Keeping Hygienists in par with Continuing Education initiatives

By Victoria Wilson, Dental Hygiene Therapist, UK

It is our aim of the Dental Hygiene Tribune MEA to keep you, our valuable members and readers, on par with continuing education initiatives across the region. We will target and focus on the most up-to-date treatment methods available, the emerging scientific research and the current best practice techniques used in dental hygiene.

Hygienists or Dental Care Professionals (DCPs) are ideally positioned to provide comprehensive support to dentists and patients - starting from pre- and post- restorative work through to periodontal treatment, maintenance and long-term continuing care. In order to do this effectively, DCPs need to be continually updating and developing their knowledge and clinical skills, as well as being aware of the new technologies on the market.

I welcome the opportunity to bring my enthusiasm for Dental Hygiene Tribune to Dental Hygienists in the Middle East and offer an earnest commitment to meeting the need for high quality training and ongoing support in our commendable profession.

I am dedicated to raising and representing the Continuing Medical Education (CME) team for Dental Hygiene Tribune members to ensure that your interests are being met. With your support, I look forward to developing new programmes for this publication to further encourage collaboration and clinical excellence in the Hygiene field.

I would appreciate hearing your preferences for CME topics and any other suggestions that you would like to offer.

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Maintenance of dental implants for the hygienist

By Biberach/Riss

Implant dentistry has become more and more prominent in our everyday practice as patients are keen to have implant-borne prostheses than a conventional bridge work or removable dentures. One of the most important factors for long term success of dental implants is the maintenance of healthy peri-implant tissues.

Hygienists are now seeing more of their patients with dental implant and this is only going to increase in the future as implant therapy becomes cheaper. In other countries, such as the UAE, the Governing body acts to verify the CDP provisions in order to maintain the license of the practice. If this minimum is not met by all of the professionals, the license cannot be renewed.

Verifying CDP points

In some countries, such as the UK, the Governing body has the duty to verify the CDP provisions in order to maintain the license of the practice. In other countries, such as the UK, parts of US and Canada, verifying the CDP provider is determined by the judgment of the registrant. It is a common requirement to have to keep documentary evidence in these countries for up to 5 years post CDP cycle. (4,5)

Table 1 – Dubai Health Authority (DHA) CDP Requirements (2)

<table>
<thead>
<tr>
<th>Category of Professionals</th>
<th>CDP points</th>
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<tbody>
<tr>
<td>Physicians and Dentists</td>
<td>10</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>10</td>
</tr>
<tr>
<td>Nurses</td>
<td>10</td>
</tr>
<tr>
<td>Other Healthcare Professionals</td>
<td>10</td>
</tr>
<tr>
<td>Traditional Complementary &amp; Alternative Medicine Professionals</td>
<td>10</td>
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Why CME (Continuing Medical Education) or CPD (Continuing Professional Development) is Important to Dental Professionals

By Victoria Wilson

Why is CME - CPD? Continuing Medical Education (CME), otherwise referred as Continuing Professional Development (CPD), is the way in which professionals can enhance their knowledge and skills related through a structured approach.

CPD for dental professionals is an obligation in many countries. A mandatory amount of course-related points must be fulfilled in the form of lectures, seminars, courses, individual study, peer review, clinical audit or E-learning activities. These hours can be recorded on a personal CDP record providing the courses are designed to advance professional development as a dental professional and is relevant to one’s practice. (1)

Why is CDP in Dentistry so Important?

Education and qualifications are only the first step towards obtaining a professional career. CDP is an obligation to one’s profession - not only for the personal benefits for individuals and clinics, but also for the overall perception and confidence that the public has in the dental industry.

Dentistry is constantly evolving through new methods and technologies to better meet the needs of patients. CPD will ensure that dental professionals continue to be at the forefront of this knowledge. It is important for patient comfort, well-being and safety.

It is also required by law for all registrants working under the local medical authority to undertake a minimum amount of CDP points in order to maintain the license of the practice. If this minimum is not met by all of the professionals, the license cannot be renewed.

Introduction

What is CME - CPD?

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I would appreciate hearing your preferences for CME topics and any other suggestions that you would like to offer.
In ‘bleeding on probing’ trials over 4 weeks, **parodontax®** demonstrated significant effects in reducing bleeding gums by 22% (p<0.01).

Bleeding on probing increased after 4 weeks of brushing with the fluoride control toothpaste.

![Graph showing reduced bleeding on probing index after 4 weeks with parodontax®](image)

- **Baseline**
- **4 weeks**
- **Fluoride-containing control toothpaste**
- **parodontax®**

<table>
<thead>
<tr>
<th>Change vs baseline in bleeding on probing index after 4 weeks</th>
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<tbody>
<tr>
<td>30.00</td>
</tr>
<tr>
<td>Baseline</td>
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</table>

### 22% reduction in bleeding (p<0.01 vs baseline)

### Helps stop bleeding gums

Adapted from Saxer et al 1994. All interdental spaces from 6-0 to 6-6 were tested at baseline and 4 weeks for bleeding on probing on the right side (buccal) and left side (lingual). Findings were recorded as: 0=no bleeding; 1=slight isolated bleeding; 2=marked bleeding. Mean scores were determined. N=22.

- **Baseline values (Mean SD):** Control (fluoride-containing toothpaste) group 24.75 (6.34); **parodontax®** group 25.40 (5.80).
- **After 4 weeks:** Control (fluoride-containing toothpaste) group 26.00 (9.14); **parodontax®** group 19.80 (7.38). *parodontax®* vs control p<0.05.
Every day protection from everyday acids

Modern eating and drinking habits increase the exposure of tooth enamel to dietary acid that can lead to Acid Wear (erosive tooth wear), the biggest contributor to tooth wear. In the early stages of Acid Wear, a patient’s enamel can become translucent, anatomical features can be lost and molar cupping can occur.

GSK collaborated with leading experts in the field to develop Pronamel Daily Toothpaste to help protect patients at risk of Acid Wear. With its optimised formulation, Pronamel is proven in a range of clinical in situ and in vitro studies to reharden acid-softened enamel and protect against acid challenges. Not all toothpastes are the same. In laboratory experiments Pronamel’s optimised formulation ensures more fluoride is available at the patient’s tooth surface to protect from the effects of against Acid Wear compared to other toothpastes with the same marked fluoride levels.

Pronamel has been clinically tested in situ to:

- Reharden acid-softened enamel
- Build protection against future acid challenges

![Figure 2: In situ rehardening microindentation study following treatment with dentifrices](image)

![Figure 1: DSIMS imagery to show amount of fluoride at the tooth's surface in vitro](image)

![Pronamel is proven to reharden acid-softened enamel and provide ongoing protection from the effects of Acid Wear:](image)

**Low abrasivity**

**Neutral pH (7.1)**

**SLS*-free**

Reveal your patients’ most healthy, radiant smile with Philips Zoom WhiteSpeed

Give your patients the immediate white smile they want and the healthy white teeth they need, with the new Philips Zoom WhiteSpeed. The number one patient-requested professional teeth whitening brand* is clinically proven to deliver superior whitening results in just one office visit. WhiteSpeed is shown to whiten teeth up to 8 shades in 45 minutes; that’s 40% better than a comparable non-light activated system.†

The new Whitening LED Accelerator’s variable intensity settings allow you to customize the output to ensure each patient receives a more comfortable treatment, 91% of patients experienced little to no sensitivity with Zoom WhiteSpeed.‡

Now better than ever — Philips Zoom WhiteSpeed.

* In the U.S.
† Compared to Philips Dash
‡ Results based on 500-person study. Data on file.

New Philips Zoom WhiteSpeed Light-Activated Whitening System.
A better experience for your patients and your practice.

**Philips Zoom In-Office Whitening kit makes treatments easier**
Packed in procedural order, you get everything you need for each treatment, including Philips Zoom at-home whitening gel for follow up and maintenance complete in a single package. The Philips Zoom Kit also includes simplified visual instructions.

**Unique products for your sensitive patients**
Each treatment comes with a Patient Post Care and Maintenance kit that includes the Relief ACP Oral Care Gel. This unique formula combines potassium nitrate for sensitivity relief along with Amorphous Calcium Phosphate (ACP) that helps create healthier smiles through advanced enamel protection. To ensure a more comfortable experience all around, instruct patients to use it for 10-30 minutes after treatment.

**New Philips Zoom WhiteSpeed Whitening LED Accelerator**
The advanced Philips blue LED technology provides approximately 50,000 hours of use—reducing operating costs, downtime and is 40% more energy efficient. The light also emits 100% greater light intensity* with no compromise to safety. Redesigned to be easier to position and more ergonomic, your patients and your treatment will be better than ever.

**New support for your practice**
Philips Zoom is funding a worldwide public relations campaign to drive patients to dental professionals, and new programs to help you quickly and easily integrate Zoom into your practice.

“With this new light the patient’s sensitivity is minimal, making the procedure much more pleasurable.”
– Juban Dental Care - Baton Rouge, LA
Scientists from Norway develop scaffolding to repair severe teeth and jawbone defects

By Dental Tribune International

O SLO, Norway: Dental re-
searchers at the Univer-
sity of Oslo have developed a new artificial scaffolding that aids bone regeneration. Within a few years, they hope to market their invention, to help patients with serious teeth and jaw damage caused by severe periodontitis, mandibular cancer, infection or trauma.

According to the researchers, the artificial scaffolding could be used in particular for cases in which the gap between two bone fragments is too wide, or when large parts of the bone have been damaged through surgical removal or radiotherapy. The scaffolding helps the body repair such serious defects, the researchers explained.

“With the new method, it is suf-
ficient to insert a small piece of synthetic bone-stimulating material into the bone. The ar-
tificial scaffolding is as strong as real bone and yet porous enough for bone tissue and blood ves-
sels to grow into it and work as a reinforcement for the new bone,” said Prof. Såle Petter Lyngstadlaas, Dean of Research at the Department of Biomaterials at the university’s Institute of Clinical Dentistry.

The scaffolding can be produced like cinder blocks and cut into individual shapes to fit into specific bone defects. It is manufactured from a mixture of water and ceramic powder, which is poured through foam rubber that was designed to look like trabecular bone. The ceramic powder consists of medical-grade titanium dioxide monodisperse nanoparticles, which are also widely used as an additive in sweets, toothpaste and baked goods. Once the mixture has solidified, it is heated to a temperature that causes the foam rubber to dissolve into wa-
ter vapour and carbon dioxide and the nanoparticles to ligate into one solid structure. It has an open porosity of 90 per cent, containing mostly empty space that can be filled with new bone and blood vessels, which current materials do not provide.

While current materials are de-
graded gradually, the new scaf-
dolding remains an integral part of the repaired bone, working as reinforcement, Lyngstadlaas explained.

In addition, the generation process could be accelerated by the insertion of bone progenitor cells or bone marrow, containing stem cells.

Conventionally, damaged bone is repaired by removing tissue from healthy bones, such as the mandible or hip, for implantation. Patients often experience discomfort and complications after the surgery. This can be avoided by us-
ing the scaffolding.

Since the scaffolding has shown positive results in preliminary animal studies, the researchers are currently planning to undertake clinical trials on patients with periodontitis and damaged mandibular bone. They also hope that orthopaedists will show interest in the new method.

The new material was devel-
oped in collaboration with Corti-
calis, a Norwegian company that specializes in innovative biomateri-
tals. In order to market their invention, the researchers are currently looking for an industry partner.

Table 2 – Health Authority Abu Dhabi (HAAD) CPD Requirements (5)

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Table 3 – UK Standards for CPD

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<td>1. Continuing professional education is required.</td>
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<tr>
<td>2. Policy on Continuing Professional Development for Dental Professionals, Protection Patients, regulating the dental team.</td>
</tr>
<tr>
<td>3. Continuing Professional Development (CPD) Requirements, Health Regulation Department, Dubai Health Authority.</td>
</tr>
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References

1. General Dental Councils, Continuing Professional Development for Dental Professionals, Protection Patients, regulating the dental team.

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Table 4 – Example of Professional Development Plan

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Figure: Bone cells and blood vessels can grow into the scaffolding. The pace of this process can be accelerated by adding the patient’s own bone progenitor cells. (Photo courtesy of the University of Oslo)
Fig. 3a: Excess cement on implant surface.

Fig. 3b: Severe bone loss due to excess cement forced in to the tissues.

• Occlusal overload;
• Bacterial induced inflammation.

Any occlusal overloading needs to be corrected by the implant dentist. Plaque induced inflammation is initially treated non-surgically but depends on the initial clinical presentation. This involves the removal of dental plaque with or without the use of locally delivered or systemic adjuncts. Lesions with probing depth of 5 mm or more and bone loss of greater than 2 mm would need surgical intervention as recommended by the International Team for Implantology (ITI) consensus report Figure 1.

A common cause of plaque induced peri-implantitis is excess cement which has been forced into the tissue when the crown is cemented. If the excess cement is not thoroughly removed by the implant dentist, this will induce inflammation of the tissue and possible bone loss.

How to maintain dental implants?

It is important that good oral hygiene is performed to maintain healthy peri-implant tissues. The use of toothbrushes, either manual or electric, helps to reduce the amount of plaque biofilm. Floss, including superfloss and interdental brushes is essential for access interproximally. It is very important that oral hygiene for the patient is not made too complicated there by prolonging the time required by using too many oral hygiene aids. In the aesthetic zone, a cross over flossing technique can be used (Figs. 2a-f). A poor flossing technique or no flossing at all can lead to subgingival inflammation of the peri-implant tissues. It is essential that if a cement retained crown is placed that all the cement is removed as subgingival irritants such as excess cement can provoke an acute peri-implantitis which can cause soreness, swelling, bleeding on probing and eventual bone loss (Figs. 3 & 4).

In premolar and molar areas the use of floss or interdental brushes can be easier for the patient in the case of single unit implant, and in fixed bridgework.

Fig. 4a: Subgingival inflammation due excess cement.

Fig. 4b: Note the excess cement on the implant crown.

Fig. 4c: A healthy gingival cuff around an implant.

Fig. 4d: A healthy gingival cuff around an implant.

Calcification formation on dental implants is very similar to that found on teeth, the only difference is that the abutment and the porcelain are very highly polished, therefore the calculus is not as tenacious as on a natural tooth. When removing supra and subgingival calculus from the implant crowns, it is very important not to use stainless steel scalers as this will damage the titanium surfaces. Therefore it is recommended that one uses a material that is softer than titanium either gold plated or reinforced plastic instruments (Fig. 5). It is very important that an ultrasonic is never used on an implant as this will heat up the implant and could kill the bone that helps integrate the implant.

When pocketing has been noted then using the CIST protocol will help treat the majority of peri-implantitis cases. Below is an example of an UR2 with 8 mm pocketing, the site was treated non-surgically with local delivery antimicrobials and with the patient using chlorhexidine gel with the largest interdental brush (Figs. 6a-c). At the 2 week review the pocketing associated with the UR2 has reduced to 5 mm with simple non-surgical therapy any further intervention will need to be reviewed by the implant dentist.

Fig. 5: Plastic Scalers.

Fig. 6a: 8 mm pocketing UR2.

Fig. 6b: After subgingival curettage of the pocket the patient was shown how to use a large interdental brush with chlorhexidine gel twice a day.

Fig. 6c: Patient reviewed at 2 weeks. The inflamed tissue have reduced exposing the crown margin.

Fig. 6d: U2 pocketing has reduced 5 mm.

Conclusion

Good oral hygiene performed by the patient has a significant affect on the stability of the marginal bone around dental implants. Therefore regular hygiene appointments are necessary to ensure that your patients are maintaining a high standard of oral hygiene around their dental implants.

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