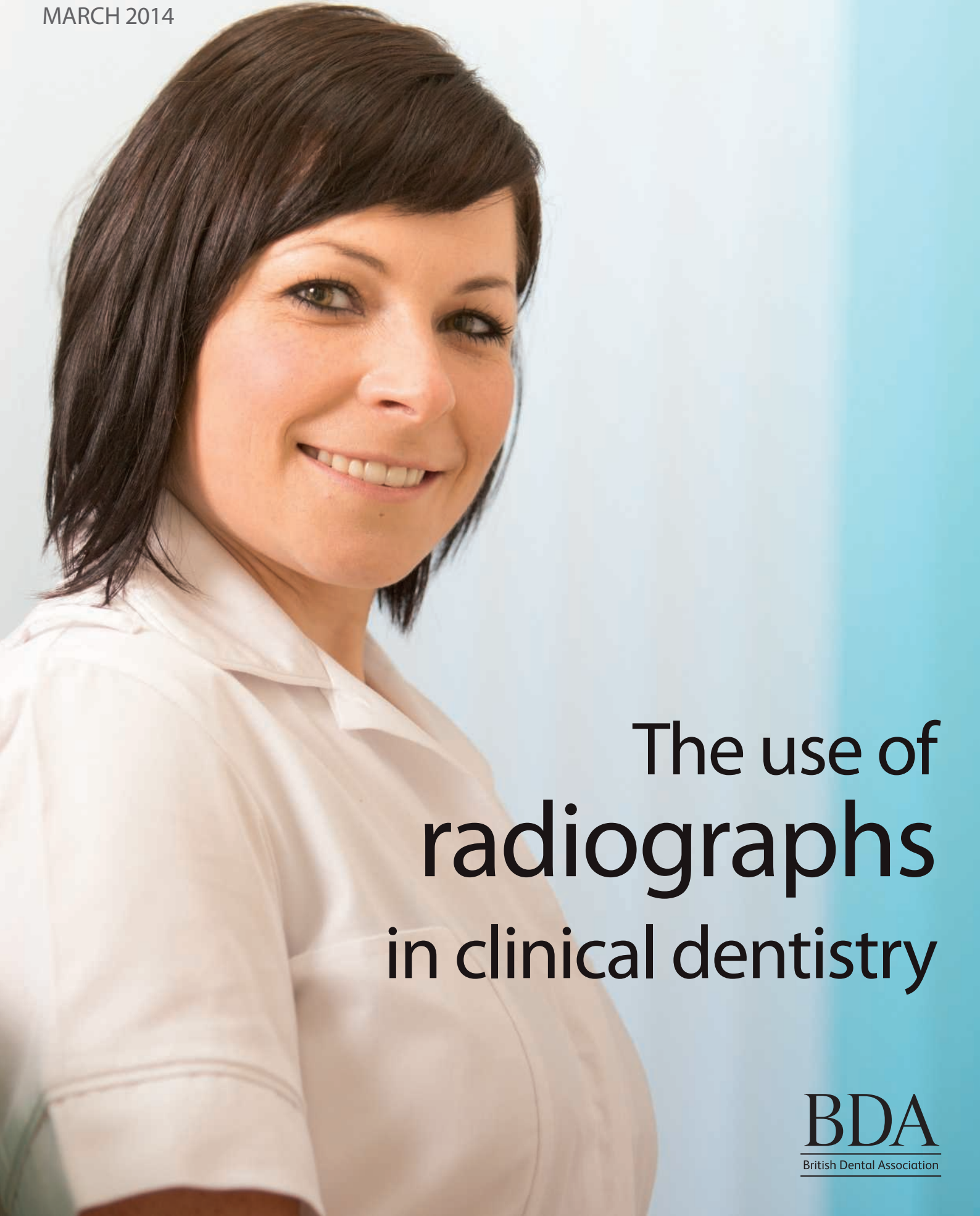
BDJ Team
MARCH 2014



The use of radiographs in clinical dentistry

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March 2014

Highlights

Regulars

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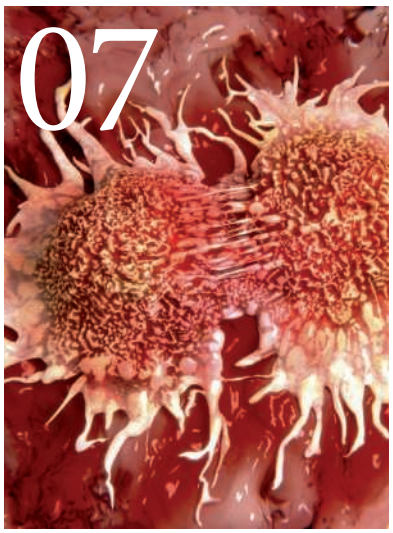

Training Essentials

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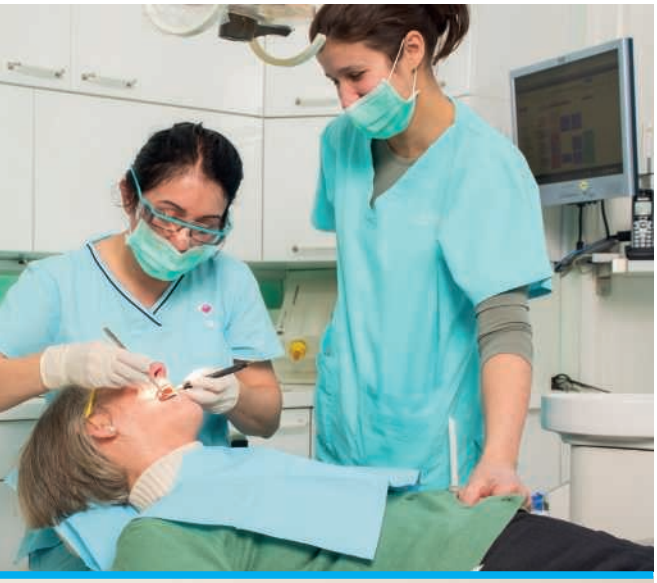

Leading the dental team
LONDON – 25/04/2014

Time management
LONDON – 02/05/2014

Clinical photography
LONDON – 09/05/2014

Reception and telephone skills
LONDON – 16/05/2014

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Achieving high standard in infection control CORE
LONDON – 23/05/2014

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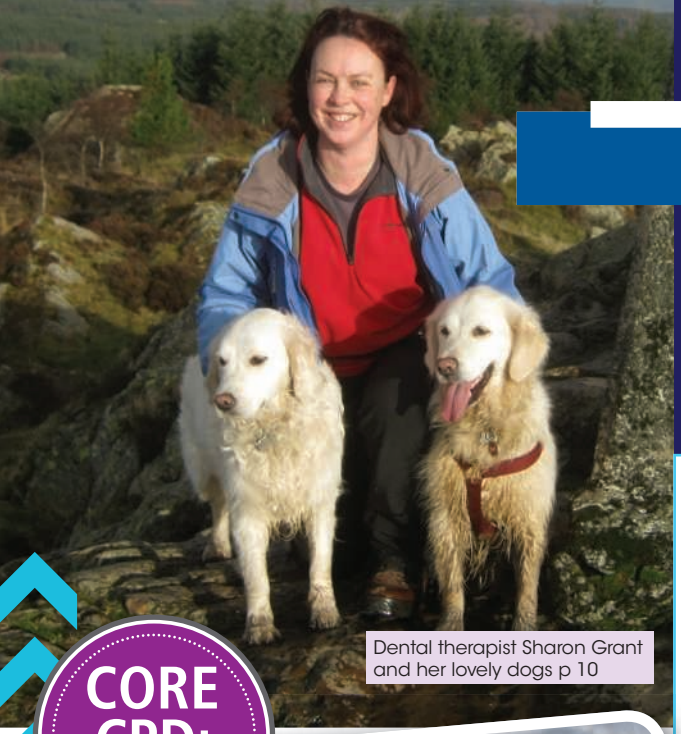
Ed's letter



Dental therapist Sharon Grant and her lovely dogs p 10

CORE CPD: ONE HOUR

Brush up your radiography knowledge p 16

What is the recommended daily intake of sugar? p 5

Does your receptionist create a great first impression? p 26

I am thrilled to be able to welcome you to the very first issue of *BDJ Team*! *BDJ Team* is the successor to *Vital* (published from 2003-2013) and we have been working flat out since last autumn to launch *BDJ Team* on target in March 2014!
So what can readers expect from *BDJ Team*?

Your new magazine

- **A new issue** every month starting in March (*Vital* was only published four times a year)
- **One hour** of **verifiable CPD every month**
- **Instant access** to *BDJ Team* articles on your computer, tablet or smartphone
- A **reader forum** on our **Facebook** group
- **Regular announcements** and important **DCP news** on the *BDJ Team* website
- Access to our **dedicated jobs site**
- **Ealerts** so that you **never miss an issue** of *BDJ Team*
- All of the articles that you loved in *Vital* - people stories, research, advice, news and views, products and CPD - but **published more often!**

Just click through the pages of this digital edition, and visit www.bdjteam.co.uk, to see what's in store this spring. Our first feature is about Sharon Grant, a dental therapist who says she *loves radiography*. How fitting then that our first **core** CPD article is on that very same topic! We also meet the BADN's new President and find out what people used to swill around their mouths in 1893...

I'd love to hear your feedback on *BDJ Team*, so please drop me an email or join our Facebook group!

Kate

Kate Quinlan
Editor
k.quinlan@nature.com

Introducing *BDJ Team's* reader panel

bdjteam201427

THE TEAM

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Letters

Email bdjteam@nature.com
Or join the *BDJ Team* group on Facebook!

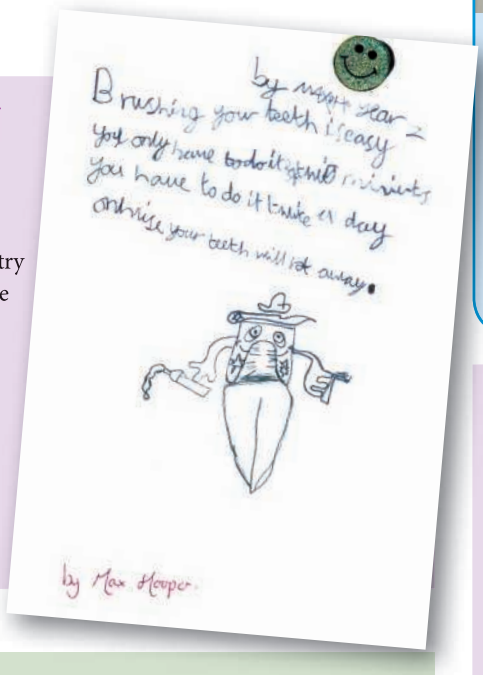
LETTER

TOOTH COWBOY

Dear Editor,
At our dental practice in Chippenham we had a poetry competition and we thought that this entry, complete with 'tooth cowboy' illustration, was brilliant! Please note the alias 'MAXOHO'... Max Hooper.

Mrs Runel Tromp, Practice manager
Dental Health for Life, Chippenham

Runel wins an Oral-B Triumph 5000 toothbrush with SmartGuide.



A BIG STEP BACK

Dear Editor,
I find all the letters in *Vital* regarding registration depressing but true. I am one of the lucky ones who has managed to secure a good job within a NHS community setting. I am a dental nurse with four post-qualifications and extended duties in conscious sedation, radiography, fluoride application and delivering oral health advice (all of which I use). I have been in this role for ten years and I always thought that the NHS Agenda for Change dental nurse salary would set a benchmark for all qualified dental nurses – how wrong. Due to the economy and the state of the NHS I continuously doubt my own job security.

Generally within the NHS Trust it had always been that a qualified dental nurse would start as a band 4 then the idea was AFC (Agenda for Change) band 5 description (specialist dental nurse) would include nurses with extended duties and post-qualifications. A lot of nurses here are stuck on band 4 all with two or three post-qualifications, which are all being used and needed to fulfil their duties. Everyone here sees no career progression and feels no benefit from registration.

I have seen recently that the managers within this trust plan to advertise vacant NHS dental nurse roles at band 3 – I find this to be taking a big step back from what registration is meant to be about, after all we may all just go to work in a supermarket/retail shop for the same pay and less responsibility/hassle and strain on our purses.

As I say I am one of the lucky ones but for how much longer? Morale is low at work. The only thing registration has done for me is take a big chunk out of my hard-earned cash and given me the grey cloud over my head that in this blame and claim culture means I may get sued!

We have all been registered for five years yet I see no change that was meant to come in with registration – when will dental nurses' roles, responsibilities and hard work become reflected in our pay?

I'm sorry to moan and I am grateful to be in my job but good roles are very few and far between and I really feel for ALL registered dental nurses. At the end of the day I love my job; registration has not changed how I work or think; I will always work hard and do my best and I love that I contribute to team working and patient care.

Clare, Dental nurse

Becky Wall, orthodontic care nurse at One Devonshire Place in Birmingham, enjoys reading her starring feature in the winter issue of *Vital: Women in orthodontics*. Read the article here: http://www.nature.com/vital/journal/v11/n1/full/vital1771.html.

Please note that the text of this article contained an error: One Devonshire Place is in Birmingham, not London. We apologise to the team at One Devonshire Place.

CROSSWORD WINNER

Mrs Diane Eastment, a dental practice manager from Bognor Regis, won the winter 2013 *Vital* Secretword competition. The secret word was TREATMENT.

Diane won a magnum of Laurent-Perrier Champagne.

Thank you to everyone who took part in the *Vital* Secretwords!

CORRECTION – AUTUMN VITAL

In the article *No turning back: posture in dental practice*, published in the autumn 2013 issue of *Vital* (pages 23-25), reference 5 incorrectly referred to 'Ellis P'.

The reference should have read as follows:

5. Paul E. *Team dentistry - chairside procedures and practice management.* London: Dunitz, 1991.

We apologise to Dr Ellis Paul for this error.

Do you have an opinion on something published in *BDJ Team* or on being a dental professional/working in the dental industry? Do you need advice from an expert that we might be able to help you with? Just email bdjteam@nature.com.

The best email received by the end of June 2014 will win a prize!

Letters may be edited for space. Opinions expressed do not necessarily reflect those of the editorial team or the publishers.

FEWER TEASPOONS OF SUGAR A DAY WILL CUT DECAY

New research from Newcastle University recommends cutting down on sugar as part of a global initiative to reduce tooth decay.[1]

Since 1990 the World Health Organisation (WHO) has recommended that intake of 'free sugars' should be less than 10% of total calorie intake. Free sugars are those that are added to food as well as those naturally present in honey, syrups, fruit juices and fruit concentrates.

The Newcastle University study, commissioned by the WHO and published last month in the *Journal of Dental Research*, recognises the benefit of this threshold by showing that when less than 10% of total calories in the diet is made up of free sugars there are much lower levels of tooth decay. The new research findings go even further, suggesting that halving this threshold for sugars to less than 5% of calories – around five teaspoons a day - would bring further benefits, minimising the risk of dental cavities throughout life.

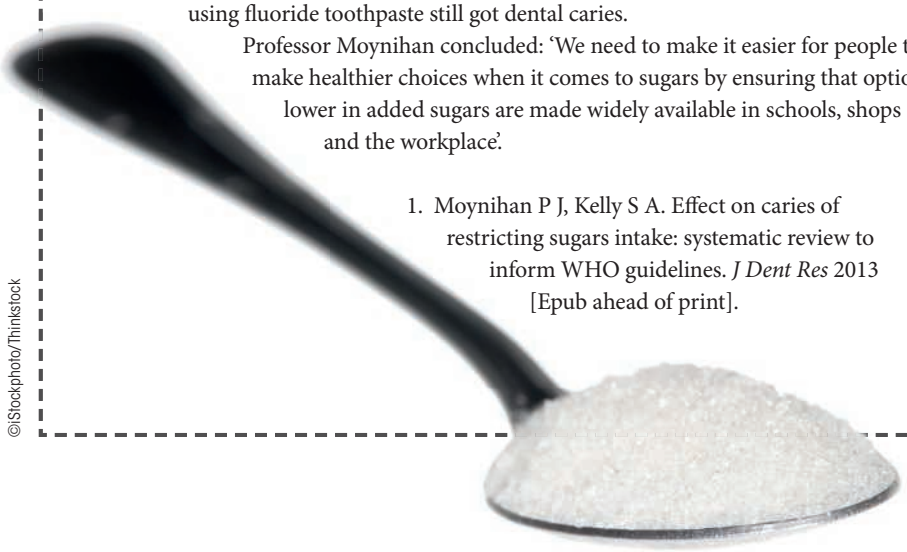
Professor Moynihan, Professor of Nutrition and Oral Health at Newcastle University, said: 'In the past, judgements on recommended levels of free sugars intake were made based on levels associated with an average of three or fewer decayed teeth in 12-year-olds. However, tooth decay is a progressive disease - by looking at patterns of tooth decay in populations over time, we now know that children with less than three cavities at age 12, go on to develop a high number of cavities in adulthood'.

The researchers scrutinised all the studies that had looked at relationships between amounts of sugars consumed and levels of dental caries. They found 55 relevant studies worldwide, dating back to 1950. Combined analysis of the data was limited because of the variation in how the data were reported but there was strong consistency across studies and evidence of a large size effect.

Considering the studies which examined the influence of fluoride, the researchers found that while it does protect teeth, people living in areas with fluoridated water and/or using fluoride toothpaste still got dental caries.

Professor Moynihan concluded: 'We need to make it easier for people to make healthier choices when it comes to sugars by ensuring that options lower in added sugars are made widely available in schools, shops and the workplace'.

1. Moynihan P J, Kelly S A. Effect on caries of restricting sugars intake: systematic review to inform WHO guidelines. *J Dent Res* 2013 [Epub ahead of print].



NEW NAME NOW OFFICIAL

The British Dental Trade Association (BDTA) has now officially become the British Dental Industry Association (BDIA), reflecting the increasing diversity of its membership and its ongoing commitment to actively driving quality standards throughout the industry.

This year's BDIA Dental Showcase will take place on 9-11 October at London's ExCeL.

BDIA

DIRECT ACCESS SERVICE PILOT APPROVED IN WALES

Welsh Government Health Minister Mark Drakeford has given the go ahead for a pilot scheme to develop a direct access service run by dental care professionals (DCPs) in the Community Dental Service (CDS) in Betsi Cadwaladr and Hywel Dda Health Boards.

The new pilot scheme aims to enable DCPs to deliver dental care for patients, make more clinical time available for dentists, improve services for patients and provide a robust upward referral system.

Many patients in the CDS with high decay rates are reviewed by dentists on a four-monthly basis which represents a significant portion of a dentist's clinical time. Often this interval period slips because of other patient priorities. Some of this time is spent making diagnoses and prescribing radiographs and prescription-only medicines, roles currently only within the scope of a dentist. However, a significant amount of this time is spent monitoring oral hygiene, giving toothbrushing instruction, discussing diet and applying topical fluoride, all of which could be done by DCPs.

The new pilot scheme should also enable additional patients to access assessment and diagnosis with a dentist more quickly.

A full evaluation of the pilot scheme will be undertaken.

Cause for applause

The team at Total Orthodontics (pictured) in Haywards Heath celebrated their 20th anniversary in January. Since 1994 the specialist orthodontic practice has provided orthodontic treatment to over 10,000 adults and children in Mid-Sussex. To mark their anniversary, the team celebrated with a patient competition to win an eReader; a special lunch for staff; and cake.

Joan Hatchard was awarded the 2013 Outstanding Contribution to Dental Nursing Award by the British Association of Dental Nurses (BADN) in November. Joan has been a dental nurse for over 30 years. After qualifying in 1988, she undertook a number of post-graduation certificates, then became a fully qualified Further Education teacher. Joan is also an NEBDN examiner and assists in dental forensic identifications, writing down clinical charting and notes, taking photographs and assisting in administrative matters. Joan has been involved with the BADN for 20 years and currently holds the position of Finance Officer.

The British Society of Dental Hygiene and Therapy (BSDHT) has broken through the £30,000 barrier in donations to Breakthrough Breast Cancer. Julie Rosse, President of the BSDHT, presented the Society's latest donation of a cheque in the sum of £444 to Breakthrough Breast Cancer's Rebecca Wilcox on 9 January 2014. The money was raised at the Society's 2013 Oral Health Conference & Exhibition which took place on 15-16 November at the ICC in Birmingham. The BSDHT has supported Breakthrough since 1996.

GUM MAINTENANCE SLOWS NARROWING OF ARTERIES

Taking care of the gums by brushing and flossing could help keep heart disease at bay.

Researchers at Columbia University's Mailman School of Public Health have shown for the first time that as gum health improves, progression of atherosclerosis slows to a clinically significant degree.[1] Artherosclerosis is the narrowing of arteries through the build-up of plaque and is a major risk factor for heart disease, stroke, and death.

Moïse Desvarieux, lead author of the paper and associate professor of Epidemiology at the Mailman School, said: 'These results are important because atherosclerosis progressed in parallel with both clinical periodontal disease and the bacterial profiles in the gums. This is the most direct evidence yet that modifying the periodontal bacterial profile could play a role in preventing or slowing both diseases'.

Scientists speculate that bacteria in the mouth may contribute to the onset of atherosclerosis in a number of ways. Animal studies indicate that they may trigger immune response and high levels of inflammatory markers, which may initiate or exacerbate the inflammatory aspect of atherosclerosis.

1. Desvarieux M, Demmer R T, Jacobs D R, Papapanou P N, Sacco R L, Rundek T. Changes in clinical and microbiological periodontal profiles relate to progression of carotid intima-media thickness: the oral infections and vascular disease epidemiology study. *J Am Heart Assoc* 2013; 2: e000254

SMOKING BANS BOOST QUIT ATTEMPTS

Completely banning tobacco use inside the home - or more broadly in the whole city - measurably boosts the odds of smokers either cutting back or quitting entirely.

Researchers from the University of California - the first state in the world to ban smoking in public places in 1994 - surveyed 1,718 current smokers and found that total home smoking bans were significantly associated with quit attempts in males, but not females.[1] Total home bans were more effective in households without children, possibly reflecting the ultimate goal of cessation rather than primarily reducing children's second-hand smoke exposure. Neither race nor income significantly modified relations between total home bans and smoking reductions.

The researchers said: 'When there's a total smoking ban in the home, we found that smokers are more likely to reduce tobacco consumption and attempt to quit than when they're allowed to smoke in some parts of the house. [...] Having both home and city bans on smoking appears to be even more effective'.

1. Zablocki R W, Edland S D, Myers M G, Strong D R, Hofstetter C R, Al-Delaimy W K. Smoking ban policies and their influence on smoking behaviors among current California smokers: a population-based study. *Prev Med* 2013 [Epub ahead of print].

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HPV HOME TESTS COULD SPOT CANCER RISK

HPV (human papillomavirus) self-testing is as effective as tests carried out by doctors, according to research from Sweden.[1] Simple HPV home tests could complement existing screening programmes, and identify more women at risk of cervical cancer.

HPV is also a cause of oropharyngeal cancers and cancers of the anus, vulva and penis.

Sweden, like the UK, has a system of regular gynaecological smear tests, which has halved the number of cases of cervical cancer. Most of the patients who die from the disease are either above the screening age, or part of the 20% who fail to attend their screenings. The figures are similar in other countries with equivalent screening programmes.

Study author Dr Lotten Darlin, of Lund University, said: 'We are usually able to cure cases of cancer that are identified through smear tests. For those women who have not been for smear tests, the cancer has progressed considerably further by the time it is diagnosed. It is these women who are at risk of dying from the disease.'

Dr Darlin investigated the possibility of home testing, but the testing kits available were either complicated or expensive. Her team then developed their own test comprising a cotton bud and a test tube. The test is sent off to a lab, where it has been shown to produce just as clear results as HPV tests taken by a doctor.

In one study, self-testing kits were sent to 1,000 women who had not had a smear test for over nine years. Fifteen percent of them used the test and sent in samples for analysis.

Dr Darlin believes that the simple self-testing kit could also be used in countries that do not have a programme of regular cervical smear tests.

1. Darlin L. *Cervical cancer: studies on prevention and treatment.* Faculty of Medicine, Lund University, Sweden: Doctoral Dissertation, 2013.

Diary

10-12 April 2014
British Dental Conference & Exhibition 2014
Venue: Manchester Central Convention Complex, Manchester
www.bda.org/conference

11 April 2014
The 5th DCP Symposium: Skill Mix for the Dental Team
Dental Postgraduate Section of the Wales Deanery in collaboration with the Royal College of Surgeons of Edinburgh
Venue: Marriott Hotel, Cardiff
The event costs £30, including lunch and six hours of verifiable CPD. For further information email liddingtonke@cf.ac.uk.

17 May 2014
Core CPD for Dental Care Professionals
Covers oral cancer: improving early detection; safeguarding children; radiography; legal and ethical issues; disinfection and decontamination; and medical emergencies.
Location: Birmingham
The event costs £49 and includes lunch and five hours of verifiable CPD. For further information email info@cpd4dentalnurses.co.uk or info@cpd4dentalhygienists.co.uk.

31 May 2014
The Management of Snoring and Sleep Apnoea in Dental Practice – an introductory course
Venue: Clinical Education Centre, Glenfield Hospital, Leicester
Email: louisedlb@aol.com or visit www.dentalsleepmed.org.uk for more information.

BDJ Team also recommends that you join your professional association to get the latest news on upcoming events! (BADN, BSDHT, BADT, ADAM, BACDT, DTA, ONG)

Introducing *BDJ Team's* reader panel

Our reader panel will be invited to make suggestions for articles, review books, comment on articles that are going to be published in *BDJ Team*, and provide feedback on dental events such as conferences and tradeshows. You may recognise some of these stunners from past *Vital* covers!

Asma Chaudhri
Qualified dental nurse tutor/
Part-time dental nurse

Felicity Cleaver
Dental practice manager
and Coach

Rachel Hughes
Clinical treatment coordinator/
Training manager

Christine Smethurst
Auxiliary dental tutor

Gemma Langford
Dental hygienist

Rhiannon Pounds
Dental nurse,
Treatment coordinator

Claire Deegan
Practice support manager
and Dental nurse tutor

Jill Taylor
Key client consultant
(Scotland)

Shaun Howe
Dental hygienist

Di Etherington
Dental nurse

Melanie Joyce
Dental therapist/trainer

Steph Horner
Dental nurse/
Decontamination lead

Diane Cox
Dental nurse and Patient
care coordinator

Rachael England
Dental hygienist

Vanessa Radway
Dental nurse

Jacqui Elsden
Dental Education
Facilitator

‘It is a pivotal time for dental nurses’

BDJ Team meets the British Association of Dental Nurses’ new president, **Fiona Ellwood**.[1]

Fiona’s background

Fiona has been instrumental in helping dental care professionals (DCPs) reach their full potential for many years. She has developed a successful training business in the Midlands and supports those providing pre-registration courses and the Oral Health Education Certificate. Fiona is a former examiner for the National Certificate, the Diploma and Oral Health Education award for DCPs; CEO of Dental Learning Curve; and director of mentoring and development for Dental Team Qualifications. She is a trained Mentor and a member of the Mentoring Development Team at FGDP(UK), receiving a postgraduate certificate with distinction at level 7.

Outside of the teaching and development arena, Fiona is an FGDP(UK) Key skills assessor and a member of the FGDP editorial board; undertakes mentoring duties for others wishing to expand their field of work in the educational or dental arena and those looking to either improve their practice or make career decisions; and is a committee member of the National Oral Health Promotion Group.

Fiona has delivered short programmes to DF1s in relation to oral health and preventative care, mentoring in the workplace, train the trainer and improving work/life balance; and has presented on CQC, undertaken practice visits and delivered lectures on HTM 01-05, Information Governance and communication strategies. All of these support Fiona’s role as a Quality Assurance Inspector for the GDC.

In addition to this, Fiona has acted as an external advisor to one of the leading dental schools and is a panel member involved in the Tooth Whitening Initiative. *She continually strives to work with other skill sectors in providing joined up care for patients in care homes, and hospitals, in GP practices, schools and outreach areas.*

Fiona is currently studying for her Master’s degree and loves to read academic literature. She likes to spend time with her horses and at the gym unless she is watching her sons play sport.

Fiona and BADN

I joined the BADN when I first qualified as a dental nurse in 1986 and have been a member ever since. I have been a council member for a number of years and the East Midlands Coordinator, spending the year prior to becoming president as president elect and then finally becoming president. I have spoken at numerous events over the years and on a wide range of topics on behalf of BADN.

It is a great honour to be asked to represent the association and its membership, but something I never dreamt of being in a position to do.

Representing the profession

Being president is a very varied role, which will see me representing the profession at all levels, attending sector meetings, providing professional opinions, speaking at events and maintaining existing relationships with other associations and members of the dental trade and media.

I am most looking forward to meeting new people and forging new professional relationships for the good of the association.

In my capacity as President I have attended the British Dental Hygiene and Therapy (BSDHT) conference, which was my first official engagement, and I was then invited to speak at the International oral care conference. I have been invited to attend the FGDP(UK) annual dinner and also the British Dental Conference and Exhibition.

BADN’s Conference held during BDTA Dental Showcase in October was a huge success, with a record number of new and first time delegates and a wide range of speakers.

Juggling roles

I am fortunate that I have a good support network and I can be flexible in my working life. I still have an active role in the clinical arena, but much of my work is around developing educational courses for the dental team and outside of this is my mentoring work.

2014 has got off to a busy start, but looking ahead at events that are coming up I am sure it will become even busier, but I knew that when I accepted the role.

BADN targets

It is a pivotal time just now for the dental nursing profession, given that the first five-year cycle has passed and there is a lot to reflect upon, lessons to be learned and success to be celebrated. There are a number of issues and opportunities to consider during my time in office, but two of the key areas that much of my time will be devoted to are career pathways and skill-mix.

BADN’s targets for this year and beyond are to continue to raise the profile of the dental nursing profession and strive to support their membership through times of change and with this in mind further grow the membership.

Dental nurses should join the BADN as it is the only professional association that represents dental nurses and it is proactive in informing and shaping the future for the profession. The BADN addresses a number of stakeholders in the dental arena on behalf of dental nurses and is made up of like-minded people who are passionate about the role.

Dental nursing

Dental nursing is a challenging and rewarding career with many different career pathways. It creates opportunities to further your education and acquire transferable skill sets, which can be applied across the different fields of dentistry and into other allied professions.

With additional and extended duties and a role in the direct access initiative, dental nursing is taking on a whole new meaning. It is a role that can be undertaken in general practice, in a hospital environment, in a community setting and in the armed forces.

www.badn.org.uk

[1] *ellwood.fiona1@gmail.com*

bdjteam20149

‘The *important* thing is to *move with the times*’

By Kate A. Quinlan[1]

As a teenager **Sharon Grant** dreamt of fighting fires but these days she is the only dental therapist in the UK to hold a master's degree in Dental and Maxillofacial Radiology.

Somewhere among the brightly-lit streets of Blackpool with the scent of candy floss in the air and the ever-present blare of amusement arcades, Sharon Grant works as a dental therapist by day and a radiography lecturer by night.

Sharon, who is over 30, originally became a dental nurse by chance when she left school, while waiting for the next available recruitment to the fire service.

'I went to the job centre and applied for every job on the rack (this was the age of the little cards with job details on). Dental nurse was the one I got. And so it began.'

Dental nursing

Sharon spent six years in general dental practice where she did her initial dental nursing qualification, then a further six years in what was then the community dental service, where she picked up a clutch of post-qualification certificates.

'I was one of the few dental nurses who attained the NEBDN Certificate in General Anaesthetic Nursing. This qualification didn't run for very long. As a result I was asked by the dental nurse tutor at my local college to go in and do a session on it. I enjoyed it and decided teaching was something I would like to pursue.'

'I WAS READY FOR CPD WHEN GDC REGISTRATION CAME IN. I AM NOW MOVING ALL MY COURSES ONLINE BECAUSE THAT IS WHAT PEOPLE WANT.'

[1] *Editor, BDJ Team*
k.quinlan@nature.com

Shortly afterwards Sharon started her Certificate of Education and managed to secure teaching hours at another college, which turned into a permanent job.

'I was just lucky I guess: right place, right time. Assessor and Internal Verifier qualifications came about when the NVQ for dental nurses came into being shortly afterwards.'

Sharon went down to part time hours dental nursing in general practice, and worked part time teaching.

Accidental training

In 2004, SMG Training was born, a training company providing qualifications, courses and continuing professional development (CPD) for the dental team, owned and operated by Sharon.

'SMG came about by accident!' says Sharon. 'It was never a conscious decision at all. The college I worked at decided to stop providing the NEBDN National Certificate (as it was) when the NVQ became more established but many dental practices preferred the Nat Cert and wanted to continue training their nurses that way. So, I provided it independently and things just rolled from there.'

2014 marks ten years since SMG's first National Certificate course. Sharon considers running the company to be more of a hobby than a job but says: 'The important thing is to move with the times. I was ready for CPD when General Dental Council registration came in. I am now moving all my courses online because that is what people want'.

SMG Training no longer offer the NEBDN qualification for General Dental Council (GDC) registration, instead focusing on providing post-registration qualifications such as the Certificates in Dental Radiography, Dental Sedation Nursing, Oral Health Education (Fluoride Application and Plaque Indices) and Special Care Dental Nursing, in addition to a selection of CPD and Scope of Practice courses. Sharon employs four tutors, all dental nurses, and all with specific areas of expertise.

'NO-ONE COULD QUITE BELIEVE THAT I WANTED TO DO IT JUST FOR MY OWN PERSONAL GAIN AND NOT FOR A BETTER JOB OR A WAD OF CASH!'

Dental therapy

Sharon completed a BSc in Oral Health Science in Manchester in 2007, adding the role of dental therapist to her CV.

'I enjoyed dental nursing a lot,' says Sharon, 'but I love to learn and was driven to do an undergraduate degree of some sort. This would then give me the potential to do further study such as an MSc or PhD. I consider myself to be an eternal student.'

'THERE ARE SOME FANTASTICALLY DEDICATED DENTAL NURSES OUT THERE. IT IS A PRIVILEGE TO WORK WITH THEM.'

Being a dental therapist wasn't Sharon's aim, which she knows might irk some dental nurses who read this and are keen to become therapists. At the time, however, she wanted to do a degree in the subject area of dentistry and it seemed like dental therapy was the only way forward.

Sharon had no difficulties securing a place on the Oral Health Science degree. 'It was in the early days of the degree course and there wasn't as much competition as there is today.'

Commuting to Manchester from Blackpool every day was a challenge, 'but doable', and Sharon sailed through the degree and graduated with honours, 'so it was all worth it'.

Mastering radiology

Sharon's quest for knowledge didn't end with her undergraduate degree:

'Deciding to undertake an MSc in Dental and Maxillofacial Radiology was a no-brainer. I love radiation/radiography and everything about it so it was always going to be in this subject. No-one could quite believe that I wanted to do it just for my own personal gain and not for a better job or a wad of cash!'

Sharon had to apply to the course twice before she was accepted as she wasn't a dentist. The university (King's College in London) couldn't quite comprehend why a dental therapist would want to do the course.

'Eventually, with a pair of carefully chosen referees, I was accepted on to the programme,' says Sharon.

Intrepid Sharon describes the master's course as 'amazing', being taught by the best dental radiologists in the country.

'Everyone was so knowledgeable, it was an honour. Now that it is over I really miss it.'

The course was provided through distance learning with a three-week residential period in London each year.

Sharon had no problem finding the motivation to study through distance learning as she enjoys the subject so much.

'The residentials were great. Of the students only three were from the UK. It is an international programme so I met people from all over the world and indeed, have now got a very good friend in Canada who I went to visit late last year. In addition, I cannot speak highly enough of King's College, London. A fantastic place to study in all respects.'

Sharon now loves the fact that she has a wealth of knowledge on dental radiology so that when she speaks on the subject and students need more information, she can provide it for them 'more or less immediately'.

A supportive practice

Sharon considers herself lucky to have a supportive husband when it comes to her many career endeavours: 'God love him, my husband never really gets a choice!' Luckily, the colleagues at her dental practice were also really supportive when she was studying for her master's degree, helping Sharon to find cases for her projects.

'I am self-employed so taking time off for the residentials wasn't an issue. Some of the dentists did poke fun at me for carrying textbooks around though and some thought my chosen subject was bonkers! I think they were all secretly jealous.'

Sharon hopes that she might be an inspiration to some of the dental nurses at her practice, as she also started off as a dental nurse, and her career progression shows what can be achieved. She would like to see more dental nurses with degrees.

Sharon is now Radiation Protection Supervisor at her practice. 'It is a busy role as there are nine surgeries and a total of 20 staff members who can take radiographs to keep an eye on.'

Sharon works two to three days in practice a week and around one day a month in the classroom teaching the NEBDN Certificate in Dental Radiography or a CPD course in dental radiation for various deaneries. She is also involved in a couple of foundation training programmes, teaching her favourite subject of course, radiography.

'On top of this I have my online students and online tutors to support,' says Sharon. 'One of the best things about online training is the wide geographical area we can cover and the nurses that we speak to. There are some fantastically dedicated dental nurses out there. It is a privilege to work with them.'

Outside dentistry

Beyond her busy in-surgery and teaching schedule, Sharon devotes one day a week to canines - the furry variety.

'I have three golden retrievers so we like to get out on a good walk or to a flyball competition. Most of the time is spent walking up big hills through loads of mud with them. Two of my dogs also compete in flyball [a sport involving dogs racing against each other over a line of hurdles] so I am off most weekends in the summer doing that.'

Sharon is currently investigating the possibilities for her next degree but has not yet made her mind up. In the meantime she says:

'Life is pretty much dogs, dentistry and X-rays. I try not to confuse the three!'

If you are interested in undertaking a course with SMG Training, some of which can be studied online, visit www.smgtraining.co.uk or call 07967 531185.

bdjteam20141

Your Conference Pass to *success*

Spread over three days the Conference Pass programme at this year's British Dental Conference and Exhibition has a lot to offer the whole dental team. The programme comprises over 80 sessions all taking place in the venue's dedicated lecture and seminar rooms with topics including periodontics, mouth cancer, professional guidelines and working profitably as a team (Figs 1 and 2).

Get to grips with periodontics

There's a strong periodontics focus to several sessions on this year's programme which takes in all areas of this essential area of dental care. On Thursday Nikolaos Donos from the UCL Eastman Dental Institute will look at the particular problems that may occur in patients with implants and treated periodontal disease – including the prevalence and diagnosis of peri-implantitis.

On Friday Paul Weston, GDP, Periodontology Specialist and Associate Specialist at Birmingham Dental Hospital will discuss a conservative approach to managing periodontal disease and how to make the patient the answer to the disease. On Saturday Valerie Clerehugh, Professor of Periodontology at the University of Leeds, will examine the connection between diabetes and periodontics and what this means for everyday practice.

Mouth cancer – make sure you're informed

With incidences of mouth cancer increasing it is important to know how to spot the condition at an early stage so it can be treated, as well as being aware of the particular oral health issues for patients who've undergone treatment. Two sessions on Friday afternoon deal with this important topic. In the first of these Mike Lewis, Professor of Oral Medicine and Dean of Cardiff University, will explain how to make sure you don't miss the signs of this condition, looking at the different ways it can present and which conditions should be recognised as potentially malignant. Later in the afternoon Craig Barclay, Consultant and Honorary Senior Lecturer in Dentistry at the University Dental Hospital of Manchester, will look at the rehabilitation of patients following treatment for head and neck cancers including patient perspectives and the effects of radio and chemotherapy on oral care.

Guideline guidance

Those looking to get to grips with the new GDC guidelines for dental professionals should make sure not to miss the Friday presentation by Stephen Henderson, Senior Dento-legal Advisor at Dental Protection, who will look at what's new, what's changed and what this means for you as a practitioner. Also on Friday Keith Horner, Professor of Oral and Maxillofacial Imaging at the University of Manchester, will look at what's new or changed in the new radiography guidelines.

Caring for your customer and boosting your practice

The importance of a whole team approach to customer care is a theme of many of the Conference Pass sessions. On Friday morning dental adviser and communication coach Brid Hendron will look at how to have those difficult conversations that are an inevitable part of practitioner/patient relations. She will explore how your own thought patterns and state of mind can alter the influence you have on others. Later on Friday morning business consultant Sheila Scott will look at how hygiene programmes build practices, including how they can improve the customer experience and how to build patient loyalty. She will share some useful take away word pictures to help patients buy into their hygiene schedules.

Further insight into how the practice's skill mix can be used to increase success and profitability is on offer on Saturday morning in a session jointly led by GDP and postgraduate dean Nicholas Taylor, and dental hygienist and therapist Amanda Gallie. Amongst the issues they will cover are how to maximise the skills of each practitioner within the NHS contract for a profitable outcome, and how to overcome business, employment and financial issues in the skill mix practice.

A tactical team approach to complaints is the subject of a presentation by Dento-legal Advisor John Makin from the DDU on Saturday afternoon. He will look at some of the issues that commonly underlie complaints in a dental setting and how to develop strategies to prevent these escalating. Later in the day dental hygienist Donna Schembri will look at working safely within your scope of practice, what patients need to know, and when and how to refer to other professionals.

Verifiable CPD

The event offers up to 15 hours' verifiable CPD. Prospective delegates can find out more and register online at www.bda.org/conference or by calling 0870 166 6625. Conference Passes are available at a significantly reduced price for all DCPs - less than £50 per day for those purchasing a three-day pass. Alternatively, if any of the dentists in your practice are BDA Expert members, they are entitled to bring two DCPs with them free of charge. It might be worth asking if they are attending.

www.bda.org/conference
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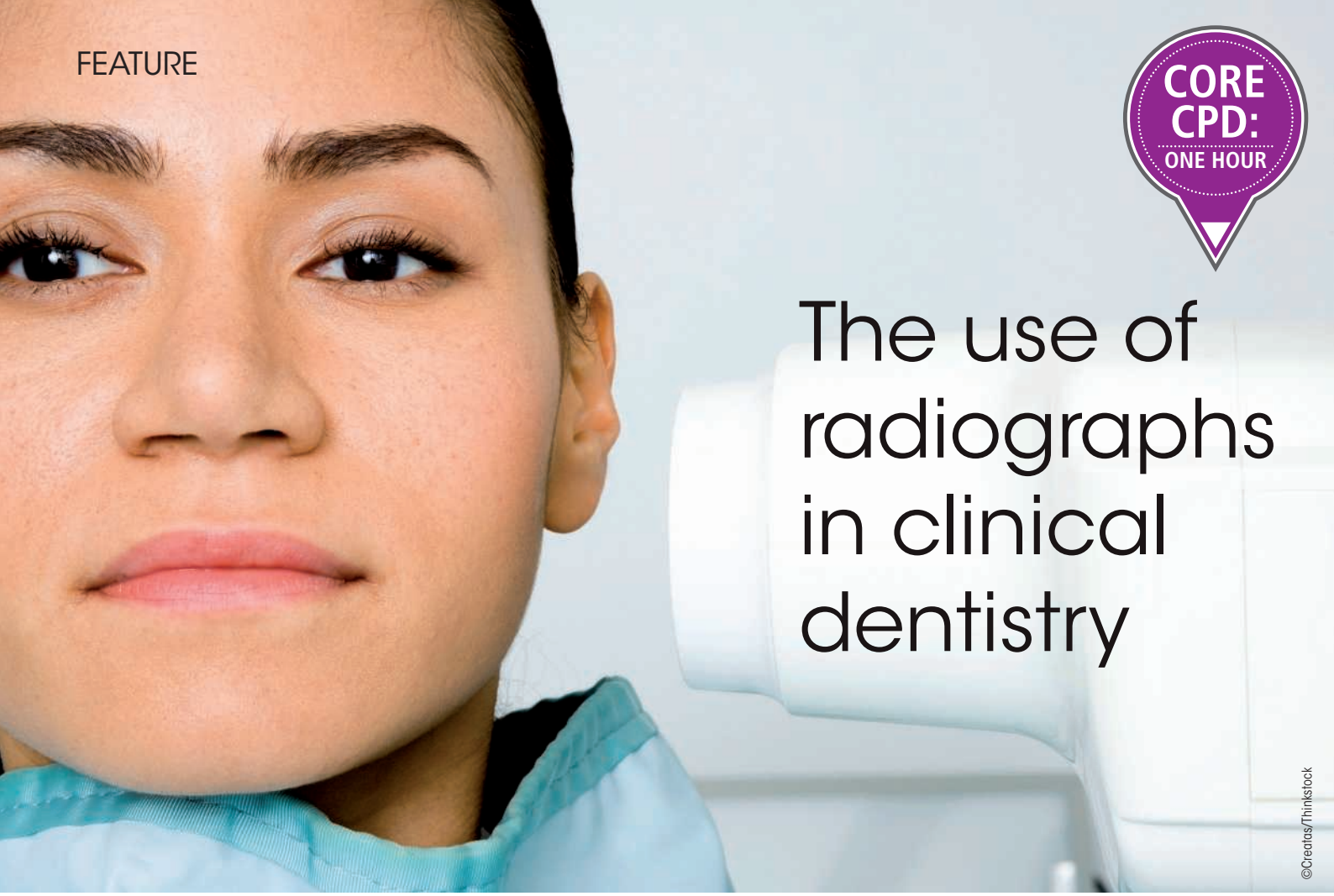
Fig. 1 Demonstration theatre

Fig. 2 Training Essentials theatre

bdjteam201411



CORE CPD: ONE HOUR

The use of radiographs in clinical dentistry

By Jane Dalgarno, Dental Nurse Tutor, Community Dental Services, Bedford; jane.dalgarno@cds-cic.nhs.uk

Just about everything we carry out in our daily lives carries an element of risk and the use of X-rays within clinical dentistry is no exception.[1,2] For example, most individuals would regard activities involving a risk of below one in 1 million as exceptionally safe.[2] The radiation risks for simple X-ray examinations of the teeth are deemed to fall into this low risk category (less than one in 1 million risk).

The use of radiographs within clinical dentistry is controlled by the Ionising Radiation Regulations 1999 and the Ionising Radiation (Medical Exposure) Regulations 2000 (IRMER). These regulations necessitate the need for all radiographs to be justified, recorded in the patient's notes and a quality assurance programme established to improve the quality of radiographs produced.[3]

Quality assurance (QA) in radiography is a plan of action that ensures all radiographs conform to a consistently high standard while minimising the radiation exposure to patients and staff.[4] With appropriate training, this can be easily carried out by the dental nurse, the objective being to minimise the risk or to eradicate the risk completely. To achieve this involves assessing the quality of the films processed to establish the following key aspects:

- Is the film diagnostically acceptable?
- Is a fault present?
- What is the fault?
- How has it happened?
- How can it be prevented from happening again?
- Is re-exposure of the patient necessary?

The overall aim of a QA programme should involve a scoring system that is explicit and followed by all staff. It should easily identify any areas of concern and generate solutions to the problems identified. Furthermore, it should limit the number of patient exposures to the minimum required for clinical need.[5]

A method outlined in clinical governance guidelines uses a simple scoring system and should include the following detail:

- Score 1 - excellent quality radiograph
- Score 2 - diagnostically acceptable quality, minimal errors present that do not prevent the radiograph from being used for diagnosis
- Score 3 - unacceptable quality, where errors present prevent the radiograph from being used for diagnosis, and will therefore require a retake.

Score 1 should be at a minimum of 70% of all exposures while score 3 should be at a maximum of 10%.[5,6] The outcomes need to be recorded following each exposure so that results can be analysed on an ongoing basis and any problems identified. Scores 2 and 3 should highlight any trends towards operator fault or equally poor processing, indicating a faulty machine or spent solutions.[5]

Careful processing carried out in accordance with the manufacturer's instructions eradicates one of the causes of repeat radiographs due to a faulty processing technique. Repeating the radiographic examination because of processing errors results in increased radiation exposure to dental staff and to the patient. A high standard of processing produces better quality films. To ensure radiographs are processed optimally it is important that you understand the two measures of X-ray quality, specifically density and contrast.[4]

Density

Density relates to the degree of blackening of the film following exposure and processing. The blacker the area the greater the density. Radiographs that have too little density will appear too light. Radiographs that have

too much density will appear too dark. It is difficult to interpret detail on a film that is either too dark or too light.[4]

Contrast

Contrast is the relative difference in density between the lightest and darkest parts of the radiograph. Contrast gives the operator the ability to distinguish the object seen in the radiograph.[4]

A dense image

A processing temperature that is too high or a developing time that is too long will produce a radiograph that is too dense.[4]

A light image

A processing temperature that is too low, a developing time that is too short or a processing solution that is too old or depleted will produce a radiograph that is too light.[4]

As X-rays cannot be seen or heard, it is easy to forget that they are potentially dangerous to health and, moreover, an overdose can give rise to serious health effects, thus the significance of avoiding retakes.[5] Although the risk associated with ionising radiation is real, we are all exposed to natural background radiation every day of our lives. This comes from the ground (16%) and building materials around us, the air we breathe, the food we eat (12%) and from cosmic rays (14%). In fact, in most of the United Kingdom the largest contribution is from radon gas (58%) which percolates out of the ground and accumulates in our houses.[2]

No person shall carry out a medical exposure unless it has been justified by a practitioner as demonstrating a net benefit.[6] However, as long as it is clearly necessary to help make the correct treatment decision for a patient, the benefits from an X-ray examination should usually outweigh these small radiation risks.[2]

Compliance with IRR 99

The preliminary act of compliance is to inform the Health and Safety Executive (HSE) whenever a dental workplace begins to use ionising radiation for the first time and with each change of ownership thereafter. Three recognised appointments must then be made by the employer.

The Employer (legal person) is responsible for providing the overall safety of the practice and for ensuring that staff and procedures conform to the regulations. In addition, the legal person must provide written procedures for medical exposures and is responsible for arranging a three-yearly assessment of radiation safety within the workplace. This involves organising an inspection with a competent authority such as the Health Protection Agency (formerly the National Radiological Protection Board).

The Radiation Protection Advisor (RPA) is a medical physicist who is appointed in writing by the dental workplace and is available to give advice on staff and public safety in relation to both sets of regulations.

The Radiation Protection Supervisor (RPS) is a designated individual within the workplace who can assess risks and ensure precautions are taken to minimise them in accordance with IRR99.

The legal person must draw up a set of local rules which have to be displayed at each X-ray machine, so that they can be referred to by all staff. The local rules must give all of the following information.

Local rules

- The name of the designated Radiation Protection Supervisor (RPS) and Radiation Protection Advisor (RPA)
- The identification of each controlled area
- Display the standard warning sign at each controlled area
- A summary of the correct working instructions for each controlled area
- A summary of the contingency plan to be followed in case of an equipment malfunction
- Details of the dose investigation level
- The use of a red light and audible buzzer to indicate the actual exposure time
- The arrangements in place for the safety of pregnant staff.

It is recommended that these written procedures and the local rules are kept together as a radiation protection file and that all staff are made aware of the contents.[1]

Radiation Protection Advisor

The role of the RPA is to give advice on the actions the workplace must take to comply with both sets of regulations and will include the following aspects:

- The implementation of controlled and supervised areas
- Installation of new or modified sources of ionising radiation
- The frequent use and calibration of radiation monitoring equipment, examination and testing of engineering controls, design and safety features, warning devices and regular checking of systems of work provided to restrict radiation exposure.[1,7]

Radiation Protection Supervisor:

The chief responsibilities of the RPS are to ensure that work is carried out in harmony with IRR99 and the local rules are observed.

The RPS must be adequately trained, should be closely involved with the radiography and have the authority to satisfactorily implement their responsibilities.[1,7]

'AS X-RAYS CANNOT BE SEEN OR HEARD, IT IS EASY TO FORGET THAT THEY ARE POTENTIALLY DANGEROUS TO HEALTH AND AN OVERDOSE CAN GIVE RISE TO SERIOUS HEALTH EFFECTS, THUS THE SIGNIFICANCE OF AVOIDING RETAKES.'

Duties of the referrer, practitioner and operator

The Referrer: a registered dentist or dental care professional (DCP) who refers the patient for radiation exposure, either to themselves or to another dentist or specialist dental radiographer who can carry out that exposure.[1,5,8]

IR (ME) ER Practitioner: the dentist or DCP who takes responsibility for justifying the taking of the radiograph, by determining that the diagnostic benefits gained will outweigh the risks of the exposure to the patient.[1,5]

The Operator: the individual executing any practical aspect of the exposure. Practical features include:

- Patient identification
- Positioning the film, patient or X-ray tubehead
- Setting the exposure parameters
- Pressing the exposure switch to initiate the exposure
- Processing films
- Clinical evaluation of radiographs
- Exposing test objects as part of the quality assurance programme.[1]

Clinical audit

Requirements for clinical audit must be made and may include aspects of the QA programme. These may include the appropriateness of the radiographic requests and the clinical evaluation of radiographs.[1]

Training and continuing education

Following qualification operators and practitioners must undertake continuing education and training in all aspects of dental radiology and this should remain integral to their lifelong learning. It is suggested that practitioners attend a formal course every five years covering all aspects of radiation protection. Schedule 2 of IRMER lists the subjects that might be included in this training such as:

- Radiation doses and factors affecting doses in dental radiography
- Risks of ionising radiation
- Principles of radiation physics
- Principles of radiation protection
- Statutory requirements
- Quality assurance.[1,7]

For practitioners with a UK dental degree, this training requirement is met at undergraduate level; for non-UK graduates, the employer must establish whether the training is adequate to meet the standards required.

Operators who are not practitioners may also achieve a formal qualification. For example operators such as dental nurses who may be required to select exposure parameters and/or position the tube head can address this requirement by achieving a Certificate in Dental Radiography, which conforms to the syllabus laid down by the College of Radiographers.

Operators involved in film processing or QA checks must also receive training on how to undertake these tasks. This may be provided in-house, but evidence should be kept that instruction has taken place, for example in a training record.[7]

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'THE EMPLOYER MUST KEEP A RECORD OF ALL TRAINING UNDERTAKEN BY HIS/HER EMPLOYEES. THIS WOULD NORMALLY STIPULATE DATES AND CONTENT OF TRAINING AND MAY ALSO COMMENT ON ANY ADDITIONAL TRAINING NEEDS.'

Record keeping

The employer must keep a record of all training undertaken by his/her employees. This would normally stipulate dates and content of training and may also comment on any additional training needs. The record should also include evidence of in-house training provided.

Finally, operators and practitioners that are using Cone Beam Computed Tomography (CBCT) require additional training in this new technique. A core curriculum has been produced by the Health Protection Agency (HPA) and the British Society of Dental and Maxillofacial Radiology (BSDMFR) covering the training requirements for any individual undertaking the role of practitioner or operator.[7]

1. Whaites E. *Radiography and radiology for dental care professionals,* 2nd ed. London: Elsevier Limited, 2009.
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3. Faculty of General Dental Practitioners (UK). *Clinical Examination and Record Keeping. Good Practice Guidelines.* London: Faculty of General Dental Practitioners, 2001.
4. The Dental Nurse Online. *Learner guide-assisting with dental radiography,* 1st ed. Australia: The Dental Nurse Online, 2011.
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*Radiography is a **CORE** CPD topic! Visit www.nature.com/bdjteamcpd to obtain one hour of verifiable CPD based on content in this article.*

bdjteam201426

For bad breath, dandruff or cleaning floors

By Brian Williams[1]

Bad breath has been a problem throughout history and various preparations for its cure have been suggested, including mouthwashes and rinses. The Greek physician Hippocrates (460 to 277BC), famous for the *Hippocratic Oath,* suggested a mixture of salt, alum and vinegar. Roman writer Pliny the Elder (23 to 79AD) believed salty water taken in 'uneven numbered mouthfuls' was the answer. The Chinese, in their enormous eighteenth century *Golden Mirror* encyclopaedia, advised the use of children's urine. So, too, did Pierre Fauchard, the father of modern dentistry, in his 1728 text *Le chirurgien dentiste* – although he didn't specify that of children. Mass-produced mouthwash can be traced to the late nineteenth century. The market was ready for mouthwashes after bacteriology research by Robert Knoch and Louis Pasteur in the 1880s and W. D. Miller's work on the factors that caused tooth decay a decade later. Wands ❶ was a well-known retail and manufacturing chemist in Leicester in the late nineteenth and early twentieth centuries before closing in the 1950s. Sanoram ❷ was invented by Dr B. Kritchevsky and manufactured in Paris. His antiseptic tablets were suitable as a mouthwash, for treating burns and for various gynaecological conditions. Other manufacturers went further and sold their mouthwashes as general antiseptics, as a treatment for dandruff or even as a floor cleaner. Manchester-based James Wolley & Co ❸ did not claim the same extensive uses as had Sanoram and others for its mouthwash, Phenate. Genozo ❹ was established in London in 1906 as a subsidiary of a Germany company manufacturing the tonic Sanatogen. In 1919, it was thought politic to change the company's name to remove the Germanic association so it became Genatosan, an anagram of Sanatogen. Odel ❺ was another German company to enter the UK mouthwash market. Its product was launched in 1893 in a distinctively shaped, white glass bottle and Bakelite cup, which later became a glass one ❻.

I thank Melanie Parker, former British Dental Association (BDA) Museum Education Officer, for her help in the preparation of this article.

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[1] *Volunteer at the BDA Museum; a retired general dental practitioner and honorary secretary of the Lindsay Society for the History of Dentistry. bdjteam@nature.com*

bdjteam201410

The risks and benefits of direct access

Steve Turner,[1] Sheela Tripathee[2] and Steve Macgillivray[3]

Is there evidence of significant issues of patient safety resulting from direct access? This article reviews the results of the literature review commissioned by the GDC in 2012.

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INTRODUCTION

On 28 March 2013 the General Dental Council (GDC) removed the requirement for a patient to first see a dentist before any treatment by a dental care professional (DCP). The decision was described as 'controversial' in an April 2013 edition of the *BDJ*, with support coming from the British Society of Dental Hygiene and Therapy, the British Association of Dental Nurses and the Office of Fair Trading, countered by strong reservations from the British Dental Association, which called the GDC's decision 'misguided'.[1] The new arrangements came into force on 1 May 2013.

The GDC stressed that the decision was made with patient safety as the utmost priority, and that it followed a detailed review of evidence. An important component of this body of evidence came from a literature review on direct access in dental and other health fields

commissioned by the GDC in April 2012. The review was intended to inform the GDC about any expansion of direct access evidence that may involve increased risk to patients, either by treatment or through failure to recognise and refer problems outside DCPs' clinical remit. This article is an edited version of the results of that literature review, presented to the GDC in July 2012. The full Report may be found at www.gdc-uk.org/newsandpublications/research/pages/researchaspx.

BACKGROUND

Direct access has been legal for some years in a number of countries, US states and Canadian provinces, both for dental hygienists and, perhaps more controversially, for dental therapists, who are trained to perform a considerable range of restorative treatment otherwise undertaken by dentists. This summary focuses on three areas examined by the review:

1. Evidence about the impact of direct access in jurisdictions where it operates, including risks and benefits to patients/clients and any other impacts for example, on attendance, patient/client attitude or the attitudes of other affected healthcare professionals
2. Challenges that the introduction of direct access has presented in those countries and services, how relevant these are to dental services in the UK and any evidence of these challenges being managed and risks mitigated
3. Completeness, robustness and credibility of the available evidence.

METHODS

The literature review involved searching for studies evaluating or describing direct access arrangements or issues pertinent to such arrangements in both dental and other healthcare fields. Extensive enquiries were made to dental organisations worldwide. However, it should be noted that as the GDC commission was for a rapid evidence review, selection and grading of the relevant literature was not exhaustive. This is particularly true with regard to grey literature and to papers with restricted access. Searches were restricted to post-1993, the year of the *Nuffield Report*.[2]

We searched eight online sources of published literature, representing a wide range of disciplines and journal types using a systematic search strategy. The team also made efforts to contact:

- Educational institutions running dental hygiene/therapy and dental nurse training to identify aspects relevant to any extension of direct access to these practitioners
- DCP professional associations in the UK and in countries where direct access has been instigated. For example, each US state has different arrangements regarding direct access to dental hygienists
- Relevant bodies in other professions where direct access has been established, for example regarding nurse practitioners in the UK.

The reference lists of studies included in the review were scrutinised for any pertinent studies. Publications were checked independently by two team members, and a decision made as to their inclusion in the final review using criteria outlined in Table 1.

The initial screening stage resulted in a shortlist of articles including titles and abstracts. In the second stage, eligibility assessment was performed independently by two reviewers, with any disagreements being resolved by consultation with the third reviewer. The third stage involved retrieval of the eligible articles in full text. Final selection of the studies to be included in the review was further assessed and discussed within the team until consensus was reached. One reviewer extracted data from the included studies and a second checked the extracted data. Disagreements were resolved by discussion with the third reviewer.

Methodological quality was measured by reference to checklists developed by the Critical Appraisal Skills Programme (CASP)[3] and the Scottish Intercollegiate Guidelines Network (SIGN).[4]

Table 1 Inclusion and exclusion criteria

Inclusion criteria	Likely to include data pertinent to direct access. Likely to report empirical data relating to the operation of that system, including qualitative assessments. Reports primary or secondary (that is, review) data. Is accessible in English.
Exclusion criteria	Papers relating to non-UK countries, except in the case of direct access in dental care. Papers published pre1993 (that is, before *The Nuffield Report*).

RESULTS

One hundred and thirty-nine full text papers were retrieved and accessed for relevance. Of those, 35 were judged to have empirical evidence of sufficient relevance and quality for inclusion.

Impacts, including risks and benefits

Evidence on the impact of direct patient access to general dental practitioners (GDPs) comes predominantly from papers relating to the role of dental hygienists and dental therapists in the US. Nineteen studies from the US were reviewed, including six dealing with dental health aide therapists (DHATs) in the state of Alaska. Of the non-US papers, four relate to the UK, four to Australia, two to Norway, and one each to New Zealand, Sweden, Spain, Italy and Canada. Of the 35 papers, 23 deal with dental hygienists, seven with dental therapists, one with dental assistants, one with denturists, and three with both hygienists and therapists. However, some papers did not examine direct access arrangements as such, but rather compared knowledge, clinical decision-making, costs etc pertaining to DCPs and dentists. As such they provide relevant information on the appropriateness of different professional groups assuming greater autonomy in their clinical activity.

Eight factors emerged from the review of dental studies as the potential major impacts of introducing direct access, including risks and benefits.

POTENTIAL NEGATIVE IMPACTS

Risks to patient safety

In seven studies that examined aspects of patient safety,[5-11] none provided any evidence of increased risk. Quality of evidence was moderate/good in five of seven studies.

However, two of these mentioned evidence of deficiencies in facilities and equipment, one in respect to radiographs,[6] and another to sterilisation and equipment.[8] Both these studies refer to the Alaska DHATs, who work in remote and under-served tribal localities. Quality of evidence was moderate/good in two of two studies.

Two descriptive Scottish papers do not present data directly pertaining to safety issues and extended duties dental nurses (EDDNs) acting under direct access arrangements.[12,13] However, no significant adverse events have been recorded in this programme in over 168,000 fluoride varnish applications (personal communication, Childsmile Central Evaluation and Research Team, Glasgow Dental School, June 2012).

Risks relating to diagnosis and referral decision-making

Eleven studies were found that looked at the quality of DCPs' referral decision-making. Four found evidence of poor specificity (that is, referring a high proportion of problematic cases but also a significant number of non-problematic cases), leading to over-referral and unnecessary consultations.[10,14-16] While one study noted good agreement between DCP and dentist regarding DCP referral decisions,[17] others reported under-referral[18] or problems in getting dentists to accept referrals.[19] One US study reported good uptake of referrals by adult patients,[20] but another reported a low uptake of referrals from a school dental service.[15]

Two European studies found knowledge and training deficiencies regarding oral cancer detection among dental hygienists,[21,22] while a UK sample survey reported a lack of confidence among hygienists and therapists in their own ability to detect possible oral cancer.[23] None of these three studies compared DCPs' knowledge with that of dentists. Quality of evidence: moderate/good in ten of 11 studies.

Support to patients

Seven studies looked at aspects of DCPs' knowledge or support to patients regarding smoking cessation,[21,22,24,25] diabetes,[26] child abuse[27] and domestic violence.[28] All but one[24] found deficiencies in DCPs' knowledge or support to patients, but there is no evidence from these studies to suggest that dentists were any better in these respects. Quality of evidence: moderate/good in five of seven studies.

Concerns and lack of knowledge of professional and patients regarding direct access

Both dentists and patients in several studies have shown mixed views about DCPs providing treatment. These findings contradict the conclusions of studies involving patients of DCPs (see 'patient satisfaction' below). Studies conclude that the introduction of direct access will require education and the preparation of information for health professionals, patients and parents.[23,29-32] Quality of evidence: moderate in five of five studies.

POTENTIAL POSITIVE IMPACTS

Increased access to dental care, both preventive and restorative

Ten studies provide evidence that the deployment of dental therapists and dental hygienists (and in one study, dental assistants) in indirect or general supervision or unsupported by a dentist resulted in greater access to and use of dental services by under-served groups and communities.[6,8,15,19,20,33-37] Quality of evidence: moderate/good in seven of ten studies.

There is a limited amount of evidence regarding the work of dental nurses or dental assistants. One study examined the impact on access of a new type of dental assistant ('scaling assistants') in Maine, US,[37] and concluded that workforce data suggested an increase in access to dental care. In the UK, EDDNs may effectively act under direct access in limited settings of day nursery and primary schools, in that they provide preventive care, including fluoride varnish treatment, with only general supervision from a dentist. Routinely collected monitoring data from the Scottish Childsmile programme[12,13] indicate that in addition to any gain in the protection of children's teeth, access to restorative care is likely to have been increased. In over 108,000 appointments for fluoride varnish application completed in 2011, 22% resulted in parents being recommended to take their child for care from a dental practice, usually because untreated caries had been detected by the EDDNs (Personal communication, Childsmile Central Evaluation and Research Team, Glasgow Dental School, June 2012).

Cost savings to patients and the public purse

Three studies[10,38,39] suggest variable and at most modest benefits regarding cost savings to the patients and service providers. Quality of evidence: moderate/good in two of three studies. The evidence for savings in dentists' time or other resources is inconclusive.[20,37,38] Quality of evidence: moderate in one of three studies.

Patient satisfaction

Six studies gave consistent findings that patient satisfaction was high and/or dental anxiety low among dental hygienist and dental therapist patients.[15,33,35,36,40,41] Two report higher satisfaction among patients of independent dental hygienist practices than among dentists' patients.[33,41] Quality of evidence: moderate/good in four of six studies.

Higher job satisfaction among dental therapists and hygienists

One US and one UK study found that job satisfaction was higher when DCPs worked to their full remit and training.[19,23] Quality of evidence: moderate in two of two studies.

CHALLENGES/MITIGATION OF RISK

Potential barriers to direct access identified through the direct access literature search relate to practitioner and patient attitudes towards an extended DCP role. Attitudes among both dentists and patients tended to be more positive

with direct experience of working with or being treated by DCPs, and DCPs themselves were confident in their abilities to work more independently.[23,30-32,42] Five approaches to the mitigation of risk were identified:

1. Limitations of clinical remit, patient groups or settings

Commonly limitations of the DCPs' clinical remit relate to restorative treatments, particularly those classed as 'irreversible.' There are examples of such limitations being widened over time or varying according to levels of experience, training or supervision. In some models patient groups have been limited to children, the elderly, the under-served (defined by the spatial distribution of dentists and their patient base), those on welfare benefit (for example, Medicaid, Medicare). Specified settings are commonly public service clinics or walk-in centres (as opposed to private practice), schools, care homes or other residential settings. There was no found evidence demonstrating the value of restriction by patient group or setting.

2. Stipulated levels of experience, qualification or training

Some models of direct access have stipulated levels of experience, qualification or training required by DCPs working independently or under general supervision. Again no evaluation material has been found which tests or compares restrictions of this kind.

3. Formal supervision

Formal supervision by dentists is a common, but not universal, method of regulating DCPs working directly with patients. These arrangements may involve a 'named dentist', as in the Alaska DHAT model. This dentist monitors activity, provides advice by telephone or audio-visual link, and accepts referrals.

4. Audit and inspection

Audit and inspection arrangements may exist outside supervision by a dentist. For example, the Alaska DHAT model maintains close audit returns of local performance.

5. Line management

DCPs may have a line management structure such as exists within the Childsmile oral health improvement programme in Scotland with its use of EDDNs working in schools and nursery schools, answerable to a programme coordinator and ultimately the Director of Dental Public Health within each Health Board.

These approaches to regulation and patient safety are by no means mutually exclusive, or limited to arrangements for direct access to dental care. For example, in the early 1990s the following limitations on practice in physical therapy (physiotherapy) direct access models applied in different US states: diagnosis requirements, eventual referral requirements, physical therapist qualifications, patient consent requirements and practice setting restrictions.[43]

There is little evidence to evaluate or compare these approaches. However, a 2005 study found no reported disciplinary actions against dental hygienists in respect to the administration of anaesthesia across 13 US states over a ten year period.[11]

'IN SEVEN STUDIES THAT EXAMINED ASPECTS OF PATIENT SAFETY, NONE PROVIDED ANY EVIDENCE OF INCREASED RISK.'

GAPS IN THE EVIDENCE

1. Despite the fact that New Zealand is generally recognised as pioneering direct access to dental care provided by DCPs, particularly therapists and nurses, only one paper[34] was identified that evaluated in that country. However, a 2012 review of the global literature on dental therapists includes a 58-page account of the development, organisation and performance of the New Zealand dental therapist profession[44]
2. Evaluations of long-term outcomes of dental therapists' restorations were not found[6]
3. Very little research evidence pertaining to dental nurses, dental technicians, and clinical dental technicians was found
4. The research literature is dominated by papers from the US, a reflection both of recent developments in Alaska and elsewhere in response to poor access to dental care on the part of many Americans, and the controversy regarding safety and efficacy of independent 'mid-level' practitioners
5. Only three research studies made reference to the referral pathway from DCP to dentist.[15,19,20] There is a need for more detailed evidence on the extent to which patients and families fail to follow up referral to a dentist once they or their child has received treatment from a DCP, and the extent to which any such failure of referral is associated with treatment need
6. There was insufficient relevant and good quality evidence to be able to evaluate different models of direct access with, for example, different levels of supervision. However, anecdotal evidence[45] that US dental hygiene malpractice insurance premiums are the same regardless of the level of supervision the hygienist practices under, or the range of clinical services she performs, supports Scofield and colleagues[11] in their conclusion that dental hygienists successfully and safely administer local anaesthetics to dental patients under varying supervision arrangements
7. No research evidence on the operation of shared record keeping was found, although one study describes arrangements in the Alaska DHAT service.[10]

DIRECT ACCESS IN OTHER AREAS OF REGULATED HEALTHCARE

The literature search identified seven areas of healthcare where some form of direct access has been reported. Three of these, and 40 of the 66 identified papers, relate to nurses working under direct access arrangements. This often involved primary care settings – probably the most useful comparison for dental services. A Cochrane systematic review[46] on the substitution of doctors by nurses in primary care, although not explicitly defined as direct access, is also relevant to this review.

As patient safety was the prime concern of the GDC in commissioning the review, we restricted our summarising of this evidence base to issues of patient safety, including treatment and referral quality, in three areas felt to be most relevant to primary care-based dental services: direct access to nurses in primary care, including telephone triage schemes; physiotherapy; and audiology.

Overall the evidence from the eight nursing studies is favourable, in that six found no evidence that patient safety had been compromised by use of nurses or nurse practitioners.[47-52] The systematic review by Laurante[46] also reports no impact on health outcomes, but cautions about study quality. Moll van Charante *et al.* found considerable variation among nurses making telephone-based assessments and referral decisions.[53]

The evidence from physiotherapy studies on patient safety or referral quality is more mixed, with eight studies concluding that direct access does not pose a risk to public safety,[54-61] three with equivocal findings,[62-64] and three with at least partially negative findings.[65-67] The main recommendation from this latter group was the need for relevant training to improve assessment and referral skills. The findings from the two audiology studies were very positive about patient safety and direct access to such services.[68,69]

Finally, we note the 2006 systematic review of evidence on extended roles for allied health professionals.[70] While 21 studies progressed to full review and data extraction, the authors were unable to evaluate any pooled effects as patient health outcomes were rarely considered. They conclude that health outcomes, how best to introduce such roles, or how best to educate, support and mentor these practitioners, had rarely been evaluated (systematic review, evidence level I; study quality: good).

CONCLUSIONS

Over 100 research dental and other health-related papers were identified as relevant for this review of direct access. The quality of the evidence regarding direct access issues in dental care practitioners was varied but of moderately good quality as a whole. The material on direct access in dental services was overwhelmingly related to the work of dental hygienists and dental therapists, and mostly US in origin.

There was no evidence of significant issues of patient safety resulting from the clinical activity of DCPs. In contrast, there was strong evidence that access to dental care improved as a result of direct access arrangements, of cost benefits to patients, and of high levels of patient satisfaction. Of course, if access to dental care is widened, and appropriate referrals of patients with hitherto unmet treatment needs are made by DCPs to dentists, demands on dentists' services may rise. There was some evidence that DCPs may over-refer patients to dentists, which may ensure patient safety but lead to wasteful use of resources and a high level of 'no shows' on referral.

Finally, there is evidence of ongoing training needs to strengthen the assessment and referral skills of DCPs in respect to patients with other health problems or risk factors, but little evidence that dentist are any less in need of such training.

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'THERE WAS STRONG EVIDENCE THAT ACCESS TO DENTAL CARE IMPROVED AS A RESULT OF DIRECT ACCESS ARRANGEMENTS…'

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The full version of this article was originally published in the BDJ *on 6 December 2013, Volume 215 pages 577-582 (doi:10.1038/sj.bdj.2013.1145).*

READER PANEL

Q. Have the new rules on direct access had any impact on you and your workplace?

Asma Chaudhri, *dental nurse tutor/ dental nurse*

Nothing has changed in my dental practice, as the dental hygienist has opted out of direct access; she has plenty of patients without the change, and would rather wait and see if this change has been positive and worth the wait.

Christine Smethurst, *auxiliary dental tutor and RDN*

Nothing presently has changed for me. I do think direct access is a good idea but I hope it does not destroy the holistic 'team approach' that can be achieved if a dental therapist, for example, is used correctly. As much as I do think the idea of direct access is good for treating patients quickly, I just hope that we remember how far we have come with scope of practice for DCPs and team working.

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Receptionists must have brilliant people skills

By Heather Dallas[1]

It is vital that whoever is front of house in a dental practice, ie on reception, has excellent people skills. Why is this important? If you look at customer complaint statistics, 75% of business is lost on the first impression.

Many people on reception juggle this with another role, eg that of dental nurse, hygienist, practice manager, dentist ... so it's even more important they have the right attitude and skills.

I believe this starts with recruiting the right person. Ask questions to give examples of evidence about their mind set and enthusiasm. You can train people in skills like time management, telephone manner and technical skills. It is essential they want to do the job and have good rapport skills such as emotional intelligence, empathy, building connections with people, putting themselves in patients' shoes, etc.

Anxious patients

An example would be with anxious patients. Most patients do not find coming to the dental practice an enjoyable experience. Anxiety may be based on a negative past experience, which may go back years. Or, a patient might be fearful about the unknown. The person on reception can put them at ease with their manner, genuine friendliness, open facial expression, professional posture and welcoming words.

We know most first impressions are created by what people see. Uniforms should look professional and polished and the position of the desk should be where the patient walking in can see the receptionist front-on.

Environment

The environment of the reception and waiting area are also key. Put yourself in the new patient's shoes and see what they see, hear what they hear, feel what they feel. See the colours of the decoration, the neatness of the area, the artwork; do you have distractions eg television, a fish tank? A great way of creating rapport visually is to have a 'Meet the Team' photo in the reception area. Think about what music is played – is it relaxing? How comfortable are the chairs in the waiting area? Is the desk of the right height to be welcoming? Are there any barriers, eg the receptionist looking at their computer screen or those awful glass windows that open and close in front of the patients' faces?

Courtesy

The team should agree a policy for greeting the patients as they see appropriate to be professional and approachable. Do they use Mr, Mrs, Ms or first name? Ideally make a note of what the patient prefers in their notes.

Juggling

I have worked with hundreds receptionists, whether this is their full time or part time role, through the British Dental Association's (BDA's) courses and conferences. They often talk of how stressful it is to juggle a busy workload. Again the team could agree how they can all organise their time: what time management techniques work for the team, giving clear priorities rather than 'urgent'; using an A, B, C system; agreeing how much time the receptionist needs to organise their own day, for example being patient-free for the first 15 minutes in the day.

Handling complaints

The second complaint I hear about is dealing with difficult patients and people. Having a policy in place about how to handle complaints is very important. Anyone who is dealing with patients must be assertive, not aggressive. They need to know how to negotiate and what they can offer the patient as 'coinage' to calm them down if necessary, for example a free clean. Being absolutely clear about payment terms will instil confidence in the receptionist.

In summary, the attitude and skills of the receptionist play a big part in the success of the business.

'THE RECEPTIONIST CAN PUT PATIENTS AT EASE WITH THEIR GENUINE FRIENDLINESS, OPEN FACIAL EXPRESSION, PROFESSIONAL POSTURE AND WELCOMING WORDS.'

The BDA is running a Telephone and reception skills course on Friday 16 May 2014 at the BDA headquarters in London to help equip those with reception responsibilities with the necessary skills to project the right impression, listen effectively, and cope with situations when under pressure.

For further details, visit www.bda.org/training or call the events booking hotline on 020 7563 4590.

[1] *Course leader for the BDA's Reception & Telephone Skills course; events@bda.org*

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Poligrip also offers the Poligrip for Partials range, consisting of Clean & Protect denture cleansing tablets and Seal & Protect denture fixative. Even a well-fitting partial denture can increase the mobility of neighbouring teeth.[5-8] This daily range is specially designed for your partial patients to help them protect their remaining natural teeth while they care for their partial.

Recommend Poligrip to help your patients enjoy a better quality of life with dentures. For more information visit www.gsk-dentalprofessionals.co.uk.

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PROMOTING BETTER BRUSHING AROUND THE WORLD

2013 saw the launch of the Aquafresh Kids 'Better Brushing Programme', designed to help dental healthcare professionals support community oral health initiatives through the provision of Aquafresh Kids products and materials.

Rachael Dinsmore, a final year dental student from Dundee Dental School, took Aquafresh Kids educational materials to Peru to support an initiative run by The Vine Trust to promote better oral health in remote Amazonian villages. Clinics were run onboard an ex-navy ship, stopping at ports along the Amazonian river. Rachael used Aquafresh Kids materials to help support the initiative and said that the children particularly enjoyed receiving an Aquafresh Kids sticker as a reward for good brushing (pictured).

Linda Cardona, an oral health promoter from London, engaged with the Aquafresh Kids Better Brushing Programme to support her initiative promoting oral health in children in the Borough of Ealing. This area of London has a particularly high level of decayed, missing or filled tooth surfaces among young children. These oral health promotion sessions took place throughout June and included activities and sessions for parents and children including health fairs, fun days and a special 'brushathon' event. Linda used Aquafresh Kids toothbrush and toothpaste samples and Aquafresh Kids educational materials to support the activities and found them to be a great help.

TALKING POINTS 2014 - BOOK NOW

After almost 30 years of excellence in learning, the Talking Points in Dentistry lecture series is back again in 2014, promising to bring you interesting and relevant sessions with practical learnings you can take back to your practice, all brought to you by renowned experts in the field.

This year, due to popular demand, GSK have added a new location to the line-up, Cardiff, and will visit a total of 11 venues throughout the UK. Also, for the first time, the lecture series has been split by both date and topic, allowing Talking Points to cover more of the topical issues in dentistry; six events will take place in May, with a further five in September.

MAY: Professor David Bartlett and clinical psychologist, Professor Tim Newton from King's College London present new thinking on the condition of acid wear. With one in three young adults[1] affected by acid wear, they will provide a unique insight into how you can influence patient behaviours to prevent further damage.

SEPTEMBER: Dates and information to be announced soon!

Don't miss out! The limited places are always booked up quickly for this exciting lecture series. Contact your GSK representative or visit www.gsk-dentalprofessionals.co.uk.

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Talking Points in Dentistry

TOP TEN TIPS FOR PARENTS

From Philips, creators of the newly-launched latest version of Sonicare for Kids (pictured).

1. Brush your child's teeth for them until the age of seven
2. Children should consume fizzy drinks, smoothies and juice as a treat, preferably sticking to milk and water at other times
3. If children do consume fizzy drinks, smoothies and juice, they should be encouraged to do so through a straw
4. Restrict sweets, fruit juices, smoothies and fizzy drinks to meal times
5. Drink water afterwards to wash away the acid
6. Do not brush the teeth until an hour after eating or drinking
7. Wean children off drinking milk from bottles by the age of one as soon as possible after they start eating proper food and certainly by the age of 18-24 months
8. Children should not be allowed to take a bottle or feeder cup to bed
9. Drinking juices from a feeder cup should be avoided
10. Use fluoridated toothpaste twice daily.

EARLY ACID WEAR SCREENING ESSENTIAL

Acid wear is a leading cause of tooth wear. Results from the pan-European ESCARCEL study reveal that almost one in three young adults have experienced tooth wear and more than two in five demonstrate dentine hypersensitivity, a related condition.[1]

Previous research by GSK found that most dental professionals think that acid wear is becoming more common.[2] Now, the results from the first pan-European Epidemiology Study on Non-Carious Cervical Lesions (ESCARCEL) show just how common acid wear has become.

A particularly worrying insight is the prevalence of the condition amongst young adults – the study found that almost a third of the European young adult population suffers from tooth wear. 29.4% of 18-25-year-olds suffered from tooth wear, with an even higher prevalence in 26-35-year-olds. The study found more severe tooth wear in those who frequently consumed acidic foods and drinks.

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The study also found that 41.9% of young adults suffer from dentine hypersensitivity, a condition which is often associated with tooth wear. Indeed, the study's findings confirm a strong association between erosive factors (such as high consumption of dietary acids, or gastric reflux) and dentine hypersensitivity, an association which previous studies, which hadn't assessed both conditions simultaneously, have been unable to prove.

ESCARCEL shows that an acidic diet leads to higher levels of tooth wear. Simple advice like avoiding acidic foods and drinks between mealtimes could help your patients avoid acid wear. You can also recommend a toothpaste designed specifically to help protect against the effects of acid wear, like Pronamel Daily Toothpaste. Pronamel is proven to help re-harden acid-softened enamel and build protection against future acid challenges.[3]

1. West N X, Sanz M, Lussi A, Bartlett D, Bouchard P, Bourgeois D. Prevalence of dentine hypersensitivity and study of associated factors: a European population-based cross-sectional study. *J Dent* 2013; **41:** 841-851.
2. GSK Data on File 2013.
3. Hara A T, Kelly S A, González C *et al.* Influence of fluoride availability of dentifrices on eroded enamel remineralization in situ. *Caries Res* 2008; **43:** 57-63.

BDJ Team continuing professional development

CORE CPD: ONE HOUR

CPD questions – March 2014

CPD ARTICLE: The use of radiographs in clinical dentistry – Pages 16-18

1. Which of the following is **incorrect**?

A. dental nurses can carry out quality assurance in radiography, with appropriate training

B. quality assurance may involve establishing whether a film is diagnostically acceptable

C. a score of 2 in a method for quality assurance outlined in clinical governance guidelines means that a radiograph has excellent quality

D. score 1 should be at a minimum of 70% of all exposures

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2. a) The blacker the area of the film, the greater the density. b) A processing temperature that is too low will produce a radiograph that is too dense

A. only a) is correct

B. only b) is correct

C. a) and b) are correct

D. a) and b) are incorrect

3. Who in the dental practice is responsible for determining that the diagnostic benefits of taking a radiograph will outweigh the risks to the patient?

A. the radiation protection advisor (RPA)

B. the treatment coordinator

C. the employer

D. the IR (ME) ER practitioner

4. Which statement is **true** regarding training and education?

A. it is suggested that practitioners attend a formal course covering all aspects of radiation protection every two years

B. if an individual took their dental degree outside the UK, it is up to them to decide whether they have adequate dental radiology training

C. a Certificate in Dental Radiography is unrecognised and does not conform to any syllabus

D. operators and practitioners using CBCT need additional training

Vital winter 2013 - CPD answers

Article 1

Fluoride varnish pilots - the South Central experience

Q1. C

Q2. A

Q3. B

Q4. A

Article 2

Infection prevention and control in your practice

Q1. A

Q2. C

Q3. D

Q4. C

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	A	B	C	D
Q1	☐	☐	☐	☐
Q2	☐	☐	☐	☐
Q3	☐	☐	☐	☐
Q4	☐	☐	☐	☐

4. Please add any comments or feedback that you might have below or email bdjteam@nature.com.

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