Essential dentistry

Module 3 – Oral Hygiene Aids

The third module in the BDIA Certificate covers oral hygiene aids, many of which will be familiar to you from daily life.

The aids include items for the mechanical removal of biofilm, like toothbrushes, and products such as the toothpastes used with them.

A successful oral hygiene routine should be tailored to the patient by their dental professional, but to be effective, must be individualised, readily available, effective and easy to use.

Toothbrushes

Toothbrushes fall into two main types: manual and powered. Powered devices are particularly suitable for patients with manual dexterity issues, but almost everyone can benefit from the timing devices they have, which encourage users to brush for the recommended two minutes. Additional specialist brushes are available, for example for orthodontic or special care patients or for infants. Infants in particular need adult assistance in adequately brushing their teeth, as most are unable to do this until they around eight years old.

Interdental cleaning

To supplement toothbrushing, daily interdental cleaning should be performed to clean the interproximal tooth surfaces. Here there are an array of devices available:

1. Dental floss/dental tape – requiring good manual dexterity and tight interproximal contacts.

2. Floss threaders and holders – less fiddly to use than regular floss, but the holder may impede access.

3. Interdental brushes – for patients with larger tooth gaps caused by moderate to advanced bone loss. These come in a number of sizes and are often seen as simpler, but more costly, than floss.

4. Woodsticks – not common in the UK, and again more suited to widely-spaced teeth.

5. Oral irrigators – these

powered devices shoot small jets of water between the teeth to remove debris.

6. Interspace brushes – manual toothbrushes with a specialised small pointed brush head to aid access into awkward-to-reach sites.

Toothbrushes and interdental cleaning alone are not enough for adequate cleaning; toothpaste or tooth gels are needed to help lubricate toothbrush filaments, remove plaque and debris, eliminate bad breath and deliver active ingredients like fluoride to help prevent decay. Toothpastes may also include a wide range of additional 'active' ingredients, which can have anti-plaque or whitening actions (though the whitening action of toothpaste is mild) or help with desensitising hypersensitive teeth.

Other aids include:

Chewing gum – which can be used to improve oral hygiene by stimulating saliva. Saliva dilutes the acids produced by oral bacteria and can neutralise oral pH.

Disclosing solutions – which are dyes that stain plaque to aid cleaning. They can be used as educational aids to improve patients' brushing technique.

Tongue cleaners – which are devices that actively remove the top-most surface of the tongue which harbours pathogens that can cause halitosis. The same pathogens are also involved in periodontitis, so patients with this condition are often recommended to use tongue scrapers.

Mouthwashes – which are used as an adjunct to brushing and interdental cleaning, and may contain an array of antimicrobial, anti-halitosis and anti-caries active agents.

Dental care professionals can advise patients on the use of oral hygiene aids, and advise on which aids may be most appropriate.

Good oral hygiene is key to the prevention of dental disease (including tooth decay and periodontal disease), and should be an integral part of a patient's daily routine. However, sugar intake and the use of fluoride are more important in preventing tooth decay.

For more details on the BDIA Certificate, go to **www.introductiontodentistry.co.uk**

Richard McGowan, Product Manager at Straumann UK, takes us through Module 3 of the BDIA Certificate: Introduction to Dentistry.

BDIA Certificate: Introduction to Dentistry

The *BDIA Certificate: Introduction to Dentistry* is a training package designed by specialists to help those who are new to dentistry gain a better understanding of the work of the dental team, the specialist terms, equipment and procedures used by the dental profession, as well as a good overview of the dental industry as a whole.

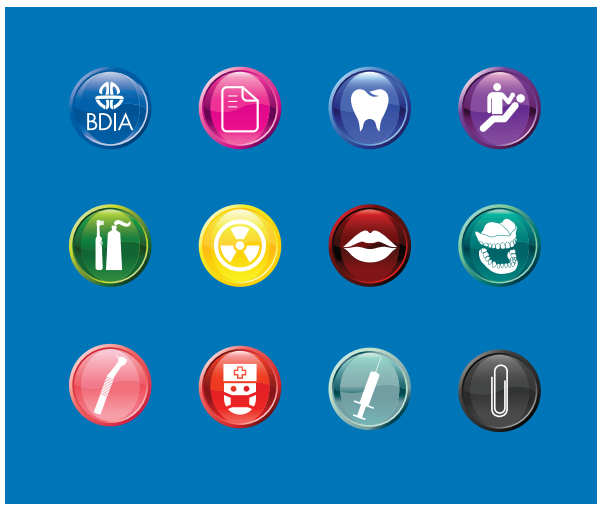
This self-learning course aims to fast track students with knowledge of dentistry and is an ideal learning resource for anyone in the dental industry who did not come from a clinical background.

To find out more about the subjects covered by the course modules, or to enrol and gain instant access to the course materials, visit **www.IntroductionToDentistry.co.uk**

2017 Examinations
Wednesday, 17 May, 2017
Wednesday, 15 November, 2017

Time: 10am-12pm or 1pm-3pm
Venue: London

For general enquiries or to book your exam, please email **maggiewan@bdia.org.uk**



British Dental Industry Association

BDIA Certificate: Introduction to Dentistry

A personal learning course for those new to dentistry

BDIA

Getting serious about prevention

In 2014, the NHS published a *Five-Year Forward View*[1]. This document considers the possible futures on offer, and the choices that we face. It sets out how the health service needs to change, arguing for a more engaged relationship with patients so that we can promote wellbeing and prevent ill-health. The first argument made is that the future health of millions of children, the sustainability of the NHS, and the economic prosperity of Britain all now depend on a radical upgrade in prevention and public health.

So why am I sharing this information with you? What has this to do with dentistry? The answer is simple – everything. Although this document does not mention dentistry specifically, the policy makers within dentistry are fully aligned with its message and view on prevention. The principles of this preventive approach also align with the current dental contract reform which emphasises the need to focus on prevention and empower patients to take better control of their own oral health[2]. At this point, I would also like to reiterate prevention is not limited to NHS patients. Prevention is for all. So, thinking about the 32m[3] people who have visited the dentist under the NHS over the last 24 months, along with the additional 5m[4] who also attend privately, we have a real opportunity to get serious about prevention.

The two main dental diseases - dental caries (tooth decay) and periodontal (gum) disease – are, in most cases, wholly preventable. Yet today, still almost one third of the adult population have active disease. This means whatever we are doing can be improved and we should recognise the opportunities to do this. We need to step up and suggest not only the right oral hygiene aids but we also need to change their users understanding of the "what" and "why" to help change behaviours and to improve oral health outcomes.

There are 8,760 hours per calendar year and the average number of total hours spent with any healthcare professional (including dental professionals)

is just three hours per year. This means, on average, each year we each have a minimum of 8,757 hours of self-care at home. To maximise this time away from the dental chair, it's no longer enough to just ask patients to brush their teeth and to use a floss or a mouth rinse to improve their oral health. Product recommendations need to be specific and based on quality evidence. A key measurement of quality in healthcare provision is, ultimately, clinical outcome. So, let us consider what evidence we use to inform decision making in the dental practice around the selection of quality oral care products.

Quality is linked to reliability, resulting in a greater chance of improved patient outcomes when using or recommending a specific product versus other choices available. Quality can be linked to the number and quality of clinical trials. There is a hierarchy of clinical evidence, with the most compelling and independent being a systematic review of multiple well-designed randomised control trials. The Cochrane Collaboration gathers and summarises the best evidence from research to help you make informed choices about specific product types[5]. Its work has included reviews on toothpaste, fluoride mouth rinses and powered toothbrushes and it is recognised as representing an international gold standard for high quality, trusted information.

If appropriate, does having a medical licence make a difference? Any product claiming to treat or prevent a clinical condition such as dental caries or periodontal disease must have a medical licence. The medicinal licence gives specific and relevant indications based on the clinical evidence provided when the product obtained its licence, and again there are several toothpastes and mouth rinses with medicinal licenses.

So, what about the "what" and "why"? There is strong clinical evidence to show that certain ways of using oral care products can further improve health outcomes[6]. Let's take toothbrushing as an example. Dental professionals recommend patients brush their teeth twice daily for two minutes. More information and understanding on the "how" and the "why" would improve the outcome by a further 50% by just introducing actions to optimise toothbrushing.[7]

By reviewing *Delivering better oral health – An evidence based toolkit for prevention*[6] you can see the evidence based actions required to help reduce both dental caries and periodontal disease. An example of the action required to help reduce dental caries would include the following three points:

1. Optimising when to brush
What the evidence says: Brush twice daily, at night and on one other occasion.
Why: Toothbrushing with a fluoride toothpaste last thing at night is important as it introduces fluoride into the mouth when it is at greater risk of dental caries. This is because at night saliva flow reduces making the teeth more susceptible to demineralisation. Fluoride helps promote remineralisation to help reduce dental caries.

2. Optimising the fluoride level in toothpaste
What the evidence says: Children under the age of three should use a toothpaste containing a minimum of 1,000 parts per million fluoride. Children aged three to six years should use a toothpaste containing 1,350 to 1,500 parts per million fluoride and those aged seven years and above (including adults) should use a toothpaste containing 1,350 parts per million fluoride and above (this includes high fluoride toothpastes available on prescription, such as 2800 and 5000 parts per million fluoride).
Why: Optimising the amount of fluoride in toothpaste helps to reduce dental caries. Keeping to the age specific upper limit helps to reduce the risk of fluorosis in those patients six years and under (in combination with limiting the amount of toothpaste used).

3. Optimising retention of fluoride in the mouth
What the evidence says: Spit don't rinse! Also, use a mouth wash at a different time to toothbrushing.
Why: Rinsing with water washes away the fluoride protection from the toothpaste. This is also the same for mouth wash. A fluoride mouth wash contains less fluoride than toothpaste so will wash away the fluoride protection post toothbrushing. Use a fluoride mouth rinse at a different time to toothbrushing to maximise the fluoride exposure throughout the day.

Try this regime for yourself to protect against dental caries but also understand the importance of the type of behaviour change required to optimise prevention. It's easier when you understand the what and the why.

References

1. NHS Five Year Forward View, November 2014.
2. NHS Dental Services in England – an independent review, June 2009.
3. Extrapolated from Health and Dental Care Information Centre, June 2015.
4.GP Patient Survey 2014.
5. **www.cochrane.org**
6. Chesters, 1992.
7. Delivering better oral health – An evidence based toolkit for prevention', Third edition, Published by Public Health England, June 2014.

Gail Vernon, Director at VSM Healthcare, provides insights into the delivery of prevention messaging to improve oral health.