# Dental Tribune

The World's Dental Newspaper · United Kingdom Edition

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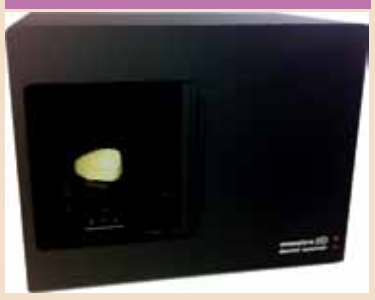
News | Event Review | CAD/CAM Tribune | Business

**McDonald's**
Dentist tried to perform treatment in fast food chain
*page 3*


**Ivoclar Vivadent**
Monolithic restorations in London
*page 10*



**Maestro Scanner system**
Terence Whitty discusses the Maestro 3D Dental Scanner
*pages 14-15*

**Change of control clause?**
Don't panic! Says Thomas Coates
*page 19-20*


## News in Brief

**Hygienist raises £20,000 for mouth cancer charity**
Dental hygienist Christina Chatfield has raised almost £20,000 for Mouth Cancer Action by walking 500 miles from Kirriemuir in Scotland, to Brighton, with more than 300 people joining the walk on various legs of the route. Christina said: "I was joined by a mouth cancer sufferer and her children along the route, which was all the motivation I needed. The support along the route was incredible. I remember bumping into two ramblers, and they hadn't heard of mouth cancer. They donated £10 of their weekly pension allowance to me, and it was moments like that which kept me going."

**New York dentists offer free wine to patients**
Dentists in Manhattan have been offering patients glasses of wine while they wait for their dental treatment to 'take the edge off'. According to *DNAinfo New York*, there are a number of practices around the city that offer patients wine before appointments. One patient said: "It's an extra something that helps you dread the dentist a little less. I don't know why more places don't do it, quite frankly. The wine helps take the edge off." Dr David Janash of Park South Dentistry, which offers wine, said: "We offer the beverages as part of our efforts to create a welcoming, boutique, spa-like environment and make patients more comfortable."

**Shopper finds tooth in Sainsbury's cheese**
Health experts have launched an investigation into claims that a shopper found a tooth in a piece of Wensleydale Jervaulx Blueat purchased at Sainsbury's. According to the *Mirror*, Jane Betts, who had bought the cheese from a Cambridge branch of the store, was chewing on the piece of cheese when she felt the tooth in her mouth. She took the tooth to her dentist, who confirmed it belonged to somebody else.

**Doctors remove 232 teeth**
Doctors at the JJ hospital in Byculla removed 232 teeth from a teenager. Ashik Gavai (17) had a swelling on the right side of the mouth when he came to the hospital in June. The doctors found that it was a rare abnormal growth affecting the second molar on the lower right side of his jaw, which contained 232 small teeth. The surgery lasted seven hours.



# GDC in firing line

## The General Dental Council's actions this month have caused outrage among the profession

The General Dental Council (GDC) has caused outrage among dental professionals this July with a proposed 64 per cent hike in Annual Retention Fees (ARF), followed by an advert placed in the *Telegraph* days later, advertising the Dental Complaints Service (DCS). The advert reportedly cost £60,000.

The GDC has said that the increase to the ARF is needed to cover the rising number of complaints against registrants. The proposal which would see the ARF for dentists increase to £945 a year and for DCPs to £128; a 64 per cent and 6.7 per cent increase respectively.

The announcement has since had a lot of backlash on social media, with one Twitter user tweeting "Fewer job prospects, less earning potential, increased retirement age and now higher ARFs" while another said "£945 #GDC ARF is prohibitive for early career dentists who are already struggling with other fees and student debt."

An e-petition has also been released, asking the government to review the fee increase. At the time of writing, the petition has gained 13,583 signatures.

Mick Armstrong, chair of the British Dental Association's Principal Executive Committee, said the increase in fees is 'unacceptable', especially as the latest Professional Standards Authority (PSA) report on the GDC was highly critical of the regulator.

He said: "The suggestion that the profession pay more to fund a Council that has been shown unable to do its job properly is frankly astonishing. The rise would be unpalatable at the best of times but now it appears that the profession is being asked to foot the bill for failure."

Dr Armstrong added: "It's not just huge rise in fees that has left the dental profession aghast, but, when dentists are expected to tolerate poor performance by the very body that is charged with the duty to assess their fitness to practise, we are justifiably outraged."

The BDA has even called on Health Secretary Jeremy Hunt to initiate an urgent investigation into the competence of the GDC.

> *'Fewer job prospects, less earning potential, increased retirement age and now higher ARFs'*

Approximately a week later, dental professionals were outraged yet again by the regulator when a full-page colour advert appeared in the *Telegraph*.

The advert was placed by the GDC, advertising the DCS. The cost of adverts of this type in the *Telegraph* reportedly cost £60,000.

This advert is seen by the profession as the regulator twisting the knife, with one Twitter user saying: "GDC 'forced' to raise dentists' fee to manage complaints but found encouraging dental complaints", and another saying: "They've honestly made me feel like chucking the towel in. Even our professional body is against us".

The GDC has denied that the advert cost £60,000, stating in a press release that it cost £5,500. DT

# Report reveals failure in CQC inspector recruitment

The Care Quality Commission (CQC) has hired 134 inspectors who failed basic competency tests, official reports reveal.

Internal documents show inspectors the CQC recruited in 2012 failed "some or all of its recruitment activities" during its "significantly flawed" hiring process. This was at a time when the regulator was under fire following a series of scandals in the NHS and care sector.

The document, which was obtained by the *Health Service Journal*, says that the CQC may face legal action if they try to get rid of the staff as those employed were unaware of the flawed process. The report reveals that pass marks for tests to get a job as an inspector were dropped from 60 per cent in order to fill the posts. It further reveals that 126 of the staff who failed the tests remain in post – more than one in ten of its 1,031 inspectors. However, those 126 are not aware of the issue.

The regulator says records which provide any evidence about why the recruits were given the jobs have been destroyed, as they are automatically deleted from the NHS Jobs system after 12 months.

David Behan, CQC Executive, said: "This issue is not about individual inspectors but about the systems and processes used at the time, which we have changed. All of our inspection staff, regardless of when they were appointed, receive training, are subject to a probationary period, regular performance management reviews, one-to-ones, and their work is quality assured." DT

# Almost 70 per cent of Navajo children have tooth decay

Poor oral health remains a major problem in the Navajo Nation and among American Indians overall, a new study from the Colorado School of Public Health has found.

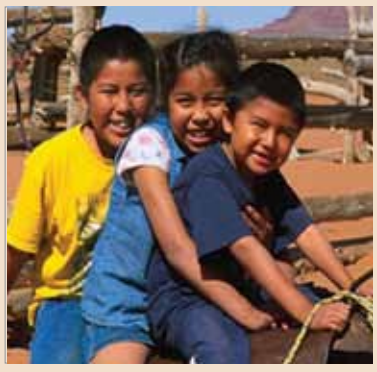
Terrence Batliner from the School said: "The oral health among Native Americans is abysmal with more than three times the disease of the rest of the country. The number one problem is access to care."

The study, published in the *Journal of Public Health Dentistry*, showed that 69.5 per cent of Navajo children had untreated tooth decay. That compares with 20.48 per cent among all other race and ethnic groups.

Much of the Navajo Nation is remote with 22 dental clinics serving 225,639 residents. The dentist-to-patient ratio is 32.3 dentists per 100,000 residents; among the lowest in the country.

Batliner says the creation of dental therapists for the reservation will increase access to care. "They learn how to do fillings and extractions along with providing preventative services. This program has proved to be a raging success among tribes in Alaska. The quality of care is good."

However, the American Dental Association has filed suit to try and block the use of dental therapists on tribal lands. DT



# Unregistered dental hygienist prosecuted

A woman has been prosecuted by the General Dental Council (GDC) for continuing to practise dentistry after she was removed from the register.

Anita Loftus was removed from the GDC register on 3 August 2011 for failing to pay her Annual Retention Fee. Between 10 June 2012 and 5 February 2014, Ms Loftus worked as a dental hygienist at Tavistock Dental Practice in Aylesbury, Buckinghamshire, and at Liam G. FitzGerald Associates in Thame, Oxfordshire.

She has been fined £200, and ordered to pay £250 towards the GDC's legal fees and a £20 victim surcharge. DT

# Research predicts oral cancer aggressiveness

Researchers at Washington University School of Medicine have found a way to predict the aggressiveness of mouth cancer in patients.

Published in *Clincal Cancer Research*, the investigators found a consistent pattern of gene expression associated with tumour spreading in mice. Analysing genetic data from human oral cancer samples, they also found this gene signature in people with aggressive metastatic tumours.

This exposure sometimes produced tumours in the mice that did not spread, but other times resulted in aggressive metastatic tumours, similar to the variety of tumours seen in people. DT

# Tooth development from adult stem cells

Scientists are developing an innovative procedure that would use cells from adult patients to grow full, functioning teeth in situ.

Teeth can be grown from embryonic cells but Professor Paul Sharpe at King's College London Dental Institute, says a treatment using only adult cells and growth-stimulating chemical factors has a much better chance of ever making it to market.

Embryonic cells are surrounded by ethical controversy and could not be collected in the numbers necessary for approved large scale treatment inpatients. Adult cells are a more accessible option and, if the patient's own cells are used, they could also negate the need for a lifetime of immunosuppressant drugs to avoid rejection.

To grow a new tooth requires two types of cell, epithelial cells and mesenchymal stem cells. One of these types of cells must send instructions to the other cell population to begin creating the different cell types and tissues needed in teeth.

The team has already shown that epithelial cells collected from adult patients' gum tissues during routine dental surgery can respond to instructions from embryonic mesenchymal cells to growth of teeth. The team is now searching for a source of mesenchymal cells from adults that will trigger the same responses. DT

# Wales bans smoking in cars with children

First Minister Carwyn Jones and Health Minister Mark Drakeford have announced that a ban on people smoking in private vehicles when children are present will be introduced in Wales.

In 2011, the First Minister announced the Welsh Government's intention to mount a campaign to tackle children's exposure to second-hand smoke in cars. New research shows that although the number of children being exposed to smoking in cars has declined, there is still a 'sizeable minority' of young people who are exposed to smoke in private vehicles.

Welsh government-backed research by Cardiff University has shown that one in ten children continue to be exposed to smoke in family cars. The research also found that there is public support for the ban; with 84 per cent of people surveyed agreeing that smoking should be banned in cars carrying children.

Dr Graham Moore, who led the study, said: "There is evidence to show high levels of public support for a ban on smoking in cars carrying children. Our evidence points to a need for continued action to make smoking in front of children less socially acceptable, whether in the car or at home."

Health Minister Mark Drakeford said: "Although the research findings show that progress has been made in reducing children's exposure to second-hand smoke in cars, we now believe the introduction of regulations to prohibit smoking in private vehicles carrying under-18s is needed as the final piece in the jigsaw to eliminate the harm and end persistent inequalities in exposure."

The government has said that a consultation on the proposal will be launched shortly. DT

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# Dentist tries to perform treatment in McDonald's, struck off

A dentist who attempted to provide dental treatment in McDonald's has been struck off by the General Dental Council (GDC).

Anca Claudia Macavei, who worked at the Cannon Street Practice, was charged with not carrying out sufficient diagnostic assessments during initial appointments; performing root canal treatment without gloves; and not undertaking sufficient treatment planning for patients; among other charges.

Ms Macavei also attempted to provide dental treatment for a patient in a McDonald's restaurant and in the hallway outside of a dental practice, and requested that another patient attend a dental appointment in McDonald's.

The GDC's Professional Conduct Committee said: "In view of the outstanding concerns that remain, the Committee concluded that you would be unable to practise safely as a dentist without restriction on your practice or at all. It also concluded that public confidence in the dental profession would be undermined if a finding of impairment were not made in the circumstances of this case."

Ms Macavei is currently lodging a High Court appeal. DT

Do you have an opinion or something to say on any Dental Tribune UK article? Or would you like to write your own opinion for our guest comment page?

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## NHS could face funding crisis before General Election

The NHS is 'poorly placed' to deal with continuing austerity and could experience a funding crisis before the 2015 General Election, new research from Nuffield Trust reveals.

The report, Into the Red?, reveals that until 2013, the NHS was coping well with a squeeze on funding due to increasing demand on the health service and the consequences of public sector austerity since 2010. However, provisional data from the 2013/14 financial year shows that cracks are starting to show due to severe financial pressure.

NHS and Foundation Trusts as a whole were at least £100m in the red in the last financial year, with 66 trusts in deficit in 2013/14. It also found that 19 Clinical Commissioning Groups ended the last financial year in deficit and NHS England projected a £377m overspend on specialised services.

The analysis concludes that reforms to NHS services by adopting new technologies and promoting out-of-hospital care could help put it on a more sustainable financial footing in the future, but expecting this to happen in the next few years and without additional funding is unrealistic. DT

DENTAL TRIBUNE United Kingdom Edition · July 2014

# Dentist gives accident patient new set of teeth

A girl who lost six teeth after a cycling accident has received a brand new set of teeth from a dentist – for free.

Alex Kerr, 20, was hit by a car as she cycled home from work in November 2013. Doctors saved her life but said she would have to go on an NHS waiting list to have her teeth repaired. However, after reading about the accident, Dr Wynand de Jeger from the Brooklands Dental Practice offered to perform the £12,000 worth of dental work for free.

Alex told the *Metro*: "I was just so self-conscious all the time and sometimes didn't want to leave the house. I can't even imagine what it would be like if I couldn't have these implants done. Me and my boyfriend had just moved into a new flat when I had my accident and now I can finally begin to enjoy it.

"My family just can't believe how confident I am again. My smile is nothing like it was after the accident. I'm really happy. I am so grateful to everyone at Brooklands, especially my dentist. He was the one who contacted me and he has been there all the way through my recovery." DT

# BDA to challenge FD pay cut


The British Dental Association (BDA) it will be exploring all legal avenues to challenge the Government's decision to impose a pay cut on foundation dentists (FDs) of more than £2,000 from September.

Dental graduates are leaving universities with an average debt of £25,000, and the BDA believes an eight per cent pay cut at the start of their careers 'exploits the most vulnerable members of the profession'.

The Department of Health says that the pay cut brings dental salaries in line with their medical equivalents. However the BDA argues that medical trainees have the opportunity to earn additional NHS income, meaning they earn on average £40,000.

Chair of the BDA's Principal Executive Committee, Mick Armstrong, said: "We are both angry and disappointed over the failure to grasp the strength of feeling against these cuts, which frankly many see as an attempt to prey on the most vulnerable members of the profession."

The BDA's campaign to oppose the cuts has won support on Twitter, where the BDA is encouraging tweets using the hashtag #DFTPay, and on the BDA's Facebook page. To sign the e-petition, visit http://epetitions.direct.gov.uk/petitions/64208. DT

# Long-term care improves oral health in adults with special needs

A new study has found that among adults with intellectual and developmental disabilities, the likelihood of having cavities decreased as the number of years receiving dental care increased.

Researchers at Tufts University School of Dental Medicine (TUSDM) reviewed dental records of 107 patients with special needs to determine how selected oral health outcomes changed over a treatment period of approximately ten years.

Cavity rates were found to decline over the treatment period. At the first visit, the rate of cavities was greater than 60 per cent; at subsequent time periods it was lower than 45 per cent. However, gum disease was found to increase over time in patients, although the researchers said this was consistent with the progression of the disease in an ageing adult population.

Senior author John Morgan, associate professor at TUSDM, said: "Our findings suggest that even among patients who receive routine dental care, significant oral health problems remain. The challenge now is to determine how we can find effective solutions to these problems." DT

# Almost 26,000 children hospitalised for tooth decay

Tooth decay is the most common reason children are admitted to hospital, research shows.

The latest figures from the Health and Social Care Information Centre found that the number of hospital admissions for five to nine-year-olds with dental problems was 25,812 in 2013-14. This is up by more than 3,000 from 2010-11, when the figure was 22,574.

The figures also showed that in 2013-14, almost 500 children aged five to nine were hospitalised each week due to tooth decay.

Kathryn Harley, former dean of the faculty of dental surgery at the Royal College of Surgeons, told the *Sunday Times*: "We have children who require all 20 of their baby teeth to be extracted. It beggars belief that their diets could produce such a drastic effect."

These figures follow last month's (June 2014) ITV documentary *The Dentists*, which highlighted the prevalence of tooth decay in children. The programme focused on children with high levels of decay being admitted to the University Dental Hospital of Manchester for multiple extractions, with one four-year-old's baby teeth being almost all rotten.

Claire Stevens, Consultant in Paediatric Dentistry at the University Dental Hospital of Manchester, and spokeswoman for the British Society of Paediatric Dentistry, said at the time: "If these children had seen a paediatric dentist earlier, it might have been possible to save their teeth, instead of removing them and potentially triggering dental anxieties for life.

"In the 21st century, it's entirely unacceptable that children in the UK are having to undergo a general anaesthetic, losing their teeth at a young age due to a disease which is entirely preventable." DT

# 'Fake' ecstasy pills made from dental anaesthetic

Illegal drug suppliers are bulking out ecstasy pills with a dental anaesthetic, with experts warning that users are risking their lives by taking these 'fake' pills.

According to the *Evening Times*, the pills contain only a fraction of ecstasy. They are bulked out with benzocaine, a legal dental anaesthetic which is easily available for sale on the internet.

A source told the paper: "Dealers use benzocaine to make money. They don't care what mixing agents they use, or how dangerous they are, as long as they look like drugs and can create a similar effect. You could be putting anything into your body. Although benzocaine is legal, it is an extremely dangerous drug, if not used properly."

A spokeswoman from the British Dental Association added: "As a local anaesthetic, benzocaine will make parts of the body numb which could result in accidental injury.

"An overdose of benzocaine can cause life-threatening side effects such as uneven heartbeats, seizures, coma, slowed breathing, or respiratory failure, where breathing stops." DT

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Dental Tribune United Kingdom Edition · July 2014

# You too could treat snoring and sleep apnoea

## British Society of Dental Sleep Medicine members explain how to add dental sleep medicine to your practice

Snoring isn't just an embarrassing, anoying noise – it's documented to be a sign of obstructive sleep apnoea (OSA) or airway blockage and a potential killer. It's linked to long-term chronic disorders such as raised blood pressure, adult onset diabetes, carotid artery and increased risk of stroke.

OSA, resulting in serious sleep disruption, can produce greatly impaired performance at work, at home, and on the road. Car accidents are statistically much more common in this group.

Snoring is caused by partial airway obstruction. The severity of the health effect varies widely. Dentists are perfectly positioned to screen for the signs and symptoms which may predict the presence of OSA and refer such patients to a respiratory physician for further diagnosis. If OSA is not suspected then the trained GDP is ideally placed to treat the snoring patient with a mandibular repositioning device (MRD).

In addition, dental sleep medicine is an interesting and rewarding skill to introduce into your practice

Kirsten Rogers introduced a dental sleep medicine (DSM) service into her practice at 53 Wimpole Street, London.

She says: "Starting a dental sleep medicine service in your practice is easy. Being a relatively new field in dentistry, it would be prudent to seek out non-commercial post-graduate courses. By attending a short course with the BSDSM you will gain a solid foundation of knowledge and be well on your way to successfully managing patients with snoring and sleep related disorders.

"Joining the Society gives you access to a complete clinical guide so that you are ethically covered and standardised for every case. It's a non-profit organisation run by genuinely caring dentists with years of experience in dental sleep medicine."

Granta Dental is a private practice in a residential area close to the centre of Cambridge and was established by Dr Helen Harrison in 1990. With her special interest in TMD and occlusal problems, Helen has always sought to give patients a much clearer understanding of the links between their dental experience and the function of their whole oral and cranial systems (including their breathing).

When Dr Thomas O'Connor joined the team in 2013 he brought his knowledge and training which he gained from the BSDSM with regard to sleep apnoea and provision of mandibular repositioning devices and Granta Dental began to provide home sleep studies with the ResMed ApneaLink monitoring system.

Helen Harrison says: "Together with some further training with the BSDSM for all three dentists on the team and the implementation of its clear protocols and pathways for assessing and managing the presentation of sleep disorder in our patients we can now offer a much more comprehensive and clearly understood approach to patient care.

"Many patients are totally unaware, or in denial of, the

significance of the signs with which they present. For example, evidence of nocturnal bruxism, dental erosion and snoring. Often on further investigation they are found to have some degree of sleep disruption and they see immediate benefits with the oral appliances – which also benefits their dental health.

"In keeping with our ethos of evidence-based treatments and measurable outcomes, all the mandibular repositioning devices we use are adjustable and titratable. We provide follow-up with further home sleep studies and are delighted to find that the anecdotal improvements reported by patients and their partners are backed up with genuine improvements in measurable sleep function and a reduction in the Apnoea Hypopnea Index.

"The ability to offer a worthwhile service to patients with a home sleep study has introduced a new income stream to the practice, improved our communication with GPs, medical specialists and the hospital services, and is a welcome demonstration to our patients that our role as dentists in the health and wellbeing mix stretches well beyond the maintenance of good looking smiles."

One of the objectives of the BSDSM is to 'educate and support practitioner dentists' and in pursuit of this it runs regular one-day workshops which are virtually essential for dentists wishing to introduce DSM to their practice. Each workshop provides an overview of sleep-disordered breathing, shows how mandibular appliances work (with examples and the advantages and disadvantages of each) and how participants should assess and monitor their patients. Custom and non-custom devices are described as well as pre-treatment screening and medico-legal issues. Hands on George Gauge™ sessions provide a quick, easy and reliable method of recording a protrusive registration.

The workshops includes tips on how to introduce a dental sleep medicine service into a practice and delegates receive a comprehensive course manual, as well as the BSDSM screening protocol – accepted by Dental Protection (UK) Ltd, the Dental Defence Union and the Association of Respiratory Physiology and Technology (Standards of Care doc relating to MRD therapy).

The next BSDSM course is on 18 October in central London and information about this and membership of the society is on: www.dentalsleepmed.org.uk/

**Ten tips for introducing dental sleep medicine (DSM) to your practice:**

1. Go to www.dentalsleepmed.org.uk for more information and details of BSDSM courses.

2. Educate yourself with non-commercial courses in DSM.

3. Explore a variety of custom-made mandibular repositioning devices (MRDs).

4. Introduce yourself to local medical practitioners and specialists in respiratory medicine and ENT

5. Add a simple screening question to your patient medical history form: 'Do you snore?'

6. Decide on your fee scale – a standard initial assessment fee then an overall fee for providing an MRD (each device will have a different cost) and initial follow-up visits for adjustment.

7. Obtain a selection of tools such as a George Gauge™

8. Educate your reception staff and nurses in the practice's new dental sleep medicine service.

9. Be primed with questions when speaking with patients and know the Epworth Sleepiness Score (ESS) inside out.

10. Allow at least an hour for a new patient's first visit for a snoring and OSA assessment and possibly impressions for an MRD. DT

**Contact info**

The British Society of Dental Sleep Medicine is affiliated to the European Academy of Dental Sleep Medicine.
Web: www.dentalsleepmed.org.uk

Dental Tribune United Kingdom Edition · July 2014

# Top tips for aesthetic brilliance part 3

## The final part of Lloyd Pope BDS's description of Galip Gurel's thoughts on digital imaging, one of the cornerstones of Galip Gurel's presentation at the 10th Annual BACD Conference

How to connect the links – the digital world

Most cases are quite complex and involve many aspects. Therefore you need digital photographs. Galip Gurel (GG) believes that if you don't do digital photography then you can't possibly deliver top-end Aesthetic Dentistry. Therefore you need a proper camera with suitable flash – not just a ring-flash.

You need to document the case step-by-step, otherwise you run the risk of forgetting critical bits of information. The brain can't concentrate and store all the information it is exposed to. If you look at a smile you might recall the basics, but will fail to retain nuances regarding individual tooth positioning etc.

GG uses these pitures as part of the weekly Practice Group Discussion Meeting. This is a two hourly meeing during which all the Practice Members discuss any positive and negative things that have occurred during the week. The second part of the meeting is when they discuss the new patients who have joined the practice that week. They document the cases with pictures leading to a Keynote (Apple equivalent to Powerpoint) presentation for discussion regarding potential treatment options for each case. This helps them come up with different ideas. Regarding aetiology and diagnosis there is only one of these, but regarding treatment there can be many.

Pre-operative interviews are always recorded on a camcorder so that they have a record of what was said by the patient and Dentist. However, not all patients are camera-friendly so the interview is good for medico-legal use, if necessary, and also generates hundreds of intraoral pictures which can be used for treatment planning.

Then they create the mock-up which is used for the discussion between the Dentist and patient.

Always sit the patient up and don't let the patient see what they have done until the mock-up has been completed fully. Then let the patient see the final suggestion.

If you give a patient a mirror they will start to titivate their hair, pull ridiculous smiles etc before they even start to look at the proposed smile design. The whole effect will have been ruined. Therefore take digital pictures first and show these to the patient; document with photos including a 12 o'clock view to check the proper profile etc. Important tip - ban mirrors.

Use the mock-up for the patient discussion. This is a videoed direct mock-up analysis, during which GG gets the patient to talk generally about the set up in order to identify if there is anything wrong as far as they are concerned. This normally takes about 30 minutes from start to finish.

At this stage GG is only concerned with the labial and incisal appearance. He is not bothered about any lingual erosion etc. He wants to make sure that the patient is

100 per cent happy with the proposed design and resultant appearance before he proceeds to do any tooth reduction etc.

When it comes to final decision making it is important to consider who will be involved, what treatment will be performed and by whom. However, it is very difficult to get all the interested parties together at the same time. Consequently GG uses different tools in order to facilitate this. These tools include Keynote, Dropbox and Skype so that video conferencing can be conducted between all the concerned parties at a mutually convenient time, wherever they happen to be located in the world at any specific time or day. Incidentally, Skype can be downloaded free of charge and the video conferencing facilities are also free.

GG also uses offline treatment planning sessions to create presentations which can be downloaded by the other parties at any time convenient to them. They can be sent via dropboxes to whoever needs them.

**Actual treatment**

The Dentist needs to transfer the aesthetic occlusal plane to an articulator. Previously this was only possible via a facebow, which was prone to errors due to the position of the ears etc.

Now GG uses a digital facebow transfer concept, which is very simple and very accurate.

For the procedure, take a simple full-face photograph. Then zoom in and take an intraoral close-up with lip retraction. Alter the opacity of the picture and drag it over the full face image. At this stage it won't be to the correct scale, but you can resize and rotate it to get the correct orientation etc. You can then zoom out and send this image to the laboratory.

The Guided Diagnostic Aesthetic Wax-up is the most important and critical step. To create his Aesthetic Pre-Evaluation Temporaries GG uses Luxatemp, which he has used for many years. He then prepares the teeth through the APT.

For the final restorations he uses Emax all-ceramic restorations with a ceramic build-up incisally.

He does a try-in using the try-in pastes. At this stage he doesn't let the patient have a mirror to look at the results, because they simply start pulling silly and unnatural faces and this totally destroys the impact of seeing the new restorations for the first time. Instead he takes digital images and then discusses these with the patient showing them the new teeth in natural expressions. These pictures are taken against a flat white background, so there are no visual distractions, and then sent to a large screen LED television for the patient to see. If the patient is 100 per cent happy then they go ahead and bond the restorations, normally two-by-two i.e. two centrals, lateral and canine, other lateral and canine etc.

Finally he shows the patient before and after pictures so that they can see the changes he has created. Patients cannot necessarily recall the original appearance after the new smile design has been created.

Finally GG described a very complex case which had been performed in one working day with the patient in Istanbul and the Technician in Brazil. This had involved all the conventional stages described previously with the working models etc produced by 3D printers in Brazil and Istanbul. DT

## Contact info

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