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PERIODONTITIS

An interview with Prof. Marcenes from Barts and The London School of Medicine and Dentistry about the findings of a new study and why they are a cause for concern.

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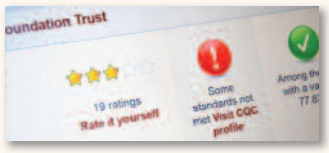
ONLINE REVIEWS

With right to be forgotten legislation, relief from career-damaging reviews now seems to be at hand, but does Google really forget? Musing from Naz Haque of Dental Focus.



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SANDBLASTERS

Dentist Dr Hans H. Sellmann talks about Hager & Werken's Airsonic Mini Sandblaster in dental practice and why it has to be considered a "blast" for patients.

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IMPRINT

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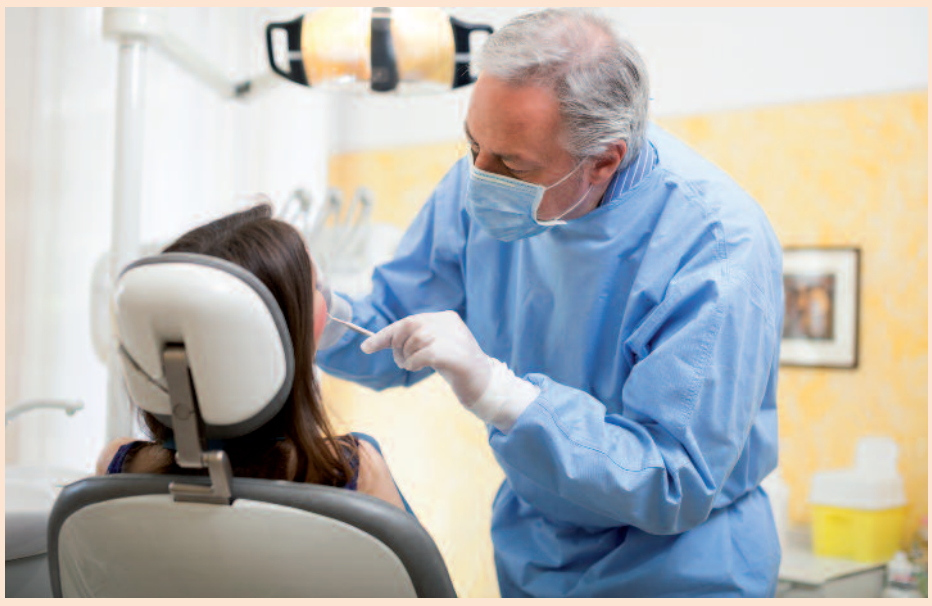
Massive patient recall after breach by dentist in Nottinghamshire

By Dental Tribune International

Thousands of patients treated by a dentist at Daybrook Dental Surgery in Gedling near Nottingham have been recalled by NHS England in Nottinghamshire to be tested for blood-borne viruses. Dr Desmond Jude D'Mello was recently suspended for 18 months by the General Dental Council for violation of cross-infection control standards in multiple cases.

Police are also investigating the death of a woman believed to have been treated by the dentist and who died of viral acute myocarditis last year.



Over 20,000 patients have been placed at low risk of being exposed to hepatitis B or C and HIV. (Photograph Minerva Studio)

Charges against D'Mello arose after a whistle-blower sent secretly filmed footage to the NHS.

Overall, he is believed to have treated more than 20,000 patients since he started practising at the clinic in the early 1980s.

While NHS investigations found that he did not carry blood-borne viruses himself, the patients he saw could have been placed at low risk of being exposed to hepatitis B or C and HIV, Medical Director for NHS England in Nottinghamshire Dr Doug Black said.

He said that his organisation is currently working with Public Health England and the General Dental Council to resolve the issue. Support is also being provided by Southern Dental, which has been running D'Mello's former practice since August, according to Black.

Patients believed to have been treated by the dentist are advised to contact the authorities for further advice. NHS has set up a community clinic at the health centre in Arnold, as well as a telephone line, to support patients treated by the dentist.

"Effective treatments are available for all blood-borne viruses," Dr Vanessa MacGregor, Consultant in Communicable Disease Control for Public Health England in the East Midlands, said.

Millions lost to front-line health care abuse in Northern Ireland

By Dental Tribune International

Health and dental care worth £ 44 million were lost to cross-country fraud last year, Health and Social Care in Northern Ireland has reported. It said that, of over 30,000 dental and ophthalmic treatments claimed for exemption in the region in 2013, over 8,000 have been under investigation owing to charges of abuse.

More than 400 people have been removed from general practitioner lists in the last 18 months owing to fraudulent activities and more than 200 are facing legal action.

In most of these cases, exemption from health care charges was claimed under false pretences or fraud was committed by staff submitting false time or travel sheets.

Northern Ireland's Health Minister Jim Wells (Photo www.dhsspsni.gov.uk)

In one case, for example, £ 25,000 was claimed by a nurse forging her manager's signature.

The total loss is estimated at 3–5 % of the region's health care budget, which is £4 billion.

"Fraud affects us all. All organisations suffer as a result and the health service is no exception. Every penny lost to fraud means less to spend on front line services, meaning that the range of treatment and care we may receive is severely reduced," commented Northern Ireland's Health Minister Jim Wells on the figures.

He said that the government is doing everything possible to investigate fraud and recover money lost, but support is also needed from the public to tackle the problem.

"No one is above the law. I would encourage everyone within the Health and Social Care system to familiarise themselves with how to report it and ask the public to ensure that they are aware of what they are entitled," Wells said.

Since 2013, the service has been working with Counter Fraud Services to detect and prevent cases of fraud. This collaboration has resulted in a conviction rate of 96 per cent, according to Health and Social Care.

Barts study on severe periodontitis reveals looming crisis

By Dental Tribune International

Figures by the National Health Service indicate that at least one in 15 adults in the UK currently suffers from the most severe form of periodontal disease. Worldwide, the situation looks even more devastating with the condition to be found in roughly 11 per cent of the earth's population. An international review published by researchers from Barts and The London School of Medicine and Dentistry and dental institutions in Australia and US in the Journal for Dental Research has recently provided the first insights into the global dynamics of the disease and where it is most prevelant.

According to the paper, prevalence as well as incidence of severe periodontitis was reportedly highest in East Sub-Saharan Africa and most parts of South America. Several countries including Australia, Indonesia or Greece, among others, also ranked below the global average.

Regions with low occurrence were North America, followed by developed countries in the Asia Pacific region, as well as Oceania and Western Europe.

While no statistically relevant difference could be found between genders, the researchers said the condition seemed to increase with age throughout all surveyed countries. Hence, people at age 38 and beyond are most at risk for developing severe periodontitis.

Overall, the study found that more than 700 million new cases of severe periodontitis worldwide add to the already large burden every year, which makes the condition rank among the six most prevalent diseases worldwide. If untreated, it can lead not only to physical pain and psychological discomfort, but also to functional limitation, as well as physical and psychological disabilities, according to the author, Director of Research at Barts Health NHS Trust Prof. Wagner Marcenes, who headed the study.

"The number of severe periodontitis cases has increased dramatically between 1990 and 2010. Since we did not include other types of periodontitis such as its mild and moderate forms, we are facing an even more serious problem in the population's oral health," he commented on the results.

He said that the data are currently being evaluated further to find out what might cause this high prevalence including socio-economic indicators and other risk factors.

Periodontitis is most severe in South America and East Sub-Saharan Africa, according to the report. (DTI/Photo eteimaging)

One of the largest assessment ever conducted on the disease, the review was looking at epidemiological data from more than 70 studies involving 300,000 patients from 37 countries. While it provides insight into the realities of the disease, according to the researchers, the results will have to be treated with caution owing to the problem on how to actually measure periodontal disease. A new standard introduced by the American Academy of Periodontology and the US Centres for Disease Control and Prevention in 2007, for example, made it difficult to compare any data collected prior.

In the report, the researchers indicated any site with Community Periodontal Index of Treatment Needs = 4, clinical attachment of larger than 6mm and pocket depth of 5 as periodontitis.

GDC suspends dentist in rare case of malpractice

By Dental Tribune International

The General Dental Council (GDC) has reported that it is suspending the registration of a dentist from Northern Ireland, after a public hearing held by the disciplinary panel in London found him guilty of over 100 charges of malpractice. According to the council, he will be banned from practising dentistry for five years unless he exercises his right of appeal against being struck off the register within 28 days.

The suspension is a rare case of a member of the dental profession in the UK facing such a high number of malpractice charges. In addition to allegations of having misdiagnosed oral lesions and other conditions that led to the development of oral cancer, the council said that he had failed to carry out biopsies when necessary and misinformed patients about their condition.

Other charges against him involved poor patient management and record keeping.

The council said that he had mistreated 27 of the patients he saw while working as consultant at the Royal Victoria Hospital's School of Dentistry in Belfast between 2006 and 2010. He was removed from the post when patients he had treated presented with symptoms of oral cancer.

Until August, he had worked as a dental educator at Queen's University Belfast, but lost in an unfair dismissal case.

Rise in endocarditis despite antibiotics guidelines for dentists

By Dental Tribune International

Scientists at the University of Sheffield have identified a significant rise in the number of people diagnosed with a serious heart infection alongside a large fall in the prescription of antibiotic prophylaxis to dental patients owing to respective guidelines introduced several years ago. The researchers suggest that their results will provide the information the guideline committees need to re-evaluate the benefits of administering antibiotics as a preventative measure.

The pioneering study is the largest and most comprehensive to be conducted with regard to the National Institute for Health and Care Excellence (NICE) guidelines, which recommend that dentists no longer give antibiotics before invasive treatments to patients considered at risk of the life-threatening heart infection infective endocarditis, which in 40 per cent of cases is caused by bacteria from the mouth.

The team of international researchers, led by Prof. Martin Thornhill at the University of Sheffield's School of Clinical Dentistry, discovered that since the NICE guidelines were introduced in March 2008, there has been an increase in cases of infective endocarditis above the expected trend. By March 2013, this accounted for an extra 35 cases per month.

They also identified that the prescription of prophylactic antibiotics fell by 89 per cent from 10,900 prescriptions a month before the 2008 guidelines to 1,235 prescriptions a month by March 2013.

Thornhill, Professor of Oral Medicine, said: "Infective Endocarditis is a rare but serious infection of the heart lining. We hope that our data will provide the information that guideline committees need to re-evaluate the benefits, or not, of giving antibiotic prophylaxis."

Thornhill stressed that health care professionals and patients should wait for the guideline committees to evaluate the evidence and give their advice before changing their current practice.

He added: "In the meantime, healthcare professionals and patients should focus on maintaining high standards of oral hygiene. This will reduce the number of bacteria in the mouth which have the potential to cause Infective Endocarditis and reduce the need for invasive dental procedures to be performed."

Barbara Harpham, National Director of Heart Research UK, said: "The findings play an important part in the ongoing exploration of the link between dental and heart health. Projects such as this one are vital to the ongoing collation of evidence to support our understanding of how oral health can impact upon the heart and other conditions within the body. We are committed to furthering medical research in the UK and welcome these new findings."

The data was analysed by an international group of experts from the University of Sheffield, Oxford University Hospitals NHS Trust, Taunton and Somerset NHS Foundation Trust, and the University of Surrey in the UK, as well as from Mayo Clinic and the Carolinas HealthCare System's Carolinas Medical Center in the US. The study was published in The Lancet journal online on 18 November under the title "Incidence of infective endocarditis in England, 2000–13: A secular trend, interrupted time-series analysis" and presented last week to more than 19,000 international attendees at the American Heart Association annual meeting in Chicago.

The research was funded by a grant from national heart charity Heart Research UK, health care provider Simplyhealth and the National Institute of Dental and Craniofacial Research.

Dental materials: Are we all deviants?

Dr Thomas O'Connor, London

When I was training at university, every stage of a procedure was supervised, step by tedious step. The "idiot sheets" (as our restorative dentistry professor called them) for each material were available to be referred to and followed religiously. Deviating from those instructions was not an option.

A few years into practice, it begins to be difficult recalling what was said about which particular materials. You know that you were told what was compatible with what, and what was not. When a sales representative turns up with something wonderful and new and better, a little alarm rings in your head, cautioning you that what the representative is telling you is contrary to what you were taught. But no, the representative quite confidently assures you that the research says, the studies show and the *in vitro* trials prove. And most importantly, the new product is faster. Yes, faster, much faster. You can save a whole 30 seconds per procedure. You do not have to wait for the next step: this does two steps in one or even three, if you want to be really good. And faster is better.

At this point, you begin to regret your failing recall of material science. How am I supposed to evaluate which material is best, when each of the glossy brochures shows that they are all better than each other?

"Maybe we all have a bit of that in us."

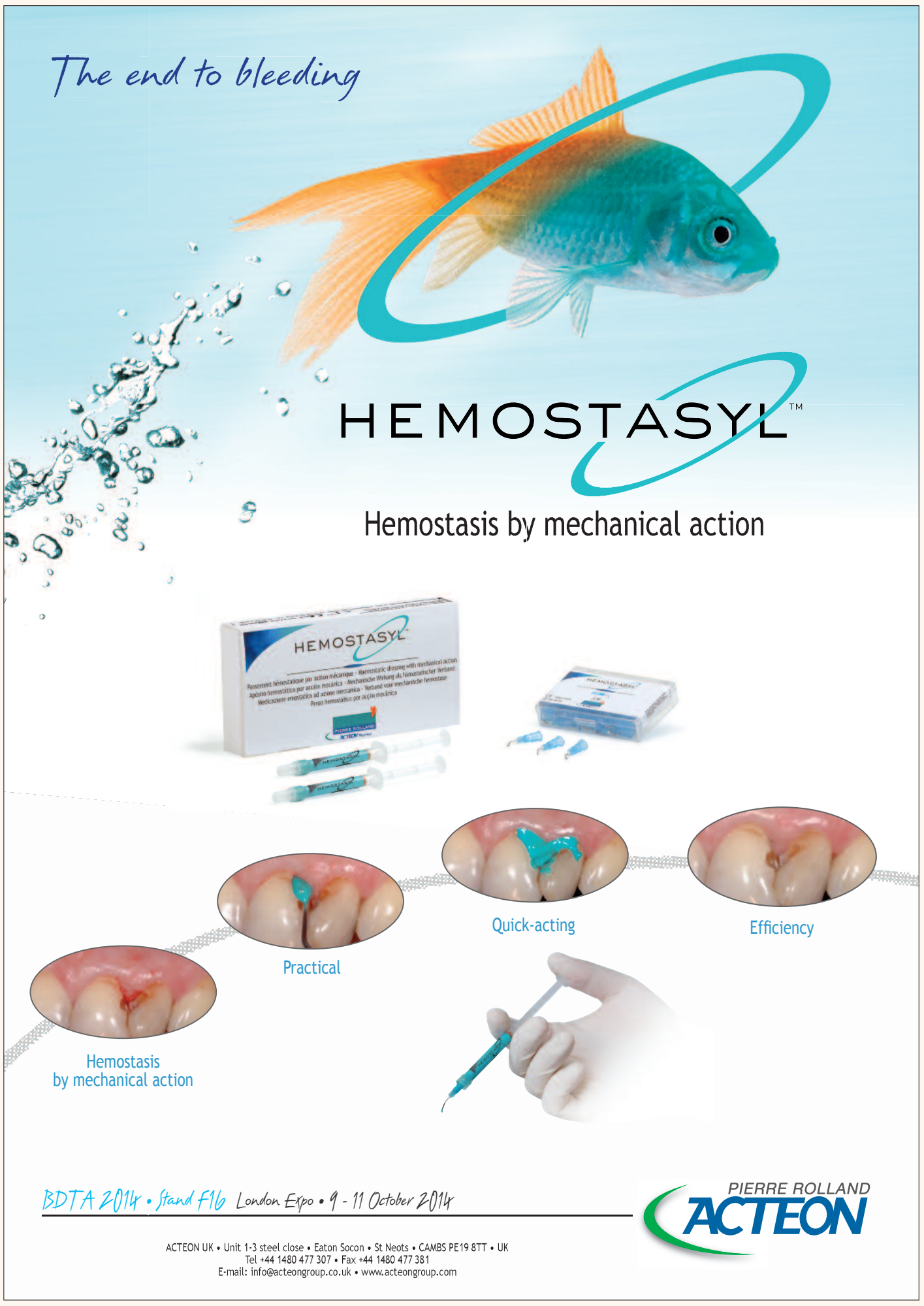
The truth of the matter is, of course, that virtually all of the mainstream products out there are fit for purpose. What makes any material good, bad or indifferent is how the clinician uses it, including skill, time, effort and the amount of care. Even the best of products is going to be rubbish in the hands of someone who uses it badly.

"Lithium disilicate crowns are useless," I was told by a dentist recently. "Every one I have placed has fractured." With twice as many years of clinical experience as me, this dentist was preparing for this material exactly as he would for a porcelain-fused-to-metal (PFM) crown, using a coarse diamond fissure bur. The same internal angles, same margins, same lack of surface finish, same flat occlusal surface on the preparation that he had always had, and cementing the final product with glass ionomer. This had served him well for PFM crowns, but this new material was letting him down.

What was his conclusion? The material was to blame. Progress was a bad thing. He was going to stick with what he knew worked, full coverage PFM crowns for everyone, and disregard progress.

Maybe we all have a bit of that in us. All of the exact details of every process can be lost in the day-to-day stresses of the workload: that little step being skipped just this once, then once again, and then another step gone the next time. It is the normalisation of deviance: people becoming so accustomed to deviating a little from procedure that "they don't consider it as deviant, despite the fact that they far exceed their own rules for elementary safety". Just skipping that little step this time, not performing the process exactly to the manufacturer's instructions, finding a way that is convenient, and assuming no responsibility for the results of the deviance. When something goes wrong, when a restoration fails, when a patient is in pain, it is the fault of the material, or the patient, or the laboratory or the nurse.

The next time you are placing or cementing or layering, stop and ask yourself: am I being a deviant? Refer to your idiot sheet and take the time to recall the correct process step by step. And deviate back to normality.



Dentist health scare–shocking, but rare

Amanda Maskery, Newcastle

The recent news that 22,000 patients of a Nottinghamshire dentist are being contacted and offered testing for blood-borne diseases, such as HIV and Hepatitis B and C, is truly shocking.

Every patient treated by Mr Desmond D'Mello over the last 3 decades is being urged to contact NHS England for testing, because of concerns about the standards of clinical care at his Nottingham surgery, primarily in relation to infection-control procedures.

It is reported that NHS England were contacted by a whistle-blower in June 2014 and as a result Mr D'Mello has been suspended. Covert filming at his surgery apparently shows, among other things, failure to properly sanitise equipment and the re-use of dirty gloves.

NHS England has assessed the risk of infection as low, but the concern that his patients are experiencing is completely understandable.

Dentists are subject to regulations that cover all aspects of clinical practice, including cleanliness and infection control. It is the responsibility of the Care Quality Commission (CQC) to inspect dentists, such as Mr D'Mello, and to ensure that fundamental standards are being met.

According to the CQC, an inspection of his practice last year raised no cause for concern. However, in light of the information received by NHS England, a re-inspection identified failings in cleanliness and infection control standards, safety and suitability of equipment and monitoring of the quality of service.

No doubt questions will be asked in due course as to whether these failings could or should have been identified sooner. It is however, worth placing this undoubtedly troubling case into context.

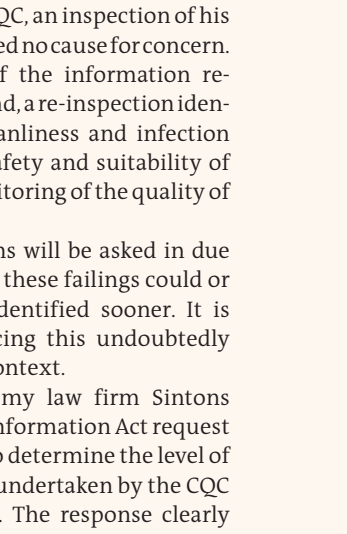
Earlier this year, my law firm Sintons made a Freedom of Information Act request to the CQC in order to determine the level of enforcement action undertaken by the CQC in the dental sector. The response clearly demonstrated that the overwhelming majority of dental practices are compliant with the regulations and that the breaches that have come to light in this case are an exception to the rule.

By April 2014, there were over 10,000 locations where dental services were provided in England. The CQC undertook 5,720 inspections, which resulted in 34 warning notices being issued based on breaches of regulations. The warning notices stipulated a time period for the provider to take the necessary steps to remedy the breach.

The most common breach that was identified during the inspections were eight instances relating to cleanliness and infection control (down from 20 cases in the previous year). A failure to assess and monitor the quality of service provision accounted for a further seven warning notices.

In every case where a warning notice was issued, the provider responded appropriately and addressed the breaches to ensure future compliance. Consequentially, the CQC took no further action.

The CQC have recently published their planning for the way primary care dental services should be regulated and inspected in the future. One of their priorities is to develop an approach to inspection that protects the public from unsafe care. While such an approach is welcomed, hopefully this troubling case in Nottinghamshire will not detract from the fact that the majority of dental services are safe and that the quality of care is good.



Amanda Maskery

Amanda Maskery is one of the UK's leading dental lawyers. She is Chair of the Association of Specialist Providers to Dentists (ASPD) in the UK and a Partner at Sintons law firm in Newcastle. Amanada can be contacted at amanda.maskery@sintons.co.uk.

New US government regulation eyes mercury disposal by dental offices

By Dental Tribune International

WASHINGTON, DC, USA: Despite its known negative effects on the environment, tons of mercury derived from removed amalgam dental fillings end up in public wastewater systems in the US each year. New rules proposed by the Environmental Protection Agency (EPA) last week aim to reduce the threats posed by improper waste disposal by making it mandatory for dentists nationwide to employ amalgam separators, among other measures.

With the new regulations, which are part of the Clean Water Act, the agency hopes to decrease toxic metal discharges, including mercury, by at least 8.8 tons a year. In order to reduce the financial burden for states and localities, which would have to implement and oversee the new rules, EPA also announced initiatives to streamline oversight requirements of the dental industry. After subjection to a public comment period and hearing in November, the rule is expected to become effective in September next year.

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EPA estimates that up to 3.7 tons of mercury are released annually from dental offices in the US, which equals 50 per cent of the total mercury released by dentistry and other industries into the public wastewater system, according to the Zero Mercury Working Group in Vermont. While amalgam separators have been shown to be effective in the collection of the toxic metal before it is released, so far only 12 states, including New York and Massachusetts, have mandated their use in dental clinics. Under the new rules, dentists nationwide would be required to install and use these systems permanently for the very first time.

"This is a common sense rule that calls for capturing mercury at a relatively low cost before it is dispersed into the publicly owned treatment works. It would strengthen human health protection by requiring removals based on the technology and practices that approximately 40 per cent of dentists across the country already employ thanks to the American Dental Association [ADA] and our state and local partners," commented Kenneth J. Kopocis, deputy assistant administrator for EPA's Office of Water, in a press release.

The ADA has been recommending the use of separators for disposing dental amalgam through its best management practices guidelines since 2007. Reports show, however, that in states without mandatory use of the devices proper disposal of amalgam waste is still seriously lacking. Asked by Dental Tribune International to comment on the proposal, ADA officials would only say that it is currently being reviewed by their organisation to ensure that it will not place undue burden on the dental profession. Dental clinics that fully comply with the regulations will incur a cost of US$700 a year, according to EPA.

While relatively harmless when used in dental fillings, mercury can become highly toxic when it reacts with specific aquatic microorganisms. This variant, known as methylmercury, accumulates in fish and fish-eating animals, posing serious health risks to humans when consumed. Among other conditions, research has linked it to cardiovascular disease and developmental deficits in children.

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Henry Schein opens new UK headquarters

By Dental Tribune International

Almost a year after construction started, Henry Schein opened its new headquarters in the Gillingham Business Park in October. The new state-of-the-art and energy-efficient facility, which includes two floors of office space and a warehouse, will serve as the main office and distribution centre for the company's dental and medical customers in the UK.

The new facility was built adjacent to the existing Henry Schein UK facility at the site, which was established in 1991. Its new warehouse includes an education centre with a showroom for product demonstrations featuring a wide range of innovative high-tech digital technology. The company is also planning to develop additional warehouse space if more storage capacity is needed.

"This new, outstanding facility is a source of great pride for our company, underscoring our commitment to environmental sustainability, as the project's planning and construction has taken into account the impact on the surrounding environment," said Stanley M. Bergman, Chairman of the Board and CEO of Henry Schein, at the opening on 8 October, which was attended by over 500 people.

The company stated that its new facility was built with sensitivity to the surrounding natural habitat and local animal species. Over the course of the project, measures were taken to clear vegetation in an environmentally sensitive manner and to protect and relocate protected wildlife inhabiting the development site, and a trained ecologist made periodic visits to the site. Henry Schein also worked with Medway Council, the government authority charged with providing local services to Gillingham and other nearby towns, to create an acoustic and visual barrier between the new facility and nearby homes by planting trees.

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Influx of fake products targeted

By Dental Tribune International

According to figures from the Medicines and Healthcare Products Regulatory Agency (MHRA) in London, over 12,000 individual pieces of counterfeit and unapproved dental products were seized in the UK up to April this year. At the recent BDIA Dental Showcase, the British Dental Industry Association (BDIA) announced that it will partner with major dental and general media outlets, including the BBC, to heighten awareness among dental professionals and the general public of the dangers these products can potentially pose.

In addition to a widespread advertising campaign to be run in the British dental press in 2015, an upcoming episode of Fake Britain, a consumer rights show airing on BBC One, is going to address the situation, which, according to the BDIA, increasingly poses health risks to both patients and users of the products.

While they still represent a small market share, the number of substandard devices purchased by dental professionals has steadily grown in recent years across all segments.

"We are now seeing copies and substandard versions of more complex devices, such as dental X-ray machines and handpieces, being increasingly purchased through the Internet and other sources," Bruce Petrie from the MHRA told *Dental Tribune*.

In order to address the situation, the agency in partnership with the BDIA launched the Counterfeit and substandard Instruments and Devices Initiative earlier this year, which aims to make more dentists aware of the problem and to report questionable products to the relevant authorities.

BDIA Executive Director Tony Reed commented, "We are pleased with the very positive reception that our initiative has received and the next step in growing awareness amongst the dental team is the launch of our advertising campaign."

According to the BDIA, dentists and members of the dental team should be vigilant regarding products of unknown origin and report suspect devices immediately through its website. Products manufactured by reputable suppliers such as BDIA members generally pose no concerns, the association said.

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"It is unacceptable to neglect severe oral diseases"

An interview with Barts and The London School of Medicine and Dentistry Professor Wagner Marcenes, London.

In a report, researchers of the Global Burden of Diseases, Injuries, and Risk Factors Study have recently shed light on the global dimensions of severe periodontitis, which now affects over 700 million people worldwide. This study is a major effort involving more than 1,000 scientists to systematically produce comparable estimates of the burden of 291 diseases and injuries and their associated 1,160 sequelae in 1990, 1995, 2005 and 2010. *Dental Tribune UK* had the opportunity to speak with lead author Prof. Wagner Marcenes from Barts and The London School of Medicine and Dentistry in London about the findings and why they are a cause for concern.

Aerial view of Buenos Aires, the capital of Argentina. The South American country has the highest incidence of severe periodontitis in the world. (Photo Celso Diniz)

"With more people living longer and retaining their teeth for life, the risk of developing severe oral health-related problems, particularly periodontitis, will be high."

Dental Tribune: **Prof. Marcenes, the prevalence of severe periodontitis on a global scale has not increased significantly in the last two decades, according to your report. Why are the numbers worrying nevertheless?**

Prof. Wagner Marcenes: Having more than 700 million people suffering from severe periodontitis is really worrying. Although the proportion remained the same in 1990 and 2010, the number of people needing periodontal treatment has increased dramatically. This is because worldwide more than one in ten people suffer from severe periodontitis and the world population grew from 5.3 billion in 1990 to 6.9 billion in 2010. Moreover, severe periodontitis tends to develop during adulthood, showing a steep increase between the third and fourth decades of life. With more people living longer and retaining their teeth for life, the risk of developing severe oral health-related problems, particularly periodontitis, will be high. The world's population is expected to almost double by end of this century, implying that the number of people with severe periodontitis may at least double.

How do the results compare to the situation prior to the surveyed period?

We have updated the data from the first Global Burden of Disease (GBD) study and generated comparable figures in 1990 and 2010. Therefore, we were able to compare the current and the previous situation to our survey in 2010. Since the study is unique, we do not have global data before the first GBD study. However, we know that oral diseases have decreased significantly in most industrialised countries, such as the UK and the US, in the last five decades.

Severe periodontitis appears to be most prevalent in South America and east sub-Saharan Africa. What could be the reasons for that?

Our study was not actually designed to test risk factors of periodontal disease, but based on pure reasoning, I would say that, in addition to demographic changes, smoking and poor oral hygiene may be the main factors associated with it. This is speculation, but what we see at the moment is a growing number of people smoking in developing regions contrary to the trend in most developed countries. Nearly 80 per cent of the more than one billion smokers worldwide live in low- and middle-income countries. With 1,500 new cases every year, Argentina for example has the highest incidence of severe periodontitis, which is almost double the global average, and high tobacco consumption. We cannot establish a cause and effect relationship, but I believe that the high incidence of periodontitis in these areas is most likely related to the habit of smoking.

In you report, you mention how difficult it is to determine disease prevalence owing to different classification systems. Is your representation of the situation therefore a realistic one?

I am confident our report provides a realistic, comprehensive assessment of the global burden of severe periodontitis. After much consideration, we used a Community Periodontal Index of Treatment Needs score of 4, a clinical attachment loss of greater than 6 millimetres or a pocket depth of more than 5 millimetres as indicators of periodontitis. We used the measurements adopted by the World Health Organization, which are considered by most as the most reliable indicators of severe periodontitis. We endeavoured to reflect the measures adopted by the larger community of public health dentistry.

Prof. Wagner Marcenes

The choice of including only severe periodontitis and not less severe forms of periodontal disease, such as mild or moderate periodontitis and gingivitis, was because of their low impact (disability weight) on quality of life. Since periodontitis tends to progress from mild to severe if untreated, our numbers reflect only the tip of the iceberg, indicating the seriousness of the challenge to health professionals.

Why is the situation so little addressed by the dental community, and how could it be better addressed?

The fact that a preventable oral disease is the sixth most prevalent of all 291 diseases and injuries examined in the 2010 GBD is quite disturbing and should cause all of us to redouble our efforts to raise awareness of the importance of oral health among policymakers. It is reasonable to prioritise life-threatening diseases that have a greater impact on quality of life; however, it is unacceptable to neglect severe oral diseases. Untreated caries in the permanent dentition is the most prevalent of all oral diseases and periodontitis the sixth, and untreated caries in the primary dentition is the tenth most prevalent disease in the world.

It is possible that the prevention and treatment of periodontitis are neglected because most health strategies target children at school and severe periodontitis is uncommon before the age of 20. I believe we need to seriously consider a change in strategy and target the adult population. Also, we should focus on determinants of health rather than the disease itself.

We call this the common risk factor approach. For example, many dental practices in the UK run smoking cessation programmes. This will not only reduce the number of cases of periodontitis but also help prevent life-threatening diseases, such as cancer and cardiovascular disease. Adopting the common risk factor approach would lead to the inclusion of oral health in the top five most relevant diseases. This is because oral diseases and serious life-threatening diseases share the same determinants, for example smoking, hygiene and diet.

Thank you very much for the interview.

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