Your dentures gave them confidence. We’ll keep it going.

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Corega® Ultra Free denture adhesive – Offering your patients reassurance for everyday life

- Corega® adhesive reduces food entrapment vs. no adhesive use (*p<0.0001) in well-fitting dentures

Dear colleagues,

The Council of European Dentists Conference was held in Malta on 25/26/27 May this year. The two voting delegates from Malta were Dr Audrey Camilleri IBO and Dr David Muscat DAM Secretary. Dr David Vella President DAM and Dr. Adam Bartolo Vice President DAM also attended.

Dr David Vella as President gave a speech at the welcome reception. MEP Dr Roberta Metsoha addressed the conference on the first day.

About 120 delegates representing the National Dental Associations of Europe attended the conference which was excellent both in content and undertaking. The work carried out in the preparation for the event was done by Dr Audrey Camilleri and she did this admirably. She was assisted by members of the DAM committee but the credit goes to her as it was her initiative. This involved many meetings and hours of planning and chasing sponsorships. She did us proud.

The 3D Printing for Digital Dentistry Workshop is being held on 14 June at Cherubino Ltd Gzira. This is being held in conjunction with the Dental Association of Malta.

At the time of writing this article it is envisaged that there will be a lecture on Forensic Dentistry by Dr Scerri. This lecture was co-ordinated with the DAM and is sponsored by A & M Mangion Menarini – Keral at Baia Beach Armer on 27 June 2017.

On the 3 and 4 July there is to be an Orthodontic course by Dr Neville Bass (Bass appliances) at St. George’s City. The DAM is also planning sailing and clay pigeon shooting events in the near future.

On Tuesday 4 July at Federation Gzira there is to be an event called ‘Blue M Oxygen for Health’ organised by Marletta Enterprises Ltd in conjunction with the DAM.

The DAM mourns the loss of Dr Edwin Galea whose funeral was on Wednesday 24 May. He was 92 years old and a former DAM President and British Navy dental surgeon. He is the brother of Dr. Charles Galea.

The front cover photograph is by Dr Josef Awad, one of many talented dental surgeons in Malta. It is entitled ‘RedBlue’.

Best regards,

David
Dr David Muscat B.D.S. (LON) Editor / Secretary. F.R.O. D.A.M.

The death of Edwin Galea on 22nd May 2017 has robbed the dental profession of its much loved and respected doyen. Edwin was born in 1925 in Valletta, educated at St. Aloysius College and served as a Gunner in the WWII when he was awarded the War and Defence Medals. He entered the Royal University after the War and graduated as a dental surgeon (Dip. D.S.) in 1946. 1958 was to prove a landmark year for Edwin as he married Mary Brown and joined the Royal Navy as a Surgeon Lieutenant. He served in England, Singapore, Hong Kong and Japan till 1963. He then, along with his brother Charles, opened his main clinic at Birkirkara with other clinics at Valletta and Rabat. Edwin’s quiet disposition belied his sense and abilities in his many hobbies.

He was a knowledgeable gardener and a mainstay of the Malta Underwater fishing scene with several competition successes. His bird shooting interest was later followed with several boar and deer shooting trips to Germany. There is no doubt however that his family and ever present and beloved Mary, together with his children Louise, Leonard, and Andrew, were his prime focus, later extended to his grandchildren and great grand children.

We remember him as an assiduous attender at Dental Association activities, both academic and social, when his infectious smile and quiet demeanour made him beloved by all of us. He was President of the Association from 1981 to 1985 and later made an Honorary member. Our condolences to his family, we shall miss him greatly. R.I.P.

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COUNCIL OF EUROPEAN DENTISTS MEETING IN MALTA

Representatives of the Council of European Dentists’ (CED) member and observer organisations met at the Westin Dragon Malta recently, for the regular bi-annual General Meeting. This year the meeting was held under the chairmanship of CED President Dr. Marco Landi and hosted by the Dental Association of Malta (DAM) in the context of the Maltese EU Council Presidency.

CED is a European not-for-profit association, which represents over 340,000 practising dentists through 32 national dental associations and chambers from 30 European countries. Its key objectives are to promote high standards of oral healthcare and effective patient-safety-centred professional practice across Europe, including through regular contacts with other European organisations and EU institutions.

The meeting attracted the participation of 120 delegates and some 40 accompanying persons who arrived from all EU member states, representing their respective National Dental Associations.

The opening reception was held at the Westin Dragonara and an introductory speech was given by the principal co-ordinator of the meeting Dr Audrey Camilleri, whilst a welcome speech was given by DAM President Dr David Vella. The following day saw a full day general meeting being followed by a gala dinner at the Casino Maltese in Valetta. Delegates enjoyed pre-dinner drinks and canapés watching the Grand Harbour at sunset from the vantage point of the Upper Barrakka Gardens. During the conference days accompanying persons could enjoy a varied social programme and delegates were also taken on an evening tour of Mdina, with pre-dinner drinks on the Mdina Bastions and dinner in the courtyard of Medina Restaurant.

Important topics were discussed during the meeting namely the CED revised code of ethics which takes into account national codes and the provisions of the General Data Protection Regulation. First adopted in 1965 and regularly amended, the CED Code of Ethics contains guiding principles for professional conduct and ethics of dentists, which underpin high quality dental care throughout Europe. It covers the commitment to the patient and the public, the practice of the profession and electronic commerce.

A second key topic discussed was CED’s position on the proportionality test for regulated professions. CED opposes the inclusion of healthcare professions in the proposed Directive on a proportionality test before the adoption of regulations for professions. Together with other healthcare professions, CED calls for the exclusion of healthcare professions from this Directive, as public health and patient safety are put at risk by this approach. EU legislation and EU case law have established the special status of healthcare services over the years and the competence of Member States to determine the level of protection they want to afford to public health.

MEP Dr Roberta Metsola addressed the assembly and shared the healthcare professions’ concerns about this proposal, calling for the exclusion of healthcare professions at the recent European Parliament exchange of views with the European Commission. She praised DAM with regards to their constant efforts in this regard, confirming the importance of the relationship between CED and DAM. She emphasized that healthcare is fundamentally different from other services and should therefore not be dealt with by means of the same instrument. CED’s position was unanimously adopted and clearly laid out why healthcare professions should be excluded.

A resolution on the dentist of the future was made, in view of the fact that the profile of the future dentist is constantly evolving and the expected competences and skills need to be updated and new ones created. The Resolution that was unanimously adopted by CED members describes the competences and skills that dentists will need to overcome and the future challenges of the profession.

The ultimate future objectives are for dentists to be competent in managing traditional as well as new challenges in oral health, the ability to practise evidence-based, comprehensive dentistry independently, in group practice and in close collaboration with other health professionals, safeguarding ethics and patient safety.

With regards the EU skills agenda, members adopted the revised mandate of the Working Group Education and Professional Qualifications. As part of the new mandate the Working Group will cover the EU Skills Agenda, monitor developments of new challenges and trends affecting the profession and continue to discuss the strategy for the future revision of the V.3/5.3.1 of Directive 2005/36/EC.

A final topic concerned digitization and e-prescriptions wherein the revised mandate of the Working Group of health includes a focus on monitoring and guiding e-prescriptions as well as monitoring digitization in general, the data information exchange and links to dental practices and third parties.

Malta’s voting delegates during the meeting were DAM International Relations Officer Dr Audrey Camilleri and DAM Secretary Dr David Muscat. Dr Adam Bartolo and Dr David Vella also attended the meeting.

Photos on the next page.
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References:

Images: Figures 1 and 2

PRE-PROSTHETIC ORTHODONTIC TREATMENT OF AN ADULT PATIENT WITH THE INVISALIGN TECHNIQUE

By Dr Gina Theodoridis DMD, specialist in Orthodontics Athens Greece.

Article based on presentation on 29/3/17 in Malta by Align Technology Ltd and Page Technology Ltd.

INTRODUCTION
During the past decade there has been a substantial increase in the number of adult patients seeking orthodontic treatment.

Today one out of five orthodontic patients is an adult. This could be a result of the development of aesthetic orthodontic techniques that can fit in the modern lifestyle and also the universal acknowledgement that orthodontic treatment is the basis of good dental health.

Advances in orthodontics have made treatment even more comfortable and more successful than ever for the adult patient. Invisalign aligners are an aesthetic type of orthodontic appliance that is proven to deliver orthodontic forces in the required range in order to effectively move teeth.

Because of their clear material, Invisalign aligners are very well tolerated by adult patients, who find it easier to incorporate this type of orthodontic treatment into their lives, compared to traditional braces. Furthermore, aligners are removable and thus allow better oral hygiene; this is of ultimate importance in patients with a predisposition to periodontal problems.

Adult orthodontic treatment comes with further special considerations. Teeth that are part of a malocclusion may be prone to attrition and unevenness in shape. There are also a number of patients that are eligible for prosthodontic intervention due to misshapen or missing teeth. Occasionally the malocclusion may not allow the dental practitioner to perform an ideal preparation for prosthetics, as the tooth or teeth involved may not be ideally located in the dental arch. Therefore, the malocclusion may impose a limitation for a lege artis dental restoration.

Orthodontics can largely contribute to the general dental treatment plan in those situations. The Invisalign system in particular, can be applied very effectively in interdisciplinary cases by correcting the malocclusion and simultaneously moving teeth to a more favorable position for prosthetics to follow.

Continues on page 10.
PRE-PROSTHETIC ORTHODONTIC TREATMENT OF AN ADULT PATIENT WITH THE INVISALIGN TECHNIQUE

CASE PRESENTATION

A thirty-year-old female patient (Fig. 1) presented to the office with the chief complaint of narrow front teeth and anterior open bite. She was mostly interested in the correction of the anterior maxillary teeth and had visited a prosthodontist before, who referred her for orthodontics.

The prosthodontist’s opinion was that it would not be possible to increase the width of the maxillary incisors due to lack of space. An attempt to close the open bite via prosthetics would also result in an unnatural anterior tooth shape and long crowns.

The patient had a unilateral end-on Class II malocclusion on the left side and a Class I dental relationship on the right. An opening-closing click on the left temporomandibular joint was observed. There was mild crowding and narrowness present in both arches. Additionally, an open bite component was evident in the malocclusion.

The panoramic x-ray (Fig. 2) revealed normal tooth anatomy; third molars were absent in all quadrants. The cephalometric x-ray (Fig. 3) revealed that the open bite was of dental nature; there was also vertical maxillary excess present with an increased lower facial height. This was expressed clinically with a gummy smile, with a gingival exposure that was increased throughout the entire maxillary arch (Fig. 1.)

The surgical option in order to reduce the vertical maxillary excess was suggested to the patient, but she declined this treatment option.

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The surgical option in order to reduce the vertical maxillary excess was suggested to the patient, but she declined this treatment option.

The benefits of establishing a normal occlusion on the left side in addition to creating space for prosthetics in the maxillary anterior teeth were thoroughly explained and she decided to choose this treatment option.

Orthodontics would aim in expanding the arch form to the maximum degree as determined by the underlying jaw structure, elimination of the crowding, correction of the end-on Class II malocclusion on the left and creating space for the prosthetic restoration of the maxillary incisors. The open bite would also be eliminated. It was noted that third molars were not present in the maxilla (Fig. 2) and there was sufficient bone in the area of the maxillary tuberosity. The ClinCheck that was created by the orthodontist entailed a sequential posterior distalization (Fig. 4) of the left posterior segment in order to correct the Class II relationship to Class I. A total distalization of 4.5mm was needed in order to lead to a Class I molar relationship (Fig. 5-6).

The size of the anterior teeth was measured using the tooth measurement and Bolton analysis tool of the ClinCheck. (Fig. 7). There was a Bolton discrepancy of 1.28mm mandibular excess (measured form first molar to first molar).

It was also noted that the natural width of the maxillary left lateral incisor was smaller than the right and the maxillary left central incisor was larger than the right. Orthodontic treatment planning included opening spaces for bonding. Using the 3D controls of the ClinCheck, the spaces mesial and distal of both lateral incisors were adjusted.

The size of the spaces was relevant to the clinical findings and based on the predicted result with the restoration. A consultation with the prosthodontist followed, in order to determine the final predicted position of the anterior teeth. Using the 3D controls and specifically the tooth crown angulation adjustment tool (Fig. 8) final adjustments were performed in order to adjust the front teeth as ideally as possible for the final restoration.

The initial staging for this patient included fifty-one pairs of aligners to be changed biweekly at first until Class I was established and weekly thereafter.

Class II elastics were used bilaterally for anchorage control during the course of distalization. The open bite was controlled via use of vertical attachments on the anterior teeth (Fig. 9). Treatment was completed in twenty-one months. No refinement aligners were required.

RESULTS

Orthodontic treatment resulted in significant widening of the dental arches, elimination of the crowding and open bite and establishment of a bilateral Class I occlusal relationship (Fig. 10). The predicted spaces were evident in the front teeth, their values matched the predicted values on the initial ClinCheck.

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Continues from page 9.

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TePe EasyPick™
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TePe EasyPick™ is efficient, easy to use and suitable for anyone. Recommended for daily use, alone or as a complement to other interdental cleaning products.
One of the highlights of the KAI mobility timetable was the 20th National Congress of the Italian Society for Conservative Dentistry (SIDOC). The SIDOC is a scientific non-profit society based in the Department of Dental Sciences at the University of Rome “La Sapienza”.

Its aims include scientific research in the field of conservative dentistry, scientific and cultural cooperation with similar institutes and associations both nationally and internationally, as well as the organization of seminars, conferences and congresses.

We were fortunate enough to be given the opportunity to attend one of these congresses during our KAI mobility programme.

The second talk of the first day of the 20th National Congress of the Italian Society for Conservative Dentistry was titled “From the single tooth to a full mouth rehabilitation: how to plan a more comprehensive treatment” which was presented by Dr. Francesca Vailati from the University of Geneva.

The subject tackled by Dr. Vailati was pertinent to everyday clinical practice and dealt mainly with the rehabilitation of the heavily worn down dentition.

Tooth wear has a multi-factorial aetiology with the clinical presentation dependent on the predominant aetiological factor. The significance of tooth wear as a dental problem is increasing.

A recent UK Adult Dental Health Survey (ADHS) showed that moderate wear increased from 11% in 1998 to 15% in 2009. 77% of 6469 participating adults in the 2009 survey had signs of tooth wear, 15% of participants had moderate wear and 2% severe tooth wear. This same survey showed that tooth wear was related to age with more than 80% of over 50 year olds in the UK exhibiting some tooth wear.

However, the survey also demonstrated that there is an increasing proportion of young adults with moderate wear.

Cases of tooth wear were traditionally restored with indirect ceramic restorations. However, improvements in composite materials have allowed dentists to utilize direct composites in the restoration of these cases.

Within the limitations of one in vitro study, direct composites showed better results than their indirect counterparts. This study suggested that dentists should consider direct composites as a good choice for restoring severe tooth wear.

This study recommended that for some brands of materials the thicker the layer the stronger restoration2.

This study suggested that dentists should consider direct composites as a good choice for restoring severe tooth wear. Wear modality also did not show a significant association with time to failure. In patients with a Class 3 or edge-to-edge incisal relationship, the proportion of failures was greater compared to Class 1 and Class 2 cases but this did not reach significance3.

In a recent literature review three prospective and two retrospective studies were selected for inclusion. Included studies involved placement of 772 direct and indirect anterior composite restorations with observation periods of between 5 months and 10 years. The survival rates of anterior composites were of more than 90% at 2.5 years and 50% at 5 years. Posterior occlusion was re-established in 91% of patients within 18 months.

This study concluded that the technique provides a possible treatment option for at least the displayed observation period of 5.5 years. In another study with a small sample size the use of direct and indirect microfilled posterior resin composite was deemed to be contra-indicated as 50% of 32 restorations failed over 3 years4.

In a larger more recent study 1010 direct composite restorations were used to restore severely worn teeth. 661 were on the upper six anterior teeth and 242 on the lower six anterior teeth.

A total of 71 restorations failed during the average 33.8 month observation period, of which only 4 were on posterior teeth. This study showed time to failure to be lower in older patients and when a lack of posterior support was present. Interestingly, bruxism and an increase in the OVD were not associated with composite failure. Wear modality also did not show a significant association with time to failure. In patients with a Class 3 or edge-to-edge incisal relationship, the proportion of failures was greater compared to Class 1 and Class 2 cases but this did not reach significance5.

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Continues on page 16.
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The authors of this literature review concluded that there is evidence to support the use of anterior composite restorations at an increased vertical dimension of occlusion in the short to medium term, whilst long-term reporting of outcomes remains limited.

Many of the authors in the studies mentioned agree with Dr. Francesca Vailati about the benefits of direct composite restorations.

The additive approach of this treatment modality as opposed to the more destructive conventional method of restoring worn teeth cannot be undervalued in these patients, where an amount of tooth structure has already been lost to wear. Most studies demonstrated a positive use of direct composite especially in the short to medium term. Further improvements in composites will only serve to tip the balance towards such additive techniques, eventually securing such treatment as the gold standard for the management of tooth wear patients.

REFERENCES

PRE-PROSTHETIC ORTHODONTIC TREATMENT OF AN ADULT PATIENT WITH THE INVISALIGN TECHNIQUE

Continues from page 12.

The patient had the bonding procedure performed on all four maxillary incisors in one appointment and returned for retainer impressions (Fig. 11). The orthodontic result was maintained with Vivera retainers.

DISCUSSION

Prosthetic restoration of anterior teeth is not an uncommon need in adult patients and this procedure may increase the aesthetic result of a successful orthodontic treatment. Especially in cases of severe crowding where restorations are needed, practitioners encounter various challenges upon tooth preparation. Some of these challenges include too much removal of tooth substance, inability to prepare and polish restorations interproximally and difficulty in providing an ideal tooth shape.

Orthodontics may unarguably contribute to the delivery of better prosthetic restorations by moving teeth to more ideal positions. The Invisalign technique brings this relationship to a whole new level, as the interdisciplinary treatment plan can be visualized at the very beginning of treatment with millimeter accuracy. The control of space opening performed with aligners appears to be easier to similar movements performed via brackets and open coils. In the later, more finishing corrections are usually required.

Additionally, the Bolton analysis tool that is available in ClinCheck allows the orthodontist to closely observe and determine if prosthetic intervention is required, something that could otherwise be overlooked.

Furthermore, prosthetic restorations performed on teeth in ideal occlusion are performed with just the right amount of tooth substance removed and are likely to have a longer life span in the mouth.

The Dental Probe June 2017 – Issue 62
CLINICAL PHOTOGRAPHY
PART 2: IMPROVING YOUR IMAGE

By Dr Dennis Cutajar BChD MSc (Restorative and Aesthetic Dentistry)

ABSTRACT
Digital clinical photography is a powerful tool. It is invaluable as a documentation medium and greatly facilitates communication between all parties involved in patient management. Modern equipment has rendered photography user-friendly, enabling rapid transfer of information to our patients, laboratory technicians and colleagues. (Lozano, 2015)

CLINICAL RELEVANCE
The main aim of clinical photography is to obtain excellent intra and extra-oral images that represent a comprehensive quantity of structured clinical information. This brief overview of the topic aims to explain the indications of clinical photography. How a simple photographic procedure can be used to provide dental information in an effective manner. (Lozano, 2015)

OBJECTIVES
To outline the value of clinical photography in our daily practices, evaluate the standard views, and identify other views commonly captured by the dental team.

CONSENT
Patients should be fully aware of who has access to their images, and their permission obtained prior to image transfer to colleagues, including specialists and laboratory personnel. It is good practice to obtain signed informed consent prior to any photography, however, as a bare minimum, consent forms are a must prior to publication of images, including their use as promotional material over the internet.

WHY PHOTOGRAPH TEETH?
The four main reasons why clinical photos of all our patients should be taken on a regular basis are:

- Documentation
- Communication
- Audit
- Marketing

DOCUMENTATION
Clinical images are an accurate, quick and easy adjunct to our clinical records. Human memory is rather unreliable, hence clinical images are definitely recommended prior to invasive procedures, especially elective ones.

AT CONSULTATION APPOINTMENT
Taking a standard set of clinical images at the initial consultation appointment, enables us not only to record the state of the mouth, but perhaps more importantly, provides us with the ability to give the patients with an educational 'tour of the mouth'; instigating co-diagnosis and motivate oral hygiene.

DURING TREATMENT
Images may be taken at different treatment stages as required, including photographs of impressions, mounted casts, wax-ups, any labwork etc.

COMMUNICATION
- Specialist referral
- Laboratory
- Patients

REFERRAL
When referring a patient to a colleague, it is good practice to provide a comprehensive set of images as an adjunct to the referral letter, which should still include patient details, a reason for referral, a comprehensive history, clinical findings, charting, and radiographs. Clinical images should be used to document soft and hard tissue lesions. In these cases it is important to note:

1) The magnification ratio, which enables the clinician to accurately monitor any changes in size of lesion.
2) Ensure accurate and faithful colour rendition. Simply ensure the ‘daylight’ or ‘flash’ white balance setting is selected at all times.

LABORATORY COMMUNICATION
We communicate with our labs on a daily basis. Photographs can be a very powerful ability to give the patients with an educational ‘tour of the mouth’; instigate co-diagnosis and motivate oral hygiene.

AUDIT / SELF LEARNING
It takes courage to own up to our own mistakes. Taking a look at our own work can be a rude awakening as to how flawed our dentistry really is. It is good practice to take images at different stages of treatment, in an attempt to assess the quality of our own work.

MARKETING
Before and after images are commonly used for marketing purposes. Care should be taken to ensure patient expectations are kept as realistic as possible. It is often better to avoid retracted shots, or images where patients are easily identifiable.

THE COMMON VIEWS
The images presented here should be treated as a baseline for recording patient information and should not be viewed as the only images that should be obtained. It should be immediately clarified that the method employed here is simply the preferred method of this particular author and should by no means be considered to be the only correct one.

CAMERA SETTINGS
Using the camera and flash on full manual modes gives the clinician the ultimate control over the results obtained. For all the images in this article, a canon dSLR system was utilised with the following settings selected in manual mode:

- An ISO of 100
- A shutter speed of 1/160th
- White balance set to ‘flash’ or ‘daylight’
- Ring flash set to half power. (A canon MR 14EX ring flash unit was used)

The only settings requiring the occasional change are the magnification ratio and aperture, which are correlated as follows:

- Magnification ratio of 1:1.5 – Aperture £2
- Magnification ratio of 1:3 – Aperture £2
- Magnification ratio of 1:5 – Aperture £2

For the complete novice who trembles with fear at the very thought of using a camera in manual mode, the safest approach is to leave the flash on auto (TTL metering) and select the narrowest aperture (commonly f2.8-f3.2) for all intra oral shots, and a middling aperture (f8-f11) for all extra oral shots. (Lozano, 2015)

THE STANDARD VIEWS (TABLE BELOW)
Standard views represent a comprehensive amount of structured patient information. Most academic boards recommend that these images should be taken as a baseline for all patients, together with any additional views, as required. (L. Mackenzie, 2014)

With an appropriate camera setup and correct technique, any clinician or member of staff should be able to capture this sequence of images in 2 to 3 minutes. Clinical judgement should dictate what other images could be taken for individual cases.

<table>
<thead>
<tr>
<th>STANDARD VIEWS</th>
<th>APERTURE</th>
<th>MAGNIFICATION RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full face</td>
<td>F8</td>
<td>1:15</td>
</tr>
<tr>
<td>Anterior smile</td>
<td>F29</td>
<td>1.3</td>
</tr>
<tr>
<td>Retracted views, anterior</td>
<td>F29</td>
<td>1.3</td>
</tr>
<tr>
<td>Retracted views, right lateral</td>
<td>F29</td>
<td>1.3</td>
</tr>
<tr>
<td>Retracted views, left lateral</td>
<td>F29</td>
<td>1.3</td>
</tr>
<tr>
<td>Lower full arch Occlusal view</td>
<td>F22</td>
<td>1.5</td>
</tr>
<tr>
<td>Upper full arch Occlusal view</td>
<td>F22</td>
<td>1.5</td>
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Keep in mind that patients are unlikely to be impressed or even able to judge the outcome of aesthetic restorative dentistry from occlusal views and retracted images. Always try to include some images that centre the tooth or teeth in question, ensuring they are dried first, from a more natural perspective. Even if these shots would not be ideal for documentation and academic purposes, they may be a better option for patient communication.

REFERENCES:

THE OCCLUSAL SHOTS

These shots may be taken with the patient sitting up, partially reclined or supine. Safety glasses should be used for ocular photography. Aim to centre the occlusal view in order to demonstrate the occlusal surfaces of teeth.

When taking a full arch occlusal view, place the back of the wide end of the mirror against the opposite side of the mouth and apply gentle pressure to facilitate maximal opening.

For left: Full face smiling (Portrait), Aperture f8, Magnification ratio approx. 1:15, (1.5m away). Left: Incisal/interpupillary line relationship (interacted teeth upper/apex), Aperture f8, Magnification ratio approx. 1:15, (1.5m away). NB: relationship between interpupillary line and incisal line should ideally be parallel to the horizontal border of frame.

Incredibly easy to photograph. These shots are possibly the most commonly used for marketing and patient communication purposes.

THE SMILING SHOTS

1:3 Incisor display “M” position, anterior. The “rest position” may be assessed by measuring the initial display on the patient says “M”. Close the lips, the incisal tips should be in contact with the lower lip.

1:3 Retracted views, anterior - in occlusion. NB: Individual retractors are far more versatile than joined ones.

1:3 Retracted views, left lateral excursion. NB: In this example, I should have either moved further to the side, or asked patient to turn his head further.

When taking a lateral incisor view, open wide to achieve the best view. Use a retractor to separate the teeth and apply gentle pressure to facilitate maximal opening.

For left: Full face smiling (Portrait), Aperture f8, Magnification ratio approx. 1:15, (1.5m away). Left: Incisal/interpupillary line relationship (interacted teeth upper/apex), Aperture f8, Magnification ratio approx. 1:15, (1.5m away). NB: relationship between interpupillary line and incisal line should ideally be parallel to the horizontal border of frame.

CLOSE-UP VIEWS OF UPPER ANTERIOR SEXTANT (WITH CONTRASTOR)

1:3 Lower full arch occlusal view. NB: You may need to ask patient to move tongue if it obscures occlusal surfaces of teeth.

1:3 Retracted views, left lateral - in occlusion. Release pressure on the contralateral side, and ask patient to turn head in that direction.

1:2 Anterior close-up view. Upper incisors & canines. Try to maintain a horizontal incisal line, whilst keeping the incisal edge in the middle of the frame. This might not be possible in patients with marked incisal shifts.

CLOSE-UP VIEWS (POSTERIOR QUADRANTS)

1:3 Retracted views, anterior - teeth parted. NB: In this case, inadequate retraction meant the entire crowns and marginal gingivae are visible.

1:3 Retracted views, right lateral - in occlusion. NB: Individual retractors are far more versatile then joined ones.

When taking a posterior quadrant view, open wide to achieve the best view. Use a retractor to separate the teeth and apply gentle pressure to facilitate maximal opening.

• Shot through warm mirror (assistant may help by blowing air) to prevent fogging.
• Retract the side being exposed with slight upwards pressure. The side of the mirror itself may be used to retract the buccal mucosa further.
• Make sure teeth are dry.
• Try to keep teeth at approximately centre frame and record as much of the posterior quadrant as possible.
• In lower quadrants, an assistant retracting tongue with dental mirror could prove to be invaluable.

1:3 Retracted views, right lateral - teeth parted.

1:3 Retracted views, left lateral - teeth parted.

1:3 Retracted views, left lateral - in occlusion. Release pressure on the contralateral side, ask patient to turn head in that direction.

CLOSE-UP VIEWS (POSTERIOR QUADRANTS)

1:3 Retracted views, anterior - in occlusion. NB: Individual retractors are far more versatile than joined ones.

1:3 Retracted views, right lateral - in occlusion. NB: Aim to keep the occlusal plane horizontal.

1:3 Retracted views, left lateral - in occlusion. Release pressure on the contralateral side, and ask patient to turn head in that direction.

1:3 Retracted views, left lateral excursion.

1:3 Retracted views, right lateral excursion.

1:3 Retracted views, anterior - teeth parted.

1:3 Retracted views, right lateral - teeth parted.

1:3 Retracted views, left lateral - teeth parted.

RETRACTED VIEWS

The Dental Probe June 2017 – Issue 62
ORAL DRUG DELIVERY:
NEW HORIZONS OF CLINICAL PRACTICE

Vera Panzarella, DDS, PhD
Sector of Oral Medicine "V. Margiotta", University of Palermo

Drug delivery: refers to approaches, formulations, technologies and systems for transporting a pharmaceutical compound to the body in order to ensure its desired therapeutic effect.

It is a concept heavily integrated with administration routes, dosage and pharmaceutical formulations.

Mucosal permeability barrier

<table>
<thead>
<tr>
<th>Tissue</th>
<th>Structure</th>
<th>Epithelial Thickness (μm)</th>
<th>Permeability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buccal</td>
<td>VC</td>
<td>800-1000</td>
<td>+</td>
</tr>
<tr>
<td>Sublingual</td>
<td>VC</td>
<td>100-200</td>
<td>++</td>
</tr>
<tr>
<td>Gingiva</td>
<td>K</td>
<td>200</td>
<td>--</td>
</tr>
<tr>
<td>Palatal</td>
<td>K</td>
<td>250</td>
<td>-</td>
</tr>
</tbody>
</table>

The permeability of the oral mucosa decreases with the degree of keratinization:
Sublingual > Buccal > Hard palate mucosa.

Drug administration routes

1. Transmucosal Drug Delivery (TDD)
   - administration of pharmacologically active agents through the oral mucosa to achieve systemic effects

2. Oral Mucosal Drug Delivery (OMDD)
   - administration of pharmacologically active agents through the oral mucosa to achieve local effects

Drug delivery via the ORAL MUCOSA

1. Buccal route
2. Sublingual route
3. Oral cavity route
4. Palatal route
5. Gingival route
6. Transmucosal route

Drug delivery via the ORAL MUCOSA

1. Oral/Transmucosal Drug Delivery (OTDD)
   - administration of pharmacologically active agents through the oral mucosa to achieve systemic effects

2. Oral Mucosal Drug Delivery (OMDD)
   - administration of pharmacologically active agents through the oral mucosa to achieve local effects

Drug delivery via the ORAL MUCOSA

1. Oral mucosal sites
   - Buccal mucosa: 25%
   - Lingual mucosa: 60%
   - Palatal mucosa: 15%

PHARMACEUTICAL FORMULATIONS

Mucosal/Transmucosal dosage forms and devices

- Oral and Systemic DRUG DELIVERY
ORAL DRUG DELIVERY: NEW HORIZONS OF CLINICAL PRACTICE

Continues from page 23.

Keratinised Mucosa – GINGIVAL DRUG DELIVERY
Rationale: concentrated amounts of active medications can be delivered to the precise site of the disease process with minimal systemic side-effects of the medication.

It is used mainly for the treatment or management of periodontal diseases.

Keratinised Mucosa – GINGIVAL DRUG DELIVERY

In minimising irritation due to delivery of high local concentrations of medications, localised periodontal diseases can be effectively managed.

Rapid release drug delivery:

- Sublingual drug delivery
- Rectal drug delivery
- Non-keratinised mucosa – SUBLINGUAL DRUG DELIVERY
  - A relatively small number of sialograft products have been successfully developed to date.

The Dental Probe June 2017 – Issue 62
Continues on page 29.
Unfortunately in today’s world cyber attacks and data breaches are increasing. Did you ever stop and think of how your practice could be effected if you suffered a cyber attack?

Dentists like other medical professions have a vast amount of data including names, addresses, birth dates and also sensitive information such as health history and possibly banking information.

The threat of this information being stolen is tremendous. A cyber breach can lead to significant expenses, reputational damage, possibly fines and wreak havoc on your dental practice.

We are pleased to inform you that MIB has the solution!

A Cyber, Privacy & Media risk policy is designed to respond in the event of a data breach and/or cyber attack. This policy would include cover for the following:

- Full third and first party cover including
- Electronic and traditional privacy breach cover
- Cyber theft and extortion cover
- Breach notification and mitigation
- Regulatory investigations and fines/penalties cover
- Business interruption recovery
- Reputational Damage
- Rapid response service

MIB is Malta’s largest insurance broker and risk management services firm, the local pioneer in this section with over 38 years of proven track record serving some of Malta’s major public and private corporate entities. MIB is the independent broking arm of MIB Insurance Group.

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MIB - YOUR INSURANCE SOLUTION
**Clinical dentistry and photography by: Dr. Giuseppe Chioidera, Brescia, Italy**

### Treatment of fractured composite restoration of first lower molar with 3M™ Filtek™ One Bulk Fill Restorative

**About the Case:**
Male patient. Patient needed treatment due to a fractured composite restoration. Fractured restoration was causing patient significant discomfort.

**Challenge:**
The complete removal of the fractured composite restoration resulted in a large restoration that needed to be completed in a short amount of time.

**Step-by-Step:**

1. **Initial situation:** Fractured composite restoration of first lower molar.

2. **The tooth is isolated and the insufficient composite restoration completely removed.**

3. **Tooth is etched with a selective enamel etching technique using 3M™ Scotchbond™ Universal Etchant.**

4. 3M™ Scotchbond™ Universal Adhesive is applied for 20 seconds.

5. **After air drying for approximately 5 seconds, 3M™ Elipar™ DeepCure-S LED Curing Light is used to light cure for 10 seconds.**

6. **3M Filtek One Bulk Fill Restorative surface finished before final polishing.**

7. **3M Filtek One Bulk Fill Restorative surface finished before final polishing.**

8. **Pre-polishing of restoration with 3M™ Sof-Lex™ Pre-Polishing Spiral**

9. **Polishing with 3M™ Sof-Lex™ Diamond Polishing Spiral to create a final smooth and high-gloss polish for a natural-looking restoration.**

10. **Final restoration at a recall visit 4 months after placement is natural-looking and esthetic.**

**The 3M Difference:**
With its one-step placement and easy handling, 3M Filtek One Bulk Fill Restorative enabled a fast and easy posterior restoration without compromising on esthetics. The patient was very satisfied with the efficiency of the procedure and natural-looking result.

Refer to Instructions for Use (IFU) for complete product information.
ORAL DRUG DELIVERY: NEW HORIZONS OF CLINICAL PRACTICE

Continues from page 33.

Main Salwell GenMarino Features
- Lower incident rate of balding
- Higher incidence in women with anorexia nervosa and men with gentler hair growth
- Less aggressive and less invasive than traditional hair restoration methods
- Perfect for those with limited funds or time
- Suitable for men and women

Oral Dispersible Tablets (ODT)
- Useful in conditions where water is unavailable or painful (e.g., prior to surgery), irritable bowel syndrome, or cachexia
- Can be administered to patients having difficulty swallowing (like the elderly, stroke victims, and pediatric population)
- No barcoding for an analgesic tablet in gel form or an analgesic tablet in a gel form
- Suitable for patients who are unable to take oral medications due to conditions

Non-Invasive Device - Buccal Drug Delivery
- Unlike the psychological challenges, buccal devices, due to their unique structural and physiological properties, offer new opportunities for systemic drug delivery

Why Buccal Mucosa as a Systemic Drug Delivery
- A mucosal membrane
- Fast and efficient delivery
- No need for gastrointestinal absorption
- No need for liver metabolism
- Ideal for drugs that are not orally absorbed

Oral Dispersible Systems (ODS)
- Involves the development of oral dosage forms that are designed to deliver drugs into the bloodstream
- Advantages: easy to swallow, no water required, immediate release, and bioavailability

IntelliDrug® Controlled Drug Delivery
- The system is designed to release the drug at a controlled rate
- Colloidal delivery system
- The system is designed to release the drug at a controlled rate

Drug Development and Industrial Pharmacy
- The system is designed to release the drug at a controlled rate
- The system is designed to release the drug at a controlled rate
- The system is designed to release the drug at a controlled rate

Continues on page 38.
RESULTS OF THE CED GENERAL MEETING IN MALTA

CED PRESS RELEASE OF 29 MAY 2017

Representatives of CED Member and Observer organisations met in Valletta, Malta on 26-27 May 2017 for the regular biannual General Meeting under the chairmanship of the CED President Dr. Marco Landi. The meeting was hosted by the Maltese Dental Association in the context of the Maltese EU Council Presidency.

CED CODE OF ETHICS
The CED adopted the revised Code of Ethics that takes into account national codes and the provisions of the General Data Protection Regulation. First adopted in 1965 and regularly amended, the CED Code of Ethics contains agreed guiding principles for professional conduct and ethics of dentists, which underpin high quality of dental care throughout Europe. It covers the commitment to the patient and the public, the practice of the profession and electronic commerce.

CED POSITION ON PROPORTIONALITY TEST FOR REGULATED PROFESSIONS
The CED opposes the inclusion of healthcare professions in the proposed Directive on a proportionality test before the adoption of regulations for professions. Together with other healthcare professions, the CED calls for the exclusion of healthcare professions from this Directive, as public health and patient safety are put at risk with this approach. EU legislation and EU case law have established the special status of healthcare services over the years and the competence of Member States to determine the level of protection they want to afford to public health.

We welcomed MEP Dr Roberta Metsola who addressed the assembly and shared the healthcare professions’ concerns about this proposal and called for the exclusion of healthcare professions at the recent European Parliament exchange of views with the European Commission. She emphasised that healthcare is fundamentally different from other services and should therefore not be dealt with by means of the same instrument.

The CED Position was unanimously adopted and clearly lays out why healthcare professions should be excluded.

RESOLUTION ON THE DENTIST OF THE FUTURE
The profile of the future dentist is constantly evolving and the expected competences and skills need to be updated and new ones created. The Resolution that was unanimously adopted by the CED members describes the competences and skills that dentists will need to overcome the future challenges of the profession. The ultimate objective of the future dentist is to be competent in managing traditional as well as new challenges in oral health, and they must be able to practise evidence-based, comprehensive dentistry independently, in group practice and in close collaboration with other health professionals, safeguarding ethics and patient safety.

THE EU SKILLS AGENDA
The members adopted the revised mandate of the Working Group Education and Professional Qualifications. As part of the new mandate the Working Group will cover the EU Skills Agenda, monitor the developments of new challenges and trends affecting the profession and continue to discuss the strategy for the future revision of the V.3/5.3.1 of Directive 2005/36/EC.

DIGITISATION AND EPRESHRITIONS
The revised mandate of the Working Group eHealth includes a focus on monitoring and guiding ePrescriptions as well as monitoring digitalisation in general, and the data information exchange and link to dental practices and third parties in particular.

PAYMENT FORM

Please cut out this section and send with a cheque for 50 euro payable to Dental Association of Malta for your 2017 DAM membership - the best 50 euro investment ever!

TO:
The Treasurer, Dr Noel Manche,
The Dental Association Of Malta,
Federation Of Professional Associations,
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Gzira.

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ADDRESS: _______________________________________
_____________________________________________________
_____________________________________________________

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Simultaneous – Allows for the effective treatment of two patients at the same time.*
Unique – Advanced design allows for a portable system, allowing for ease of mobility through different rooms within the practice.
Adjustable – Whitening option can be set to gentle, normal, or intense light output settings for a tailored treatment that best suits each individual patient.
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Purifies – Using negative ions, the built-in air purifier reduces airborne pollutants that may exist within the practice, actively contributing to a cleaner and healthier environment.

*SECOND LED SOLD SEPARATELY