BDJ Student

Taking a CHANCE

BDA

Newcastle Dental School ■ Careers in academia ■ Revision questions ■ Honduras

if

your practice ownership vision was contracted by every new NHS contract revision...

...what impact would this have on your career decisions?

If you are one of the many dentists now working under a new practice-based NHS contract you may be feeling less like an Associate, and more like an employee.* The decline in traditional individual NHS contracts is opening new ways of working, easier to commission, harder for ambitious young dentists who want to progress. From a ratio of one-to-one in previous years, nationally there are now four associate dentists for every practice owner.** The odds against achieving ownership through an NHS practice are stacking up.

Denplan has always helped dentists navigate major contract reform. With our extensive experience and best-in-class support services we have been there to help thousands of dentists stay in front.

Don't fall behind. Let Denplan help you stay in front.

THE ORIGINAL DENTAL PAYMENT PLAN EST. 1986

If you want to secure your future in uncertain times let Denplan help you stay in front.
Call 0800 169 9962 or visit denplan.co.uk/if-nhs

Denplan
At the heart of dental care

*www.source1uk.com/articles/associate-dentists-employed-or-self-employed-346.htm
**LangBuisson Dentistry UK Market Report 2014, (4th edition) Philip Blackburn, p95

Denplan Limited, Denplan Court, Victoria Road, Winchester, SO23 7RG, UK. Tel: +44 (0) 1962 828 000. Fax: +44 (0) 1962 840 846.

CAM1800 04-16

BDJ Student

the British Dental Association's official magazine for students and first year graduates

SPRING 2016

UPFRONT

03 **Editorial** – *BDJ Student* looks forward to 2016

04 **News** – All the latest news and reviews from the dental world including conference reviews, Nairn Wilson's view from the chair and information on revision resources

12 **Staff vs student** – This issue we travel to Newcastle to find out what it's like to study and work at its dental school

PROFESSIONAL

15 **Ethical dilemma** – What you should do if you have concerns about a colleague

16 **Careers in clinical academia** – Ashvin Babbar advises students to take a chance on academia for a rewarding career

20 **Honduras elective** – Joshua Scaife reports on Cardiff Dental School's trip to Honduras with the charity, Global Bridges

23 **Financial advice** – Sophie Kwiatkowski explains the taxation and financial requirements of becoming an Associate

24 **A dose of reality** – Mark Cairns discusses the dangers of accidental overdose of over-the-counter painkillers

26 **Advice special** – *BDJ Student* asks some young professionals to give us an insight into their working lives

BRIEFING

29 **Briefing** – The editors of the *BDJ*, *BDJ In Practice*, and *BDJ Team* highlight their must-read news and features for students and first-year graduates

CLINICAL LIFE

33 **Revision** – Test your knowledge with a range of revision questions from PasTest

34 **Acronyms** – The winner of the King's Crown writing competition highlights the importance of a simple acronym when assessing the restorability of a tooth

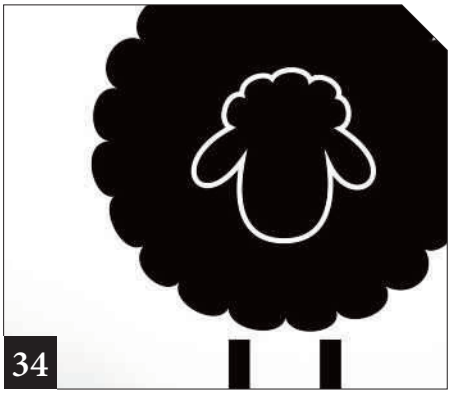
37 **Revision** – Answers to the revision questions from PasTest on page 33

38 **How to…** – This issue Mike Young explains how to land your first job

39 **Clinical** – Surgery: A patient's perspective and lessons learnt

16

24



34

Cover image: Danny Allison **Editor** Julie Ferry **Editor-in-Chief** Stephen Hancocks OBE **Art Editor** Melissa Cassem **Production Editor** Sandra Murrell **Team Leader** Felicity Agyemang **Publisher** James Sleigh **European Team Leader – Academic Journals** Andy May **Production Controller** Natalie Smith. Published three times a year for the **British Dental Association** by: **Nature Publishing Group**, The Macmillan Building, 4–6 Crinan Street, London N1 9XW. Tel: 0207 843 4724. To contact the editorial office: **British Dental Association**, 64 Wimpole Street, London W1G 8YS. Tel: 020 7935 0875. E-mail: bdjstudent@bda.org. Web: www.bdjstudent.co.uk. ***BDJ Student*** is the student and first year graduate journal of the **British Dental Association**. ISSN 2056-4805 EISSN 2056-4813.

BDA
British Dental Association

DDU

We know your career is important to you.

Personal support

24-hour advisory helpline

Preparing for DF1Success courses

Robust defence

FinalBDS - discounted revision course

We're here to support you.

Visit us at the BDA Conference and Exhibition, MCCC Manchester 26-28 May 2016. Stand A07

theddu.com/support

EDITORIAL

Julie Ferry, *BDJ Student* editor

Anish Patel, *BDJ Student*, student editor

Now that Spring has most definitely sprung, it is time to start thinking about new beginnings. Some of you will be considering what happens next after dental school and looking into how to secure your first job. If that sounds like you, then check out Dr Mike Young's article on page 38, which gives useful tips on interview technique. Most students will be starting to revise for exams, ensuring that they are fully prepared for whatever the examiners have to throw at them. You might want to turn to page 29 and look at what has recently been discussed in the *BDJ* and don't forget our clinical article on page 39. We also head to Honduras with Cardiff Dental School, as Joshua Scaife reports on its trip to this developing country. And not forgetting careers articles taking in clinical academia and an insight into life as a dental hygienist.

With new beginnings in mind, it is time for me to seek some of my own. After 15 years as editor of *BDJ Student* I have decided to step down. I have thoroughly enjoyed developing Student into, what I hope, is a relevant, interesting and valuable publication for dental students. It has also been very satisfying to work with an increasingly motivated student body who have been keen to engage with the wider profession, as well as other dental professionals across the educational spectrum. I thank you all for your contributions and wish you lots of luck in your future endeavours. **Julie Ferry** ■

Hi everyone, I hope you're all well. I'm sure the first term of the New Year has been both busy and exciting. The BDSA conference at the beginning of March was a fantastic three days and I think the committee at Liverpool deserve a lot of credit for their great organisation of the event!

In February, the BDA, in conjunction with UCL Eastman Dental Institute, held their annual careers day event. With the majority of attendees being Dental Foundation Trainees, and new graduates, I was fortunate to be able to attend. I thought that it would be useful to share a personal insight into the day.

There was a range of talks with renowned speakers included in the programme. Some of the programme features included specialising, getting into private practice, tips for applying for your first job and even working abroad. Australia seemed to be a popular destination. With corporates becoming more prominent in the profession, myDentist was also a very popular session with new graduates. By the end of their presentation, it was apparent that many were impressed with the benefits offered with corporate employment.

One of the non-clinical areas covered was the politics of dentistry. The new NHS prototypes and contracts were discussed and whilst a lot of it was beyond me, it was still interesting to note the changes the system is currently undergoing and their likely implications for future practice.

Although decision making with regards to career planning is something that may be a little ahead of us – the event was extremely valuable in providing a flavour of the different career options out there. I'd definitely recommend attending next year.

We hope that *BDJ Student* is proving to be an informative and enjoyable read. As the routine summer exam season approaches, I'd like to wish you all the very best of luck! **Anish Patel** ■

BUDR

BRITISH UNDERGRADUATE DENTAL RESEARCH CONFERENCE 2016

The second British Undergraduate Dental Research Conference 2016 (BUDRC) took place on Saturday 27 February at Manchester's University Place. It was organised by the Manchester Undergraduate Dental Research Society in association with the Manchester School of Dentistry. After the tremendous success of the first conference, it was clear there is a demand for such a conference. The BUDRC is the first and largest undergraduate conference of its kind in the country.

©MUDRSoc/Mahdi BinHaider/Lorimer Macandrew

> 'The BUDRC is the first and largest undergraduate conference of its kind in the country. The 2016 conference attracted over 200 delegates.'

The 2016 conference attracted over 200 delegates to the one-day event, which certainly didn't disappoint. There were numerous delegates from various backgrounds with pre-university students, postgraduates, clinical staff and dental therapy and technology students. We are also proud to announce international status of this event due to visitors from Kuwait University.

After a busy registration period, we began with the morning talks. These featured inspirational talks from renowned speakers including Professor Julian Yates, Dr. Jennifer Taylor, Professor Anne-Marie Glenny and Professor Paul Coulthard, Dean of the Dental School. The conference also warmly welcomed honorary speaker, Dr. Sara Hurley, Chief Dental Officer NHS England who spoke about evidenced based practice and the imperative role of research in making change, moving forward as a profession and improving quality of patient care.

We hosted workshops for students in eight disciplines, with subjects ranging from careers to interactive anterior tooth restoration seminars and finally to an exclusive hands-on endodontic access cavity workshop, which gave delegates an opportunity to apply their skills using portable handpieces. Others included photography, orthodontics, research opportunities and interactive oral medicine workshops.

Achieving this is no small feat. Professor Coulthard and Dr. Hurley were greatly impressed by what was achieved by the organising committee: Mohammad Jaberansari, fifth year BDS, founder and president of BUDRC; Ismail Khalil, third year BDS, vice-president and co-director; Ahmad Alali; Simran Bains; Matthew Hughes and Aneta Korobczuk.

From left to right: Simran Bains, Ismail Khalil, Aneta Korobczuk, Sara Hurley, Paul Coulthard, Mohammad Jaberansari, Matthew Hughes, Ahmad Alali

We thank all of those who attended and look forward to seeing them again at the University of Manchester.

For full details, visit the website: www.mudrsoc.com or email info@mudrsoc.com.

Mohammad Jaberansari and Ismail Khalil

SAVE MONEY ON TEXTBOOKS WITH THE BDA ELIBRARY

Our e-library keeps growing – we now have over 280 text books that you can download for free. It's easy:

1. Go to the BDA library catalogue: www.bda.org/catalogue
2. Click on the book you would like to download
3. Log in with your BDA membership number and library PIN (if you are doing this for the first time call 020 7563 4545 to get your PIN)
4. Enjoy reading your textbook!

You will be able to keep your downloaded ebook for one week. You can print off two chapters of the book and at the end of the week all BDA members can simply download the text book again.

Get online, get reading and get saving!

www.bda.org/ebooks

©Anna_leni/iStock/Thinkstock

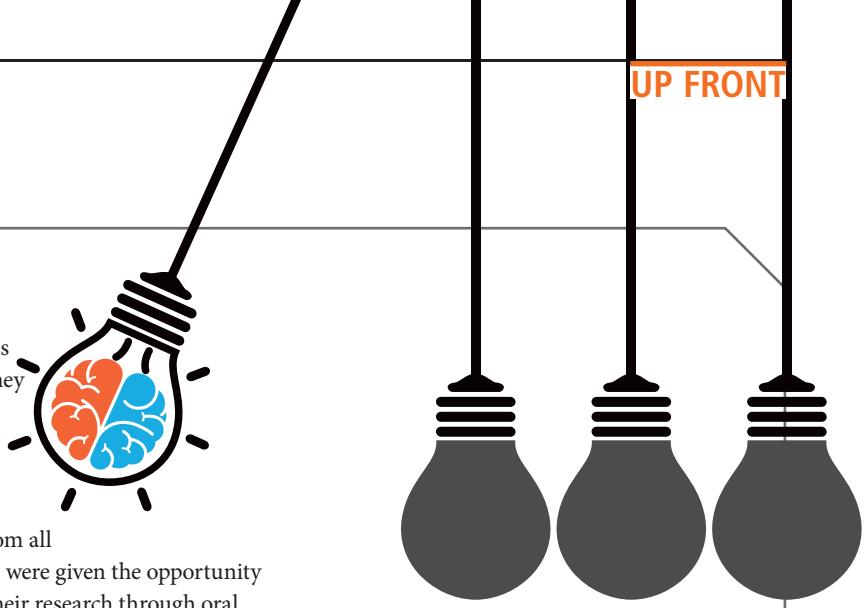
If you have any news, views or issues you'd like to see covered, tell the team at *BDJ Student* all about it.

Write to:
BDJ Student
British Dental Association
64 Wimpole Street
London W1G 8YS

Email: bdjstudent@bda.org

Tweet us: @theBDA

Inspired to research



King's College London (KCL) Dental Institute held its first ever special event in October 2015, *Inspire!* The purpose of this event was to inspire students to engage with dental research. The well-organised conference consisted of talks from recognised dental academics to students presenting their research and insightful workshops on how to progress in academia.

The day started with a bold talk from the Dean of KCL Dental Institute, Professor Dianne Rekow. She explained that her career was not set in footprints but consisted of many unexpected turns, which have worked out for the best and landed her in the extraordinary position she now holds. Other talks from Professors Helen Whelton and Joanna Zakrzewska further reinforced this message along with the ethos of not giving up. Dr O'Toole a Clinical Research Fellow at KCL Dental Institute advised how best to start out in academia. A foundation dentist highlighted his research journey as a student and provided students with top tips.

Students from all dental schools were given the opportunity to showcase their research through oral presentations or poster displays. It was intriguing to see the wide array of topics, from the effect of restorative materials on dental pulp cells to oral squamous cell carcinomas. The *Inspire* conference gave students a unique opportunity to present their research, especially those who were first-timers such as myself.

Workshop and breakout sessions on mentoring, engaging your audience and networking were setup. These were particularly beneficial, as many students felt that not much emphasis on these areas are given at undergraduate level. The day ended with an open table session with speakers, many of whom were past presidents for the International Association for Dental Research. Overall the conference was eye-opening, it has definitely increased my awareness and encouraged me to gain more dental research experience. I would like to thank Dr Rupert Austin, Dr Helen Petersen and the rest of the team for organising this amazing event!

Daniel Mall, fourth year dental student, Newcastle Dental School

EXPERIENCE

In our regular series on dental-student experiences, Zenab Mushtaq describes her experience of a oral and maxillofacial surgery placement

Oral and maxillofacial surgery (OMFS) is one of the thirteen (yes, there are that many!) dental specialties and a unique one it is.

Here's what I learnt while on a week's oral and maxillofacial surgery placement in Liverpool.

1. An ounce of prevention is worth a pound of the cure

In 2011, oral squamous cell carcinoma was declared the 16th most common cancer in the UK. Many cases are preventable. Two of the biggest risk factors are tobacco smoking and alcohol consumption. Sadly, early lesions are rarely symptomatic leading to late presentation in poor attenders. Treatment is with invasive surgery, radiation or both.

2.Communication is key

Access to tertiary care is often by referral so by the time patients come to outpatient clinics they have often seen lots of medical personnel. Some may even have 'white coat syndrome' rendering them anxious. Surgeons often have to break bad news and inform a patient that biopsy results have returned and they have been diagnosed with oral cancer. This is a life changing ordeal.

For me, watching a surgeon deliver this news was profound. I couldn't have imagined how difficult this would be. He had all the time in the world for the patient, giving his undivided attention for the numerous questions, as well as emotional support. Do not underestimate the importance of effective communication.

3. Ludwig's angina is not the stuff of dental textbooks

I can confirm it is a real emergency. A 31-year-old male who was medically fit and well presented with a severe submandibular and sublingual space infection on examination, a firm collection and 5mm trismus due to a non-vital 37. He was diagnosed with Ludwig's angina. A consultant anaesthetist was called urgently to review the airway and check for airway compromise. There was no airway compromise but had there been, a needle cricothyroidotomy/tracheostomy would have been done. Treatment was through extra-oral drainage via the neck and a trans-buccal flap was raised.

4. Rene Le Fort is not a French cheese.

This French surgeon will be forever remembered for creating a classification for facial fractures. Rumour has it that he threw dried skulls off the roof of his residential building in Lille in the 1900s. Needless to say, there would be many issues with that in 2016.

5. Know your ABC.

Airway, breathing and circulation. These simple steps that we read about and practice in life support training over and over are crucial and really can save someone's life. In theatre, maintenance of a patient's airway is a top priority.

6. Teamwork

Those in OMFS work as part of a multidisciplinary team and often have to liaise with paediatric dentists, GPs, ENT specialists and orthodontists. As part of orthodontic treatment in the correction of malocclusion, osteotomies are frequently carried out. It was interesting to watch a young female undergo an aesthetically changing bi-maxillary osteotomy with maxillary advancement and mandibular setback to correct a skeletal Class III malocclusion. Attention to detail was key here as the surgeon was instructed to move the maxilla forwards 5mm and maintain the centre-line.

Zenab Mushtaq

DEVELOPING THE FUTURE LEADERS OF DENTISTRY

On 2 July 2016 we will once again be offering leadership training for your Dentsoc Presidents and Vices. The Student Presidents Meeting gives these new leaders a basic grounding in leadership skills to help them run your Dentsoc effectively. It is also a chance for your presidents to meet up with dental schools from across the UK and get tips on how others run their dental societies.

Dr Janine Brooks MBE, owner of Dentalia Coaching and Training Consultancy, will look at personality profiling and leadership. Student Presidents will also get a chance to meet Peter Ward, BDA Chief Executive and Paul Blaylock, Chair of the BDA Student Committee.

To make sure that everyone can attend, overnight accommodation, travel and expenses are provided, so if you are thinking of running for the position of Dentsoc President or Vice in your upcoming elections, make sure you save the date!

Find out more at **www.bda.org/studentpresidents.**

BDJ Student online

Read all of your favourite careers, clinical and social articles online.

Log on to www.bdjstudent.co.uk.

BACD ANNUAL CONFERENCE

Neil Shah, a British Association of Cosmetic Dentistry (BACD) student rep, attended last year's BACD Annual Conference. Here, he describes his experiences.

"As I travel back to university, I reflect on the past three days at the BACD's 12th Annual Conference at the Hilton Metropole, London. One word keeps popping up, "wow"! As it was my first time attending the conference, I was initially nervous, but I received a very warm welcome from everyone. The morale and passion was breathtaking; I felt part of a close-knit family. Early morning starts and student life rarely make a good combination, however, every morning I found myself awake and raring to go!

Sessions

We were extremely fortunate to attend sessions led by inspirational speakers from all over the world. The balance between lectures, hands-on and discussion panels was spot on. This was an educational and practical experience in a relaxed setting.

> 'This conference dramatically altered my perception. Cosmetic dentistry is far broader then I previously thought.'

As a student, I found the sessions complex, however I aimed and proudly succeeded in taking at least one thing from each talk.

Minimal exposure to cosmetic dentistry had previously made me translate the word "cosmetic" into "tooth-whitening", however this conference dramatically altered my perception. Cosmetic dentistry is far broader then I previously thought.

In a nutshell

The BACD conference combined dental education with learning valuable life lessons and meeting some amazingly influential people in a fun and stress-free environment. The sessions should all be viewed as tasters as there is so much to learn.

I would like to say a massive thank you to all attendees, the sponsors and all who helped organise the event and made things flow seamlessly. In particular, a huge thank you to Mrs Suzy Rowlands, whose hard work and dedication ensured the event proceeded like clockwork. I look forward to seeing you all at the next BACD Annual Conference in Edinburgh.

Neil Shah

Revision resources

Exam time is looming, so to help with your revision, we have developed some helpful study topic collections. These cover a range of subjects including restorative dentistry, endodontics and minor oral surgery and include:

- Medline search articles
- Cochrane reviews
- Clinical guidelines
- Policy documents
- Recent *BDJ* articles
- Links to relevant eJournal articles

Go to www.bda.org/student-library to find out more.

MOVING HOME THIS SUMMER?

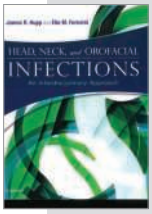
Make sure you send us your new address.

Call 020 7563 4550 or email **membership@bda.org**

©RTimages/iStock/Thinkstock

REVIEWS: BOOK

Head, Neck, and Orofacial Infections: An Interdisciplinary Approach, James R,Hupp and Elie M.Ferneini, Elsevier, 2015



Healthcare professionals commonly come across patients with head, neck and orofacial infections. However, the different conditions can be overlooked and confused, making a conclusive diagnosis difficult. I found this book was extremely useful in helping to demystify all of this with great breakdowns of the associated pathologies and relevant management of various conditions.

It was also helpful to be able to concurrently follow the spread of infections through contiguous spaces to understand their capability of entering cranial and pharynx areas to cause airway obstructions and neuropathies respectively. This is all complemented with lots of great visual aids of clinical photographs, radiographs and animated illustrations.

As dentists, the most relatable sections are probably those concentrating on infections of the pulp, periodontal apparatus and odoontogenic infections of the fascial spaces. What was noteworthy was how odontogenic infections from lower third molars can spread through submandibular and sublingual spaces to cause potential life threatening conditions such as Ludwig's angina. The surgical drainage of the space as a treatment option is something I feel those interested in OMFS would feel was very relevant.

In addition to the above, there are also sections on implants, facial aesthetic and head and neck reconstruction for anyone with such special interests. Infections associated with skin resurfacing, soft tissue fillers and bone grafts are all covered and offer a strong foundation for preliminary reading.

Finally, with a significant number of contributors from specialist medical and dental fields, the guidance with respect to the clinical management of the range of conditions covered is invaluable. I'd recommend it as a very informative reference book for a baseline read.

Anish Patel, *BDJ Student* student editor

WORKING FOR YOU

The BDA has over 30 committees, each dealing with a wide range of issues. From general practice and the community dental service to salary levels and regulatory requirements, they are at the forefront of dental politics, representing BDA members on key issues that affect their careers. In this regular column, *BDJ Student* finds out more about what really happens at the heart of your trade union. This issue we ask the outgoing President of the BDA, **Nairn Wilson**, to explain a little about his role.

Students are the lifeblood of the profession, including its professional body –the British Dental Association (BDA). At a time of unprecedented change, it is critical that the BDA knows what arrangements students wish to see in place when they join the dental workforce. As such, the Association is most anxious to have students enjoy the benefits of student membership and become engaged in the affairs of the Association. The Association wishes to support student members through their undergraduate studies. If you are not a student member of the Association, your voice may not be heard and you deny yourself the generous package of student benefits, devised by students for students, including, for example, access to the more than 280 ebooks now available online to members as part of the services provided by the Association's fantastic library.

During my year as President of the BDA, I have been delighted to have had the opportunity to visit every dental school in the UK and to meet and address a large number of dental students. While there has been encouraging growth in student membership, I very much regret not having persuaded ideally every dental student to join the Association and be part of our professional body. To help strengthen the legacy of my presidency, and to further enhance membership benefits in our not for profit professional body, I would ask existing members to encourage friends and colleagues to become members of the Association – the more members the better when it comes to political strength, benefits and influence.

As a career-long member of the BDA, joining soon after entry to dental school, I am pleased and proud to have supported and, whenever possible, contributed to our professional body throughout my time in dentistry. I have also enjoyed the considerable comfort of knowing that the Association has always been there to help and support me as and when the need arose. Thanks to the tireless work of the BDA, much of which is achieved by members giving generously of their time as volunteers, the profession has successfully managed huge change in recent times. During the careers of present day students, it is anticipated that the rate of change will accelerate, with many new and yet to be discovered technologies, concepts and approaches having a profound effect on the nature and scope of practice of dentistry. This makes membership of the BDA all the more important. There is no better time to help boost the membership of the Association and to voice your views and opinions on the way forward for the profession.

> 'During the careers of present day students, it is anticipated that the rate of change will accelerate.'

May I conclude this article by thanking all of you who have made time in your busy schedule to listen to one or more of my BDA student lectures over the past year, with special thanks to all those who helped facilitate my most enjoyable and enlightening visits to the dental schools. I very much hope that, among other things, I may continue to have the opportunity to support students at all levels in dentistry.

Nairn Wilson

Nairn Wilson will be handing over the role of President of the BDA to Stuart Johnson at the British Dental Conference and Exhibition on 26 May 2016.

AMALGAM FREE DENTISTRY

In October 2013, the United Nations called for a global phase-down on the use of dental amalgam as part of an initiative to reduce environmental mercury pollution. As the UK is a signatory nation, there will inevitably be a significant impact, given the extensive use of dental amalgam in general dental practice.

In addition to being used in extensive intra-coronal cavities in posterior teeth, amalgam is also used in clinical situations where moisture control is challenging. The phase-down raises the question of what will take its place and whether dental amalgam will still be on the UK undergraduate curriculum.

To investigate the current situation, a questionnaire was sent out to the restorative department of each UK dental school. Responses were received from Glasgow, Dundee, Cardiff, Bristol, Liverpool, Manchester, Birmingham, King's, Sheffield and Leeds who all confirmed that dental amalgam was still taught. The main rationale for keeping amalgam on the curriculum was that if a cavity does extend subgingivally, and the use of composite is contra-indicated, then amalgam is realistically the only real option for a patient on the NHS. An indirect inlay restoration may be provided, but this could only be done so privately.

Interestingly, some dental schools have tried to remove amalgam from undergraduate teaching, but their graduates struggled during their Dental Foundation Training year to provide amalgam restorations for patients.

The phase-down of amalgam was recently debated by the British Society of Prosthodontics. Many dentists expressed concerns that if it isn't available, then more teeth are likely to be extracted and more patients are likely to suffer complications as an unintended consequence. This highlights the need for a replacement material, or at least allowing the continuation of amalgam into the future for certain indications, until a new material is created.

> 'The phase-down of amalgam raises the question of what will take its place and whether dental amalgam will still be on the UK undergraduate curriculum.'

James Fitton, fifth year dental student at Leeds Dental School

FOCUS ON FINAL YEARS

Job hunting on the horizon?

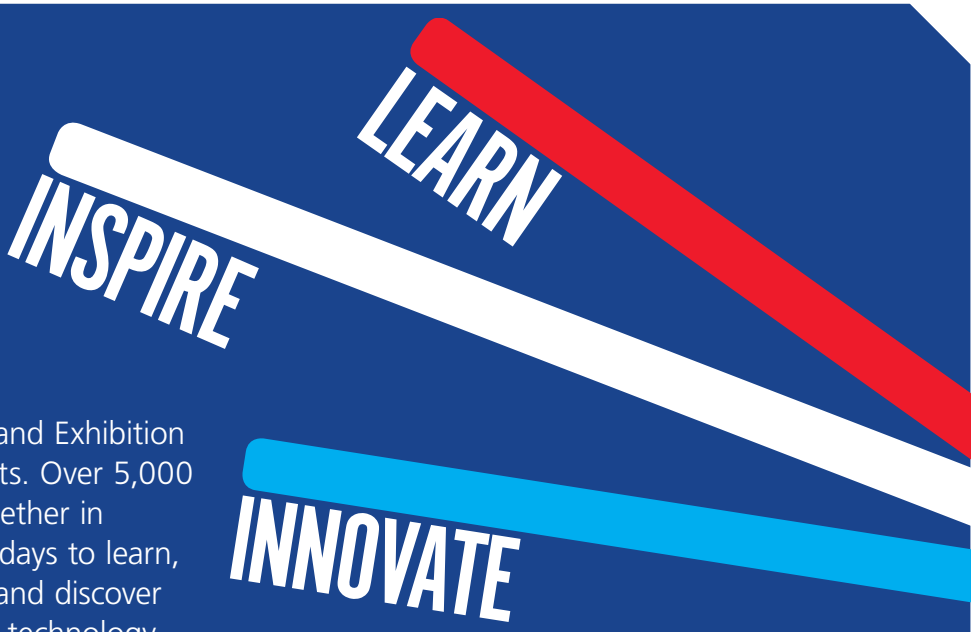
If you are moving into your final year in the autumn and starting to think about Dental Foundation Training (DFT) and Vocational Training recruitment, you will be pleased to hear that we have a useful support package to help you prepare:

- *Getting your first job guide* – the essential guide to securing your first job
- Interview skills lecture – touring all UK dental schools
- DFT interview skills workshop – to polish up your interview technique

Find out more and see an overview of both recruitment processes at **www.bda.org/recruitmentprocess**

©Kubkoo/iStock/Thinkstock

BDA



COME TOGETHER

The British Dental Conference and Exhibition is where the dental world meets. Over 5,000 dental professionals gather together in Manchester in May over three days to learn, be inspired by great speakers, and discover the latest innovations in dental technology.

It's a great place to see the great and the good of the dental world and listen to what they have to say on the key issues facing dentistry and the very latest techniques.

The Conference is being addressed by the minister responsible for dentistry, the Rt Hon Alistair Burt MP, and attendees can ask Sara Hurley, Chief Dental Officer for England, questions on the BDA Stand.

> 'There is much uncertainty as to what the future holds for dentistry, and young dentists in particular, so the Conference includes an interactive forum by the BDA's Young Dentist Committee'

With talks by Linda Greenwall and James Goolnik on tooth whitening, Subir Banerji exploring the clinical management of pathological tooth wear, Finlay Sutton talking about 'producing beautiful dentures with fantastic function', and over 125 other speakers, there are numerous opportunities to develop your learning further.

There is much uncertainty as to what the future holds for dentistry, and young dentists in particular, so the Conference includes an interactive forum by the BDA's Young Dentist Committee, exploring the challenges young dentists will encounter as they enter practice.

If you're not sure what you want to do once you've graduated, there are sessions on the wide range of career paths in dentistry that you can consider and sessions on MFDS and MJDF by The Royal College of Surgeons of Edinburgh and the Royal College of Surgeons Faculty of Dental Surgery respectively. In addition, Shiraz Khan draws on his own experiences to provide a fascinating case study on how to succeed as a young dentist.

Getting your associate contract right is vitally important, so the BDA is holding an interactive session where you will have the opportunity to put your questions to a panel of experts on how to negotiate better associate agreements.

Amidst the excited atmosphere of the event, you get a real sense of the enormous breadth of the dental profession, with all its specialisms, various dental professionals, and all the suppliers whose products, software and advice help the profession function. With so many dental professionals all together in one place it can be a great place to network and make connections.

It's completely free for BDA student members to attend both the Conference and Exhibition – simply register online at www.bda.org/conference or call 0844 3819 769.

It's going to be a great event – we hope to see you there. **BDA Events Team**

BRITISH DENTAL CONFERENCE & EXHIBITION 2016

26 - 28 May | Manchester

British Dental Conference and Exhibition 2016

When: *Thursday 26 May – Saturday 28 May*

Where: *Manchester Central Convention Complex*

Cost: BDA Students can attend both the Conference and Exhibition for FREE. Simply register online at www.bda.org/conference or call 0844 3819 769.

For any Foundation Dentists who have not booked their Spring Ball tickets (£60), you can do so by calling Sarah Rockliff on 020 7563 4590 or emailing springball@bda.org.

BOOK NOW

www.dentalshowcase.com

6–8 October 2016, ExCeL London

REGISTER FREE!

BDIA Dental Showcase is the best place for students to discover the latest innovations in dentistry, and to take a look into what the future of the industry holds.

- EXPLORE 350+ STANDS
- BROADEN YOUR KNOWLEDGE
- WATCH DEMO'S WITH INDUSTRY EXPERTS
- LEARN NEW TECHNIQUES
- GET EXCLUSIVE SHOW OFFERS
- MEET AND NETWORK WITH PEERS

Register now at www.dentalshowcase.com

BDIA DENTAL SHOWCASE
Putting Innovation Into Practice

Headline Sponsor

Oral-B

Registration Sponsor

Colgate

BDIA Dental Showcase 2016 is organised by the British Dental Industry Association, Mineral Lane, Chesham, Bucks, HP5 1NL Tel: +44 (0)1494 782873 Email: admin@bdia.org.uk.

STUDENT

➤ Daniel Mall, *a fourth-year BDS student*

STUDENT VS STAFF

NEWCASTLE

Hazel Davis discovers what it's like to study and work at Newcastle Dental School, by talking to those on both sides of the academic spectrum

"I'm from West London and I am in my fourth year of a BDS at Newcastle. I had three offers from schools in three different cities but Newcastle was my first choice. I felt a really good buzz and the staff were friendly and helpful.

I live in Spital Tongues, which is about five minutes' walk away from the dental school but quite close to the city centre. I previously lived in halls and in the suburb of Jesmond but they were a bit of a journey.

'We have really passionate and engaged staff and they are the ones who have written the books we learn from.'

Newcastle is a really vibrant and friendly city. There's lots to do - it has a great nightlife and the drinks are cheap. Clubs such as the Tup Tup Palace, Digital and Sam Jacks are great and most nights are student nights. It's pretty much seven nights a week partying, if you want it to be. I went out quite a lot in the first couple of years but I am really cracking on now. There is always something to do and everyone would be able to find something to suit them. There are great restaurants, food festivals and the cost of living is low. Even further afield is great and the beach isn't far. I guess the only downer is the weather. It can be a bit windy and cold. I'm used to it now though.

One of the best things about this course is the teaching. We have really passionate and engaged staff and they are the ones who have written the books we learn from. It's a very supportive environment and has some of the best facilities in the country.

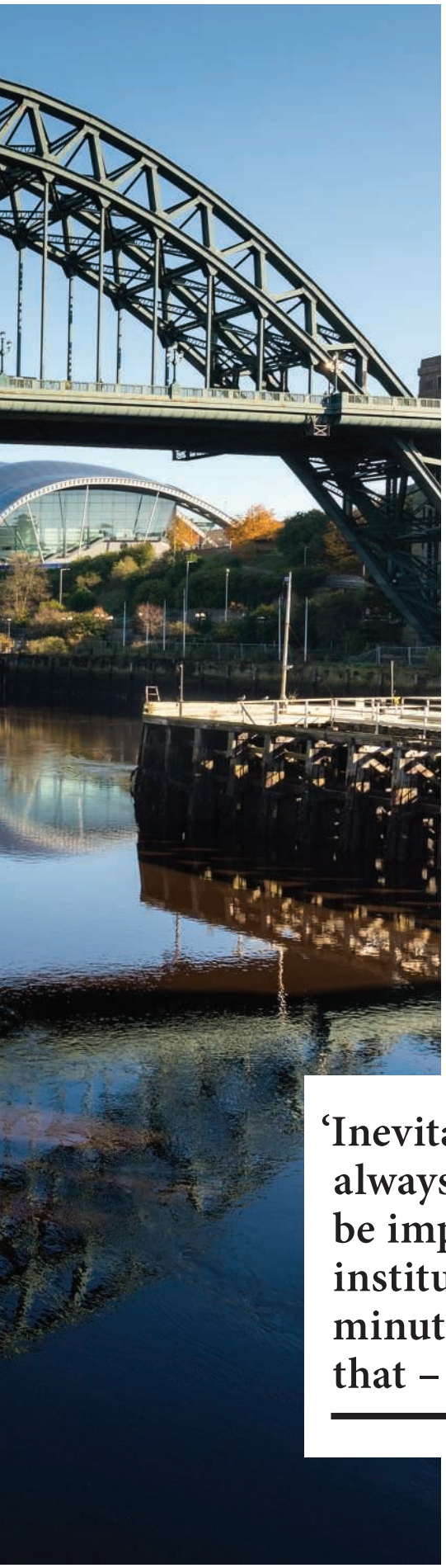
We spend the first two years on pre-clinical and at the end of the second year we do key clinical skills and a whole enjoyable term on phantom heads. Years three, four and five are clinical, interspersed with lectures and seminars. I know some courses start patient interaction earlier, whereas ours only began in the third year. If I were to change the course at all I think we could start to build these interpersonal skills earlier.

We do work hard and play hard here. When we finish clinics on a Friday we head to the Crown and Bridge bar, which serves free beer. The dental society is very active and plans weekly events, dental balls and bar crawls. It's open to all the years, which makes it a great way to get to know everyone. There are around 80 people in each year so it's not large and intimidating and most people get to know each other on the course.

The pastoral element to Newcastle is good. Each student is assigned a tutor who deals with academic and other issues but most staff adopt an open-door policy anyway. You could pretty much go to any staff member with an issue.

After my foundation year I will just see what happens. It really all depends on my clinical experience and so what I enjoy the most will determine what I want to go into and whether that is back in London or in a new city."

Daniel Mall



STAFF

➤ Professor Janice Ellis *is Professor of dental education at Newcastle Dental School*

"We currently have an annual intake of 71 students on the BDS course and 10 students onto our new BSc in Oral and Dental Health Science. In total we have just under 400 undergraduate students within the school. I qualified from Newcastle Dental School in 1987 and I have pretty much been here ever since. My role has changed over the years, and I have moved between NHS roles and the university at various times. I was appointed as a lecturer in 2001, promoted to senior lecturer in 2006 and gained a personal chair in 2014.

I'm the director of clinical studies, so I oversee all the clinical teaching within the school. I also deliver teaching on all aspects of restorative dentistry but with a particular focus on removable prosthodontics. I think our course is demanding and our standards are very high; life as a student these days is challenging. We have a very high assessment load and I would like to see that rationalised a little. We are also working very hard to increase patients' role in giving feedback to students. I've never taught anywhere else but I have acted as an external examiner in a number of other UK schools and each school has its own personality. I think I probably have Newcastle University crest running through my bones and so any comparison is bound to be a little biased, though I do remember a previous head of school saying that Newcastle was the best English dental school north of the Tyne. No one can argue with that. Inevitably there are always things that could be improved about any institution or course– the minute you stop believing that – all is lost! However I do believe that our courses are excellent and offer students a fabulous learning experience.

'Inevitably there are always things that could be improved about any institution or course– the minute you stop believing that – all is lost!'

We have a very active outreach element. Students can also be involved in our 'Brush Up' team – a group that goes out to various community groups to deliver dental education. Building on our own undergraduate implant programme, students can also shadow a local private implant provider.

Our oral surgery programme not only builds excellent exodontia and surgical skills but allows students to work alongside oral and maxillofacial surgeons. The school's BSc in Oral and Dental Health Sciences benefits both groups of students as they can actively deliver shared care for patients working alongside each other as a dental team. We also offer Erasmus exchanges and a period of elective study as well as intercalated degrees.

Newcastle is very much a civic university and the main campus is positioned right in the city centre. For me the centre of the campus is the area around the students union and the quadrangle – the buildings are a really effective mix of modern open spaces and sculpture with traditional 'red brick'. The university estates department do a wonderful job with the planting in the quad area and it always looks amazing. It's a great social space particularly in the summer and an area that I always enjoy walking through. It's the spot that the students often choose to have their graduation photos taken at, so I think it means a lot to them too.

We are a really close knit community of learners. The staff learn just as much (if not more) from the students as they do from us. We all look out for each other and support each other through good and bad. Visitors to the school often comment on the friendly atmosphere and how happy everyone is. There have been times in the last few years when the student body has been affected by real tragedy – I am always stunned and moved at just how much they support and give to their colleagues – and the staff are right there alongside them."

Janice Ellis

the ultimate in performance

high quality illumination

maximum image quality

the latest in binocular loupes and headlights

LED NOW IN HEINE QUALITY.

Available with the **NEW Polarisation Filter System** for

:- **Surgery**: ***reducing glare*** from instruments; especially from fluids (saliva, blood)

:- **Endodontics**: ***reducing brightness*** on the tooth surface especially at the time of opening the root canal

:- **Aesthetic dentistry**: ***to better visualise*** the translucency of tooth components (enamel, dentine) finding cracks in the enamel, caries, etc

without Polarisation Filter

with P2 Polarisation Filter

Authorised Heine Partner

SurgiSol Surgical Solutions

further information www.surgisol.com
Tel: 0845 508 4651 Email: Info@surgisol.com

Ref: BDJStudent1

ETHICAL DILEMMA

Do you have concerns about the behaviour of a colleague? The Dental Defence Union (DDU) advises how to handle the situation

I have been working in a dental practice for a few months now and I have concerns about the behaviour of another dentist. He always seems in a hurry to get patients in and out of his consulting room. He doesn't always explain treatment options fully or the benefits and risks of particular treatments. If a patient asks for more information he gets quite annoyed and impatient with them.

Most of his patients seem happy enough with his treatment but the way he behaves seems at odds with what I was taught at dental school. I am unsure what to do. I know that I have a duty to raise concerns if I am worried about the way a colleague is behaving, but he has many years of experience whereas I only graduated a few months ago. What should I do?

You're right, dental professionals do have a duty to tell someone if they have concerns about a colleague. But for newly-qualified dentists this can be a worry, especially if the person they are considering raising concerns about is much more experienced. It's always advisable to consider whether your concerns are based on fact or opinion, and whether the information has been discovered by direct observation or reported by a third party, like a patient or a work colleague. How you approach this will vary depending on the circumstances and your defence organisation will be able to help you when you are deciding what to do.

Principle 8 of *Standards for the Dental Team* is to "raise concerns if patients are at risk". This means that all dental professionals have a professional responsibility to speak up if they witness treatment or behaviour that poses a risk to patients or colleagues. The General Dental Council (GDC) also recently published new guidance aimed at helping dental professionals to decide the appropriate steps to take if they think patients or colleagues may be at risk. The guidance reminds dental professionals of their responsibility to raise concerns, explains why and how to raise a concern and provides sources of help and advice. The guidance also reminds practice managers and employers of their duty to support a workplace culture where staff can raise issues openly and without fear of reprisal.

'You should put your concerns in writing with as much detail as possible and ask for a written response so you know they've been dealt with.'

The DDU receives many calls each year from members wondering whether they should raise concerns, and it's something that can cause dental professionals a great deal of anxiety. It is important not to turn a blind eye to issues such as a colleague's poor performance or lack of resources, which could potentially cause harm to patients. Even if a concern turns out to be nothing serious, a dental professional's actions will not be viewed badly as long as they acted honestly, used the right channels and had patients' or colleagues' best interests in mind.

You should report your concerns promptly and follow local policies, which may be to report your concerns to a senior colleague, practice owner or manager. You should put your concerns in writing with as much detail as possible and ask for a written response so you know they've been dealt with. It's important to stick to the facts and not let your personal feelings about a colleague (good or bad) get in the way of you raising concerns. Make sure you keep a record of the issues that led to you raising concerns and also keep a copy of your letter.

On occasion you may be aware of other colleagues who share your worries. In those circumstances, consider writing a joint letter, which might add more weight to your concerns and have a greater impact.

If no action is taken to address the issues that you've raised and you're worried that a patient may be harmed as a result, you may have to escalate your concerns further by informing the Care Quality Commission (CQC) or the GDC.

In most circumstances it will be enough to raise concerns initially within the workplace. On rare occasions, it may be necessary to go straight to the GDC - if you're aware of a colleague working without professional indemnity, for example, or if you fear they're working under the influence of drugs or alcohol. If you believe this is necessary, again, keep a record of your concerns and the fact you have raised them.

In any case, if you are considering raising concerns about your colleague, in the first instance you should contact your dental defence organisation for advice and assistance. They will be able to guide you through the process and offer support. ■

Key points to remember

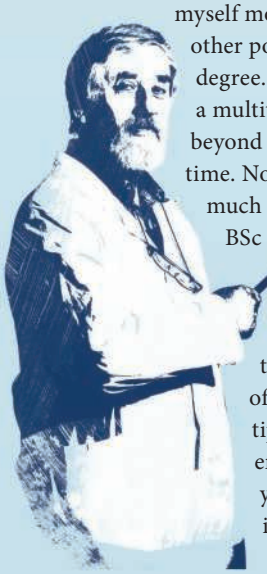
- Consider whether your concerns are based on fact or opinion, and whether the information has been discovered by direct observation or reported by a third party
- All dental professionals have a professional responsibility to speak up if they witness treatment or behaviour that poses a risk to patients or colleagues
- It is important not to turn a blind eye to issues such as a colleague's poor performance or lack of resources
- Make sure you keep a record of the issues that led to you raising concerns and also keep a copy of your letter
- In the first instance you should contact your dental defence organisation for advice and assistance.

For more information, visit www.theddu.com

TAKING A CHANCE

A life in clinical academia can be rewarding and exciting, says **Ashvin Babbar**, who completed an intercalating year and a summer studentship while at King's College London.

Having recently graduated from King's College London with my BDS, my long university journey is now over. While I am fortunate to have such fond memories of the adventures and struggles of my time in London, I am rather excited to be finally set free into the 'real world' and make use of all that King's has taught me. If I was to choose the pivotal point of my time as a student it would be my year intercalating, which made me challenge myself more than during any other point of my dental degree. It opened my eyes to a multitude of opportunities beyond BDS for the first time. Not having known much prior to my BSc about clinical academia I would like to share with you my journey in this little known aspect of dentistry and a few tips that I hope might encourage any other young dentist to step into this exciting field.



Why Research?

The idea of research can sound very cumbersome. Recollections of useless, failed experiments from school and all the pointless coursework that school demanded. However, research at university gave me the opportunity to do something original and exciting. It's a chance to try your hand at something you find interesting, not just what was on a list to be replicated. To answer a question you have always wondered about. Life is full of unanswered questions and it is up to us to find the answers.

'A good mentor relationship can really help support you in the dark times and open doors to exciting opportunities.'

Intercalating

Intercalating is what kick-started my interest in research. To begin with I was rather clueless of what it would entail. I jumped into it on the advice of my tutors and friends. It is a big commitment to make, leaving your year group and doing an extra year that can often feel like a never ending battle with journal articles. However, it is an extra year of university that has many funding options available, so it doesn't have to burn a hole through your pocket. It can even be the most cost effective year - a BSc in one year that can be funded through the NHS Bursary.

Throughout the year you get the same level of teaching and experience as an MSc or first year PhD student, yet you receive the protection, advice and opportunities of an undergraduate. This makes a big difference, as one is not expected to know everything, allowed to make mistakes and given the space to learn from them.

When it comes to opportunities, there are a plethora of scholarships, prizes and conferences you can apply to, which only get funded when you are an undergraduate. The year will have multiple assignments, a research project and the dreaded dissertation. However, the skills it develops, like critical analysis and lateral thinking, cannot be gained through the rest of BDS and are so key to practising in the current evidence-based atmosphere. So, if you like to question and challenge the status quo then the intercalated BSc is for you.

Summer studentships

After my intercalating BSc, I applied for and was awarded a paid studentship to carry on my research project during the long summer. This was great fun and in addition to finally getting paid rather than paying to learn, it was a chance to complete my project the way I wanted to rather than the limited time the BSc year provided. It was also a good way to strengthen the skills I had developed throughout the year, especially in preparation for my first conference presentation.

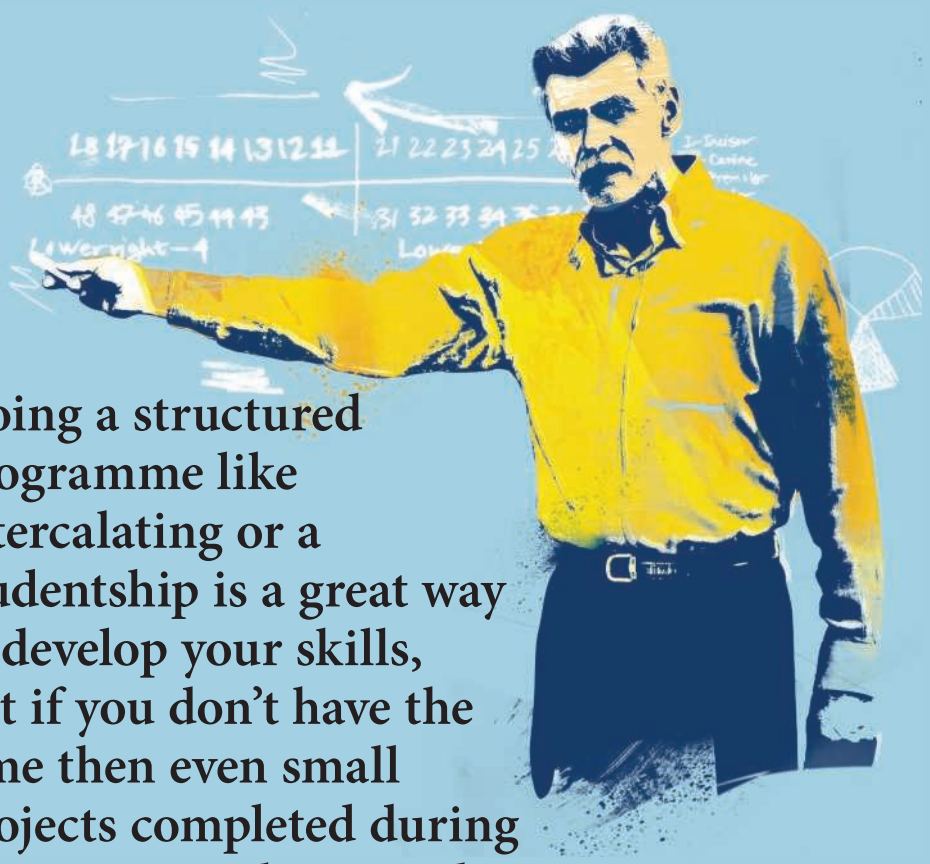
These research grants and studentships can be undertaken in isolation as well. So if you are interested but not certain enough to spend a whole year out of BDS, this can be a valued taster into the world of clinical academia.

Conferences

One of the major perks of clinical academia is getting to jet set all over the world, visit beautiful cities and most of all to make fantastic friends. Life is never boring as a clinical academic and definitely not isolating. Working and collaborating with a whole host of people is refreshing and stimulating.

My first conference was the International Association of Dental Research European Congress (IADR-PER) in Helsinki in 2012. A 10-minute oral presentation sounds easy enough to begin with, yet when you begin it can become very daunting as it is

a completely new skill, which takes time to develop. To date I remember the first few practice runs and how terrible they were. It looks so easy when professors lecture yet it's important to remember and appreciate the years of experience they have. However, once the presentation is done and dusted there is a fabulous new city to explore. This is my favourite part of the conference, not the presenting or all the new research you absorb, but the people you meet. The memories, friendships and conference parties will last with you forever.



'Doing a structured programme like intercalating or a studentship is a great way to develop your skills, but if you don't have the time then even small projects completed during your BDS can be a good introduction.'

Mentoring

The single most important advice I can think of for anyone interested in clinical academia is to have good mentors. They are so important in encouraging your hopes and dreams, as well as guiding your career through the wealth of their experience. They can inspire you or discourage you, having experienced both I have learnt the best way is to grow from the encouragement and learn from the criticism. A good mentor relationship can really help support you in the dark times and open doors to exciting opportunities.

I have been fortunate at KCL, where Professor Watson and Professor Woolford in particular, have always supported my interest in biomaterials research, from the time I first considered intercalation throughout my undergraduate degree.

During my intercalating year, I had the opportunity to work with Professor Sauro, who is now a professor in Valencia. His hard work and dedication to biomaterials research, and his energetic attitude to life, have been a source of inspiration for my own academic interests.

Still interested?

I hope I have clarified some of the mystery that surrounds clinical academia and managed to encourage a few of you to explore this exciting aspect of dentistry. It is not everyone's cup of tea, yet if you never try something new you never know what you might be missing.

As with anything the best way to decide is to find what really interests you and speak to as many people as you can who can guide you. Read around your subject and about the work of key people in that field. You can then approach a supervisor with your exciting ideas and see if they have a place on their team. If you are proactive, you are much more likely to be accepted. It is never a good idea to do research just for your CV as you will quickly tire of it and it is always difficult to convince others of your work if you lack true enthusiasm.

Also, doing a structured programme like intercalating or a studentship is a great way to develop your skills, but if you don't have the time then even small projects completed during your BDS can be a good introduction.

Finally, my most important golden nugget of advice is to find someone who truly inspires you and learn from them to support all your hard work and enthusiasm. Having a mentor or somebody you look up to can provide vital inspiration for the future. Good luck! **Ashvin Babbar** ■

FGDP
ADVANCING DENTAL CARE

95% OF DENTAL CARE IN THE UK IS PROVIDED IN THE PRIMARY DENTAL CARE SETTING. THE FGDP(UK) IS SET UP TO PROVIDE EDUCATION AND TRAINING OPPORTUNITIES TO ADVANCE DENTAL CARE.

JOIN THE FGDP (UK)

The Faculty of General Dental Practice (UK) is part of The Royal College of Surgeons of England. We aim to advance dental care, by encouraging involvement in postgraduate training, education and Faculty research. With members throughout the UK and around the globe, membership of the Faculty is open to all dentists, dental care professionals, dental surgeons and students. For information on how to become a member, please visit **www.fgdp.org.uk** or join our social media conversation.

FGDP
ADVANCING DENTAL CARE

SHINING THE LIGHT ON DENTAL STANDARDS

Through the Open Standards Initiative, student dentists can now access dental standards and guidance documents produced by the Faculty of General Dental Practice (UK).

Simply register and view the text online for free at www.fgdp.org.uk

#OpenStandards

DEEP IMPACT

Joshua Scaife reports on Cardiff Dental School's trip to Honduras with the charity, Global Bridges and explains how their trip transformed their dental skills, as well as their outlook on helping those in the developing world

In March 2015, 20 enthusiastic dental students from Cardiff University travelled to Honduras in Central America in cooperation with the Global Brigades charity. Our purpose was to run a dental clinic and provide free dental care to the people of Honduras, who are in dire need of healthcare and aid.

New friends

Our trip began with a journey across land and sea, which took in Cardiff, London, Washington, Houston and Tegucigalpa - racking up a total of 40 hours and thousands of miles. When we finally arrived in Honduras we were met with a warm welcome from our supporting charity workers at Global Brigades. Brief introductions informed us that these new friends would act as our coordinators, translators and guides for our time there. We also had the chance to meet our dental colleagues who would be supervising our work in Honduras and there was an instant connection between us all. The Honduran people are a humble, kind-hearted and passionate community and they welcomed us as friends.

After navigating the bustling airport in Tegucigalpa we were whisked away to our convoy of minibuses and pickup trucks and travelled to our accommodation at El Censo.

> 'With a 15-minute lunch break and increasingly regular water breaks we had managed to assess and plan treatments for 298 patients by 2pm'

Situated approximately an hour from the airport El Censo is an ex-holiday home of a rich Honduran businessman and totally surpassed our expectations! We were equally awestruck by the beauty of the country; a mix of mountains and forests under a blazing sunlight caught the eye at every turn in the road. Most journeys were spent gazing out the window.

On arriving at the compound we were given a tour which took in the swimming pool, volleyball court and balcony overlooking a piece of Honduran countryside that could have featured in a tourist magazine. Students commented, "The accommodation was really good, much better than expected," – a bit of an understatement!

Dental clinic

Day two began at 5am with a wakeup call informing us to load our trucks with clinical equipment and provisions ready for our first taste of dentistry. We were told to expect about 300 patients, all expecting a dental check-up and screening - a slight increase on a usual day's treatment in the UK!

We stocked the trucks and enjoyed a hearty, healthy breakfast and took the two and a half hour journey over dusty, ditched roads to arrive in El Chichicaste's village primary school where we would spend the next five days running our dental clinic.

To say conditions were basic by comparison with your local high street dental practice would be understating things somewhat. We essentially cleared a classroom of the usual furnishings and placed 10 primary school-sized chairs against a wall ready for the queues of patients to file in. Each of the students donned their matching tunics and head torches, Spanish phrase book in hand and called for a patient, "Siguiente!". So began a morning to remember - with temperatures rising and the humidity stifling, we developed a routine of broken Spanish and rapid assessment. With a 15-minute lunch break and increasingly regular water breaks we had managed to assess and plan treatments for 298 patients by 2pm. That may sound relatively impressive, but looking at our appointment list for the next day and seeing that 75 patients needed extractions and 60 needed fillings certainly brought home just how much this trip would challenge us. However, the response from the team was excitement and anticipation.

Finding a routine

Over the following four days we found our rhythm - loading supplies before sunrise, a quick breakfast and off we went to the clinic. Mornings and afternoons involved rotating students through extraction clinic, filling clinic and educational workshops for the children on oral and general health. Then there was the journey back as the sun set before a well-earned dinner and feedback meetings in the evening. Needless to say people slept soundly after a hefty 18-hour schedule! The team worked efficiently but maintained compassion and care for every patient even when limited by a significant language barrier. One of our supervisors summed up our outlook on these busy days: "It was busy but that is what we wanted, to see as many people as possible." And we did!

From a statistical point of view, in four days of treatment we saw a total of 322 patients, with 376 extractions, 299 fillings and 361 children attending our education workshops and receiving fluoride treatment. Every student managed to see a minimum of 10 patients for extractions and five patients for fillings. When faced with new equipment, a difficult working environment and an unknown patient, each of us was forced to adapt, to persevere and ultimately provide good quality dental treatment to many individuals in great need. Needless

to say, we all came away with greater confidence and skills that will be really valuable to our working careers as dentists; but not only that, we have seen the impact our vocation can have when put to good use across the world.

‘Needless to say, we all came away with greater confidence and skills that will be really valuable to our working careers as dentists’

Continuing need

The patients we saw over these days will be remembered with happiness. The lessons we learned about their country, their daily life and the struggles they face will be recalled with a determination to continue helping those in need. To see teenagers that have such a poor diet, and such a lack of education in personal health that they required extractions of all molar teeth and fillings on every remaining front tooth, is difficult to process with the knowledge that simple measures could have prevented it.

Similarly, to be faced with elderly patients who had nothing left of their teeth but the remnants of decayed roots, presenting the risk of imminent infection, and to see their appreciation when we removed all these rotten teeth! Or a child, visibly malnourished, who is so excited and inspired by a simple 15-minute lesson on brushing their teeth that they return the next day and the day after so they can join in again. These are the moments that inspire you. As a student commented afterwards, “It was an incredible experience overall. I felt like we were really able to contribute and make a difference!”.

Each member of our team worked hard, adapted to their challenges and came away with a changed perspective – we see that as a successful brigade. We hope we made a positive impact in the lives of those we met and cared for, and equally in a country in serious need of positive input. We would like to take this opportunity to thank all our generous sponsors and donors who made this trip possible by contributing finance, dental supplies and good wishes, we are indebted to you.

If you are interested in establishing a similar brigade where you are, or if you would like to support the Global Brigades charity, then please contact me at joshuascaife@cardiffdentalbrigade.org.uk.

Joshua Scaife

BECOMING SELF-EMPLOYED

Sophie Kwiatkowski, an accountant from PFM Townends, explains the taxation and financial requirements of becoming an Associate

HM Revenue and Customs registration

When you become an Associate you are treated as a self-employed sole trader and you need to register for Self-Assessment with HM Revenue & Customs (HMRC). HMRC will set up the correct tax and National Insurance records for you. If you are late registering with HMRC, you may incur a penalty.

Both your Income Tax and National Insurance liability are calculated by reference to your business profits. The calculation and payment of the tax/National Insurance due on your profits is done through Self Assessment.

Each year after the tax year ends on 5 April you need to prepare and send in (online) a Self Assessment tax return. If your self-employment commences in the period between 6 April 2015 to 5 April 2016 you need to complete a Self Assessment return covering the period 6 April 2015 to 5 April 2016. This has to be submitted online to HMRC by 31 January 2017. The first instalment of tax is also due for payment by that date.

If your self-employment commences after 5 April 2016 your first tax return will for the period 6 April 2016 to 5 April 2017 which will be due by 31 January 2018. There are special tax reliefs and allowances that self-employed people can claim to improve their tax efficiency.

Bookkeeping and accounting

It is vital to keep full and accurate records of your income and expenses from the start of your self-employment. Keeping records is a legal requirement and makes business sense. It is important to get a proper system in place from the outset, and to update the information regularly. You face penalties if you file a Self Assessment return that contains inaccuracies caused by carelessness, such as not keeping proper records. A suitable cashbook, if completed correctly, should ensure your records are accurate.

You should keep invoices and receipts to show what you have bought and sold relating to your business. Retaining bank statements is also vital and, ideally, you should have a business bank account separate from your personal banking arrangements. You should be able to show clearly what you have spent on items related to being self-employed as distinct from personal expenditure. If you use cash, you will need till receipts and a record book to keep track of purchases.

National Insurance contributions

National Insurance contributions (NIC) are paid by almost everyone who works and count towards paying for state pensions, benefits and healthcare. As you are self-employed, there are two types of National Insurance contributions you need to know about – Class 2 and Class 4:

Class 2 National Insurance contributions

For 2015-16 these are £2.80 per week and are now collected with annual tax payments each January.

Class 4 National Insurance contributions

These are calculated as a percentage of your annual business profits. You only start paying Class 4 contributions when your profits reach £8,060. Contributions are then charged at 9% up to £42,385 and 2% thereafter.

Both of these National Insurance contributions are calculated alongside your Income Tax liability, based on the figures you report on your Self Assessment return. You pay these contributions at the same time as your Income Tax.

Student Loan Repayments

These are also calculated with your tax return at 9% of earnings over the threshold of £17,335. These repayments are also payable at the same time as your Income Tax.

Why you might need help

I have deliberately left out some of the more complex aspects of the taxation and financial requirements of being self-employed – for example the special tax reliefs and allowances which self-employed people can claim. Also, the process of producing accounts and submitting a tax return does take time and can appear daunting if you don't have a 'head for figures'. For these reasons, you may wish to employ an accountancy firm. Doing so will bring other benefits, such as forward projections of your likely tax and National Insurance bills (allowing you to set aside an appropriate amount each month) and advice on tax saving opportunities.

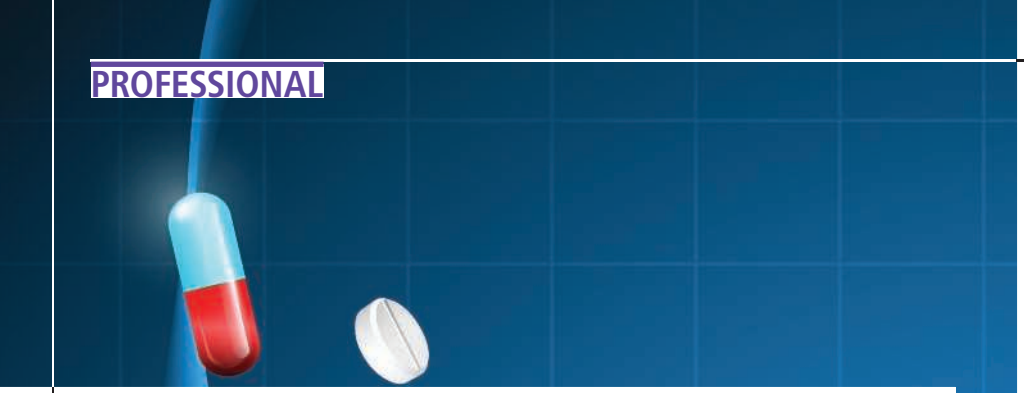
An accountancy firm that specialises in dentistry will be familiar with the financial aspects of the industry. In the case of PFM Townends, for whom I work, because we are part of the PFM Dental group, I have colleagues who can advise on pensions, financial planning and, when you're ready for it, practice purchases.

Sophie Kwiatkowski

Sophie Kwiatkowski

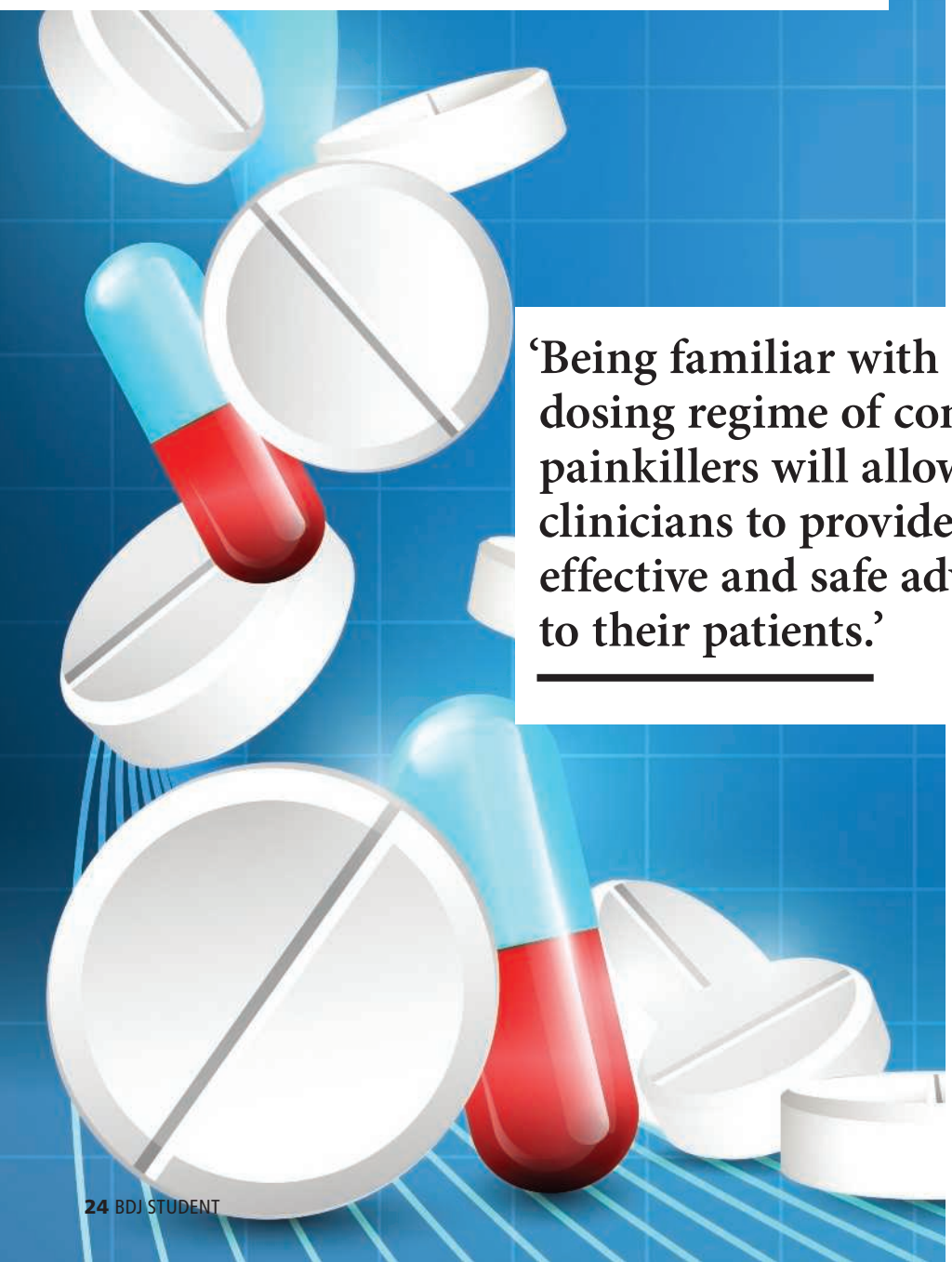
Sophie Kwiatkowski is an accountant with PFM Townends which provides a chartered accountancy service exclusively for dentists. It is part of the PFM Dental group, one of the leading specialist providers to dentists within the UK.

www.pfmdental.co.uk



A DOSE OF REALITY

Over-the-counter painkillers can be dangerously easy for patients to accidentally overdose on, as **Mark Cairns** discovered during his Vocational Training year



Mark Cairns

Mark Cairns is an SHO in Oral and Maxillofacial Surgery at the Queen Elizabeth University Hospital in Glasgow. He completed his Vocational Training in 2014.

My Vocational Training year was an exciting time with many firsts. It was there that I learned the art and science of being a jobbing dentist and more besides; a time when I could both shape and be shaped by experiences. One such experience changed my thoughts on over-the-counter painkillers.

Paracetamol is a drug that has been around since the 1950s that has both analgesia and antipyretic properties. It is widely prescribed by clinicians and it is also available to buy over the counter, making it a common drug taken in overdose by the public. It is normally found as a 500mg tablet and can often be combined with other active ingredients in various preparations, for example co-codamol. This itself may contribute to accidental overdoses with patients regarding painkillers as brands, therefore taking several different preparations without thought to the cumulative total. Being familiar with the dosing regime of common painkillers will allow clinicians to provide effective and safe advice to their patients. The British National Formulary (BNF) is an invaluable source of information in addition to helpful guidelines such as that produced by Scottish Dental Clinical Effectiveness Programme (SCDEP).

‘Being familiar with the dosing regime of common painkillers will allow clinicians to provide effective and safe advice to their patients.’

When taking a pain history it is sensible to ask how the patient has been managing their symptoms including if they have been taking painkillers. This is crucial because the symptoms of a paracetamol overdose are the result of liver damage that may not be apparent for three to five days. With this delay between cause and effect, an early identification of patients at risk can allow them to access the appropriate care pathway. The risk may also be present for those taking lower doses over several days. The BNF should be consulted routinely for known cautions, interactions and dosing schedules.

Some helpful questions to ask when taking a history may include:

- Are you currently taking any medicines to manage your pain that have been prescribed for you by your own doctor or any health professional?
- Are you currently taking any medicines to manage your pain that have not been prescribed for you specifically? (Note – patients may borrow medication from family and friends)
- Are you currently taking any over-the-counter medicines to manage your pain such as those available without a prescription? (Note – patients may not perceive painkillers to be medicines as they are available in local shops)
- How many tablets have you taken?
- Have you followed the instructions?
- Do you have the medication(s) with you?

With this information we can then make an assessment of the risk faced by the patient when combined with knowledge of their general health. Patients such as young children and the elderly, in addition to those with a known history of liver or renal impairment and high alcohol intake, may be at a higher risk of an overdose and as such caution would advised.

If there is a suspicion that a patient may be at risk it is necessary to inform the patient of this fact. The patient should then be directed to a secondary care centre such as the local A&E department. The patient's own general medical practitioner would also be a good point of contact for further advice.

Reflection and Learning

This event clearly focused my attention to the issue of medication overdose in dental practice and my role in preventing issues, identifying those at risk of harm and acting on it. Through this experience I have been mindful of the risks when managing dental emergencies and I have tried to better educate my patients.

Learning points:

- Record a pain history and focus on how the patient has been managing their symptoms.
- Don't be afraid to ask a patient to clarify what medication they have taken, where they got it from and if they have followed the instructions.
- Take advice if you are unsure or have a suspicion that the patient may be at risk of harm.

Case Report:

Situation:

Female patient aged 43 years attended as a dental emergency.

History and Examination:

CO – Pain ULQ with facial swelling.

HPC – Pain present for three days. Reports constant dull ache with an increase in swelling related to the left cheek over the last 24 hours. She now finds it difficult to open her mouth. The patient also reports sleep disturbance and rates her pain score as 10 out of 10. Did not feel systemically unwell with no signs or symptoms of sepsis.

MH – Patient had no known health complaints and she did not take regular medications. There were no known allergies.

DH – Irregular dental attender and reports history of dental anxiety.

SH – Smokes 10-15 cigarettes daily and describes themselves as a social drinker consuming roughly 14 units weekly.

Extraoral exam – Left hand side buccal swelling with reduced mouth opening.

Intraoral exam – Soft fluctuant buccal swelling adjacent tooth 26. Tooth was mobile and tender to percussion.

On discussion with the patient regarding how she has been managing her pain, she produces several blister packs of paracetamol that she had purchased in addition to co-codamol (30/500mg) that she received from a friend. She also reports that she had discarded some empty blister packs. A rough calculation shows the patient may have taken between 8-10g of Paracetamol.

Management:

I explained to the patient that she had exceeded the recommend dose of Paracetamol and was at risk of becoming unwell due to this. As I was working as the sole dentist on site that afternoon I felt that seeking further advice would be a sensible precaution. As the patient also presented with a large extra-oral swelling I contacted our local Oral and Maxillofacial Surgery department for advice. They helpfully explained that I should attempt to extract the tooth, drain any swelling and direct the patient to the A&E department while on their end they would make arrangements for the patient to be met for further assessment. As a result of this the patient was admitted for two days for treatment before being discharged to her general medical practitioner for her continuing care.

Mark Cairns

ADVICE SPECIAL

One of *BDJ Student*'s main aims is to provide readers with many different perspectives of the dental profession. Here, we have asked some young professionals to give us an insight into their working lives.

NOTES FROM THE OTHER SIDE

Rajbir Budwal, a final year dental hygiene student at the Universty of Essex gives *BDJ Student* an insight into her student experience

I'm Rajbir, a final year FdSc oral health student at the University of Essex. I'm excited to have this opportunity to share my journey with you. I will be discussing aspects of my training and experience, which I'm sure some of you should be able to relate to!

Like most other applicants who apply to dental hygiene/therapy programmes, I am a qualified dental nurse. I qualified with a certificate in Higher Education in Dental Nursing from the University of Portsmouth. Dental hygiene/therapy is something I have always aspired to do and this brings me to where I am today. Since starting the programme time has gone so quickly; to think about how far I feel I have already come almost seems surreal.

I have been treating and seeing my own patients for eight months now. Throughout this period I have been practising skills from my scope of practice in the clinical skills lab sessions on phantom heads. This involves gateway assessments at intervals to examine the skills you have been practising in order to be signed off. I am now able to carry out my full scope of practice as set out by the General Dental Council (GDC).

My training at The University of Essex involves placement-based learning. This means that instead of hospital-based learning or clinic-based learning, I practise my clinical skills in dental surgeries based around Essex. For the duration of my two-year training, we are required to attend placement twice a week. It is a great way to work in a real-life setting while still having the support needed as a student. Through placement-based learning, you get a real feel for situations that occur everyday in a dental setting. The remaining three days of the week are divided in to two days of lectures and one study day.

Obviously it's not all about the practical elements, there is lots of work to do academically alongside the practical. At Essex, we have exams every three months. This includes written, short answer exams, Objective Structured Clinical Examinations (OSCEs) and assignments. These exams are conducted at the end of each academic term.

I enjoy my time at Essex as I have made a good group of friends and all the tutors at the university are knowledgeable, helpful and very supportive. I chose to study here because when I attended my interview I felt comfortable and was made to feel at ease, which was a different feeling compared to other universities.

As any kind of dental student, life can get pretty stressful. Be sure to have a good group of friends around you, ask for help when you need it, take some time for yourself every day and obviously work hard to achieve the best you can!

Rajbir Budwal ■

BDA UPDATE

FIGHTING YOUR CORNER

With strike action, battling to save your course funding and lobbying for your jobs – we've been busy fighting your corner this year

Junior dentists join medics in strike action

Junior dentists joined medics in strike action on the 10 and 11 February following government failure to address concerns on safe working and unsocial hours in proposed changes to their contract. As part of our fight, we arranged for a group of young dentists to meet a delegation of MPs at Westminster to raise their concerns. Despite this, the Government has said it will impose the proposed contract changes in August. The fight continues with further strike action proposed by the BMA and BDA in April. Mick Armstrong, Chair of the British Dental Association, said: "Governments that rush to impose healthcare contracts can repent at leisure. It's patients and practitioners that have to live with the unintended consequences. The Government needs to get back to the negotiating table."

Our fight for NHS student bursaries

NHS bursaries cover student's fees and living expenses for the fifth year on a five-year course. There has been recent media coverage to suggest the government plans to end these bursaries for dentists and doctors, replacing them with loans, so plunging current students further into debt. We have therefore joined forces with other healthcare organisations to campaign against the government. We feel that any cut to bursaries is unfair on current students and could deter students from disadvantaged backgrounds from undertaking a career in the profession. Find out more at www.bda.org/studentfinance.

Dental Foundation Training places 2016

Dental Foundation Training (or Vocational Training in Scotland) is a training year that most dentists undertake straight after graduation. For DFT training places

starting in 2016 in England, Wales and Northern Ireland, assessments were held in mid-November 2015. The number of applicants regularly exceeds that of available places at this stage. Just over 950 training places were allocated in January, while a number of applicants were placed on a waiting list. In July, any training places that have become available, for example due to individuals not passing BDS or having changes in circumstances, will be allocated to individuals on that waiting list.

As every year, it is our policy that all UK graduates who are eligible to do dental foundation training should be able to do so. We will therefore lobby the relevant authorities for funding for enough places. For the past two years, no eligible UK candidate was left without a job – a situation that we would like to see repeated for years to come.

DFT salary 2016

The DFT salary is set by the government through the statement of financial entitlement in England, and related statutory instruments in the other countries. Currently, there is no proposal to consider a reduction of the DFT salary on the table for 2016/17, after an attempt to do so was rebutted successfully by us in 2014. We are however, very carefully watching this space as no guarantees have been given.

New DFT system piloted

A new system of 'satisfactory completion of DFT' has been piloted in 2015/16. It is expected to become a full part of the system for the 2016/17 intake of foundation dentists. This involves continuous assessment of each foundation dentist throughout the training year. It uses a structured portfolio and has a final sign-off by the deanery at the end of the year to say that the DFT competences have been achieved. We are sceptical about the move, highlighting increased workload as well as lack of funding for additional workload for all concerned.

Over the summer you should...

If you are in your penultimate year, watch out for announcements of the dates for the DFT application process, likely to start towards the end of August, with interviews during November.

If you are a final year student make sure you read our useful 'graduation checklist' in your *Getting your first job guide* to help you with those first steps into dental practice.

LIFE AS A ORAL AND MAXILLOFACIAL SURGERY SENIOR HOUSE OFFICER (SHO)

In her second column about life as an SHO, **Charlotte Leigh**, looks back on a minor oral surgery session

After the a typical ward round has finished, oral and maxillofacial SHOs will all disperse to our morning sessions. These sessions may include theatre, clinics, minor oral surgery (MOS) or on-call activities on the ward or in A&E.

An MOS session may be your own list (with you doing the surgery assisted by nurses) or surgery with a staff grade or registrar, with both giving you great opportunities to learn and develop your skills.

Ideally the day before you should try and check your list, as this will give you an idea of what procedures are listed and means you have the opportunity to prepare. Each patient will have attended a prior consultation appointment and had the treatment options discussed, questions answered and the treatment planned out in accordance with the referral letter.

The list may be an entire extraction list or a mixture of extractions and soft tissue biopsies. There may be patients who are having multiple teeth out over various sessions so you may need to check what has already been done. Some patients may be having treatment in hospital because they require a prior blood test or some additional monitoring which can't be completed in practice and therefore the extractions may be quite straightforward. Remember not all hospital extractions are horizontally impacted lower eights!

Typically a list will have four to five patients per session. At the start of each session you will 'huddle' with your nurses and can make a plan in case of any difficulties. For example, has the warfarin patient been for their INR test, is one extraction likely to be more difficult than another? You need to greet each patient and confirm the treatment based on the clinical notes and the referral letter and then go through the consent process with them explaining all the risks and benefits of the procedure.

Some MOS sessions are supervised by a registrar or may involve you assisting them. Whilst you make think this isn't an exciting prospect, you are likely to see some very interesting cases. The more time your registrar has to teach you and see your skills develop the more likely you are to be able to perform more complex procedures independently by the end of the year.

> **'The more time your registrar has to teach you and see your skills develop the more likely you are to be able to perform more complex procedures independently by the end of the year.'**

Remember you are never alone and if you are having difficulty, always ask for help. Everyone asks for help and uses it as a learning experience. An MOS session by yourself (with nurses) can initially be quite daunting, but just remember you used to take out teeth in your surgery by yourself during DF1 and now you have more experience and much better equipment. MOS sessions are a great opportunity to prove to yourself just how much your skills have improved. By the end of the year you will be confidently taking out teeth that you may have either struggled with or referred when you were a DF1.

Charlotte Leigh ■

DENTAL CORE TRAINING – LIFE AS A DENTAL CORE TRAINEE

In a series of articles for *BDJ Student*, **Naomi Prado**, **Louisa Rose** and **Jaina Patel** attempt to unravel the confusion surrounding the different types of Dental Core Training (DCT) posts

Dental Core Training Year 1 (DCT1) is the second year of post-graduate professional training, with dental foundation (DF) being the first. Core training is a route by which dental graduates can work in secondary care, enhancing skills and knowledge and working within multi-disciplinary teams. Core training is also the start of the pathway for specialist training, with many hospital-based specialist posts indicating it as an essential requirement.

This three-part series aims to inform the reader of the main types of DCT posts available, what to expect and how to best prepare yourself in order to secure one of these coveted and competitive jobs.

The three main DCT posts available take place in different settings: the community services, dental hospitals and oral and maxillofacial surgery departments.

The Community Services:

A role in the Community Dental Services (CDS) can provide a huge scope of experience. Depending on the services available, there is opportunity for developing experience of treatment under inhalation sedation (IHS) and intravenous (IV) sedation, as well as general anaesthetic (GA). There is also potential to attend domiciliary visits, rehabilitation units, perform school inspections and provide dental care for patients in the prison services.

Working in CDS can be challenging but extremely rewarding. The patients have complex medical and social histories and often this can mean a multidisciplinary team approach.

The pace of CDS is somewhat slower than in other types of DCT posts, yet the learning opportunities are still in abundance. You will work alongside a large team, undertaking a wide array of dental procedures and in particular will gain valuable insight into patient behaviour management.

Dental hospitals:

Posts within dental hospitals are some of the most competitive jobs in the country. The positions usually involve a rotation within different specialties, which can include: Oral Surgery, Oral Medicine, Paediatrics/ Orthodontics and Restorative Dentistry. A working day will typically be 9am to 5pm and does not include on-call responsibilities (which means you get weekends to yourself!).

> **'You spend time watching and learning advanced treatment techniques and then have the opportunity to use these techniques when treating the patients on your own lists.'**

Dental hospital posts are a natural progression from DF1 where you begin to see what happens when you refer your patients to secondary care. While working at a dental hospital you will have the opportunity to work in consultation clinics, dental casualty, treatment clinics (including treatment under IV sedation and IHS) and may even assist in treatment under GA. You spend time watching and learning advanced treatment techniques and then have the opportunity to use these techniques when treating the patients on your own lists.

A post in a dental hospital can open your eyes to a wide variety of specialties and can be a stepping stone to pursuing a certain specialty further. Even if you're not interested in specialist training, these posts can arm you with the skills to be a better GDP in primary care.

Oral and maxillofacial surgery:

A large percentage of the DCT posts available nationally are maxillofacial posts. Working as a maxillofacial DCT is varied and it will never be truer that you "learn something new every day". Practical experiences are widely available, with opportunities to develop minor oral surgery skills and soft-tissue management. You will assist with the complex surgeries of orthognathic and oncology cases, as well as paediatric theatres and emergency trauma theatres. Experience on outpatient clinics allows you to improve diagnostic skills and clinical assessment skills. Being on-call (not done in every role, so check the job description to clarify if this is involved) provides the opportunity to see patients in A&E and manage acute trauma such as facial fractures and lacerations.

Life as maxillofacial DCT could not be more different to working in general practice; the pace of hospital dentistry is fast and the learning curve is steep.

DCT study days and assessments:

As the DCT year is a training year there are mandatory study days to attend. These tend to be less frequent than during DF and are usually more specialised.

Unfortunately you can't get away from assessments and the current curriculum requires a number of these (such as observed procedures and case discussions) to be completed, in order to be signed off at the end of the year. They may sound like a hindrance, but actually give you an important source of reflection and feedback and you will still be allocated an educational supervisor who will make sure you're staying on track.

Hopefully this has given you a brief introduction to Dental Core Training.

In the next issue part two of this series will discuss the application process for DCT and how to build a good portfolio to help secure a post.

Naomi Prado, Louisa Rose and Jaina Patel ■

[1] Naomi Prado is a DCT2 in oral and maxillofacial surgery at the Royal Derby Hospital, Louisa Rose is a DCT1 in oral and maxillofacial surgery at the Royal Derby Hospital and Jaina Patel is a DCT3 in oral and maxillofacial surgery at the Royal Derby Hospital.

BDJ UPDATE

Stephen Hancocks OBE, Editor-in-Chief of the *BDJ*, chooses his article highlights from recent issues of this highly respected journal.

Published twice a month, the *BDJ* is the leading dental journal in the UK and is, in addition, widely read internationally. It is available in hard copy with 20,000 readers an issue (included in BDA Student Membership for 3rd, 4th and 5th year students) and online at **www.bdj.co.uk** (available to all BDA Student members) where it receives in excess of 100,000 unique visitors a month. It includes news, opinion, research, articles on dental practice and education.

3D printing in dentistry

The *BDJ* aims to bring readers the latest in developments in dentistry and this recent article set out to explore why 3D printing is important to dentistry, and why dentistry motivates development in 3D printing applications. The term 3D printing is generally used to describe a manufacturing approach that builds objects one layer at a time, adding multiple layers to form an object. This process is more correctly described as additive manufacturing, and is also referred to as rapid prototyping. 3D printing technologies are not all new; many modalities in use today were first developed and used in the late 1980s and 1990s. The term '3D printing', however, is relatively new, and has captured the public imagination.

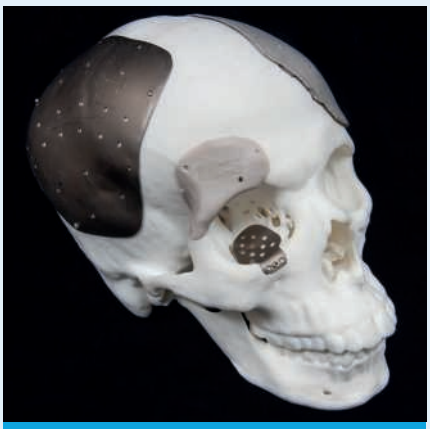
While we are very many years away from seeing the production of viable 3D printed organs, dentistry and oral and maxillofacial surgery have used 3D printing for years, and have whole-heartedly embraced the use of digital manufacturing technologies, notably, the use of computer-aided design and manufacturing. From a mechanical perspective, 3D printers are often quite simple robotic devices. The apparatus would be nothing without the computer-aided design (CAD) software that allows objects, and indeed whole assemblies to be designed in a virtual environment.

For 3D printing to have value we need to be able to create objects to print; CAD software allows us to create objects from scratch but in dentistry and surgery we also have ready access to volumetric data in the form of computed tomography (CT) data, cone beam computed tomography (CBCT) data, and intraoral or laboratory optical surface scan data. Recent developments in CBCT and optical scan technology, in particular, have revolutionised, restorative and implant dentistry. These powerful technological tools are at the disposal of dentists and dental technicians.

Modern dentistry has a familiarity with materials designed to work with CAD CAM and to substitute for the more traditional precious metal casting alloys, which have been subject to exponential price increases in recent years. This use of technology facilitates the use of materials, which would otherwise be hard to work with, and eliminates labour intensive artisanal production techniques, allowing the dental technician to focus manual skills on more creative aspects of the process, for example the aesthetic layering of porcelain. Every time that a dentist operates to provide a restoration or reconstruction, the procedure is unique to that patient, that jaw, that tooth, or that implant. The reconstruction or restoration will also have innate complexity requiring the reproduction of convoluted geometry with a high level of precision. Although multi-axis CAD CAM milling processes will allow this to an extent, the process is slow and wasteful as the material is milled from an intact block, and accuracy is limited by the complexity of the object, the size of the tooling, and the properties of the material. 3D printing, however, comes into its own for the accurate one-off fabrication of complex structures in a variety of materials with properties that are highly desirable in dentistry and in surgery.

The trend towards the use of intraoral scanners means that dentists need 3D printing in order to make a physical model of the scanned jaw. Although today, it is not always strictly necessary to print a master model at all, the 3D printed master model may be used for conventional aspects of the fabrication of a restoration, such as adding a veneering material, and we are accustomed to seeing restorations displayed on a model – even if they have been directly fabricated digitally. Patient model data may be digitally archived, and only printed when needed, easing storage requirements. Manufacturers have used 3D printing technology to create novel dental implants with a porous or rough surface and its use and appearance in dentistry is set to continue to increase as technology also develops.

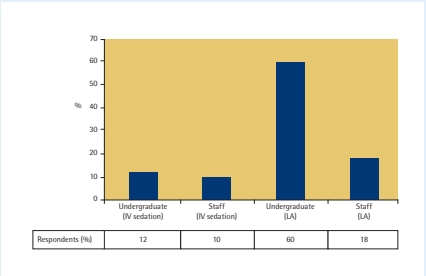
Prepared teeth printed from data from an intraoral scanner



Cranioplasty and orbital rim implants in titanium fitted to a 3D printed model (Courtesy of www.cavendishimplants.com)

UK dental hospital emergency clinic

A questionnaire survey was performed within a dental emergency clinic at a London teaching hospital to determine patients' reasons for attendance and satisfaction with their care. Questionnaires were distributed to all patients registering for the dental emergency clinic over a four week period. A total of 1,058 questionnaires were returned, with an average satisfaction score of 9.3/10. The majority of patients (58%) reported symptomatic dental attendance. Common reasons for irregular attendance were lack of perceived 'need' for care and concerns about cost of care. Patients with irregular attendance were significantly more likely to report their past dental care had been affected by cost than regular attenders. Fifty-one percent of all respondents had tried to make an appointment with a dentist prior to attending the emergency clinic, and 21% of patients with a GDP reported difficulty accessing urgent care at their practice. Forty-nine percent of patients attending the emergency clinic were referred to oral surgery clinics. Overall, this survey revealed high levels of satisfaction with care in the dental emergency clinic (King's College Hospital NHS Foundation Trust in south-east London). Patients' reasons for attendance at the clinic can be considered in terms of 'push' and 'pull' factors, deterring them from primary dental care and drawing them into secondary/tertiary care environments.

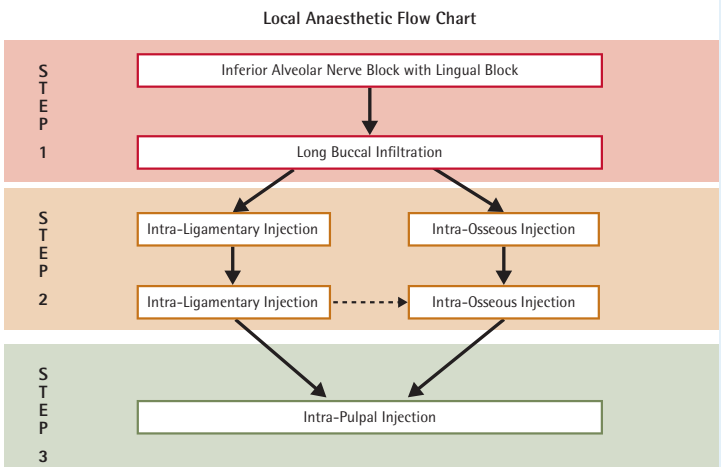


Clinic destinations of respondents referred to department of oral surgery for dental extraction

Tricky pulpal anaesthesia problems solved

Achieving profound pulpal anaesthesia in a mandibular molar diagnosed with irreversible pulpitis can be argued to be the most testing of dental anaesthetic challenges. This two-part practice article outlined the various local anaesthetic techniques that can be used to overcome the acutely inflamed mandibular molar. The same principles can be applied to help anaesthetise any other tooth presenting with an acutely inflamed pulp and the techniques are included in detail in the article along with key variables that have been associated with having an impact on the anaesthetic efficacy.

Difficulties in effectively anaesthetising an acutely inflamed mandibular molar (AIMM) are well documented. Conventional local anaesthetic techniques have shown to be unpredictable and sometimes ineffective, with success rates ranging between 20-50%. Part 1 outlined the clinical presentation and pathophysiology of an acutely inflamed pulp (AIP), defined what it meant to achieve pulpal anaesthesia and critically analysed theories as to why these teeth are more difficult to anaesthetise than their healthy counterparts. Part 2 expanded upon this by reviewing the literature and drawing upon anecdotal experiences to outline a staged approach for attaining clinically acceptable pulpal anaesthesia in the AIMM.



Flow chart outlining a systematic approach for anaesthetising a acutely inflamed mandibular molar

Junior Doctors' dispute

As well as being a reputed scientific journal, the *BDJ* also includes political commentary and encourages debate on a wide range of subjects pertinent to dentistry. Consequently, Peter Dyer, Chair of the BDA Central Committee for Hospital Dental Services wrote an Editorial on the Junior Hospital Doctors' dispute. We include a section of his Editorial here but *BDJ Student* readers are encouraged to access and read the whole piece to get a full sense of the BDA's stance on the dispute to date.

"It may well be the case that not all hospital trainees see the need to belong to the BDA. They may reasonably ask 'what's in it for me?', after all we have often allowed the BMA to take the lead on our behalf. Likewise, those established in the general dental service or elsewhere will see little here of import to them. But the answer is that it is about us and that is where our power lies. Working as a collective we are stronger and have more bargaining power. We can fight injustices and this proposed contract is an injustice. It is being proposed without proper assurances which will allow for a sensible negotiation to take place and is yet another challenge to our fundamental principles, and one which we must defend and we can only do that together. Earlier I discussed belonging, well the hospital trainees belong to the BDA and in turn, the BDA belongs to them. I trust that that belonging is reciprocated, that we belong to a trade union where what matters to one member matters to all members. And that we belong to a trade union that is not afraid to do the right thing to protect its members."

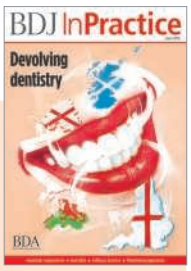
References

1. Dawood A, Marti Marti B, Sauret-Jackson V, Darwood A. 3D printing in dentistry *Br Dent J* 2015; **219:** 521-529.
2. Nayee S, Kutty S, Akintola D. Patient attendance at a UK dental hospital emergency clinic. *Br Dent J* 2015; **219:** 485-488.
3. Virdee SS, Bhakta S, Seymour D. Effective anaesthesia of the acutely inflamed pulp: part 1. *Br Dent J* 2015; **219:**
4. Virdee SS, Bhakta S, Seymour D. Effective anaesthesia of the acutely inflamed pulp: part 2. Clinical strategies. *Br Dent J* 2015; **219:** 439-445.
5. Dyer P. Taking action. Editorial. *Br Dent J* 2015; **219:** 419.

Stephen Hancocks

BDJ IN PRACTICE UPDATE

Selected by **David Westgarth**, *BDJ In Practice* editor



BDJ In Practice is the BDA's membership magazine and covers a range of business-focused topics. The articles below featured in a recent issue of *BDJ In Practice*. While they are aimed at established dentists, they are also relevant to young dentists preparing for their future careers.

Online advertising means value for money

With 86% of UK adults now using the Internet, according to the Office of National Statistics, practices have great scope to promote themselves through online advertisements. Not only are these significantly cheaper, based on cost per chance to view, than traditional print advertisements even in local newspapers or magazines, but also the response they generate can be more easily monitored and measured. Plus, online adverts can be interactive so that with one click people can be on the practice's website, responding to your call to action immediately: and their number (your advertisement's click-through rate) can be easily measured. This almost-instant feedback allows you to drop or tweak campaigns that are not working and ensure you are getting value for money from your advertising. It is for these reasons that, according to industry experts Strategy Analytics, more than 50% of advertising spend in the UK is now on digital advertising, amounting to £8 billion this year. This is twice that spent on TV advertising, and more than three times the amount spent on print advertising.

Unless you are a whizz at graphic design and writing advertising copy, it is best to use a marketing or advertising agency to put your online advert together, place it, and run your campaign for you. There are a variety of online advertising formats from which you can choose – banners, skyscrapers, pop-ups or expanding adverts. Banner ads are those across the top or bottom of a web page or, sometimes, in an area set aside for adverts. Skyscrapers are the long adverts that run down the side of a web page. Pop-up adverts, as the name suggests, pop-up when someone clicks on a page. And expanding adverts, typically used for videos, emerge on a webpage as the user scrolls down. Common to them all is that your advert must have a clear response mechanism – ideally a link through to your website. Without this, your advert will be nowhere near as effective.

Patients' rights to protect their personal data and prevent it from being misused is a major consideration for dental practices. In addition to your ethical obligations about patient confidentiality, the Data Protection Act provides patients with various rights (see www.bda.org/advice for BDA Advice *Protecting patient information*) including the right to "prevent processing likely to cause damage or distress". By processing, the Act means more or less anything a practice does with patient data: writing records, checking those records, submitting claims to the NHS or private capitation schemes, sending out recalls, sending work to laboratories, referrals and much more. So this right seems pretty strong, suggesting that patients can demand that you stop processing data about them. But this is not strictly true: the right is limited and the individual has to show that they are suffering considerable and unjustified damage or distress through your use of their data. If someone makes a formal objection you may have to stop using their data in a certain way or even delete it: but, generally, all you need to do is tell them why you are using their information and explain why you believe your use is lawful.

The Information Commissioners Office (ICO) has said what is covered by the right to prevent the use of data: "Substantial damage can be either financial loss or physical harm; substantial distress is typically emotional or mental pain that goes beyond annoyance or irritation." You may be able to justify the distress caused by the processing because you will only have to comply with the objection if it is warranted. A number of situations can justify your use of someone's personal data, even though they have officially objected. An individual cannot object to the processing if: they have already consented to the information being used; if the information is necessary as part of a contract involving the individual; if the processing is necessary to protect their vital interests; or if the processing is necessary to meet a legal obligation.

Objection rules and section-10 clues

Someone can only object to your processing *their* personal data

The processing must be causing unwarranted and substantial damage or distress

and

The objection must specify in writing why the processing has this effect

These are known legally as *section 10 notices*. But you should explain to your staff what such a request might look like so they can recognise one when it arrives: it will not necessarily say that it is being sent under section 10 of the *Data Protection Act*. Your team needs to be aware that anything that talks about objecting to personal information being held, or use of patient records, is likely to fall under the Act and they should report it to the practice's data controller.

David Westgarth

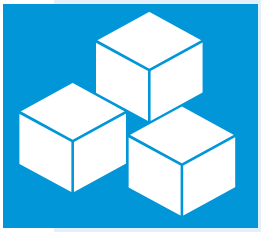
BDJ TEAM UPDATE

By **Kate Quinlan**, *BDJ Team* editor

BDJ Team is aimed at dental care professionals (DCPs) and is published online only. In 2016, it will be published every month except August and December. To fulfil its goal of informing, educating and entertaining DCPs, *BDJ Team* provides one hour of verifiable continuing professional development (CPD) in each issue.

Good Practice

British Dental Association (BDA) Good Practice is a framework for continuous improvement that helps you build seamless systems and develop a confident and professional dental team, and there's nothing that builds team ethos like uniting behind a campaign.



From the BDA's cut sugar campaign to the Oral Health Foundation's National Smile Month and Mouth Cancer Action Month, this article in the first *BDJ Team* issue of 2016 looks at four Good Practice members who have gone the extra mile to raise awareness of some key campaigns in the dental profession.

Charles Landau Dentistry in north London discusses what they have done within the practice to raise awareness of sugar consumption:

"We are proactive within the community regarding oral health. We partake in National Smile Month and Mouth Cancer Action Month as well as having an ongoing oral health programme. We have good relationships with our local reps from dental companies and they often supply us with samples to go in goody bags for our demonstrations. We have always discussed sugar with our patients, especially hidden sugars. We have created an educational poster as part of our visual display, demonstrating the different sugars called 'sugar by any other name' and explained that anything ending in 'ose' on an ingredient label would be sugar.

"Nowadays instead of talking about the consequences of Ribena in babies' bottles we are speaking about the consequences of frequently drinking smoothies and the perils of dried fruit."

Hob Hey Dental Care in Culcheth explain how they have engaged children on the subject of sugar consumption:

"We are about to host toothbrush training days in the school holidays, run by the Oral Health Educators and we are looking into providing diet and preventative advice to families of children with tooth decay.

"Every year we go to the local school to talk to the six to seven-year-olds in conjunction with their 'healthy eating' week. These sessions are really good fun and the children enjoy looking at the equipment we use and we play games such as guessing which foods have hidden sugars and we all have a turn at brushing teeth correctly on our giant tooth model. They really enjoy their goody bags that we provide, which are filled with toothbrushes, toothpastes, hidden sugar charts, stickers and rewards charts and we have had feedback from parents saying that these sessions have really changed their children's eating habits and it has had a positive effect on the whole family."

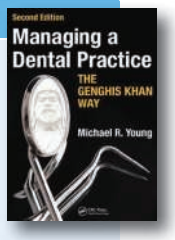
To read on, go to www.nature.com/articles/bdjteam20168.

Top 10 tips for improving patient compliance

There are many challenges the dental team face on a daily basis. Challenging contracts – internally as well as NHS – always seems to top the list, but improving patient compliance and shifting toward a preventive world is perhaps one of the greatest challenges of modern dentistry. Dental hygienist and award winner Michelle Coles gives her 10 top tips for improving patient compliance.

To read the full article, go to www.nature.com/articles/bdjteam201551.

Turning complaints into compliments



In an exclusive extract from the second edition of the book Managing dental practices the Genghis Khan way, this article looks at how to manage patient complaints – a topic recommended for regular study by the General Dental Council (GDC) by all dental professionals.

What is a complaint?

Basically it is an expression of dissatisfaction that requires a response. What do patients complain about? Basically, anything and everything. They will complain about:

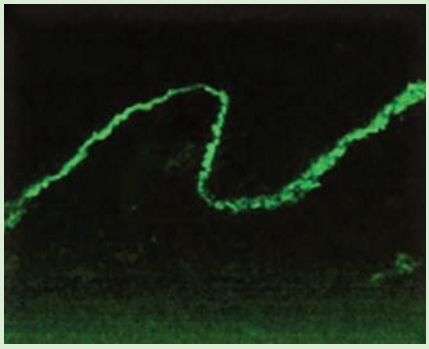
- Treatment
- Service: cost, pain (continuing, or being ignored), conduct (including rudeness), getting access or not getting access to treatment, giving or not giving consent
- Communication: lack of it is usually at the heart of most complaints. Most complaints are about dentists, but some are about other members of the dental team.

You have an ethical duty and an obligation to address any complaint, no matter how unfounded you think it may be. Notwithstanding these obligations, your practice complaints procedure must be rigorous, transparent and fair.

To find out more from the author of this article, Michael R. Young, a former clinician and practice owner, go to www.nature.com/articles/bdjteam201651.

Kate Quinlan

Question 1



The illustration to the left shows a diagnostic test on a biopsy specimen of intra-oral blisters and ulcers.

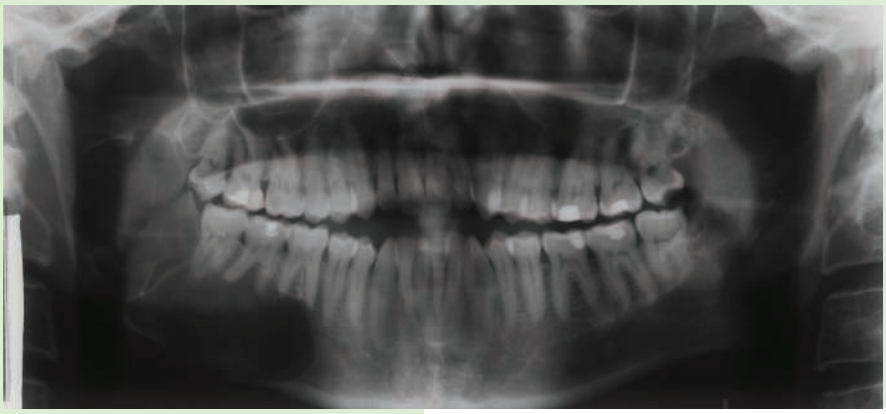
A. What is the diagnostic test?

B. What special precautions do you need to consider when undertaking the biopsy?

C. Please explain the stages involved in this test.

D. What is your diagnosis?

Question 2



A. What is this radiograph?

B. How would you describe this lesion?

C. What is the differential diagnosis?

Question 3

Nayyar core is constructed from:

A. Amalgam

B. Ceramic

C. Composite

D. Glass ionomer cement

E. Gold

PasTest
Dedicated to your success

REVISION

Test your knowledge with the following questions from **PasTest**

Answers are on page 37

Question 4

Which of the following is the 'active component' in an upper removal appliance to correct a localised anterior crossbite between UR1 and LR1? Please select one option.

A. Adams clasps

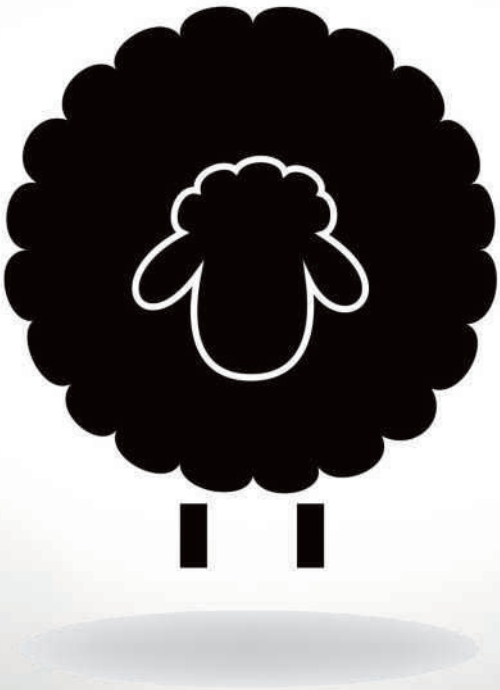
B. Baseplate

C. Posterior bite plane

D. Southend clasp

E. Z-spring

S.H.E.E.P – HOW IT CAN HELP IN DECIDING TOOTH RESTORABILITY



Gian-Marco D'Andrea, winner of the *BDJ Student/King's Crown* writing competition, talks about the benefits of using the acronym S.H.E.E.P

It's a Wednesday afternoon on the fixed pros clinical floor. For some reason I'm feeling unusually hot under my tunic collar, despite the fact that it's the middle of January and students not treating patients are huddling around hot air blowers for extra warmth. Maybe it's the fact that Mrs Jones is sat in my dental chair complaining that the crown I fitted for her has become "loose". This, combined with the fact that it is the third time she has come back with the same complaint might have something to do with it.

After having one of the consultants examine Mrs Jones, I await the inevitable. "This tooth is unrestorable, it has to come out," he says. How did it come to this? And why did I not spot that the tooth was unrestorable from the start?

The answer was simple really. Having gotten carried away with the excitement of adding a crown to my quota list, I had failed to carry out my own assessment of the tooth. This tooth had a guarded prognosis from the onset of treatment which would have been clear if a systematic review of its restorability had been carried out.

Simple acronym

Since then a simple acronym has helped me to assess the percentage likelihood of tooth restorability and to avoid similar situations recurring.

The acronym is: S.H.E.E.P and it stands for
S – Structure
H – History
E – Endodontics
E – Experience
P – Periodontics

The tooth being assessed is given a score from one to ten for each of the above headings. The total is doubled to give the percentage likelihood of the tooth having a favourable prognosis following restoration. Values under 50% do not indicate a favourable prognosis while those over 75% indicate a high chance of success.

In this article I will outline a few clinical considerations that fall under each of the headings when assessing a tooth for its restorability.

BACKGROUND

"At King's College London we have a student-led dental newsletter called *The King's Crown*, which includes a variety of special features and news pieces. The newsletter has only been running for two years but we have already had such fantastic articles and writers that we thought it was a shame to confine them within the walls of our dental school. With this in mind, we decided to partner with *BDJ Student* and hold a competition to find the best *King's Crown* article, with the winning article published in the Spring issue. This is a fantastic opportunity to showcase the writing talents of King's College London dental students and a chance to pursue topics that interested them. We were overwhelmed by the response we received but eventually chose the winner. Gian-Marco D'Andrea wrote an informative piece about the benefits of using the acronym S.H.E.E.P when assessing the likelihood of restoring teeth. We hope others appreciate his article as much as we did, and we would also like to congratulate everyone who took part."
The King's Crown team

Structure

The amount of enamel that is available for bonding will play a huge role in the longevity of your restoration. This is especially true when choosing composite as your restorative material. Loss of peripheral enamel leaves the restoration to rely more on bonding to dentine, which is known to be unreliable as a result of its permeability.

Larger restorations make it more likely that the restoration will come into contact with antagonistic teeth. Depending on the restorative material being placed, this could lead to unacceptable rates of wear in contact areas versus contact-free areas.

It is also goes without saying that with larger restorations, there is a greater chance of the pulp becoming involved. Very few materials have the same buffering or thermo-protective properties as dentine. And while its removal may be necessary for caries removal or cavity modification, the remaining dental thickness is the most important factor in protecting the pulp. Studies have shown that having 0.5mm thickness of dentine reduces the effect of toxic substances on the pulp by 75% and a 1.0mm thickness reduces the effect by 90%[1].

Restoration margins should preferably be placed supragingivally. If the tooth is grossly carious this can only be assessed once the soft infected dentine and undermined enamel has been removed. Once this is done you may find that you have had to stop removal of dentine due to the cavity encroaching on the pulp or margins potentially being subgingival.

Before getting heroic, think about the problems this will pose when placing your definitive restoration. Subgingival margins are commonly associated with both biological and technical problems such as isolating the working field with a dental dam, adhesion, impression taking, and final positioning of the restoration itself. That's not to mention encroaching on the revered "biological width". Placing restoration margins in this area increases plaque retention and can lead to iatrogenic recession due to periodontal disease, which in the aesthetic zone places the patient at high risk of 'black hole disease'[2].

History (Medical, dental, social)

Before undertaking any form of treatment a thorough history should be taken. This will provide clues to help form a diagnosis of the patients' complaint as well as provide time to build rapport and trust. Questions should aim to determine all aspects of the presenting problem including onset, duration, symptoms, and related factors. This line of questioning is important for establishing the need for specific diagnostic tests along with the appropriate treatment options that may be required.

The patient's medical history should also be carefully examined, especially if they have filled out a medical history form themselves while being seated in the waiting room. Patients often forget to note down conditions they feel are adequately managed by medication, especially if they have no symptoms to report. This investigation will make you aware of conditions that could alter, complicate or contraindicate planned treatment.

'This tooth had a guarded prognosis from the onset of treatment which would have been clear if a systematic review of its restorability had been carried out.'

Next, previous dental experiences should be reviewed as this will allow you to pre-empt intolerances the patient may have to particular forms of treatment. This could be difficulty in taking impressions due to a strong gag-reflex or avoidance of certain impression materials due to allergies. It is also important to find out if any radiographs have been taken recently to ascertain the need for additional radiographs and minimise exposure of the patient to any unnecessary radiation.

Finally, the priorities, attitudes, expectations and motivations regarding dental care should be assessed. This in addition to the patient's habits, occupation and parental history can indicate how committed they are to treatment. There's very little benefit in placing beautifully crafted metal-ceramic crowns with subgingival margins in a mouth riddled with calculus and plaque, as this will be sure to shorten their life.

Endodontics

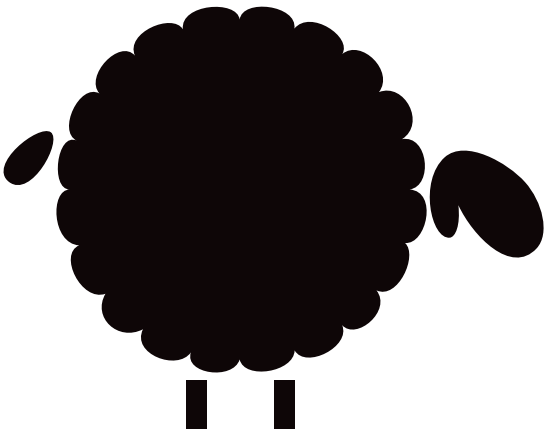
Symptoms indicative of irreversible pulpitis justify the use of root canal therapy (RCT) and this offers the patient the possibility of retaining their tooth and being free from pain. This line of treatment carries with it its own risks and benefits that must also be taken into own account and communicated to the patient. For example, teeth that have been restored following RCT are more common to fracture[3], suffer from coronal microleakage and bacterial contamination which, when not immediately restored, increases the likelihood of recurring apical pathology necessitating retreatment[4].

Assessment of restorability is crucial seeing as a suitable coronal restoration will have to be placed, once the canal system has been successfully filled. A 'Tooth Restorability Index' (TRI) has been devised to help clinicians evaluate remaining coronal tissue[5] available for bonding of a definitive restoration.

Use of the ferrule effect, defined as the envelopment of the tooth structure by a crown, will also greatly improve the success of any extracoronal restoration. The ferrule provides a protective effect by reducing stresses within a tooth and should ideally consist of a 2.0mm band of coronal tooth tissue that sits within the fit surface of the crown[6].

If there is insufficient coronal tooth tissue available to support a definitive restoration you might want to consider the use of a post retained core. Use of a post will help retain a core made of a plastic material (amalgam

or composite) that can then be bonded to the final restoration. Post length should be longer than the clinical crown of the tooth to limit the chance of decementation and root fracture. Unfortunately, for the everyday clinician, this may be difficult to achieve as most roots have some form of curve to them. Post length should also be considered along with the remaining root canal filling that must remain for the apical seal to remain intact. The current consensus is for a minimum requirement of 4-5mm apical gutta-percha for an apical seal to remain intact[7].



'Experience and knowledge in addition to technical skills are all required to plan and carry out an adequate standard of treatment.'

Experience

Can I perform this treatment to a high enough standard? This can be a hard question to answer honestly. Tackling complex work involving a variety of dental disciplines with an excess of bravado and lack of proper training and understanding of the potential risks can lead to disaster. Experience and knowledge in addition to technical skills are all required to plan and carry out an adequate standard of treatment.

Periodontology

Presence of plaque and any other modifiable secondary factors should be recorded and shown to the patient using disclosing solution or tablets. Motivation of the patient to improve oral hygiene along with education on how to properly use hygiene will reduce the risk of recurring periodontal disease and tooth decay in addition to restoration failure.

Bone loss should be assessed by taking the appropriate radiographs, such as the long cone periapical, dentopantmograph and vertical bite wings. This will demonstrate the position of the alveolar margin and condition of the alveolar bone. The presence of vertical bone defects along with furcation involvement present a less favourable prognosis compared with horizontal bone loss. This is due to the level of attachment being more apical, presenting home care problems for the patient, even after satisfactory non-surgical periodontal treatment.

Loss of attachment should be confirmed following BPE readings of three, four,* by carrying out a six-point pocket chart of the area affected with periodontal disease. This information can be used in conjunction with radiographs to provide a site-related diagnosis and formulation of an appropriate treatment plan.

Mobility resulting from destruction of supporting tissue is non-reversible, unlike that caused by occlusal trauma and inflammation. Pathologically associated mobility of a tooth may compromise its function within the mouth as well as exacerbate the rate of any active periodontal disease due to occlusal 'jiggling' forces[8].

Conclusion

To conclude, when assessing a tooth for its restorability a number of clinical considerations must be taken into account. In the highly stressful and fast paced environment of a dental clinic, such considerations may be forgotten. This is why systematic history taking and examination is of the greatest importance in putting together a treatment plan that's in the patient's best interests. I hope the use of the acronym S.H.E.E.P. proves to be useful during your years at dental school and beyond. Armed with it, you will have a system to identify whether a tooth is restorable or not and avoid embarking upon any inappropriate treatment. Remember, before jumping into treatment take a step BAAAA-ck and think S.H.E.E.P.

References:

1. Meryon SD: The model cavity method incorporating dentine, *Int Endod J* 21(2):79-84, 1988
2. Dhir S: The Peri-implant esthetics: An unforgettable entity, *J Indian Soc Periodontol*, 15:98–102, 2011
3. Assif D, Gorfil C: Biomechanical considerations in restoring endodontically treated teeth, *J Prosthet Dent*, 71(6):565–567, 1994
4. Boucher Y, Matossian L, Rilliard F, Machtou P: Radiographic evaluation of the prevalence and technical quality of root canal treatment in a French subpopulation, *Int Endod J*, 35: 229–238, 2002
5. McDonald A, Setchell DJ: Developing a tooth restorability index, *Dental Update*, 32:343–8, 2005
6. Da Silva NR, Raposo LH, Versluis A, et al: The effect of post, core, crown type, and ferrule presence on the biomechanical behavior of endodontically treated bovine anterior teeth, *J Prosthet Dent*, 104:306–317, 2010
7. Ricketts DNJ, Tait CME, Higgins AJ: Tooth preparation for post-retained restorations, *British Dental Journal*, 198(8):463-471, 2005
8. Ericsson I, Lindhe J: Effect of longstanding jiggling on experimental marginal periodontitis in the beagle dog, *J Clin Periodontol*, 9(6):497-503, 1982

Gian-Marco D'Andrea

For the past two years *BDJ Student* has partnered with King's Dental School to run a writing competition. Entrants submit an article they think will interest their fellow students and the winner is published in *BDJ Student*. However, this opportunity isn't limited to King's and so if any dental school wants to run a similar competition we would be happy to consider it. After all, this is YOUR magazine and we want to hear from as many of you as possible. Please email **bdjstudent@bda.org**.

REVISION

Answers for revision questions from PasTest

Questions are on page 33

Question 1

The illustration to the left shows a diagnostic test on a biopsy specimen of intra-oral blisters and ulcers.

A. What is the diagnostic test?

B. What special precautions do you need to consider when undertaking the biopsy?

C. Please explain the stages involved in this test.

D. What is your diagnosis?

ANSWER

A. The test is direct immunofluorescence.

B. In immune-mediated vesiculobullous disorders, autoantibodies bind to antigenic sites, either on the epithelial cell surface or within the basement membrane zone, as in this example. The biopsy should be taken from para-lesional tissue as an intact epithelial-connective tissue interface is required. The tissue should be submitted fresh because formalin fixation destroys the antigenic sites.

C. The stages involved in direct immunofluorescence are as follows:

- Antibodies bound to a fluorescent marker are applied to the tissue section on the slide.
- These antibodies recognise the autoantibodies already bound in the tissue.
- The section is then washed and any bound fluorescent antibodies are viewed with a fluorescent microscope.
- The distribution of the fluorescent antibodies is equivalent to the distribution of the autoantibodies.

D. In this example, the antibody is distributed in a linear fashion along the basement membrane zone. Therefore, the likely diagnosis is mucous-membrane pemphigoid.

Question 2

A. What is this radiograph?

B. How would you describe this lesion?

C. What is the differential diagnosis?

ANSWER

A. This is a dental panoramic tomogram (DPT).

B. When describing a lesion on a radiograph it is usual to cover the following points: Radiodensity; site; size; shape; outline; adjacent structure.

With regard to this lesion there is a radiolucent lesion at the angle of the mandible on the right hand side, extending from the apex of the lower second premolar right up to the sigmoid notch area. It is mutilocular and has a well-corticated margin. It has not resorbed the roots of the adjacent teeth and it is not possible to evaluate its relation to the inferior dental nerve. The lesion is not a normal anatomical structure and is not due to an artefact, hence it is likely to be pathological.

C. Common radiolucent lesions in the mandible include: Cysts; tumours; giant-cell lesions; infections; traumatic lesions; idiopathic lesions.

Common multilocular radiolucent lesions in the mandible include: Cysts – keratocysts; odontogenic tumours – ameloblastoma, Pindborg's tumour (calcifying epithelial odontogenic tumour), odontogenic fibroma, odontogenic myxoma; central giant cell-lesions. A definitive diagnosis is only possible after a biopsy.

Question 3

Nayyar core is constructed from:

A. Amalgam

B. Ceramic

C. Composite

D. Glass ionomer cement

E. Gold

ANSWER

A. Amalgam. Nayyar cores are constructed to provide retention for crowns in endodontically treated teeth with insufficient supra-gingival tooth tissue. They are constructed by removing 3–4 mm of radicular gutta percha, then packing these with amalgam and then building the tooth up.

Question 4

Which of the following is the 'active component' in an upper removal appliance to correct a localised anterior crossbite between UR1 and LR1? Please select one option.

A. Adams clasps

B. Baseplate

C. Posterior bite plane

D. Southend clasp

E. Z-spring

ANSWER

E. Z-spring. Anterior crossbites are used to correct localised anterior crossbites. The principles of removable appliance design can be summarised using the acronym **ARAB**.

A is the active component. Springs are most commonly used. Z springs or T springs are used. The smallest diameter of the wire used is 0.5 mm.

R is retention of the appliance. Typically Adams clasps are used and these engage into the undercut on fully erupted molars or premolars. They are fabricated from 0.7 mm stainless steel wire.

A is anchorage. This is defined as the source of resistance to the forces generated in reaction to the active components of the appliance. It is required to prevent unwanted movements.

B is baseplate. This connects all the components of the appliance.

The active component is therefore the Z-spring, which will procline the UR1.

HOW TO: LAND YOUR FIRST JOB

In his second article for *BDJ Student*, **Mike Young** discusses the skills you need to secure your first job

Preparation is everything when you apply for a job, but more so when applying for your first, as success will give you the confidence you need for a long and successful dental career. Below are some tips and pointers about how to succeed on the first attempt.

1 Curriculum vitae (CV)

Make sure your CV is relevant to the post for which you are applying. CVs are not one size fits all. Your CV is your shop window; if you don't display what the employer is looking for they will shop (look) elsewhere. Set your CV out in a logical order and make sure everything is correct (factually, grammar, spelling). The BDA has helpful sample CV examples at www.bda.org/careers.

2 Strengths (S), Weaknesses (W), Opportunities (O), Threats (T)

Before you sit down and write your application, carry out a SWOT analysis on yourself to highlight your strengths and weaknesses. You should always aim to build on your strengths and eliminate your weaknesses. Write it all down and take it with you if you are invited for interview.

Dr Mike Young CV

1953 Born in Newcastle upon Tyne

1978 Graduate Newcastle University

1978 -2003 Associate, Practice Principal, MSc University of London, Clinical teacher, Expert witness, Writer

2010 Author of *Managing a dental practice the Genghis Khan way* published by Radcliffe Publishing

2013 Author of *Developing your dental team's management skills the Genghis Khan way* published by Radcliffe Publishing. Contributor to *Messages from Dental Masters 2 – How to enjoy and thrive in your dental career* published by SNH Publishing

2014 Author of *The effective and efficient clinical negligence expert witness* published by Otmoor Publishing

2015 Contributor to *Civil Litigation Practice: An expert guide* published by Solicitors Journal

> **'They want to hear the truth, and if you aren't entirely truthful be assured you will eventually be found out!'**

3 Referees and references

Good referees and good references are important. If there is a 'tie' between two applicants, then what someone else has said about you could be the clincher. Carefully select who you ask to be a referee and don't simply ask them if they will write a reference for you: ask them if they are prepared to write a *positive* reference for you, that way you know the reference is going to be supportive. Never make the mistake of *not* asking someone to be a referee before giving their name to prospective employers – this is unprofessional. Never give the names and contact details of your referees on your CV; you should simply state that 'References are available on request'.

4 Application

However you apply, whether it is by filling in a form (hard copy or online), writing a letter (hard copy or email), or simply with a telephone call, you must do your research as to what you are applying for. Read the advert carefully. Research the practice/clinic/hospital etc. Do you really want to work there?

Your application, like your CV, must be flawless. I work a great deal with the legal profession and I know that any CV or job application containing even the smallest grammatical or spelling errors will be binned. Don't let your CV and application end up in the same place.

5 Interview

If you have had an interview before but didn't get the job, did you ask for feedback as to why you weren't successful? Feedback helps you improve your CV, application and performance at interview. If this is your first interview, try to do some interview role play with a friend or colleague to get some experience and to settle your nerves.

What could the employer ask you? Try to prepare your answers. Questions might not just relate to your dental skills, but extend to questions about why you want to work at this practice. Why is it going to be better for you to work here rather than at any other practices in the area?

Turn up on time. Present yourself well. Turn off your phone. Be prepared to shake hands when introduced – always with a good, firm handshake.

Your body language is important. Maintain good eye contact, don't cross your legs or your arms, don't be overconfident or cocky. If you don't know the answer to a question, say so; honesty is always the best policy.

Don't tell the employer what you think they want to hear. They want to hear the truth, and if you aren't entirely truthful be assured you will eventually be found out! Be prepared to talk about your personal strengths and weaknesses. Make sure you can comment on and provide evidence of all the essential and desirable skills mentioned in your application.

The interview is also your opportunity to find out more about the job and the practice, so prepare well with intelligent questions. Write these questions down, use a note book, not a scruffy piece of paper. Use these questions as a prompt to enter into a wider discussion. Ask about the practice team, its structure, patient demographics, career progression and what support the practice will provide for CPD. Finally, ask when and how they will let you know if you have been successful.

Preparing well, from writing your CV to your performance at interview, can make the difference to you landing your first job. Don't cut corners and hope you can get away with it, you won't! **Mike Young** ■

We know that the first few years after graduating can be some of the most challenging of your career, which is why we have put together an online support package including career advice, sample CV's, interview tips and more.

Find out more at www.bda.org/startingout.

SURGERY: A PATIENT'S PERSPECTIVE AND LESSONS LEARNT

IN BRIEF

- Discusses the need for conveying empathy successfully and breaking bad news well.
- Highlights the significance of valid consent and the different levels of consent.
- Illustrates how effective communication may play a role in reducing the anxiety of the patient.

R. Mehdizadeh[1]

This article discusses a hospital experience from the point of view of a patient, in this case a healthcare worker herself – a dental student. The author relates her experience of a three-day hospital stay and appendectomy, during which time she experienced the breaking of bad news, the consent process, and the importance of good communication - all from the patient's viewpoint.

The abrupt nature with which appendicitis presents left me unprepared for my three-day hospital visit and appendectomy. However, it also proved to be an interesting exercise in experiencing the breaking of bad news, the consent process, and the importance of good communication – all from the patient's viewpoint. It is often noted that healthcare workers can be among the most difficult of patients themselves.[1] The increased level of awareness and knowledge they have, or perceive they have, can make the switch from clinician to patient all the more challenging. Despite the short amount of time I have been treating patients as a third year dental student, I still felt this all too well. However, the high level of care I received and parallels with respect to dentistry left me not only feeling a deeper sense of empathy for my own patients, but also inspired me to carry forward what I have learnt in my own work as a future dentist.

Having been rushed to A&E with abdominal pain in the small hours of a working day, I was promptly seen by an emergency doctor. She was left unconvinced of appendicitis on examination as I presented atypically – afebrile and without rebound tenderness. It is thought that only around half of patients will demonstrate 'classical presentation', following findings from Murphy who completed over 2000 appendectomies in 1904.[2] Therefore, when the results of my blood test revealed an unusually high white blood cell count, I was admitted onto the surgical ward with a view to having an ultrasound scan to further aid my diagnosis. As I attempted to get some rest after a hectic past few hours, I couldn't help but feel uneasy. Sadly, I had to swallow the painful irony that my plans for the next day no longer included attending a much-anticipated talk on surgery. This was to be my first lesson – the disappointment, uncertainty, and vulnerability one feels as a patient, wholly in the hands of one's carers.

[1]Third Year Dental Student, King's College London
Correspondence to: Roxanne Mehdizadeh
Email: Roxanne.Mehdizadeh@gmail.com

Breaking bad news

Following my ultrasound the next day, a junior doctor came to speak to me and I swiftly found myself the recipient of bad news. As a scenario which had been discussed in theory during dental school, I was naturally intrigued to see how she may go about it. At my insistence the sonographer had already shared her findings with me, hence I was aware that my appendix was acutely inflamed, or in her words: '*…a nice textbook example of one*.' Nonetheless, I appreciated how well the young doctor broke the news to me. She greeted me warmly, introduced herself, and sat next to me at eye-level, before asking me how much I was already aware of. This open-ended question allowed me to give my interpretation of the preceding events. Listening carefully, she then confirmed that I was correct, and explained the next steps in detail. I recognised that the consultation followed the well-known 'SPIKES' format for delivering bad news, an acronym developed by Dr Walter F. Baile[3] ('S—Setting up the interview; P—assessing the patient's Perception; I—obtaining the patient's Invitation; K—giving Knowledge and information to the patient; E—addressing the patient's Emotions with Empathic responses; S—Strategy and Summary'). It could be argued that following pre-conceived formulas and pathways for what are very human situations is too robotic. However, I found that the well-structured nature of the consultation gently eased me into accepting the fact that in a matter of few hours I would be operated on for certain.

'It could be argued that following pre-conceived formulas and pathways for what are very human situations is too robotic.'

Throughout the conversation I also felt a genuine sense of respect and understanding from the doctor. Where clinicians struggle with empathy, it has been suggested that this is often not due to an intrinsic lack of it on their own behalf, but rather a difficulty in relaying that empathy to the patient while attempting to remain objective and able to make clinical decisions.[4] Furthermore, that these skills can be acquired. This includes being sure to pick up empathic cues from patients which are often non-verbal, and acknowledging their concerns after having listened in full.

Experiencing a hospital stay can offer clinicians a new perspective

Consent process

I was also interested to see the parallels and differences in the consent process compared to dentistry. There were examples of implied consent – for example, that by exposing my upper arm I was consenting to my blood pressure being monitored. However, I was always asked for verbal permission before more invasive procedures such as taking blood.

As for the surgery itself and written consent it requires, I was surprised by how brief the entire process was. Although the risks and alternatives were explained, the benefits of the operation were heavily emphasised. Here, with respect to the four principles of bioethics,[5] beneficence and non-maleficence outweighed the latter two of autonomy and justice. It was clear that it was in my best interests to have the operation, and without delay at that, so too much of a focus on any unlikely complications would not be beneficial to my wellbeing. Within dentistry such emergency scenarios where informed consent has its limitations are very rare. As has been suggested, patients are fully within their right to make an informed refusal, or unwise decision.[6]

The consent process I was more familiar with related to less involved treatments such as fillings and was based on the principles of shared decision making[7] and obtaining valid consent.[8] I had taken care to explain every possible benefit, risk, side effect and alternative option in meticulous detail, ensuring understanding and appreciating the continuous rather than one-off nature of consent. The elective nature of such treatment allows for the patient to have the autonomy to be involved in this way.

Communication

There were innumerable aspects of surgery which I had never previously been aware of. How many times had I asked the question *'have you ever had any operations?'* to my own patients while taking a medical history without truly understanding what that entailed? I had not considered the near-constant suspense and long intervals of waiting for the results of tests and scans to be relayed. Nor the inability to truly rest due to the continuous checking of vital statistics at hourly intervals, even throughout the night. Nor the changing of IV fluids, delivery of medications, and, of course, the general difficulties in sleeping with uncomfortable cannulas digging into one's veins, all while the bustling on the ward continues well into the night. I was extremely well cared for, but these are simply the unavoidable facts of staying in a hospital and requiring 24-hour monitoring. They all contribute to the loss of control and dehumanised feeling one has as a patient.

'Within the dental setting, studies have shown that providing such descriptions of what to expect or so-called 'sensation information' reduces anxiety'

With respect to the appendectomy itself, despite my ostensible nonchalance during the consenting process, I was in all honesty gripped with anxiety as I lay in the anaesthetist's room one door away from the operating theatre. I had decided that it would be the perfect occasion to mull over the horror stories I had read about anaesthesia awareness. However, the anaesthetists soon dispelled my fears, explaining every step – from the reasoning behind the cricoid pressure, to the ice-cold sensation I would feel as the general anaesthetic travelled up my arm, as well as the sore throat I may experience the next day due to the intubation. Throughout all of this, my dreads and uncertainties were allayed by the constant and high calibre communication from the various members of the team. Within the dental setting, studies have shown that providing such descriptions of what to expect or so-called 'sensation information' reduces anxiety,[9] and that most (although not all) patients prefer a talkative dentist if they are nervous.[10]

Overall, my unexpected hospital stay reinforced my understanding of the consent process, breaking bad news and communication from a patient's perspective. In fact, the whole experience was humbling and taught me that being a patient can quite frankly be terrifying, yet at the same time enlightening for healthcare professionals.

References

1. Kay M, Mitchell G, Clavarino A, Doust J. Doctors as patients: a systematic review of doctors' health access and the barriers they experience. *Br J Gen Pract* 2008; **58:** 501–508.
2. Lewis S R, Mahony P J, Simpson J. Appendicitis *BMJ* 2011; 343: d5976.
3. Baile, W, Buckman R, Lenzi R *et al.* SPIKES – A six step protocol for delivering bad news: application to the patient with cancer. *The Oncologist* 2000; **5:** 302–311.
4. Suchman A. L, Markakis K, Beckman H B., Frankel R. (1997). A model of empathic communication in the medical interview. *JAMA* 1997; **277:** 678–682.
5. Gillon R. Medical ethics: four principles plus attention to scope. *BMJ* 1994; **309:** 184.
6. B G. Main & S R L. Adair. The changing face of informed consent. *Br Dent J* 2015; **219:** 325–327.
7. Stiggelbout A M, Weijden T Van der, Wit M P T De *et al.* Shared decision making: really putting patients at the centre of healthcare. *BMJ* 2012; 344.
8. General Dental Council. *Principles: Obtaining valid consent*. Available online at: http://standards.gdc-uk.org/pages/principle3/principle3.aspx (accessed November 2015).
9. Sime, A and Libera M B. Sensation information, self-instruction and responses to dental surgery. *Res Nurs Health* 1985; **8:** 41–47.
10. Bare L C & Dundes L. Strategies for combating dental anxiety. *J Dent Educ* 2004; **68:** 1172–1177.

BRITISH DENTAL CONFERENCE & EXHIBITION 2016

26 - 28 May | Manchester

INNOVATE

LEARN

INSPIRE

WHERE THE DENTAL WORLD MEETS

FREE FOR BDA STUDENT MEMBERS

INSPIRE: - MEET LIKE-MINDED PROFESSIONALS AND FUTURE COLLEAGUES

INNOVATE: - WATCH LIVE DEMONSTRATIONS AND EXPLORE NEW TECHNOLOGY

LEARN: - PICK UP NEW CLINICAL TIPS, CV TIPS AND CAREER ADVICE

REGISTER TODAY

Visit www.bda.org/conference

BDA

British Dental Association

Every drop engineered to work at key stages of the caries process

Alcohol-free Advanced Defence Cavity Guard manages the caries risk factors identified in the Keyes concept.[1] This is achieved through multiple mechanisms configured to offer an integrated approach to caries prevention.[1,2,3]

- Contains 450ppm fluoride[2] , it reinforces teeth effectively, strengthening the enamel considerably more than fluoridated toothpaste alone.[2*]
- Unsurpassed reduction in plaque delivered by the anti-plaque agent, essential oils. In residual plaque, it represses acid production significantly.[3§]

Recommend the integrated adjunct engineered for caries-prone patients. Recommend Advanced Defence Cavity Guard.

For more information visit **listerineprofessional.co.uk**

References:
1. Van Loveren C et al. European Journal of Nutrition 2012; 51(2S): 15–25.
2. Sun FC et al, Int J Dent. 2014; 2014;982071
3. Plaque biofilm acid production, DOF 7 – 2013. UK/LI/14-3795 (1)