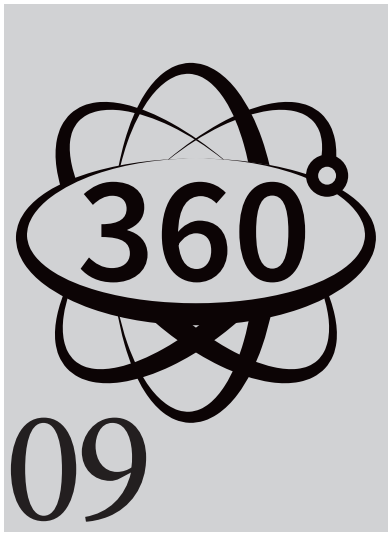
BDJ Team
MAY 2018

BLOOD BORNE VIRUSES

BDA
British Dental Association

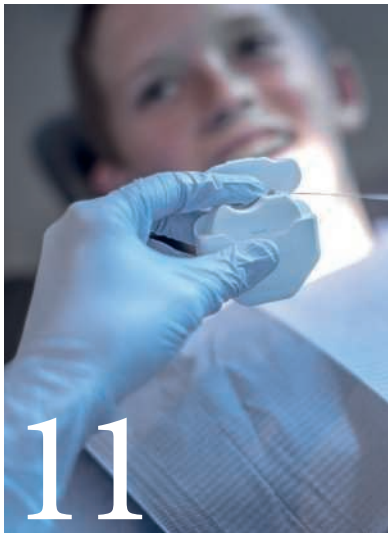
May 2018

Highlights



Regulars

In this issue



CPD: ONE HOUR

Ed's letter

Key facts on blood borne viruses p21

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Becoming fully rounded, p9

If a patient's blood splashes into your eye when you are assisting in their dental treatment, what are the risks and what steps should you take? In what circumstances can a dental professional with HIV status continue practising? Does your practice have a written policy for managing sharps? Extend and refresh your knowledge on blood borne viruses with this issue's exclusive article presenting the key facts for primary care dental teams, with one hour of verifiable CPD.

Also this month, Mike Young explains in reader-friendly terms why you should embrace CPD, personal development planning and your 'hard' and 'soft' skills: 'development is a broad, lifelong process of improving your skills, knowledge and interests as a means of maximising your potential and career prospects', says Mike.

Dental nurses Lynsey Blackburn and Oluseyi Latinwo are two new examples of DCPs who are making the most of their careers and embracing everything dentistry has to offer. Lynsey says 'When patients return on a regular basis and improve their dental health it makes my job worthwhile' and Oluseyi: 'I am really happy I am contributing to the prevention of oral diseases'. Read their stories in this issue of *BDJ Team*.

Also this month we place a spotlight on dental hygienists' scope of practice and in a *BDJ* article, look at guidance for facilitating the treatment of wheelchair users in general dental practice.

This will be my last editor's letter for a while as I'm off on maternity leave, but rest assured that *BDJ Team* will be in safe hands in my absence. I'll catch you in 2019!

Lynsey shares her love of dental nursing, p7

Oluseyi takes a stand on oral health education p13

Kate

Kate Quinlan
Editor
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Wheelchair access p15

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THE TEAM

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BADN BACKS CALL ON **FOOTBALL CLUBS TO CUT JUNK FOOD LINKS**

The British Association of Dental Nurses (BADN) has backed the SUGAR SMART campaign, led by the food charity Sustain and supported by Jamie Oliver, which calls upon football clubs to take action to protect children from foods and drinks high in fat, sugar and salt (HFSS).

Despite the Government's 2015 *Sporting Future* strategy document calling for a 'responsible approach' to sponsorship by companies marketing HFSS foods, and a ban on the advertising of HFSS products across all children's media, football clubs, leagues and governing bodies are still entering into new partnership deals with companies marketing HFSS products.

The campaign asks clubs and stadia to join SUGAR SMART, to promote healthier food and drink and not to enter into new partnership deals with HFSS brands.

BADN President Hazel Coey said: 'The fact that nearly 43,000 children were admitted to hospital in England in 2016-17 for multiple teeth extraction, coupled with current levels of childhood obesity, now requires drastic action. Football is the highest participation team sport in the country, and as such must take steps to protect children against the marketing of unhealthy foods and drinks.

'I would urge BADN members, and other dental nurses, to support this campaign by signing up at www.sustainweb.org/poll/sugar.'

The text of the open letter sent to the Football Association, the Scottish Football Association, the Football Association of Wales, the Irish Football Association, the Premier League, the English Football League, the Scottish Professional Football League, the Premier League Clubs, the EFL Championship Clubs, and the Department for Digital, Culture, Media and Sport (DDCMS) is available on the Latest News page of the BADN website: www.badn.org.uk.

Dates for your diary: May

17 May 2018, 1-6 pm
Annual Open Day for those interested in the Diploma in Dental Therapy and Dental Hygiene
Informal drop-in, no appointment necessary
The Greater Manchester School for Dental Care Professionals
4th Floor, St James's House, Pendleton Way, Salford, M6 5FW
http://www.mandcp.co.uk/

18-19 May 2018
British Dental Conference and Dentistry Show
The new collaboration between the BDA and the Dentistry Show
Birmingham NEC, Hall 5
https://www.bda.org/conference

25 May 2018, 10 am - 4 pm
Reception and telephone skills
BDA, 64 Wimpole Street, London, W1G 8YS
https://www.bda.org/events/Pages/Reception-and-telephone-skills-for-the-whole-dental-team—May-2018.aspx

BSDHT PRESIDENT DISCUSSES TOOTH EROSION ON THE AIRWAVES

Helen Minnery, President of the British Society of Dental Hygiene and Therapy (BSDHT), was a guest speaker on Talk Radio in March, discussing tooth erosion and its prevention.

Helen emphasised how diet is one of the most important considerations for avoiding tooth erosion, more so than the products used during daily cleaning. Helen made clear that it is acidic food and drinks that have the greatest influence and that people need to think about how often and when they consume such things.

Helen also gave specific examples of some of the most acidic foods and drinks to be aware of, and offered listeners some practical advice to reduce the potential for enamel erosion.

This is just one way that the BSDHT continues to raise awareness of dental problems among the general population, particularly highlighting the need for improved oral health for children. To find out more about the society and what else it does, visit www.bsdht.org.uk.

NEW PRESIDENT FOR **DTA**

The Dental Technologists Association (DTA), the not-for-profit association reprsenting the interests of UK dental technicians, has announced that Delroy Reeves has been appointed as President for the coming year.

Delroy began working as a dental technician about 40 years ago, completing his initial training at an in-house dental laboratory in Jamaica. His education continued here in the UK at South London College, where he gained a City and Guilds Final Certificate in 1983 and a City and Guilds Advanced in Crown and Bridge Technology in 1986. He runs his own crown and bridge dental laboratory in London.

A member of the Council of DTA since 2011, Delroy is a keen runner and a deputy churchwarden in his spare time. He said: 'I'm delighted and honoured to be taking over as DTA President at this time of great change. 2018 marks the tenth anniversary of our member publication, *The Technologist*, and I believe we have much to celebrate. I look forward to working with colleagues on the DTA team to support our members'.

To find out more about the DTA visit www.dta-uk.org, email info@dta-uk.org or telephone 01452 886366.

Spotlight on the British Dental Conference and Dentistry Show

This year's first combined British Dental Conference and Dentistry Show will take place on 18-19 May 2018 at Birmingham NEC. Visit www.thedentistryshow.co.uk and www.bda.org/conference.

The case for good sugars
Tim Ives will argue the case for 'good sugars' in his Hygienist & Therapist Symposium session 'Sweet offender versus sweet pretender: utilising sugars to treat and prevent disease'.

Dental nurses and dental photography
Diane Rochford will speak on the benefits of dental photography for dental nurses in the Dental Nurses Forum.

Dental and systemic health
Melonie Prebble and Victoria Wilson will be exploring the links between oral and systemic health in the Hygienist & Therapist Symposium.

Understanding behavioural change
Dentist Ben Atkins will be presenting on patient understanding and behavioural change at the Hygienist & Therapist Symposium, and the importance of patient trial outcomes.

Dental medical emergencies
Helen Watson and Lynn Fox – owners and instructors from Orchard Training Services and ResusPlus Training respectively – will each present sessions on dental medical emergencies in the Core CPD Theatre.

Over 10,000 visitors are expected at the two-day event, which is free of charge and open to all.

For more information visit:

www.thedentistryshow.co.uk
www.bda.org/conference

For the love of dental nursing

Lynsey Blackburn, 44, is a dental nurse in Sunderland, mother of two and passionate about oral health education.

I get up at 7 am every day - I like to be up early to get everybody organised for the day. I'm married with two daughters, Ella who is 18, and Eve who is 13, and they are my absolute world. There's usually only myself and my youngest daughter around at breakfast time so we tend to sit together and watch morning TV while eating our porridge. With a busy day in surgery ahead I find it's the only thing that fills me up and keeps me going till lunch time.

I'm originally from Nottingham but have lived in Sunderland for nearly 20 years and love it! The people are so friendly and I live five minutes from the coast so enjoy lots of beach walks after a long day in surgery, which is a great way to relax. I'm still in touch with lots of friends from Nottingham so I get to visit my hometown quite often.

After dropping off the youngest at school I head off to work to start at 8.30 am. My employers are T. T. and M. Brown and I work four days a week. I don't live far from the practice but it's about a 15 minute drive through busy traffic.

In the morning we get 30 minutes to set the surgery up for the day, clean down, check the daylists and replenish any low stock. The most important job of the day is making sure both myself and the dentist have a decent cup of tea!

We see our first patient at 9 am and stop for lunch at 12; it's a busy NHS practice and we mostly do standard NHS treatments (fillings, root treatments, extractions).

There are ten members in our dental team: three dentists, four dental nurses, two receptionists and a practice manager. We often sit together at lunchtime with the full team and eat our lunches while catching up with each other; we are often so busy during the day that we don't get chance to have any conversation, so it's nice to sit and have a proper chat.

Lunch finishes at 1 pm and we see patients straight through until 4.30 pm. We then have 30 minutes to close down the surgeries and make sure all the instruments are sterilised and bagged for the next day.

I got into dentistry purely by accident. I actually wanted to be a midwife but after leaving sixth form I realised I needed more than just pocket money so I applied for a dental assistant position. I was lucky enough to get the first job I went for and began my career in a large NHS practice in Nottingham, in 1991. It was really hard work and I remember for the first week coming home and falling asleep in my uniform! I worked for a lovely man who I was slightly terrified of... he worked two surgeries at the same time so

as a nurse you had to be very organised and quick on your feet.

I left that practice after four years and moved to another NHS practice which was closer for me; I stayed there for three years and gained my qualification (the National Certificate in dental nursing). I then moved to a completely private practice which I absolutely loved; it was so different to NHS practice and the pace was much slower. I worked with a fantastic team and the boss was a complete inspiration to me. He was so enthusiastic about everything and it really gave me the confidence to be a better dental nurse.

I left to move to Sunderland after working in private practice for four years and have worked in NHS dentistry ever since. I can honestly say I still love my job.

I love working with nervous patients; I like to think I totally empathise with them and help them get through their treatment as smoothly as possible. I also love working with children; I'm a real advocate for making their visits as happy and 'normal' as possible. Lots of parents tend to programme fear of the dentist into their children without knowing it so trying to make it as positive as possible is a great start to their dental visits.

I work in quite a high needs area of Sunderland so the decay rate is relatively high. Trying to educate these patients are my most challenging moments. When these patients return on a regular basis and improve their dental health it makes my job worthwhile.

I have completed the fluoride application course but as yet had no chance to use it in practice. It's such a shame as the extended duties a dental nurse can carry out these days were just a dream for us nurses in the 1990s!

'I CAN SEE MYSELF IN A FEW YEARS DRIVING AROUND IN A TOOTH-EMBLAZONED MINIBUS PREACHING TO SCHOOL CHILDREN TO BRUSH TWICE A DAY WITH A FLUORIDE TOOTHPASTE!'

I get home about 5.30 pm and catch up with the family over tea. I spend most weekends with my daughters and husband Allan walking our dog Bessie and having lunch and catch up with friends. I'm a real home bird; my partying days are behind me and I'm more than happy to snuggle up on the sofa with a good film and glass of wine.

My eldest daughter leaves for university this year so I'm trying to squeeze in as much time as possible with her. We are planning a girly trip to Dublin at some point before she goes so I'm excited for that.

I still have plans for my career. I would love to work within a hospital setting or within oral health promotion. I can see myself in a few years driving around in a tooth-emblazoned minibus preaching to school children to brush twice a day with a fluoride toothpaste!

I may have wanted to be a midwife originally but I honestly wouldn't swap my career now: I love being a dental nurse.

Would you like to share your career story or 'day in the life' with the readers of *BDJ Team*? All dental team members welcome. Please send a few details about yourself to bdjteam@nature.com or send a message via the *BDJ Team* Facebook page at www.facebook.com/bdjteam.

For more inspirational career stories and interviews, visit the archive on the *BDJ Team* website.

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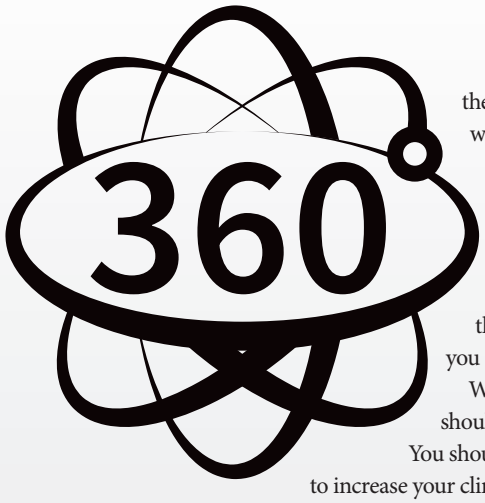
Becoming a fully rounded professional



Michael R. Young[1] explains why you should embrace CPD, personal development planning and your hard and soft skills.

Enhanced CPD

In this article I want to discuss how the new enhanced continuing professional development (CPD) requirements present an opportunity to dental professionals to develop and progress their careers. I will touch on why it is important to not only develop your hard skills, but also your soft skills, how to manage your knowledge, and why keeping your CV up-to-date is important.

As you will no doubt be aware, from January 2018 there were significant changes to the CPD requirements for dentists. From August 2018 these changes also affect other dental care professionals (DCPs). Dentists now have to complete 100 hours of verifiable CPD per five year cycle, whilst dental hygienists, dental therapists, orthodontic therapists and clinical dental technicians will need to undertake a minimum of 75 hours, and dental nurses and dental technicians must do 50 hours over the same five year cycle. The General Dental Council (GDC) has called this 'Enhanced CPD' because *all* of your CPD now has to be verifiable. You will only need to submit verifiable CPD to the GDC, but you may wish to continue with non-verifiable. Verifiable CPD is compulsory, but from a career point of view it is probably wise to do as much non-verifiable CPD as you can. Under this new regime you are still required to have a personal development plan (PDP).

Professional development

CPD is defined as 'learning, training or other developmental activities undertaken by a dental professional, who could reasonably be expected to advance his or her professional development as a dental professional, and is relevant to the persons [sic] field of practice' (British Society of Dental Hygiene and Therapy). I hope that you see CPD not as an onerous task but as something that can and should be part of your career development.

Development is not the same as training or education: it is a broad, lifelong process of improving your skills, knowledge and interests as a means of maximising your potential and career prospects. Now is probably a good time to revisit your PDP, freshening it up, setting new goals or even setting a new career pathway. Alongside this you might also want to review your CV.

Start by looking at where you are now in terms of your career, identifying your career goals, and then thinking about the development needs that are going to help you get to where you want to be. Identify your options for learning, which should address your learning style and the resources available both inside and outside the workplace. Finally, once you have set out your PDP, don't forget to monitor your progress and periodically modify it.

Reflection

As part of the enhanced CPD programme, registrants are expected to reflect on the CPD they have undertaken, which means again going over what you have done in a thoughtful way. Did you understand it? How is it going to improve the way you work or what you do?

What sort of development should you be looking at? You should always be striving to increase your clinical knowledge, even venturing beyond your own discipline. Reading around a subject increases your overall understanding and helps put things into a wider context. If you haven't already done so, join your local dental group, find out what others are doing and learning about. Take an active part in the meetings; perhaps offer to give a presentation.

Sharing knowledge

What about development opportunities within the workplace? Clinicians should always be willing to share their knowledge, not just among themselves but with the whole team. Team meetings are a great way of doing this. Beyond the clinical side, what about such things as customer care? Courses like this are usually taken as National Vocational Qualifications (NVQ) and to different levels of competence. These are usually completed in-house and involve compiling a portfolio based on real customer care experiences. They are neither too challenging nor time-consuming, and can help you gain or improve your self-confidence, which is invaluable. Any development that helps you improve your interpersonal skills is certainly worthwhile. Thinking beyond the GDC and their CPD requirements opens up a whole area of development.

Soft skills

All of my employees were encouraged to take an NVQ in customer care. It made them think more about what looking after people was all about. Another, perhaps not so obvious benefit was that because they did all of the work at work, patients were able to see that the practice was indeed focused on improvement. A win-win situation. So called 'soft skills', which include being an excellent communicator, are the more intangible and non-technical abilities that employers often look for in their employees. They are not like hard skills, the tangible and technical skills that are easily measured by someone's qualifications and specific professional experiences. Soft skills are sometimes referred to as transferable skills or professional skills. They are skills that are less

[1]*Michael R. Young has over 20 years' experience of managing a dental practice and taught clinical dentistry at two dental hospitals. He is also an expert witness and the author of the prize-winning book* Managing a dental practice the Genghis Khan way. *Mike has written a number of articles for the BDJ Portfolio, including* BDJ Team *and its predecessor* Vital.

specialised, less rooted in specific vocations, and more aligned with the general disposition and personality of a person. Other examples of important soft skills are self-motivation, teamwork and problem solving.

Soft skills relate to your attitudes and your intuitions. As soft skills are less referable to your qualifications and more personality-driven, it is important to consider what your soft skills are and how you might show evidence of them before you apply for a job. This is particularly true of the recruitment process where transferable skills and potential often take precedence over professional experience. Being able to demonstrate your soft skills equates to demonstrating great potential to succeed and progress in the career of your choice. GDC determined CPD will enhance your hard skills; you will enhance your soft skills.

Evaluation

You should not be a passive consumer of CPD, but rather you should get into the habit of evaluating your training and development, assessing its usefulness and its value in terms of time and money.

Everyone likes to get away from the workplace for a day; to start at 9:30 am instead of 9 am; to just sit and be talked at; and hopefully with a nice lunch thrown in. That's how most people see a training day or course. But someone has had to pay the course fees. Then there's also the lost practice income. The point is, unless you clearly identify what the training and development needs are for you, and the practice, you run the risk of wasting a great deal of time and money, and will in the end be no better off. To avoid this, and before you sign up for *any* course, you must:

- Define what you want any specific training or development to achieve
- Set objectives so you know what is to be achieved
- Make sure that everyone (if you are taking your employees along as well) knows what the objectives are
- Devise a way of comparing results with objectives
- Evaluate the delivery of the training or development.

At the end of most training days or courses delegates are usually given an evaluation sheet to give feedback. You should always provide feedback, positive and negative, but always constructive.

Back at the workplace, all attendees should be asked to discuss any training or courses they have attended at the next practice/team meeting; this way its usefulness can be scrutinised. It is also an opportunity for the rest of the team to pick up any useful points.

Managing your knowledge so that you comply with GDC CPD requirements is easy if you tackle it sensibly and keep on top of it. At the start of each year work out how much CPD you are going to have to do, what you want to do and then when you're going to be able to fit it in. Not only is there a time element to this, but also there is a financial aspect as well. Set everything out in your PDP.

If your practice is going to continually improve, which it must do if it is not going to lose ground against your competitors, everyone must be prepared to:

- Deepen their knowledge and expertise in areas that interest them
- Broaden their knowledge into areas that perhaps don't interest them as much. Don't ignore areas you don't like.

Records and your CV

As far as managing the recording of your CPD goes, you can either rely on doing it yourself, or you could subscribe to an online service that not only does this for you, but which can also provide you with the learning material. How you do it is down to you, as long as you do it. Remember that your CPD must be verifiable.

I was at a dental exhibition a couple of years ago when I overheard a dentist ask someone manning a stand of one of the online CPD companies, if he signed up today to an online CPD service could he get five years' CPD credited by the end of the month? No was the answer. Obviously forward planning was not this dentist's forte.

Earlier I mentioned updating your CV as part of your hopefully reinvigorated approach to learning. Your CV is important because it showcases your educational and professional achievements, and career history. It should be informative yet concise, no more than two sides of A4 if possible. You should update it periodically in case you need it at short notice, say, because a career opportunity has suddenly presented itself. Your CV should highlight your skills, not only in your dental role, but also your outside interests and any transferable skills you have picked up along the way. The content, spelling and grammar must be accurate.

The days when you simply walked out of a place of learning with a piece of paper that proclaimed your capabilities, and that was that, are long gone. The modern work place is ultra-competitive and you need to continually upgrade your skills and knowledge, not just so you can move forward, but rather to stop yourself from falling behind. Strive to make yourself a fully-rounded professional with all the hard *and* soft skills that any potential employer would wish for. CPD is not something you can ignore, but rather than seeing it as a threat, something onerous, you should embrace it and use it as a way of developing your career.

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'BEING ABLE TO DEMONSTRATE YOUR SOFT SKILLS EQUATES TO DEMONSTRATING GREAT POTENTIAL TO SUCCEED AND PROGRESS IN THE CAREER OF YOUR CHOICE.'

Lateral thinking

There are other 'informal' development opportunities that you should consider, and these can form your non-verifiable CPD. You have to think laterally, looking for learning opportunities that are going to improve your career development and progression. For example, a dental nurse who is excellent with adults, but who finds treating and generally dealing with children difficult. How could they improve their skills in this area? They could ask one of the dentists in the practice who is good with children to help them, perhaps in conjunction with reading a book on children's dentistry. If you work near a dental hospital, the same dental nurse could ask permission from the practice to spend time in the children's department as an observer. If done properly, this is an excellent way of learning; it also demonstrates to the dental nurse's employer that they want to be as skilled and competent as possible.

Don't wait to be asked or told to undertake CPD by your employer, be proactive, and tell them what you want to do. At the same time, practice owners and managers should motivate employees who lack ambition or career goals, inspiring them to find drive and ambition. That's what leaders do.

Scope of practice: **dental hygienists**

An up-to-date focus on the scope of practice of one group of dental care professionals (DCPs), as described by the General Dental Council (GDC).

'Scope of practice' means what you are trained and competent to do. It describes the areas in which you have the knowledge, skills and experience to practise safely and effectively in the best interests of patients. The GDC's full document on the scope of practice of all dental registrants, published in 2013 and updated in 2017, can be found at https://www.gdc-uk.org/professionals/registers/reg-types.

Dental hygienists

Dental hygienists are registered dental professionals who help patients maintain their oral health by preventing and treating periodontal disease and promoting good oral health practice. They carry out treatment direct to patients or under prescription from a dentist. For statistics, see Figs 1-2 and Table 1.

As a dental hygienist, you can undertake the following if you are trained, competent and indemnified:

- Provide dental hygiene care to a wide range of patients
- Obtain a detailed dental history from patients and evaluate their medical history
- Carry out a clinical examination within their competence
- Complete periodontal examination and charting and use indices to screen and monitor periodontal disease
- Diagnose and treatment plan within their competence

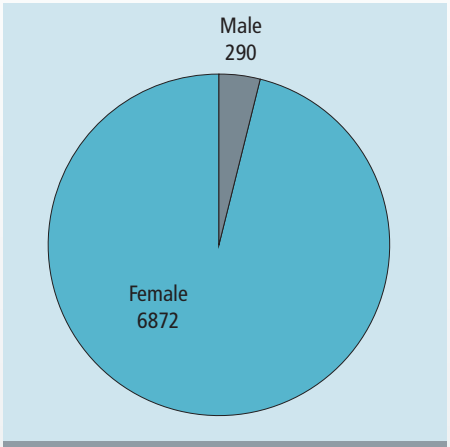

Fig. 1 Dental hygienists on the GDC register (March 2018)

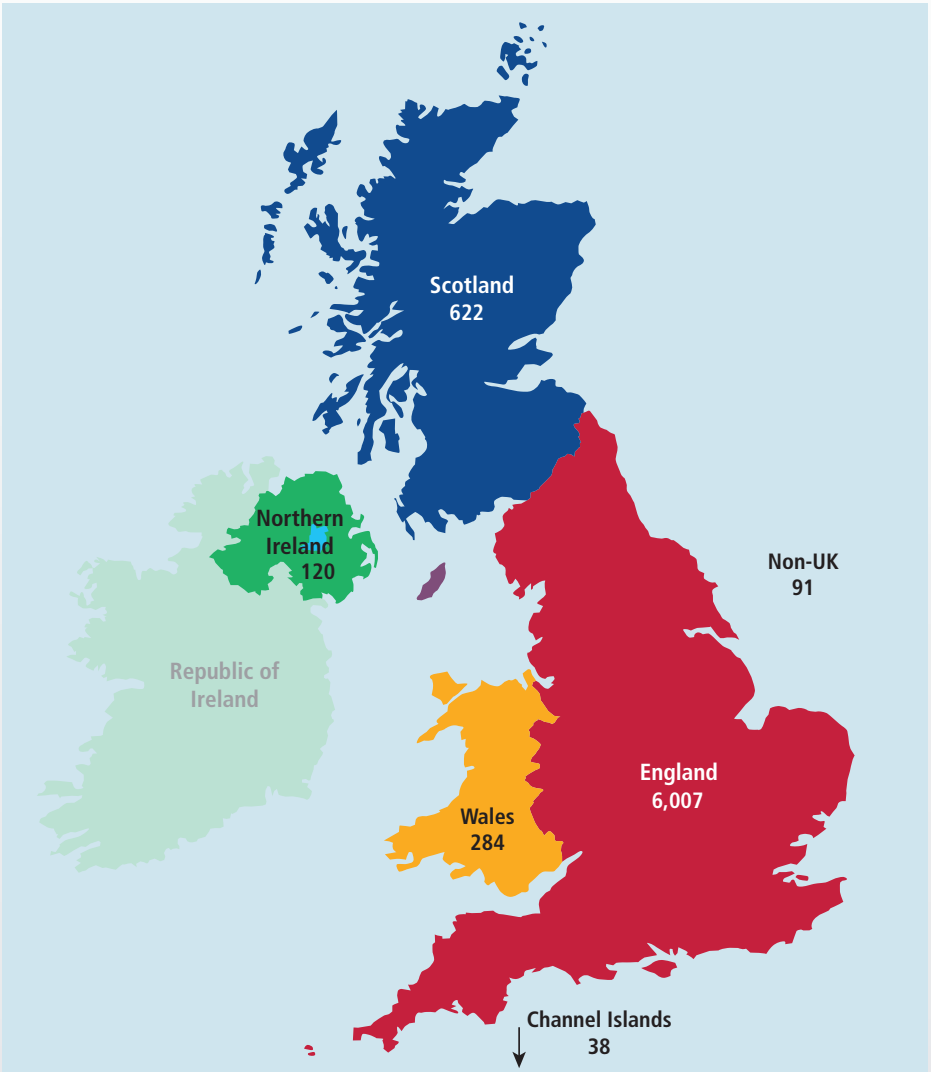

Fig. 2 Dental hygienists by UK region (March 2018)

- Prescribe radiographs
- Take process and interpret various film views used in general dental practice
- Plan the delivery of care for patients
- Give appropriate patient advice
- Provide preventive oral care to patients and liaise with dentists over the treatment of caries, periodontal disease and tooth wear
- Undertake supragingival and subgingival scaling and root surface debridement using manual and powered instruments
- Use appropriate anti-microbial therapy to manage plaque related diseases
- Adjust restored surfaces in relation to periodontal treatment
- Apply topical treatments and fissure sealants
- Give patients advice on how to stop smoking
- Take intra and extra-oral photographs
- Give infiltration and inferior dental block analgesia

'DENTAL HYGIENISTS COMPLETE PERIODONTAL EXAMINATION AND CHARTING AND USE INDICES TO SCREEN AND MONITOR PERIODONTAL DISEASE'

Table 1: Dental care professionals with more than one title (March 2018)

	Dental hygienist
Clinical Dental Technician	0
Orthodontic Therapist	27
Dental Nurse	1,035
Dental Technician	18
Dental Therapist	2,946

- Place temporary dressings and re-cement crowns with temporary cement
- Place rubber dam
- Take impressions
- Care of implants and treatment of peri-implant tissues
- Identify anatomical features, recognise abnormalities and interpret common pathology
- Carry out oral cancer screening
- If necessary, refer patients to other healthcare professionals
- Keep full, accurate and contemporaneous patient records
- If working on prescription, vary the detail but not the direction of the prescription according to patient needs.

Additional skills which dental hygienists might develop include:

- Tooth whitening to the prescription of a dentist
- Administering inhalation sedation
- Removing sutures after the wound has been checked by a dentist.

Dental hygienists **do not**:

- Restore teeth
- Carry out pulp treatments
- Adjust unrestored surfaces
- Extract teeth.

Other skills are reserved to orthodontic therapists, dental technicians, clinical dental technicians or dentists.

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Helping to give **the best** start in life to children

Oluseyi Latinwo RDN, MPH wrote this account of her career journey especially for *BDJ Team*. She is married to Adewale Latinwo (a Citrix Consultant) and together they have three children: Iretomiwa, 21, studying Economics at the University of Portsmouth; Naomi, 12 and Deborah, nine. Oluseyi enjoys spending time with her family and gardening in her leisure time.

About 21 years ago as I was going to work, I encountered a man whose tongue was protruding out of his mouth. He was begging for money on the streets of Lagos, Nigeria. I felt really sorry for him and I was really bothered.

On getting home that day, I told my dad about what I had seen earlier that day and my dad said to me 'he must have cancer of the mouth'. Throughout the week I couldn't stop thinking about the man and the gory sight. A few weeks after the day I had seen him, I gathered that the man had died.

I made up my mind that I would look more into what 'mouth cancer' means and how I could help prevent such diseases in the future.

In 2013, I was privileged to be admitted into the Eastman Dental Hospital as a student dental nurse. It was a whole year of studying, learning and being involved in turning patients' lives around by supporting and assisting dentists, consultants and professors from different countries in looking after diverse kinds of patients.

In 2015, I got my Diploma in Dental Nursing; I was employed by the Eastman Dental Hospital. This was a dream come true. I started working at the Special Care department where I supported in the treatment of special needs patients including children; I was also privileged to assist during biopsies and the facial pain clinic. I enjoyed the satisfied look on our patients' faces after treatment and the look of recognition on their face when they next came for an appointment.

Running a clinic can be very challenging but I enjoyed the setting up of the surgery and preparation for the day. This starts off by ensuring the surgery is all wiped and set up for the clinic, ensuring all patients' notes are ready and setting the Electronic Patient Record with the right date, clinic and dentist, and having all kits ready for the different treatments of the day.

I enjoyed being able to give an assuring smile to my patients as I have realised over time that the patients would rather talk to me as a nurse even after the dentist has given them details of the treatment. I am constantly helping my patients get over their anxiety of being in the dental chair by chatting with them, encouraging them and assuring them that they are in good hands.

After a year as a Special Care dental nurse at the Eastman Dental Hospital, I decided to further my education. I completed a Master's Degree in Public Health from the University of Hertfordshire in 2016. This gave me the opportunity to work as an Oral Health Practitioner (OHP) with the charity organisation HENRY (Health, Exercise, and Nutrition for the Really Young) in conjunction with the London Borough of Waltham Forest.

'I ENJOYED THE SATISFIED LOOK ON OUR PATIENTS' FACES AFTER TREATMENT AND THE LOOK OF RECOGNITION ON THEIR FACE WHEN THEY NEXT CAME FOR AN APPOINTMENT.'

I currently work three days a week as an OHP with HENRY and I locum with Tempdent two days a week. In my role as OHP, I am responsible for training and developing oral health champions in the Children and Family centres in the four hubs in Waltham Forest. I am also responsible for coordinating dental outreach sessions for vulnerable children in all the children's centres. As tooth decay is one of the most

'I AM CONSTANTLY HELPING MY PATIENTS GET OVER THEIR ANXIETY OF BEING IN THE DENTAL CHAIR BY CHATTING WITH THEM, ENCOURAGING THEM AND ASSURING THEM THAT THEY ARE IN GOOD HANDS.'

common diseases of childhood in the United Kingdom, I am really excited in my role as I help children and their families understand that this disease is highly preventable through regular brushing, adequate exposure to fluoride, reduction in the frequency at which sugar is being consumed, and registering and visiting the dentist as soon as a child's first tooth appears. I work with a community dentist as I organise and coordinate dental sessions where children of 0-5 years are being given a free dental check. In the months of August and September 2017, over 110 children benefitted from our free dental check.

I also deliver oral health workshops in my local assembly where we organise outreach for the less privileged in Hackney. I demonstrate tooth brushing technique, using demonstration models, distributing samples of the toothpaste, signposting patients to their local dentist and giving them information leaflets which will help them in their journey to good oral health.

I enjoy oral health promotion and to further enhance my performance and effectiveness, I have enrolled myself on the Preparing to Teach in the Lifelong Learning Sector (PTLLS). Currently, I am on the Advanced Dental Nurse Course (delivered by Health Education England). This course is giving me more knowledge and great confidence in my present role.

I regularly reflect on my activities and look back to where this journey started; I am really happy I am contributing to the prevention of oral diseases, especially as part of a team [HENRY], helping to give the best start in life to children.

bdjteam201873

Wheelchair users: *a guide*

L. Ramirez[1] and **C. Dickinson**[2] provide guidance to facilitate the treatment of some groups of wheelchair users in general dental practice.

The number of wheelchair users in the UK is increasing, and it may be more convenient and appropriate for many of these individuals to receive their dental care in a general dental practice rather than in a community or tertiary facility. This article is intended to provide the average general dental practitioner (GDP) with the basic tools and increased confidence to effectively triage this cohort of the population, and accept them for treatment or refer appropriately.

Background context

There are more than 11 million people in the UK living with a limiting long term illness, impairment or disability,[1] and 3.3% of UK households have one or more wheelchair users.[2] In recent years, there has been much attention and effort given to improving access and equality for wheelchair users: between 2004–2005 and 2014–2015, the percentage of buses with low-floor wheelchair access in England increased from 52% to 95%.[3]

The proportion of the population who are wheelchair users is already substantial and is likely to increase as the population ages: 44% of those with a limiting illness, impairment or disability are over the state pension age.[2]

Significant attention has been given to reducing inequalities in society, and more specifically in healthcare, with multiple publications regarding access to healthcare for individuals with physical disabilities. Service providers have a legal obligation under the Equality Act (previously the Disability and Discrimination Act, 1995) to provide equality as regards all elements of care; including access, informed decision-making, communication, and the treatment itself.[4–6] It is important that general dental practitioners (GDPs) are equipped with the necessary information to fulfil their role in minimising inequalities of access for these, and all, patients.

Many GDPs do not regularly treat patients who are wheelchair users, and may be daunted by this prospect. In some cases, a referral to community dental or tertiary specialist services may be indicated, but many other patients can be treated in general practice. This article is intended to provide information to assist with the treatment of patients who have a physical impairment, including but not limited to spinal cord injuries, neurological conditions and ill-health. Some of these patients may have additional needs with regard to, for example, communication. This aspect is beyond the scope of this article, but there is a wealth of information to this effect available in special care dentistry text.

In the UK, individuals can be referred by a health or care professional to their local NHS Wheelchair Centre for assessment and, if deemed appropriate, provision of a self-propelled or electric-powered wheelchair. Those receiving the high rate for 'mobility' under the Disability and Living Allowance (DLA) may also be entitled to further funding for an outdoor electric wheelchair, scooter or car.[7]

The position and size of the wheels determines the manoeuvrability and portability of a manual chair. Electric-powered chairs are generally bulkier, particularly those designed

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for outdoor use.[8] A document published by the Department for Transport[9] found that the average dimensions from a survey of wheelchair users were 1085 × 627 mm. The relevant International Organization of Standardisation standard (ISO 7,176–5:2008)[10] gives further information as regards space requirements for doorways, corridors, and corners. It may be a useful tool when planning and designing a dental surgery, or when purchasing any equipment to accommodate wheelchair users.

There are hundreds of wheelchairs on the market with properties to suit a whole range of needs and preferences. The more basic wheelchairs (Fig. 1, left) do not allow much adjustment, but are often more portable, and tend to be used by those who, for example, may be mobile but are unable to walk great distances. Although traditionally bulkier, technological advances mean that powered wheelchairs are becoming more compact (Fig. 1, middle). The features of more advanced chairs that are particularly relevant to the dental setting are those that can recline or tilt-in-space (Fig. 1, right). The capabilities of an individual patient's wheelchair, and the possible utilisation of this for dental examination and/or treatment, would need to be discussed with patients on an individual basis.

Fig. 1 A manual chair, a powered chair, a powered chair with reclining function. Reproduced with permission from Sunrise Medical

Assessing the patient's needs

For a successful consultation with a wheelchair user, it is important to avoid making assumptions about the physical and cognitive abilities of the person who uses the wheelchair; speak directly and respectfully to them while remaining mindful of their personal space; and offer to assist where relevant.[11] While these are general tips for anyone interacting with a wheelchair user, for the GDP to lay down the foundations of a clinician-patient relationship and to determine the patients' specific needs, it would be necessary to have a frank discussion with the individual to discover more about their preferences – see Figure 2 for an overview of the options.

As well as discussing a patient's preference with them directly, with their permission, discussion with any relative or carer they might bring to their appointment could also be informative. The relative or carer is likely to be more experienced as regards moving the patient than the average GDP, and be able to advise, or to assist with the use of a transfer board, an inexpensive item of equipment for a general dental practice.

It is also worth contacting the local community or hospital dental services about the equipment they have available. This will help to direct referrals appropriately, as some community services will not have wheelchair tippers. Special care departments in tertiary settings are more likely to have these, such as shown in Figure 3.

It may be relevant to know that patients who are not exempt from NHS charges will still have to pay for their treatment under the UDA system in a community setting. However, this in itself should not be a reason for a referral to a tertiary centre.

Many community and tertiary settings will be able to provide dental treatment under inhalation or intravenous sedation. This may be beneficial to children and adults with certain conditions, notably those causing anxiety, muscle spasms, dystonia or involuntary movements. The GDP should be able to provide patients with a basic overview of these techniques, particularly with regard to the practical considerations such as the need for an adult escort for intravenous sedation with midazolam.

> *'IT IS IMPORTANT TO AVOID MAKING ASSUMPTIONS ABOUT THE PHYSICAL AND COGNITIVE ABILITIES OF THE PERSON WHO USES THE WHEELCHAIR…'*

Treatment in general practice

For patients for whom treatment in the general practice setting is most appropriate, there may be additional considerations as well as the wheelchair itself. The GDP should consider the following for all patients, but some aspects may be particularly relevant for wheelchair users. There may be additional requirements for those with any sensory impairments (for example, hearing loops, hazard warning on ramps), but these are beyond the scope of this article. 'Document M' is a piece of legislation which forms part of The Buildings Regulations[12] and is concerned with ensuring all people can access buildings and use their facilities.

It is worth highlighting the significant benefit in terms of continuity of care that may come from attending a local dental practice rather than a community or tertiary care facility. This may particularly apply to those individuals who have been long-standing patients of a particular practice, and whose circumstances have changed such that they have become wheelchair users. Familiarity with the team may benefit the patient as well as any relative or carer, as long as physical access is practical. In some cases, care may be shared between a GDP and specialist centre, depending on the procedure.

Physical access

Parking and access to the premises

All members of the dental team, including reception staff, should be able to advise patients and relatives/carers of the arrangements for wheelchair users. This may include the location of any nearby parking spaces for Blue Badge holders.[13] If the practice has its own car parking facilities, details of the requirements for a parking space suitable for a wheelchair user are available in Document M:[12] 4,800 × 2,400 mm with a 1,200 mm access zone on two sides and a levelled kerb (Fig. 4). This document also gives details of the minimum requirements for a 'level approach', which should be well-lit and signposted, a minimum 1,500 mm wide, with passing places, a maximum 1:60 gradient,

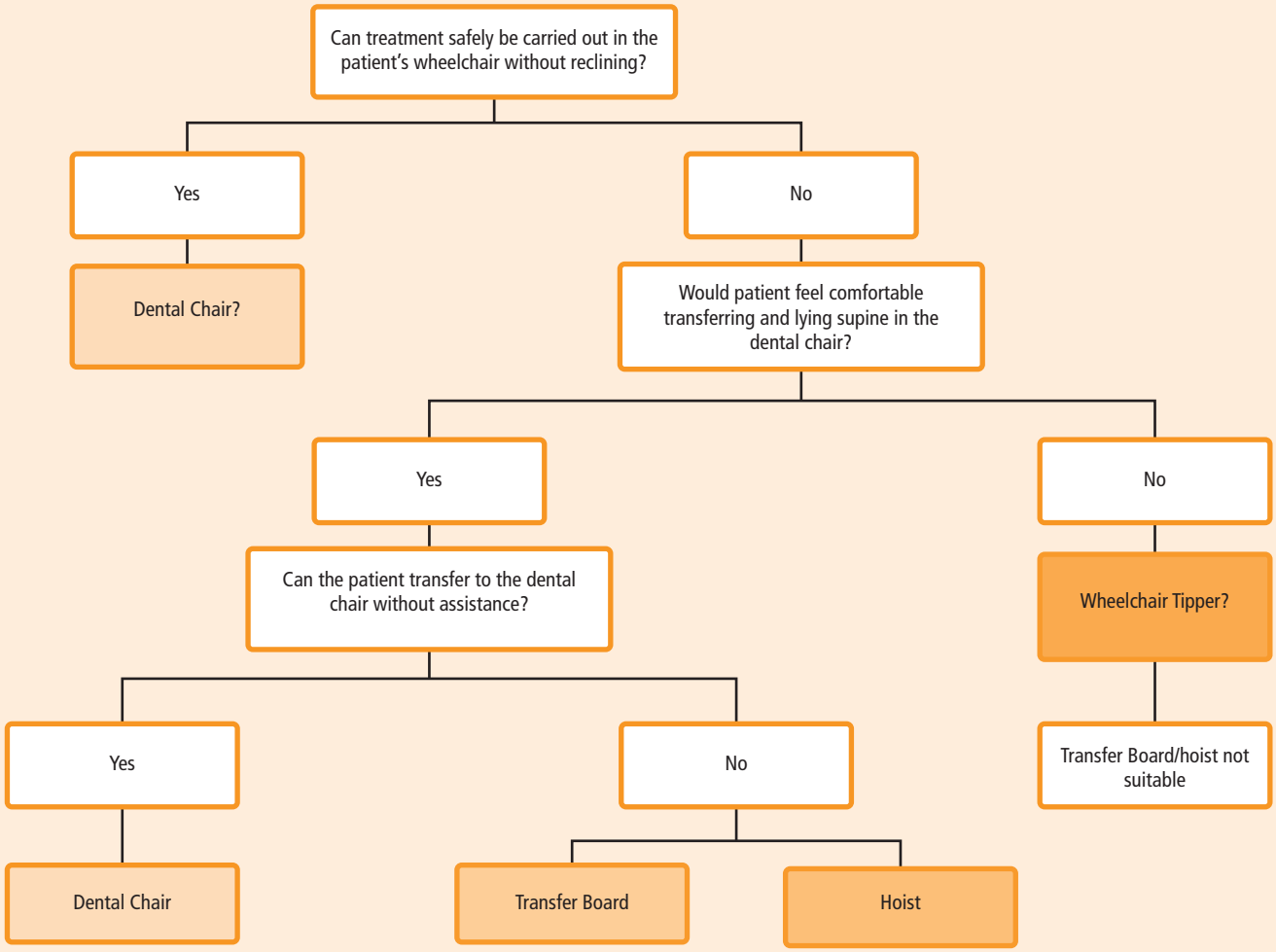

Fig. 2 An overview of options for delivering dental care to wheelchair users

and feature a firm, durable and slip-resistant surface. At the top of any ramp or incline, there should be a level landing immediately in front of the entrance, clear of any door swings. External doors to new buildings should be 1,000 mm wide (775 mm is acceptable for existing buildings). There should be alternative provision for a total rise exceeding 2,000 mm. Document M provides more detailed specifications.

Transport

For those patients who do not have their own car and are unable to transfer from their wheelchair into a conventional taxi, it may be useful to have the contact details of a reliable taxi firm with wheelchair-accessible cars.

Doors and hallways

The minimum requirement for widths of internal doors varies dependent on factors such as the angulation of approach, but the range is 750–825 mm. In addition to the width of the door, there should be a space (minimum 300 mm) alongside the leading edge of the door so that a wheelchair user can reach and grip the handle and open the door without the edge of the door coming into contact with the footrest. Corridors should be at least 1,200 mm wide, again with passing place.

Reception area

The reception desk should be low enough (or have a portion that is low enough) to accommodate a wheelchair user. The manoeuvring space in front of the desk should be a minimum 2,200 × 1,400 mm (unless there is a knee recess in which case the requirement is slightly lower). An example is shown in Figure 5.

Facilities

Wheelchair users should be able to access and use unisex WC facilities within the building, again specified by Document M as a minimum 1,500 × 2,200 mm.

Availability

Timing of appointments

This encompasses both the best time of day for dental appointments, which may relate to patients' medications or carer hours, for example, and the maximum duration of appointments. This may limit the complexity of treatment; patient expectations should be managed appropriately and a referral for sedation for any involved procedures may be considered if this would be beneficial. The timing of appointments should also be agreed with relatives or carers, allowing sufficient time for travel and access to the premises.

Dental facilities, equipment, training and skills

Surgery design

Where additional equipment is present (for example, hoist, tipper), a prior assessment should be made about the practicalities of where within the surgery to install these (if they are to be fixed in position). When considering this, factors such as access to the bracket table, position of the dental light, and X-ray facilities should be taken into account. If necessary, for example if the existing light does not accommodate for the height of the

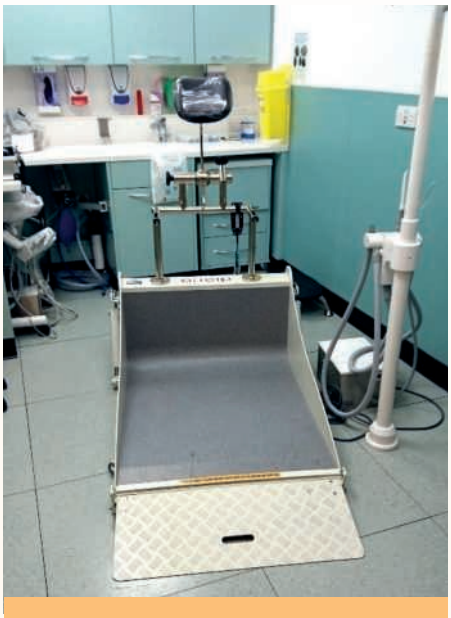

Fig. 3 A wheelchair tipper at Guy's Hospital

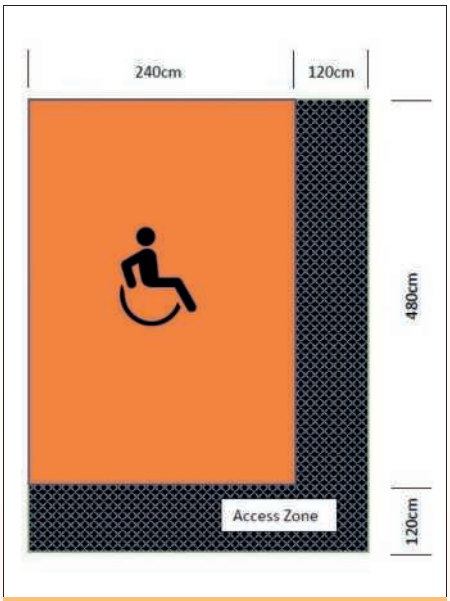

Fig. 4 Dimensions of a parking bay with disability access

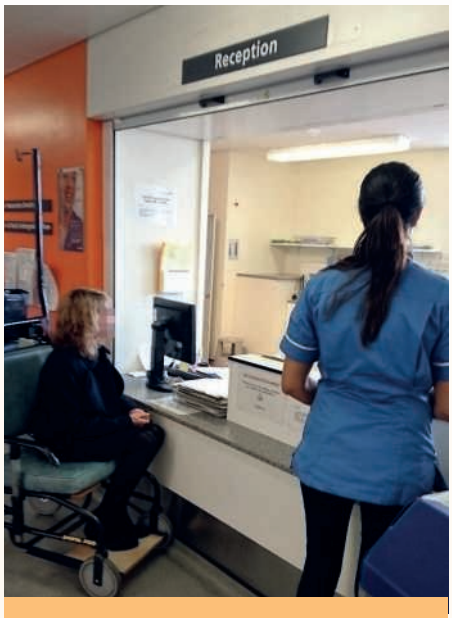

Fig. 5 Reception area with lowered portion

wheelchair when reclined, free-standing dental lights are available. Headlamps serve as a potential alternative to this. This could be proprietary camping lights or, where possible, LED lights intended for clinical use attached to dental loupes – an example of each is shown in Figure 6. The magnification provided by dental loupes as well as the power of these lights may be of benefit to clinician and patient.[14]

As regards radiography, if a patient is to be treated in the practice they must be able to access a dental X-ray set, as this will provide essential diagnostic information.[15] The suction must be able to reach the patient's mouth, and where there is a spittoon in surgery, alternative arrangements such as disposable kidney dishes may need to be considered. In broader terms, the layout of the surgery will determine how easy or difficult it is for a wheelchair user to manoeuvre in the space.

Work within skills, professional competence and practical limitations

A practice should have policies and protocols in place covering all likely eventualities, for example, where a wheelchair tipper is not available, and patients attend who cannot or do not feel comfortable transferring from their wheelchair. The appointment of a responsible person within the practice, perhaps an 'equality lead' may be able to provide advice and training to the other team members. In line with General Dental Council (GDC) standards,[16] dental professionals should work within their professional competence to provide quality treatment. Difficult operating conditions may influence the competence and confidence of members of the dental team to complete an item of treatment safely and to a high standard, in which case these guidelines state that a referral to a colleague who is appropriately trained and competent should be made.

Access to the mouth

As mentioned, access to the mouth may be difficult, either for reasons of cognitive impairment, or due to difficulties with muscle control or dystonia. Ensuring that the patient is well-supported with cushions is recommended to assist with the latter, in order to relax the muscles and reduce spasticity.[6] As mentioned above, there are countless designs of wheelchair. Many of these do not come with a head rest, but most wheelchair tippers allow for head support. This is an essential part of ensuring safety and comfort when treating patients in wheelchairs. In some cases, the dental nurse may be able to support the patient's head to allow safe access.

Occupational hazards

The Manual Handling Operations Regulations[17] counsels that lifting of heavy loads should be avoided wherever possible, and if essential, handling aids or automation, such as the use of hoists or tippers, should be considered. A 'load' may be an object, a person or an animal, and is considered to be 'heavy' if over 25 kg (the threshold is lower if lifting above shoulder height, involving twisting movements, and/or for female workers). On this basis, no member of the dental team should be attempting to lift a patient, or otherwise put themselves in a position where they are supporting a patient's weight. There is a significant and well-documented risk of back injury if this advice is not heeded. Putting lifting aside, poor posture in general dentistry poses a significant risk of back pain to members of the dental team.[18]

'Perfect posture' may be difficult to achieve in less-than-perfect operating conditions, that is, where access to the mouth is difficult as discussed above. Members of the dental team should additionally assess the risks to their own health and take necessary precautions. It is important to avoid prolonged periods straining in positions which confer stress to dentists' and dental nurses' spines. Seated dentistry is generally safer, and is facilitated by the use of wheelchair tippers. Where standing is necessary, the use of a footstool at the appropriate height may avoid some of the strain on clinicians' backs, and bending should be at the knee rather than at the waist. The ideal set-up in ergonomic and efficiency terms is four-handed dentistry according to the 'clock face' working positions.[19] This may not always be possible but should be adopted wherever possible to minimise back strain.

Oral health

There may be specific considerations arising from an individual patient's medical history, but in general the likelihood of drug-related xerostomia will also be higher, as many patients with chronic conditions will be taking multiple medications and are therefore at risk of xerostomia. This should be managed to improve patient comfort, and to reduce the risk of caries in line with the *Delivering better oral health* guidelines.[20]

Training and education

Members of the dental team may want to expand their knowledge and skill-base as regards special care dentistry. The National Examining Board for Dental Nurses offers a certificate in special care dentistry, and some

Fig. 6 Examples of a standard headlamp, and an LED light mounted to dental loupes

dental schools provide postgraduate education to dentists in the form of a Diploma or MSc. There is also evidence that experience of special care dentistry by dental students at undergraduate level equips dentists to feel more confident and able to provide dentistry to patients with disabilities in general practice.[21] At present, the opportunities for practical training on a less formal or academic basis than the courses mentioned are fairly limited in the UK. There are, however, books which serve as an important and useful resource for the GDP; for example, Fiske *et al.*,[22] Scully[11] as well as journal articles such as those published by Dougal and Fiske.[6] If short courses of practical training were more widely available and GDPs were encouraged to undertake them, perhaps as part of CPD, it would be expected that they would be more likely to feel confident and equipped to manage more patients in practice, thus relieving some of the strain on community and tertiary special care dental services.

Referring to secondary/tertiary care

As has been mentioned, upon arriving at the conclusion that treating a particular patient in practice is outside the GDP's own competencies, an appropriate referral should be made. It is important to establish the patient's specific needs, and reconcile these with the equipment, facilities and services (for example, sedation) available in local specialist services, when deciding where to refer.

Conclusion

The increasing prevalence of wheelchair use within the population means it is more important than ever for the GDP to feel confident in providing appropriate care to these individuals. The focus of this must be on establishing the individual's needs, and proceeding accordingly. This article may provide some areas for consideration in order to do this.

1. Department for Work and Pensions and Office for Disability Issues. Disability Prevalence Estimates 2011–12. 2014. Available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/321594/disability-prevalence.pdf (accessed January 2018).
2. Department for Communities and Local Government). Guide to available disability data. 2015. Available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/416475/150323_Guide_to_disability_data___final_web_version.pdf (accessed January 2016).
3. Department for Transport. Annual Bus Statistics: England 2014/15. 2015. Available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/485296/annual-bus-statistics-year-ending-march-2015.pdf (accessed January 2016).
4. HM Government. Equality Act 2010. 2013. Available at https://www.gov.uk/guidance/equality-act-2010-guidance (accessed September 2017).
5. Edwards D, Merry A, Pealing R. Disability part 1: the disability discrimination act (1995) — implications for dentists. *Br Dent J* 2002; **193:**199–201.
6. Dougall A, Fiske J. Access to special care dentistry, part 1: Access. *Br Dent J* 2008; **204:** 605–616.
7. Age UK. Factsheet 42: Disability equipment and home adaptations. 2015. Available at https://www.ageuk.org.uk/globalassets/age-uk/documents/factsheets/fs42_disability_equipment_and_home_adaptations_fcs.pdf?dtrk=true (accessed April 2016).
8. NHS Choices. Choosing mobility equipment, wheelchairs and scooters. 2015. Available at https://www.nhs.uk/conditions/social-care-and-support/mobility-equipment-wheelchairs-scooters/ (accessed April 2016).
9. Department for Transport. Guidance: Inclusive Mobility. 2015. Available at https://www.gov.uk/government/publications/inclusive-mobility (accessed April 2016).
10. International Organization for Standardisation. ISO 7176-5:2008 Preview Wheelchairs - Part 5: Determination of dimensions, mass and manoeuvring space. 2008. Available at https://www.iso.org/standard/46429.html (accessed April 2016).
11. Scully C. *Scully's medical problems in dentistry*. London: Elsevier Health Sciences, 2015.
12. HM Government. Building Regulations: Approved Document M Access to and use of buildings volume 2 – buildings other than dwellings. 2010. Available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/441786/B R_PDF_AD_M2_2015.pdf (accessed February 2018).
13. Department for Transport. Blue badge scheme. 2014. Available at https://www.gov.uk/blue-badge-scheme-information-council (accessed April 2016).
14. James T, Gilmour A S. Magnifying loupes in modern dental practice: an update. *Dent Update* 2010; **37:** 633–636.
15. Faculty of General Dental Practitioners. *Selection criteria for dental radiography.* London: FGDP, 2013.
16. General Dental Council. *Standards for the dental team.* 2013. Available at https://www.gdc-uk.org/professionals/standards/team (accessed February 2018).
17. The Health and Safety Executive. The Manual Handling Operations Regulations (SI 1992/2793). 1992.
18. Breslin M, Cook S. No turning back: posture in dental practice. *Vital* 2013; **10:** 23-25. Available at https://www.nature.com/vital/journal/v10/n4/full/vital1720.html (accessed March 2018).
19. Dentistry.co.uk. 'Work smarter, not harder' – Four-handed dentistry. 2007. Available at http://www.dentistry.co.uk/2007/08/23/work-smarter-not-harder-four-handed-dentistry/ (accessed September 2017).
20. Public Health England. *Delivering better oral health: An evidence-based toolkit for prevention.* London: Public Health England. Available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/605266/Delivering_better_oral_health.pdf (accessed February 2018).
21. Casamassimo P S. The great educational experiment: has it worked? *Spec Care Dentist* 1983; **3:** 101–107.
22. Fiske J, Dickinson C, Boyle C, Rafique S, Burke M. *Special care dentistry.* London: Quintessence, 2010.

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Blood borne viruses – key facts for primary care dental teams

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R. Lala,[1] C. Harwood,[2] S. Eapen Simon,[3] A. Lee[4] and K. Jones[5]

The purpose of this article is to support primary care dental teams with their legal, ethical and clinical responsibilities to provide fair access to dental services for people living with a blood borne virus and to manage their dental care effectively and appropriately.

People living with blood borne virus infections sometimes experience barriers accessing dental services. This may arise for a variety of reasons including misperceptions and misunderstanding by health practitioners of the risks of transmission during dental care.

People living with a blood borne virus who are otherwise well may be treated routinely in primary dental care without any change or restriction to the care that they receive.

Blood borne viruses

Blood borne viruses are transmitted through blood or other body fluids. The risk of transmission from saliva is minimal unless contaminated with blood. The most common blood borne viruses are human immunodeficiency virus (HIV), hepatitis B virus (HBV) and hepatitis C virus (HCV). All three viruses may cause serious and life threatening diseases, especially if diagnosed late or if untreated.

HIV attacks the immune system, weakening the body's ability to fight infections. In 2016, there were an estimated 89,400 people living with HIV in the UK. It is important to note that an estimated 12% of people are unaware of their HIV infection.[1]

Hepatitis B and C are viruses that infect the liver and if left unmanaged can cause liver failure and liver cancer. It is estimated that 214,000 people in the UK are living with chronic HCV.[2] In the UK, it is estimated that approximately 180,000 people are living with a chronic hepatitis B infection.[3]

These three infections are often insidious and can have chronic asymptomatic carrier states. Therefore, the risks of transmission to other people can be both hidden and protracted. The acute phase of hepatitis B, when a person experiences symptoms, lasts between one and three months. However, many people with HBV will not experience any symptoms. Acute hepatitis C often does not have any symptoms. The latency period for HIV can be up ten years, during which people can be asymptomatic and unaware they have been infected.

People living with chronic hepatitis C can be treated successfully with a combination of two or three antiviral medications and achieve viral clearance. Chronic hepatitis B can be managed with antivirals to limit liver damage. However, this won't necessarily eliminate the infection and some people may need lifelong treatment. Antiretroviral therapy in people living with HIV can achieve viral suppression ie people's viral load can be reduced to an undetectable level.

Routes of transmission

Blood borne viruses can be transmitted when a susceptible individual is exposed to infected blood or other body fluids that carry the virus. This exposure can occur via broken tissues, mucous membranes or directly into the bloodstream. Therefore potential routes of

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transmission include direct exposure to infected bodily fluids, sexual contact, or from mother to baby during the period immediately before and after birth. Not everyone who is exposed to a blood borne virus will become infected.

Occupational transmission

Blood borne viruses are particularly important in primary care dentistry as they can be transmitted through exposure to bodily fluids (predominantly blood) containing the viruses.

Dental staff, especially those undertaking exposure-prone procedures, are at risk of transmission of blood borne viruses from infected patients. Needlestick injuries (30% of exposures) and other sharps injuries (50% of exposures) are the most common mechanisms of exposure in dental practice. There is also a risk of blood borne virus transmission from a bite or scratch, as well as mucocutaneous transmission such as eye splashes, though these are much less common.[4]

The observed rates of occupational blood borne virus transmission in healthcare workers following percutaneous exposure are significantly lower than the published estimates of risk of transmission.[4] In fact, there has not been any reported transmission of HIV and HBV (Table 1). This is based on voluntary reports to the Public Health England surveillance system of significant occupational exposure. The difference is likely to be due to the success of the hepatitis B healthcare workers' immunisation programme and effective management of exposures thereby preventing transmission of blood borne viruses among healthcare workers. It is important that dental team members report incidents promptly to support accurate assessment of the risk of transmission and seroconversion (development of the antibodies for blood borne viruses).[4]

It is also important to note that if a person living with a blood borne virus achieves viral suppression through antiviral therapy, the risk of transmission to a healthcare worker through an exposure injury is greatly reduced, due to the suppressed viral load.

Prevention

The key ways to reduce blood borne virus transmissions are by preventing exposure in the first place and timely clinical management following any exposures. Preventive measures include: universal cross-infection precautions; hepatitis B virus immunisation for the dental team including post vaccination blood tests to verify adequate immunisation; implementing a robust sharps protocol; and a comprehensive dental practice infection control policy.

Universal precautions

Universal infection control precautions are the most effective way to minimise the transmission of blood borne viruses. This is because people may not know they are infected with a blood borne virus. Dental practices must have infection control policies and procedures that comply with the requirements of Department of Health best practice guidance *Health Technical Memorandum 01-05: Decontamination in primary care dental practice*.[5]

Reduce susceptibility

All new clinical staff must undergo standard health checks including being tested for HIV and HBV and HCV. There is a good vaccine against HBV that is 85-90% effective and national guidance states that all dental professionals should be immunised against HBV. Dental team members should seek occupational health advice regarding the latest information describing the hepatitis B vaccination procedure.[6]

Continuing professional development

Dental team registrants should be familiar with the enhanced continuing professional development (CPD) requirements to support General Dental Council (GDC) registration.[8] The GDC highly recommends completing five hours of CPD in disinfection and decontamination in every CPD cycle as well as keeping up-to-date in complaints handling and legal and ethical issues.[9]

Reduce transmission post exposure

In the event of an exposure, appropriate management can reduce the risk of transmission of a blood borne virus. Immediate management includes active bleeding of the wound (without sucking the wound) and washing the wound using soap and warm running water.

A risk assessment should be carried out based on the type of exposure and information about the source patient. Advice about post exposure prophylaxis can be obtained from the local health protection team, hospital virology or microbiology services, occupational health services, hospital infection control officer or infectious disease or HIV teams.[10] It is important that dental practice teams are aware of their local arrangements.

Post exposure prophylaxis within 72 hours is recommended when a healthcare worker experiences a blood exposure injury from a person thought to be infected with HIV. Starting the treatment as soon as possible is associated with improved effectiveness of post exposure prophylaxis.

The need for post exposure prophylaxis for hepatitis B depends on the hepatitis status of the source patient and the vaccination status of the exposed person.[6] Management can include no treatment (if the exposed person has an adequate antibody response from a previous vaccine and the exposure is considered non-significant), hepatitis B immunoglobulin and vaccination boosters or full hepatitis B vaccination series.[6,11]

'THERE IS ALSO A RISK OF BLOOD BORNE VIRUS TRANSMISSION FROM A BITE OR SCRATCH, AS WELL AS MUCOTANEOUS TRANSMISSION SUCH AS EYE SPLASHES'

Local infection control policy

The practice infection control policy should specify actions to take regarding personal protection and when personal protective equipment should be worn and changed. Personal protection includes hand hygiene and skin care and personal protective equipment includes disposable gloves, aprons, masks, face and eye protection and adequate footwear.[5]

Sharps protocol

Sharps injuries with hollow bore needles are the most commonly reported occupational exposure to blood borne viruses in a healthcare setting, though other sharps injuries are more common in a dental setting. For dental professionals sharps injuries are mostly sustained during a procedure.[4] The *Health and Safety (Sharp Instruments in Healthcare) Regulations 2013* provides guidance on the safe use of sharps. Dental practices must have written policies for sharps management, significant splashes to the eyes and broken skin.[7]

Employers are legally required to make arrangements to deal with exposures, which include providing first aid facilities, access to post exposure prophylaxis and follow up through the occupational healthcare provider.

Management of an infected healthcare worker

All healthcare workers have an ethical and legal responsibility to protect the health and safety of themselves, colleagues and patients. Dental team members who are living with blood borne viruses must inform their line manager and should be supported to work in primary care dentistry. Confidential disclosure is encouraged. A potentially infected dental team member is responsible for seeking professional advice about the need to be tested if they believe they have been exposed to a blood borne virus infection through a work related incident or outside of the work environment. Expert advice from an occupational physician must be sought.[12]

The risk of transmission of HIV from an infected healthcare worker to the patient is considered to be extremely low to negligible.[4,12]

'DENTAL TEAM WORKERS LIVING WITH BLOOD BORNE VIRUSES MUST INFORM THEIR LINE MANAGER AND BE SUPPORTED TO WORK IN PRIMARY CARE DENTISTRY'

Dental professionals living with HIV can perform exposure prone procedures if they are on combination antiretroviral therapy and have a plasma viral load that is less than 200 copies per millilitre.[12]

Dental professionals living with hepatitis B can perform exposure prone procedures whilst taking continuous oral antiviral therapy if they are hepatitis B e antigen negative and have a hepatitis B DNA level below 200 IU per millilitre.[12]

Dental professionals living with hepatitis C who have been treated with antiviral therapy can perform exposure prone procedures if they have responded to the treatment by having the antibodies to the hepatitis C virus but are negative to the hepatitis C RNA virus for at least six months after cessation of treatment.[12]

Dental professionals living with blood borne viruses must be under the joint supervision of a consultant occupational physician and their treating physician, have their viral load monitored every three months and be registered with UK Advisory Panel Occupational Health Monitoring Register.[12]

Legal and ethical responsibilities

Under the *Equality Act 2010*[13] people living with blood borne viruses are entitled to fair access and equitable care. Therefore, people living with blood borne viruses cannot be refused dental treatment or asked to attend a dental appointment at the end of the day, for example. Such practices are unlawful and clinically unnecessary.

Providers need to pay due regard to the Care Quality Commission (CQC) regulations 10 and 12 to ensure that people using a service are treated with respect and dignity and that infection control is aligned with HTM 01-05. If appropriate universal infection control precautions are not undertaken the CQC can de-register practices and take action against them under criminal law, including prosecution. The GDC is also likely to be notified.[14]

The General Dental Council's *Standards for the dental team* states that the whole dental team has a duty to treat patients fairly, without discrimination and in line with the law. This includes patients who reveal to them that they are living with a blood borne virus.[15]

The General Dental Council standard 4.2 also makes clear that the whole dental team must protect patients' confidentiality including their personal and medical details. Non-registered members of the dental team such as receptionists must be made aware of the importance of maintaining patient confidentiality.[15] The GDC also outlines the principles for effective complaints handling to enable patients to express any concerns they may have and to enable the dental team to learn from these.[15]

Further resources

Further information may be obtained from:

- *British Dental Association Advice – Infection Control England*[16]
- *British Dental Association Evidence Summary – Attitude to patients with blood borne viruses.*[17]

Checklist to support best practice

Access

Does your practice accept all patients from the community without restrictions?

Policies

Does your practice have the following policies that are readily accessible to all staff and part of staff induction?

- Confidentiality to ensure security of patient information
- Hand hygiene
- Safe sharps disposal
- Needlestick injuries, including post exposure prophylaxis
- Infection control
- Complaints
- Equality and diversity.

Staff recruitment, induction and training

Is hand hygiene included in your staff induction with regular updated training provided to all staff?

Do contracts of employment at your practice include a statement of the need to ensure patient confidentiality?

Does your practice keep records of staff infection control training, including five hours of enhanced CPD in disinfection and decontamination per GDC cycle?

Have all your practice staff had the standard health clearance checks including hepatitis B immunisation status and tests for hepatitis B and C and HIV as required by national guidance?

Are all members of the dental team familiar with the practice complaints policy?

Do team members in your practice have complaints handling training as recommended by the GDC?

Does your practice take actions to support patients to raise any concerns they may have, and effectively respond to and learn from them?

Practice links

Does your practice have formal links with an occupational health service to undertake the management of sharps injuries to staff?

Has your practice clarified with the occupational health service the local arrangements for post exposure prophylaxis for staff if needed?

Practice environment

Is there an appropriate environment at your practice to ensure that patients can disclose sensitive information?

Does your practice keep a written log of complaints and use this to identify possible areas of improvement in patient care?

Does your practice provide adequate supplies and training in the use of personal protective equipment, disposable gloves, masks and eye protection for all staff?

Is the HTM 01-05 poster illustrating hand hygiene displayed above every hand wash basin at your practice?

Compliance with HTM 01-05

Does your practice prepare an annual statement of infection control that includes known infection transmission events and actions taken from this, audits undertaken, risk assessments undertaken, staff training and practice policy updates?

Does your practice carry out six-monthly infection audits in line with HTM 01-05?

Is your practice compliant with the essential quality requirements of HTM 01-05?

Is your practice compliant with the best practice requirements of HTM 01-05? If not, do you have a date set to achieve best practice requirements?

Table 1 Blood borne virus risk of transmission among healthcare workers after a percutaneous injury (England, Wales and Northern Ireland data only) Source – Eye of the Needle. Public Health England, 2014[4]

Virus	Published risk of transmission	Healthcare workers exposed, 2004-2013	Seroconversions, 2004-2013	Observed risk of transmission
HBV		590	0	–
HCV		2,566	9	1 in 285
HIV		1,478	0	–

1. Public Health England. Towards elimination of HIV transmission, AIDS and HIV-related deaths in the UK. 2017. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/675809/Towards_elimination_of_HIV_transmission_AIDS_and_HIV_related_deaths_in_the_UK.pdf (accessed 31 January 2018).
2. Public Health England. Hepatitis C in the UK 2015 report. 2015. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/448710/NEW_FINAL_HCV_2015_IN_THE_UK_REPORT_28072015_v2.pdf (accessed 1 March 2018).
3. Department of Health. *Hepatitis B: migrant health guide.* 2017. Available at: https://www.gov.uk/guidance/hepatitis-b-migrant-health-guide (accessed 1 March 2018).
4. Public Health England. Eye of the needle. United Kingdom surveillance of significant occupational exposures to bloodborne viruses in healthcare workers. 2014. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/385300/EoN_2014_-_FINAL_CT_3_sig_occ.pdf (accessed 1 March 2018).
5. Department of Health. *Decontamination Health Technical Memorandum 01-05: Decontamination in primary care dental practices.* 2013. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/170689/HTM_01-05_2013.pdf (accessed 1 March 2018).
6. Department of Health. Hepatitis B: the green book, chapter 18. 2017. Available at: https://www.gov.uk/government/publications/hepatitis-b-the-green-book-chapter-18 (accessed 1 March 2018).
7. Health and Safety Executive. Health and Safety (Sharp Instruments in Healthcare) Regulations 2013. Available at: http://www.hse.gov.uk/pubns/hsis7.pdf (accessed 1 March 2018).
8. General Dental Council. Enhanced CPD. 2018. Available at: https://www.gdc-uk.org/professionals/cpd/enhanced-cpd (accessed 23 February 2018).
9. General Dental Council. Recommended CPD topics. 2018. Available at: https://www.gdc-uk.org/professionals/cpd/cpd-topics (accessed 25 January 2018).
10. Department of Health. HIV post-exposure prophylaxis – Guidance from the UK Chief Medical Officers' Expert Advisory Group on AIDS. 2008.
11. Department of Health. Hepatitis B Healthcare workers and antiviral therapy. 2007. Available at: http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_073133.pdf (accessed 1 March 2018).
12. Public Health England. Integrated guidance on health clearance of healthcare workers and the management of healthcare workers infected with bloodborne viruses (hepatitis B, hepatitis C and HIV), October 2017. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/655418/Integrated_guidance_for_management_of_BBV_in_HCW_v1.1_October_2017.pdf (accessed 25 January 2018).
13. Equality Act 2010. 2010. Available at: http://www.legislation.gov.uk/ukpga/2010/15/contents (accessed 1 March 2018).
14. Care Quality Commission. Regulations for service providers and managers. 2017. Available at: http://www.cqc.org.uk/guidance-providers/regulations-enforcement/regulations-service-providers-managers (accessed 26 October 2017).
15. General Dental Council. *Standards for the dental team.* 2013. Available at: https://www.gdc-uk.org/professionals/standards/team (accessed 1 March 2018).
16. British Dental Association. Infection control - England. 2015.
17. British Dental Association. BDA Evidence Summary: Attitude to patients with blood borne viruses. 2013.

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* ***https://cpd.bda.org/login/index.php***

bdjteam201875

Product news

Product news is provided as a service to readers using text and images from the manufacturer, supplier or distributor and does not imply endorsement by *BDJ Team*. Normal and prudent research should be exercised before purchase or use of any product mentioned.

THE CASE FOR GOOD SUGARS

At the British Dental Conference and Dentistry Show 2018, Tim Ives will argue the case for good sugars in his Hygienist & Therapist Symposium session 'Sweet offender versus sweet pretender: utilising sugars to treat and prevent disease'.

Tim (pictured) said: 'My presentation will look at when we started to eat lots more sugars and why, as well as how "good" sugars can be utilised in practice to prevent and treat oral disease. I will cover themes like government misinformation, bad science and ruthless marketing from the sugar industry.

'I will also look at how sugar alcohols can wipe out the bacteria that cause decay. It's a cheap and simple way to prevent oral disease and also build up your appointments book by offering additional treatments.

The British Dental Conference and Dentistry Show 2018 will take place on Friday 18 and Saturday 19 May at the NEC in Birmingham, co-located with DTS.

For further details visit www.thedentistryshow.co.uk or www.bda.org/conference, call 020 7348 5270 or email dentistry@closerstillmedia.com.

EXPLORE THE LINKS BETWEEN DENTAL AND SYSTEMIC HEALTH

It is often said that the mouth is the gateway to the body and the links between oral health and systemic health support this.

Melonie Prebble (pictured, left) and Victoria Wilson (pictured, right) will be exploring this topic in the Hygienist & Therapist Symposium at the British Dental Conference and Dentistry Show this May.

They said: 'The dental practice is a good platform from which to discuss and potentially prevent both oral and systemic diseases. This is an exciting time to explore this topic and how it can contribute to our patient care.

'We will be covering the subject as broadly as possible. Delegates will certainly take home a good overview of the current thinking on this subject. We hope to give them more confidence and improve their verbal skills to impart their new knowledge. Dental hygienists and dental therapists attending should feel empowered and motivated to apply this within the clinical setting.'

Melonie and Victoria will join an inspiring speaker line-up including Iain Chapple, Marina Harris, Elaine Tilling, Deborah Lyle, Ben Atkins, Tim Ives, Fiona Ellwood and Chris Barrow.

To make sure you don't miss out, register for your free pass online today.

For further details visit www.thedentistryshow.co.uk or www.bda.org/conference, call 020 7348 5270 or email dentistry@closerstillmedia.com.

DENTAL NURSES AND DENTAL PHOTOGRAPHY

Discover the benefits of dental photography for dental nurses at the British Dental Conference and Dentistry Show 2018.

Diane Rochford will be discussing the topic in the Dental Nurses Forum. She said: 'By developing photography skills, the dental nurse can become more directly involved in treatment procedures, as well as more involved with patients. They also have the opportunity to take on more responsibilities, advance their knowledge and skills, and feel more valued as a team member by the clinicians and the patients. Perhaps most importantly, patient care is also improved.

'I hope delegates will gain some insight into the importance of taking dental photographs and learn how beneficial dental photography is in the practice today.'

The British Dental Conference and Dentistry Show 2018 will take place on Friday 18 and Saturday 19 May at the NEC in Birmingham, co-located with DTS.

For further details visit www.thedentistryshow.co.uk or www.bda.org/conference, call 020 7348 5270 or email dentistry@closerstillmedia.com.

FLEXIBLE PAYMENT PLANS FOR PATIENTS

Simplyhealth Professionals has announced the launch of a new flexible payment plan for both its member practices and non-members which will help patients to spread the cost of both dental and facial aesthetic treatments.

The new Flexible Payment Plans will make treatments more accessible and affordable for all patients as they can set the price and payment length with their dentist so it suits individual budgets. Patients can opt for treatments that they might have previously thought were unaffordable.

Dentists will agree with each patient how much they pay each month and how long their treatment will take. They can offer the patient an ongoing monthly plan for more regular treatments, or a choice of three to ten monthly payments for a one-off treatment, helping the patient to spread the cost of treatment and make it more affordable for them.

This is the first time that Simplyhealth Professionals has created a payment plan that can be tailored to support dentists providing an increasingly diverse mix of cosmetic dental and facial aesthetic treatments in their practices. Flexible Payment Plans will encourage patients to opt for new or higher cost treatments which they previously might not have considered due to the price.

This is also the first time that the company has offered a payment plan for non-members. This will appeal to those dentists who specialise in high end treatments such as facial or cosmetic work who want a flexible plan to cover this treatment, in addition to traditional restorative and preventive dental treatments.

Flexible payment plans are particularly well suited for more costly treatments and non-routine treatments such as tooth whitening and straightening, implant maintenance, facial aesthetics and cosmetic dentistry, or as a restorative treatment plan for crowns, bridges and dentures. It will open up greater choice for patients in non-dental treatments such as anti-wrinkle or dermal fillers. Dentists can also create, brand and promote their own Hygiene or Whitening Plans using the Flexible Payment Plans platform.

Once the dentist has agreed the treatment plan and costs with their patient, they set up the plan on the Flexible Payment Plan portal. Once the patient's personal and payment details are entered, the plan is immediately set up and ready to start, and the patient can book appointments for their treatment. The dentist can access the portal at any time to check the status of an individual plan.

Practices can also use Simplyhealth Professionals' online design service to create bespoke posters and literature for individual flexible payment plans.

www.denplan.co.uk/dentists/flexible-payment-plans

A SUSTAINABLE, FISH-FRIENDLY TOOTHBRUSH

Diamond Whites have launched their brand new Bamboo Toothbrush.

The Diamond Whites Bamboo Toothbrush is a biodegradable, eco-friendly toothbrush that works in perfect harmony with Diamond Whites pastes and polishes to help keep teeth healthy and clean.

The BBC estimates that by 2050 there will be more plastic than fish in our oceans, and as dental professionals advise patients to replace their toothbrush every three months, why not advise them to switch to a sustainable toothbrush that's a friend to the environment as well as their teeth?

The Diamond Whites Bamboo Toothbrush is available now for £2.99 at www.diamondwhites.co.uk.

SCALING NEW HEIGHTS IN PATIENT CARE

Regular dental cleaning can be particularly painful for periodontal patients that already have inflamed gums.

That's why W&H has developed an ultrasonic treatment unit to make scaling teeth even easier for practitioners, and more comfortable for patients.

With five preset treatment programmes to choose from, the dynamic design of the Tigon+ means that it can be used in prophylaxis, periodontology, endodontics and restorations.

Thanks to temperature-controlled coolant, the Tigon+ treats patients to pleasantly warm water, meaning it can be used on even the most sensitive teeth and gums.

Three modes allow you to define the scaler power according to preference, so you can be sure that you are delivering quality treatment that is neither too gentle, nor too harsh.

What's more, the easy-to-operate display of the Tigon+ makes it an incredibly user-friendly device, so you can increase the efficacy of your practice.

Contact the expert team at W&H to find out more about the benefits you can reap from the scaling power of the Tigon+.

To find out more visit www.wh.com/en_uk, call 01727 874990 or email office.uk@wh.com.

BDJ Team CPD

CPD questions: May 2018

CPD: ONE HOUR

Blood borne viruses – key facts for primary care dental teams

1. Select the **correct** fact regarding blood borne viruses.

A) many people with HBV will not experience any symptoms
B) hepatitis B and C are viruses that affect the kidneys
C) there is a high risk of transmission of blood borne viruses from saliva
D) in 2016, there were about 89,400 people living with chronic HCV in the UK

2. How can blood borne virus transmissions be reduced in the dental team?

A) a robust sharps protocol
B) hepatitis B virus immunisation including post vaccination blood tests
C) universal cross-infection precautions
D) all of the above

3. Which of the following should **not** be carried out in the event of an exposure to a blood borne virus?

A) a risk assessment
B) active bleeding of the wound
C) sucking the wound
D) washing the wound using soap and warm running water

4. a) Dental professionals living with HIV can perform exposure prone procedures if they are on combination antiretroviral therapy and have a plasma viral load less than 200 copies per millilitre. b) Post exposure prophylaxis within 24 hours is recommended when a healthcare worker experiences a blood exposure injury from a person thought to be infected with HIV

A) both statements are correct
B) only a) is correct
C) only b) is correct
D) both statements are incorrect

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 10 hours of free *BDJ Team* CPD on the CPD Hub from 2017, in addition to this year's CPD hours.

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

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