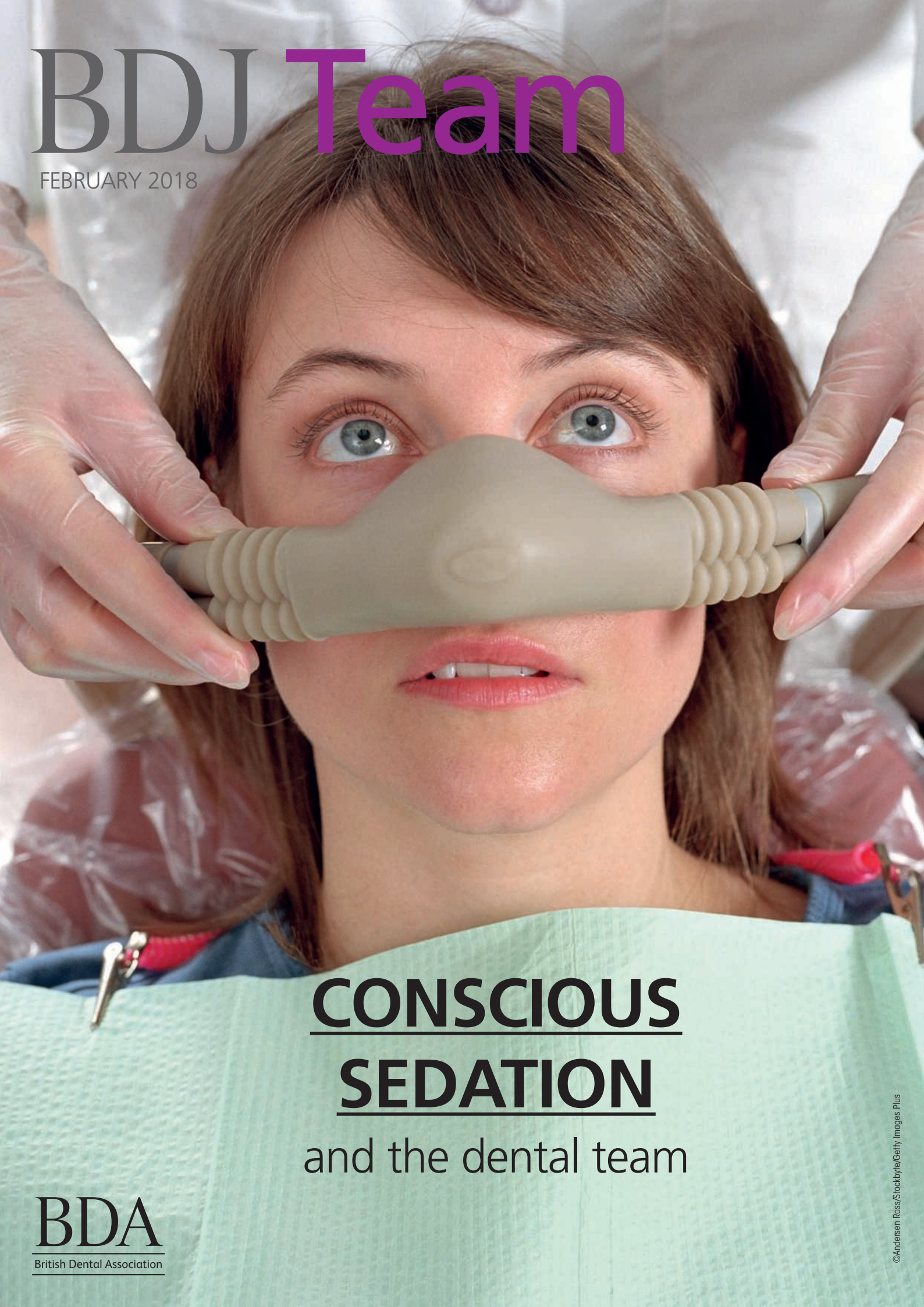
BDJ Team
FEBRUARY 2018



CONSCIOUS SEDATION

and the dental team

BDA
British Dental Association

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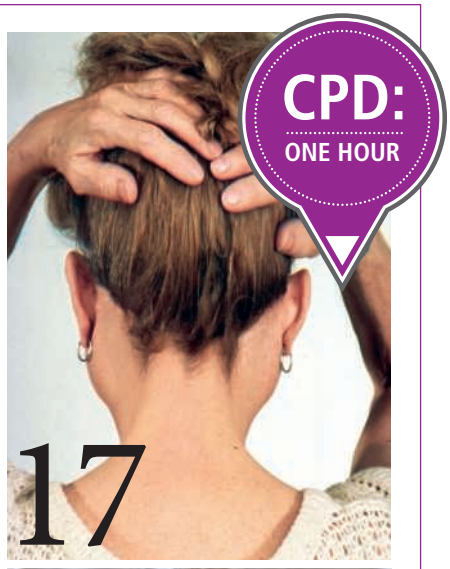

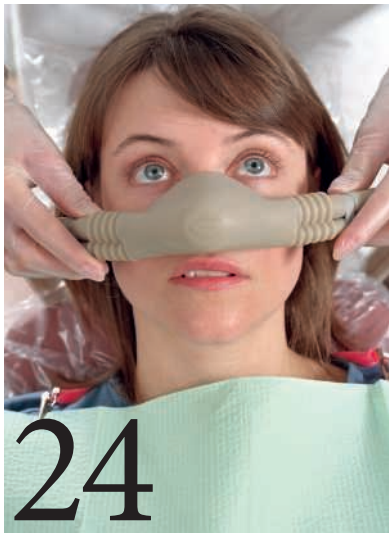

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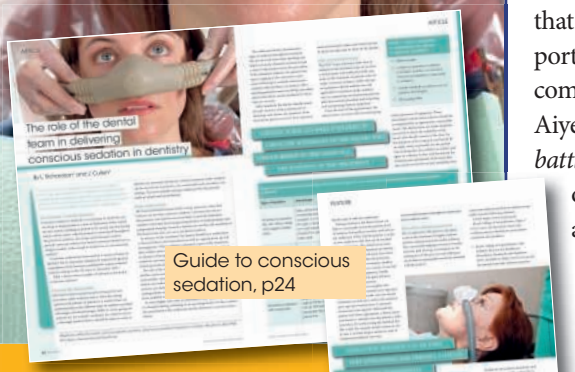
Ed's letter

I am excited to announce that this issue of *BDJ Team* contains the first article to be accepted for publication that was submitted via our new manuscript submission portal, launched last year (http://mts-bdjteam.nature.com/cgi-bin/main.plex). This is S. Nandra and O. Aiyegbusi's research article *Dental nurse to dentist - a battle against all odds*? I would love to hear from any dental nurse readers who have aspirations to become a dentist, or indeed have already made that giant leap.



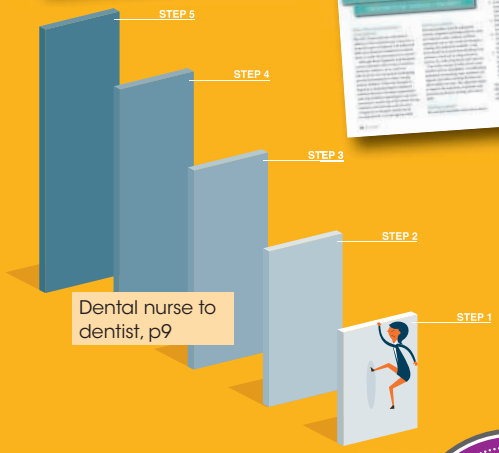
Guide to conscious sedation, p24

Our cover story this issue examines the role of the dental team in delivering conscious sedation, covering how the dental nurse, dental hygienist and therapist, and even the dental receptionist is involved in managing a procedure that is highly likely to involve an anxious patient.

Shaun Howe's journey, p7

Our CPD article this February was provided by Canada-based dental hygienist Linda Douglas, looking at the autoimmune disease Sjögren's syndrome: what it is, how it can be identified, the oral symptoms and how to manage it in the dental practice setting.

In addition to completing this month's CPD, there are also 21 further hours of free CPD to complete on the CPD Hub: ten hours from 2016, ten from 2017, and last month's January CPD. However, **we are going to close the 2016 CPD hours at the end of March**, so please make sure you complete the CPD quizzes before the deadline!



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This month's *BDJ Team* is packed with research and clinical content but do be sure to read about Shaun Howe's educational journey from dental hygienist to qualified dental therapist, at the age of 46, something he achieved through commuting from the Shetlands to Essex! Shaun says his new scope of practice has 'rekindled' his passion for dentistry. We are delighted to share his experience with *BDJ Team* readers.

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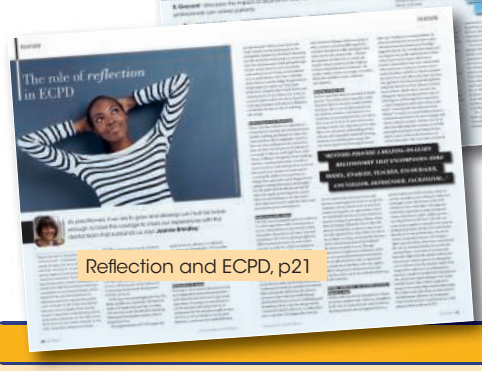

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bdjteam201817

THE TEAM

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2017 National Dental Nursing Conference

The 2017 National Dental Nursing Conference was held on 17 and 18 November 2017 by the British Association of Dental Nurses (BADN) at the Milton Keynes Hilton, and was opened by Keynote Speaker Postgraduate Dental Dean John Darby at the Opening Ceremony where incoming President Hazel Coey accepted the chain of office from outgoing President Jane Dalgarno.

Former Chair Debbie Reed also presented Chief Exec Pam Swain with a bouquet of flowers to mark her 25 years of working for the Association.

The afternoon programme began with TePe's Elaine Tilling on 'Healthy Habit Formation', followed by Dentaid's Jill Harding on 'Volunteering with Dentaid' and finished up with Matthew Hill, Director of Strategy at the General Dental Council (GDC), updating delegates on what's happening at the GDC. This was followed by a fairly lively Q&A session.

Saturday kicked off with a very interesting presentation on 'Dental Nursing in Oman' by Omani dental nurse Yassmen al-Lawaiti. Not only did Yassmen outline the training and work environment of dental nurses (or assistants, as they are still called) there, she also told us about Oman – whose National Day it was – with maps, badges and samples of halva.

Yassmen was followed by Past President Angie McBain-Heilmann MBE and Adrian Buckingham, MD of Dental Hygienics and Decontamination Ltd, on 'What the Butler Saw!' – a cautionary tale of decontamination gone wrong, which caused several delegates to check up on their own practices as soon as they returned to work!

Health Education England's Katy Kerr was next on 'Dementia Friendly Dentistry' and the lecture programme finished with the second GDC speaker of the Conference, Head of Standards Janet Collins on 'Enhanced CPD – What It Means for Dental Nurses'.

At the Closing Ceremony, President Hazel presented Maureen Stone with the BADN 2017 Award for Outstanding Services to Dental Nursing Professional Practice.

BADN no longer hold a black tie Presidential Dinner, but the informal dinner on Friday night was certainly lively. Presidents Hazel Coey and Jane Dalgarno presented Pam Swain with a bottle of champagne and glasses from the Executive Committee to celebrate her Silver Anniversary with the Association.

Outside the Conference room, Isopharm were demonstrating products and answering questions, and the University of Kent was encouraging delegates to consider furthering their dental education.

BADN would like to thank all the speakers: sponsors Isopharm, Oral Health Foundation, Purple Media, Robinson Healthcare, Splat, and the University of Kent, and all who supported BADN and the National Dental Nursing Conference by attending. The 2018 National Dental Nursing Conference will be held in November at the Blackpool Hilton.

New grants available for dental hygienists and therapists

The British Society of Dental Hygiene and Therapy (BSDHT) is dedicated to helping its members provide the care their patients need.

In line with this ethos, it is delighted to be collaborating with the Wrigley Company Foundation to offer members the opportunity to apply for community service grants.

These grants are intended to support oral health promotion and projects within local communities and provide successful applicants with up to £1,500 to continue their great work.

To apply, members need only complete a form about their proposed project and demonstrate what the money would be used for.

This is yet another way the BSDHT is supporting its members and enabling them deliver the very best care for all of their patients.

To find out more about membership, or to request a form for a BSDHT/Wrigley Company Foundation grant, visit the website or contact the team today.

For more information about the BSDHT, visit www.bsdht.org.uk, call 01788 575050 or email enquiries@bsdht.org.

9th DCP Symposium to be held in Cardiff

The Dental Postgraduate Section of the Wales Deanery in collaboration with The Royal College of Surgeons Edinburgh will be holding its 9th DCP Symposium on Friday 18 May 2018 at the Marriott Hotel, Mill Lane, Cardiff.

For further information please contact Liddingtonke@cf.ac.uk or Hayeskj@cardiff.ac.uk.

'All I Want for Christmas' day held in Blackpool

People in recovery and other groups who find it hard to access NHS dental services in Blackpool received essential dental treatment onboard a mobile dental unit operated by Dentaid in late 2017.

The project was funded by Horizon, Blackpool Council's drug, alcohol and non-clinical sexual health support for Blackpool residents – and was the brainchild of Carole Houston, Communications Lead for Horizon, Janet Goodwin, President of the Oral Health Foundation and Blackpool resident, and Pam Swain, Chief Executive of the British Association of Dental Nurses, which is based near Blackpool. The event was attended by Deputy Chief Dental Officer, Eric Rooney.

Carole's previous PR experience in dentistry had led to her meeting Janet and Pam, and also made her aware of the work done by Dentaid. Having obtained funding from Horizon to commission Dentaid, Carole went ahead organising the day at the Church Street centre used as a focal point for the recovery programme, liaising with Janet Goodwin on oral health education materials provided by the OHF and with Pam Swain who asked for volunteer dental nurses from the BADN membership. Horizon volunteers, themselves in recovery, were also on hand to offer support to nervous patients.

Despite a couple of hiccups – fuses in the centre blew twice and the kettle and microwave had to be cannibalised to restore power to the mobile unit! - 47 patients were seen, including many who had been suffering long-term dental pain. One patient had five teeth extracted and a further 16 patients had at least one tooth removed. The team also provided scale and polishes, fillings, fluoride application for children and oral health advice. Several patients had not seen a dentist for several years, either because of access difficulties or because of previous difficult experiences.

Dentaid volunteer dentist Benjamin Veale and BADN member volunteer dental nurse Michelle Brand with a patient in Blackpool

'At Horizon we are very conscious,' said Carole, 'that many of our clients find it difficult to access NHS dental treatment for various reasons. We therefore wanted to make dental treatment as accessible as possible for our clients and other vulnerable people in Blackpool. We commissioned the Dentaid team to bring their mobile unit into the heart of the recovery community in Blackpool to help to break down any perceived barriers. The event was a tremendous success and the feedback from the patients was very positive. So many patients had been in desperate need of dental treatment but either didn't know how to access treatment or were too anxious to seek help. This initiative was created especially for our clients, bringing dental treatment directly to them.

'We were delighted that Eric Rooney came along to support the event, and his ideas for bringing various services together to improve access to dental care for our clients in the future was a perfect outcome from a very successful day.'

Dental hygienist wins clinical case study award

A dental hygienist working in Edinburgh who started her career in Melbourne, Australia, has won BioMin's 2017 Clinical Case Study Award.

Fiona Ord, who initially studied dental nursing at the Royal Dental Hospital of Melbourne and then Oral Health Therapy (Hygiene) at the University of Melbourne, presented an entry that the judging panel felt exhibited considerable scientific rigour. The case study incorporated the use of BioMin F toothpaste designed to help reduce the tooth sensitivity.

Marina Harris, on the judging panel, said: 'Fiona developed a very logical treatment plan which coupled with appropriate and detailed oral hygiene instructions resulted in an excellent clinical outcome. Fiona's delivery of the treatment plan has clearly enhanced the patient's quality of life.'

Fiona, who is currently working at the Clyde Munro practice in Edinburgh, is also a clinical research dental hygienist at the University of Dundee. She moved to the UK in 2000 and was awarded a 1st class degree in Health Science from Napier University, Edinburgh then more recently an MSc in Health and Social Care Research Methods from the University of Sheffield.

'I am delighted to have won this award,' said Fiona. 'The patient in my case study presented dentine hypersensitivity that had not been discussed with previous clinicians.'

BioMin F toothpaste is a controlled release fluoride toothpaste that provides a fluorapatite rich surface on the teeth after brushing for up to 12 hours. This helps reduce sensitivity and provides protection against acid attack and early stage enamel lesions. The company will publish details of the 2018 Clinical Case Study Competition in February. Please indicate your interest to participate at admin@biomin.co.uk and details will be sent directly to you.

Fiona Ord being presented the award by Dr Gillam, Senior Clinical Lecturer in Periodontology at Barts and the London Medical and Dental School QMUL and a director of BioMin

Dental therapy: 'Rekindling my passion for dentistry'

Dental hygienist and therapist **Shaun Howe** explores learning at a later stage of his career and how this has reinvigorated his love of dentistry and reignited his passion for learning.

In September 2016 I was lucky enough to hear about a course at the University of Essex. The course was one year long and I knew of one person that had done it previously and given it rave reviews, but perhaps I need to set the scene for anyone reading this article.

I qualified as a dental hygienist in 1993 whilst serving in the Royal Army Dental Corps. I have worked in every situation you can probably imagine from the armed forces to private practice and the NHS. I have been lucky enough to be involved with various companies and organisations that have maintained my interest in dentistry throughout my career. I moved to the Shetland Islands in 2013 for one reason or another and have worked in the Public Dental Service since arriving. It is a great place to work as I am very privileged to receive continuous support at work.

That aside, I was becoming a little disillusioned with dentistry and the prospect of another 20 years or more being a dental hygienist started to fill me with fear. I was casually looking for an outlet and was considering walking away from a profession that had certainly treated me well but at the same time was becoming tedious. My encounter in September 2016 with Sarah Murry MBE was somewhat fortuitous and has saved me from leaving the profession.

I was attending the British Association of Dental Therapists (BADT) annual conference when I bumped into the aforementioned Ms Murray. Sarah and I have met on many occasions and this time she was busy representing the University of Essex and was promoting two courses run by the university for dental hygienists and dental therapists. One was for the MSc in Periodontology that may appeal to some. However, the course that Sarah knew would interest me was the BSc (Hons) in Oral Health Sciences that, if successfully completed, would not only give me an honours degree but also add the skillset of dental therapy to my current scope of practice.

'THIS NEW SKILLSET TAKES THE TREATMENT I CAN OFFER TO PATIENTS TO A WHOLE NEW SPHERE. I CAN NOW GET PATIENTS OUT OF PAIN AND HELP MY DENTIST COLLEAGUES IN A WAY I ONLY DREAMT OF PREVIOUSLY.'

As I have already said, I live in the Shetland Islands and the course is run from the Southend Campus of the University of Essex. That's about 800 miles as the crow flies and would require some serious thinking about to see if I would be able to commute to the course and this was before I even asked my Clinical Director. I will briefly explain the course structure so that readers can understand how the course works.

Unlike other previous incarnations of this course by various educational institutions, the course is split between university work and 'work based learning' which can be either your current employer or a placement arranged by you the student or with the help of the university. You are learning the vast majority of your skillset whilst seeing live patients in practice. The course starts with an initial one month block and then is mostly two day or five day blocks of lectures and learning to help develop knowledge. Your clinical skills are initially taught in a skills laboratory and are then developed in the workplace working under the supervision of a clinical educator that can be a dentist or an experienced dental therapist.

It is a novel approach to learning but works well as I will discuss further in this piece. The student is required to maintain logs of treatment delivered, write reflective logs on various issues and have case based discussions with their clinical educator throughout the year. There are numerous Direct Observed

Procedures to be completed under the supervision of the clinical educator also. As you can probably imagine, this is time consuming for the student and the clinical educator but this is to ensure all learning outcomes are achieved.

There is also more mundane testing carried out at the university which takes the form of completing certain clinical gateways achieved on phantom heads and more old-fashioned testing in the form of exams, both written and practical. The course is modular so once tested on an area you move onwards. It sounds complex and difficult but it has to be as this is high level learning.

So, I approached my Clinical Director with a proposal about the course; he was initially guarded in his response as he would have to make a submission to the health board. It would mean me being absent for a considerable amount of time throughout the following year and there would be a financial impact that had to be considered. Despite this, I was given the go ahead to apply for the course and did so. I was successful in my application and due to the distance and time frame was able to complete my interview by telephone. I was successful and now the fun was about to begin.

I had to fund not only the cost of the course but also travel and accommodation. I was going to have to attend university 25 or so times with an initial one month block. Frantic bookings of flights, trains and accommodation took place alongside trying to find funding for student fees. Needless to say, everything was put into place successfully and I have now completed the course, earned a first class degree with honours. I managed to commute successfully through the year although some days seemed very long indeed. All the students on this course made huge sacrifices to attend and complete this learning journey whether it was many hours of travelling in my case, not earning an income for one reason or another, and also time away from home and family.

Above: The class of 2017, BSc (Hons) Oral Health Sciences, University of Essex, with Shaun back row centre

Right: The first 'multi surface' filling that Shaun carried out on a real tooth set in a plaster mould, a disto-occlusal amalgam

'TAKING ON A DEGREE LEVEL COURSE AT 46-YEARS-OLD MAY SEEM ODD OR EVEN FOREBODING BUT I WOULD RECOMMEND EMBRACING NEW SKILLS AND KNOWLEDGE TO EVERY SINGLE GDC REGISTRANT THAT FEELS THEY ARE IN A TREADMILL.'

So, how has this rekindled my passion for dentistry? This new skillset takes the treatment I can offer to patients to a whole new sphere. I can now get patients out of pain and help my dentist colleagues in a way I only dreamt of previously. The scope of a dental therapist only differs in four respects from that of a dental hygienist but these are somewhat significant. To remove hard tissue and (deciduous) teeth is something that cannot be undone and this means that decisions to carry out care must be fully thought through with a clarity that never existed in my previous treatment planning.

When treatment becomes mundane then it is time to rethink. It certainly was not the patients that made my working life seem humdrum but now I carry out the treatments I previously did interspersed with restorations and extractions along with the odd lost filling or even a patient in pain that needs assessing and then either treating or referring onwards. I am, as I said previously, very lucky to be so well supported in the workplace but that aside, it has been great to learn new knowledge and skills.

I am now back into learning and I am considering my next move. I joined the army young and never went to college or university.

Taking on a degree level course at 46-years-old may seem odd or even foreboding but I would recommend embracing new skills and knowledge to every single GDC registrant that feels they are in a treadmill. It is a shame to let many years of experience fall by the wayside. I am now looking at another degree, and I think 2019 is the year but I achieved a lifetime of learning in 2017.

Other *BDJ Team* articles by Shaun Howe

'I've had a brilliant first year' - Shaun's relocation to the Shetland Islands. August 2014. https://www.nature.com/articles/bdjteam201486

'Oh what a night' - Shaun on what dentistry can expect post-election. June 2015. https://www.nature.com/articles/bdjteam201581

Where will DCPs be in 10 years' time? January 2016. https://www.nature.com/articles/bdjteam20169.

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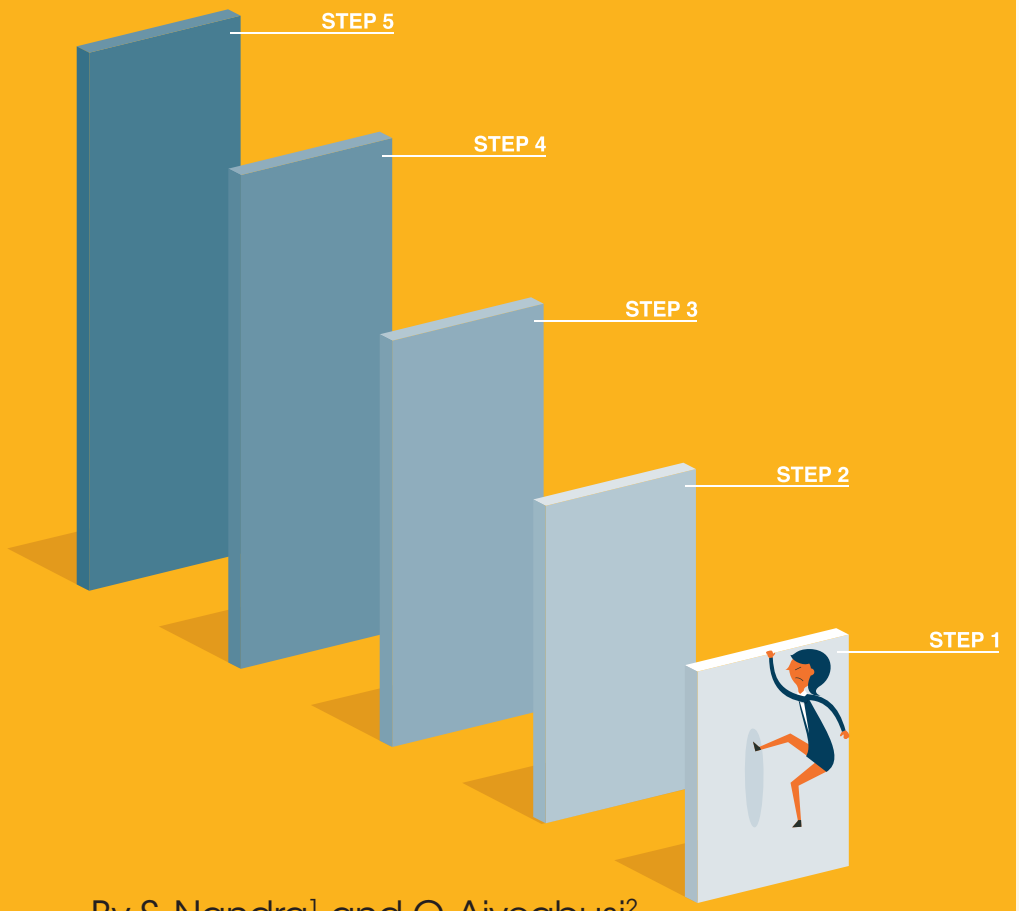
Dental nurse to dentist – a battle against all odds?



By S. Nandra[1] and O. Aiyegbusi[2]

Objectives/aims The aims of this article are to assess entry requirements for dental nurses applying to dentistry and determine whether dentistry is a viable career option for dental nurses. **Materials and methods** A survey of all 11 UK dental schools' dentistry entry requirements was carried out to determine whether General Dental Council (GDC) approved dental nursing qualifications are accepted as part of a dentistry application. Each school was also contacted via email to confirm their entry requirements. **Results** One UK dental school recognises a dental nursing certificate alongside other qualifications. Most dental schools require dental nurses to complete 3 A levels (at minimum AAA in scientific subjects) or encourage application to access courses and completely disregard any dental nursing qualifications. **Discussion** It could be suggested that UK dental schools overlook the experience and knowledge of dental nurses by not supporting their existing credentials. The University of Sheffield accepts dentistry applicants with an approved dental nursing certificate alongside six A grades at GCSE and two A levels at minimum grade BB (chemistry and biology). **Conclusion** Should UK dental schools reevaluate their entry requirements for our well respected dental nurses? Our opinion stands that dental schools should be taking advantage of the experience, knowledge and skills of dental nurses by offering improved access to dentistry.

There is no doubt that dental nurses are valuable members of the dental team. The General Dental Council (GDC) describes dental nurses as 'registered dental professionals who provide clinical and other support to registrants and patients'. As a member of the dental team, it is easy to recall multiple moments when a dental nurse offers assistance with not only patient care and organisation but with implausible knowledge, which only comes after years of experience in a dental environment.

Since July 2008 the GDC has required all dental nurses to hold a valid qualification and be registered. It takes on average 18 to 24 months to qualify as a dental nurse and training primarily occurs in general dental practice or hospital. Further training enables dental nurses to undertake additional duties such as taking radiographs and impressions.

Some dental nurses utilise their nursing experience and qualifications as a gateway to other careers. Dental nurses are fittingly positioned to develop their profession by becoming dental therapists and dental hygienists and whilst it is common for dental nurses to make this progression, it is less common for them to become dentists. Career progression is not only a stimulating and rewarding experience, it can also provide the opportunity for increased financial income. It is well noted that dental nurses commonly earn less than the national average salary and the low wage has been a contentious topic for many years.

A survey conducted in 2013 found that dental nurses want more responsibility and involvement with patients, together with more respect, recognition (pay) and gratitude from employers.[1] Career progression within the dental speciality is one way dental nurses can achieve this.

[1]Bristol Dental Hospital; [2]Royal Preston Hospital

It would be expected that if an individual has vast exposure in the dental environment and can prove they have gained considerable dental knowledge and experience that this should contribute to becoming a dental surgeon. Our question is therefore, are there opportunities for dental nurses to qualify as dentists and if so, what pathways are available?

Are dental nursing qualifications recognised as part of a dentistry application?

There are a total of 16 dental schools in the UK that deliver a dentistry course. Each dental school sets out clear entry requirements, which include school/college/university qualifications such as A levels, International Baccalaureate and degree level qualifications. Dentistry applicants are also encouraged to obtain work experience as well as undertaking extracurricular activities.

We carried out a survey of all UK dental schools' dentistry entry requirements to determine whether GDC approved dental nursing qualifications are accepted as part of a dentistry application. Each school was also contacted via email to confirm their entry requirements. The results are visible in Table 1, which shows only one UK dental school recognises a dental nursing certificate alongside other qualifications. Most dental schools require dental nurses to complete three A Levels (at minimum AAA in scientific subjects) or encourage application to access courses and completely disregard any dental nursing qualifications.

Conclusion

From the data shown in Table 1, it could be suggested that UK dental schools overlook the experience and knowledge of dental nurses by not supporting their existing credentials. The University of Sheffield accepts dentistry applicants with an approved dental nursing certificate alongside six A grades at GCSE and two A Levels at minimum grade BB (chemistry and biology). This prestigious dental school is the only establishment in the UK to set this acceptance criterion, which is commendable to say the least.

It would be naïve to assume that dental nurses would need no additional qualifications to support a dentistry application; however, a case could be argued that dental nursing qualifications should be recognised when dental nurses apply for dentistry.

'The only source of knowledge is experience' are the famous words of Albert Einstein which leaves food for thought whether UK dental schools should reevaluate their entry requirements for our well respected dental nurses. Our opinion stands that dental schools should be taking advantage of the experience, knowledge and skills of dental nurses by offering improved access to dentistry.

Finally, the question that prevails is, is it appropriate not to take into consideration dental nursing qualifications, when dental nurses apply to undertake dentistry? Or should dental schools be following in the footsteps of Sheffield dental school by supporting dental nurses and reduce entry requirements, to assist them in qualifying as dentists?

Table 1 Which UK dental schools recognise dental nursing qualifications in applications for dentistry?

Dental school	Dental nursing qualification acknowledged	Qualifications required for acceptance
Aberdeen	X	
Birmingham	X	
Bristol	X	
Cardiff	X	
Central Lancashire	X	
Dundee	X	
Glasgow	X	
King's College	X	
Leeds	X	
Liverpool	X	
Manchester	X	
Newcastle	X	
Plymouth	X	
Queen Mary	X	
Queen's, Belfast	X	
Sheffield	Yes	Six A grades at GCSE to include Maths, English Language and Science; Chemistry and Biology at A Level (minimum grades BB)

1. Macleavy C. Are dental nurses fulfilled and appreciated? *Vital* 2013; **10:** 31-35. Available at: http://www.nature.com/vital/journal/v10/n4/full/vital1723.html.

Further reading in *BDJ Team* on dental nurse conditions and salaries

1. Sembawa S, Wanyonyi K L, Gallagher J E. Career motivation, expectations and influences of trainee dental nurses. *BDJ Team* 26 September 2014; doi:10.1038/bdjteam.2014.99. Available at: https://www.nature.com/articles/bdjteam201499.
2. Why are dental nurse salaries so low? *BDJ Team* 7 October 2016; doi:10.1038/bdjteam.2016.152. Available at: https://www.nature.com/articles/bdjteam2016152.
3. 'I left dental nursing to become an HGV driver' *BDJ Team* 6 January 2017; doi:10.1038/bdjteam.2017.7. Available at: https://www.nature.com/articles/bdjteam20177.
4. Mindak M T. Service quality in dentistry: the role of the dental nurse. *BDJ Team* 3 November 2017; doi:10.1038/bdjteam.2017.177. Available at: https://www.nature.com/articles/bdjteam2017177.

This is an original article submitted to BDJ Team. *To access our new manuscript submission portal, please visit http://mts-bdjteam.nature.com/cgi-bin/main.plex.*

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The relevance of alcohol to dental practice

R. Grocock[1] discusses the impact of alcohol on oral health and how dental professionals can advise patients.

Alcohol is a very widely used drug which can cause dental disease and influence dental treatment. It is therefore important that dental professionals take an alcohol history from all patients and are aware of how to give alcohol reduction advice. This article discusses the impact of alcohol on oral health, including oral cancer, trauma, halitosis, tooth wear, periodontal disease and caries, with reference to the available literature. It also outlines current alcohol risk level advice and guidance regarding giving alcohol reduction advice in a dental setting.

Introduction

After caffeine, alcohol is the second most commonly consumed drug in the United Kingdom.[1] Dentists treat patients on a daily basis who drink alcohol at various levels. It is, therefore, important to appreciate risk levels of alcohol consumption and have an awareness of current guidelines for giving alcohol reduction advice in dental practice. Alcohol has been linked to many oral health effects. These include oral cancer, caries, periodontal disease, halitosis, tooth wear, staining and trauma. Alcohol also has many other wider effects on the general, social and psychological health of patients, which can influence dental treatment. These include drug interactions, liver disease, cardiovascular disease, and compliance with treatment plans and appointments.

Epidemiology

Twenty-one percent of adults in Great Britain report complete alcohol abstinence, and this percentage is slowly increasing.[2] Despite the perception, the heaviest drinkers are the middle aged, while those aged 16–24 years old drink the least.[3] Furthermore, high earners are more likely to drink more frequently and binge drink, compared to the lowest earners.[3]

The percentage of adults that binge drink is decreasing, from 18% in 2005 to 15% in 2013, mainly due to a large fall in young people binge drinking.[2] Men are considered to have binged if they drink more than eight units of alcohol in a day, and women if they drink more than six units.[2] The percentage of children drinking alcohol is also at the lowest level since surveys began.

Despite these improving statistics, the number of alcohol related hospital admissions is continuing to increase.[2] In 2014, there were 8,697 alcohol-related deaths registered in the United Kingdom.[4] Scotland had the highest alcohol related death rate in the United Kingdom.[4] In England the rate was significantly higher in the north compared to the south.[4] Alcohol also has a large economic cost, estimated to be 21 billion pounds to society from alcohol related harm, and 3.5 billion pounds to the NHS a year.[5]

Units

One unit is 10 ml or 8 g of pure alcohol.[6] Table 1 shows the average number of units in some common alcoholic drinks.[7]

In January 2016, new guidance was issued by the Chief Medical Officers, reducing the limit for the low risk category of alcohol consumption for men to the same level as for women.[8] Both are now advised not to regularly drink more than 14 units per week. It also states that there is no safe level of alcohol consumption. It recommends that it is best, if you do drink as many as 14 units per week, to spread this evenly

[1] *DCT2, St George's Hospital, Blackshaw Road, London, SW17 0QT*

Table 1 Drink alcohol units[7]

Drink	Units
Small glass of wine	1.6
Medium glass of wine	2.3
Large glass of wine	3.3
Bottle of wine	10
Pint of beer	2.3
Shot of spirit	1
Bottle of alcopop	1.5

Table 2 Risk levels of alcohol consumption[9]

Risk category	Definition
Higher risk	Over 35 units per week for women or over 50 units for men
Increasing risk	14 to 35 units weekly for women or 14 to 50 units weekly for men
Lower risk	Regularly drinking no more than 2-3 units per day, weekly limit 14 units

over three days or more.[8] It is also safest to avoid drinking alcohol at all during pregnancy.

In England in 2014, 59% of adults drank at levels indicating a lower risk of harm, 20% drank at an increased risk of harm and 4% drank at higher risk levels.[9] Table 2 illustrates the unit thresholds associated with each level of risk.[9] One percent of the population are estimated to be dependent drinkers, defined as a cluster of indicators including a strong desire to drink alcohol, persistent use despite the consequences, a higher priority given to alcohol compared to other activities and physical withdrawal symptoms.[10] It is important for dental professionals to know these limits, so effective screening of patients' drinking habits can be carried out. Appropriate tailored advice can then be given and, if necessary, an onwards referral can be made.

Guidance for dentists

Delivering better oral health advises that the level of alcohol consumption should be ascertained for all patients.[11] Medico-legally, it is very important to record alcohol consumption in the patient's notes and record that appropriate feedback and advice has been given to patients. In the event of a claim against a dental professional for missed or delayed referral for oral cancer, this recorded evidence is crucial for a successful defence.[12]

Patients can be categorised into alcohol risk levels by recording total alcohol units consumed per week, as part of a medical history. Alternatively, a screening questionnaire can be used, such as AUDITC. This features three questions based on frequency, amount of alcohol consumed on a typical day and frequency of binge drinking. Patients in the lower risk category should be informed of the lower risk guideline and congratulated. Patients drinking at an increasing risk level should have this fed back to them and be informed of the lower risk guideline. They should then be encouraged to consider the effects of their drinking habits and be offered brief tailored advice about the benefits to their oral and general health of reducing their intake. Simple tips can also be provided such as having several drink-free days each week, alternating alcoholic drinks with a soft drink, only having their first drink after starting to eat, switching to lower strength drinks and using a smaller glass. This brief advice can also be supported by a leaflet. Patients drinking at a higher risk should be informed and given brief advice but also signposted to attend their general medical practitioner or local alcohol support service for further advice and support.

There is good evidence that brief advice in primary care is effective. A Cochrane review found that it consistently led to reductions in alcohol consumption.[13] Additionally, a randomised controlled trial in dental practice found that screening and brief intervention for heavy drinkers resulted in significant reductions in both the quantity and frequency of alcohol consumed.[14]

Dentists are in a unique position to access patients who may otherwise not see any other health care professionals, with 51% of the adult population attending an NHS dentist in the last two years.[15] It has been shown that dentists are enthusiastic about giving alcohol advice in practice but see the biggest barriers as being the lack of funding and time constraints.[16] Despite their enthusiasm, only 11.6% of practitioners report giving alcohol reduction advice every day or often.[16] This suggests that more needs to be done to increase alcohol prevention advice in practice and address these barriers. This may include education, training, raising awareness and addressing funding issues.

The Cochrane review also concluded that there was no significant increased benefit when the time spent counselling patients was increased.[13] It has also been shown that nurse-led brief intervention is effective.[17,18] Therefore dentists do not have to spend large amounts of time giving advice and a team approach can be used, involving dental care professionals, to incorporate this brief advice into a busy practice schedule.

Oral effects

This article will now review the current evidence linking alcohol and oral health. This will enable dental professionals to appropriately advise their patients about the potential benefits to their oral health of reducing alcohol consumption to lower risk levels. Alcohol consumption should also be taken into account when risk stratifying patients for certain oral diseases.

'A TEAM APPROACH CAN BE USED, INVOLVING DENTAL CARE PROFESSIONALS, TO INCORPORATE THIS BRIEF ADVICE INTO A BUSY PRACTICE SCHEDULE'

Cancer

There is a large body of evidence that alcohol is a major risk factor for oral cancer. It has been estimated that 3.6% of all cancers worldwide, and over 30% of all cases of oralpharyngeal cancer, are attributable to alcohol consumption.[19] A review concluded that heavy alcohol consumption, which was defined as four or more drinks per day, is significantly associated with an increased risk of about 5fold for oral and pharyngeal cancer.[20]

A meta-analysis reported a dose response relationship, with a risk ratio of 1.32 for drinking alcohol and 2.54 for heavy drinking.[21] This increased synergistically with smoking with a risk ratio of 2.92 and 6.32 respectively. The relationship was similar in both men and women and there was no significant difference in risk for different types of alcoholic drink consumed.

The mechanism of action for the association between alcohol consumption and cancer is not yet fully understood. Possible explanations include: a genotoxic effect of acetaldehyde,

Table 3 pH of alcoholic and mixer drinks[42]

Drink	pH
White wine	3
Beer	4
Red wine	3.5
Cider	3.10
Orange juice	3.30
Pepsi	2.49
Coke	2.53
Diet coke	3.39
Lime juice	2.35

Table 4 Sugar content of alcoholic and mixer drinks[46]

Drink	Sugar in grams per 100 grams of the drink
Beer	2.2
Cider	2.6
Liqueurs	24.4
Red wine	0.2
Rose	2.5
White wine	0.6
Sparkling wine	5.1
Cola	10.9

alcohol acting as a solvent for tobacco carcinogens, production of reactive oxygen and nitrogen species, or changes in folate metabolism.[22]

Halitosis

Halitosis is difficult to quantify. It is a largely subjective condition, which includes a psychosocial component and may have multiple causes in any one individual. However, alcohol intake has been shown to predict oral malodour, using both self-report and quantitative measures.[23] There has also been shown to be a significant association between increased drinking frequency and oral malodour.[24] Additionally, there are increased levels of volatile sulphur compounds in daily drinkers, compared to less frequent drinkers.[24] The cause of increased oral malodour with alcohol consumption is not fully known, but proposed mechanisms include the short term effect of the smell of the alcohol itself; increased dry mouth, because alcohol is a diuretic; worse oral hygiene and increased periodontal disease.

Trauma

There is good evidence that alcohol consumption increases the risk of dental and maxilla-facial trauma. A study of patients attending Accident and Emergency for facial injuries found that 55% of injuries by assault were associated with alcohol consumption. This was 11% for falls and 15% for people injured in road traffic accidents. In over 15-year-olds, alcohol was associated with 90% of all facial injuries occurring in bars and 45% on the street. Overall, 22% of all facial trauma was related to alcohol consumption.[25]

A positive association has also been found between high alcohol consumption and the lifetime risk of dental trauma.[26] Additionally, the prevalence of dental trauma is significantly higher in those that binge drink.[27]

Staining

There is limited evidence linking alcohol and tooth staining. Most studies are *in vitro* rather than being carried out in a clinical setting. Red wine is the main alcoholic drink linked to tooth staining. It is thought that dietary chromogens in the drink are adsorbed to the pellicle, leading to a layer of stained material, which is not easily removed.[28] It has been shown that post bleaching, the susceptibility of enamel to red wine staining increases and post bleaching red wine causes greater staining than coffee.[29,30] Red wine also stains composite more than tea or coffee.[31]

Periodontal disease

There is a large body of evidence suggesting that periodontal disease and alcohol consumption are associated. However, whether a causal link exists is difficult to elucidate due to the large number of confounding factors. The possible mechanism of action is also unknown at present. Tezal *et al.*[32] found an odds ratio of 1.65 of having higher gingival bleeding, and 1.36 of having more severe clinical attachment loss in those consuming five or more drinks per week, compared to those consuming fewer than five, after adjusting for confounders. This was 1.62 and 1.44, respectively, for those consuming ten or more drinks per week. However, no difference was found in relation to alveolar bone loss or microorganism composition. This was supported by another cross sectional study, which reported a dose response relationship between clinical attachment loss and alcohol consumption. Odds ratios for risk of attachment loss were 1.22 for five drinks, 1.39 for ten drinks, 1.54 for 15 drinks and 1.67 for 20 drinks per week.[33]

Alcohol consumption may have a negative influence on periodontal pathogens and on immunological pro-inflammatory cytokines.[34]

A review by Amaral *et al.*[35] concluded that currently there is evidence to suggest alcohol consumption is a risk indicator for periodontitis. There is a need for further longitudinal studies to determine if alcohol consumption is a true risk factor for periodontal disease. Studies to further investigate the mechanism of any possible causal association are also needed.

Wear

Most studies investigating the effects of alcohol on tooth wear have focused on patients with chronic alcoholism. Although these results cannot be directly applied to the majority of drinkers, they give an indication of the possible effects of alcohol on tooth wear. Patients with chronic alcoholism have significantly more wear.[36,37] This tends to be mostly erosive in nature, especially affecting the palatal surfaces of upper anterior teeth. It is worse in those with a continuous, rather than episodic, drinking pattern. It has been suggested that this could be a potentially useful marker of patients with alcoholism for dental practitioners.[38] It has also been demonstrated that drinks with a greater than 9% alcohol volume can result in the wear of composites.[39]

The cause of the possible increase in wear with alcohol consumption is yet unknown, but there are several potential mechanisms. It may in part be due to increased vomiting with alcohol consumption. Alcohol has also been shown to induce gastro-oesophageal reflux.[40] Furthermore, many alcoholic drinks are acidic or are consumed with acidic mixers, which have the potential to cause erosion directly. Table 3 shows the acidity of some alcoholic drinks and mixers.[41]

Caries

There is no clear evidence of a causal link between alcohol consumption and caries. There are some studies suggesting an association, but these are limited by multiple lifestyle confounding factors. Most studies also compare alcoholics, rather than reporting results for different risk levels of alcohol consumption, so the results cannot be applied to the majority of the population.

Heaviest drinkers have more decayed tooth surfaces and apical lesions.[42] Enberg *et al.*[43] also found significantly more caries and fewer teeth present in an alcohol dependent group, compared to a control group of social drinkers. However, Dukić *et al.*[44] found no significant difference in the number of decayed, missing or filled teeth in alcoholics receiving treatment, compared to a control group. They did, however, report a lower unstimulated saliva flow rate and a lower pH of saliva in the alcoholic group. Most alcoholic drinks also contain sugar or

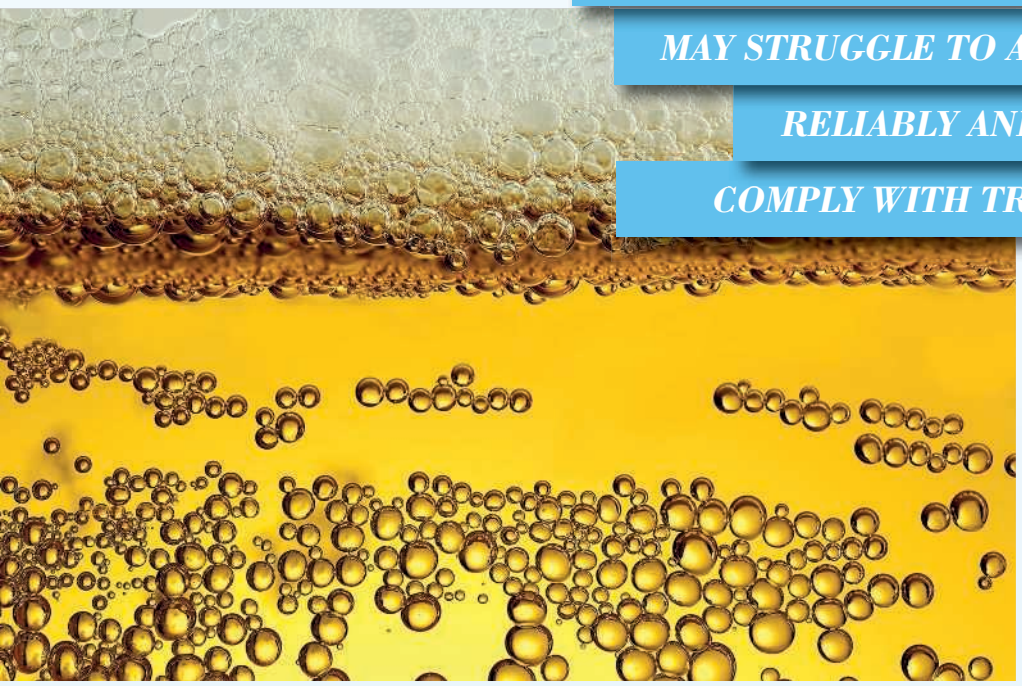
Table 5 Drug reactions with alcohol[51]

Drug	Reaction
Metronidazole	Disulfiram-like reaction such as flushing, nausea, vomiting and sweating
Midazolam	Enhanced effect on the central nervous system. May increase drowsiness and sedation, and decrease motor skills
Ibuprofen	Increased risk of gastrointestinal bleeding
Opioids	Enhanced effect on the central nervous system. May increase drowsiness and sedation, and decrease motor skills

are consumed with high sugar mixers. Table 4 shows the sugar content of some typical alcoholic drinks and mixers.[45] As an example, an average two pints of cider equates to 30 grams of extrinsic sugar, which is the recommended daily limit.[46]

Alcoholic drinks can be a source of fluoride, but this varies markedly depending on the fluoride content of water in the manufacturing location.[47] The highest fluoride levels are contained in low alcohol percentage drinks such as beers and wines, with the lowest levels in spirits.

High alcohol consumption can also cause immunodeficiency, resulting in slower healing time.[49] There are also many drugs commonly prescribed in dentistry that can react with alcohol. It is therefore important to check alcohol consumption before prescribing, so they can be prescribed safely and advice can be given regarding avoiding alcohol. Table 5 lists some commonly prescribed drugs that interact with alcohol.[50]



'PATIENTS THAT ARE DEPENDENT ON ALCOHOL MAY STRUGGLE TO ATTEND APPOINTMENTS RELIABLY AND MAY STRUGGLE TO COMPLY WITH TREATMENT PLANS…'

Wider issues

There are also many wider health, social and psychological effects of alcohol, which may impact upon dental practice. Patients that are dependent on alcohol may struggle to attend appointments reliably and may struggle to comply with the self-care elements of treatment plans. Higher risk drinkers are at risk of liver impairment, which can result in coagulopathy. It is recommended that high risk drinkers, with a positive bleeding history, have haematological investigations, including a full blood count and coagulation screen, before oral surgery.[48]

Conclusion

Alcohol has many oral and wider health effects, which can impact upon dental practice. It is important to obtain an alcohol history from all patients and use this to guide appropriate preventative advice. This may include brief counselling for those drinking at an increasing level of risk, and onwards referral for high risk drinkers. Targeted preventative advice for oral disease, based partly on their alcohol consumption, must also be given. This fits well with the current direction of travel of dentists being increasingly involved with wider health issues and working together with other health care professions to provide holistic care to patients. This is also likely to become ever more important, with the future introduction of a new NHS contract, which is likely to be much more orientated towards prevention.

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This article was originally published in the BDJ *in December 2017*; doi: 10.1038/sj.bdj.2017.997 [Epub ahead of print].

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CPD: ONE HOUR

Facilitating timely diagnosis of Sjögren's syndrome

By Linda Douglas[1]

CPD questions

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Introduction

Sjögren's syndrome is an autoimmune disease in which intense lymphocytic infiltration of the exocrine glands[1] and hyperactivity of B lymphocytes[2] cause inflammation, which damages glandular tissue and impairs function. Primary Sjögren's syndrome is diagnosed in the absence of any other connective tissue disease, while secondary Sjögren's syndrome is accompanied by other autoimmune diseases, such as rheumatoid arthritis, lupus erythematosus, Graft Versus Host Disease, or in rare cases, Behçet's disease.[3] Secondary Sjögren's syndrome comprises approximately 60% of cases.

In January 2012, the Sjögren's Syndrome Foundation launched a 5-year Breakthrough Goal, to reduce the time between onset and diagnosis of Sjögren's by 50% in five years. When this Goal was launched, research showed the average diagnosis time was nearly six years.[4]

Research at the University of Toronto found a median delay of four years between onset and diagnosis (range 0-28 years).[5] Prompt diagnosis allows access to treatment to relieve symptoms, minimise complications, and enhance vigilance for lymphoma: Sjögren's patients have a 16 times greater risk of developing lymphoma than a healthy individual.[6]

Much of the delay between onset and diagnosis is related to the diverse symptoms, which make diagnosis difficult, plus a lack of awareness of the condition on the part of various healthcare professionals encountered by many Sjögren's patients, who frequently fail to 'connect the dots' regarding the numerous signs and symptoms affecting multiple body systems.

Clinical features of Sjögren's syndrome

Sjögren's syndrome is mainly characterised by dry eyes and a dry mouth, and may also affect other mucosal tissues such as the nose, larynx, gastro-intestinal tract and vagina. Dry eyes can lead to blurred vision. Oral-related complications include sialoliths (salivary stones), salivary gland swelling, high caries risk, particularly at the cusp tips and cervical sites, periodontal disease, and soft tissue infections such as candidiasis, and angular cheilitis. Dysphagia might also occur, which can lead to aspiration pneumonia.

The systemic autoimmunity associated with Sjögren's syndrome can also result in dry skin, fatigue, low grade fever, constipation, myalgia, and joint pain. Other conditions which might occur include small vessel vasculitis, Raynaud's phenomenon, pulmonary symptoms, nephritis, neuropathy,[7] hypothyroidism, and lymphoma.

Sjögren's syndrome and mental health

In common with many chronic medical diseases, depression or anxiety might accompany Sjögren's syndrome, related to its adverse effect on the quality of life. This is shown by its score on the Devin's Illness Intrusiveness Scale,[8] where the negative impact on quality of life is comparable with that of multiple sclerosis, or kidney dialysis.[9] In addition, mounting evidence indicates that chronic exposure to elevated inflammatory cytokines causes persistent alterations in neurotransmitter systems, which can lead to neuropsychiatric disorders and depression.[10]

'ORAL-RELATED COMPLICATIONS INCLUDE SIALOLITHS, SALIVARY GLAND SWELLING, HIGH CARIES RISK, PERIODONTAL DISEASE, SOFT TISSUE INFECTIONS AND ANGULAR CHEILITIS'

Prevalence and incidence of Sjögren's syndrome

An estimated 221,583 Britons are affected,[11] and approximately 4 million Americans. Ninety percent of Sjögren's patients are women.[12] Most are diagnosed in their late 40s, but it can also affect children and males. Males are usually diagnosed later than females.

Diagnosis of Sjögren's syndrome

Accurate diagnosis of Sjögren's syndrome begins with thorough assessment to expedite specialist referral. This includes general appraisal, medical history review, and screening for symptoms using questionnaires, followed by head and neck examination, and comprehensive intra-oral examination.

[1] *RDH, BSc. Linda M. Douglas graduated as a dental hygienist from the Royal Dental Hospital in London, England in 1982. After graduation she worked in periodontology, before moving to Toronto, Canada, where she has worked in private practice since 1990. Linda also has a BSc in Oral Health Promotion. Linda's desire to support dry mouth patients has instigated an in-depth study of xerostomia, and the related pathologies. She is also Clinical Director for Hygienetown, an online community for dental hygienists, and teaches continuing education courses on xerostomia management, saliva testing, and caring for dental patients with eating disorders.*

Questionnaires to assess symptoms

Oral symptoms

A positive response to one or more of the following questions is suggestive of Sjögren's syndrome:

1. Have you had a daily feeling of dry mouth for more than three months?
2. Have you had recurrently or persistently swollen salivary glands as an adult?
3. Do you frequently drink liquids to aid in swallowing dry food?

Ocular symptoms

A positive response to at least one of the following questions is suggestive of Sjögren's syndrome:

1. Have you had daily, persistent troublesome dry eyes for more than three months?
2. Do you have a recurrent sensation of sand or gravel in the eyes?
3. Do you use tear substitutes more than three times a day?

Table 1 Classification criteria for Sjögren's syndrome

Diagnostic Criteria Item	Scoring
Anti-SSA/Ro antibody positivity	3 points
Focal lymphocytic sialadenitis with a focus score of 1 foci/4 mm² or greater	3 points
An abnormal ocular staining score of 5 or greater (or van Bijsterveld score of 4 or more)	1 point
A Schirmer's test result of 5 mm/5 minutes or less	1 point
An unstimulated salivary flow rate of 0.1 ml/minute, or less	1 point

'SWELLING OF THE PAROTID AND SUBMANDIBULAR SALIVARY GLANDS CAN BE REDUCED BY APPLYING HEAT AND MASSAGE TO AID SALIVARY FLOW THROUGH THE DUCTS.'

Diagnostic techniques include blood testing for anti-SSA/Ro antibody, biopsy to assess the minor salivary glands inside the lower lip for focal lymphocytic sialadenitis, ocular staining with Rose Bengal, or the van Bijsterveld score to assess surface damage of the conjunctiva and cornea, Schirmer's test for lachrymal flow, and measurement of unstimulated salivary flow.

Other conditions which cause dry eyes and dry mouth should be considered in differential diagnosis, and excluded. For example: pre-existing lymphoma, hepatitis C infection, HIV infection, sarcoidosis, use of anti-cholinergic drugs, or a history of head and neck radiation therapy.

Current diagnostic criteria

The diagnostic criteria for Sjögren's syndrome is evolving, and has been revised numerous times since 1965.

In 2016, the American College of Rheumatology (ACR) and the European League Against Rheumatism (EULAR) developed and validated an international consensus of data-driven classification criteria for primary Sjögren's syndrome (SS), which were established for use in individuals with signs and/or symptoms suggestive of SS.

These single set classification criteria performed well in validation analyses, demonstrating 96% sensitivity and 95% specificity, and are also suitable criteria for enrollment in clinical trials. The final classification criteria are based on the weighted sum of five items.[13]

Each objective criterion is allocated points: individuals with signs and/or symptoms suggestive of Sjögren's syndrome and a total score of at least 4 points meet the criteria for diagnosis of primary SS (Table 1).

Management of the Sjögren's patient in the dental practice setting

Extra-oral and intra-oral examination needs to be performed on a regular basis, to assess for complications of Sjögren's syndrome. The Challacombe Scale of Clinical Oral Dryness[14] (Fig. 1) is a valuable tool for clinically assessing and quantifying the severity of oral dryness, and for evaluating the outcomes of our interventions. This scale is based on a Clinical Oral Dryness Score (CODS), and lists ten key features of dry mouth; one point is allocated for each feature, and the patient's additive score indicates the severity of the dry mouth. There is an inverse relationship between salivary flow rates, and CODS: a high CODS is related to hyposalivation.

Management of the dry mouth needs to be multifaceted, to address the multiple oral symptoms and prevent complications. This includes stimulation of salivary flow, conservation of functional salivary gland tissue, and saliva substitutes as required to protect and lubricate, and facilitate speech, mastication and swallowing. Supplementation with Omega 3 1,000 mg has been shown to improve the lubricating quality of the saliva, and the tears.[15]

Topical fluoride applications, and calcium and phosphate remineralisation preparations reduce caries risk.[16] Swelling of the parotid and submandibular salivary glands (Fig. 2) can be reduced by application of heat and massage to aid salivary flow through the ducts.

Conclusion

We are getting closer to our goal of early diagnosis. In 2016, the Sjögren's Syndrome Foundation annual survey of newly diagnosed patients revealed that for those diagnosed in 2015, it took an average of three years to receive an accurate diagnosis,[17] compared with almost six years in 2012. This was achieved by increasing public awareness, and increasing education and awareness among healthcare professionals.

Increased awareness of Sjögren's syndrome in the medical and dental communities facilitates improved outcomes for the Sjögren's patient, by enhancing inter-professional collaboration and vigilance. For example: screening questionnaires utilised by both medical and dental professionals could include questions on ocular, oral and systemic symptoms of Sjögren's syndrome.

Raising public awareness with more widely disseminated information on Sjögren's syndrome, and increased availability of screening questionnaires for self-assessment could be valuable. Knowledge also empowers patients to advocate for themselves as they navigate the healthcare system.

Fig. 1 The Challacombe Scale of Clinical Oral Dryness, courtesy of Professor Stephen Challacombe

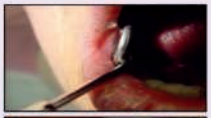
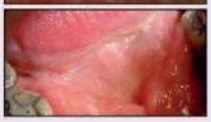
The Challacombe Scale

of Clinical Oral Dryness

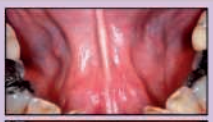
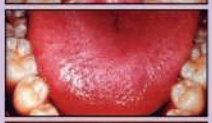
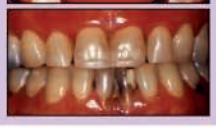
KING'S College LONDON

The Challacombe Scale was developed from research conducted at King's College London Dental Institute under the supervision of Professor Stephen Challacombe*. The purpose of this scale is to be able to visually identify and quantify whether your patient has xerostomia (dry mouth) and if so, how it changes over time and the most appropriate therapy options. This scale is applicable whatever your profession.

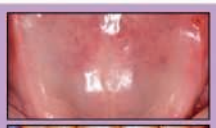
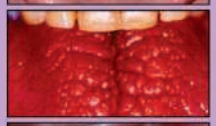
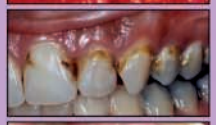
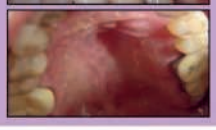
The Challacombe Scale works as an additive score of 1 to 10 : 1 being the least and 10 being the most severe. Each feature scores 1 and symptoms will not necessarily progress in the order shown, but summated scores indicate likely patient needs. Score changes over time can be used to monitor symptom progression or regression.

1		Mirror sticks to buccal mucosa
2		Mirror sticks to tongue
3		Saliva frothy

An additive score of 1 - 3 indicates mild dryness. May not need treatment or management. Sugar-free chewing gum for 15 mins, twice daily and attention to hydration is needed. Many drugs will cause mild dryness. Routine checkup monitoring required.

4		No saliva pooling in floor of mouth
5		Tongue shows generalised shortened papillae (mild depapillation)
6		Altered gingival architecture (ie. smooth)

An additive score of 4 - 6 indicates moderate dryness. Sugar-free chewing gum or simple sialogogues may be required. Needs to be investigated further if reasons for dryness are not clear. Saliva substitutes and topical fluoride may be helpful. Monitor at regular intervals especially for early decay and symptom change.

7		Glassy appearance of oral mucosa, especially palate
8		Tongue lobulated / fissured
9		Cervical caries (more than two teeth)
10		Debris on palate or sticking to teeth

An additive score of 7 - 10 indicates severe dryness. Saliva substitutes and topical fluoride usually needed. Cause of hyposalivation needs to be ascertained and Sjögrens Syndrome excluded. Refer for investigation and diagnosis. Patients then need to be monitored for changing symptoms and signs, with possible further specialist input if worsening.

* S Osailan et al "Investigating the relationship between hyposalivation and mucosal wetness" (2011) Oral Diseases volume 17, Issue 1, Pages: 109–114

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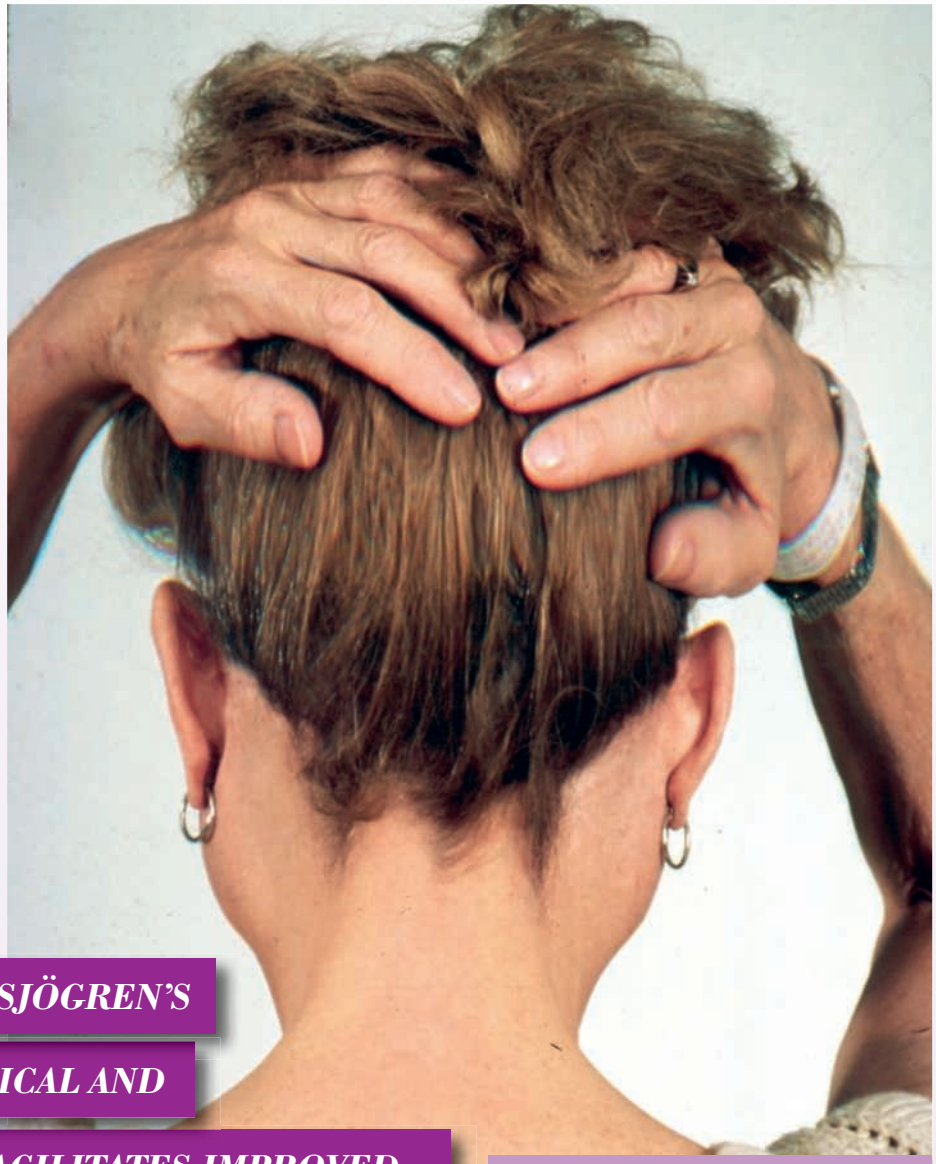

Fig. 2 Chronic salivary gland enlargement

'INCREASED AWARENESS OF SJÖGREN'S SYNDROME IN THE MEDICAL AND DENTAL COMMUNITIES FACILITATES IMPROVED OUTCOMES FOR THE SJÖGREN'S PATIENT'

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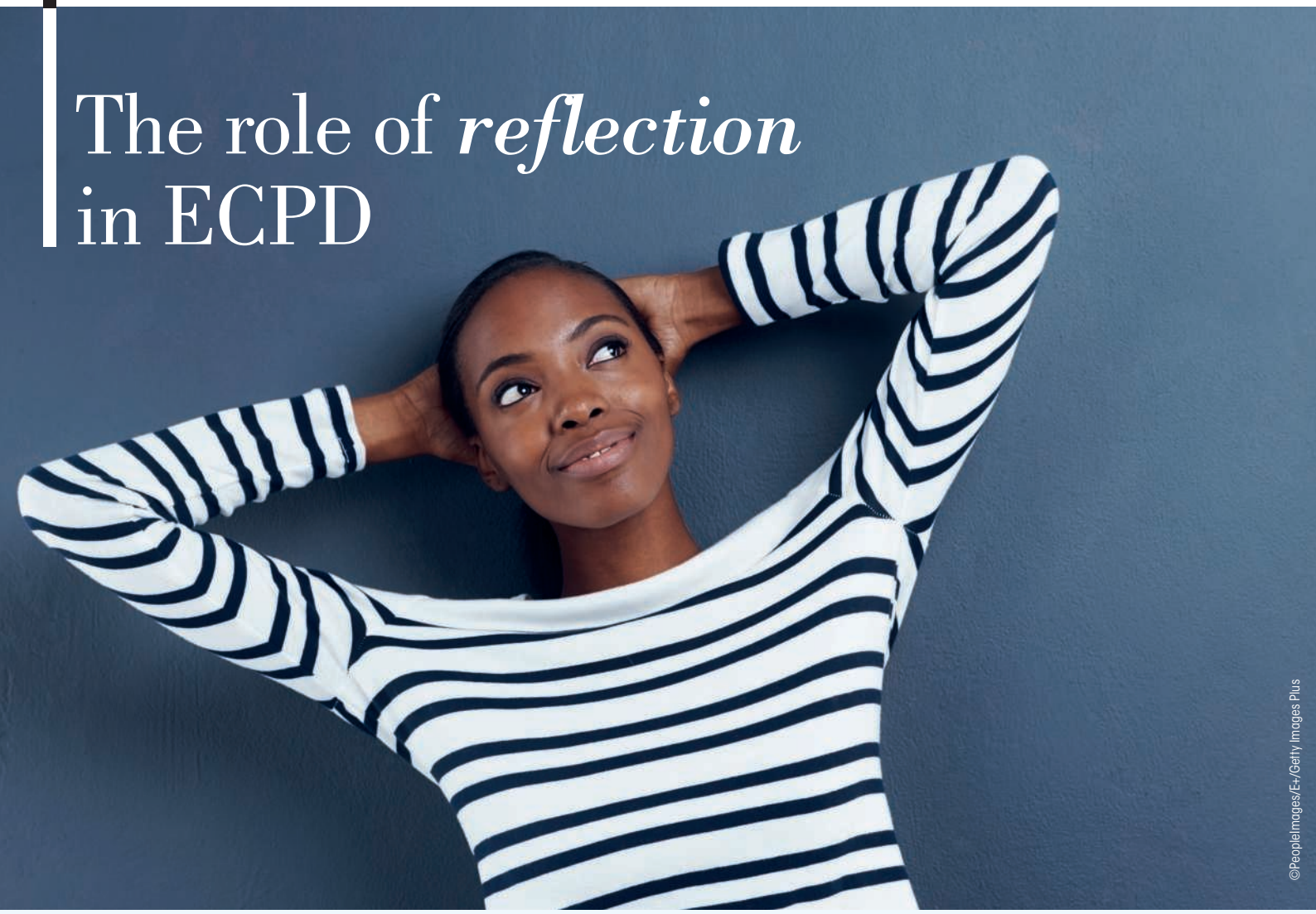
CPD questions

This article has four CPD questions attached to it which will earn you one hour of verifiable CPD. To access the ***free*** *BDA CPD hub, go to* ***http://bit.ly/2e3G0sv***

bdjteam201826

The role of *reflection* in ECPD



As practitioners, if we are to grow and develop, we must be brave enough to have the courage to share our experiences with the dental team that surrounds us, says **Joanne Brindley.**[1]

[1] *Senior Lecturer in Education, University of Portsmouth: 'I have been a DCP for nearly 30 years, first as a dental nurse and then moving on to qualifying as a dental hygienist and therapist. In 2005 I became involved in the delivery of dental education, where I developed my passion for reflective practice. Following completion of my Doctoral Thesis, which explored the use and relevance of reflective practice in dental education, I was awarded a 2017 Oral and Dental Research Trust/Colgate Robin Davies Award. I have been a Quality Assurance (Education) Inspector for the GDC since 2012 and I am an invited member of the GDC's Education Reference Group'.*

In January this year (for dentists) and from August (for DCPs) the General Dental Council (GDC) will require registrants to produce a personal development plan (PDP). Your PDP must be linked to GDC Learning Outcomes and include a detailed log of activity, with associated certificates. These in turn will form part of the Enhanced Continuing Professional Development (ECPD) initiative.

ECPD has a four-phased approach: Plan, Do, Reflect and Record,[1] opposed to the historical method of simply *doing* and then *recording* CPD activities under the old style Continuing Professional Development system, which is being phased out.

The implementation of ECPD requires all registrants to use reflection as a vehicle for identifying and planning their CPD activities. The purpose of this article is twofold:

- To explore the role of reflection as part of formal CPD activities
- To consider how you can effectively use and capture reflection as part of the requirement for ECPD.

Motivation to learn

Learning is not an isolated phenomenon, but an amalgamation of practices, perspectives and values that arise from our own personal experiences. Learning is an essential part of our development, informing what we do - underpinned by the instinctive insight we have into how we feel we should act in any given situation. As such our values and beliefs form

an important part of this process. Jarvis and Watts[2] identify how the learning process has participation and practice 'at its heart', describing how the motivation for learning is to move away from the 'mundane sense of just getting through the day' and the desire to move towards the *value-laden* process of 'living a worthwhile life'. If we, as professionals, truly wish to fulfil this desire, there is a need to bridge the gap between doing things in a routine way. This can be achieved by taking the time to look back on our routine practice to see if there is any action we can put in place to allow our vision of practice to be improved upon and enhanced. Reflection can therefore be seen as a key to achieving this change.

Reflecting or just thinking?

Ghaye[3] describes reflection as a disposition; a commitment to develop one's own professional mindset, enabling practitioners to make even wiser and more ethical judgements. However, there are some challenges to this, such as how does one know that the process of reflection is occurring? As Harvey and Knight[4] have noted 'there is nothing to distinguish it from 'thinking', which is a quintessential activity'. In order to move away from solely *thinking* about an activity there must be an element of transformation occurring, the ability to use experience to change ideas, opposed to just looking back and adding to existing information and thoughts. It is this quality that Brockbank and McGill[5] state is the significant turning point: a point where not just thinking occurs, but a space where reflection is used to explicitly inform and demonstrate personal development.

Reflecting with others

One way of encouraging the process of reflection is to share experiences with a trusted group or person. This facilitates an opportunity to either informally or formally air and share views and experiences with a view to gaining insight and different perspectives into our own routine practices. In order for a reflective dialogue to become effective and useful in shaping our approach and planning for future practice there is a need to consider the setting, alongside securing protected time and agreeing shared boundaries in which these discussions can occur. The skills required by workplace mentors have been defined by Brockbank and McGill[6] as: active listening skills, questioning and provision of information, feedback, facilitation of reflective skills and empathy. Reflecting with others is not an easy task; Osterman and Kottkamp[7] describe that the process can be 'challenging and demanding', which is why the setting must be viewed and valued by all parties as collaborative and co-operative. If managed effectively the role of reflective dialogue, either in a group or with a mentor, can be incredibly supportive, as Bolton[8] describes 'it is like standing in front of the mirror with someone else ... Mentors ask questions one does not, or cannot, ask oneself'. Indeed, mentors provide a helping-to-learn relationship that encompasses: role model, enabler, teacher, encourager, counsellor, befriender, facilitator, coach, confidante and supporter.

Having a bad day

Newton[9] states that failure is inevitable in dental practice. This on the surface seems like a bold statement, but it is of course a reality. Just like learning to drive; once you have passed your test (and are in essence a *safe beginner*), you would have to be exceptional if you were able to drive your car for 20 or 30 years without once making a mistake. Yet as practitioners we often fail to view our practice and resulting actions with any self-compassion, repeatedly berating ourselves over what has gone wrong. One way of moving forward from negative events is to try and actively move away from a self (person) centred approach (when in receipt of a complaint, adverse clinical event or near miss) instead viewing this as an opportunity to learn, not individually, but also as a team, which is an essential strategy in preventing a blame culture from developing. Taking the time to allow the person(s) involved in an adverse event or near miss the opportunity to review their own role in the incident occurring, encourages the discovery of the underpinning aspects that facilitated the adverse incident to occur. Through reflection of strengths and weaknesses within our own personal professional environment, we can afford ourselves with an opportunity to ameliorate and problem solve any negative effects rising from professional actions and activities, which can, in turn, directly inform our ECPD activities.

'MENTORS PROVIDE A HELPING-TO-LEARN RELATIONSHIP THAT ENCOMPASSES: ROLE MODEL, ENABLER, TEACHER, ENCOURAGER, COUNSELLOR, BEFRIENDER, FACILITATOR...'

Written reflection as a ECPD activity: friend or foe?

Written reflection may be interpreted as a threat or used in a negative way, which was exemplified by the case of a junior doctor's written reflective log being released and used against them in a legal case,[10] leading to a recommendation, by some, for professionals to record their written reflections in an anonymous way. Furmidge[11] suggested that the 'fear' of reflections being used in a litigious way would undermine the written reflective process, leaving to reflections to become 'watered down' and 'non-controversial', with practitioners writing in a divisive way to ensure that there could 'be no risk of comeback'. In a move to try and address this, there has been clear guidance from the professional regulatory authorities that the need for reflective activities must continue, despite these concerns; 'fear of litigation must never diminish the value of reflecting on, and learning from, experiences ... Improving patient safety must remain at the heart'.[12] Assuming that this statement (from Perkins[12)] is read in an assured fashion, there is a continued requirement to be seen to engage with written reflective activities. Perhaps one way of effectively addressing this scenario is to verbally participate in group or mentorship activities, which in turn, results in the formation of a written action plan. The action plan can then be used to inform our ECPD activities, which we can then formally record, writing our reflections or thoughts on the effectiveness of the CPD activities we have undertaken. This approach would allow registrants to avoid strategically written reflections in a *fight or flight* response way, which Davis and Kremer[13] describe can occur when a negative or stressful event arises in professional practice. By this, Davis and Kremer describe how some professionals, who do not want to change their practice, will instigate a 'fight' response to their reflections, contradicting all criticism and attacking the person who has criticised them. Conversely, the professional that seeks 'flight' from the situation will accept unnecessary criticism and do everything they can to withdraw from the situation. Rather than using written reflection as a confessional or personal crusade we should look to the guidance of a critical and trusted colleague. If we could find the time to reflect within a supportive group or via a mentorship-mentee relationship, the written action plan from our discussion(s) and subsequent reflection on our planned improvement activities could be seen as a valid panacea which embraces ECPD.

Online mentoring

Hersh[14] describes how some people rely less and less on formal mentors, instead becoming more dependent on their peers via the internet for guidance. This, although supportive, can also taint the clearly defined roles which used to occur when more experienced practitioners formally mentored *safe beginners*. Instead, a more attractive, less visible and remote way for practitioners to navigate their way through the differing phases of their chosen career can be to gather multiple sources of support and information (eg professional social networking platforms, un-calibrated discussion forums and general hearsay during conversation) as part of their professional armamentarium. Davis[15] terms this information use as 'frag-mentoring', with the downside of this type of activity being that not all of the *mentoring participants* are aware of their role. If genuine mentors had knowingly been formally recruited to nurture and support one another, they may well implement a more cautious stance than may be exercised when anecdotally providing information to one another, via online posts. The danger of using social media is that it may become all too easy for a registrant to absolve themselves from responsibility, by piecing together fragments of information that they personally prefer, into their own (and complimentary) value system, opposed to the planned approach of having a more formal professional discussion with a mentor, with a view to critically reviewing and resolving an identified issue or topic. One way of addressing this accessibility gap would be to use of a more formalised system of synchronous or asynchronous online support. There is no doubt that advancing the use of social media may well be a good way to provide the much needed assistance that is required by practitioners, but this should be set against a backdrop which has clear boundaries and expectations set. A move towards scaffolding online support in a validated way could result in the cultivation of a safe and progressive environment in which registrants can develop and hone their professional skill set.

Bolton[8] describes how practitioners should use 'through the mirror reflection', that is, reflection that does not facilitate a self-indulgent looking back at ourselves or a vehicle in which we gather evidence to support our own views and perspectives, but, instead, a step in which we 'bravely face the discomfort and uncertainty of attempting to perceive how things are'. Whatever happens as dental professionals we should not aspire to weave a web of personal and professional development that best fits our internal image of oneself. As practitioners, if we are to grow and develop, we must be brave enough to have the courage to share our experiences with the dental team that surrounds us. By taking the time to gather the influences of our formal discussion with peers, we can enable ourselves to become empowered by viewing our professional world as it really is. By taking the time to determine our strengths and weaknesses, we allow ourselves the opportunity to become professionally and knowledgeably aware of what we do (reflecting in action[16]) and why we do it (reflecting on action[16]).

'THE EVIDENCE BASE THAT UNDERPINS OUR PROFESSIONAL DEVELOPMENT IS CONTINUALLY EVOLVING AND AS SUCH OUR ABILITY TO LEARN AND DEVELOP IS AN INTRINSIC PART OF PROFESSIONAL LIFE.'

The requirement for professional development will never be complete. The evidence base that underpins our professional development is continually evolving and as such our ability to learn and develop is an intrinsic part of professional life. In order to identify Enhanced CPD activities, we should take time and effort to move past the basic question of 'what do I need to learn to get through the day?' and instead look to finding activities that facilitate us with opportunities to live a worthwhile professional life.

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bdjteam201827

The role of the dental team in delivering conscious sedation in dentistry

By L. Richardson[1] and J. Cullen[2]

This article aims to highlight the types of sedation which can be carried out in a dental context in both primary and secondary care, the scope of practice of various team members and how team work can result in good quality sedation and patient experience.

An overview of dental sedation

Conscious sedation is defined as 'a technique in which the use of a drug or drugs produces a state of depression of the central nervous system enabling treatment to be carried out, but during which verbal contact with the patient is maintained throughout the period of sedation. The drugs and techniques used to provide conscious sedation for dental treatment should carry a margin of safety wide enough to render loss of consciousness unlikely.'[1]

Conscious sedation has been used in a variety of forms in dentistry but is sometimes mistaken by patients for general anaesthesia which has been prohibited in a general dental practice setting in the UK since 31 December 2001.[2]

Table 1 shows some examples of indications for dental conscious sedation.[3]

Types of dental sedation

Informed written consent must be obtained for any procedure under sedation and so when discussing options with patients or parents it is useful to have an understanding of the different types of sedation and their advantages and disadvantages (Table 2). Some groups of patients are not suitable candidates for sedation and so a thorough medical history should be taken in order to identify any potential risk factors. Dental treatment under sedation can be carried out in primary care, community and secondary care settings. The most suitable and safest type of sedation is assessed based on the patient's age, co-operation, medical, dental and social history.

Role of the dentist

The General Dental Council (GDC) *Scope of practice* states that dentists can provide conscious sedation.[4] Literature has shown that primary care dentists are more likely to provide inhalation sedation when they have had good experience of undergraduate and postgraduate training;[5] however, dentists are not the only members of the dental team who can carry out dental sedation.

In advance of the treatment, the dentist should have undertaken a relevant history and examination as well as organised any special investigations. Where sedation is planned as part of the treatment, clear written and verbal instructions should be given to the patient in advance of the appointment. Written instructions are especially useful for nervous patients who may not take in all the details at the initial appointment due to their level of anxiety.

The role of the dentist can vary from being the sedationist (and another person providing the dental aspect of treatment), the dentist (and another suitably qualified person being the sedationist) or both dentist and sedationist (the dentist is responsible for the sedation and also any dental treatment being provided). During training and undergraduate or postgraduate levels, this may be supervised by a more qualified senior member of staff.

In some higher risk cases, an anaesthetist may administer sedation in a hospital setting including in an operating theatre. In this scenario the anaesthetist is the sedationist and the dentistry is carried out by a dentist.

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The sedationist/dentist should assess signs of sedation throughout treatment. The use of a soft tone when speaking can help to promote relaxation and encourage a sense of detachment from the procedure. With inhalation sedation, the patient may report tingling in the extremities and a sense of floating or warmth. Intravenous sedation often produces an amnesic effect meaning patients cannot recall the procedure afterwards which can be beneficial for those who are nervous.

After treatment the dentist should ensure the safe recovery of the patient prior to discharge and answer any questions from the patient, parent or escort. Post-operative instructions both written and verbal should be given and this may be done by the dentist.

Role of the dental nurse

The GDC *Scope of practice* states that in addition to the standard scope of practice, a dental nurse with additional skills may assist in the treatment of patients who are under conscious sedation. Skills relevant to treatment without sedation are still applicable to treatment under sedation such as supporting and reassuring patients, infection control procedure and preparing and maintaining clinical equipment.[4]

From the start of the appointment, the dental nurse can assist with record keeping and preparation of equipment. Those attending for intravenous sedation should be accompanied by an appropriate, responsible escort. The dental nurse can make enquiries on arrival to check the suitability of the escort who should remain in the clinic for the duration of the treatment and should be an adult, solely responsible for the patient (not looking after any children or adults) and agree to continue to stay with the patient for 24 hours post-operatively. If the nurse has any concerns over the escort's suitability, they should raise it with the sedationist.

Table 1 Some examples of indications for dental conscious sedation[3]

- Patient anxiety
- Limited co-operation in children
- Certain medical conditions such as epilepsy and angina
- Strong gag reflex.

'A DENTAL NURSE CAN MAKE ENQUIRIES TO CHECK THE SUITABILITY OF THE ESCORT WHO SHOULD REMAIN IN THE CLINIC FOR THE DURATION OF THE TREATMENT...'

Table 2 An overview of the advantages and disadvantages of some commonly used methods of conscious sedation in dentistry

Type of Sedation	Advantages	Disadvantages
Inhalational sedation (IS) with nitrous oxide and oxygen (varied ratio)	Safe, relatively few absolute contraindications and the duration of sedation can be varied by the seditionist. The gas is delivered by a nose piece and so is well tolerated by patients with a needle phobia. The uptake and elimination are both rapid.	Requires co-operation of the patient throughout such as obeying instructions regarding nose-breathing. IS cannot be used in patients who have nasal congestion as this technique requires the patient to breathe exclusively through their nose.
Oral sedation	Easy to administer and usually well tolerated by anxious patients.	The uptake is variable due to gastric contents and can be slow. May need to be administered in advance of treatment session. Unpleasant taste may result in rejection by children.
Intra-nasal sedation	Rapid onset due to absorption through the nasal mucosa, good for needle phobic patients.	Unpleasant sensation and inadequate co-operation (especially in children or those with learning difficulties).
Intravenous sedation with midazolam	Can be titrated to patient to ensure correct level of sedation and can be reversed by administration of flumazenil. Midazolam has an amnesic affect meaning patients remember very little or nothing of the procedure.	Not suitable for needle phobic patients or those with a high BMI (due to risk to airway). The duration of sedation may be too short for certain procedures and a recovery period is needed. The patient cannot attend alone and requires an escort to accompany them.

During treatment, the dental nurse can help to continually assess the patient's level of sedation during the procedure and inform the sedationist if they feel the patient is under or over sedated so that this can be rectified where appropriate. The dental nurse must remain with the sedated patient and dentist throughout treatment and must never leave their colleague alone when the patient is under sedation. Where necessary, another team member may act as a runner or second assistant to retrieve equipment. Ideally this should be avoided by good advance preparation and organisation.

Once the treatment is complete, the dental nurse can give suitable post-operative instructions which should cover the dental treatment carried out as well as the sedation post-operative instructions. Continued reassurance and support will benefit the patient and where appropriate a dental nurse can remove a cannula once the patient is fully recovered. It's worth noting the rationale for this is that the cannula should remain *in situ* in case a reversal drug is needed as part of intravenous sedation recovery.


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'INHALATION SEDATION CAN BE USED VERY EFFECTIVELY FOR NERVOUS PATIENTS UNDERGOING PERIODONTAL TREATMENT OR ANXIOUS CHILDREN'

Role of the dental therapist and hygienist

The GDC *Scope of practice* states that in addition to the standard scope of practice, a dental therapist or hygienist with additional skills may administer inhalational sedation direct or under the prescription of a dentist.[4]

Although dental hygienists and therapists cannot administer other forms of sedation, inhalation sedation can be used very effectively for nervous patients undergoing periodontal treatment or when treating anxious children. Where the therapist or hygienist is administering the inhalation sedation, they have the same requirements and responsibilities regarding pre-operative assessment, monitoring of the patient during treatment and ensuring a safe recovery. A hygienist or therapist should also be accompanied by a second appropriately trained staff member throughout sedation to ensure patient safety.

Role of the dental receptionist

The receptionist at the practice also plays a role in the treatment of highly anxious patients seeking treatment under sedation. This can include helping to create a friendly welcome and relaxing environment in the waiting area of the practice and helping to check that an appropriate escort has attended with the patient.

Training as a team

All team members must be adequately trained, competent and indemnified to carry out treatment under sedation and have appropriate, up-to-date medical emergency training and equipment available. A log book should be securely kept detailing every sedation carried out in a department or practice for audit and patient safety reasons.

Due to the overlap of skills of each team member such as cannulation, record keeping and patient monitoring, team members can support each other and help develop each other's skills over time. This ultimately helps to improve the experience of patients and promotes good team working and clinical skills.

Feeling inspired?

You can find out further information about conscious sedation and how to enhance your skills from the following websites:

SAAD: https://www.saad.org.uk

Royal College of Anaesthetists: https://www.rcoa.ac.uk/document-store/safe-sedation-practice-healthcare-procedures-standards-and-guidance.

1. Royal College of Anaesthetists. Safe Sedation Practice for Healthcare Procedures: Standards and Guidance. 2013. Available at: https://www.rcoa.ac.uk/document-store/safe-sedation-practice-healthcare-procedures-standards-and-guidance (accessed December 2017).
2. Landes D P. The provision of general anaesthesia in dental practice, an end which had to come? *Br Dent J* 2002; **192**: 129–131.
3. Roberts G J, Rosenbaum N L. *A colour atlas of dental analgesia & sedation.* London: Wolfe Publishing, 1991.
4. General Dental Council. *Scope of practice.* 2009. Available at: https://www.gdc-uk.org/professionals/standards/st-scope-of-practice (accessed December 2017).
5. Yuan S, Carson S J, Rooksby M *et al.* Does dental undergraduate education and postgraduate training enable intention to provide inhalation sedation in primary dental care? A path analytical exploration. *Eur J Dent Educ* 2017; **21**: 193–199.

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bdjteam201828

Product news

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DENTAL THERAPIST EDUCATES LOCAL COMMUNITY IN KENYA

In a recent trip to Msambweni, Kenya undertaken by dental therapist Sarah Childs and Hereford Cathedral School, Curaprox was able to help the cause by donating over 100 CS 5460 manual toothbrushes.

During the ten-day trip Sarah visited a local school, an orphanage and a children's home to provide oral health education. She also provided bespoke advice to smaller groups of people at the local community centre including adolescents, adults and a mother and baby group.

To assist with the learning Sarah handed out goody bags containing a toothbrush, interdental brushes and leaflets, and used fun, educational props such as large teeth and a giant toothbrush. In total, Sarah handed out 1,000 manual toothbrushes, obtained through a combination of fundraising and a donation from Curaprox.

The ultra-soft but highly effective CS 5460 toothbrushes are ideal tools for achieving excellent oral health outcomes.

Sarah said: 'All in all, the trip was very positive, and I'm extremely happy that I was able to educate the community on a complete oral healthcare regime.'

To find out more about CS 5460 toothbrushes, contact Curaprox on 01480 862084, email info@curaprox.co.uk or visit www.curaprox.co.uk.

PREMIUM-QUALITY MOUTHWASH

Newly launched to the UK market is WASH & PREVENT, a premium-quality mouthwash from TANDEX.

WASH & PREVENT is available in two varieties. One contains fluoride and chlorhexidine to give it an antibacterial effect; the other has added zinc to relieve bad breath.

Whichever you choose to recommend, WASH & PREVENT will offer ideal protection against plaque and caries and will strengthen the enamel too. Pleasant to use, and with a refreshing peppermint flavour WASH & PREVENT is alcohol free.

WASH & PREVENT complements the range of outstanding oral care products in the TANDEX range. TANDEX is a Danish company that, since 1931, has been at the forefront of the development and production of preventive oral care tools and adjuncts. These include brushes, interdental brushes, PREVENT GEL and now the WASH & PREVENT mouthwashes.

Dentists who already know the benefits of TANDEX praise the high functionality and quality of the products. Patient compliance will be high as every element of the range is user friendly and will give great results with regular application.

Give WASH & PREVENT a try today – and contact TANDEX to find out how its products can make a big difference for your patients.

Visit www.tandex.dk.

MINIMISE ORAL SYMPTOMS OF MENOPAUSE

When it comes to the menopause, women are susceptible to a number of potential symptoms, including burning mouth syndrome, periodontal disease, tooth loss, dry mouth and menopausal gingivostomatitis.

To spare your patients the unwanted oral effects that present during this stage in life, regular assessments and education on the importance of a good oral hygiene regimen are essential. For safe, gentle and effective prevention and treatment, try recommending solutions from the oral healthcare specialist, Curaprox.

With a winning combination of the CS 5460 manual toothbrush with ultra-fine CUREN filaments, CPS interdental brushes made with extra strong surgical wire, and CURASEPT ADS (Anti-Discolouration System) mouth rinse, your patients can achieve a good standard of oral health, helping to minimise potential menopause symptoms along the way.

For dry mouth, Curaprox provides a complete range of products, including salivary substitute gel, toothpaste, mouthwash, spray and gum.

Menopause can bring a number of unwelcome symptoms, but with your help patients don't need to suffer orally. Call Curaprox today to find out more about products available. For more information call 01480 862084, email info@curaprox.co.uk or visit www.curaprox.co.uk.

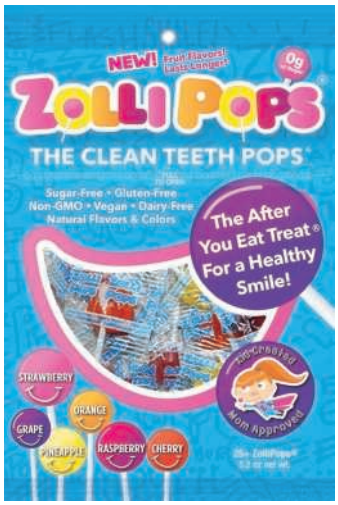
NO DRYING CYCLE, LONG-TERM SERVICE AND SUSTAINABILITY

In January 2018 CPAC Equipment, Inc. is launching their new RapidHeat Pro11 High-Capacity Table-Top Sterilizer.

Advanced engineering enables the Pro11 to compete with the industry's popular table-top steam sterilisers with 50% more capacity. The Pro11 uses the company's 'High-Velocity Hot Air' RapidHeat technology to perform a complete cycle in as little as six minutes. As no water or steam is used, the Pro11 has no drying cycle, requires very little maintenance, and comes with a standard three-year parts and labour warranty.

The Pro11 RapidHeat Tehcnology has been designed with long-term service and environmental sustainability - with independent laboratory testing confirming 85% less energy used per sterilisation cycle than comparable steam sterilisers. In addition, the same tests concluded that the RapidHeat Technology's waterless sterilisation environment does not contribute to instrument corrosion that has been proven to be common with steam sterilisation.

For more information email dbkaer@cpac.com or visit www.cpacequipment.com.



SUGAR FREE LOLLIPOPS THAT ARE GOOD FOR THE TEETH

Zollipops are all-natural, sugar free lollipops made with plant based sweeteners such as xylitol and erythritol. There have been numerous conclusive studies about the dental benefits the natural sweeteners possess and now for the first time they've been implemented into a range of children's sweets.

Steins Foods, the exclusive UK distributor, is extremely excited about working with the US brand and wants to not only educate parents on the benefits but also wants dentists to stand behind and promote the brand as a healthy and good way for parents to look after their children's teeth.

Zollipops were created when Alina Morse was seven-years-old; she went to the bank with her dad and the cashier offered her a lollipop. While she really wanted to accept, her parents always told her that sweets were terrible for her teeth. So she asked her dad, 'Why can't we make a lollipop that's actually good for your teeth?' In that moment the idea for Zollipops was born.

Dentists wanting to stock Zollipops can order in bulk direct from www.zollipops.co.uk.

BDJ Team CPD

CPD questions: February 2018

CPD: ONE HOUR

Facilitating timely diagnosis of Sjögren's syndrome

1. Sjögren's syndrome is:
A) an infection of the eyes and salivary glands
B) an adverse drug reaction
C) an autoimmune disease
D) caused by trauma

2. Much of the delay between onset and diagnosis of Sjögren's syndrome is related to:
A) the numerous, diverse symptoms
B) lack of symptoms - it is a silent disease
C) lack of awareness of Sjögren's syndrome
D) A and C

3. Sjögren's syndrome affects mostly:
A) males
B) females
C) individuals over 40 years of age
D) B and C

4. Which of the following meet the criteria for diagnosis of primary Sjögren's syndrome?
A) individuals with signs and/or symptoms suggestive of Sjögren's syndrome and a total score of 2
B) individuals with signs and/or symptoms suggestive of Sjögren's syndrome and a total score of at least 4
C) individuals with dry eyes and dry mouth, who are HIV positive
D) individuals who have a history of radiation therapy of the head and neck

BDJ Team is offering all readers **10 hours of free** *CPD a year on the BDA CPD Hub! Simply visit* **https://cpd.bda.org/login/index.php** *to take part!*

How to take part in *BDJ Team* CPD

BDJ Team CPD is available through the BDA CPD Hub. This site is user-friendly and easy to use. There are still 20 hours of free *BDJ Team* CPD on the CPD Hub from 2016 and 2017, in addition to this year's CPD hours.

Please note! The 2016 hours will be closing at the end of March 2018!

Just visit https://cpd.bda.org/login/index.php.

To send feedback, email **bdjteam@nature.com.**