

BDJ Team

OCTOBER 2016

ORTHODONTIC THERAPY

October 2016

Highlights

- 11 Keeping infection under control
– CPD article
The latest decontamination guidance for dental practices.
- 14 Orthodontic therapy is a wonderful career
Authors from Yorkshire describe the background to the introduction of the newest grade of DCP.
- 19 First aid in the dental practice
Provides an overview to first aid in the dental practice.

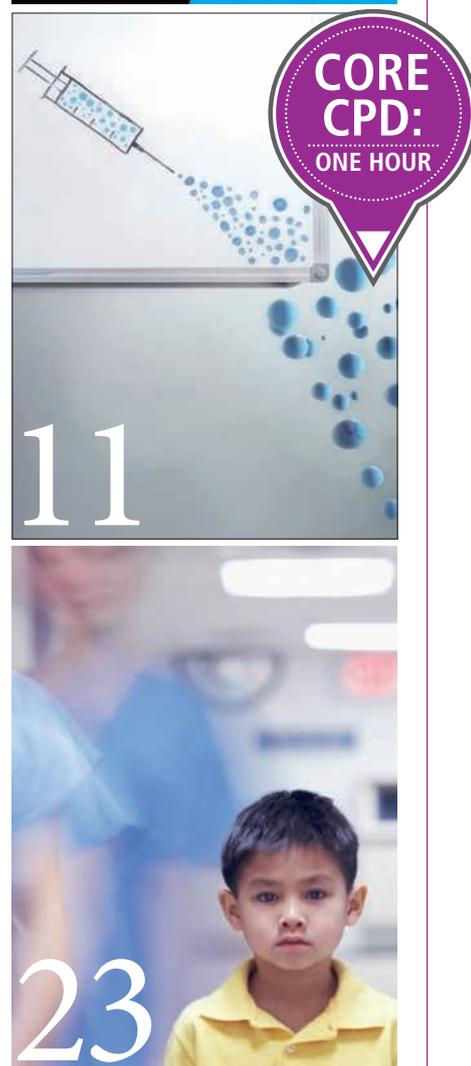


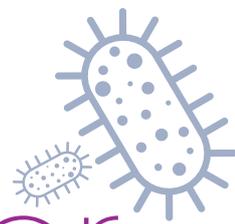
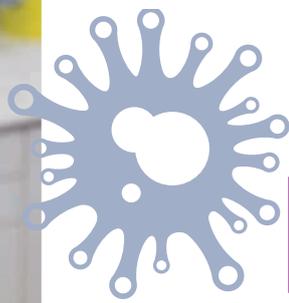
Regulars

- 03 Editor's letter
- 04 Book reviews
- 31 Dental products
- 32 *BDJ Team* verifiable CPD
Now on the BDA CPD hub!

In this issue

- 05 'Dental nursing now has the potential to be a career'
Introducing a new society for dental nurses.
- 06 Why are dental nurse salaries so low?
Investigation and comment.
- 23 Why are vulnerable children not brought to their dental appointments?
An investigation to understand why parents/carers are failing to bring their children to appointments.
- 29 Good oral health and orthodontic treatment belong together
A look at the oral health benefits of orthodontic appliances.





Ed's letter



The topic of dental nurse salaries and status has come up many times during the time I have edited *Vital* and then *BDJ Team*. A lot of dental nurses continue to feel disgruntled about their lot: having to qualify, register, pay their ARE, pay for CPD, pay for indemnity and pay for further training if they want to expand their skills – perhaps working part time and juggling parenthood at the same time - and all for not a great chance of a decent salary. Despite this ongoing feeling of discontent, not a lot of progress seems to have been made towards change or progress. Is this actually the case? Could it be because of the number of apprentices willing to work as trainee dental nurses for a pittance? Do the dental nurse organisations – including the new one we introduce in this issue – see a positive future for the dental nurse profession? What about the BDA and dental nurse educators? We asked them, and their responses and views are included in an investigative feature in this issue.

What is definitely a massive positive for dental nurses is that most of you appear, on the whole, to love what you do and the culture of working in a dental practice. Dental nursing is also a great stepping stone to other careers in dentistry, including orthodontic therapy. An original article in this issue looks at the origins of the role of orthodontic therapist. In complement to this, a feature from the BOS links orthodontic treatment to good oral health.

If you're looking for core CPD, essential reading this October is our update on the latest decontamination guidance. Once you've had a good read, pop over to the new CPD hub to answer the multiple choice questions. The new hub is proving to be a big hit with *BDJ Team* readers. <https://cpd.bda.org/login/index.php> This is a bumper issue and there's even more in store in November. Make sure you don't miss out, sign up for the *BDJ Team* e-alert – just one email a month with the latest published content.

Kate

Kate Quinlan
Editor
k.quinlan@nature.com

CORE
CPD:
ONE HOUR



A new career for you? p14



Straightening out kids' smiles p29



Banish the bugs p11



bdjteam2016148

THE TEAM

Cover
©Hero Images/Getty Images Plus

Editor-in-Chief
Stephen Hancocks OBE

Editor
Kate Quinlan

Production
Art Editor: Melissa Cassem
Production Editor: Sandra Murrell
Digital Editions Production Controller: Natalie Smith

Advertising
European Team Leader – Academic Journals:
Andy May, +44 (0)20 7843 4785, a.may@nature.com

Publishing
Publisher: James Sleight
British Dental Journal
The Campus
4 Crinan Street
London N1 9XW

© *British Dental Association* 2016. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by

any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the *British Dental Journal*.

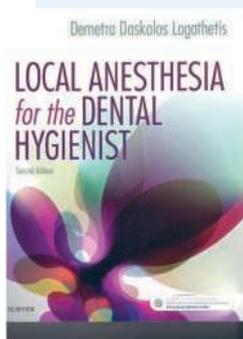
The opinions expressed in this publication are those of the authors and not necessarily those of the British Dental Association or the editor. Appearance of an advertisement does not indicate BDA approval of the product or service.

Books for dental care professionals

Dental professionals review some of the latest publications on the market.

Local anesthesia for the dental hygienist, 2nd edition

This book is written by Demetra Daskalos Logothetis and published by Elsevier. It costs around £52.19 (see www.elsevierhealth.co.uk) (ISBN 9780323396332).



This book was such an interesting and easy read for me and I'm sure those who have been in this profession for over 20 years will have longed for an informative and supportive textbook like this.

It is a guide to successfully

administering pain-free anaesthesia.

Dental hygienist and accomplished author Demetra Logothetis, who has over 15 years' experience in teaching local anaesthesia and pain control, has written this excellent reference textbook that includes material aimed at the student dental hygienist. It helps prepare the reader for confident and successful administration of local anaesthesia.

The information contained in the book is

presented well and is clear and easy to follow. Each chapter begins with learning objectives, culminating in goals that will be achieved, and ends with review questions – an important aid for good revision practice.

Case studies are included throughout – relating to problem solving and reassuring the clinician to overcome and acknowledge patients' needs. This leads me on to the inclusion and focus in the book on the human-need theory and understanding patients' perceptions of local anaesthesia.

The human-need paradigm helps the clinician understand the relationship between human needs fulfilment and human behaviour: surely being able to read and understand how patients may perceive treatment will demonstrate in establishing a stress-free dental experience for both clinician and patient.

For me, treating and alleviating dental pain with effective anaesthesia is such an asset! An inexperienced student will gain confidence from the chapter on basic injection techniques. It includes superb steps, helpful techniques, and useful, high-quality colour photos carrying out specific procedures.

The book also looks at operator and patient positioning; insertion points; amount of anaesthesia required; working time; anatomy; sharps management; infection control; maxillary and mandibular injections; and has distinctive summaries reviewing concepts, procedures, techniques and effects. In addition it contains a useful glossary.

'For me, treating and alleviating dental pain with effective anaesthesia is such an asset!'

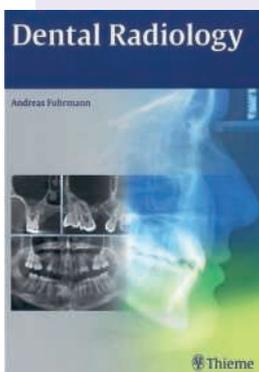
This second edition of the book also focuses on delivery techniques and protocol required for paediatric and adolescent patients.

I would, without hesitation, encourage and recommend this textbook to the student hygienist, including it in their essential revision reading. I would also recommend it to the qualified hygienist as a superlative reference.

Heather D. Lonergan RDH,
White Cottage Dental Practice, Fairford

Dental radiology

This book is written by Andrea Fuhrmann and published by Thieme. It costs £36 (ISBN 9783132004214).



This comprehensive book is an excellent resource for all dental professionals including undergraduate students, dental nurses and practising dentists. It provides a broad overview on the theory of dental radiology

and a detailed coverage on the different radiological procedures.

The first half of the book focuses on radiation physics, the biology of radiation effects and radiation pathology. This is a

very useful revision tool for anyone looking to refresh their knowledge on the effects of radiation.

'An excellent resource for all dental professionals including undergraduate students, dental nurses and practising dentists'

The book also covers in depth the fundamentals of dental radiography, including exposure techniques, radiation safety and film processing. There are plenty of radiographic images, clinical photos and step-by-step illustrations to help aid the understanding of radiographic procedures.

The use of advanced imaging methods

such as conventional tomography (CT) and cone beam computed tomography (CBCT) is covered in detail.

There is a chapter on the basic principles of radiation protection and quality assurance in dental radiology. It provides a good explanation of the standards governing dental radiology and will help dental professionals ensure compliance with the guidelines in place within the dental setting.

The last chapter is of particular use to students and dentists, containing a section on the assessment and diagnosis of radiographic findings, including the most common pathological changes.

In brief, the book is easy to read, providing essential overall understanding of dental radiology and key concepts. I certainly recommend this book for anyone looking for an effective revision guide.

Avan Mohammed BDS

'Dental nursing now has the potential to be a career'



Fiona Ellwood is Patron of a brand new organisation for dental nurses.

The Society for British Dental Nurses, otherwise known as 'The Society', was launched in early June 2016, after numerous requests from dental nurses and other members of the dental profession, in order to fill a void in terms of education and support in the changing world of dental nursing.

Notably, very little changed in dental nursing from the late 1930s up until the Nuffield review and then until the introduction of statutory registration 2001-2008. Since then there has been much change, more expectations, an array of qualifications and additional duties courses. Dental nursing is viewed by many in a different light and now has the potential to be a career rather than just a job.

corner of the profession and across a number of settings. We are also fortunate enough to have a number of prominent Honorary Fellows in Professor Robert Ireland, Richard Leigh Evans, Professor Andrew Smith, Consultant Mr Andrew Baldwin and Margaret Ross who add a further layer of expertise to the Society. Equally these experts help to look at even wider fields and roles outside of dental nursing.

I was delighted to take on the role of Patron, as both education and helping to grow and develop people are very much my mantra.

The Society aims to create an opportunity for dental nurses to be fully involved in shaping and informing their future. It will provide a protective space for discussion either with mentors, experts or amongst

Never has there been a more important time to address the needs of the dental nursing profession and to offer a helping hand, and the Society are well placed to do this. The intention is for continuity over time in order to maintain the level of expertise and the professional relationships already established. There has been a huge amount of support across the board to date and we hope to encourage this going forward.

Of course, we are a not-for-profit organisation and that means everything goes back into the dental nurses and their future.

Member support promises

The Society promises these benefits to its members:

- Offer or guide members to an appropriate person or body who can best support them
- Provide mentorship at key milestones in their dental career
- Provide regular, up-to-date information on the dental nursing profession
- Give direction to courses and events that may be of interest
- Ask for members' opinions and contribution to consultations
- Alert members to changes in policy, guidance and regulations that may affect them.

We will also offer one free hour of continuing professional development (CPD) for every core topic of CPD with Stephen Hancocks (stephenhancocks.com), will provide resources to dental students where appropriate and offer discounts at conferences. Equally the Society has worked closely with Towergate in developing two levels of indemnity for dental nurses and neither is tied into membership.

The East Midlands Regional group are hosting a dental nurses' symposium on 17 September and the quarterly meeting will be held on 5 October 2016. In more general terms we have been invited to speak at a number of events and represent dental nurses in education and development.

For further information about The Society for British Dental Nurses, visit www.sbdn.org.uk.

bdjteam2016151

'THE INTENTION IS TO SUPPORT AND DEVELOP

THE DENTAL NURSES OF TODAY AND THE FUTURE

SO THEY CAN TAKE THE PROFESSION FORWARD'

Formerly, dental nurses qualified and those who were ambitious or had the opportunity set out to undertake the then 'post qualifications', but this is no longer the case. Now dental nurses have continuing professional development (CPD) to navigate their way around, as well as the dental pilots and prototypes and the pending dental contract reform.

The Society has embraced all of these things and taken on board what has been said. As a result a number of dental nurse experts have come together to offer guidance and support to dental nurses and their mentors on their forward journey in dental nursing. The Society is forward thinking and adaptable to change and works very closely with dental nurses.

The Society is made up of a large group of dental nurse experts covering almost every

colleagues. The intention is to support and develop the dental nurses of today and of the future, and to grow new and up and coming dental nurses so that they are equipped to take the profession forward.

Core values

The five core values of the Society are:

1. Influencing policy and informing change
2. Enhancing the capacity and ability of our membership
3. Placing education, learning, experience, growth and development at the heart of the Society
4. Recognising national and local priorities and our role within these areas
5. Dedication to the education and support of student dental nurses.

*a qualified dental nurse for ten years; I did my sedation, radiography and oral health certificates. Been working as a maxillofacial dental nurse for ten years and we get treated like ****. They see us below average because we're not "real nurses" whatever that means. I thought a nurse was a nurse. Now apparently I'm not qualified to assist with oral surgery procedures...* - **Teresa**

'Perhaps don't blame the profession blame the employer. I have been in the dental industry since 1998 and have always been paid well (I've worked for three different people). I have lots of friends who regard themselves as receiving an appropriate wage. My current employer pays our GDC [annual retention fee] as well as our indemnity. We're perhaps luckier in our area with appreciative employers' - **Mel**

What did the DRN salary survey show?	
Area	Average dental nurse salary pa
East Midlands	£18.7k
East of England	£19k
London	£21k
North East	£15k
Northern Ireland	£14.5k
North West	£15k
Scotland	£18k
South East	£18k
South West	£18k
Wales	£16k
West Midlands	£16.5k
Yorkshire and the Humber	£17k

From <http://www.dentalrecruitnetwork.co.uk/blog/12042016112316-uk-dental-salary-survey-2016/> with over 500 responses to the survey.

The BADN salary survey 2011

The British Association of Dental Nurses' (BADN's) salary survey in 2010, with over 2,000 respondents, revealed that the majority of dental nurses earned less than £20,000 a year at the end of 2009.

The survey also found that more than 70% of dental nurses receive no contribution from their employer towards their Annual Retention Fee (ARF: £120 pa); nearly half have to pay all their CPD costs; and 95% receive no additional benefits.

Then-President Sue Bruckel commented: 'We were shocked, but not particularly surprised, at the results of the survey. What is particularly disturbing is that the majority of the respondents were full-time, fairly senior, dental nurses with more than ten years' experience – and the salaries are still well below the median pay for full-time employees in the UK of around £25,500, according to 2009 Annual Survey of Hours and Earnings (ASHE) and less than half the median pay for full time "health professionals" of around £53,500.'

2013

BADN conducted another salary survey in 2013, with over 2,000 respondents, which again revealed that the majority of respondents earned between £10,000 and £20,000 (£10k-£15k 28%, £15k-£20k 29%).

BADN salary scale

In 2011 BADN put together an advice sheet in response to demand for guidelines on dental nurse salaries. This can be found at <http://badn.org.uk/wp-content/uploads/2014/02/BADN-Salary-Scale.pdf>.

The advice sheet shows minimum salaries considered acceptable by BADN for a 37-hour week, taking into account other factors such as specific job roles and duties and local conditions:

Registered dental nurse*	From £20,000
Registered dental nurse - extended duties**	From £24,000
Senior dental nurse***	From £28,000

- * Registered with the GDC
- ** Registered and holding and using one or more post-registration certificate
- *** Registered, holding post-registration qualifications and with an additional supervisory function.

BADN's appeal to the GDC

In 2012 BADN wrote to the GDC formally requesting that the GDC recognise that dental nurses are paid considerably less than other

DCP groups and that they set a separate ARF for dental nurses that realistically reflects dental nurse salary levels (no more than £150); set a lower ARF for part-time workers in all registrant categories; and make provision for quarterly payment of the ARF for those paying by direct debit.

BDA DCP Pay Survey 2013

The British Dental Association's (BDA's) report, *Dental care professionals pay - Findings from the Dental Business Trends Survey* published in December 2013 explored average pay among DCPs.

The report is designed to be 'a general guide to help practice owners in their pay determinations'. A survey conducted in summer 2013 elicited 1,342 responses. It found that on average, trainee dental nurses were paid £6.98 per hour and qualified dental nurses £9.98, with some variation according to NHS commitment. Higher rates of pay were found in southeast England and London compared with the rest of the UK.

£9.98 for a 37-hour week would equate to an annual salary of £19,201 – which tallies with BADN's findings.

Almost two thirds of practice owners had increased the rate of pay for their dental nurses over the past 12 months. Nurses who worked in practices with a high NHS commitment were more likely to have received a pay rise.

Why are wages so low?

British Dental Association
Judith Husband, Chair of Education, Ethics and the Dental Team at the BDA, comments:

Dental nurses are vital members of the dental team who should be remunerated appropriately in line with their skills, training and experience. Dental nurses are essential to patient care and carry significant professional responsibilities.

There are recruitment issues in some areas which give us cause for concern. We especially hear of experienced dental nurses leaving the profession when they become aware that their salary begins to stagnate after several years in the role, and further opportunities are scarce.

With the development of GDC-approved 'enhanced duties' there are exciting and rewarding opportunities to acquire additional skills. To utilise these skills we require appropriate practice structures, and funding to support individuals to work to their full potential. The BDA is lobbying for a prevention-based NHS contract; within this approach there is a significant role for dental nurses with patient facing skills.

Health Education England (HEE) has

responsibility for workforce planning but has so far declined to focus on dental nurses' training and development of an attractive and supported career structure. The changing patterns of oral disease and ageing population should make this a priority area for commissioners of training and the profession.

Providing accurate and timely advice to potential applicants wishing to join our profession is a role we all share. Advice on our websites, visiting schools and colleges, providing work experience and raising the profile of dentistry to policy makers and the media is key.

The realities of UK healthcare provision, and most notably NHS services, is harsh though. Repeated pay freezes across the NHS and ongoing efficiency savings have taken a heavy toll on the sector. Dental team staff pay data from the Inland Revenue shows increases year on year, whilst in contrast average dentist pay continues to fall due to inadequate rises in NHS fees.

BADN is willing to work with both the BDA and/or dental employers on producing broader and more comprehensive guidance on the calculation of dental nurse salaries, taking into account the broad range of dental nursing roles and working environments.

Should readers wish to discuss this further, President Jane Dalgarno would be happy to do so and may be reached at president@badn.org.uk.

The Society of British Dental Nurses
A range of comments and opinions were provided by *The Society of British Dental Nurses and its members*. An article about this new organisation also appears this October in *BDJ Team*.

On low wages:

Salaries vary across the dental settings and particularly across general dental practice. Some dentists do pay their dental nurses an acceptable salary; many do not. Wages are low partly because they have always been

However, there are some really good dentists out there and many look after the whole team.

On what dental nurses can do to achieve a wage increase to recognise their professional status:

We need to empower dental nurses; this is paramount and they need to have a voice. We need to draw attention to this big group of hard working DCPs who are all too often undervalued.

In order to achieve an increase in wages and recognition of their professional status, dental nurses can gain extra skills, but also influence everyday practice to ensure use of these additional skills and raise the value of skill mix.

Dental nurses should act professionally at all times and take on more responsibilities within the team so that the dentist appreciates the need to retain them and reward them appropriately. They could also persuade dentists that post qualifications and additional duties should be financially rewarded. It is the responsibility of the dentist to make use of these skills and qualifications in improving the quality of patient care.

Dental nurses need to have more communication with patients so that dentists realise that well trained dental nurses have a positive effect on retaining patients, attracting new patients and reducing the potential for patient complaints.

Dentists should also be encouraged to develop dental nurses as trainers within the practice.

There needs to be a review of the basic level of dental nursing and progressive levels that are not only recognised and respected but that are attached to a pay scale and a wider scope of practice.

General comments:

I have seen many changes in attitude and a shift in dental nurse training, CPD, registration etc, but still wages remain low in many general practices. It is pointless having a gold standard practice with staff who are undervalued, unsupported and paid unfairly – have we learnt nothing from the Francis Report 2013?

It is about changing the mindset of dentists so that they realise that the responsibilities and contribution of the dental nurse are as important as any other member of the team and that their impact on the smooth running of the practice and the quality of patient care is critical to the continued and future development of the practice.

'SOME DENTISTS WILL ALWAYS TRY AND PAY

THE MINIMUM WAGE AND SOME DENTAL NURSES

MAY FEEL THAT THEY CAN'T GET A

HIGHER WAGE ELSEWHERE'

British Association of Dental Nurses

Jane Dalgarno, BADN President, comments:

BADN Salary Surveys show that a Registered Dental Nurse with more than ten years' dental nursing experience, who has worked for the same general practice employer for more than ten years, and who works more than 35 hours per week, is likely to be earning between £15k and £20k per annum. (The 2016 BADN Salary Survey will be held online later this year.) Out of this, around half are expected to pay their GDC registration fee and their CPD costs, and of those respondents who are BADN members 94% pay their own membership fee (and indemnity).

In the past, BADN has worked with the BDA to produce annual dental nurse salary guidelines, which indicated the minimum an employer was expected to pay a dental nurse. However, this was discontinued with the introduction of the National Minimum Wage (NMW), partly because of the NMW and partly because the guidance was often misinterpreted by employers and, therefore, often did not achieve the desired outcomes.

low; some dentists will always try and pay the minimum wage and some dental nurses may feel that they can't get a higher wage elsewhere. Some dentists don't appreciate the value of a well-trained dental nurse or make full use of dental nurses' skills; therefore they don't see the need to pay for skills not used.

As the dental nurse apprenticeship is offered and the qualifications achieved are less than those of degree students, salaries remain low. There seems to be an abundance of students willing to take on apprenticeships on leaving school.

Much is related to the historical position and hierarchical stance between dentist and nurse. Nurses have a much wider scope of practice [now] and have a greater role to play; after all, dentists cannot work without a dental nurse.

There is a fractured dental nurse community; those in the trusts appear to get better salaries than those in general practice as they are paid according to what was the agenda for change banding, whereas general practice nurses have no pay scale.

Dental nurse educators

Rebecca Cox, Online Training Co-Ordinator at the Dental Team Education Centre (DTEC) in London comments:

If you look at the scope of practice against the role of a dental nurse I think the wages are fair. I obviously cannot comment on the all salaries but I believe it depends on where in the country you work and which type of practice you work in. But then compare dental nurses' salaries to a therapist or dentist and the dental nurse is paid [a] very low [wage]. You should really pose this question to GDPs!

Once a dental nurse holds a registrable qualification they can complete post certificate training courses or extended duties or choose a different path altogether, for example become a dental nurse assessor or a tutor dental nurse; they can also choose to become a dental therapist or orthodontic therapist which is again a lucrative career move. Although these options are very competitive.

We have been known to debate the area

of pay in the classroom. Whenever I see my (online) students pay is always discussed. Normally the discussions start around how much of a pay rise a nurse will receive on passing the exams (NEBDN National Diploma). Or how much private patients have had to pay for treatment (such as implants).

In my personal opinion, dental nurses are paid low (minimum wage) [salaries] because they tend to be younger coming into the profession (as trainees). They are then given the incentive of passing an exam to get a pay rise. There will always be dental nurses coming into the profession who are happy to be paid low wages as it is a very satisfying job. So for the nurses who move on to other roles or change profession completely there always will be job hunters willing to accept low pay.

I also think that the annual retention fee (ARF) for dental nurses are fair although I do think that there should be an option to pay by direct debit monthly or even quarterly. The GDC should take into consideration part time workers also. If you compare what we have to

pay against dentists then it is in line with our role at £10 a month. The indemnity is very cheap as you can pay this monthly.

We also have to then pay out for our CPD. Again I have heard that some practices do this as a package and are willing to give nurses time to do it and pay for the training. I have also heard that some nurses have to pay everything and do CPD in their own time.

Kim Childs, a dental nurse and tutor (and due to start OHE training) from Torrington comments:

From a personal point of view I work for an independent surgery and have to say they have been fair with my own pay scale. I do, however, feel for other nurses as am aware that the pay scale does not reflect the responsibility/training and CPD that you have to adhere too.

I'm afraid I can't see a reason why the pay scale is so low; again the amount that we have to do and the fact that we have to be registered should in its own right reflect the pay of a professional, not that of an unskilled worker.

I know that there has been much said in jest about going to work in a supermarket because supermarket workers get paid more than we do! (Not to underestimate the roles in the supermarket, more the fact that we have to be qualified.)

Most student nurses look forward to qualifying because it usually does incur a pay increase but in most cases this seems to be only to the minimum wage if they are apprenticeship candidates or just above for regular nursing staff.

Pay is always such a taboo subject and we all feel that we deserve a decent rate of pay – I do not feel that this is always the case when it comes to nurses and what is involved in our role.

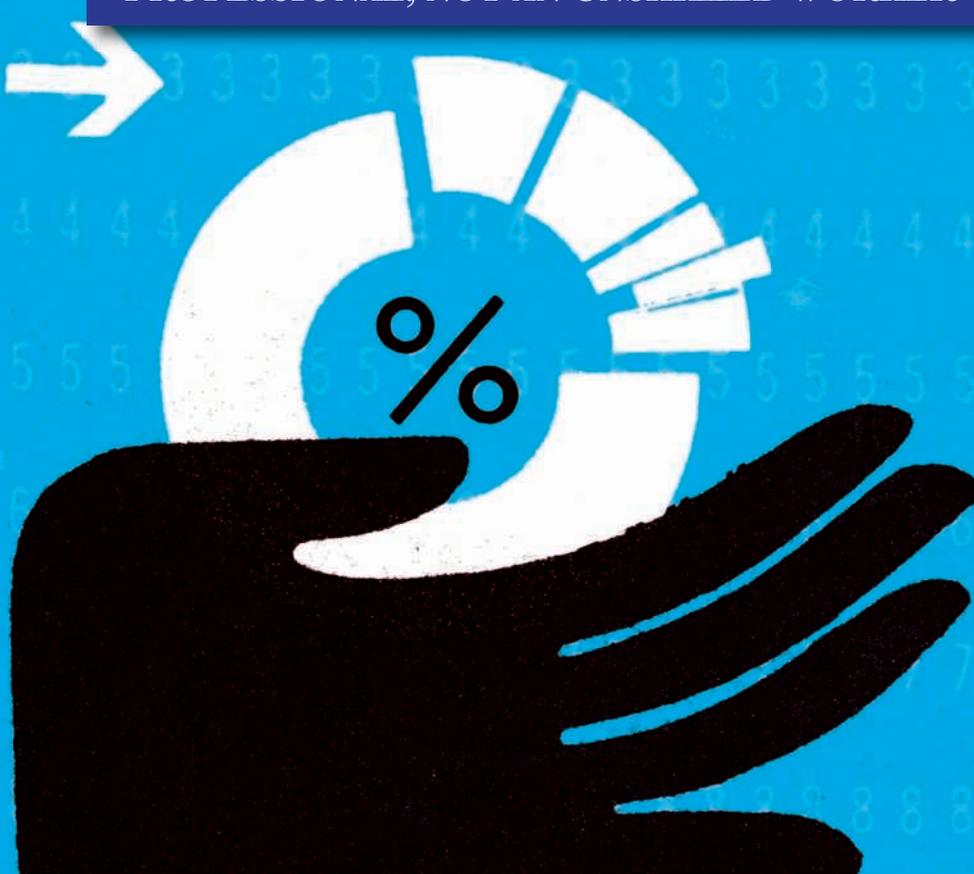
There are ways of increasing the pay but that always involves further training/education/qualification in specialist subjects which again does not often reflect the amount of work involved to the pay increase ratio.

'THE AMOUNT THAT WE DO AND THE

FACT THAT WE MUST BE REGISTERED

SHOULD REFLECT THE PAY OF A

PROFESSIONAL, NOT AN UNSKILLED WORKER'



Have any of the comments in this article changed the way you feel about being a dental nurse? Has your view been represented? Send a letter to *BDJ Team* at bdjteam@nature.com or comment on our Facebook page, www.facebook.com/bdjteam.

bdjteam2016152

NHS Regulations - to claim or not to claim

Friday 11 November 2016 | London

Understand the pitfalls and controls and explore the 'grey' areas of the NHS regulations with the use of case studies and discussions with experts.

The NHS claiming regulations are notoriously difficult to interpret. Misunderstanding of these regulations can have serious consequences, leading to risk of major financial losses and possible referral to the GDC.

This interactive one-day course will offer formal training to practitioners who are new to the NHS system and those who require an update with the current system (introduced in 2006).

5 ¹/₂ hours verifiable CPD

Handling complaints and managing difficult patients

Friday 9 December 2016 | London

Friday 9 June 2017 | London

Learn how to use complaints as a positive management tool to enhance your relationship with your patients.

If handled properly, a complaint can enhance relations and turn a potentially lost customer into a satisfied patient.

Gain the ability to diffuse upset patients and greatly reduce the possibility of complaints escalating to a Fitness to Practise case.

CORE

5 hours verifiable CPD

Course Prices:

BDA member: £150.00
Non member: £195.00
DCPs: £95.00

bda.org/training | 020 7563 4590



Keeping infection under control

An update on the latest decontamination guidance for dental practices, by **Edward Sinclair**.¹

Infection control in practice

Infection control has come a long way since the early 1980s. Many practices, already introduced in hospitals, arrived relatively late to the dental profession. For example, the processing of instruments in a centralised facility had been routine in hospital for decades before reaching dentistry.

In England, HTM 01-05 was commissioned to bring in hospital-level standards of infection control and decontamination to primary dental care services. This, in turn, has

changed practices in the devolved nations.

Much of the latest decontamination guidance is controversial amongst dental professionals as there is scant evidence for some of the protocols in HTM 01-05 and it was not formulated in a way consistent with the international standards on designing clinical guidance.

However, this may be in part due to a lack of research in general. Infection control is a large topic and can only be covered in brief in this article.

We will look at some of the most common infection control issues affecting surgeries across the UK and these are also among the most common questions asked of British Dental Association (BDA) advisors by dental professionals.

Decontamination rooms

In Scotland and Northern Ireland, a separate decontamination room is mandatory, as is a washer disinfectant. For England and Wales, these two items are required if a practice is

to attain 'best practice' status, but it is not necessary to install retrospectively. However, individuals considering setting up a new establishment should be aware that the Care Quality Commission (CQC) expects new entrants to comply with this best practice.

Decontamination rooms do not have to be a set size and many practices will not have a choice in terms of which room they can use. Example layouts can be found in HTM 01-05 and Scottish Health Planning Note 13. It should be borne in mind that the room should be fit for purpose in terms of correct instrument flow and ventilation requirements.

For staff working in the room, it is important to consider their welfare in terms of the temperature in the room.

Whether it is used or not, manual cleaning must always be available as a backup, should decontamination equipment fail.

Decontamination equipment

All equipment, whether mandatory or not, must be tested and maintained in order for it to be fit for purpose. For example, in England, all autoclaves, washer disinfectors and ultrasonic baths require validation annually. This must be performed by a competent person, usually a

¹ Edward Sinclair is a Practice Management Consultant in the BDA's Compliance Team. A dually-qualified dentist and microbiologist, Edward advises members on all aspects of health and safety law, infection control and decontamination requirements. He also has a Master's Degree in Public Health and has worked on dental policy in the NHS.



agents, the Medical Devices Regulations 2002, the Safer Sharps Regulations 2013 and Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR).

For England, the Health and Social Care Act 2008 gave birth to the CQC, as well as the Code of Practice on the prevention and control of infections and its related guidance.

This Code, whilst not a legal requirement to follow, makes reference to HTM 01-05 and is – in effect – the easiest way to ensure compliance with the infection control requirements of the Health and Social Care Act.

Staff immunisations and screening

Initially, it is important to group clinical staff into two distinct categories: those who perform exposure prone procedures (EPP) and those who do not.

As a rule of thumb, dental nurses do not perform EPPs, whereas hygienists and therapists do (a definition of EPP is ‘...where the worker’s gloved hands may be in contact with sharp instruments, needle tips or sharp

some supply issues at the present time.

Salaried NHS employers may well have stricter, local requirements. Anyone in any doubt should consult their local occupational health department for further advice.

Employees of dental practices and those employed directly with the NHS can expect their employer to provide them with vaccinations free of charge, as well as ongoing occupational health cover and advice.

All trainee dental nurses should be offered hepatitis B vaccination and chairside assisting can begin after the first jab, so long as a risk assessment has been carried out. The onus is on the employer to take all reasonable steps to prevent an inoculation injury when the nurse is only partially immunised. Therefore, control measures need to be in place and these can include items such as no manual cleaning and no sharps handling.

Some individuals will not respond to vaccination; this does not prevent them working clinically, but it should be documented with the local occupational health office.

‘EMPLOYEES OF DENTAL PRACTICES CAN

EXPECT THEIR EMPLOYER TO PROVIDE

THEM WITH FREE VACCINATIONS AND

OCCUPATIONAL HEALTH COVER’

service engineer. Routine testing must be done according to the manufacturers’ instructions.

For autoclaves, a daily check involves the automatic control test and the steam penetration test (vacuum autoclaves only).

CPD

All General Dental Council (GDC) registrants are required to undertake continuing professional development (CPD). Of the verifiable hours (75 for dentists and 50 for DCPs every five years),¹ the GDC highly recommends certain key CPD topics. One of these is disinfection and decontamination, with five hours being the recommended amount in each five-year cycle. Thus, it is good practice to do at least an hour of infection control/decontamination training on an annual basis.

Infection control and the law

There are several different acts and regulations that concern infection control. The overarching piece of legislation is the Health and Safety at Work Act (HASAW) 1974.

From these, other regulations emanate, including Control of Substances Hazardous to Health (COSHH), which deals with biological

tissues inside a patient’s open body cavity, wound or confined anatomical space where the hands or fingertips may not be completely visible at all times²).

New EPP workers are required to be screened for blood borne viruses before commencing clinical work. The word ‘new’ in this context refers to clinicians who are new to the UK healthcare system, be that NHS or private. This includes those who have just graduated from a UK university and those who have come to the UK from abroad without any previous history of working here. It does not include existing clinicians, so no retrospective testing is required. Non-EPP workers such as dental nurses are not required to have any testing performed.

All clinical staff require immunisation; the GDC expects registrants to take responsibility for their own health. Although there are no mandatory vaccinations, the BDA, based on accepted standards, recommends hepatitis B and tuberculosis (BCG) as a minimum, but, anecdotally, this latter vaccine appears to have

A new occupational health specification came out from NHS England in March 2016 and this allows DCPs to obtain cover via their employer; a useful website to find the nearest centre is www.nhshealthatwork.co.uk/find-providers.asp.

Gloves and hand hygiene

All routine dental procedures require gloves to be worn. These can be either latex or an alternative material, such as nitrile. It is not a requirement to have a separate latex allergy policy, as this would be included in the practice COSHH assessment. Avoid purchasing the cheapest gloves on the market, as these can cause allergies more readily due to their lower quality. It would be advisable to choose gloves that are CE marked and have low levels of extractable proteins (<50 µg/g of latex proteins). Gloves should be removed aseptically and hand washing should occur at regular intervals, especially between patients.

A useful hand hygiene policy is available on page 76 of HTM 01-05.³



Legionella risk assessment and dental unit water lines (DUWLs)

All practices must manage the Legionella risk. A risk assessment should be done by a competent person and the resulting list of instructions should help to keep this risk under control. That said, dental surgeries are

system has been in operation for decades and many clinicians are content using them. However, given these new regulations and the numbers of practices using new systems, it is getting increasingly difficult to justify the use of the old system.

On the topic of inoculation injuries, these

decontaminate successfully, consideration should be given to treating them as single use items.

Decontamination of impressions and dentures

Very little official guidance exists on these items, but given the variety of materials used, guidance dictates that manufacturers' instructions should be followed. In the absence of these, full immersion in a perform bath would be preferable to using a spray.

Conclusion

Above are some of the many topics that arise in everyday general dental practice. The BDA has more information on them in its infection control advice sheets [if your principal is a member] and there are numerous courses available.

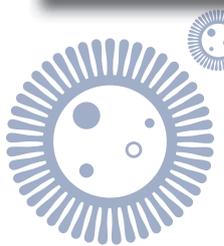
1. General Dental Council. Continuing professional development for dental professionals. In effect from 30 September 2013. Available at: <http://www.gdc-uk.org/Newsandpublications/Publications/Publications/Continuing%20Professional%20Development%20for%20Dental%20Professionals.pdf> (accessed September 2016).
2. Public Health England. General dentistry exposure prone procedure (EPP) categorisation. Advice from the United Kingdom Advisory Panel for Healthcare Workers Infected with Bloodborne Viruses (UKAP). March 2016. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/511570/UKAP_General_Dentistry_EPP_Categorisation_FINAL_to_be_uploaded.pdf (accessed September 2016).
3. Department of Health. Decontamination. Health Technical Memorandum 01-05: Decontamination in primary care dental practices. 2013 ed. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/170689/HTM_01-05_2013.pdf (accessed September 2016).



©Aleksel Lazukov/Stock/Getty Images Plus



'ANY ITEM MARKED WITH THE SYMBOL INDICATES THAT IT CANNOT BE REUSED UNDER ANY CIRCUMSTANCES'



a low risk environment for Legionella. The risk assessment remains valid until anything changes, for example, with the pipe work or plumbing. As a rule, the assessment should be reviewed every two years.

Dental unit water lines (DUWLs) are best managed according to the manufacturers' instructions, but commercial products can be very useful in the absence of any instructions.

Safer sharps

The Safer Sharps Regulations 2013 have been devised to reduce the number of needlestick injuries in clinical practice. For dentists, this has meant switching to a safer sharp system, where reasonably practicable to do so. A safer sharp is defined as a syringe system that consists of a retractable sheath to remove the need for recapping manually and there are at least two on the market.

It is well known that the old metal syringe

generally pose a low risk of actual harm, but all must be reported and followed up appropriately. This ideally should be at a local occupational health service set up in advance and should also be where records of immunisation are kept.

You might avoid using A&E unless the injury occurs out-of-hours and Public Health England has an emergency advice line on 020 8200 4400.

Single use items

Any item marked with the symbol above indicates that it cannot be reused under any circumstances and to do so would be to contravene medical device regulations. Many items that are classed as reusable are in practice difficult to clean – for example, small burs and other items can pose a challenge. Decontamination advice recommends that where reusable items are difficult to

CPD questions

This article has four CPD questions attached to it which will earn you one hour of verifiable CPD. To register on the **free** BDA CPD hub, go to <https://cpd.bda.org/login/index.php>.



bdjteam2016153



Orthodontic therapy

is a wonderful career

Sara Mohammed Saed,¹ Simon J. Littlewood² and Trevor Hodge³ describe the background to the introduction of orthodontic therapists and explain why this is a great development for orthodontics.

Orthodontic therapy is the newest grade of dental care professional (DCP) in the UK. The first cohort of students started their one-year course on the Yorkshire Orthodontic Therapy Course in Leeds in 2007. It is estimated there are now more than 400 registered orthodontic therapists in UK. This article provides a brief background to the introduction of orthodontic therapists, as well as the real-life experiences of a qualified orthodontic therapist, an orthodontic therapist in training and a workplace trainer.

The first discussions about orthodontic therapists, then referred to as ancillary orthodontic personnel, began in 1967. However, it was not until the early nineties with the Nuffield Enquiry into Ancillary Dental Personnel that the role was considered in more detail (by this stage it was being referred to as orthodontic auxiliaries) at which point evidence was also emerging that 50% of 11-year-old children had a defined need for orthodontic treatment and that there were fewer orthodontic specialists in the UK in comparison to other European countries. Furthermore, those who were working in UK specialist practices had caseloads of double that of European counterparts.^{1,2}

To provide evidence of the benefit of orthodontic therapists for the delivery of orthodontic healthcare, a pilot study was set

¹ *Dental Core Trainee Year 2, Leeds Dental Institute, Orthodontic Department, Leeds;*

² *Consultant Orthodontist, Orthodontic Department, St Luke's Hospital, Bradford;*

³ *Consultant Orthodontist, Orthodontic Department, Leeds Dental Institute, Leeds*

up at Bristol Dental School to investigate this role.³ Dental nurses completed a four-week pilot training programme and on completion of the course it was found that the trainees demonstrated practical abilities which far exceeded the course organiser's expectations. Furthermore, the level of skills exceeded those of final year dental students and instead was closer to that of orthodontic postgraduate students. It was important to note, however, that the dental nurses took two to three times as long as an experienced orthodontist to carry out the same procedure. The results of this pilot were ground-breaking and formed the foundations for the current training models for orthodontic therapists throughout the UK.

- Taking occlusal records including orthognathic facebow readings
- Placement and removal of fixed appliances
- Identifying, selecting, preparing and placing auxiliaries
- Providing emergency orthodontic care
- Taking intra and extra-oral photographs
- Fitting tooth separators and bonded retainers.

Additional skills which an orthodontic therapist could develop:

- Applying fluoride varnish to the prescription of a dentist
- Repairing the acrylic component part of orthodontic appliances
- Measuring and recording plaque indices

outlines clearly when supervision is required. Recommendations have also been made that, where possible, the orthodontist should be 'on-site' when the therapist is working, as treatment plans may need to be revised during treatment. At a minimum, the orthodontist therapist should be following a written prescription.⁶ There have been increased incidents whereby orthodontic therapists are being left alone, which has led to increased concern.⁷ This can have adverse consequences both for the dental professionals involved and, most importantly, the safety of the patient.

It is also important to note that in orthodontic emergencies the guidelines do mention that the orthodontic therapist may be required to carry out 'limited treatment in the absence of the dentist' in order to relieve pain or make the appliance safe.⁵

It is very important for all those involved (orthodontic therapists and their supervisors) to follow the British Orthodontic Society guidelines on supervision.

Who can train?

It is essential that the applicant has one of the following qualifications:

- The National Examining Board for Dental Nurses [NEBDN] National Certificate examination, plus 24 months' experience
- The S/NVQ Level 3 in Oral Healthcare: Dental Nursing awarded by an approved NVQ or SVQ provider
- A Certificate of Proficiency in Dental Nursing awarded by a recognised dental hospital
- The Certificate of Higher Education in Dental Nursing offered by the School of Professionals Complementary to Dentistry, at the University of Portsmouth
- BTEC National Diploma Dental Technology
- SQA Higher National Certificate in Dental Technology
- Degree in Dental Technology
- City and Guilds Final Certificate in Dental Technology
- BTEC National Diploma in Science [Dental Technology]
- BTEC Diploma in Dental Technology
- SCOTVEC Higher National Certificate in Dental Technology
- Edexcel BTEC Higher National Certificate
- Army – Levels 1, 2 and 3 [Dental Technology]
- Qualifications awarded by Technicians Education Council or Scottish Technicians Education Council
- Any qualification determined by the GDC to entitle the holder to register as a dental hygienist or dental therapist.

'TRAINEES MUST BE EMPLOYED IN AN

ORTHODONTIC SPECIALIST PRACTICE OR

ORTHODONTIC DEPARTMENT IN A HOSPITAL...'

Being an orthodontic therapist

What is the role of an orthodontic therapist?

The duties that orthodontic therapists are permitted to perform are outlined in the General Dental Council (GDC) document *Scope of practice*.⁴ Here it confirms that they may carry out certain parts of orthodontic treatment under prescription from a dentist competent in orthodontics.

These include:

- Carrying out Index of Orthodontic Treatment Need (IOTN) screening either under the direction of a dentist or direct to patients
- Cleaning and preparing tooth surfaces ready for orthodontic treatment
- Placing brackets and bands
- Preparing, inserting, adjusting and removing archwires previously prescribed or, where necessary, activated by a dentist
- Taking impressions and pouring, casting and trimming study models
- Clinical record taking: intra and extra-oral photographs, dental impressions, occlusal records and face bow records where required
- Inserting passive removable appliances (such as space maintainers or retainers) and active removable appliances that have been adjusted previously by a dentist. This includes headgear and facebows that have been previously adjusted to fit by a dentist

- Removing sutures after the wound has been checked by a dentist.

What is not permitted?

Orthodontic therapists are not allowed to diagnose or provide any form of treatment plan for patients, and are not allowed to activate any part of a removable appliance. They are also not permitted to remove subgingival calculus, administrate local anaesthesia, re-cement crowns, and place temporary dressings. They are also not allowed to undertake anything that is irreversible, such as interproximal reduction, which involves removal of enamel.

What about supervision?

There are specific guidelines that have been produced in 2012 by the British Orthodontic Society and the Orthodontic National Group (ONG) regarding the supervision of qualified orthodontic therapists.⁵ These guidelines clearly state that an orthodontic therapist 'should see a patient unsupervised only where the dentist writes a clear prescription in the notes and the orthodontic therapist should not change this'. The guidelines clarify this further by saying that 'in the event of any query then no treatment should be undertaken and a further appointment made to see the supervising dentist'.⁵ These guidelines also list which procedures they suggest require clear written prescription and no direct supervision. It also

Table 1 Comparison of the different orthodontic therapy courses across the UK

Centre	Fee	Examination	Duration	Intake
University of Central Lancashire (UCLan)	£13,500	Internal exam at UCLan	1 year An initial 2-week training block in July at UCLan, 3-week training block in September followed by 12 study days throughout the year Workplace training in an approved orthodontic practice or department	16
Yorkshire	£13,000	FDS RCS (England) Diploma in Orthodontic Therapy	1 year (or 18 months part time) An initial 4-week training block at Leeds Dental Institute followed by 8 study days Workplace training in an approved orthodontic practice or department	12
Manchester	£12,000	RCS (Edinburgh) Diploma in Orthodontic Therapy	1 year 1 week preliminary induction in June, 3-week core training programme in August, followed by 10 additional study days Workplace training in an approved orthodontic practice or department	10
University of Bristol	£13,000	RCS (Edinburgh) Diploma in Orthodontic Therapy	1 year Initial 4-week core course then 12–15 study days at University of Bristol Dental Hospital Workplace training in an approved orthodontic practice or department	12
King's Health Partners (Guy's and St Thomas' Hospital NHS Foundation Trust, King's College Hospital NHS Foundation Trust and King's College London)	£13,000	RCS (Edinburgh) Diploma in Orthodontic Therapy	1 year 4-week intensive core teaching programme (first two weeks will be spent at Guy's Hospital and the second two weeks at King's Hospital) Thereafter, students return to the training centre 2 days a month Workplace training in an approved orthodontic practice or department	8
University of Warwick	£12,670	Internal exam at the University of Warwick	1 year Initial 20-day core course over 8 weeks 12 additional teaching days over the next 30 weeks Workplace training in an approved orthodontic practice or department	10
Edinburgh Postgraduate Dental Institute	£8,000 for student orthodontic therapists working within the NHS in Scotland and £12,500 for any students working outwith NHS Scotland.	RCS (Edinburgh) Diploma in Orthodontic Therapy	1 year Initial 20-day core course over 4 weeks 10 additional teaching days (approximately one day per month) Workplace training in an approved orthodontic practice or department	8

Trainees must be employed in an orthodontic specialist practice or orthodontic department in a hospital as the majority of their training will be carried out in their workplace. It is important to also have manual dexterity, good communication and team-working skills and good basic IT skills. Professionalism is also paramount, having a compassionate nature towards patients, being hard-working and having the ability to work under pressure. Although it is not essential, most courses feel it is desirable to have a minimum of two years' experience in clinical orthodontics.

What are the requirements of your trainer?

It is essential that the trainer is registered on the Specialist List of the GDC in Orthodontics. This is a usual requirement of the course indemnifiers. They need to undertake appropriate training and be physically available to supervise the trainee for every patient of every visit. There is also a need to provide appropriate nursing and administrative support.

The training pathway

Training takes place in both a teaching centre and in the workplace. There are currently seven orthodontic therapy courses recognised by the GDC in the UK (Table 1).⁸

The courses are 12 months and are usually full time although there is some scope to offer part-time training over a longer period pro-rata. It comprises of an initial four-week core course at the teaching centre followed by 8–20 additional study days throughout the year. Concurrently, workplace-based training will be carried out at an approved practice. The process differs for each course, but usually involves completing defined modules, end-of-module assessments, a variety of work based assessments, a portfolio and a project before being eligible to apply for the Diploma in Orthodontic Therapy examination (usually after at least 80% of the training has taken place).

The trainer must be on the orthodontic specialist list and has certain obligations that must be fulfilled to ensure indemnity requirements and GDC regulations are met. It goes without saying that the trainer must have high clinical and ethical standards and provide a wide range of treatment. The trainers need to undertake Training the Trainers courses, teaching them how to teach on the course and be familiar with the learning outcomes and methods of assessment for the students on the courses.

Case reports

We interviewed three people involved in orthodontic therapy: Jodie Welsh (qualified orthodontic therapist), Kerryl Chadwick (student orthodontic therapist) and Matthew Clare (specialist orthodontic practitioner and trainer on the Yorkshire Orthodontic Therapy Course). They share their experiences of orthodontic therapy.

process in the past. What was a relief as well was that I financially was not affected as I was still being paid whilst I was training.

At first I wasn't so sure whether I was capable of achieving where I am today. I am so glad that I took the jump because it is so rewarding being here thinking I've done this, I've played a part in changing her smile. To be given the honour of treating your own patients and seeing the end result is so worthwhile.'

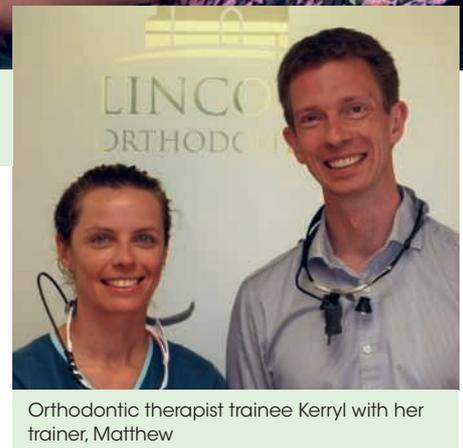


Qualified orthodontic therapist Jodie (left) with her consultant Simon Littlewood, a patient and colleague

1. Qualified orthodontic therapist Jodie Welsh

Jodie Welsh, a dental nurse, became one of the first in Leeds to qualify as an orthodontic specialist. She currently works at St Luke's Hospital in the orthodontic department and is one of the graduates of the Yorkshire Orthodontic Therapy Course run at the Leeds Dental Institute.

'I found the training brilliant, hard but brilliant! I must admit though, I found the academic side challenging but there is so much support that I can't think of anything negative to say about the course. I have to also add that you meet great friends on the course that I still talk to today. What's even greater now is that there are a lot more orthodontic therapists who are now teaching the course which really helps as they gives you tips and you can relate to them as they have been through the same



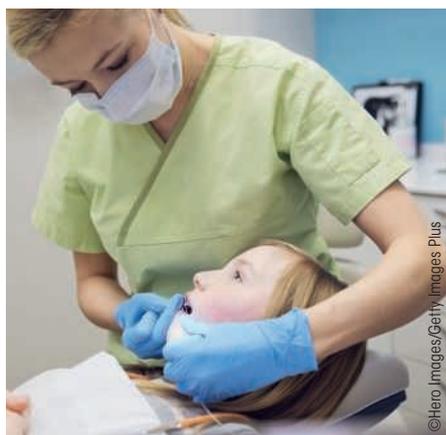
Orthodontic therapist trainee Kerryl with her trainer, Matthew

2. Orthodontic therapist trainee Kerryl Chadwick

Kerryl Chadwick is an orthodontic therapist trainee who started the Yorkshire Orthodontic Therapy Course in July 2015 and is currently training at Lincoln Orthodontics.

'I used to be a dental nurse and one day the practice principal suggested the idea of doing the orthodontic therapist course. At first what worried me the most was whether I had the dexterity to be able to put my hands

into someone else's mouth! I only had a dental nursing background so I've never been exposed to this. It's such an intricate procedure that I've never done before and they make it look so effortless. I was also worried about the commitment that it involved and the studying that came with it; I thought I'm too old for this! But I plucked up the courage and I can tell you that the four-week course we did at the beginning was amazing. It's like you go in as a dental nurse and you literally come out of it as an orthodontic therapist. There's just so much



©Hero Images/Getty Images Plus

'I AM SO GLAD THAT I TOOK THE JUMP

BECAUSE IT IS SO REWARDING BEING HERE

THINKING I'VE DONE THIS, I'VE PLAYED

A PART IN CHANGING HER SMILE'

support and help. It's crazy when I look back and see how far I've come. We used to go in every day and had loads of practice, including on the phantom heads. We had to live together for a month so it was a great experience and we bonded so well. The structure of the course is brilliant because they test us regularly so it's like they drill the information into you and you build so many new skills – doing presentations, working with IT, and generally building your confidence. Then after this month is over you go back to your practice and put everything you learnt into practice. You get longer time slots at first, which is really helpful because you gradually settle in and what's great is that my trainer also had a lighter diary at first. So you constantly feel he's around to support you.

To be honest, the transition was quite smooth and a lot better than I thought it would be. The patients appreciate what you are doing so much because you are spending extra time with them, which they love! They feel they are getting more care this way. They are always so interested and constantly ask how I'm getting on with my training, which is lovely.

I would say what I enjoyed the most was being a student again; learning new things and getting that extra patient contact. I would encourage anyone and everyone to do this.'

3. Trainer Matthew Clare

Matthew Clare is a specialist orthodontist and a practice owner. He is also currently training Kerryl at his practice.

'Training is great. You get to know your student better, spend longer with patients and expand your techniques. Everything you do, you try to do it at an exemplary standard so that you are a great example to your trainee so it not only benefits them but me as well. And it's great in the long run; patients absolutely love getting that extra time spent on them. Your overall communicated message is that you are investing in patient care. So it's a fantastic opportunity for everybody – practice, patients and therapists. I would recommend trainers to go for it because it's worked so well for me in the long run. I would also say to those who want to take this leap and thinking of becoming an orthodontic therapist then you've got to be brave, keen to learn, open and honest to yourself. It's definitely worth it.'

All in all, orthodontic therapy is currently the newest and one of the most exciting dental roles. It has been around for nearly ten years in which time it has significantly increased the orthodontic workforce and in many areas has led to a specialist led orthodontic service.⁹ More research is required to quantify exactly what the impact has been in introducing orthodontic therapists into the workforce.¹⁰

It must be noted though that this change has also allowed specialist orthodontists to concentrate their time on diagnosis, treating more complex malocclusions, whilst still maintaining a specialist led service for more routine cases. By a better use of skill mix, the introduction of orthodontic therapists has

ultimately created the possibility of improved patient care within existing resources, which is the drive for every dental professional.

Furthermore, in some areas where there has been a historical shortage of specialists, it has improved access to a specialist led orthodontic service.¹⁰ The introduction of orthodontic therapists has given a definitive career pathway for dental nurses with an interest in orthodontics, which is a valuable asset to this speciality.

1. British Orthodontic Society. Joint response of the British Orthodontic Societies to the Nuffield Enquiry into personnel auxiliary to dentistry. *Br Dent J* 1993; **174**: 182–183.
2. Bain S, Lee W, Day C J, Ireland A J, Sandy J R. Orthodontic therapists – the first Bristol cohort. *Br Dent J* 2009; **207**: 227–230.
3. Stephens C D, Keith O, Witt P, Sorfleet M, Edwards G, Sandy J R. Orthodontic auxiliaries – a pilot project. *Br Dent J* 1998; **185**: 181–187.
4. General Dental Council. *Scope of practice*. 2013. Available at: <http://www.gdc-uk.org/Newsandpublications/Publications/Publications/Scope%20of%20Practice%20September%202013.pdf> (accessed August 2016).
5. British Orthodontic Society and Orthodontic National Group. Guidelines on supervision of qualified orthodontic therapists. 2012. Available at: <http://www.bos.org.uk/Resources/British%20Orthodontic%20Society/Autor%20Content/Documents/PDF/Supervision%20of%20orthodontic%20therapistsBoard%201212.pdf> (accessed August 2016).
6. Littlewood S, Hodge T, Knox J *et al*. Supervision of orthodontic therapists in the UK. *J Orthod* 2010; **37**: 317–318.
7. Hodge T. Orthodontic therapists: a challenge for the 21st Century. *J Orthod* 2010; **37**: 297–301.
8. Storey M, Mitchell M. Orthodontic therapists. *Faculty Dent J* 2015; **6**: 1.
9. Hodge T, Parkin N. The twenty-first century orthodontic workforce. *BDJ Team* 2015 Mar 1; **1**: 15031.
10. Hodge T, Scott P, Thickett E. Orthodontic therapists and their integration into the orthodontic team. *Orth Update* 2015; **8**: 14–17.

bdjteam2016154

First aid

in the dental practice

Phil Jevon¹ provides an update on first aid for the dental team.

Introduction

First aid, defined as the initial assistance or treatment provided to someone who is injured or suddenly taken ill, covers a wide range of scenarios from simple reassurance following a minor mishap to dealing with a life-threatening emergency. Dental professionals may need to provide first aid in their dental practice to a patient, relative or member of staff.

The aim of this article is to provide an overview to first aid in the dental practice.

Priorities of first aid

The priorities of first aid are to:

- Call 999 for an ambulance in a timely manner (if required)
- Ensure the safety of the casualty and work colleagues is maintained
- Keep the casualty alive: attention to airway, breathing, circulation, disability and exposure is paramount
- Prevent the casualty from deteriorating
- Promote the recovery of the casualty
- Provide reassurance and comfort to the casualty.

Responsibilities when providing first aid

Remember the golden rule: 'first do no harm' while applying the term 'calculated risk'.¹

Responsibilities when providing first aid include:

- Assessing the situation quickly and safely
- Ensuring appropriate help is summoned
- Protecting the casualty and others from possible harm
- Identifying, as far as possible, the cause of the illness or the nature of the injury
- Providing first aid within your own sphere of expertise and competence
- Ensuring that any first aid provided follows current and up-to-date guidelines where appropriate
- Minimising the risk of cross-infection
- Reporting observations/findings to those taking over the care of the casualty
- Adhering to the GDC's *Standards for the dental team*²
- Maintaining the casualty's confidentiality following GDC's guidelines
- Obtaining the casualty's consent (if possible) before administering first aid.³

Assessment of the casualty

Safe approach

The initial priority is always to check for any dangers. Approach the casualty carefully,

ensuring there is no danger to either the rescuer or to him/her: look out for hazards, for example, electricity, fire and traffic. Measures should be taken to minimise the risk of cross infection.

Primary survey

Once it is deemed safe to approach, the priority is then to assess the casualty for life-threatening conditions and provide life-saving treatment as required. This phase, often referred to as the primary survey, involves assessing:

- Airway
- Breathing
- Circulation
- Disability
- Exposure.

Secondary survey

Once it is established that the casualty is out of immediate danger, perform a secondary survey. Depending on the situation, this could involve:

- Taking a history
- Looking for external clues
- Ascertaining the mechanics of injury
- Assessing signs and symptoms
- Head to toe survey.¹

Definitive care

Depending on the scenario, definitive care could involve:

- Providing advice only
- Advising the casualty to visit their GP
- Arranging transport to take the casualty to hospital
- Calling 999 for an ambulance.

¹Walsall Healthcare NHS Trust, Manor Hospital Walsall

Fig. 1 First Aid in the Workplace poster. An A3 poster can be downloaded from <http://bit.ly/2bzLKfk>



FIRST AID IN THE WORKPLACE

Walsall Healthcare  NHS Trust

Suspected Heart Attack



Signs may include:

- Central crushing chest pain
- Pain may spread to arms, throat, jaw, shoulders, back or stomach
- Shortness of breath & sickness
- Pale skin & sweating

Action: call 999, comfortable position

Faint



- Lie flat
- Raise/support legs
- Loosen clothing

Severe Bleeding



- Apply pressure
- Elevate wound
- Lie flat, raise legs
- Keep warm

Eye Injury



- Lie flat, support head
- Advise patient: keep 'good eye' still
- Dressing over injured eye
- Call 999

Choking



- Encourage to cough
- Up to 5 back blows
- Up to 5 abdominal thrusts
- Repeat above if necessary
- Call 999

Minor Burns / Scalds



- Cold running water (at least 10 mins)
- Remove constrictions
- Cover (clean, non fluffy material)
- Seek medical help if necessary

Stroke: Act FAST

- FACIAL weakness: smile? mouth or eye drooped?
- ARM weakness: raise both arms?
- SPEECH problems: speak clearly and understand what you say?
- TIME to call 999

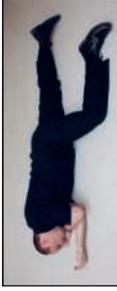
Convulsions

- Remove hazards/cushion head/loosen clothing
- Usually call 999; post convulsions: recovery position

Asthma

- Sit up/forwards, relief inhaler
- Call 999 if necessary

Unconscious, breathing normally



- Recovery position
- Call 999

Adult Basic Life Support



Unresponsive and not breathing normally





Call 999 and ask for an ambulance

30 Chest compressions



2 Rescue breaths



Continue CPR 30:2



As soon as AED arrives switch it on and follow instructions



Acknowledgements: Poster designed as an aide-memoire by Phil Jevon, Resuscitation Officer, Walsall Healthcare NHS Trust • Poster checked by Mr N Rashid & Miss R Joshi, A&E Consultants, Walsall Healthcare NHS Trust
 Poster sponsored by Cuxson Gerrard & Co Ltd. For all first aid supplies: 0121 544 7117 or www.firstaidfast.co.uk, Simrun Rehsi, Undergraduate BSc Computing for Business (ITMB), Aston University, Birmingham for her IT support
Adult basic life support algorithm reproduced with kind permission of the Resuscitation Council (UK), London
References: Resuscitation Council UK (2015) www.resus.org.uk, St John Ambulance (2015) www.sja.org.uk, British Heart Foundation (2015) www.bhf.org.uk & Stroke Association (2015) www.stroke.org.uk
OFQUAL accredited First Aid Courses run at Walsall Healthcare NHS Trust: www.thewha.co.uk for further information. • Poster can be downloaded from www.firstaidfast.co.uk
 WALSALL HEALTHCARE NHS TRUST JANUARY 2016

www.nature.com/BDJTeam

BDJ Team 20

Calling for an ambulance

If it is necessary to call for an ambulance: dial 999 (or 112) to alert the emergency services and request the service required (usually ambulance). The following information is important:

- Name
- Telephone number
- Exact location of the dental practice
- Time of the incident
- Exact details of the incident; if it is relevant the number of casualties, their age and sex and any information known about their condition
- If appropriate, details of any hazards for example, gas and toxic substances.

Measures to minimise the risk of cross infection

Take measures to minimise the risk of cross infection, for example, hand-washing and wearing disposable gloves. Blood is the single most important source of the transmission of HIV and hepatitis B virus and universal precautions should be taken to avoid bodily fluids. Care with sharps is paramount as both HIV and the hepatitis B virus have been contracted by healthcare workers following needlestick injuries.

- If there are any electrical security entry phones/locks, open the doors manually.⁴

Low voltage electricity

Injuries caused by electricity can potentially occur in the dental practice resulting from contact with a low-voltage domestic current, usually due to a faulty switch or appliance. The presence of water presents additional risks. The electrical contact needs to be broken.

Switch off the current at the mains or meter point if it can be easily reached; otherwise remove the plug or wrench the cable free.¹ If unable to reach the plug, cable or mains:

- Stand on some dry insulating material, for example, telephone directory, wooden box
- Using a wooden object, for example, broom, push the casualty's limbs away from the electrical source or push the latter away from the casualty. Do not use anything metallic
- If the casualty still remains attached to the electrical current, carefully loop some rope around their ankles and pull them away from the source.³

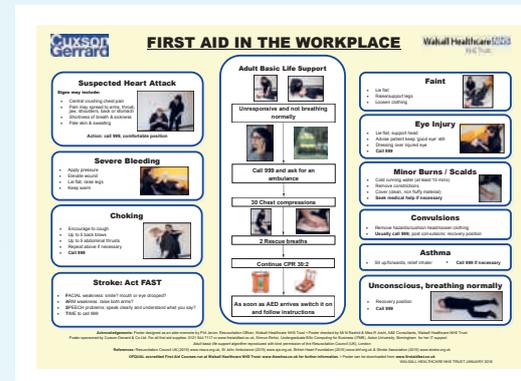
Fire

- Raise the alarm: activate the nearest fire alarm and warn people who are at risk; call

- for help, and remain close to the floor; if possible block any gaps under the door
- Even if it is dark, don't turn on the light as this may cause an explosion
- If clothing is on fire: stop, drop and roll: stop the casualty from running around as this can fan the flames – drop him to the floor and if possible quickly wrap him in a heavy fabric, for example, woollen blanket (do not use anything synthetic) – roll the casualty gently along the floor until the flames are extinguished.¹

First Aid in the Dental Practice poster

The new First Aid in the Dental Practice poster (Fig. 1, thumbnail below, see previous page for readable size) has been designed as an *aide mémoire* for dental staff to provide basic first aid in the dental practice.



Conclusion

First aid can cover a wide range of scenarios ranging from simple reassurance following a minor mishap to dealing with a life-threatening emergency. When providing first aid, it is important to remain calm and focused on the priorities. An overview to the principles of providing first aid in the dental practice has been provided.

1. St John Ambulance. *First aid manual*, 10th ed. London: Dorling Kindersley, 2014.
2. GDC. *Standards for the dental team*. London: GDC, 2013.
3. Jevon P. *Medical emergencies in the dental practice*, 2nd ed. Oxford: Wiley Blackwell, 2013.
4. British Gas. *Emergency numbers*. Available online at <http://www.britishgas.co.uk/emergency-numbers.html>

Did you see our earlier article from Phil Jevon about resuscitation? It was published in *BDJ Team* in July and is available to read at the following link: <http://www.nature.com/articles/bdjteam2016120>

bdjteam2016155

‘REMEMBER THE GOLDEN RULE: “FIRST DO NO HARM” WHILE APPLYING THE TERM “CALCULATED RISK” – REMAIN CALM AND FOCUSED ON THE PRIORITIES’

Environmental hazards

There are a number of environmental hazards that may be encountered when providing first aid including, gas, electricity, fire and poisoning.

Gas

If there is a smell of gas, if a gas leak is suspected or if there are concerns that fumes containing carbon monoxide are escaping from a gas appliance:

- Call the National Gas Emergency Service immediately on 0800 111 999
- Open all doors and windows to ventilate the property and disperse the gas
- Do not turn on/off any electrical switches (including the doorbell)
- Extinguish all naked flames, do not smoke, strike matches or do anything which could cause ignition

999 (or 112) for the fire and rescue services

- Vacate the building following the fire escape route if appropriate; ensure all staff, patients etc meet at assembly point. Undertake roll call
- Don't use a lift – if the electricity fails the lift may abruptly stop working; also the lift shaft can act like a chimney, sucking up flames and fumes
- If in a room full of smoke, remain close to the floor and if possible cover the nose and mouth with a damp cloth or towel
- Close doors on a fire
- Never open a door that is hot or has hot handles – this suggests that a fire is raging behind it
- If unable to find an escape route, locate a fire-free room that has a window; shut the door, open the window and call out

Free CPD available for DCPs

Register on the CPD Hub now and start gaining complimentary CPD.

Courses available:

10 hours verifiable CPD

CORE

3 hours verifiable CPD

CORE

3 hours verifiable CPD



BDI Publication
BDI Team



Child protection and
the dental team



CANCER RESEARCH UK
BDA

Oral cancer
recognition toolkit

Certificates will be awarded upon completion.

cpd.bda.org



Mobile | Tablet | Desktop

Why are vulnerable children not brought to their dental appointments?

By **D. Simons**,¹ **N. Pearson**¹ and **A. Dittu**¹

ABSTRACT

A considerable number of children with an oral healthcare need under 16 years of age are not brought to their Barts Health Special Care Community Dental Service (BHSCCDS) appointments. The BHSCCDS needed to understand more about why parents/carers (parents) were failing to bring their children, in order to identify appropriate strategies to reduce the non-attendance.

Thus, an audit was conducted to assess the number, frequency and reasons for all missed appointments (MA); this included feedback conversations with dental staff and parents. Information obtained from this cohort of high-risk children's families through personal, respectful and supportive contact improved understanding of the parents' individual and collective issues and led to recommendations that could reduce the number of MA in the future.

INTRODUCTION

The policy document from the British Society of Paediatric Dentistry (BSPD) on dental neglect¹ defines it as 'the persistent failure to meet a child's basic oral health needs, likely to result in the serious impairment of a child's oral or general health or development'. The policy outlines the need for regular dental care for children to enable them to benefit from preventive interventions, and early diagnosis and treatment of dental disease. It explains young children are dependent on parents or carers to meet these needs and that oral disease can have a significant impact on the health of children; consequences of disease include severe pain, loss of sleep, time off school and

interference with playing and socialisation.¹ The policy highlights a feature of particular concern: that is the failure of parents to respond to offers of acceptable and appropriate treatment. In some instances, failed dental appointments can indicate family vulnerability and potential threats to children's welfare, thereby raising questions about child safeguarding. The policy states the most vulnerable children are: 'disabled children', 'looked-after children', those from 'homeless families, travelling families, refugees and asylum seekers, and children of parents with chronic health or mental health needs';¹ the exact 'special care' children for whom the BHSCCDS provides dental care for, in the inner London areas of Tower Hamlets and City and Hackney. The BHSCCDS sees children on referral from general dental practitioners, healthcare workers, social services, outreach

programmes, special schools and self-referral if the child meets the special care criteria.

A challenge the BHSCCDS faces in providing dental treatment for these children is overcoming the problems of poor attendance. The service agrees with the policy document that dental treatment planning should be 'realistic and achievable'.¹ Unnecessary demands should not be placed on the family to attend multiple appointments where it is avoidable nor to travel long distances for dental care when it could be provided locally, either in fixed clinics or from a mobile dental unit.² If dental anxiety is thought to be the underlying reason for failure to complete treatment, then an appropriate choice of anxiety management techniques is available¹ and inhalation sedation is often used. However, within the service, approximately

¹Barts Health Community Dental Services, Barts Dental Services and OMFS, London

12% of children's dental appointments are missed (missed appointments [MA]), either cancelled on the day or failed. This is comparable to the 12.2% of hospital outpatient appointments for children and young people in England not attended;³ high MA rates in NHS dental practice⁴ and 11% lost appointments in dental practice for children in Sweden.⁵

MA are problematic not only because they incur financial costs to health services, increase waiting times and are potentially detrimental to family-provider relationships, but also because children often still require treatment and so are at risk of avoidable negative health outcomes. Children have a fundamental right to access healthcare and do not themselves choose to miss appointments. However, BHSCCDS does not assume that a MA is always an indication of neglect or raise a safeguarding concern. There may be valid reasons for the failure to attend: families may not receive appointments or they change their address, and special care children with multiple health needs often need to attend multiple appointments at diverse locations.

Previous research has reported that paediatric outpatient non-attendance is more likely in lower socioeconomic groups⁶ and in families with 'diffuse social problems'. Appointment-related factors are also important: with non-attendance less common in specialist clinics, such as cardiology, longer waiting times increase missed appointments, and non-attenders are more likely to travel by means other than car, have longer journey times, have more appointments per year, or receive their appointment by post rather than in person.^{5,6} Non-attendance has been related to parents' perceptions: for example, when they disagree with the need for referral, are fearful of consequences such as unwanted diagnoses, or believe the costs of attending outweigh the benefits. Parental beliefs about children's health seem particularly important, with 'child now well' the most commonly reported reason for non-attendance in one study.⁷ A Cochrane review reported that parents usually made a conscious decision about attending, balancing the perceived advantages and disadvantages of doing so, and their assessment of the severity of the child's illness was crucial in this.⁸

The target for MA set by the BHSCCDS commissioners is 7.5% and the BHSCCDS has a number of strategies in place to try and attain this, such as letters, text reminders, and 'ring and reminds', but the rate remains high. The BHSCCDS needed to understand more about why parents were failing to bring their children to booked appointments in

order to identify appropriate strategies to reduce the MA rate. A retrospective audit was proposed to assess the number, frequency and reasons for MA, affecting children at a large six-surgery site, for the 12-month period (1 August 2013 to 31 July 2014) using clinical records, appointment records and feedback from dental staff and parents. Obtaining parental feedback was core to the service audit, as Darzi⁹ proclaimed: 'If quality is to be at the heart of everything we do, it must be understood from the perspective of patients'.

The aim of this service audit was to measure the BHSCCDS MA rate against the MA target and to develop recommendations, to attain the target which would be actioned and then re-audited for success or failure. It was hoped that seeking information from this cohort of high-risk children's families through personal, respectful and supportive contact would improve the services understanding of the individual and collective issues parents face, and may decrease anxiety that parents may have about seeking care for their children.

'IN SOME INSTANCES, FAILED DENTAL

APPOINTMENTS CAN INDICATE FAMILY

VULNERABILITY AND POTENTIAL

THREATS TO CHILDREN'S WELFARE...'

The white paper *Equity and excellence: liberating the NHS*¹⁰ focused on an NHS 'genuinely centred on patients and carers' and that 'gives citizens a greater say in how the NHS is run'. Patient feedback is crucial to the BHSCCDS, the role of the patient is no longer as a passive recipient of care, and the NHS encourages patient involvement in the design, planning and delivery of health services. The real test of performance must be the views and experiences of its users. By asking patients in a rigorous, systematic fashion about their experiences of care and treatment, healthcare services can be accurately measured and improvements made.

Methods

From the patient database the date and details of all child dental appointments, type of treatment, MA information, dentists seen, contact details and how they had been reminded about the appointment were recorded. Data were excluded if there was any missing information. A BHSCCDS staff member, trained in patient feedback techniques, attempted to contact parents of all children with a MA in the 12-month period, on at least three occasions, by mobile phone, and using a structured format with open ended questions recording the reasons parents gave for MA. The parents were also

Table 1 Pattern of appointments for the 103 children who miss appointments but did not attend

The appointment scenario	Pattern of MA	Range of allocated appointments
68 (66%) children completed treatment	482 appointments booked	2-14
	142 (29.5%) failed	1-5
	54 (11.2%) cancelled	0-4
27 (26%) children still under treatment	163 appointments booked	1-18
	48 (29.5%) failed	1-3
	16 (9.8%) cancelled	0-5
8 (7.7%) started treatment but failed to complete	31 appointments booked	2-8
	17 (54.8%) failed	1-3
	2 (6.5%) cancelled	0-1

specifically asked what the BHSCCDS could do to encourage them to bring their children to appointments. A mobile phone was used as the clinic phone numbers are withheld and past experience has shown that withheld numbers are not answered by parents. As a consequence audio recording could not be done and the information was recorded by both the interviewer and an assistant listening in. The notes were compared for correctness. The parent was told that their feedback was being noted anonymously. The data were stored anonymously on an Excel spreadsheet on a password protected computer and were analysed to identify any themes. The findings were presented to all clinical and non-clinical BHSCCDS staff to ascertain their feedback on the MA rate and how to reduce it to attain the 7.5% target. The collective recommendations from parents and staff were collated and implemented where possible. A re-service audit is planned for 2015. Ethical approval was not sought for the audit and service evaluation according to Health Research Authority guidelines.¹¹

Results

A total of 1,789 appointments were booked for 467 children (average age 9.1 years, 244 [52%] females, 223 [48%] males) in the BHSCCDS clinic over the 12-month period, of which 374 (21%) were MA, (286 [16%] were not attended and 88 [5%] were cancelled on the day), approximately a loss of 280 clinical hours.

One hundred and sixty-four of these children (35%) had at least one MA (average age 9.1 years, 83 [51%] females, and 81 [49%] males). For the 303 (65%) children who were brought to all their appointments, they had 658 appointments, an average of 2.2 per course of treatment (range 1-11). For the 35% with MA, 757 appointments were booked, an average 4.6 appointments per course of treatment (range 1-18).

Sixteen parents cancelled (9.8%) their child's first appointment and then rebooked, 49 (29.9%) failed the first appointment and never rebooked, seven (4.3%) failed the first two appointments and never rebooked, four (2.4%) failed the first three appointments and never rebooked and one (0.6%) failed the first four appointments and never rebooked, so 61 (37%) children were never seen by the BHSCCDS.

One hundred and three children had MA but still attended and the pattern of their appointments can be seen in Table 1. The MA pattern was not related to the day of the week, morning or afternoon, the type of treatment, use of inhalation sedation, or the dentist seen. The

Table 2 Mobile phone contact with parents

	Contact scenario
81 (49%) unable to contact	28 (17%) unable to contact as no number or line was dead.
	55 (33%) tried to contact 3 times, 8 no answer and 47 left voicemail
83 (51%) were contacted	18 (30%) of the parents of children who never attended
	38 (56%) of the parents of children who completed treatment
	21 (78%) of the parents of children who were in treatment
	6 (75%) of the parents of children with incomplete treatment

Table 3 Feedback from parents of the 61 children who never attended

Number of parents (%)	Parent feedback themes
6 (33%)	'Didn't get the appointment'
4 (22%)	'The appointment wasn't needed' 'He wasn't in pain anymore so didn't need the appointment'
4 (22%)	'Forgot'
4 (22%)	Said they had attended but our records showed they hadn't

Table 4 Feedback from parents of the 103 children who had attended

Number of parents (%)	Parent feedback themes
14 (7%)	Said they hadn't missed an appointment, or couldn't remember missing one
27 (33%)	Said they had cancelled in advance when our appointments system showed 'failed to attend'
63 (76%)	Said they just forgot
6 (7%)	Said they didn't bring the child as they were no longer in pain, so didn't need appointment

Table 5 Methods through which parents requested appointment booking and reminders

Reminder method	Number of parents (total 83 interviews) (%)
Text	42 (50.6%)
Phone call	33 (39.8%)
A second appointment card via post	3 (3.6%)
Phone call and text reminder	5 (6%)

Table 6 Staff suggestions

Theme	Recommendations
Clinic flexibility/ mobile dental units	Late night appointments, half-term school clinics Saturday clinics, expanding use of the mobile dental unit New patient clinics, with two dentists in two surgeries with appointments 20 minutes apart, patients to attend 15 minutes before to complete registration.
Interaction with other healthcare workers/schools	Copy appointments to GDP, GP and school nurse Ask GDP/referrer if patient has MA with them More engagement MA letter to referrer/GP/GDP
Processes	Patient pathway manager who follows patients through the service Referral form to ask how patient wants to be contacted: text, phone, letter, email Correct contact details confirmed when referral received More strongly worded/more specific appointment letter and give information on the effect of MA on the service Make letter personal, say '.... is looking forward to seeing patient' An updated missed appointment policy for children which is sensitive to personal circumstances which precipitated the failure to attend (eg illness, personal stressors) Reception role defined Check contact details at each appointment Shortest time between referral and appointment Translated letters Transport service?
At first appointment	Outline importance of treatment to parents on the day of the examination Clinic boards to show number of MA each week Parent contract Dentist really engaging with parent about child's treatment needs and the importance of them attending Initial appointment with dental nurse who collects information on diet, discusses prevention, and then go to dentist. Overbook. Attempt to still see them if they are late

MA was not related to whether the reception staff spoke to the parent to remind them, left messages or were unable to contact them.

All 164 parents were contacted by mobile phone, of which 83 (51%) were available for feedback, and the scenarios are presented in Table 2. The responses from parents of children who were never brought to any appointments (61) are in Table 3 and those from parents of children who had attended (103) are in Table 4.

Sixteen MA occurred when the parent reported their child was ill. They didn't cancel, just failed to attend and 71 (85%) of parents recollected that they got reminder calls or messages for appointments. The verbal feedback from parents as to why children were not brought to appointments was mostly about forgetting appointments: 'sorry I forgot', 'oh! did I miss an appointment? Must have forgot [sic]', 'don't remember missing appointments but may have, I remember cancelling 1 or 2 as ***** unwell. I prefer phone call reminders. I love the service, the dentist was very patient with my daughter', 'I have problems bringing ***** to appointments. I work and have other children with things to go to, I would prefer text as often can't answer phone', 'I was unwell and couldn't bring ***** to appointment, I got another one in the post and he is still coming', 'I didn't know I had failed appointment.... I will rebook', 'I forgot appointment but was contacted by reception and rebooked...', 'I was busy. Hopefully will come to next one and you phoned me each time...', 'We had family problems, I am bringing him now', and 'it was his Dad's fault, I told him, but he forgot...'

Only two parents had negative comments: 'treatment took too long, would rather start treatment at first visit and not just exam. We are more likely to miss appointments if there are more of them' and 'took too long to get an appointment so went to another dentist'.

The recommendations from parents focused on how they wished to be both contacted and reminded about the appointments (Table 5). The recommendations from staff are presented in Table 6.

Discussion

There are obvious methodological difficulties in identifying the reasons for non-attendance in primary care. By definition, patients have not cooperated with an appointment system and so may feel less than comfortable participating in feedback which asks them the reasons why. Indeed, it may appear confrontational if not handled sensitively. The idea of using a mobile phone with a number

that was visible and not withheld was used for this very reason. The staff member, who phoned the parents, was very experienced in conducting patient feedback surveys, dealing with vulnerable patients and communities.

The average age and sex of the children who had MA matched those who had no MA and so it was valuable to ascertain why these particular children were not brought to all their appointments. It was seen from the audit that when children had MA it took twice as many appointments to complete a course of treatment. Feedback in this audit was obtained from phone interviews with 51% of the parents whose children had MA, and so is a representative sample of these families. The most common reasons vulnerable children missed appointments were: parents forgot, the child was ill or the appointment was no longer needed. This agrees with past research carried

may be an important influence in whether these patients feel able to attend for their appointments.

A big MA group was first appointments (61 children who never attended) and 41% of these had no valid contact number. The service audit revealed that lots of mobile numbers given by parents were non-functional. This suggests more contact details, for example, school contact details or other family member contact details, are required before appointments are booked, as well as confirmation that the appointment is still required and how parents want to be reminded. However, lots of children who miss appointments do then attend. The MA rate at 12–15% was focused on 35% of the children (with MA rates of 30–50%), yet despite this they still often completed a course of treatment. Izard¹⁴ showed that a

appointments and arranging an interview with the patients with the highest number of repeated MA. DuMontier *et al.*¹⁵ distributed a scripted discourse to receptionists, to be delivered to patients who miss appointments when they next contacted the clinic. The discourse communicated three points: making patients aware of their frequent MA, describing the effects on the clinic and the patient's health, and negotiating a commitment from the patient to improve appointment adherence. Clinicians also discussed these points with the patients, which provided insight not only into why patients found it difficult to keep appointments but also into their lives, giving the authors a sense of the struggle the patient faced in managing the complexity of family, money, emotional and physical health, and the patients' difficulties associated with the inability to schedule appointments in advance.

As highlighted in this service audit, parents' forgetfulness was one of the main reasons that children were not brought to appointments and their feedback requested repeat reminders in a variety of formats. Modes of communicating reminders for appointments to patients in the BHSCCDS already include face-to-face communication, postal messages, calls to landlines or mobile phones, and mobile phone messaging. The Cochrane review⁸ showed that mobile phone text messaging reminders increase attendance at healthcare appointments compared to no reminders or postal reminders. However, this may still be insufficient; eg, as a result of this audit, eight parents requested appointments for their children and were booked directly by dental staff during that conversation, followed up with a letter and a reminder phone call, yet only two appointments were kept.

This service audit was undertaken so BHSCCDS could examine patterns of attendance/MA and use feedback/parent engagement to improve uptake of dental care for the benefit of the child. Non-attendance is a complex issue and there are a lot of other factors involved that are not able to be addressed by a simple service audit. The interviewer took care not to challenge the reasons given by parents for MA because an audit is not a way to address or investigate changing parental values or beliefs. The aim in this first MA service audit was to identify reasons or barriers to attendance, address them and then re-audit. The children seen by BHSCCDS are 'special care' and their vulnerability to dental neglect by missing appointments and repeated non-attendance means BHSCCDS has a very robust safeguarding system in place and works

‘MOBILE PHONE TEXT MESSAGING REMINDERS

INCREASE ATTENDANCE AT HEALTHCARE

APPOINTMENTS COMPARED TO NO

REMINDERS OR POSTAL REMINDERS?’

out by Cosgrove,¹² which followed up 40 patients who failed to attend by visiting them at home within 24 hours of missing their appointment. The most common reasons for default were not being well enough to attend the surgery, resolution of symptoms and forgotten/muddled appointments.¹²

Appointment systems can be a barrier to healthcare and non-attendance may be a reflection of difficulty of access to services. Where there are problems in accessing healthcare, waiting lists for appointments get longer and this in turn leads to increased non-attendance. Appointment systems may be difficult to use for members of communities in areas of social deprivation or low socioeconomic class. Some patients have less predictable, chaotic lifestyles that are not easily compatible with a structured system. It has been shown that in deprived parts of the UK, there was little explicit support among parents for the restoration of asymptomatic carious primary teeth. Patients exempt from dental charges (mainly children) are more likely to fail to attend dental appointments.¹³ Although the attendance of children may be outside their control, the authors of that study hypothesised that factors such as poverty

small proportion of patients can comprise a disproportionately large amount of no-shows, implying that focusing on these patients might improve overall no-show rates. It may be hypothesised that missing appointments is just 'normal' for these families. The patient most likely to miss an appointment is one who is young, comes from a low socioeconomic group, has a large, unstable family and has previously broken appointments.¹⁵ In addition, this patient will most likely have no significant ongoing relationship with a single clinician, may have been scheduled for the appointment at a distant time, may have forgotten about the appointment or thought it was scheduled for another time, and will feel little sense of urgency about keeping the appointment. Improved communication between patient and clinician combined with personal interest and attention may produce a positive effect on the appointment-keeping behaviour.

In their feedback, the dental staff suggested pragmatic methods of appointment scheduling to reduce the disruptive effect of the MA, by predictive overbooking, elimination of the automatic reappointing of patients who have previously broken

closely with school nurses and health visitors, doctors, schools, social workers and the Barts Health safeguarding team. However, caution is needed as there is no baseline data for missed dental appointments among the 'healthy' child population and whether the 21% MA rate determined in this study is high or low. Therefore, it cannot be determined whether MA occur more frequently in families where there are concerns about safeguarding. Powell and Appleton¹⁶ suggest reconceptualising child and young person DNA 'did not attend' (DNA) to 'was not brought' leading (WNB) to 'positive interventions to safeguard and promote the welfare of children that go beyond the missed appointment to a move towards the child-centric practice'. They recommend that the healthcare team 'assess the reason for the WNB and consider its significance from the child's perspective. This means assessing the child or young person's needs, their possible vulnerability and the risk to their health and well-being'. The target of 7.5% may be unachievable but a re-audit will provide further valuable information. Negotiations with commissioners for a more appropriate target may be required for this vulnerable group.

Recommendations

If a parent makes an appointment and then fails to bring their child, how should the BHSCCDS respond? Time and limited resources are used up by pursuing non-attenders but should we behave paternalistically or in a way that breaches that parent's autonomy? The recommendations produced from this service audit and staff feedback aim for a patient-centred focus, to address the three main reasons parents gave for their vulnerable children missing dental appointments: forgotten appointments, appointment no longer needed and child illness.

They were broadly in two main categories:

- **Increased engagement with parents:** Before booking any appointments, aim to reduce perceived barriers by enhanced communication, explaining the service and the importance of oral health, using personalised letters, contacting support networks for the families and increasing parent motivation (for example, increased patient information and oral health advice)
- **Organisational changes:**
 1. Overbook new patient clinics and run them simultaneously so two dentists can work as a team to reduce lost clinical time
 2. Reduce the time between referral and booked appointment

3. Collect more patient information from the referrer
4. Repeat reminders (letter, email and telephone)
5. Introduce extended clinic hours and patient pathway reorganisation, including changes in recall systems.

The results from this audit confirm that although the BHSCCDS does a lot to encourage patients to keep appointments more needs to be done. Re-audit and further feedback from parents and staff after recommendations are put in place will be conducted.

1. Harris J C, Balmer R C, Sidebotham P D. British Society of Paediatric Dentistry: a policy document on dental neglect in children. *Int J Paed Dent* 2009; **14**: 1–8.
2. Simons D, Pearson N, Evans P. A pilot of a school-based dental treatment programme for vulnerable children with possible dental neglect: the Back2School programme. *Br Dent J* 2013; **215**: E15.
3. NHS Information Centre for Health and Social Care Hospital Outpatient Activity. April 2011–March 2012: Provider Level Analysis. Online information available at <http://www.hscic.gov.uk/catalogue/>

- 1996; **74**: 121–125.
7. Andrews R, Morgan J D, Addy D P, McNeish A S. Understanding nonattendance in outpatient paediatric clinics. *Arch Dis Child* 1990; **65**: 192–195.
8. Gurol-Urganci I, de Jongh T, Vodopivec-Jamsek V, Atun R, Car J. Mobile phone messaging reminders for attendance at healthcare appointments. *Cochrane Database Syst Rev* 2013; **12**.
9. Lord Darzi. *High quality care for all – NHS next stage review final report*. London: Department of Health, 2008.
10. *Equity and excellence: Liberating the NHS*. NHS White Paper. London: Department of Health, 2010.
11. Health Research Authority. Defining research. 2013. Guidance available online at <http://www.hra.nhs.uk/documents/2013/09/defining-research.pdf> (accessed July 2015).
12. Cosgrove M P. Defaulters in general practice: reasons for default and patterns of attendance. *Br J Gen Pract* 1990; **40**: 50–52.
13. Reekie D, Devlin H, Worthington H. The prevention of failed appointments in general dental practice. *Br Dent J* 1997; **182**: 139–143.
14. Izard T. Managing the habitual no-show patient. *Fam Pract Manag* 2005; **12**: 65–66.

**'EXPLAIN THE SERVICE AND THE IMPORTANCE
OF ORAL HEALTH, USE PERSONALISED
LETTERS, CONTACT SUPPORT NETWORKS
AND INCREASE PARENT MOTIVATION'**

- PUB09379 (accessed July 2015).
4. British Dental Association. Failure to attend. Online information available at https://www.bda.org/dentists/policy-campaigns/research/workforce-finance/gp/Documents/failure_to_attend_research_2010.pdf#search=failur%2520to%2520attend (accessed July 2015).
5. Hallberg U, Camling E, Zickert I, Robertson A, Berggren U. Dental appointment no-shows: why do some parents fail to take their children to the dentist? *Int J Paediatr Dent* 2008; **18**: 27–34.
6. McClure R J, Newell S J, Edwards S. Patient characteristics affecting attendance at general outpatient clinics. *Arch Dis Child* 1996; **74**: 121–125.
7. DuMontier C, Rindfleisch K, Pruszynski J, Frey J J 3rd. A multi-method intervention to reduce no-shows in an urban residency clinic. *Fam Med* 2013; **45**: 634–641.
16. Powell C, Appleton J V. Children and young people's missed health care appointments: Reconceptualising 'Did Not Attend' to 'Was Not Brought' a review of the evidence for practice. *J Res Nurs* 2012; **17**: 181–192.

This article was originally published in the BDJ in 2015 (Vol. 219 pages 61–65).

bdjteam2016156



Good oral health *and* orthodontic treatment belong together

Patients who receive orthodontic treatment often become adept at caring for their mouths.

By **Caroline Holland**

While parents focus on getting orthodontic treatment to improve their child's smile, the wider health benefits of around 18 months in appliances are often overlooked. The evidence shows that there are significant improvements to be gained.^{1,2}

In addition, there is anecdotal evidence from the dental professionals who care for this cohort of patients that those who are eligible for NHS orthodontic treatment become adept at oral hygiene and grow in confidence. In other words, there is a triple whammy of benefits. The reasons are clear:

If the clinician thinks you are not looking after your teeth, have poor oral hygiene or are eating and drinking the wrong sort of things – too many sweet snacks or fizzy drinks, for instance – you will not be offered treatment.

Furthermore, once you have started treatment, your dental health is constantly

monitored and if you do not take care of your teeth the appliances may be removed. According to Colin Wallis, this happens rarely because only well-motivated patients are selected at the outset and they are given a clear idea of the commitment needed to undertake treatment.

Colin is the British Orthodontic Society's Director of Clinical Practice and founder of the Specialist Orthodontic Practice in Epping. During more than 30 years in the practice, he has seen hundreds of young people pass through his doors, their lives enhanced by their treatment.

His training made a deep impression (excuse the pun!): 'When I did my postgraduate training at UCH in the 1980s, the head of department insisted that in order to be accepted for treatment all prospective patients had to see the hygienist three times and achieve a plaque score of less than 10%. This rule applied to all malocclusions, regardless of severity.'

'During treatment, plaque scores were recorded every six months and if they exceeded 10% patients were advised that appliances would be removed if scores remained high. This approach was set out in the informed consent and a few patients did indeed have their appliances removed mid-treatment.

PATIENTS NEED TO KNOW

THAT CLINICIANS WILL

NOT OFFER TREATMENT IF THEIR

MOUTHS AREN'T HEALTHY'

'Primarily, the aim was to minimise the risk of periodontal damage and decalcification, particularly with fixed appliances. It became increasingly clear, however, that many patients who had originally appeared with high plaque scores had carried their improved habits well beyond the end of treatment. Plaque scores were generally recorded during the retention period and the long-term periodontal benefits of an intensive period of oral hygiene supervision proved to be a very satisfying bonus.'

Tooth brushing clinic

Thirty years on, Colin continues to enjoy the same satisfying bonus of seeing young people learn to look after their mouths. Every year hundreds of patients complete treatment having grown in both stature and self-esteem. But some patients still struggle with their oral hygiene, which is why two of his orthodontic nurses, Jilly (who is also an oral health educator) and Kelly, took the initiative a few years ago to set up a weekly tooth brushing clinic. Patients who were turning up for appointments with too much plaque around their appliances, often with inflamed gingivae, would be booked in for a session.

Colin explains: 'A specific appointment is made with the two nurses, usually with two patients at a time for 15 to 20 minutes. The patients do not have an appliance adjustment on the same day, which reinforces the importance of the visit. The response from patients and parents has been very positive.'

Occasionally, parents want to join their children in the surgery and find out what they are being taught. But like his former head of department, Colin believes parents should wait outside and let their children take responsibility for their treatment.

'Schoolchildren see adults as authoritative and sometimes negative figures, but we aim to engage with them on a different level, treating them like adults and working together to complete treatment as efficiently as possible. In terms of compliance, tensions between patients and parents can surface in a clinical environment and at home. For example, in terms of oral hygiene, we avoid embarrassing patients in front of their parents. We discuss plaque control and diet on a one to one basis, discreetly shifting responsibility.'

The vast majority of patients are treated in the early permanent dentition stage but some malocclusions are associated with a significant skeletal discrepancy, which may require an orthognathic approach at a later stage. There may be additional complications, such as speech problems, and these patients may be advised to delay treatment until the late teens, when growth changes have reduced to a clinically insignificant level.³

Says Colin: 'By the time our patients have finished treatment, their oral health is generally



Left hand page: Kelly and a patient. Above: Oral hygiene instruction. Left: Colin Wallis, orthodontist, with Jilly and a patient

greatly improved. I often think back to my training and I have learned how important it is to insist on high standards of oral hygiene. Patients and their parents need to know that clinicians will not offer treatment if their mouths aren't healthy, or that appliances might be removed for the same reason.'

Jilly and Kelly teach the following:

- Take extra care when you brush your teeth and remember to brush for at least two minutes in the morning and evening, as well as after meals to remove food debris
- Always use a fluoride toothpaste and brush your teeth with small circular movements, being careful to go thoroughly around your appliance
- After using a regular brush, use small interdental brushes in between the teeth and around the fixed appliance brackets, under the wires
- Chew a disclosing tablet once a week to show the areas of your teeth that need more attention
- Use a daily fluoride mouthwash.

1. Davies T M, Shaw W C, Addy M *et al.* The relationship of anterior overjet to plaque and gingivitis in children. *Am J Orthod Dentofacial Orthop* 1988; **93**: 303–309.
2. Davies T M, Shaw W C, Worthington H V *et al.* The effect of orthodontic treatment on plaque and gingivitis. *Am J Orthod Dentofacial Orthop* 1991; **99**: 155–161.
3. Magalhaes I B, Pereira L J, Marques L S *et al.* The influence of malocclusion on masticatory performance. A systematic review. *Angle Orthod* 2010; **80**: 981–987.

Photos courtesy of the British Orthodontic Society. Photographer Nick Wright

bdjteam2016157

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.

A NEW LOOK FOR THE ALCOHOL FREE DISINFECTANT RANGE



Kemdent are pleased to announce a new look to the ChairSafe Disinfectant Alcohol Free range. The ChairSafe range has been an effective companion to dental nurses and dental practices since 2010, fighting the battle to protect patients and staff alike. Visit www.kemdent.co.uk and find out about ChairSafe in the 'Clinical Article Safe and clean ... the benchmark for compliance and Best Practice' featuring Sarah Bain from Bristol University.

ChairSafe is alcohol free and is specially formulated to clean sensitive surfaces and equipment, including the leather and synthetic facings of dental chairs. But it is also ideal for patient frequently touched surfaces eg door handles and work surfaces.

ChairSafe is effective against HBV/ HIV/HCV/BVDV/vaccinia, bactericidal and fungicidal microorganisms within one minute of application. ChairSafe disinfectant, if used correctly, will guarantee a safe inactivation of influenza A (H1N1) – viruses (pathogens of swine flu).

Why not try ChairSafe alcohol free disinfectant? The proven, highly effective, cost effective solution to cross infection control needs within the practice.

Visit www.kemdent.co.uk to take advantage of the special offers available. Contact Kemdent on 01793 770256 or email sales@kemdent.co.uk.

FORGET STRING FLOSS, USE WATER

Unlike string floss which recently hit the headlines due to a lack of evidence as to its effectiveness, the Waterpik Water Flosser has been clinically shown to remove plaque and reduce bleeding gums.

The first study into the Waterpik Water Flosser was conducted at the University of Nebraska in 2004 and showed up to 52% better improvement in gum health. To date there are a total of five clinical studies that compare the Water Flosser to string floss, consistently demonstrating that water flossing is more effective than string flossing for better oral health. Water flossing has also been shown to be up to three times as effective for removing plaque around braces and twice as effective for improving gum health around implants, compared to string floss.

Waterpik International, Inc. is a leader in innovative oral health adjuncts, offering a portfolio of Water Flossers clinically proven to benefit a wide range of patients' dental health. For more information on the science supporting its solutions and the products available, visit the website today.



For more information on Waterpik International, Inc. visit www.waterpik.co.uk. Waterpik products are available on Amazon, in Boots, Costco UK and Superdrug stores across the UK and Ireland.

HELPING INFANTS TO CUT TEETH



UK-made Bickiepegs Teething Biscuits for Children are a simple and natural antidote for infants' teething woes invented over 90 years ago.

Designed by a Harley Street paediatrician, the biscuits are designed to exercise a baby's jaw, develop their jaw muscles and also soothe teething pain. They are aimed at infants aged six months and over. The long shape of the biscuit allows babies to bite at the front and the back of the mouth. The hardness of the Bickiepegs biscuit satisfies the bite that emerging teeth require to help them grow straight and well-spaced.

Today the biscuits are handcrafted and packed in a dedicated bakery in Aberdeenshire. Every single biscuit is subject to four inspections before it leaves the factory. Just as they were first made, without any artificial colours, preservatives, flavourings, no added salt or sugar, the recipe remains exactly the same today.

For more information about Bickiepegs Teething Biscuits, visit www.bickiepegs.com/bickiepegs-healthcare-brands/bickiepegs-teething-biscuits.

Patients can download a handy teething chart for their children from <http://www.bickiepegs.com/wp-content/uploads/2015/05/teething-chart.pdf>

If you would like to promote your products or services direct to the dental industry in *BDJ Team*, call Andy May on 020 7843 4785 or email a.may@nature.com.

BDJ Team CPD

CPD questions: October 2016



Keeping infection under control

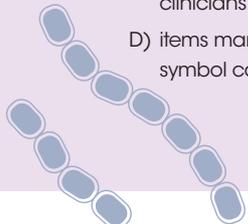
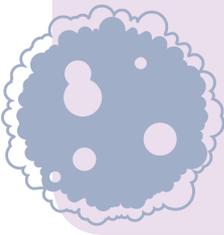
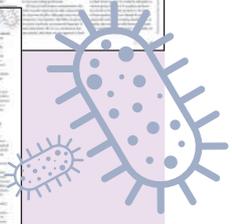
- a) Registered DCPs must undertake 75 hours of verifiable CPD every five years.
 b) It is good practice to do an hour of decontamination training every year

A) both statements are correct
 B) only statement a) is correct
 C) only statement b) is correct
 D) both statements are incorrect
- Select the **false** statement

A) a separate decontamination room is mandatory in Wales
 B) a separate decontamination room is mandatory in Northern Ireland
 C) decontamination rooms should be fit for purpose in terms of ventilation
 D) manual cleaning must be available as a backup in the decontamination room
- Which of the following is **correct** regarding immunisations and screening?

A) all members of the dental team should be screened for blood borne viruses
 B) clinicians who are new to the UK who will be performing EPPs should be screened for blood borne viruses
 C) Hepatitis B and tuberculosis (BCG) are mandatory vaccinations for all DCPs
 D) when a dental nurse is only partially immunised s/he cannot assist chairside
- Which of the following statements is made in this article?

A) dental practices must have a separate latex allergy policy
 B) if changes are made to a practice's plumbing, the Legionella risk assessment should be reviewed
 C) the old metal syringe system used by many clinicians is illegal
 D) items marked with the 'crossed-out 2' symbol can only be used twice



How to take part in BDJ Team CPD

BDJ Team CPD is now on the BDA CPD hub! This site is user-friendly and easy to use. There are already **nine hours of free BDJ Team CPD** on the CPD hub and there will be another hour in November!

To take part, just go to <https://cpd.bda.org/login/index.php>.

To send feedback, email bdjteam@nature.com

