THE MAGAZINE FOR DENTAL PROFESSIONALS IN IRELAND

Ireland's Dental

JANUARY 2020

A significant Challenge

New analysis of how Brexit will affect practice in Ireland and Northern Ireland

JANUARY 2020

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THE MAGAZINE FOR DENTAL PROFESSIONALS IN IRELAND

EDITOR
Will Peakin
Tel: 0141 560 3019
will@connectmedia.cc

EDITORIAL TEAM
Stewart McRobert
Tim Power

DESIGN
Scott Anderson

ADVERTISING
Ann Craib
Tel: 0141 560 3021
ann@connectmedia.cc

SUBSCRIPTIONS
Stephanie Koetsier
Tel: 0141 561 0300
stephanie@
connectmedia.cc

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Studio 2001, Mile End
Paisley PA1 1JS
Tel: +44(0)141 561 0300
Fax: +44(0)141 561 0400
info@connect communuications.co.uk

Editor

Will Peakin editor@irelandsdentalmag.ie
Follow Ireland's dental on twitter at: **twitter.com/IrelandsDental**

Protect the patient, look after each other

At a conference on 'Human Factors' towards the end of last year, Niall Downey, a pilot with Aer Lingus, showed delegates a photograph of the lever which controls an aircraft's undercarriage. The handle is wheel shaped. To raise the undercarriage, you move the lever up towards the word 'Up'. To lower the undercarriage, you move the lever down towards the word 'Down'. Captain Downey's dry sense of humour was on display throughout his presentation. "We assume passengers are prone to errors too," he said, showing a picture of the approach to the passenger exit at Belfast City Airport where, on the floor, are printed the words: "Have you collected your luggage."

You may well laugh.

However, the apparently absurd simplicity of a control designed to be operated not by stupid people, but by highly qualified, highly skilled personnel has its roots in a series of crashes that blighted the US Air Force during World War Two, when B-17 Flying Fortress pilots would, for no apparent reason, land their planes without lowering the undercarriage, or worse; pitch their craft into the ground, killing all onboard. At the end of the war, the Air Force assigned a psychologist to investigate.

As an article in *Wired* magazine described recently, when he began looking at the aircraft, talking to pilots, and sitting in the cockpit, he did not see "pilot error", he saw "design error". Many of the critical controls felt, to the pilots' hand, exactly the same. The psychologist subsequently created a system of distinctively shaped knobs and levers that made it easy to distinguish all the controls of the plane merely by feel, so that there was no chance of confusion even if flying in the dark.

"By law, that ingenious bit of design – known as shape coding – still governs landing gear and wing flaps in every airplane today," noted the article. "You couldn't assume humans to be perfectly rational sponges for training. You had to take them as they were: distracted, confused, irrational under duress. Only by imagining them at their most limited could you design machines that wouldn't fail them."

> "IN WORLD WAR TWO, B-17 FLYING FORTRESS PILOTS WOULD, FOR NO APPARENT REASON, LAND WITHOUT LOWERING THE UNDERCARRIAGE"

You would think that this approach to design and function would pervade high-risk environments today. Captain Downey went on to show a series of shocking photographs; including identically designed labels for diamorphine hydrochloride (except one dose was 30mg, the other 5mg) and a children's cough syrup bottle with virtually the same look as a bottle of hydrogen peroxide.

His exhortation to practitioners attending the Human Factors conference hosted by the Royal College of Physicians and Surgeons of Glasgow (see p29), was to approach every patient's treatment with two questions in mind; "Where could this go wrong?" and "What's Plan B?" Captain Downey also urged them to consider: "What's in it for me?" What's in it for practitioners is that, by redesigning systems of work to benefit their wellbeing, they can reduce the incidence of mistakes which harm their patients – and result in professional censure and financial penalty.

Researchers at Trinity College Dublin and University College Dublin are building on the work on Human Factors in aviation. They have proposed interventions* to promote wellbeing and positive mental health among pilots while also addressing mental ill health. They add that new roles and functions could be introduced to support the implementation of wellbeing initiatives as well as digital tools to support awareness and management of wellbeing and risk identification.

Professor Peter Brennan, consultant maxillofacial surgeon at Portsmouth Hospital NHS Trust and an expert in Human Factors, told *Ireland's Dental* of meeting a pilot nine years ago – the trigger for his interest in the field – who spoke about team working, effective communication, reducing hierarchy, and workload management. It's what practitioners can learn from pilots. As another speaker at the Human Factors conference put it: "Protect the patient, look after each other."

**Cahill, J., Cullen, P. & Gaynor, K. Cogn Tech Work (2019). www.doi.org/10.1007/s10111-019-00586-z*

Word of mouth

Dr Paul O D'wyer BDS MSc (Healthcare Mgmt)

The patient's time in the waiting room is a precious resource

In the past, this column has looked at some reasons why patients attend the dentist. I've also looked at various actions dentists can put in place to encourage patients to attend – and particularly I've looked at quality assurance and quality improvements – all from a patient's perspective.

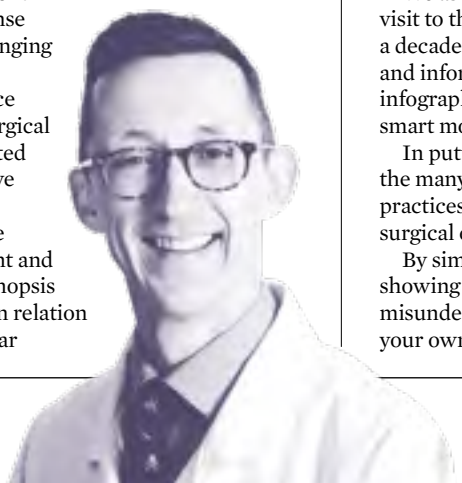
One area that is worth a little further exploration is that important time when the patient is sitting in the waiting room. I realise that in an ideal world the patient should be ushered in to see the dentist at the appointment time. However, we live in the real world and not the ideal world.

Dentistry by its very nature is fraught with the unexpected. How often have we booked in Mrs Murphy for a "routine" examination, only to find that they have a loose crown, broken tooth, or leaky filling which needs immediate replacement?

Overruns on time are inevitable. How we manage these overruns and the knock-on effect of them is worth a column in itself – and I will revisit this in due course. However, let's concentrate on the fact that our patients can sometimes spend more time in the waiting room than in the dental chair.

People are curious. This applies to your dental patients as much as anyone else. What may seem mundane and routine for you in your regular surgery day can captivate the curiosity of your patients. For example, with advances of imaging and radiography, we can very clearly identify tricky extractions or curvy roots for endodontics. A clearly demonstrated curved rooted lower molar – which you know in your heart and soul will require a surgical approach – might well be easily captured using your intra-oral X-ray machine. With this in mind, a digital photograph or print out – coupled with a brief description (nothing too graphic!) can help to educate your patients. How many of us are challenged from saying the same "lines" each week and month – explaining the same phenomena – such as "dense bone", lifting a flap "cutting the gum" or challenging root morphology "curvy roots"?

With this in mind, I recently visited a practice where a simple (250-word) presentation on surgical extraction in clear short sentences was laminated – along with a large glossy clinical pre-operative radiograp (8 x 10 photograph) clearly showing the same. This was placed in the eye-line of the patients in the waiting room. It was in large font and against a white background. A similar short synopsis was also carefully placed in the waiting room in relation to the examination/check-up. For that particular example, a simple charting using a cartoon picture of the arches was used.



I asked the dentist about the presentations and they replied that they served a number of purposes. Aside from the obvious educational value of the posters, they "primed" the patient to better understand the upcoming dental visit. It allowed them the comfort to ask questions and, importantly, helped to inform them for consent for upcoming procedures.

By clearly annotating the various protocols involved with treatments, we can more readily help secure that most important item: consent from our patients. Recent evidence and advice from medical insurance societies suggest that more needs to be done to adequately secure informed consent, particularly as the onus on demonstrably securing that consent gets ever more demanding.

The value of the "cooling-off" period is particularly highly prized and clearly advocated by the Dental Council of Ireland. This time period, between initial examination/treatment planning and the provision of the treatment – e.g. diagnosing a repeatedly infected wisdom tooth and its removal – is vital in underpinning and demonstrably showing consent from patients. Same-day treatment, while occasionally necessary to relieve pain/symptoms, can be problematic should issues arise after treatment is provided – leading to disgruntled patients or worse, a complaint.

I would therefore see the time that a patient spends in the waiting room as a precious resource to be utilised to the maximum – rather than squandered on out-of-date magazines or demographic-specific whitening offers.

There is merit in utilising the time and space there to better inform patients, laying down the background to common procedures and clearly showcasing the range of expertise and quality patient care you already provide.

We as clinicians often forget that for patients, this visit to the dentist may be one of only a handful during a decade. Using part of that time to actively educate and inform them, with smart, clear and easily created infographics or posters seems like a very reasonable and smart move.

In putting this idea into action, have a think about the many "classic" examples you've seen in your own practices, e.g. the classic crown, classic bridge, denture, surgical extraction etc.

By simply annotating these and creating a "guide" showing the "What is..." you can build trust, reduce misunderstanding, strengthen consent and underline your own professionalism.

New NI oral health strategy 'by early 2021'

Report calls for overarching, evidence-based approach with clear targets

A NEW oral health strategy for Northern Ireland should be developed by the Department of Health in collaboration with the dental profession and a draft published "by early 2021", according to a UK Parliament committee.

Oral health featured prominently in the *Health Funding in Northern Ireland* report*, published by Westminster's Northern Ireland Affairs Committee. The report refers to Northern Ireland having some of the poorest oral health outcomes in the United Kingdom.

It said that the current oral health strategy is "based on obsolete data from 2003" and that it "does not contain any up-to-date targets for optimising services and improving outcomes".

The report added: "Fresh direction and impetus are needed to improve Northern Ireland's oral health. This will not be achieved with a piecemeal approach, but requires an overarching, evidence-based strategy with associated targets to work towards."

When asked by the Committee what progress was being made towards developing an up-to-date strategy, Richard Pengelly, Permanent Secretary at the Northern Ireland Department of Health, said: "A lot of what is in [the 2007] strategy remains fit for purpose, but there are some issues we need to look at."

Caroline Lappin, Interim Chair of the British Dental Association's Northern Ireland Council, said: "We very much welcome the focus this NI Affairs Committee report rightly places on oral health in Northern Ireland, in particular where significant gaps and challenges remain. As what is effectively the only democratic scrutiny committee overseeing health policy in Northern Ireland at present, it makes the remarks all the more significant.

"We clearly welcome the Committee's unequivocal recommendation, and the logic underpinning this, as to why a new oral health strategy for Northern Ireland, to be developed in collaboration with the dental profession, is necessary."

Last October, the BDA highlighted the enormous oral health challenges faced in Northern Ireland, and the need to tackle these together in a strategic way at its landmark Oral Health Matters event at Stormont, attended by politicians, policymakers and advocates.

Lappin added: "We welcomed the Chief Dental Officer's announcement at Oral Health Matters to establish two new Oral Health Options Groups. These are an important first step in looking at where progress can be made that can lead to improve the oral health of children and the elderly."

Tristen Kelso, the BDA's Northern Ireland Director, commented: "Not least for the reasons highlighted in this report, there is a clear imperative on the Department of Health to respond positively to the recommendation to commit to develop a draft new oral health strategy by early 2021. We call on the Permanent Secretary to prioritise oral health."

**https://tinyurl.com/qlbl5yy*

Mouth cancer set to 'almost double'

CASES of mouth cancer in Northern Ireland are expected to almost double by 2035, said Cancer Focus Northern Ireland and the British Dental Association.

At present an average of 233 people in Northern Ireland are diagnosed with mouth cancer each year. Many are diagnosed at a late stage, with 95 dying from the disease.

Cancer Focus NI and BDA joined forces to mark Mouth Cancer Month last November by raising awareness of the early signs of mouth cancer and encouraging people to seek medical help if they have any concerns.

Gerry McElwee, Head of Cancer Prevention, Cancer Focus NI, said: "The main risk factors of mouth cancer are tobacco use and drinking alcohol and together these account for around 75% of mouth cancers. People who both drink and use tobacco are up to 30 times more likely to develop the condition.

"The Human Papilloma Virus (HPV) is also a leading cause and the recent move to extend the HPV vaccine to include adolescent boys in Northern Ireland will save lives.

"The message is clear – stop smoking, reduce your intake of alcohol, eat a healthy diet with at least five daily servings of fruit and vegetables and remember that early diagnosis can really make the difference. Make sure you visit a dentist and check your mouth regularly – it might just save your life."

The BDA aims to ensure that mouth cancer features strongly in the new Northern Ireland Cancer Strategy.

> "CHECK YOUR MOUTH REGULARLY – IT MIGHT JUST SAVE YOUR LIFE"

Simon Harris, Minister for Health, at the launch of Smile agus Sláinte last year

‘No prospect’ of free dental care for children under six

IDA has urged Ireland’s Department of Health to ‘change its thinking’

THERE is “no prospect” of free dental care for children under six being available from September, as the Irish Government has claimed, according to the Irish Dental Association.

Fintan Hourihan, Chief Executive of the IDA, said that the association’s Board and Council had met last month to consider the issue following a series of regional meetings attended by more than 250 dentists across the country.

“Our members were consistent,” he said, “they do not support the plans by the Government to change the current HSE-based dental service for children to a private dentist based system and they do not support the Government’s plans to introduce free dental care for children under the age of six through private practices from September.

“This is not a dispute over costs as there has been no discussion about costs whatsoever. It is a difference of opinion about what is the best model for children’s dental health, and we disagree with the Government on the way they wish to proceed.”

Hourihan said that the key issue of concern for dentists was that the proposals would weaken the current approach to child dental health. It would, he said, remove the current system of proactive school-based engagement by public dentists with all children and replace it with a reactive system where the responsibility is put on children or their families to present to a private dentist. In this scenario, he said, attendance would fall dramatically. Dentists see this as an attempt to shift political responsibility for children’s dental health from the public service into the community but without any regard to the impact on the health outcomes for children, said Hourihan. The IDA has written to Simon Harris, the Minister for Health, outlining its objections to the proposal and said it was hopeful that the Department of Health will change its thinking on the matter. In this edition of *Ireland’s Dental*, the Minister outlines the thinking behind the new policy.

Separately, Hourihan said that the IDA was unhappy that existing fee levels for dental services for medical card patients are to remain in place in 2020. “We have made a detailed submission to the Department on the need to increase fees to take account of the rising costs facing our members,” he added. “We are disappointed that the Department has not engaged with us on this issue.”

See page 16

Profession ‘well-placed’ to support change

IRELAND’S new oral health strategy is validated by the better health outcomes across all age groups, and a reduction in inequalities, in other EU countries using the same approach, said Dr Dympna Kavanagh, Ireland’s Chief Dental Officer.

“Such an approach is endorsed by the World Health Organisation and the United Nations. Our highly skilled profession is well-placed to this support this change,” she told the *Irish Examiner*.

Smile agus Sláinte was launched by the Ministers for Health and Social Protection in April last year. Dr Kavanagh said it has two goals; to help every person to reach their personal best oral health and to ensure no-one is unable to access care. It includes 41 actions to be delivered over the next eight years. Most care will be provided by local dental practices. “We call this the ‘dental home’,” she said. “People can choose their dentist and a family (from children to grandparents) can access state-funded care in the same place.

“Waiting lists for children’s dental care (up to the age of 16) will be tackled by the introduction of eight oral healthcare packages, rather than the three visits currently provided to this age group.

“Adults with medical cards will also have access to preventive dental care throughout their lives, as well as routine treatment and complex care. Under Smile agus Sláinte, free oral healthcare for children aged under six will be introduced in late 2020.”

Annual meeting focuses on dental care over the lifetime of the patient

THE Annual Scientific Meeting of the Faculty of Dentistry, RCSI, charted the journey of the patient from paediatric to young adult, adult, older adult, and elderly adult.

Titled *Challenges to Oral Surgery in Dental Practice in the 21st Century: From the Cradle to the Grave*, it was held in collaboration with the Association of British Academic Oral & Maxillofacial Surgeons, the British Association of Oral Surgeons, and the Irish Association of Oral Surgeons. It was the first time these organisations had gathered together.

Around 200 delegates were in attendance to engage on a range of lectures focused on the changing challenges and demands of oral surgery throughout a patient's life. The Faculty of Dentistry also held a limited enrolment hands-on course in minor oral surgery a day prior to the main scientific programme.

Commenting on ASM 2019, Dr John Marley, Dean of the Faculty of Dentistry, RCSI, said: "I wanted to chart the journey, from paediatric, to young adult, adult, older adult and elderly adult, looking at various aspects of dental healthcare as they apply to those groups during a time of significant change for the profession and particularly for Oral Surgery delivery and especially in light of the recently published National Oral Health Policy for Ireland."

Back row - Dr John Marley and Dr Rebecca Hierons. Front row - Prof Donald Burden, Prof Wendy Turner, Dr Angela Jones, and Ms Natasha Devon MBE.

ASM 2019 reports, page 22-27

Call for preventative action among children

A STUDY comparing three different treatment options for tooth decay in children's teeth has found no evidence to suggest that conventional fillings are more effective than sealing decay into teeth, or using prevention techniques alone, in stopping pain and infection from tooth decay in primary teeth.

The three-year FiCTION trial, the largest of its kind to date, also found that 450 children who took part in the study experienced tooth decay and pain, regardless of which kind of dental treatment they received.

Professor Nicola Innes, Chair of Paediatric Dentistry at the University of Dundee and lead author on the paper, published in November, said: "What is absolutely clear is that the best way to manage tooth decay is not by drilling it out or sealing it in – it's by preventing it in the first place."

More than 1,140 children between the ages of three and seven, with visible tooth decay were recruited by dentists working in one of 72 dental clinics. One of three treatment approaches was then chosen randomly for each child's dental care for the duration of the trial.

The first approach avoided fillings and aimed to prevent new decay by reducing sugar intake, ensuring twice daily brushing with fluoridated toothpaste, application of fluoride varnish and placing of fissure sealants on the back teeth. The second involved drilling out decay, together with preventive treatments. The third was a minimally invasive approach where decay was sealed under a metal crown or a filling, together with preventive treatments.

bit.ly/38zr95w

DATES FOR YOUR DIARY

17 JANUARY
BDA Northern Ireland President Installation Dinner
The Great Hall, Queen's University Belfast
tinyurl.com/vpu8gqe

17 JANUARY
SmileFast Course
Carlton Dublin Airport Hotel, Cloghran
Email: info@smilefast.com
T: 01768 606027
www.smilefast.com

18 JANUARY
RCSI Faculty of Dentistry Post Primary Careers Day
RCSI, Dublin
facultyofdentistry.ie/post-primary-careers-day

4 FEBRUARY
Creating a great Personal Development Plan
Malone Lodge Hotel, Belfast
tinyurl.com/rs2um63

5 FEBRUARY
NI Community Dental Service Study Day
Dunadry Inn, Antrim
tinyurl.com/vjev92c

6 FEBRUARY
National Health Summit
Croke Park Stadium, Dublin
healthsummit.ie

6-8 FEBRUARY
International Conference for Healthcare and Medical Students
RCSI, Dublin
ichams.org

25 FEBRUARY
SPHeRE Network Conference Annual Conference
RCSI, Dublin
sphereprogramme.ie/conference

6-7 MARCH
EFP Perio Master Clinic
The Royal Dublin Society, Dublin
efp.org/periomasterclinic/2020

28 MARCH
13th All Ireland Primary Care Diabetes Society Conference
Crowne Plaza Hotel, Northwood
tinyurl.com/r4ukwv6

3 APRIL
BAOS Northern Ireland Study Day
Venue, TBC
baos.org.uk/events/event/rrstudydayni

21-23 APRIL
MedTech Innovation Summit
The Shelbourne Hotel, Dublin
medtechstrategist.com/dublin-2020

24-25 APRIL
Scottish Dental Show
Braehead Arena, Glasgow
sdshow.co.uk

14-16 MAY
IDA Annual Conference
Galmont Hotel, Galway
tinyurl.com/y4m8spq4

20-21 MAY
Future Health Summit
Royal Dublin Society, Dublin
futurehealthsummit.com

7-10 JUNE
Radiology: Continuing Medical Education
Westin Hotel, Dublin
globalradcme.com/imagingindublin2020

17-19 SEPTEMBER
British Orthodontic Conference
Manchester Central
bos.org.uk/News-and-Events/Events-Meetings

JANUARY-DECEMBER
RCSI Faculty of Dentistry
Postgrad Dental Education Programme: 25 Jan, 15 Feb, 21 Mar, 25 Apr, 9 May, 24 Oct, 14 Nov, 12 Dec. Paediatric Dentistry Specialty Prog: 4 Apr, 13 Jun, 19 Sept, 21 Nov. Intensive Revision Prog: 7 Mar.

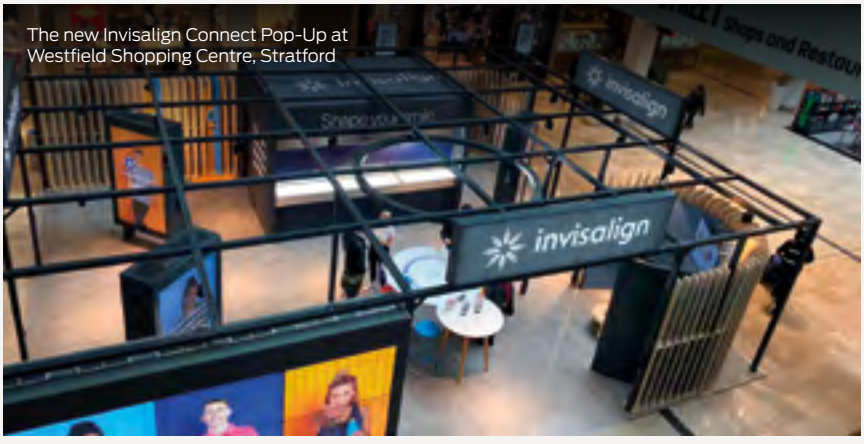
Align unveils new 'Connect Pop-Up'

Exploring the potential of clear aligner therapy and getting started with an Invisalign trained doctor

ALIGN Technology announced the launch of a new Invisalign Connect Pop-Up at Westfield Shopping Centre, Stratford. The immersive Invisalign Pop-Up experience has been created to re-invent the way consumers interact with the Invisalign brand, access information about teeth straightening and connect with Invisalign doctors in the local area network.

Consumer trends are changing fast, said Align, and people are increasingly becoming digital-savvy, informed and want to stay in control of their choices. They are also busy, and want their experiences to be fast and convenient. The Invisalign Connect Pop-Up taps into these trends by offering an interactive brand activation, which takes them on the exciting digital journey to a new smile.

By bringing the Invisalign brand closer to consumers – and showcasing Invisalign technology in an engaging, non-clinical environment – visitors to the Invisalign Connect Pop-Up can explore the potential of clear aligner therapy, learn what to expect during treatment and how to get started with an Invisalign-trained doctor. The Pop-Up team will also be on hand to guide visitors and answer their questions about the Invisalign system.



The new Invisalign Connect Pop-Up at Westfield Shopping Centre, Stratford

"Our previous Pop-Up, opened in July was really the first time we've truly engaged consumers in a physical environment as a brand," said Alexadra van der Stap, Align Technology vice president consumer marketing, EMEA.

"We learned a lot from that one-to-one interaction when it comes to their understanding of our product, but also what they expect from the treatment process with our Invisalign doctors. This has not only helped us refine our Stratford execution to better inspire and engage consumers, but also allowed us to share with our doctors about the needs of today's consumers and how they can help improve the Invisalign journey for them overall."

A big change for the public ...

and the profession

A joined–up approach, designed around the needs of people, and providing services close to home

Smile agus Sláinte, is a new approach to dental care, which was launched in April 2019. It provides the guiding principles to transform our current oral healthcare service and will facilitate better oral healthcare for everyone. Smile agus Sláinte emphasises the ideals of Sláintecare, Ireland's long-term vision for building a better health service, through a joined-up approach, designed around the needs of people, and providing services close to home.

The policy has two key goals:-

• to provide the supports to enable every individual to achieve their personal best oral health;

• to reduce oral health inequalities across the population, by enabling vulnerable groups to access oral healthcare and improve oral health.

It includes 41 actions to be delivered over the next eight years, with some commencing in 2020.

The new policy will have major implications for all members of the dental team, whether they are working in private practice or in the Public Dental Service of the HSE.

This current service is not designed to deliver prevention and advice before poor oral health symptoms commence, nor does it support the development of self-reliance in patients. This is hardly surprising, given that it was designed to provide a service to a population whose dental health differed greatly from the current population.

Since the 1970s, fluoridated water and toothpaste, fissure sealants and better diet have improved dental health. In the 1980s, eight out of 10 12-year-olds had several decayed teeth. At that time, half of older people had no teeth at all. Now most 12-year-olds have very few cavities and teeth are retained into old age. The population in Ireland has also changed and by 2040 approximately 30 per cent of the population will be over 60. This means that, unlike 30 years ago when the population was mainly young, our focus now is to ensure that the older population maintain their oral health quality of life into old age. Mobility, migration, emigration and immigration are also an integral part of our population's dynamics. Access to modern technology ensures that the population has access to more information easily. All of these issues impact on care provision.

Smile agus Sláinte will allow patients to choose dental practices and enable dental practices to offer their services as the 'dental home' for patients throughout their lives.

For dental practices, there will be opportunities to expand their role and provide oral healthcare to a wider range of the population. For the first time, children under 16 will be able to avail of State-funded care close to home in a practice which they or their parents choose. Dental practices will thus become more family-centred.

Establishing a personal 'dental home' and a chosen local dental practice early in life is crucial to creating good lifelong oral health behaviours and is a central philosophy in the policy. Under the Policy, all children up to 16 years will receive eight oral healthcare packages, including examinations, assessments, advice, prevention interventions, emergency care and referral as appropriate, rather than the two to three visits currently provided by the HSE to this age group.

WORDS
SIMON HARRIS

While it is not uncommon for young children to have dental decay in their baby teeth, the only State-funded dental care provided for children under six years of age is an emergency service. The evidence shows that they attend only when they are in pain and by six years of age about one in three have attended a dentist for any reason in either public or private care. The later a child attends a dentist the more likely they are to have dental decay. Approximately 55 per cent of children who attend a dentist up to six years of age have decay, compared with the national average which is 32 per cent.

Access to early oral healthcare, especially advice and prevention, before starting school is a priority action designed to enable good oral health across the life course in line with the 'Healthy Ireland' policy. For this reason the introduction of packages of oral healthcare for children aged under six is prioritised and will be introduced in late 2020.

The principles of early identification and adherence to clinical care pathways for patients who require complex and advanced care are addressed in the policy. Local

> "THE CURRENT SERVICE IS NOT DESIGNED TO DELIVER PREVENTION BEFORE POOR ORAL HEALTH SYMPTOMS COMMENCE"

dental practices will direct patients to HSE community services where needed, e.g. where a patient needs special care. Treatment that requires advanced skills and services not available from local and HSE dentists will be provided in advanced oral healthcare centres, e.g. hospitals.

Smile agus Sláinte supports the provision of all care where possible in local dental practices where skills of the dental team are matched with the needs of the patient in line with the principles in Slaintecare. Dental practices provide a greater range of care than ever before. Even when people are referred to community or hospital services, their local dental practice or 'dental home', will continue to support their care.

Adults with medical cards will also have access to preventive-focused dental care throughout their lives, in addition to routine treatment and complex care. Unfortunately, not everyone has benefitted equally from the positive changes in oral health. Many, including people with disabilities and homeless people, have difficulty accessing care and this affects their oral health quality of life, which includes how a person can perform functions like eating, talking and smiling. This declines with age and is worse in poverty. It is important that we address these unmet needs identified in Smile agus Sláinte.

With children's services being delivered in local dental practices, the service provided by the HSE will be refocused. It will deliver health promotion programmes and provide dental services to those whose care cannot be provided at their local dentist, such as people in residential care. The oral health promotion programmes will focus on integrating oral and general health. The right advice for general health is also right for good oral health. HSE dental services will also provide preventive care to vulnerable communities. This will also be a priority in 2020.

An important element of Smile agus Sláinte will be the introduction of a population oral health programme throughout life: Inspect and Protect.

Inviting the population at key stages for these check-ups will ensure that Smile agus Sláinte stays on track. This programme will give a reminder or a 'nudge' to children and adults at key ages throughout life. This is a World Health Organisation programme for the whole population and at least six extra 'nudges' and dental assessments will be provided throughout life. For example, in addition to the provision of eight packages up to 16 years, there will also be three dental 'nudge' assessments. This will allow a person's oral health to be compared with that of their peers. This supports the "nobody left behind" ethos of Smile agus Sláinte. Smile agus Sláinte is a big change for the public but also for the profession. Education for dentists will be reviewed as a priority. More than half of our dental professionals are hygienists, dental nurses, clinical dental technicians, orthodontic therapists, and dental technicians. Enabling access to more dental professionals will give more choice to the public. There will be greater diversity of work for dentists and dental professionals and a synergy with other health professionals.

30
PER CENT
of the population will be over 60 by
2040

(Above) Simon Harris at the launch of Smile agus Sláinte, with students of Dublin Dental University Hospital and Social Protection Minister Regina Doherty

The Smile agus Sláinte approach shows better health outcomes across all age groups in other EU countries and helps reduce inequalities between rich and poor. Such an approach is endorsed by the World Health Organisation and the United Nations. It will be challenging, but our highly skilled and dynamic profession are well placed to support this change.

The policy is evidence-informed. Research was commissioned by the Department of Health in developing Smile agus Sláinte. Views of professionals across several disciplines, as well as the views of members of the public, were taken into account. The policy is supported by international evidence and embraces the same ideals as Sláintecare, with the needs of people at the core.

It is our intention to continue engaging with stakeholders as we move from policy development to implementation. The implementation phase will involve other lead/partner agencies identified in Smile agus Sláinte, which may establish their own stakeholder engagement as required.

I have established stakeholder groups particularly looking at clinical care pathways and the need for changes in training and need for up-skilling for the workforce. I am grateful to those who have been engaging in this preparatory work. I look forward to further and wider engagement with stakeholders as we implement Smile agus Sláinte.

Simon Harris is the Minister for Health in the Irish Government.

Communicative musicality in dentistry

Understanding how a mother interacts with her baby could improve care

WORDS
SASHA SCAMBLER AND CHRISTINA LOVEY

The way in which dentists communicate with their patients is fundamental to the delivery of care, patient adherence, positive clinical outcomes and to the notion of person-centred care. In line with General Dental Council guidelines, the provision of person-centred care has become central to the undergraduate dental curriculum and to dental practice more widely.

Research suggests that the power dynamic that exists when a patient enters the dental surgery means that, for some patients, they are unlikely to feel able to participate fully in a patient-centred consultation and to engage in shared decision making.

One of the challenges that researchers and academics face when teaching the next generation of dentists is to demonstrate how the power inequalities within the dentist/patient relationship can be reflected and reinforced through particular speech patterns and vocabulary. This is essential if students (and practising dentists) are to become more aware of how they might adapt their speech to make the dynamic between the patient and dentist more equal and balanced.

There has been limited research undertaken into person-centred communication within a dental setting, although communication in healthcare settings more widely has received significant attention. Psychologists suggest that it is not just what is said but the way that it is said that is important; termed paralinguistic communication.

Gestures, posture, pitch, eye contact or lack of it, proximity, facial expression and the like can all help people interpret what is being communicated. Current methods for looking at communication in clinical settings focus on verbal and non-verbal communication but little attention is paid to paralinguistic aspects of communication. There has been no work undertaken, to date, on the speech dynamics that exist between dentists and their patients.

With this in mind, the aim of our project* was to develop a methodology or process that would enable the visual and audio re-presentation of speech patterns and rhythms present in dental interactions. The theory of communicative musicality provided a starting point to explore rhythm and pitch in dental consultations.

Communicative musicality

Communicative musicality is the theory that human interaction is intrinsically musical in nature. The term was developed through research on mother/infant communication to describe the way in which emotions are communicated through a series of rhythmic exchanges. Acoustic analysis on the vocalisations of mothers/baby dyads in this study showed noticeable patterns of timing, pulse, voice, timbre, and narrative. This follows many of the rules of musical performance and led to the term communicative musicality. The theory of communicative musicality has been used to look at the impact of rhythmic exchanges on hospitalised infants through the use of live music therapy. The study found that infants who received music therapy were less irritable and cried less when interacting with adults. Using a similar methodology, a study (Robb L., 1999) also found that depression changed the rhythm and pitch of communications between a mother and her infant with postnatal depression resulting in vocalisations that were lower-pitched and quieter with longer pauses between sounds. This illustrates the potential importance of pitch and rhythm in communication in clinical settings.

Method

This proof of concept study drew on an analytical mixed method approach to compare traditional thematic analysis of qualitative interviews with dentists to a paralingual analysis of the rhythms and pitch of the speech. Five dentists working in Special Care Dentistry and/or with anxious patients in primary and secondary care settings were interviewed by an experienced qualitative researcher. The dentists were asked about whether patients could be classified as 'easy' or 'challenging' to work with and what makes a patient 'easy' or 'challenging'. This notion drew on research regarding patient/clinician interactions and good/bad patients and was picked to provide the potential for positive and negative speech within the interviews. The recordings of dentists talking about their work and the content of the speech were then analysed separately and independently in two ways. A thematic analysis of the recording was undertaken using a framework developed around the hierarchy of the PCC in dentistry model.

Concurrently, a rhythmic analysis was undertaken to map key dynamic distinctions such as power, authority and empathy and the rhythmic patterns within the speech. The first analysis focused on the language used and the second focused on the rhythms rather than the words.

Thematic analysis

Each interview was coded using a framework derived from the 'hierarchy of PCC in dentistry' model. This model incorporates different styles and contents of communication in a dental consultation. The foundational components of the model are: context, a holistic approach, the ethos of the relationship and shared

responsibility. The provision of information, choice and control then build from these foundations. Each interview was mapped to the model. Narrative accounts of each interview were also created and, along with the coding and mapping, this enabled us to rank the five interviews in relation to their level of person centredness.

Concurrently with this analysis a rhythmic analysis was also being undertaken.

Rhythmic analysis

For this analysis the interview recordings were mapped to determine distinctions, differences and speech qualities. The purpose of this was to see whether the specific dynamics of speech can be heard rhythmically. Once the interviews were recorded, the rhythmic patterns within the speech patterns could be considered in isolation, regardless of the language content of the interviews. To facilitate this, the interviews were sped up by 35% so that the patterns, rhythm, and pitch could be easily heard. The central section of each interview was selected as it had the least amount of peaks and troughs, hence giving a more comprehensive perspective of the speech patterns.

Initially a visual image of sound waves for each interview was created. This gave an insight into the variation of each speech pattern. Within these images the pitch and tone were clearly displayed and the density of the patterns revealed the rhythm and the way in which this fluctuated throughout the sections selected.

Dance theorist Gabrielle Roth's 5Rhythms were combined with the five elements of Chinese philosophy (Flowing/Water, Staccato/Wood, Chaos/Fire, Lyrical/Earth, Stillness/Metal) and were used to map the interviews. Each element was further divided into Yin and Yang, which stand respectively for the matriarchal, nurturing and patient-led model of health care and the patriarchal, authoritative and bio-medical led model. Key words were used for each element and each quality.

The dynamics within each interview were also considered. In order to make this explicit, a set of notations was drawn up, using five stanzas to categorise and mark where the speech patterns were distinctive and exceptional. By careful listening, it was possible to mark the distinctions within each speech pattern and to respond accordingly. This mapping process was undertaken three times, in order to triangulate the results and see whether the process was effective. The response consisted of coding the dynamics, using the elements, and additionally categorising them as Yin or Yang: masculine or feminine.

The words used were mapped to the notation and the two analyses came together. When listening to the interviews, it was evident that the rhythmic patterns changed according to what was being said; for example, when discussing types of patients, most interviewees spoke more distinctly and rapidly. It was interesting to hear the silences and to note there were different types of silence, i.e. interviewees were silent when thinking about how to respond to a question, and again when they had said something specific, as if to let the weight of what they had said settle.

Results/Evaluation

The final stage of the process was to evaluate the rhythmic analysis and see if the rhythm rankings matched the thematic analysis for person-centredness. The abstract nature of the re-presentations encouraged an intuitive response. The visual re-presentations were presented to a mixed audience of 42 artists, dentists, academics, and members of the public. Alongside each set of visual re-presentations, the rhythmic analysis was performed by Dr Christina Lovey in the form of tap dance. The audience were asked to listen to the rhythms and fill in an evaluation form, which included three questions:

1. Which of the dentists do you find most pleasing in terms of their re-presentation?
2. Which of the dentists would you most like to visit for a consultation?
3. Which dentist would you choose to make an appointment with for a vulnerable family member?

Discussion

The evaluation of our rhythmic and visual re-presentations of dentists' speech suggests that there may be some correlation between the person centredness of the dentist and the perception of their paralinguistic speech patterns. This suggests that the theory of communicative musicality may provide an alternative way of getting dentists and dental students to think about not just the content of the speech in consultations but also the ways in which they speak.

This method has the potential to enable us to use communicative musicality as a way of better understanding dentist/patient interactions in a number of ways. In the short term we have developed a method to enable the use of visual and audio formats to re-present elements of speech dynamics in patient/clinician communications. This can be used to supplement existing teaching in the undergraduate dental curriculum around communication and the provision of person-centred dentistry. It can also be used as a way of representing communication through alternative (non-written or spoken) modes to dental professionals more widely. Analysis of the communications between dentists and their patients would also allow us to compare both the content and the rhythms of speech of the different participants in the consultation and create a visual/audio representation of the interaction. We could then look for rhythmic, pitch and tonal indications of power, empathy, consensus and the other aspects we might expect to find in a consultation. Further research is needed to explore the impact of gender and accent on the rhythmic presentations.

Conclusion

The conceptual work we have undertaken has the potential to be impactful in several ways. It could be used as a demonstration within a teaching context to raise awareness of the importance of speech patterns. It could be used to provide examples of how to better communicate with patients or of contrasting approaches that currently exist within dentistry. It could also help aid discussions about power in dental consultations and consideration of the patriarchal model of health care and the alternative matriarchal perspective.

** kcl.ac.uk/cultural/projects/2018/communicative-musicality*

Full article - with tables, pictures, and references - available at www.irelandsdentalmag.ie/communicative-musicality-in-dentistry

> ALONGSIDE EACH SET OF VISUAL RE-PRESENTATIONS, THE RHYTHMIC ANALYSIS WAS PERFORMED IN TAP DANCE

Lessons from recent history

Improvements in oral health may not be impacted by Brexit, but the effects on the profession will be significant

WORDS WILL PEAKIN

It may be difficult to reliably forecast the future – but looking to events of the recent past can provide some pointers. Michael Donaldson, Consultant in Dental Public Health and Head of Dentistry at the Northern Ireland Health and Social Care Board, has spent time over the past few months trying to predict the likely effects of Brexit on dentistry – by comparing prospects for the UK's exit from the EU with what happened after the 2008 banking collapse.

Armed with economic forecasts for the UK and Irish economies post-Brexit, studies of the impact on oral health in the US and Europe of the global recession 10 years ago, evidence of trends in healthcare spending, and analysis of shifting dental workforce patterns, Donaldson found that the consequences for the UK and Ireland are likely to be significant – though not wholly negative.

"As we detach from the consolidated legislation of the EU, the healthcare system in the UK is going to become more bureaucratic, and therefore expensive," he said. "In terms of our children's oral health, [decayed teeth] averages are likely to continue to decline with lower levels of decay in both the UK and Ireland.

"However, there will be 'left behind' areas in both jurisdictions. And we are going to see wider inter and intra-national variation in access to state-funded primary care dental services. In the Republic, this will very much depend on the funding settlement for its new oral health policy."

Speaking in a personal capacity at the **Faculty of Dentistry, RCSI, Annual Scientific Meeting** in Dublin last November, Donaldson explored the impact of Brexit on the economy, oral health, healthcare spending, access to dentistry, the workforce, and the movement of drugs and medical devices.

The economy

With the exception of Patrick Minford, chair of Economists for Free Trade and professor of applied economics at Cardiff Business School, who has said that the UK's gross domestic product (GDP) will grow by 4 per cent as a result of Brexit, the majority of projections have it 4 per cent lower by 2030; representing £100bn in that year alone, still following an upward – but flatter than no Brexit – trend line in the preceding years and continuing upward in the years that follow. It is a similar picture in Ireland, albeit its economy is smaller. Brexit is projected to reduce GDP in the Republic by 3 per cent by 2030; representing £10bn in that year alone.

Oral health

In the downturn that followed the 2008 banking collapse, oral health in the UK improved with the Decayed, Missing, Filled Teeth index (DMFT) showing a marked decline. In Ireland, there was a similar trend. In Iceland, whose economy was particularly hard hit, researchers studied the oral health of a 4,000-strong cohort in 2007 and again in 2009 and found that the collapse "did not have drastic negative effects on dental health behaviours of the population in Iceland." They added: "Our findings suggest that men may have opted for healthier dental health behaviours following the national economic collapse"[1]. However, Donaldson pointed out that there was evidence of a negative effect on health inequalities and that there are areas of the UK and Ireland that are likely to be affected more than the average, along with specific population groups such as migrant families, travellers, and those in receipt of benefits.

Healthcare spending

Despite the UK and Irish economies displaying signs of recovery from 2010, healthcare spending in both countries declined in the years following, with the UK experiencing the largest reduction in spending as a percentage of GDP in its history. Despite UK Prime Minister Boris Johnston's election pledge to spend an additional £2.8bn on the NHS, Donaldson's view was that it was "very unlikely that healthcare spending will rise above trend".

Access to dentistry

A US study published earlier this year,[2] showed that the 2008 recession resulted in a decrease in the demand for general oral health care and orthodontic care, the latter significantly. Medicaid spending, covering those on a low income, increased. In Northern Ireland, spending on private dentistry declined significantly in the years 2009 to 2012 as about 200,000 people – from a population of 1.8 million – registered with health service dentists. At the same time, the number of dentists working in primary care was increasing – by 18 per cent – supported by a 50 per cent increase in funding over a five-year period. In the Republic, the most recent

available figures, from 2015, show spending on the Dental Treatment Services Scheme, Dental Treatment Benefit Scheme, and salaries to be around €150m.

Projected spending on Ireland's new oral health policy, Smile agus Sláinte, is around the same. Donaldson said that, in his view, with the demand-led contracts that exist in Northern Ireland and Scotland, the system could cope with a downturn in the economy. Not so in England and Wales, with their fixed-level contracts.

In Ireland, he said, "it is always going to hinge on the level of funding in this new oral health plan". The issue there would be whether the funding would be sufficient to support a trend away from private to public dentistry.

The workforce

Currently, UK and Irish graduates with a dental qualification from either country can register in one or the other. This will hold true until 30 June 2021. Beyond then, there is no clarity. If new arrangements are not put in place, then those graduates will be treated as 'third country' applicants – similar to someone from Australia or India, for example – in either jurisdiction. This would present a "significant" challenge for the UK's General Dental Council and the Dental Council of Ireland, said Donaldson.

There has been an increase in the number of dentists on the GDC register over the past decade, but that has levelled off. The number of graduates joining from the EU has dropped significantly; 500 fewer each year from 2011 to 2017. If subsequent UK immigration policy does not address this challenge, then dentistry, and the health service in general, will be under significant pressure.

Currently, about 17 per cent of dentists on the register are from the EU. If the pound continues to fall against the Euro, then many of those already practising here may leave. According to a report commissioned by the GDC and published last January, almost a third of those from the EU registered in the UK are considering leaving.

The issue is not as pressing in Ireland, where the common travel agreement will remain in place, and there is a good supply of dentists into the profession. A problem may occur with over-supply, however, if those opting out of the UK choose to register instead in the Republic.

> "AS WE DETACH FROM THE CONSOLIDATED LEGISLATION OF THE EU, THE HEALTHCARE SYSTEM IN THE UK IS GOING TO BECOME MORE BUREAUCRATIC, AND THEREFORE EXPENSIVE"
>
> MICHAEL DONALDSON

Regulation of medicines

The European Medicines Agency (EMA) allows pharmaceutical companies to seek EU-wide approval for their drugs. Europe represents around 26 per cent of the global market; the UK, about 3 per cent. The consequence of the UK leaving the EU is that companies will seek approval in the US first, then Europe and, much further down the line, the UK. "The UK is going to be receiving new drugs considerably later," observed Donaldson. The UK is negotiating to remain part of the EMA, but no agreement has been reached. In terms of the current supply of drugs into the UK, 75 per cent come through Europe. If there is a no-deal Brexit, supply could be disrupted. There could also be a knock-on effect for Ireland, as 60 per cent of its drugs come through the UK. Realisation of this has caused Ireland to look to other suppliers.

In summary

- More bureaucratic and expensive dental systems.
- Most children will continue on a low caries trajectory.
- The numbers 'left behind' (i.e. high caries outliers) could increase.
- Wider inter and intra–national variation in access to state–funded primary care dental services.

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Young dentists

Snowflake generation ❄r future leaders?

Rather than lamenting how students and trainees are "not what they used to be", the profession needs to adapt, engage, and lead

WORDS
WILL
PEAKIN

Professor Wendy Turner is keen to point out that she is not a psychologist. "I'm a restorative dentist," she said. She has, however, taught dentists at all levels, from undergraduate through to speciality registrars and doctorate students. A graduate of London Hospital Medical College in 1992, she worked for 25 years in London, mainly at Barts and the London School of Medicine and Dentistry, as a clinical academic consultant. In 2018, Turner moved to Queens University, Belfast, to take up the post of Professor and Consultant in Restorative Dentistry. She adds, with a smile, her experience comes both from working with dental students and being a parent.

Turner has studied the 'snowflake generation', those who became adults in the 2010s, and questions whether the default view of them as less resilient and "prone to melting" is helpful. "We have three distinct generations in the workplace – baby boomers, Generation X, and Generation Y – who are now being joined by a fourth, Generation Z – the 'digital natives," she told the **Faculty of Dentists, RCSI, Annual Scientific Meeting** in Dublin last November. Turner has mapped how the generations' different upbringings, experiences and expectations combine to create a learning environment which could be better understood by the profession.

"Recent generations, although remaining career motivated, are far more demanding of flexibility and a work-life balance than previous generations, who are broadly seen as being hard working but possibly to the point of excess. To understand our modern-day trainee or student, we need to not only appreciate the emerging cultural differences between generations, but also the changes that have happened to both medicine itself and our training over the same time frame."

Generations are defined, biologically and sociologically, by shared life experiences; September 11, for example, the global financial crash, or Brexit. Generation X – born between 1965 and 1979 and aged between 40 and 50 today – balances a strong work ethic with a laid-back attitude; many grew up in homes with two working parents and learned from their example to work hard, as well as fend for themselves. Generation Y – born between 1980 and 1994 and aged between 25 and 39 today – are confident, have high expectations of their employers and are not afraid to question authority. Their over-protective parenting style, however, can mean that their children struggle as students to thrive independently.

This current cohort, Generation Z – born between 1995 and 2015 and aged between four and 24 today – are fluent in technology, crave information on demand and have never lived without connectivity. "They are entering the workforce with a generally more liberal set of beliefs and an openness to emerging social trends," said Turner. "They multi-task, are altruistic, and value diversity." They are digital natives who grew up online, shaped by engaging with a huge variety of content such as *I'm A Celebrity*, Netflix, and Instagram. Turner contrasted their lecturers' and mentors' 'comfort zone' – the lecture theatre, printouts, written notes, quiet study, and acceptance of professional authority – with the modus operandi of today's learners – always open laptops, YouTube as a learning tool, wanting to feel inspired and empowered by their teachers.

For the dental student of today, there are financial and academic pressures amid intense competition in an assessment-driven climate. Graduates are entering the profession in a difficult environment, where patient complaints, litigation and referrals to the regulator are commonplace creating a "climate of fear". Turner cited a recent article in the *British Dental Journal* by Kathryn Fox, Senior Clinical Lecturer at Liverpool University's School of Dentistry*. "In order to understand the pressures facing our new graduates, we must first understand how recent changes in society have affected the way in which this generation has been raised," wrote Fox. "We should also accept the role of individuals, and the profession as a whole, in changing the current climate and promoting graduates' professional development through appropriate risk management, coaching and mentoring. Dental students and newly qualified

graduates will mirror the response of their senior colleagues, so until dentists are comfortable owning up to their mistakes and doing the right thing without fear of prosecution, the next generation will continue to struggle further in this climate of fear, rather than developing the resilience and clinical confidence required to become the competent clinicians that our patients require."

Turner added: "They emerge from dental school as fledgling professionals, expected to navigate a scary terrain. The treatment options for most conditions have evolved massively and, consequently, so too has the potential to get it wrong. Decision-making is more complex now than it's ever been – simultaneously requiring greater knowledge and increasing the chance of errors. We have moved nationally towards a training system that is highly regulated and closely assessed, but this places heavy demands and stresses on trainees and students."

A 2018 study** of medical, dentistry and veterinary student wellbeing by Dr Duleeka Knipe, of Bristol University, revealed a higher proportion of dentistry students, compared with medical students, who had moderate depression, higher levels of anxiety and lower wellbeing. Turner mentioned "the R word"; resilience. "[It] is defined as the ability to adapt well in the face of significant stress and adversity. "Our students have progressed through tests, GCSEs, AS levels, university clinical aptitude tests, dental school interviews. Any un-resilient ones would have fallen by the wayside! Being resilient doesn't necessarily mean you have good mental health."

> "WE SHOULD UNDERSTAND THAT THEIR EXPECTATIONS HAVEN'T REALLY CHANGED; TO SEE PATIENTS REGULARLY, TO DIAGNOSE, TO TREAT, AND TO LEARN FROM THOSE EXPERIENCES"
>
> PROFESSOR WENDY TURNER

Turner said it was important to understand the approach of students today to learning; online resources have proliferated, and they want to be taught things they can't Google. Education should be a social experience, involving collaboration and there is a dislike of hierarchy.

"The ideal boss of a Gen Y is equal parts mentor and leader," she said. What this means for lecturers and mentors is the need for practical scenarios and teaching that is relevant. It should be focused on improving learners' ability to deal with the "ambiguities and complex decision-making of clinical practice, while at the same time nurturing their capacity to be the leaders and innovators of the future". There are multiple generations in the workplace today, and with an ageing population this phenomenon will only become more pronounced. "Rather than people being better or worse," said Turner, "we are just different in different generations. A lot of the problem is poor communication, leading to misunderstood attitudes and relationships. Our younger colleagues with different values and expectations turn to us for mentorship – are we prepared?

"The bottom line is rather than lament how students and trainees are not what they used to be, we should understand that their expectations haven't really changed; to see patients regularly, to diagnose, to treat, and to learn from those experiences. Wishing people were more like you is not a strategy – we need to adapt. Respect work-life balance and know how that might differ to each person. Don't try to manage the 'generation' – instead, lead and engage the individual. When it comes to work, they are actually looking for a lot of the same things; job security, work-life balance, an employer that will treat them with respect."

**www.nature.com/articles/s41415-019-0673-0 **www.doi.org/10.1192/bjo.2018.61*

MENTAL HEALTH

Body image
No filter

In the era of social media-driven perfectionism, dental teams should be conscious of a patient's mental health when asked about cosmetic treatment

WORDS
WILL PEAKIN

Natasha Devon MBE, the writer and activist on mental health and body image issues, once went undercover to investigate a Harley Street cosmetic surgeon. Under an assumed identity, her chosen procedure was liposuction of the stomach. In the waiting room, she filled out an eight-page questionnaire on the medical history of herself and her family. "Not one question was to do with mental health," recalled Devon.

The consultant said she didn't need liposuction, but instead a tummy tuck – which was twice the price. As she was about to leave, he asked her to look in the mirror at her "flank" – a word she had only previously heard used in the context of a cow – and said she was carrying excess fat there; if she booked in for the tummy tuck, he would lipo her flank for free. "Not only was I getting a buy-one-get-one-free offer," she said, "but a new neurosis as well."

Devon tours schools and colleges throughout the UK, delivering talks – an average of three a week – as well as conducting research on mental health, body image, gender and social equality. "I ask 14 to 18–year olds about their school experience, challenges to their wellbeing, changes they would like to see in their community," she said. "But I always begin with the same question," she told the **Faculty of Dentistry, RCSI, Annual Scientific Meeting** last November. "If you could have a PSHE (personal, social, health and economic) lesson on anything, what would you choose? And they are absolutely related to mental health ... exam anxiety, bullying, consent ... but, in the 12 years that I have been doing this, the one that comes up consistently is body image."

More than half of 11 to 14 year-old girls avoid normal school activities because of poor body image, according to the organisation Girlguiding. Not just sport, drama, or public speaking – 11 per cent said it prevented them from raising their hand in class. The organisation's research also found that girls as young as seven feel that society judges them more on their looks than their ability. According to the Mental Health Foundation, one in eight adults in the UK has experienced suicidal thoughts because of concerns about body image.

> "NOT ONLY WAS I GETTING A BUY-ONE-GET-ONE-FREE OFFER, BUT A NEW NEUROSIS AS WELL"
>
> NATASHA DEVON

Almost a third of men have felt anxious because of their body image and a tenth have felt suicidal, according to a study published last November. The research, also by the Mental Health Foundation, found that 28 per cent of men said they had experienced anxiety due to body image while more than a third said it had a negative impact on their self-esteem in the past year. Almost a quarter said that they had avoided taking part in social activities that would require them to show their body, such as sports or beach holidays.

Surgery, said Devon, is a common response – but it does not address the underlying issue. Only 2 per cent of people with body dysmorphic disorder (BDD) who underwent surgery found their psychological health was improved and the severity of their BDD reduced (*Annals of Plastic Surgery*, 2010). A 13-year study of 1,500 teenage girls found that 78 per cent of those who underwent plastic surgery were more likely to be depressed and/or anxious in later life (*Psychology Today*, 2012). The desire for surgery can be a symptom of poor mental health, said Devon, and any subsequent procedure will not assuage the underlying psychological problem.

A study published in 2017* by

Thomas Curran, of the Centre for Motivation and Health Behaviour Change, at Bath University, and Andrew P. Hill, of the School of Sport at York St John University, was the first to examine generational differences in perfectionism at a cohort level. Its findings suggested that "self-oriented perfectionism, socially prescribed perfectionism, and other-oriented perfectionism" have increased over the last 27 years.

"We speculate that this may be because, generally, American, Canadian, and British cultures have become more individualistic, materialistic, and socially antagonistic over this period," said the authors, "with young people now facing more competitive environments, more unrealistic expectations, and more anxious and controlling parents than generations before."

Devon said that the higher someone scores on this measure, the more vulnerable they are to a mental health issue. The era of smartphones and social media has seen people being sold two narratives, she said; never be content with what you have and consume constantly in order to prove yourself. In researching her forthcoming book, *Yes You Can: Ace Your Exams Without Losing Your Mind*, Devon asked teachers who they thought created stress among people over exams. They blamed parents. The parents blamed teachers. But when she spoke to young people, they blamed neither; it came from within and that "from an early age they have internalised this idea that they have to measure their value through exam results. The other way this phenomenon manifests itself is through body image; they believe their body is something that can be sculptured to their will".

It is a public health issue, said Devon, and as practitioners dentists are in a position to help change the cultural and social environment in which young people develop. "If young people constantly chase an ideal," she said, "they will never find the solution to any underlying psychological problem. I hope that practitioners can play a part in understanding how body image impacts mental health and provide the appropriate care for people who might be vulnerable."

www.natashadevon.com/advice-support

**Curran, T., & Hill, A. P. (2019). Perfectionism is increasing over time. Psychological Bulletin, 145(4), 410–429. www.doi.org/10.1037/bul0000138*

Flight time: what practitioners can learn from pilots

Lessons from the evolution of human factors in aviation can be applied in a healthcare setting

WORDS
WILL PEAKIN

"Would you behave differently if you shared the fate of your patient arising from any error you made at work?" Professor Peter Brennan, consultant maxillofacial surgeon at Portsmouth Hospital NHS Trust, posed the question recently, pointing out that this is the position pilots find themselves in as a matter of norm.

"If they make a mistake, everyone dies," he said. "If I make a mistake, I walk away from the experience."

Professor Brennan (twitter.com/BrennanSurgeon) said that his eyes were opened to the phenomenon of 'Human Factors' in aviation – optimising the relationship between people and systems in order to improve safety and performance – around nine years ago. The friend of a patient he was treating happened to be a British Airways 747 Training Captain. "I got chatting to him," recalled Brennan, "and he came to theatre and really opened my eyes to better team working, effective communication, reducing hierarchy, and workload management."

Professor Brennan was speaking last November at a conference on Human Factors, organised by the Royal College of Physicians and Surgeons of Glasgow. He highlighted the importance of apparently simple things such as being properly hydrated and fed, and interpersonal relationships, as well as more challenging concepts such as "flattening hierarchies", and how to ensure the adoption of a "no-blame culture".

Taking a lead from other high-risk organisations, including aviation and air traffic services, the conference examined human factors and their relevance to errors in practice. In the run-up to the conference, Dr Richard Hull, the college's Honorary Secretary, who co-organised the conference with Professor Brennan, outlined to *Ireland's Dental* the thinking behind hosting the event.

"'Never events' are simply that; they should never occur. An audit of never events in Wessex showed that human factors were implicated in more than 80 per cent of cases reported. Since the Kegworth air disaster 30 years ago, where human factors occurred resulting in the deaths of 47 people, airlines and other high-risk organisations have embraced the relevance of human factors.

"Since Kegworth, there has not been a single death due to human error on a UK registered commercial airline in more than three billion passenger journeys. While the NHS environment is very different, we have much to learn to promote safe working, in a no-blame culture, to ultimately give better, safer, healthcare for our patients."

The aim of the conference was to help people working in health care, including dental professionals, how to recognise the relevance of human factors in their day-to-day practice and performance. It was important, said Professor Hull, for people to understand the specific features of errors and the scale of the problem. He added: "Errors are everyone's problems and we need to do the maximum to prevent them."

Medical errors are common and largely preventable, the conference heard. In the UK, one in 10 hospital admissions has some form of human error – ranging from relatively minor incidents to so-called 'never events' and death – estimated to be up to 5,000 patients per year. Analysis of never events has found that Human Factors are responsible for the majority of these mistakes.

Professor Brennan underlined the view that healthcare cannot be compared exactly with aviation, "but we can use the many Human Factors that aviation and other high-risk organisations know so well; enhancing team working, effective communication, workload management, reducing hierarchy and professionalism among others.

"If our work on Human Factors prevents serious error for just one patient, then we have succeeded. We are gaining recognition internationally and helping to promote our speciality as a leader in this area." He said that most errors start at the organisational level and end with the unsafe act itself. "Most of my work has been looking at the preconditions; if you can block those conditions, you can almost certainly prevent the error from occurring." He added: "High-risk organisations – aviation, rail, nuclear energy, national

air traffic services – they recognise the importance of human factors. The only way to embed Human Factors across healthcare is that top-down, bottom-up approach, so that we meet in the middle. There's a wealth of evidence to show that senior management is core; not just in practice, but also the regulator, and the Colleges."

Professor Brennan showed a slide of a man he had operated on; the right side of his head had been penetrated by the blade of an angle saw he had been using to cut tiles in a shipyard. The preconditions, said Professor Brennan, were that the man was new to the job, he was unsupervised, and he had been set a time limit to complete the task. The unsafe act – the error – was that he pressed down too hard. The blade sheared off, went through the visor he was wearing and sliced into his face below his eye socket.

"A simple mistake, that should never have happened," recalled Professor Brennan, "It was a seven-hour operation, involving bone grafts to rebuild the orbit." The outcome was positive, he said. "His vision was fine. I got that result because every two hours, I walked away for a 10 or 15-minute break. And actually, you finish quicker than if you work for seven or eight hours because your performance falls with time."

Captain Niall Downey (twitter.com/nialldowney), a pilot with Aer Lingus, described himself as a "recovering thoracic surgeon", after having switched careers in the nineties, from medicine to aviation. At the beginning of his presentation, he asked delegates: "Has anyone here ever made a mistake?" A delegate answered: "Every day." Captain Downey responded: "So, we're in the right room. In aviation, we assume we are going to make mistakes, and our whole mindset and system is based around that." Looking back to his time in cardiac surgery, it was different: "We weren't allowed to make mistakes. If you did make mistakes, you weren't allowed to talk about it; I think there is a better way."

To underline the urgency of his message, Captain Downey reviewed studies of deaths caused by human error in healthcare systems, some of which put the figure much higher than 5,000 per year. Extrapolated, he said, while showing a slide of the passenger cabin of a 174-seat Airbus A320: "Each one of those seats is a funeral in the healthcare system due to human error. Every 10 days, we crash one of those. It doesn't get covered by the BBC and we don't have to tell the CAA (Civil Aviation Authority). That's your environment. We changed our environment over the last 40 years." Charting accidents and incidents, and the number of deaths, in aviation from 1920, he said there was a steady climb to 1977, and then a descent to a point now where there are fewer than 1,000 deaths a year per year in commercial aviation worldwide, out of around four billion passenger movements. It was in 1977 that two Boeing 747 passenger jets collided on the runway at Tenerife airport, killing 583 people.

"That was a watershed moment in aviation," said Captain Downey. "We decided as an industry, we needed to do things differently. It began as 'cockpit resource management', became 'crew resource management', and has evolved over the past 40 years into full-blown Human Factors."

Captain Downey said that there should not be a focus on a 'no-blame culture'. He said: "We don't have a no-blame culture. If I make a bollocks of something tomorrow, I will be blamed, I will be held responsible. But if I report it, I won't be sacked for it." There is a 'Just Culture', which, he said, means "honest human mistakes, not deliberate error or gross negligence, but it means we can make mistakes and admit to them." In contrast, he said, in healthcare there existed a "name, shame, and reclaim" culture. In aviation, he said, when an error is admitted they look at the system to uncover the 'tripwire' that led to the error and "we then try to engineer the tripwire out of the system and replace it with a safety net."

Aviation looks at crew resource management; communication, leadership, situational awareness, workload management. "Just Culture. Systems. Crew Resource Management. That's our basic three–stage system," said Captain Downey, "and that's the system that we are trying to get across to you guys. You can't just transplant it in, but the underlying DNA is good. We can genetically engineer it for your environment." That process of "genetically engineering" aviation's three-stage system for a healthcare setting is something which Captain Graham Shaw, a senior First Officer Training Pilot for British Airways, and Captain Chris Holden, a flight instructor with British Airways, have undertaken within the NHS. Captain Holden looked back to the early days of NASA when it was found that high-performing individuals did not work well together in teams. Tackling that problem has evolved today into what is termed an 'integrated competency-based structure' where there is no separation between technical and non-technical competencies.

"It is one skill set," said Captain Holden. "You can use the competencies on a personal level, see your own strengths, and apply them to a team. There are technical skills – clinical knowledge and procedural conduct – and social skills – professionalism, communication, leadership, and teamwork. They should be evidence-based and observable. You can also track data. It's about creating a bespoke version of competence for your own healthcare environment, but in principal they are broadly similar to any high-performing team."

Captain Shaw said that the process of embedding this system in healthcare can face barriers. Systemic barriers include regulation, a lack of ring-fenced funding to support training, a perceived lack of relevance and a lack of an open culture. Individual barriers include a lack of clarity on how to implement and a lack of training.

"That's where we come in; to help people recognise great behaviours, get teams to work together so that those behaviours spread throughout the organisation," said Captain Shaw. "We can't fix all those [barriers] while on the day job, but we can give ourselves the skills and knowledge to understand problems, to build an effective and empowered team, with everyone in the room working together to support each other, to use human factors as a final layer of defence when other protection layers in the system fail." Captain Shaw stressed: "Protect the patient, look after each other. It's the fundamental point."

> "IN AVIATION, WE ASSUME WE ARE GOING TO MAKE MISTAKES, AND OUR WHOLE MINDSET AND SYSTEM IS BASED AROUND THAT"
>
> CAPTAIN NIALL DOWNEY, AER LINGUS PILOT

Personal factors that threaten safety

1. Lack of communication
Failure to transmit, receive, or provide enough information to complete a task. Never assume anything. Only 30 per cent of verbal communication is received and understood by either side in a conversation. Others usually remember the first and last part of what you say. Improve your communication:
- Say the most important things in the beginning and repeat them at the end
- Use checklists.

2. Complacency
Overconfidence from repeated experience performing a task. Avoid the tendency to see what you expect to see:
- Expect to find errors
- Don't sign it if you didn't do it
- Use checklists
- Learn from the mistakes of others.

3. Lack of knowledge
Shortage of the training, information, and/or ability to successfully perform. Don't guess, know:
- Use current manuals
- Ask when you don't know
- Participate in training.

4. Distractions
Anything that draws your attention away from the task at hand. Distractions are the number one cause of forgetting things, including what has or has not been done in a task.

Get back in the groove after a distraction:
- Use checklists
- Go back three steps when restarting the work.

5. Lack of teamwork
Failure to work together to complete a shared goal. Build solid teamwork:
- Discuss how a task should be done
- Make sure everyone understands and agrees
- Trust your teammates.

6. Fatigue
Physical or mental exhaustion threatening work performance. Eliminate fatigue-related performance issues:
- Watch for symptoms of fatigue in yourself and others
- Have others check your work.

7. Lack of resources
Not having enough people, equipment, documentation, time, parts, etc., to complete a task. Improve supply and support.

8. Pressure
Real or perceived forces demanding high-level job performance. Reduce the burden of physical or mental distress:
- Communicate concerns
- Ask for extra help
- Put safety first.

9. Lack of assertiveness
Failure to speak up or document concerns about instructions, orders, or the actions of others. Express your feelings, opinions, beliefs, and needs in a positive, productive manner:
- Express concerns but offer positive solutions
- Resolve one issue before addressing another.

10. Stress
A physical, chemical, or emotional factor that causes physical or mental tension. Manage stress before it affects your work:
- Take a rational approach to problem solving
- Take a short break when needed
- Discuss the problem with someone who can help.

11. Lack of awareness
Failure to recognise a situation, understand what it is, and predict the possible results. See the whole picture:
- Make sure there are no conflicts with an existing procedure
- Fully understand the steps needed to complete a task.

12. Norms
Expected, yet unwritten, rules of behaviour. Help maintain a positive environment with your good attitude and work habits:
- Existing norms don't make procedures right
- Follow good safety procedures
- Identify and eliminate negative norms.

Source: Federal Aviation Administration (tinyurl.com/m5u6r5n)

RESOURCES

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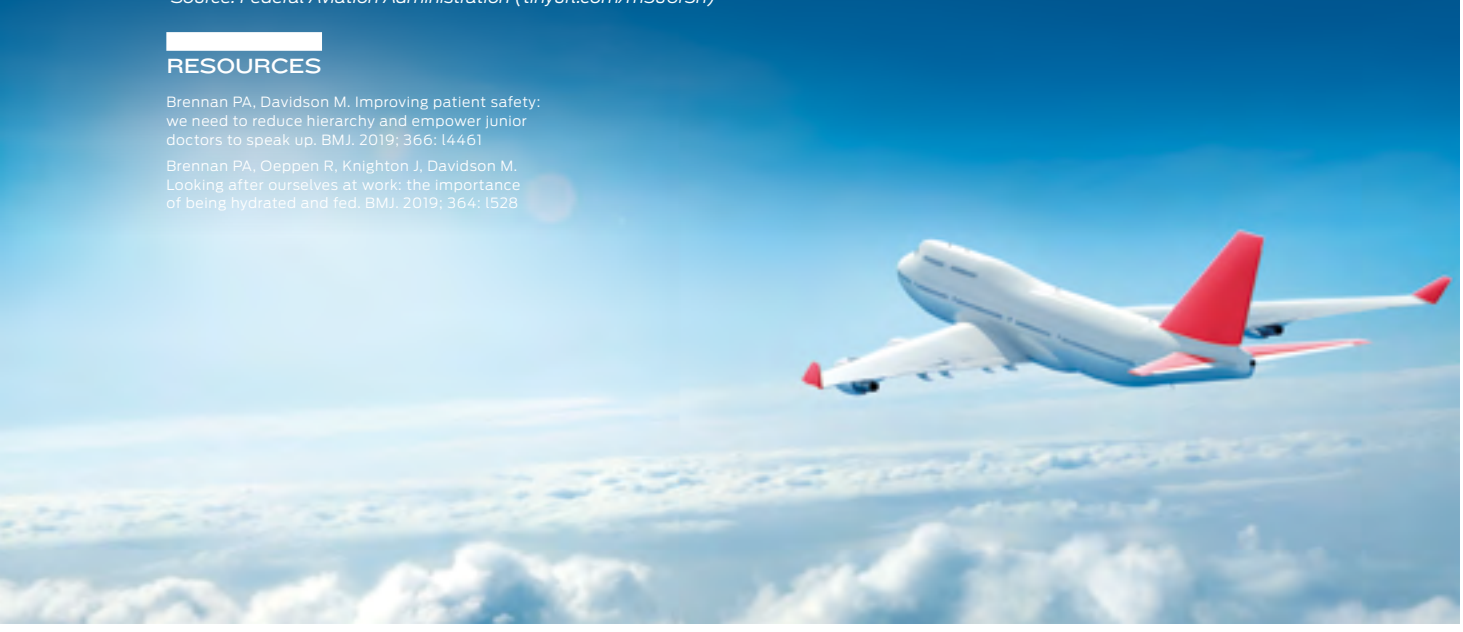

A major haemorrhage following the routine removal of a lower first permanent molar: a case report

McGrath [G1], Steele [P2], MacIver [C3]

[1]Specialty Dentist in Oral Surgery;

[2]Clinical Fellow in Oral and Maxillofacial Surgery;

[3]Consultant Oral and Maxillofacial Surgeon

Introduction

Arteriovenous malformations (AVM) are rare vascular lesions defined by the presence of abnormal arterial and venous channels connected without an intervening capillary bed. AVMs occur as a result of errors in embryogenesis and are present at birth but may manifest at any time[1,2]. AVMs can be divided into slow or fast flow malformations depending on the blood flow through the lesion 3. Vascular malformations rarely affect bone however 50% of lesions affecting bone occur in the skull and maxillofacial region and are termed intra-osseous[4,5]. Despite the fact AVMs of the mandible are uncommon, there are a number of case reports in the literature highlighting these vascular malformations as a cause of major haemorrhage following exodontia[6-12,15]. These case reports demonstrate how a simple extraction can turn into a life-threatening emergency. We report such a case of a 13-year-old female who suffered from a major haemorrhage following the removal of a carious lower right first permanent molar (46).

Case description

A 13-year-old female presented to her General Dental Practitioner with a grossly carious 46 (See fig 1) that required extraction. She had an unremarkable medical history and took no routine medication. Immediately, following an uncomplicated extraction of the 46, there was a significant bleed from the socket. An ambulance was called. The patient was taken to the Accident and Emergency department at the Queen Elizabeth University Hospital, Glasgow. The Oral and Maxillofacial team took a lead in the patient's care.

On arrival, the patient was biting on gauze inserted into the extraction socket by the General Dental Practitioner. The haemorrhage was controlled. On removal, there was immediate high flow bleeding from the socket. The patient was in hypovolemic shock and required resuscitation with IV fluids and group specific blood. An urgent contrast CT angiogram of the head and neck was conducted.

This demonstrated an intraosseous lesion within the right mandible, supplied by an enlarged and tortuous inferior alveolar artery which entered a widened mandibular foramen and a larger vascular structure within the right mandibular ramus, which coursed anteriorly to the inferior alveolar artery. The two vascular structures were noted to be inseparable around the angle of the mandible (See fig 2 and 3). With this clinical presentation and radiological findings an intraosseous AVM was diagnosed.

Following the CT scan, the patient was transferred to the interventional radiology suite and underwent fluoroscopic guided embolisation and coiling to occlude the distal portion of the artery (See fig 4 and 5). Post embolisation the extraction socket was surgically explored and despite the radiological intervention there was immediate bleeding on removal of the haemostasistic pack from the socket. The socket was repacked and Tisseel applied to the socket and buccal bone. An advancement mucoperiosteal flap was raised to cover the socket. Haemostasis was achieved. During the procedure the patient required packed red cells and vasopressors to maintain an adequate blood pressure. The patient remained ventilated in ICU overnight and extubated without incident the following morning. There was no further bleeding during a four-night period as an inpatient. The socket healed well (See fig 6) and there have been no further episodes of bleeding since discharge.

Discussion

Despite cases such as this being an extremely rare occurrence it is certainly not unique as demonstrated by the numerous case reports cited in this article. As dental practitioners, it is important to be aware of clinical and radiographic signs of AVMs in the maxilla and mandible as the detection of such malformations is sometimes possible and could avoid creating an emergency in a dental setting [13,14]. Clinical signs can include pericoronal bleeding[6,7,13,15] , tooth mobility [16] , occlusal abnormalities, soft tissue swelling [7,15,17], mental nerve paraesthesia [14,18,19] and local pulsation[17] which may be visible or palpable. AVMs of the jaws show intraosseous osteolytic expansion on a CT scan but can have a variable appearance on plain-film radiographs[20]. Such radiographic findings have been reported as a poorly defined radiolucency and can have a honeycomb or soap bubble appearance[20]. These signs and examination findings are not specific to AVMs and indeed their radiographic features are variable and may mimic simple odontogenic cysts[19]. The non-specific nature of such clinical and radiological findings in association with the rare nature of such lesions makes diagnosis on a purely clinical basis challenging, particularly in the dental practice setting.

Conclusion

With this paper we hope to raise awareness of arteriovenous malformations within the dental community. Given the challenges in diagnosing such lesions there is the potential for such emergencies to occur in the dental setting. In presenting this case, we hope it will provide some reassurance to General Dental Practitioners that even in this worst-case scenario, simple measures such as packing a socket and applying pressure can arrest a haemorrhage. This case also highlights the importance of achieving such pre-hospital haemostasis as despite the fact it was achieved, the patient still required transfusions, inotropic support and a period in intensive care.

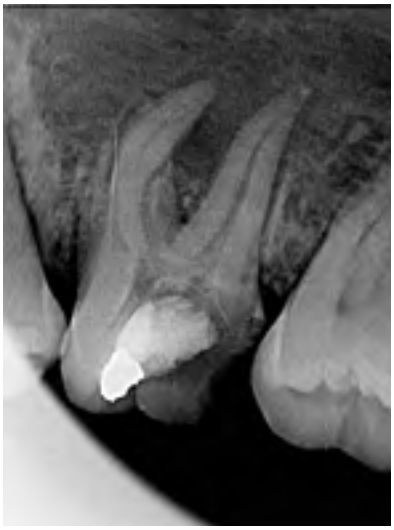

Figure 1 Pre-operative periapical radiograph of the 46

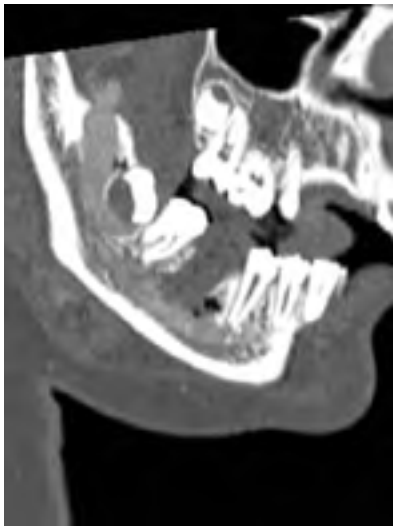

Figure 2 CT face with contrast

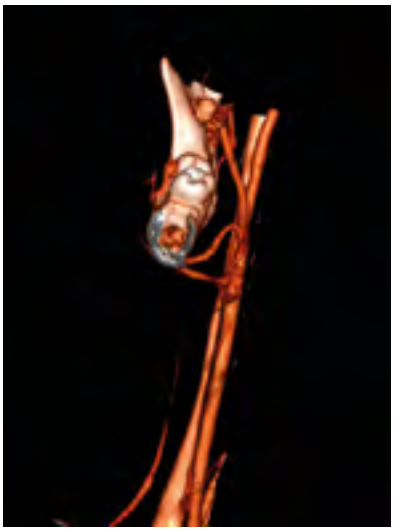

Figure 3 3D reconsruction of CT scan: vessels supplying right mandible

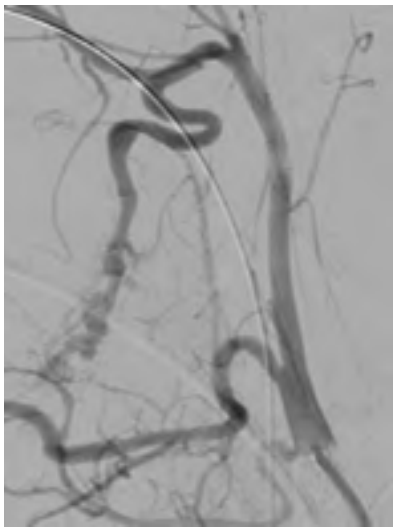

Figure 4 Fluoroscopic guided embolisation. Shows dilated and tortuous inferior alveolar artery pre embolization.

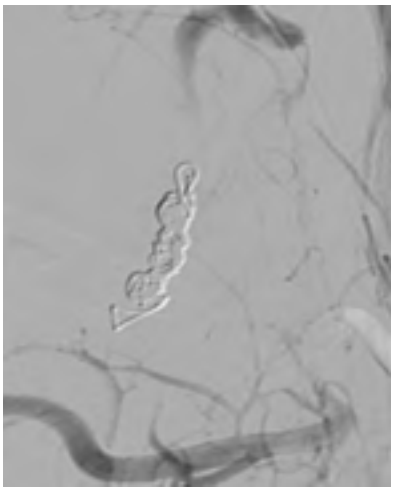

Figure 5 Fluoroscopic guided embolisation. Post embolisation.

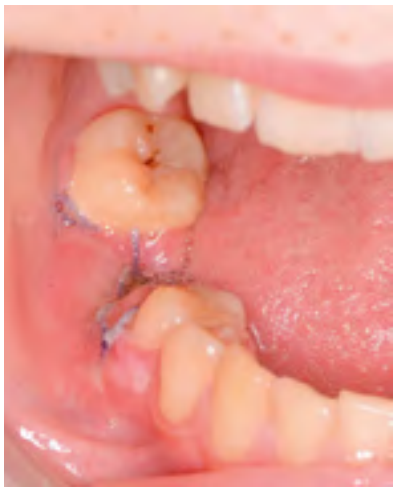

Figure 6 Lower right first molar socket post-surgical intervention

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CONTACT

Department of Oral and Maxillofacial Surgery, Queen Elizabeth University Hospital, 1345 Govan Road, Glasgow G51 4TF

Contact: grainne.mcgrath@ggc.scot.nhs.uk

JUST BECAUSE THE DOOR CAN OPEN, DOESN'T MEAN YOU HAVE TO WALK THROUGH

The new way of health and beauty brings great opportunities, but also significant risks

[WORDS: ALUN K REES]

EVERY DENTIST HAS EXPERIENCED that elated feeling of pushing at an open door. It often comes after a period where it feels as if every patient has rejected, declined, or even demeaned your suggested treatment plans. You have come to feel as if every patient you see has been inoculated to say: "If it ain't broke, don't fix it, doc". Your self-esteem is wobbling, and you start to doubt the wisdom of learning all those advanced techniques, taught on expensive courses, which you justified as an investment that would repay itself many times over.

Then one day a new patient asks before you start your examination if you could do something about the position of their teeth; and their colour; and the size; and their shape.

"Yes!", you think – as the door inches opens in front of you.

"Of course, no problem," you respond, and reach for the camera.

Eighteen months later, as you are struggling to complete the "short-term" orthodontics, having already whitened the teeth beyond B1, the patient asks when are you going to make a start on changing the shape and colour of the teeth? Then, the killer punch; will everything be finished for their wedding, next month.

You make a mental calculation of surgery time plus laboratory fees and realise that any profit has gone, and your pre-treatment assessment could have been better.

Dental caries, we are told, is a disease that is on the wane. The 80/20 rule, first described by Pareto applies, 80% of the disease occurs in 20% of the people and social status reflects incidence. Prevention works. Periodontal disease is widespread but treatable and is hardly going to employ a dentist full time.

It appears as if the future for dentistry is as part of the health and beauty industry where procedures will be largely elective. Certainly, the trilogy of drill/fill/bill, recall and do it again has changed over the past 30 years. Of course, there are still areas of deprivation with high needs, but they are the exception rather than the rule.

What is a dentist to do? You have built your practice on a cornerstone of prevention and health. The ear-to-ear restorations of the past are being superseded as the still dentate, baby boomers/heavy metal generation are moving towards the end of their lives – albeit bringing different challenges as their large restorations start to fail.

In the absence, or reduction, of disease dentists still have great skills, which can be used in different ways. The change in mind-set from reactive to proactive prescribing

can be something of a quantum leap, after several generations of "check-up, prescribe, accept, treat".

The new way of health and beauty brings great opportunities but also significant risks. For every individual adult who has slipped through the net as a teenager and been left with crooked teeth which look unappealing, are difficult to clean, and don't function well, there are those who will pay for treatment they believe to be a psychological magic wand. What we know is that you can't get on a BDS course at Hogwarts and there are no dental magic wands. Before embarking on large treatments non-clinical assessments, as well as clinical, need to be exemplary. Much is written about educating patients and increasing their "dental IQ" and this is desirable and necessary when helping patients to change attitudes to focus on health and self-care.

> "BEFORE EMBARKING ON LARGE TREATMENTS NON-CLINICAL ASSESSMENTS, AS WELL AS CLINICAL, NEED TO BE EXEMPLARY"

However, the improvement in awareness can also bring dental consumerism – with greater expectations leading to a rise in potential complaints, which take time and skills to manage.

The old rules still apply but must be adapted and improved for different times.

- Know yourself, know your patient, and get the best for both
- Under promise and over deliver
- Never want to deliver the treatment more than the patient wants to receive it – and be prepared to say no
- Be clear about your limits and be prepared to refer early rather than late
- Beware of deadlines that are imposed by the patient. Only bleeders come first Elective means delivering at the chosen time, the right time for success
- Body dysmorphia is real, and on the rise especially in the young; fuelled by social media and its use of images
- Know that just because the door can open, does not mean that you have to walk through it

Alun K Rees BDS is The Dental Business Coach. An experienced dental practice owner who changed career, he now works as a coach, consultant, trouble-shooter, analyst, speaker, writer and broadcaster. He brings the wisdom gained from his and others' successes to help his clients achieve the rewards their work and dedication deserve.

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Dr. Dermot Canavan	Predictable Local Anesthesia
Dr. Paul McCabe	Endodontic Management of the Traumatised Incisor
Dr. Anne Gunderman	Problems and Pitfalls with Veneers
Dr. Angus Burns	Adult Orthodontics

FEBRUARY 15th, 2020

Dr. David Finucane	Conscious Sedation for the Paediatric Patient
Dr. Kate Farrell	Conscious Sedation for the Adult Patient
Dr. Rory Maguire	Contemporary Concepts of Non-Surgical Periodontal Treatment
Dr. Donal Blackwell	Treatment of Absent Anterior Teeth
Dr. Chris Irwin	Contemporary Aspects of Surgical Periodontal Treatment

MARCH 21th, 2020

Dr. Jane Renehan	Infection Control Aspects of Health & Safety
Dr. Michael Freedman	White Patches: Innocent or Sinister
Dr. Andrew Bolas	Contemporary Aspects of Dental Radiology Practice
Dr. John Ed. O'Connell	Surgical Management of the Head & Neck Cancer Patient
Dr. Eddie Cotter	Prosthodontic Reconstruction in the Cancer Patient

APRIL 25th, 2020

Prof. Duncan Sleeman	Dental Implications of the Maxillary Sinus
Dr. Marielle Blake	A Role for Invisalign
TBC	Relevant Bleeding Disorders for the Dentist : Haematologist Perspective
Dr. Seamus Sharkey	Implant Dentistry. Perfect planning = Optimal Results
Dr. Paul Oslizlok	Infective Endocarditis: Cardiologist Perspective

MAY 9th, 2020

Dr. Sittana Ahmed	Aesthetic Dentistry in the Anterior Maxilla
Dr. John Walsh	Treating the under 6's: Am I ready?
Prof. Gerry Kearns	Distraction Osteogensis
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RCSI FACULTY OF DENTISTRY

GETTING PAST THE DUE DILIGENCE STAGE – IT REALLY DOESN'T NEED TO BE THAT PAINFUL!

The list of questions to be answered can run to more than 40 pages; here are some thoughts on making completion of the task easier

[WORDS: RICHARD PEARCE]

DD, DUE DIL, CALL IT WHAT YOU will, refers to the vendor providing detailed information about the business (Practice), to the potential buyer. It happens after an agreement in principle has been reached for the sale or purchase (often called Heads of Terms or HoT's) and precedes the preparation of the Business Purchase Agreement (BPA) or Share Purchase Agreement (SPA).

Note: A BPA refers to a sale of goodwill and assets (normal in a single practice sale). A SPA would be used in a share sale or purchase (more likely in a group of practices operated as a limited company).

Due diligence is where you are asked (as the vendor) to answer an extensive list of questions and where it exists, provide the evidence to support your answer. Hopefully the questions are sensibly grouped into subject areas (and a template table provided where applicable), so you might have:

Financial

- Last three years accounts (and management accounts for current financial year)
- Asset register (make and model of each equipment item, date purchased, estimated value)
- Details of all service contracts

HR

- Associate and self-employed persons information (name, start date, specialisms, clinical hours or weeks, monthly gross for last three months, commission %'s)
- Employed staff information (name, position, DoB, annual salary, start date, any disciplinaries)
- Organisation chart

Patients

- Numbers by category (Membership Plan, NHS, Med Card, PAYG etc.), who have attended in the last 18 months. This list could run to 40 pages and this can be daunting to some vendors. So, here are some thoughts on completing the DD.

On receipt of the DD enquiries the ball is now in your court, as the vendor, as to how you will speed up or slow down the sale process. The DD enquiries are likely to come from the buyer's solicitor direct to you or via your solicitor. However, there is nothing to stop you, as the vendor, having prepared a set of answers to a standard dental practice DD, updating them where necessary and then forwarding them, as soon as HoT's have been agreed. It is only then will you get a sense of how quickly the purchasers solicitor operates and how much detail they are looking for. You will know this from the subsidiary questions they ask you. If you are selling to a corporate, their approach to the conveyancing process will be, as you would expect, formulaic. After all, they have done

it many times before and probably the same solicitor will have acted for them many times.

In practical terms, a laptop is required (a word on why a laptop, later) and a digital folder for each set of questions. Label each document starting with the number of the question you are answering (or providing evidence for) e.g. C8 – Asset Register. You will also need a scanner for registrations and registration certificates, contracts etc. Label these scans in the same way. You can then send an email for each section of the DD; and your subject line will, of course, start with your practice name.

A laptop is suggested due to the likelihood that you will want to keep the sales process confidential until completion. Hence, your laptop can be kept secure (physical and access) with all information kept off network. It may be that you bring your Practice Manager into the 'circle of trust' but many vendors do not as knowledge of an imminent sale can be very de-stabilising for staff. If you have a business manager, then delegate the whole process to them. This is just business, after all and they should have all the required information at their fingertips and will have bought and sold businesses before.

Don't be daunted by DD – and if you get organised, like most elements of business administration, it can be completed painlessly.

> "DON'T BE DAUNTED BY DD - AND IF YOU GET ORGANISED, LIKE MOST ELEMENTS OF BUSINESS ADMINISTRATION, IT CAN BE COMPLETED PAINLESSLY"

Richard Pearce lives in Northern Ireland. Following a business career in various sectors and an MBA, he joined his dentist wife in dentistry. Richard combines his wide commercial experience with being attuned to what it is like for an associate dentist, a practice owner and a practice manager. His unique perspective ensures he can assist a practice owner with every area of the practice to create a more profitable practice and to achieve their smart objectives.

www.smartpractices.co.uk

YOUR REPS ACROSS IRELAND

There may be some familiar faces in the next few pages of our special feature on dental business representatives... and some that will be new to you, but they all represent some of the largest dental supply companies in the industry providing world-class products.

They encompass the whole of spectrum of critical dental equipment, dental materials and supplies as well as financial providers, and come with years of experience in their respective fields.

This special feature aims to give you some insight to who you and your practice managers will be speaking to, their industry background and the services they provide, helping you to maintain leading standards of patient care.

These dental representatives can be a tremendous resource to dentists and their teams, helping to explore the best options for choosing equipment, dental materials, consumables or services to improve the efficiency and cost effectiveness of the dental practice. It's difficult for dental practices to keep up with all the developments in the dental marketplace so dental representatives can provide a valuable service to find out what is new in the industry, and to provide advice on what could help dental teams and their practices going forward.

Dental representatives are keen to develop strong relationships with individual dental practices, so the better they know each dental team the more they can tailor their advice and services to meet the aims of each practice.

They often have wide experience in their respective fields and are ideally suited to provide valuable advice on solutions to dental practice issues, as well as training and after sales support, where applicable, to make the most of dental practice investments.

Read more about the leading business representatives and their excellent products and services on pages 49-53.

W&H DELIVERING GREAT SERVICE IN IRELAND

David Thompson
To find out more about W&H, visit www.wh.com/en_uk, call +44 (0)1727 874990 or email office.uk@wh.com

SEARCHING for a new and exciting challenge, David Thompson joined W&H in 2018 as the Business Development Manager for Scotland and Ireland. Since then, David has built fantastic working relationships across all areas of his responsibility. His role at W&H involves developing and growing the company as a market leader, as well as generating greater awareness of the W&H brand. In addition, David provides expert training on W&H products for dental professionals from both private and NHS practices. He enjoys helping different people within the industry by providing solutions that meet their professional needs and preferences.

David believes W&H distinguishes itself from other brands by being a family-owned and run business. This enables the company to continue manufacturing reliable, high quality products from its Austrian headquarters in Bürmoos. W&H offers a variety of cutting-edge solutions that are optimised for oral surgery, periodontology, restorative dentistry, prosthodontics, and endodontics. The company also manufactures a wide range of modern and innovative decontamination equipment that is designed to streamline practice workflows. David plays a key role in helping W&H deliver an exceptional before and after-sales service. As part of this, W&H offers ECPD training to dentists and their teams, as well as dedicated technical support to ensure clinicians make the most of their investment. You can contact David by calling +44 (0)7769 207082 or emailing david.thompson@wh.com

REVOLUTIONARY TREATMENT

Rachel Moreland
+44 (0) 7854 725 544
rachelm@dmg-dental.co.uk
uk.dmg-dental.com

THE DMG brand is recognised in more than 80 countries and is marked by several innovative milestones, including Luxatemp, now celebrating more than 20 years of international success – quite a remarkable achievement for a temporary crown and bridge material. Constic self-etching and adhesive flowable composite is a new three-in-one flowable composite that combines etching gel, bonding agent and flowable composite in one single product; and Icon, DMG's revolutionary treatment for incipient caries and carious white spot lesions, represents a breakthrough in micro-invasive technology.

NSK UK & IRELAND

Jonathan Singh

NSK Product Specialist & Technical Services Engineer NI & ROI

AS ONE of the world's foremost manufacturers of dental handpieces and small equipment, NSK understands the dedication and commitment required to be a successful dental professional. NSK products are developed and designed with advice from the profession and the extensive product range includes some of dentistry's most advanced air turbines and contra-angles.

NSK opened its UK and Ireland headquarters in 2007, and in that time has built a solid reputation for high-quality products, which are recognised as some of the best and most innovative across the industry. The key to their success has been the combination of quality products and excellent customer service.

Jonathan Singh is NSK's Product Specialist & Technical Services Engineer for Northern Ireland and the Republic of Ireland. Jonathan, who is based in Belfast, has a wealth of experience in the dental and medical industry, with a specialist focus in the maintenance and servicing of dental handpieces and autoclaves.

An experienced engineer, Jonathan recently attained his AP(D) (Authorised Person (decontamination)) qualification. This accreditation further supports his comprehensive knowledge of the methods, techniques and processes used in the validation and verification of all decontamination equipment, enabling him to be effective in the management of all engineering aspects of the dental practice's decontamination equipment.

Jonathan also has an in-depth knowledge of the NSK product range and is adept at advising and supporting practices about the most suitable handpieces and autoclaves to meet their individual needs.

NSK understands that today's busy dental practices face a serious challenge; to maintain or increase productivity while ensuring that patient safety remains a top priority. NSK has a range of high-performing autoclaves and customers across Northern Ireland and the Republic of Ireland can benefit greatly from Jonathan's vast experience in decontamination and NSK product knowledge.

"Fast instrument cleaning is vital in a busy practice, so quick cycles, large chamber volume and low power consumption are key" according to Jonathan. NSK's iClave plus, with a highly conductive copper chamber and 20 per cent more capacity than conventional autoclaves, leads the way in these essential criteria.

For NSK the future is not only about continuing to improve its equipment, but the commitment to giving the best service and support. With his years of experience and in-depth knowledge, Jonathan is well-equipped to provide his customers with that and more.

For more information about NSK products and services in ROI and NI contact Jonathan on +44 7464 675158 or +353 1695 0053 or call NSK on ROI 1800 848959 or NI 08006341909.

www.nsk-ie.com
NSK UK LTD
nsk.uk
@NSK_UK

SDI PROVIDES A SUPERIOR LEVEL OF SERVICE

Lesley McKenzie
Sales Manager –
Scotland and Ireland
Tel: +44 (0) 7887 930 923
Email: Lesley.McKenzie@sdi.com.au
Web: www.sdi.com.au

FOUNDED in 1972, and headquartered in Melbourne, Australia, SDI is primarily involved in the research and development, manufacturing and marketing of specialist dental materials. SDI's investment into research and development has ensured superior quality is achieved for the Pola tooth whitening, Riva glass ionomers, composites and amalgam ranges. SDI has offices and warehouses in the USA, Germany, and Brazil.

SDI's products are manufactured in Australia and distributed to more than 100 countries worldwide.

KULZER PROVIDES A QUALITY SERVICE

Donna Morrison
North Glasgow, West Coast
and Northern Ireland
Tel: +44 (0) 7825 343 920
Email: donna.morrison@
kulzer-dental.com

DONNA started as a dental nurse in 1988 straight from school and nursed for 15 years in three different practices. At her last practice, she was there for nine years before returning as practice manager. She started her dental sales career with Heraeus Kulzer, where she worked for four years before briefly working in practice and then returning to the trade on the dealer side. She has recently returned to Kulzer and is excited about her new challenge. Kulzer (formally Heraeus Kulzer) is one of the world's leading dental companies with many brands the market leaders in their relative segments. In the highly competitive composite sector, Kulzer brands, such as Venus Pearl and Venus Diamond, are increasingly seen as the most aesthetic and strongest composite materials available to UK dentists today. Other well-known products in the Kulzer portfolio are Xantasil, iBond Universal, Provil, Flexitime, Dynamix and Charisma ABC.

www.kulzer.com

PROVIDING TOP QUALITY SUPPORT

Stephen Wilson
Southern Implants
Get in touch at stephen.wilson@southernimplants.co.uk; or +44 (0) 779 9044830.

SOUTHERN Implants is a privately owned osseo-integration company, founded in South Africa in 1987, and within the group are companies specialising in spinal, cardiac and tissue regeneration. Our goal is to give clinicians the tools to achieve successful aesthetic outcomes, and implant design, surface, and the componentry all work hand in hand to enable screw-retained restorations in most cases.

Stephen Wilson recently joined the team in Ireland. Having come from an engineering background, he initially entered the dental field through the supply and repair of dental equipment. He covers the whole of Ireland with his focus being on customer care and specialist support for customers for optimal patient outcomes using Southern's advanced implant solutions.

SOUTHERN IMPLANTS

LEADING FINANCE PROVIDER FOR IRELAND

Joe Biesty, Area Sales Manager - Republic of Ireland
For more information, visit www.braemarfinance.ie

JOE BIESTY has been Braemar Finance's sales representative in Ireland for the past five years, where he has quickly established a strong reputation for his client focus and ability to create bespoke deals for a range of dental clients.

Braemar Finance is one of the UK's leading – and oldest – professions funders, having been established in 1992 in Dundonald, Scotland.

A key part of Joe's role is to arrange finance for customers, as and when they require it – this includes meeting to discuss and understand their financial requirements: "We understand that dentists are extremely busy and don't have the time or capacity to provide endless documentation. This is why I make a point of dealing with these transactions with the minimum of fuss and maximum efficiency."

Currently, Braemar Finance offer unsecured business loans and equipment finance.

BRAEMAR FINANCE
Part of Close Brothers Group

QUORIS3D GUIDED IMPLANT SURGERY SERVICES

Quoris3D has certainly made a big impression on the dental sector with their pioneering products and services. In just a few short months, it has helped dentists and technicians across Ireland and the UK, radically rethink their working processes.

With the New Year here, now is the perfect opportunity for you to review your practice and see where you can streamline to increase efficiencies and ultimately increase profitability.

Quoris3D gives you direct access to 3D printing, 3D design services and the ability to purchase some of the world's leading 3D printers and resins on the market.

Quoris3D offers a wide range of implant surgical guide services from custom guides for a single tooth, to full arch Guided surgery (CHROME). With over 72,000 guides designed and manufactured for all major implant systems and seamless compatibility with all major design software, Quoris3D and their partners ROE Dental Laboratory are the obvious choice for all your guided surgery needs. Whether you design surgical guides in-house or require a technician to create the guided surgical design for you, Quoris3D has you covered.

Another key offering from Quoris3D is CHROME Guided Surgery. This service offers your patients a life-changing experience with virtually-preplanned dental implants and teeth in a one-day procedure.

CHROME, the world's leading Full Arch Guided Surgery Solution is designed to simplify surgery, improve planning, predictability and results in the growing market of full arch immediate load treatments. Imagine the impact on your practice if your implant surgeries were completed in a fraction of the time, were more accurate and offered a more positive experience for your patients.

Every week more and more dentists are joining the Quoris3D family for their innovative products and services but most importantly – the unrivalled clinical support available from a team of experts all dedicated to the success of your practice.

To learn more about Chrome Guided Surgery and all the amazing 3D printers and 3D printed products available from Quoris3D:

Visit www.quoris3d.com

LOOKING TO FIND OUT MORE ABOUT CHROME GUIDED SMILE?

Quoris3D is hosting a series of six webinars on CHROME Guided Smile starting the 8 January for six weeks. Add the dates to your diary now so you don't miss out! Learn from the experts, all the key aspects to make full arch guided surgery a predictable and valuable part of your practice.

If you are unable to make any of the below dates, please sign up using the link below and we will email you a recording following the event. All webinars will take place at 7pm GMT.

8 Jan: The CHROME Records – Learn the records needed to submit and launch CHROME cases, from dentate and edentulous patients to closed bites and tough bite situations. Although the records involve general dentistry, capturing the needed casts, bites, photographs, and CT Scans is important to successful surgeries.

15 Jan: Pin Guide and Fixation Base – The Pin Guide is the beginning of all CHROME surgeries and sets the foundation for the successful bone levelling, placement of implants, and prosthetic accuracy. The Pin Guide delivers the Fixation base, with which subsequent CHROME items seat. Learn about the do's and don't's and the uses of both items.

22 Jan: Osteotomy Guide and Carrier Guide – The implants are always guided with either a Guided Kit for a Fully Guided Kit. We will discuss the available systems, how to time the rotation of the implant, a very important step for prosthetic success, and the benefits of the metal guided system. Also covered are the multiple functions of the Carrier Guide.

29th Jan: Nano-Ceramic Prosthetic and RAPID Appliance – PMMA milled Nano is the new standard for milled long term temporary prosthetics. This lecture will discuss how it is designed from the smile, how it is to be used in surgery, and how the RAPID appliance sets the case up for a simple conversion-to-final process in as little as two appointments.

5 Feb: Full Arch Analysis – More than record collection, this lecture will point to analysis of the smile, transition lines, vertical space requirements and what it impacts, how to analyze the patient using anatomical features. Ultimately, full-arch analysis is the difference between success and failure, and we will point the right direction.

12 Feb: CHROME Surgery – Four surgeries will be shown during this lecture, including single dentate arch, single dentate arch opposing an edentulous arch, edentulous opposing an edentulous, and, if time, dentate against dentate. This live-surgery demonstration will point out the basic steps and give some pearls to aid with surgical success.

www.quoris3d.com/chrome-guidedsmile-webinars

Quoris3D and their partners ROE Dental Laboratory are the obvious choice for all your guided surgery needs