentistry (iDD), Dr Ahmad Al-Hassiny is well qualified to provide practical advice for clinicians navigating the shift to digital workflows. Ahead of his lecture at this year's AEEDC Dubai, Dental Tribune International spoke with Dr Al-Hassiny to discuss the challenges, innovations and future of digital implantology and to obtain a glimpse into what attendees gained from his presentation, 'Dental Implantology from A to Z'.

Dr Al-Hassiny, what guidance would you offer to a clinician

still on the brink of making the switch to a digital workflow?

It goes without saying that dentistry is going digital. When you walk around trade shows today, you still have some of the older reps offering alginate and other dental impression materials, but mainly you see digital solutions, and I agree it can be quite intimidating. What can be reassuring for many people who are just starting with this, is that it isn't uncharted territory anymore. As long as you choose reputable scanner companies, they all offer good options. It's almost an illusion of choice because, fundamentally, what clinicians need to decide is whether they are going to be in the industry for more than about five years. If they are, then they will have to digitise. I feel that it's that simple.

In five or ten years' time, if a dentist doesn't have a scanner, then I think he or she will be in a minority group. In the leading markets now, scanner adoption is close to 60%. It's not a matter of deciding whether or not to digitise; it's a matter of deciding whether you are going to be practising dentistry long enough. The investment is not even that

high. For most practices, a scanner will cost less than a dental panoramic tomogram machine these days. Buying a scanner is going to be as essential as buying a dental chair.

So, the question becomes: how far do I go? Do I go into CAD/CAM? Do I go into milling? Do I go into printing? Do I start my own laboratory? Because I've used or owned every single type of scanner on the market, it's really easy for me to differentiate between them. The more you spend, the better the software that you'll be able to buy. If you just want the cheapest possible entry point, you can spend as little as US\$5,000 (MYR23,927*) and buy a product that works, a Chinese scanner that will take digital impressions. Though the software is a bit average, it will work. Taking a digital impression is no longer a novelty. They all really work, unless you're doing a lot of edentulous scanning and All-on-X scanning. But if you're just doing crown and bridge and you use a scanner for a couple of crowns or some splints and night guards, they all will work.

How you decide which one to

buy is basically down to where you live. US\$20,000 for a scanner doesn't feel the same to a clinician in the US as it does to a clinician in Egypt, as it's just a totally different economy. I think Chinese scanners will dominate the emerging markets because they are sold at a quarter of the cost of other scanners from Europe.

I think what is more important now is education, which is what I am involved in, and of course guiding clinicians into buying the right products through iDD and our independent and unbiased reviews. Learning how to use a scanner is the missing piece of the puzzle because, even if you buy a new scanner, you need to realise it's a new skill. It's not like taking a physical impression.

Can you tell us something about your lecture at AEEDC Dubai and what attendees gained from it?

Over the past ten years, the intra-oral scanner market and its focus have totally changed, even more so since the original scanner introduction in the 1980s. The first few decades involved finding out how to scan. We

went from monochrome single-shoot cameras to super-fast colour cameras with realistic aesthetics, shade detection and other very complicated considerations. And then we hit a plateau. The most important year for the development of scanners was probably 2019. A large number of scanners came on the market, and they were all scanning really well. This is when we started focusing on software and some of the problems that scanners had.

One of the fundamental problems that scanners still struggle with is that of scanning full-arch implants. Though all scanners can scan crown and bridge, because of the nature of implants, you really don't have any leeway with them. Scanning a full-arch implant is like putting a whole jigsaw puzzle of images together. When you do a full-arch implant scan on a quadrant, it's very accurate, but as you move across that arch to the other side, it starts losing accuracy, still tolerable for crown and bridge, but when we're talking about implant prosthetics having inaccuracies of 150 microns, this isn't enough, especially for full-arch zirconia bridges.

“Over the past ten years, the intra-oral scanner market and its focus have totally changed.”

As people began to grow frustrated with scanners, they went back to analogue techniques of verification, such as jigs. However, necessity is the mother of invention. We tried to come up with solutions. Photogrammetry companies came on board, and they filled that void. These were engineers using geometries to fill the void of full-arch implant scanning. We started using photogrammetry devices. However, anyone who uses a photogrammetry device knows they're bulky, they're large, they're expensive, and the software is un-

satisfactory. It was a huge barrier to anyone trying to scan for large implants.

However, in the past year or two, we've had a total shake-up. All the intra-oral scanner companies and all the digital dentistry companies have been focusing squarely on these issues.

The whole idea of my lecture is to walk people through where we started with digital implantology in terms of scanning data capture. I'm doing my own study at the moment and have collected five days' worth of non-stop scanning data with all the different photogrammetry devices. I think we're on the precipice of a disruption in photogrammetry with this idea of intra-oral photogrammetry. Specialised scan body solutions like those from

TruAbutment are also bridging the gap. The days of extra-oral photogrammetry are numbered.

You've seen digital dentistry evolve over time. Could you tell us about how you got involved in intra-oral scanning and the story behind iDD? I am a full-time dentist, and I do all forms of dentistry, as our practice offers general dentistry, implantology, orthodontics, cosmetic dentistry and much more. I was fortunate because, after graduation, started working with my father in his practice. In fact, there are many dental clinicians in our family. My father has been a really important role model for me, and he had one of the first scanners in New Zealand. My mother convinced him to buy one, which I was able to use right after I graduated. As it

was a monochrome single-shoot camera, we upgraded often over time to improved technology because we wanted to do same-day dentistry. Quite early in my career, I had access to three different scanners at a time when we had about five chairs in our family group of practices. Now we've grown the practice group to 41 chairs and a fully digital laboratory with six technicians.

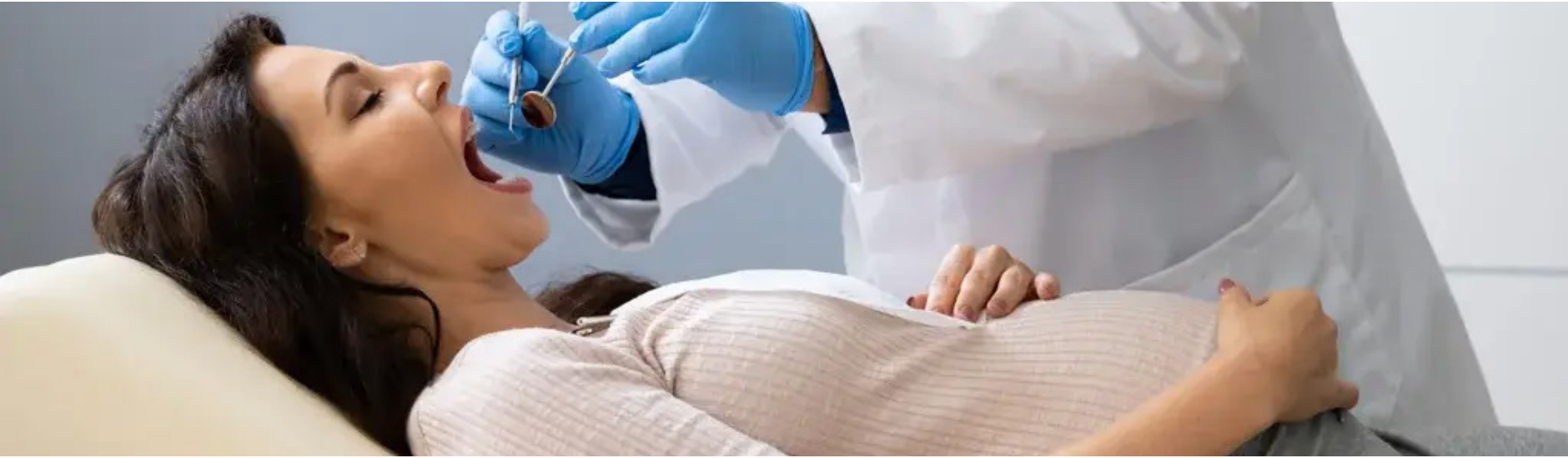
Back then, I was interested to learn more about scanners and therefore, I attended a study club meeting of dentists in New Zealand with the knowledge of the pros and cons of the three scanners I already had. A paid rep demonstrated a scanner that I personally felt was not good quality as it still required powder and had lower specifications. His sales pitch didn't sit right with me

but all the other clinicians really believed him. I thought to myself, "I've tried this scanner, and it's not good." And this is what started iDD as a passion project to help provide others with the information I already had gained from practice. Now, I think we have one of the most popular digital dentistry websites in the world. It has over two million page views a year just for its reviews. It started as a review blog that gained traction after I did a wrap-up of all the scanners at IDS in 2019. It is not a paid marketing project, as I wanted it to be something people can trust. Now we have about 12 full-time staff members, and our production quality is much improved.

Editorial note: Calculated on the OANDA platform for 19 December 2024.

Dental health identified as major predictor of preterm birth

By Dental Tribune International



A recent study has introduced dental factors as significant predictors of preterm birth, diverging from past research. (Image: Andrey_Popov/Shutterstock)

SEOUL, South Korea: Identifying risk factors for preterm birth (PTB) is crucial for enabling healthcare providers, parents and policymakers to make informed decisions in order to improve outcomes for infants and their families. In the past, studies on predictors of PTB primarily focused on clinical and environmental factors, often overlooking dental variables. However, researchers in South Korea have found that periodontitis-related parameters are significant predictors of PTB. This underscores the importance of integrating medical and dental assessments into prenatal care protocols to support early interventions and enhance maternal and neonatal health. The World Health Organization

estimates that 13.4 million babies were born prematurely in 2020. In 2019, complications from PTB led to approximately 900,000 child deaths, and many survivors continue to experience lasting challenges, including learning disabilities and visual or hearing impairments.

According to research, periodontitis is widely associated with PTB and pregnancy complications and shares risk factors such as low socio-economic status, high body mass index (BMI), smoking and alcohol consumption, as well as clinical factors, including diabetes and hypertension. While previous studies have suggested a correlation between periodontal disease in expectant mothers and an increased risk of preterm

delivery, conclusive evidence has remained elusive.

“What differentiates our study from previous ones is that we added dental factors in addition to the well-known clinical risk factors, including various clinical backgrounds and obstetric histories,” the researchers wrote in their article.

Exploring the role of maternal oral health

The current study analysed data from 60 women who delivered via caesarean section, 30 preterm and 30 full term. Alongside established factors such as pre-pregnancy BMI, maternal age and pre-eclampsia, the researchers assessed five dental predictors of PTB, including the

Modified Gingival Index, periodontitis stage and plaque index. The top five predictors of PTB identified were pre-pregnancy BMI, the Modified Gingival Index, pre-eclampsia, the DMF index and maternal age. Notably, gingival health emerged as the second most significant predictor of PTB risk and the sixth most significant for spontaneous PTB, outperforming well-known medical PTB risk factors such as prior PTB, chronic hypertension and gestational diabetes mellitus. Despite the study's limitations, such as its small sample size and exclusion of socio-economic variables, the findings demonstrate strong potential for advancing PTB prediction models. For example, the findings could contribute to the development

of guidelines for PTB prediction models and provide critical evidence for early screening and tailored preventive interventions based on these risk factors. Additionally, identifying maternal dental health indicators as significant predictors of PTB highlights the importance of routine dental examinations for pregnant women.

“Future research should focus on validating these predictors in larger populations and exploring interventions to mitigate these risk factors,” the authors concluded.

Editorial note: The study, titled “Clinical and dental predictors of preterm birth using machine learning methods: The MOHEPI study”, was published online on 21 October 2024 in Scientific Reports.