The Maltese Dental Journal

# The Dental Probe

# Amazingly simple esthetics

Variolink® Esthetic

- Balanced and concise Effect shade system
- Excellent shade stability due to amine-free composition
- Easy, controlled excess removal

ivoclar.com
Making People Smile

ivoclar


ISSN 2076-6181


**DENTAL ASSOCIATION OF MALTA**
The Professional Centre,
Sliema Road, Gzira
Tel: 21 312888
Fax: 21 343002
Email: info@dam.com.mt

# Editorial

## By Dr David Muscat

Dear colleagues,

We mourn the loss of Professor Hector Galea, a University lecturer who was once Director of Dentistry. May he rest in peace.

At the time of writing this article the DAM is planning a Basic Life Saving Course (BLS )in conjunction with a Medical Emergencies Course for Dental Surgeons. It is intended that a full day of lectures will be held at The Hilton Hotel. The lectures will be given by Dr Adam Bartolo. The full cohort of dentists will attend lectures that day. Following on from the lectures there be will 'groups of six', and each will be instructed in the 'hands-on' aspect of the course. All members of the dental team will be invited.

Page Health is planning a Voco course in Cuxhaven, Germany this year. This will involve lectures and hands-on workshops. Page Health is also holding an introductory Invisalign Course in Malta.

In the next few months, hopefully all the dentists registered in Malta will be able to access their patients' medical records online. MITA is currently working on this task. The dentist will use his/her e-ID password and log onto myHealth. The dentist will be able to create a 'link' with the patient. Data Protection laws prohibit the dentist from accessing other patients' records without their consent. The patient gives consent either by signing a form or signing electronically in front of the dentist. There will now be no distinction between doctors and dentists in Malta re health data access.

The dentist may access care summaries, POYC, lab results as well as Medical images. However, one cannot order CT scans or MRIs unless the institution one works for has the right to do so. Originally, a request was made to The Medical Council to be able to allow dental students and lecturers at UOM to access the records. However, at Medical council level I argued that ALL dentists should be able to access their patients' records and this was rightly acceded to.

The AGM of the DAM will be held on Wednesday 7 February at the MFPA in Gzira at 7:30pm.

Saint Apollonia is on 10 February although historically the correct date is 9 February.

Later this year Dr Ann Meli Attard will be holding further GC courses in conjunction with Cherubino Ltd. The CBCT course organised by the DAM was a resounding success and there is a great demand for another.

The Christmas party was held at Port 21 and this was extremely well attended. Last December Bart Enterprises in conjunction with Ivoclair organised a three day hands-on course on composite layering techniques at the Phoenicia with Dr Villaverde. ITI has now two study groups in Malta.

Marletta Enterprises is organising a hands-on cadaver course on 5/6 April 2024 in Cremona, Italy organised by the Academy of Craniofacial Anatomy. This will be held in Palazzo Trecchi and will be conducted by Professor Testori and Dr Rosano.

The DAM is planning to meet the Hon. Minister Joe Etienne Abela, Minister of Health and Active Ageing, as a way of introduction and paving the way for future co-operation for the benefit of the Dental Profession in Malta.

The front cover picture is by the artist Jacqui Agius entitled *St Paul Street, Valletta during the feast.*

*David*

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

## The DAM Christmas Party 2023

16th December 2023 at Port 21, Ta' Xbiex

*Advertisers are responsible for the claims they make in their ads and the opinion of the advertisers and editors of articles in the issue are not necessarily the opinion of the DAM.*

## 2 Day Training Dental Educational Event
## @ VOCO Dental Educational Centre, Cuxhaven, Germany
### Presented by Dr Klaus-Peter Hoffmann

**Organised for Dental Professionals in Malta & Gozo**
**By PageHealth & VOCO - Supported by The Dental Association of Malta**

**THIS EVENT REACHED MAXIMUM CAPACITY OF 8 REGISTRATIONS**

PageH[illegible] and VOCO ar[illegible] Training Event at th[illegible] VOCO [illegible] ucation Centre in Cuxhaven, Ge[illegible] Thursday 18th & Frid[illegible] covering a Factory Tour, Lectur[illegible] & [illegible] Trainings.

The [illegible] main top[illegible]:

- Aesthetic [illegible]tistry Benefits & Techniques;
- Restorative Materials Techniques using Ceramic Materials;
- Luting Techniques for Aesthetic Restorations;
- Aesthetic Tooth Restorations with Glass Fibre-Reinforced Composite Posts;
- How to work more efficiently with bonding agents.

This event (lectures/hands-on) will be eligible for Continuing Professional Development (CPD).

A certificate of attendance will be given to each participant from The Dental Association of Malta (DAM).

Registration closing date: 16th February 2024 (or before if 8 participants are reached)
For further information kindly contact PageHealth (Contact Person Luke Zammit)
Office Tel: 2735 5564, Mob: 7958 5926, Email: luke.zammit@pagehealth.mt

THE DENTAL ASSOCIATION OF MALTA

# Administrative Report for the year 2023

By Dr David Muscat

The Dental Association of Malta committee fro 2023 comprised the following members with their respective duties:

- Dr Edward Fenech
  *President*
- Dr Adam Bartolo
  *Vice President, Government Liasion Officer*
- Dr Noel Manche
  *Treasurer*
- Dr David Muscat
  *Secretary, PRO, Editor – 'The Probe'*
- Dr Audrey Camilleri
  *International Liaison Officer*
- Dr Ann Meli Attard
  *CPD officer*
- Dr Thomas Grixti
  *Federation Representative*
- Dr David Vella
  *Social Events Officer*
- Dr Nicholas Busuttil Dougall
  *IT officer*

The DAM has had 16 sub committee meetings in 2023.

The DAM was represented at the SAC (Specialist Accreditation Committee) in several meetings and took a lead at digitizing the application forms and this was an extremely time consuming exercise.

The DAM was represented at the Federation of Professional associations and was opposed to several changes in its statute.

Earlier this year Dr David Muscat represented the DAM in a meeting in Brussels organised by the Federation of Professional Associations in which an initiative for better pensions, and sickness and disability benefit for self employed professionals was discussed with MEPS.

Dr Audrey Camilleri represented the DAM in two' Council of European Dentists 'meetings abroad.

The DAM was involved in several meetings with the Postgraduate Teaching Committee. The DAM is responsible for the training and curriculum of the specialist Training in Orthodontics and Oral surgery and was involved in the updating of their programme.

The DAM now has a new domain.

The DAM was also involved in issues regarding advertising and disability access for dental clinics.

The DAM organised two training workshops as well as two lectures this year.all had CPD certification.

They were as follows:

- 28.4.2023 Injection Moulding Technique Workshop in conjunction with Cherubino Ltd by Dr Ann Meli Attard
- 27.9.23 Theoretical online lecture to all CBCT course participants by Professor Arthur R.G.Cortes
- 5.10.2023 CBCT full day workshop at the Hilton by Professor Arthur R. G. Cortes
- The Basic Principles of Cone Beam CT. Theoretical and Practical for Dentists
- 31.5.23 TMJ Disorders Dr Ross Elledge Oral and Maxillo- Facial Surgeon
- 13.9.23 Root Canal Irrigation. Is it Necessary Or A Waste Of Time? Dr Maria Xuereb.

The DAM is currently working on several Basic Life Support courses planed to start in March 2023 with a main lecture for all participants by Dr Adam Bartolo at the Hilton, followed by hands-on sessions for groups of about six dentists each.

The practical sessions will be organised by the DAM but may be sub contracted to suitable professional entities on our behalf. ■

**THE VERIFIABLE CPD EVENTS ORGANISED BY DAM IN 2022 WERE:**

1. Updates on Management of Traumatised Anterior Teeth by Dr Audrey Camilleri
2. Updates on Bisphosphonates and Monoclonal Antibodies by Prof Andrew Borg
3. Injection Moulding Technique, a Hands-on Course by Dr Ann Meli Attard

**Total number of Verifiable CPD Hours: 10 hours**

**THE VERIFIABLE CPD EVENTS ORGANISED BY DAM IN 2023 WERE:**

1. Temporomandibular Joint Disorders: A Comprehensive Approach to Diagnosis and Management by Dr Ross Elledge
2. Injection Moulding Technique, a Hands-on Course by Dr Ann Meli Attard
3. Root Canal Irrigation: A Necessity or a Waste of Time? By Dr Maria Xuereb
4. Basic Principles On The Use Of Cone Beam CT: Theoretical And Practical Training For Dentists Using CBCT. A lecture and workshop. By Prof. Arthur R. G. Cortes

**Total number of CPD hours: 20 hours**

# International Relations Officer Report for 2023

By Audrey Camilleri
International Liaison Officer,
Dental Association of Malta

In November 2023 I attended the CED meeting where representatives of the Council of European Dentists (CED) Member, Affiliate Member and Observer associations met in Brussels, Belgium, for the CED General Meeting under the chairmanship of President Dr. Freddie Sloth-Lisbjerg.

The meeting was also joined by several invitees from the European Dental Students Association (EDSA) – namely President, Deniz Naz Bilgiç, the Secretary General, Charlotte Carter and the Vice-President for External Affairs, Ivan Demyanov.

The CED President reminded of the existing CED Strategy and highlighted the importance of mutual collaboration between the EU and the national levels within the organisation.

As such, he also took the opportunity to underline the need to consider:

1) how national priorities and the CED strategic objectives match and fit together before suggesting and embarking on new activities,

2) the importance of keeping CED staff in email communications to maintain and build the institutional memory of the organisation,

3) offering clear input and information in relation to CED surveys, policy positions and other information gathering activities,

4) respecting the existing timelines for producing documents, providing information and other relevant actions.

The General Meeting was also updated on the first steps towards the important collaboration between the European Regional Organisation (ERO) of the Fédération Dentaire Internationale (FDI) and the CED.

Through the establishment of a joint Task Force, the two organisations hope to work together towards addressing and advocating for the dental profession's priorities in relation to corporate dentistry.

During the meeting, the CED members were addressed by Mr Noa Jankovic, Deputy Executive Director, Public Policy & Branding for the Danish Dental Association.

Mr Jankovic shared his expertise and experience in relation to advocacy and lobbying on priority issues for the dental profession, at the EU and national level alike. At the CED side, Senior Policy Officer Nikoleta Arnaudova and Policy Officer Daniela Timuș highlighted in further detail the EU institutional framework and existing lobby support possibilities for members.

The members were also presented the new and updated CED website. The CED President highlighted that feedback on any concerns with usability of the website would be appreciated since the CED staff is in the process of ironing out and tweaking such issues.

In addition to being updated on the work of CED Working Groups and Task Forces, the General Meeting adopted five policy statements:

### STATEMENT ON DENTISTRY AND THE MEDICAL DEVICES REGULATION (MDR) 2017/745

The MDR is an essential piece of legislation for ensuring high-quality health care and a cornerstone of patient safety across Europe.

Nevertheless, several years into the implementation of the MDR, there are numerous discrepancies and variations in interpretation of the role of dentists in relation to dental medical devices.

This brief statement aims to outline and describe the nature of the dental practice, the dental treatment and dental medical devices as part of it.

### CED POSITION ON 'DIRECT TO CONSUMER' ORTHODONTICS, ARTIFICIAL INTELLIGENCE (AI) AND DENTISTRY

With this paper, the CED would like to outline its main concerns and recommendations in relation to "do it yourself" / "direct to consumer" (DIY/DTC) dentistry, and in particular DIY/DTC orthodontics, and the consequences that Artificial Intelligence (AI) may have in this area in the near future.

The document was produced because there is an increased marketing of DIY/DTC orthodontics, potentially placing patients at risk since the procedure does not involve a comprehensive orthodontic diagnosis and treatment progress is not adequately supervised by a qualified dentist and/or specialist orthodontist.

### CED POSITION ON THE RECOGNITION OF DENTAL QUALIFICATIONS ACQUIRED IN THIRD COUNTRIES

This document used the results of the CED survey on the topic as evidence on the process of qualifications recognition of dentists who received their diplomas in third countries and the satisfaction of the minimum training requirements under the Professional Qualifications Directive (PQD) in different CED member countries.

Through the Position, the CED provides policy recommendations, such as rigorous scrutiny of third country qualifications, consistent recognition process, alignment with European standards when providing simplified or expedited recognition process and clear language requirements.

Moreover, the document will be used in the CED lobbying work on the European Commission's recommendation proposal regarding the recognition of third country nationals.

### CED UPDATED RESOLUTION ON THE PROFILE OF THE DENTIST OF THE FUTURE

The update of the document aims to ensure that the CED is in line with the latest developments and trends of the profession, such as prevention, patients' needs with their complex medical profiles, collaboration with fellow medical colleagues and the relationship of trust between dentists and patients.

### CED UPDATED STATEMENT ON SPECIALIST DENTISTS

The updated Statement emphasizes the increasing specialization of the profession, while keeping the CED position on the topic neutral.

The General Meeting also voted on and confirmed the update of the mandate of the Working Group Oral Health, under the Chairmanship of Dr Vasileios Stathopoulos.

The CED meeting was also an opportunity to exchange information about developments impacting dentists at national level, including implementation of EU and national legislation.

Of particular interest were topics such as dentistry and waste, corporate dentistry, amalgam, dental professional qualifications. The members were also updated on the outcomes of two CED surveys, namely on dental amalgam, and on vaccination.

# THE COMPOSITE LAYERING COURSE

A course by Professor Filipe Villa Verde
Summary by Dr David Muscat

In December 2023, a three day hands-on course was held at the Phoeniica, Valletta in conjunction with Bart Enterprises Ltd. This was attended by 20 dentists, three of whom travelled from abroad.

This course dealt with the analysis of aesthetic principles and composition of the smile.

The anatomy and morphological characteristics of anterior teeth as well as the understanding of light, colour,opacity and translucency in teeth . Planning,mapping and colour selection were well covered.

A direct veneer associated with a diastema in a peg lateral was done as a hands on class ,as well as a natural layering on a fractured class 4 central incisor and a direct veneer on a discoloured central incisor. Polishing techniques were also covered.

Layering of an extensive class 2 MO in an upper molar was done as a hands on after a description of the advanced restorative technique using stains and using the anatomy as a basic principle to restore posterior teeth and paying attention to internal morphology of enamel and dentine.

### ANTERIOR TEETH -AESTHETICS

One can control the enamel and dentine characteristics by the thickness of dentine and enamel.

ENAMEL is translucent and there are different levels of translucency. It is opalescent and a modulator of appearance. Enamel types include chromatic, bleached enamel and achromatic enamel(no shade, you just see translucency).

There is an opalescence of enamel especially at the tip- incisal third. Or else a white halo. Enamel is dynamic. If light crosses you see blue or grey.

A high translucence gives a high opalescence.

Dentine has a high level of opacity. How much light can cross. Dentine is opaque and saturated. There are different shades. There is no interaction of light. When you compare to enamel the interaction is static not dynamic. The dentine determines the 'hue' of the restoration.

Then thickness of dentine and enamel is very important and so the amount of material is important.

*Continues on page 10.*



CURAPROX
Exclusively distributed by **Chemimart Tel. 21492212**
YOUR PATIENTS MIGHT AS WELL STOP BRUSHING IF THEY DON'T USE THIS.

# THE COMPOSITE LAYERING COURSE

*Continues from page 8.*

Around the cervical area there is more dentine so it is natural to see opacity and saturation. Light will not reflect in the area. There is a deflection. You cannot see brightness.

The middle third of the tooth is very different. The value (amount of white)is completely reversed. There is less dentine so less opacity and more enamel. There is very good reflection here as it is usually flat.

The Incisal third is translucent in appearance . There is less dentine and much more enamel.. Light is crossing. If you see a grey appearance it is grey enamel.

For different results you can change the thickness. Techniques must be predictable. One may select different ingredients for each patient. Enamel is external morphology and dentine is external morphology.

### SHADE

When selecting shade one has to consider Hue, chroma and value. The HUE is the name of the colour-the family. The letter is the shade, ie A,B,C, D etc

The main shade A is brown.

A: brown 80 %
B: yellow and brown 20 %
C: grey and brown
D: red and brown

B1 has a value that is higher than A1.

### CHROMA

The chroma is the amount of colour. The saturation/intensity. The NUMBER. A1 A2 A3 etc The most popular is A. Shade can be divided into light, medium and dark. We do not just have vita shades. A brand of different levels of opacity is the best brand.

### VALUE

The value is the best part of the shade. The value is the amount of white. The value concerns shine and luminosity.

### DENTINE

The main function of dentine is to neutralise. It fills the available space. It neutralises the transition. An increase in the thickness of dentine will increase the main appearance.

### ENAMEL

0.5MM a1 ENAMEL. You cannot use 2mm in A1 enamel. The value will be lower. You need to respect thickness.

With 3M systems you have the dentine, body and enamel.

The most part of a restoration is regular space.

The internal layer is more important than external enamel layer.

With chromatic enamel you have shade

With achromatic enamel you have grey

With transopal -this is not grey but a transition between blue and orange.

### STAINS

- Blue is the best
- Incisal halo effect
- Dentine effects
- White strips
- To increase saturation use ochre (around dentine areas such as cervical third)
- To increase depth use brown eg occlusal sulcus ,to increase the perception of depth, a deep appearance.

With the technique of layering you have control. When you do a wax up you can do your planning and see how much available space you have.

The matrix will be your guide. When you use enamel you have a chameleon effect.

### THE RESTORATIVE SEQUENCE FOR ANTERIORS

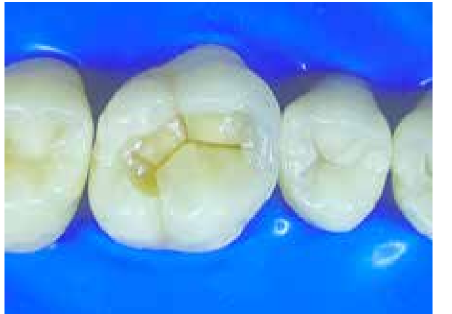
1. The palatal enamel is the reference
2. The mesial and interproximal enamel. The steps in enamel:
   a. palatal enamel-look for reference
   b. Proximal enamel(the real shape)main enamel
   c. Dentine
   d. Enamel effects-always use similar thickness
   e. Final layer-final enamel to connect.

### FIRST STEP 0.5MM GOOD REFERENCE.

### SECOND STEP CREATE REAL CONTACT MIDDLE THIRD TO INCISAL THIRD IMM IT IS A BOX

The transition must be invisible. The thickness must be well controlled. During the treatment the area must be dry, isolated .

One must use a clear matrix, that is transparent so you can see the neighbour. It is important that it must be flexible and stable and you can see outside it. If you use a metal matrix this ids thicker and rounded not flat.



The right volume has to be created so it is best to use a clear matrix.

With the shade and layer selection one uses a large volume of dentine at the cervical area. The main enamel is in the middle of the tooth. The palatal and incisal edges one can use effects.

The perfect main enamel is if you want to use one enamel. You can see the value in the middle third.

At the dentine you are looking at saturation . The palatal enamel controls the translucency so if the translucency is lower you can use the main enamel. If you use achromatic enamel you let light cross more.

When checking colour do not use mouth retractors. Dry surface fast -do not dehydrate. A conventional wax up is good and a mock up important.

### MAKING THE MATRIX

Press the mixed putty against the embrasure and incisal third of the anterior teeth. Press palatally. Don't press hard as you can change the shape. Go up to the mesiobuccal cusps of 4s. Cut the matrix with a curved size 12 blade in the middle of the incisal edge. You need 0.5mm thickness. The limit is the margin..

### THE LAYERING SEQUENCE

- Trans 30 palate
- Bleach enamel M and D interproximal
- A1 dentine to fill in space
- Transopal increases opalescent effect
- White
- Honey opalescent effect
- Esthetic BL and L

There must be a full integration into dentine. Sandblasting of the surface with clear pumice. Etch prime and bond

Do not close on the papillae. They will grow back. One needs guidance. A nightguard is also required.

### COLOURS AND STAGES IN LAYERING

- Trans30
- EB1
- DA1
- Transopal
- White
- EB1

We are creating contrast. Use floss to clean. A good tip is to use 70% alcohol to clean your plastic instruments. Excess composite is removed with a blade.

When curing the B! enamel first cure far from the matrix, and then do the distal B1 enamel. When you have a matrix it is best t have on both sides of the tooth so as to create a wine glass. This is important for the interproximal area so as to have an emergence profile and a good contact. And a stop. We are creating a box for the dentine. For the enamel use the grey plastic instrument LM Arte condenser by Style Italiano.

The next step is the dentine step. We need to check the available volume. The dentine will be higher than the contact and the final layer will be curved. The distal contact of the lateral is open and rounded. With the A! dentine press the material ,otherwise you may get bubbles. Define the area and use the blue plastic instrument. Do not place more than 1.5mm enamel between the mammelons.

### THE NEXT STAGES

TRANSOPAL -flowable -the objective is not to add volume but to fill space between mammelons. Use the green plastic and the brush. Use the black plastic to clean the interdental area.

WHITE STAIN - flowable composite with high intensity . USED TO CREAT INTENSITY ONLY AND GOOD FOR A LIMITED SPACE. The white stain is used to make a halo.

Take a brush to apply or to help to spread it. Mix it with BLXL to get a soft white to avoid a strong white and get a diffuse halo not a strong halo. Clean your brush. Transition between the facial area and the incisal edge. If there is contact clean the brush and go between the contact.

*Continues on page 12.*

# THE COMPOSITE LAYERING COURSE

*Continues from page 11.*

The last layer must be perfectly connected between layers. Dentists use too much enamel and sometimes looks too grey or artificial. Use can use teflon tape if you want. The matrix may block your access. An open access is better.

### B1 ENAMEL

This is the main enamel. One may use Optra sculpt to work on the composite in the central area. Then use can use a brush. A brush is flexible . Use a brush made from goats hairs. Press against the enamel and drop some flowable onto the brush. Use plastic instrument at 45 degrees to connect interproximally. Touch and slide. Touch with brush and tap.

### THE CLASS 4 RESTORATION A YOUNG PATIENT

Select dentine and a main enamel and a need to use more translucent enamel. You can use transopal, blue and honey. For this contact you can use a metal strip..

Mapping as follows:

- Trans 30
- EA1
- DA2
- Transopal
- White and blue and honey
- EA2

The first step is the trans 30 which is spread and cleaned with a green plastic. Press and slide and fill into the blue matrix. The palatal shell is the best reference for the mesial and distal frame. If you spread the matrix too much you lose the

reference.Then use a brown plastic instrument. Build up the palatal part. The 12 blade is best to clean the interproximal areas. The malar strip must be placed inside the sulcus.

The second step is the A1 enamel. The extension here is shorter than the lateral. The thickness is the rule. Use the thin tip of the plastic as a 1mm guide. You need to press as otherwise you will leave gaps. Use a brush to improve the connection. Tap and slide the brush.Do not move the matrix when curing. The brown plastic is used in the inter-dental area. In an older patient you can extend the dentine to the incisal edge and observe the next door tooth.

The next step is the A2 dentine. When choosing the colour you must believe your original shade when the tooth is dry. A tooth will appear whiter when dry. Spread the dentine but leave space for the last layer. Make a subtle convex surface leaving enough space for enamel. Check the space with the matrix.

Slide in and push in using a green plastic. The final appearance will depend on the internal morphology. Finish with the brush. The dentine has an irregular appearance as you reflect the light. If it is regular it .The enamel will be the final modulator.

A mistake can be made if one places too much dentine over the bevel. You can clear it and spread. It must be blended.

When you cure you lose opacity and translucency will increase.

### NEXT STAINS

Sequence transopal on incisal edge area. You can also use a white stain to improve the halo and blend with flowable composite . the halo is not flat. Use a green plastic and remove bubbles. Slide and remove excess. Clean the brush with alcohol. Then use blue and honey.

*Continues on page 14.*




ultraEFFECTIVE
ultraCONFIDENT
ultraDEX

12 HOUR FRESH BREATH

- Eliminates bad breath instantly
- Protects teeth & gums
- Free from alcohol

DEVELOPED, USED AND RECOMMENDED BY DENTAL PROFESSIONALS.

Find out more at **ultradex.co.uk**

# THE COMPOSITE LAYERING COURSE

*Continues from page 12.*

If you blend the stains you will change the colour. Take great care with the blue stain as it is a deep stain and can cause trouble.

When placing the enamel you can use the optrasculpt A1 as well as a thin brush and flowable. You can also use a thin brown plastic. The most difficult part is the transition between the tooth and the composite.

### VENEERING A DISCOLOURED CENTRAL INCISOR

What type of background do you have? There are three situations. The first is when you have a good substrate. Then there are two different discoloured backgrounds. In the first you have a high level of saturation but the hie does not change. This is the 'best discoloured siltation.'

The second is however You have a very very dark background. In this case ceramics are much better as you need to prepare less than composites. You need about minimum 0.5mm.

Where you have a brown tooth in the range of C3C4 and D you can have endodontic treatment . the preparation must be subgingival as you must not see the margin. With intermediate you can neutralise the background of say A3. then use a layers of opaquer.

When you have a grey, green or a blue background you need to block. 0.5 mm is too little for composites. It is important to note that enamel does not change shade. It is the dentine that changes. You use an opaquer to reduce the saturation. With an opaquer you can block 100 per cent. The opaquer has a high volume so this will be very white. So if a tooth is very dark use porcelain as there are limits to the material.

With composite preparation the limit is 1.5mm . You can use Empress direct opaque (similar to AR opaquer) . One can use Cosmodent opaque to avoid a grey there is a shade inside the opaquer.

The dentine will create the new shade. A1. For shade selection you need a good reference. The objective is not to see the opaquer. Clean the rubber dam. Then use as follows in this order.

TRANS 30 on palatal- mix flowable to help spread and use the grey plastic and the green plastic and press. Use the matrix as a reference. Then use the brush to finish.

ENAMEL INTERDENTAL is applied using the grey plastic ,and you use its reference of 1mm thickness. Stop at the mesial angle and reduce the thickness at the cervical margin. Check the thickness.

- (Trans 30 )PALATAL
- (EBL and L ) • Mesial and distal
- Opaquer
- DA1
- Transopal
- Stains
- E BLL very thin on the cervical margin and not to the edge of the margin. There must be space for enamel in the sulcus.

RE the DENTINE build up -when designing mammelons use the grey plastic. For the different directions to create the grooves. The green plastic is used to create cuts and separate the mammelons. Irregular dentine looks better as light reflects better between the mammelons .Do the dentine 'flat' . White stripes can be used to age the tooth .Crack lines can be made with number 12 blade.

For the ENAMEL BLL use a grey plastic. At the tip you must tap and slide. The brown plastic can be used to finish the interproximal area of the enamel.

### FINISHING AND POLISHING

The first step is to remove excess material and this may be done using a 12 blade. Then one may use floss. If this does not go through then use a 12 blade again. Do not use a metal strip. You need to remove not polish the excess material. Epitex finishing strips are recommended. Medium and fine are the best.

Leave the rubber dam on when using strips and polishing cervical areas. Softlex discs are also used. Burs to adjust are the RED 2200. A fine RED diamond to adjust surfaces NOT coarse, One can also use the RED flame 'rugby ball' diamond to adjust then palatal area. The speed on the palatal is not more than 5000rpm.Work dry. With water you cannot see what you are doing . Note that you are not changing the shape but removing excess.

In the facial area use a disc if there is excess, If you do not need to remove use a diamond bur. Use a low speed less than 5000 rpm and adjust whole surface without changing the anatomy.

Do not press. Touch the surface with soft pressure. The last layer that was in contact with the air. Do NOT use a bur in the interproximal area. Use 1:1 low speed handpiece . ~A low speed is 6-10 thousand rpm and an angle of 45 degrees is the best option. Use FINE or EXTRA FINE. The ISOPO rubber polishers:

- Finish-grey
- Polish -green
- Shine-pink

It should be noted that one needs to use a low speed and low pressure and preferably work dry.

### SPIRALS

These do not control the surface. One must use FINE ones. Care as they create flatness. A DIAMOND PASTE is used at the end . a good one is by Ultradent.

### STAGES

FIRST STEP - finishing, to adjust. The rubber is to finish . Care -do not use too much. Use 5-10 thousand rpms.

The grey flame rubber is used in a vertical and horizontal movements and in the box areas. The same movement with the diamond bur.

CUPS - these are bigger and create a flat surface. The second step is the real polishing -with green .clean the inter proximal area with floss. The green is not so dangerous as it does not remove material. The most important part is the inter-proximal to take care.

The third step is using the pink rubber as this increases shine.

The last step is the hardest- spiral vertical and horizontal at low speed but need some water (eg Comet needs water). at the end you can use a buffer with diamond paste. This is for the grooves and the sulcus . It reaches other parts of the restoration. Then floss using double floss. One step is working towards the next step.

### RESTORATION OF A MESIAL-OCCLUSAL ON AN UPPER POSTERIOR MOLAR.

In a molar one has cusps, the main sulcus, and the secondary sulcus the main sulcus defines where the cusp is. The secondary sulcus is inside the sulcus. The secondary sulcus is parallel to the main sulcus. The secondary sulcus is soft.

Enamel is clear and brighter. Respect the level of opacity. Use a ball burnisher to avoid adjustments. ~The secondary sulcus disappears with time. The last is the main sulcus in aged teeth. If you have some structure around the restoration you can do a direct composite. With bulk fill you can do 4mm increments and reduce the risk of sensitivity. The appearance of bulk fill is grey. It has to be translucent for light to cross but the contraction shrinkage is lower so it is safe. Flowable bulk fill is very good. In a hybrid technique one can use 1.2mm enamel, 0.8mm dentine and the base in bulk flow.

You control opacity, thickness and translucency. There is always a risk when you etch dentine. Use self etching. You select where you etch.

### ETCH AND RINSE- BE CAREFUL WITH THE TIME AS YOU ETCH DENTINE.

Enamel 30 seconds but dentine not more than 15 seconds. But you can etch for 8-10 seconds.

When you reduce the time you reduce the risk of sensitivity. Blow air for 15-20 seconds double layer evaporate. Completely remove the excess . Do NOT cure between layers of bonding.

### BUILING UP THE POSTERIOR FILLING

Every marginal ridge has a fossa. Spread the dentine flat and cut the material. If you separate the parts the shrinkage is zero. You must follow the reference of the substrate. Use a dark brown stain and add the composite block by block.

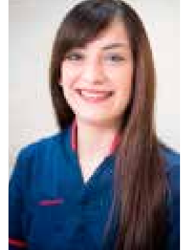
Use a ring to hold the matrix in place. After bonding use flowable on the cervical margin area. The matrix reflects the light. You can use a ball burnisher on two sides with the composite. 1.5mm one side and 2.5mm the other side.

Make a half wall. At the enamel press the agent against the base and create a wall.. Create the interproximal wall. The excess to cusps to connect to cusps. So you build a triangle to avoid the opposite wall . Then slide and connect to the other side over the matrix. Make it concave and a bit rounded interproximally. So a class 2 becomes a class 1.

When you use bulk fill wait for a few seconds to see if the bubbles open up.

The start building up the cusps starting with the mesiopalatal cusp. Use the grey plastic or the burnisher. You can design the secondary sulcus with the green plastic so as to create details in the fossa. Then connect up with the marginal ridge. Press the material or it will not adapt to the wall. ■

# ENDODONTIC CLINICAL CASE



By Dr Ritienne Galdes
Bachelor of Dental Surgery, University of Malta (2016).
Master of Science in Endodontics, King's College London (2021).
Clinical tutor at the Faculty of Dental Surgery, UOM.

## CASE SUMMARY

- Root canal retreatment of tooth 22
- Composite core placement in tooth 22

## PRESENTING COMPLAINT

The patient was a 24-year-old male who works in the computing industry. The patient had presented at his GDP complaining of an extra oral swelling in the upper, central and anterior part of his face. He was referred to our clinic for endodontic retreatment.

## HISTORY OF PRESENTING COMPLAINT

The patient explained that he had no symptoms of pain. A few days prior he started to feel pressure under his nose which continued to increase for two days. On the day of presentation at his GDP, he woke up with a swelling that was pulling on his upper lip. He explained he was also feeling that the left side of his palate was swelling up too.

## RELEVANT MEDICAL HISTORY

The patient had a clear medical history.

## DENTAL HISTORY

The patient is a regular attendee at his GDP.

## SOCIAL HISTORY

The patient does not smoke and only drinks alcohol socially.

## EXAMINATION

### *Extra Oral Examination*

The patient had an extra oral swelling on the maxillary left side of his face. The tooth was visible in the patients' smile line.

### *Intra Oral Examination*

**Soft tissues**

The patient had also an intra-oral swelling in the buccal sulcus associated with the upper left central and lateral incisors.

**Periodontal condition**

The oral hygiene was moderate with a small amount of calculus deposits but no plaque.

### *BPE score*

| 2 | 1 | 3 |
|---|---|---|
| 1 | 2 | 2 |

### *Occlusion*

The patient had a class II, division I incisal relationship. The molar relationship on both the right and left sides was a class I. Canine guidance was present on left and right lateral excursive movements.

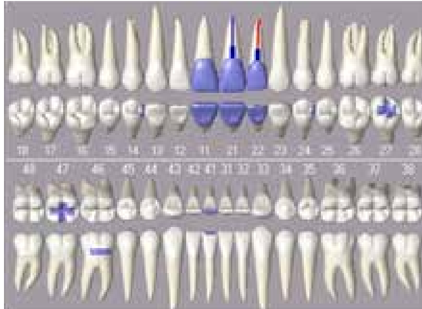


Figure 1 - Patients' dental chart.

### *Teeth and restorations present*

The tooth in question had been restored with a ceramic crown about a year ago. About five years' prior the tooth had been root treated. Before the ceramic crown was placed, the GDP placed a fibre post, built the core and then cemented the crown. Recurrent decay was not observed. The tooth was tender and had a grade one mobility.

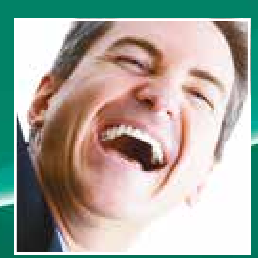
His GDP explained that he attempted to start the retreatment himself due to the emergency associated with the tooth. However, he encountered a complication that prevented him from continuing the treatment.

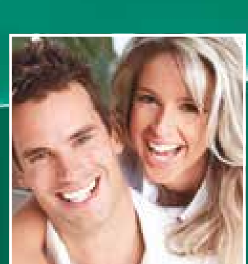
He had referred him to assess if it possible to carry out the retreatment or extract the tooth. He already advised the patient that it was complex to retreat due to the tooth having being restored with a fibre post and crown.

*Continues on page 19.*



INNOVATION FROM SUNSTAR ORAL CARE RESEARCH





New GUM® Original White unique formula is scientifically proven to effectively remove stains and prevent their reappearance.
No bleaching agents.
No harsh abrasives.

NATURALLY WHITE TEETH
HEALTHIER GUMS

SUNSTAR

Available in Pharmacies

www.sunstarGUM.com

KIN Forte

Introducing **KIN Forte Toothpaste and Mouthwash!**

A comprehensive periodental maintenance product with Triple Action and Anticaries Protection containing:

- **Chlorhexidine 0.05%:** non-staining antiseptic control
- **Cetylpyridinium (CPC) 0.5%:** increased spectrum of antibacterial activity
- **Alpantha® Complex:** soothing, healing and anti-inflammatory benefits to vulnerable gum tissue
- KIN Forte Toothpaste also uniquely contains **1,450 ppm Fluoride** and **Xylitol** for effective prevention of dental caries during its prolonged maintenance use
- The Mint Flavoured KIN Forte range is alcohol free and SLS free


# ENDODONTIC CLINICAL CASE

Figure 2 - Smile line photographs of the anterior teeth.

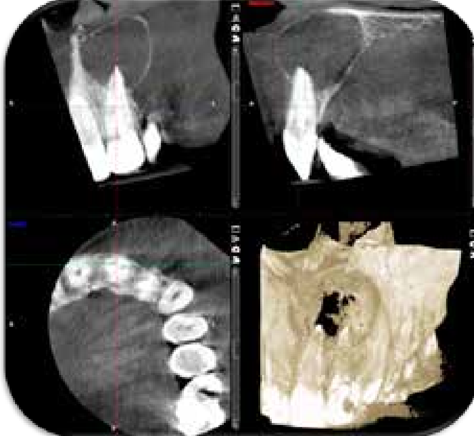


Figure 4 - CBCT scans of the upper left anterior region.

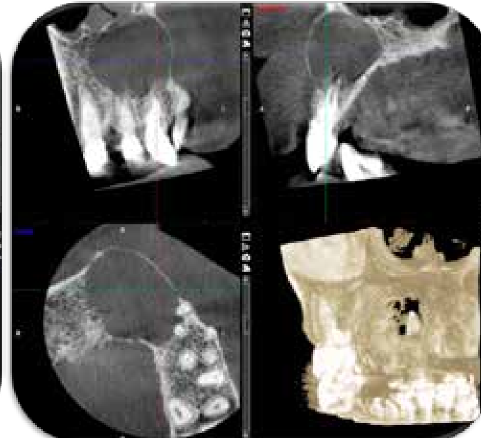


Figure 5 - CBCT scans of the upper left anterior region.

*Continues from page 16.*

The patient was reluctant to extract the tooth.

The GDP sent over the history of the patient mostly relating to the upper anterior teeth. The photos below show the smile line of the patient before and after the crowns were cemented.

***Pre-operative radiograph***

A periapical radiograph was taken to assess the upper left lateral incisor.

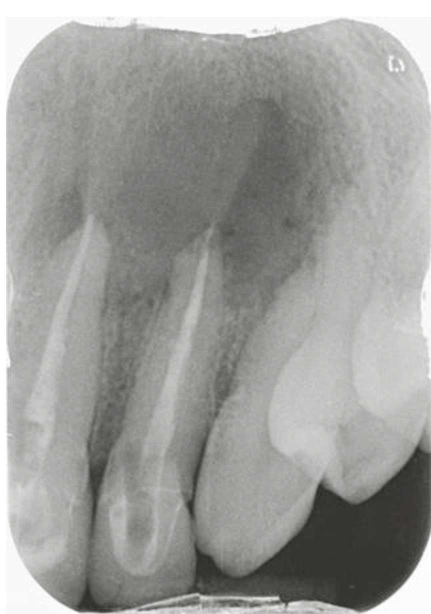


Figure 3 - Periapical radiograph of tooth 22.

## DIAGNOSIS

The diagnosis made was of an acute exacerbation of a chronic apical periodontitis associated with an existing root filling.

The radiograph shows a possible perforation in the mesial aspect of the root of tooth 22.

Due to the large radiolucent lesion, the patient was advised that further investigations were required. A CBCT of the area as then taken.

The scans showed cyst formation in the upper left anterior region. The dimensions of the lesion where 2cm by 3cm. This confirmed that the non- surgical approach was not enough to obtain healing and that cyst enucleation and apicectomies would be required after the re-treatment of the UL2.

## TREATMENT OF TOOTH

***Isolation***

On the day the retreatment , he presented with an abscess in the buccal sulcus in the upper left region. The patient had been prescribed two courses of antibiotics already. . Anaesthetic was administered and the tooth was isolated.

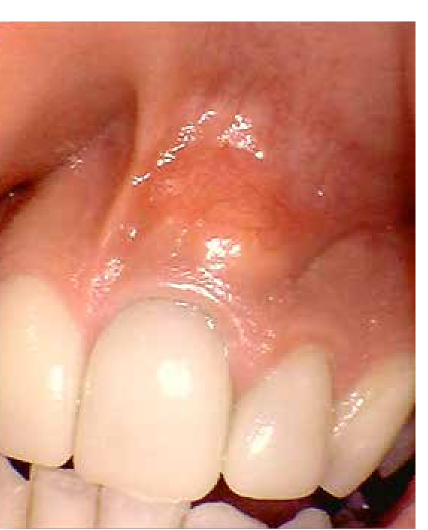


Figure 6 - Intra-oral photograph of the upper left sulcus before starting the treatment.

***Access***

A high speed carbide round bur (Intensiv) was used to remove the restoration on the palatal surface of the lateral incisor. A small cotton pledget was removed and the dentine was debrided with a slow speed round bur. Through tactile sensation, the direction towards the canal could not be confirmed even under magnification. Thus, it was required to widen the palatal opening further to be able to assess the situation.

*Continues on page 20.*

# ENDODONTIC CLINICAL CASE

*Continues from page 19.*

A long high speed fissure bur was used to widen the opening both mesio-distal and in the incisal-radicular direction.

Now one could better gauge the orientation of the tooth and the canal. Deep on the mesial side, the over-extended area, which possibly perforated the mesial radicular wall could be felt. Endo – Eze MTA Flow (Ultradent Products. Inc) was used to close this area off, even to prevent further instrumentation of the area or irrigant from leaching out.

The MTA was allowed to settle for fifteen minutes before continuing with the treatment.

The direction of the canal was more disto-palatal. A dark, translucent material could be seen, which was identified as the cut fibre post. This was very difficult to visualise not only because of the nature of the material itself but also because it was deep towards the root.

To make matters worse, transillumination through a ceramic crown is not the same as through tooth tissue. Thus, it was difficult to visualize.. A long shanked high speed round bur was very lightly used on the fibre post.. This was used in conjunction with an ultrasonic scaler utilising the ET18 tip.

It was then decided to take a periapical radiograph to assess whether the direction and orientation was correct. A gutta percha point was placed in the direction chosen in the same position as the instruments were being oriented. This GP point was secured with temporary filling which was also used to seal the opening in the crown. The rubber dam clamp was removed so as to be able to assess as to whether the MTA was sealed the mesial wall. A periapical radiograph was then taken.

Figure 7 - Access cavity.

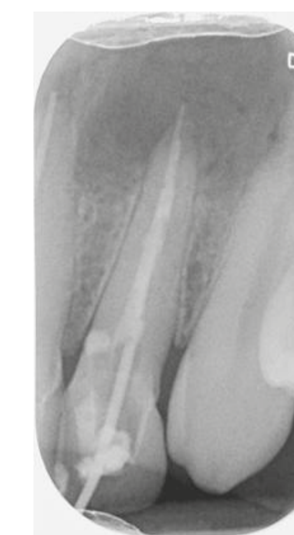


Figure 8 - Intra-oral periapical of tooth 22.

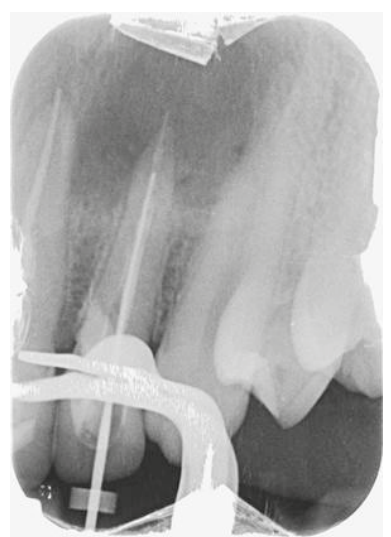


Figure 9 - Working length periapical radiograph of tooth 22.

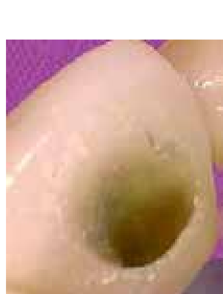


Figure 10 - Intra-oral photograph of tooth 22 showing pus extrusion.

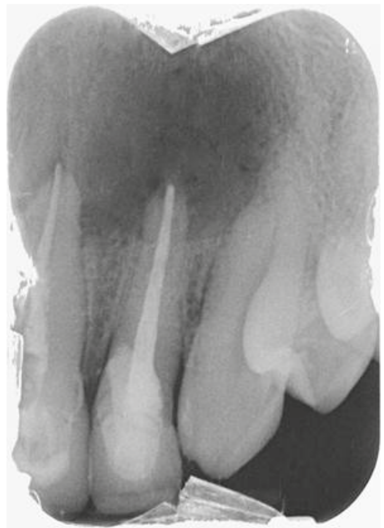


Figure 11 - Postoperative periapical radiograph of tooth 22.

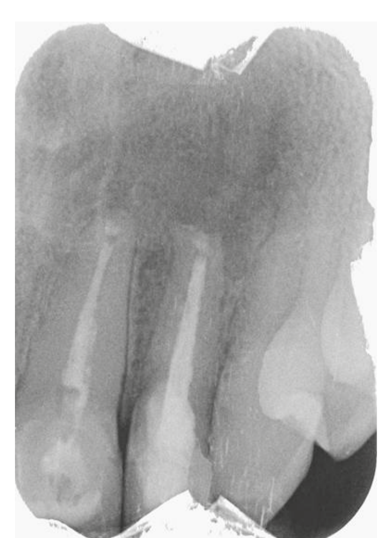


Figure 12 – Periapical radiograph of the UL2 taken six months after surgery.

The radiograph confirmed that the canal was located and also that the mesial perforation was repaired. A small tip of fibre post was still present mesial to the GP point that was being used as a reference.

The rubber dam clamp and dam were secured again whilst the temporary filling and GP point were removed.

A size 10 K-file was used to gain tactile sensation. A winding motion was used and on its removal, the tip had orange pieces on it. This confirmed that finally the gutta percha was found.

The Eugenate Desobturator (PD Swiss Quality Dental Products) was placed over this area with the use of a syringe and a long tip needle. This was allowed to soften the gutta percha for some time.

K-flexofiles of varying sizes and barbed broaches were then used to remove the gutta percha. The tip of the fibre post that was still lodged mesially came out with a piece of GP. Remnants of GP were washed away with 1% sodium hypochlorite. The motion with K-flies was repeated numerous times.

Several gutta percha remnants came out with the barbed broaches and other smaller pieces were flushed out with irrigation. It was then decided to take a periapical radiograph to assess the gutta percha removal and obtain the working length.

A K-file size 40 was inserted in the canal at a 22mm working length and a periapical radiograph was taken.

eriapical radiograph of tooth 22. The radiograph showed that gutta percha was still present along the canal and about three millimetres were still present apically, above the tip of the file The extruded part was still present. The corrected working length was increased to 23.5mm.

It was thus decided to utilise a rotary instrument to remove the gutta percha still attached to the walls. A red Reciproc Blue file (VDW Dental) was inserted in the canal and moved against the walls. This action was repeated until the walls of the canals were palpable on all sides with a K-file size 40.

Once this was achieved, a red barbed broach was inserted as far apically as possible to attempt the removal of the over-extended gutta percha. The barbed broach was then twisted and pulled out sharply. This action was repeated a few times until a thin cone came out.

Patency was checked with a size 25 K- file. The pulpal system was irrigated thoroughly by use of 1% sodium hypochlorite. After rinsing and drying it was noted that pus started to extrude quite profusely. High volume suction was used in conjunction with sodium hypochlorite irrigation until the large volume of pus decreased. It was attempted to dry the canal with size 40 paper points. Calcium hydroxide was placed in the canal as an intra-appointment medicament.

The opening in the crown was closed with composite that sealed the cotton pledget inside. The patient did not have any symptoms of pain in the time that the tooth remained with the calcium hydroxide.

### *Preparation*

The balanced-force technique was then used to debride the canal with K-files till size 60. The corresponding gutta percha cone achieved sufficient tug back. Apical gauging was carried out with an ISO size 30 hesdstrom-file. The root canal was rinsed with 17% EDTA solution (Calasept, Directa). For the final irrigation, 5% sodium hypochlorite was used and activated with the endoactivator (Dentsply Maillefer).

### *Obturation and restoration*

The size 60 master apical cone was sealed inside the canal at 23.5mm of length with the Sealapex Xpress (Kerr Endodontics) sealer. A lateral condensation technique was used for the obturation. Finger spreaders were used to create space for accessory gutta percha points, which were pushed adjacent to the master cone.

The excess gutta percha was cut at the orifice with a heated plugger. Remnants of gutta percha or sealer were cleaned using a slow speed round bur.

The remaining palatal cavity was filled with the ReliaFIL LC Composite Filling Material Capsules. Occlusion was checked and a postoperative periapical radiograph was then taken.

### FOLLOW UP

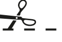
The patient had no more symptoms since then and he is very happy that he managed to retain his front tooth. The radiograph below was taken six months after cyst enucleation and apicectomies.

The radiograph confirms that the radiolucent lesion is decreasing and that new bone is forming.

# The Mobile Dental Unit

The mobile dental unit is a fully equipped dental clinic in a truck inaugurated in 2015. The Faculty of Dental Surgery Malta reaches the Maltese population in their towns and villages, local council communities, schools, residential homes and special care institutions such as Dar Tal Providenza It works with Agenzija Sapport and Agenzija Zghazagh and visits  workplaces and attends government National events. It serves as educating the community, provides dental screenings, educational interventions, dietary counselling and smoking cessation.

Dr David Muscat, editor, visiting the Mobile Dental Unit in Valletta

It also participates in events organised by the Arka Foundation and The Puttinu Cares Foundation. It also participates in' Notte Bianca' and 'Science in the City'. The mobile unit serves as a base for outreach programmes in Health Promotion. A most noble initiative indeed. 

*Ref article "Service Learning in Dental Education – The Experience in Malta." Cirauqui MLG.,Agius AM, Caruana C, Schembri A, Mifsud S, Gatt G, Attard N. (2022)*
*Faculty of Dental Surgery University of Malta*
*Proceedings of the First International scientific and Professional Conference on Service Learning 'COMMUNITY ENGAGED UNIVERSITY' May 20 2022 Split Croatia.*



## PAYMENT FORM

Please cut out this section and send with a cheque for 75 euro payable to **Dental Association of Malta** for your 2024 DAM membership – the best 75 euro investment ever!

*Please note that membership renewals received after 1st July 2024 will incur an additional 25 euro administrative fee.*

**TO:**

The Treasurer, Dr Noel Manche,
The Dental Association Of Malta,
Federation Of Professional Associations,
Sliema Road,
Gzira.

**NAME:**

..........................................................

..........................................................

**ADDRESS:**

..........................................................

..........................................................

..........................................................

..........................................................

Professional Indemnity Insurance

In an increasingly litigious environment, medical decisions and actions may be challenged and disputed.
**Are you protected?**

**Exclusive scheme for dentists**

- Preferential Rates
- Errors & Omissions Cover
- Defence Cost
- Retroactive Cover
- Claims Support Services
- Consultancy on all your Insurance Requirements

**Key Contact**

**Mark Scicluna**
**Associate Director**

**T** +356 234 33 202
**M** +356 794 26 190
**E** mark_scicluna@mib.com.mt

**Mediterranean Insurance Brokers (Malta) Ltd.**
Zentrum Business Centre, Level 2, Mdina Road, QRM 9010, Malta
**T** +356 234 33 234 **E** info@mib.com.mt
**mib.com.mt**

Mediterranean Insurance Brokers (Malta) Ltd., C3540, is enrolled u
the Insurance Distribution Act and is regulated by the MFSA.

mib
Insurance Brokers

ULTRADENT EVENT

# Direct Aesthetic Dentistry

## NEW MATERIALS AND TECHNIQUES FOR IMPERCEPTIBLE COMPOSITE RESTORATIONS

By Dr Rafael Beolchi / A Marletta Enterprises Ltd Event

Summarised by Dr David Muscat

The Valo X is a great new broadband LED curing light. It has a 12.5mm lens and has an optimally collimated beam and two curing lenses and three diagnostic lenses.

It has two curing modes –standard power and extra power. This really is a re-imagined light with a simplified design that clearly has been designed with ease of use by the clinician in mind.

The intensity of the light also allows penetration of porcelain and is capable of curing underlying cements.

The HALO sectional matrix - natural contours available in both firm and original varieties.

They have a collapse centre which allows for anatomical adaptation of the band. There are easy to use Halo wedges which are colour coded. Durable nitinol rings are used. There is a unique beak design of the Halo ring.

The Gemini EVO 810 and 980 diode laser delivers 100 watts of peak power for faster cutting, less heat and ultra clean incisions in soft tissue.

New composites include a COMPOSITE WETTING RESIN to enhance glide. There are packable composites for posterior situations. The VIT I Escence is an aesthetic composite system with fluorescent and opalescent properties.

The Gemini EVO diode laser works with 100 watts and produces peak super pulsed faster cutting less heat

and ultra-clean incisions in soft tissue. With tetracycline staining one can tooth whiten but do it over six months with a low dosage. If a tooth is hydrated it is easier to work with.

OH – IONS ARE AGGRESSIVE. Peroxides should be neutral.

When one carries out anterior composite work one should do the polishing after two weeks as the chemical reactions carry on even though you think the filling would have completely cured it would not.

Dentine colours all follow Vita guide. Enamel is white, neutral and grey. With composites one needs to consider luminosity, hue, chroma, value, saturation and hydration. One needs to match refractive indices so that light travels easier through the material so it blends. 'Transcend 'means the enamel 'sucks' the light.

U Veneers are a direct composite template system, with minimally invasive and predictable shapes.



PRESENTING
Oral-B iO™ SERIES 10
REVOLUTiONARY
iO™ TECHNOLOGY
A UNIQUE BRUSHING EXPERIENCE!
Oral-B #1 Toothbrush brand most recommended by Dentists
For more information, visit | www.vjsm.com.mt
VJ Salomone Marketing | or call 8007 2387
CONVERSATiONAL DISPLAY
Interactive Colour Display communicates mode setting, charging progress and 2' brushing time
PRESSURE CALIBRATiON
Smart Pressure Sensor shows when brushing just right
ARTIFICIAL INTELLIGENCE
With 3D Teeth Tracking recognizing brushing style for daily optimal results
BRUSH HEAD CHANGE REMINDER
Notifies you, for a 100% cleaning efficacy
iO sense™ SMART CHARGER
Provides personalized live-coaching & intuitively guides you in real time for a clean tailored just for you

# THE FEDCAR ASSEMBLY

## PARIS, 23 & 24 NOVEMBER, 2023



**REPLY BY HENNING EHRENSTEIN, HEAD OF EU COMMISSION SINGLE MARKET, PROFESSIONAL MOBILITY AND PROMOTING A SKILLED WORKFORCE TO RECOMMENDATIONS ON THE IMPROVEMENT OF THE IMPLEMENTATION OF THE DIRECTIVE 2005/36/EC.**

Most member states did not implement Directive 2013/55/EU on time. Not all member states submitted the national implementation reports required under article 60(1) of the directive contributed to further shortage of information.

The next implementing report is to be published in 2025.

Regarding the ALERT MECHANISM the commission has identified issues in several member states and has taken enforcement actions.

Regarding the update of minimum training requirements for the basic dental training in light of scientific and technical progress, the Commission services are undertaking this work.

Regarding third country qualifications , it takes place at Member states level ,in line with the law and procedures of the host member state. For professions subject to automatic recognition 9eg. Dental practitioners) this recognition MUST COMPLY WITH THE MINIMUM TRAINING CONDITIONS LAID DOWN IN THE DIRECTIVE.

Article 2(2) of the directive provides for Member states to permit EU NATIONAL HOLDING A THIRD COUNTRY QUALIFICATION to pursue a regulated profession in their territory i.e. to recognise their third country qualification.

Following such initial recognition, the third country qualifications can only benefit from recognition under the Directive, if their holder subsequently works FOR THREE YEARS in the profession concerned on the territory of the Member state which recognised that evidence of formal qualifications.

As regards professions subject to automatic recognition 9eg. Dental practitioner) if the professional would like to migrate to a second Member state ,given that this the EU-equivalent qualification is not listed in Annex V, the third country qualification CANNOT BE SUBJECT TO AUTOMATIC RECOGNITION but falls under the general system of the Directive.

It is also important to note that the second member state is not bound by the previous recognition decision taken by the first Member State and may for example request compensation measures 9see recital 12 of directive 2005/36/ EC and CJEU case law Tawil-Albertini C-319/92EU:C:1994;51)

In principle ,the Directive does not apply to third country Nationals.

However, in line with recital 10 of the Directive ,this Directive does not create an obstacle to the possibility of Member states recognising ,in accordance with their rules, the professional qualifications acquired outside the territory of the EU by third country Nationals.

All recognition should respect in any case MINIMUM TRAINING CONDITIONS for certain professions.

Thus if the provisions of the Directive do not apply , a third country national can ask for professional recognition in a specific member state, which then needs to assess the qualifications under its national law and taking into account the EU level minimum training requirements in case of certain professions such as dentists.

If that member state grants recognition, the professional would be able to pursue his /her qualification ONLT ON THE TERRITORY OF THAT MEMBER STATE. If the third country national wants to move to another state , the dentist would have to resubmit a request for recognition in that Member state.

However, the rules on the recognition of third country diplomas under Directive 2005/36/EC(Article 2(2) and the rules of three years ) could apply to a third country national if that person benefits from equal treatment with nationals of the host Member state through specific directives, for example the status of a Long-Term resident under Directive 2003/109/EC.

Regarding the 'temporary and occasional nature of the provision of services' it 'shall be assessed case by case ,in particular in relation to its duration ,frequency ,regularity and continuity per article 5(2)of the Directive. These criteria laid down by the Directive are based on CJEU case law (EG Schnitzer-C215/01;Gebhard,C-55/94.)

**THE LATEST EU DEVELOPMENTS**

*By Dr Cedric Grolleau*

THE IMPLEMENTAION OF THE RPQ DIRECTIVE
DG GROW 26/10/2023
RECOMMENDATIONS – updating, Alert Mechanism, recognition of third country qualifications and interpretation of free provision of services.

Regarding Dental Training, the level of expectations of dental academics, professionals .regulators and students is very high but the EU level of expectation is very low.
Commission Recommendation of 15.11.2023 on the recognition of qualifications of third country nationals (C(2023)7700 final )-skills gaps in specific sectors such as healthcare to take care of ageing population. This is a national competence.
The recommendation for regulated professions to simplify recognition of skills if third party nationals does NOT change the criteria for registration

Regarding dental amalgam ,there is now pressure to phase down rather than phase out. There is now 15 years of data. However at an EU level this summer a phase out was proposed. However there was no majority decision in a meeting in Geneva this summer for the final decision. .

There is a consensus of all parties except the EPP to get rid of amalgam by 2025. The EPP is proposing2027 instead of 2025 but this was refused by the other parties.2025 seems to be the deadline.

In 2020 Sweden phased out amalgam. Finland and Ireland have set the date at 2030. Slovakia has set the date for 2031. The vote will take place in January in the EU Parliament.

**THE ADEE**

*Professor Barkvoll addressed the meeting.*

THE ADEE brings together a broad-based membership across Europe comprised of dental schools, specialist societies and national associations concerned with dental education. ADEE is committed to the advancement of the highest level of healthcare for all people of Europe through its mission statements.

The ADEE declares that the quality of dental and other oral health professional education is of importance for patient safety.

*Continues on page 29.*

# THE FEDCAR ASSEMBLY

*Continues from page 27.*

The domains of its website include Professionalism, Safe and /effective Clinical Practice, Patient centred Care, Dentistry and Society, Sustainability and Research.

ADEE ,since 2007 has developed a guidance entitled' Graduating European Dentist'. where the Profile and Competencies of the European Dentist are defined..

The ADEE goes further than the mandatory 1998 study programme for dental practitioners as laid down in EU Law.

The key attributes required to enable a quality curriculum are that it is created through consensus, and that it maintains a finger on the pulse of higher education as well a s technological advances. It also provides a guiding framework not only to the academic programme but to inform programme accreditation visits by the regulatory authorities..

It has to be updated regularly -sustainability and sustainable practices within the core curriculum have been recently introduced.

The Action Plan-STRENGTHEN ORAL HEALTH PROFESSIONAL, ACCREDITATION .

The achievement of the European education area expected d by 2025

THE STRATEGIC OBJECTIVE OF EXPANDING 'COMPTENCY -BASED EDUCATION TO RESPOND TO POPULATION ORAL HEALTH NEEDS ' proposed by WHO Action Plan on oral health , ADEE will contribute to EU and international Developments.

Regarding Dental Training unfortunately the approach of the commission was the lowest common denominator. The text was modifies according to the most basic training and this was the rationale behind the commissions proposal . This is a copy cat recommendation of the Spark Legal Network proposal in September 2022.

The most effective measure is Prevention of disease, and so one reduces materials and travel. The front line is currently Postgraduate dental research into advance oral rehabilitation when we should be more concerned with prevention. Sustainability can only come with prevention. The government must reduce social and commercial factors that cause oral disease.

Re ORAL DISEASE the dentist is part of the primary health service and must treat oral disease as with other diseases in other parts of the body. It must be holistic. Healthcare professionals should be linked in an inter professional programme. A relevant future workforce for oral health care.

LEADER
The Dental Education Excellence Programme -updating and integration to align the process with the EU standards and guidelines (ESG 2015).

Development of a quality improvement programme in response to an increased demand .This is a national not a European remit but it could be an EU guidance .

The ADEE strives to bridge a gap and address the absence of an EU level accreditation. an academic led and delivered programme.

### ORDER OF NATIONAL STUDENT DENTISTS

TOWARDS A EUROPEAN GUIDE OF DENTAL STUDIES.

*Represented by Charlotte Carter,Secretary*

The association offers students opportunities beyond their borders. Such as mobility projects, lectures, on-site training, survey groups. They are currently carrying out another student survey- designed around ADEE and core training.

They encourage students to get involved.

The previous survey was in 2016. The HQ moving to Ireland.

### FALSE CERTIFICATES

France has recently has had forged applications with forged documents/ FEDCAR has proposed that it will ask every Dental school in the EU to provide a list of new graduates every year so we have a database.

*Dr David Muscat BDS (London)*
*Elected Dentist Member of the Medical Council of Malta*
*26 November 2023*

premium plus™

cherubino

- Controllable Memory
- Smart varied taper design
- High flexibility and pre-curved memory
- Safe tip, reduces the possibility of root canal deviation
- Torque: 2.0 Ncm - 2.5 Ncm
- Recommended speed: 150-300 r.p.m.

CROSS SECTION

SX/S1/S2 F1/F2/F3 F4/F5

Heat Activated CM-Wire SAFE TIP

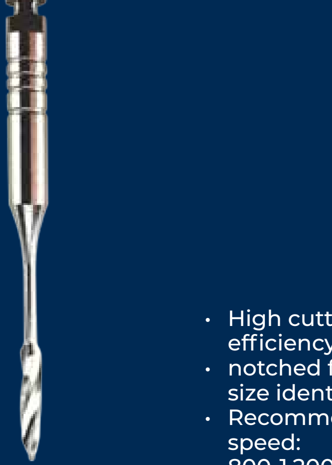
**E02 Super files Blue**
Single or Assorted Sizes 6 pcs/pack

## E02 super files blue
NiTi heat activation

| RECOMMENDED OPERATION PROCESS | |
|---|---|
| PROBE | #10 #15 |
| OPENING | SX S1 |
| SHAPING | S2 F1 |
| FINISHING | F2 F3 |
| ENLARGING | F4 F5 |

**E02 SUPER FILES BLUE**
NiTi heat activation

| LENGTH | SIZE | TAPER% | TIP (MM) |
|---|---|---|---|
| 19 mm | SX | 3.5-9 | 0.19 |
| 21 mm 25 mm | S1 | 2-11 | 0.17 |
| | S2 | 4-11.5 | 0.20 |
| | F1 | 7 | 0.20 |
| | F2 | 8 | 0.25 |
| | F3 | 9 | 0.30 |
| | F4 | 6 | 0.40 |
| | F5 | 5 | 0.50 |



- High cutting efficiency
- notched for easy size identification
- Recommended speed: 800-1,200 r.p.m.

**E15 Peeso Reamers**
Single or Assorted Sizes 6 pcs/pack

## E15 Peeso Reamers
stainless steal

**E15 PEESO REAMERS**
stainless steal

| LENGTH | SIZE | DIAMETER |
|---|---|---|
| 28 mm 32 mm | #1 | 0.7 |
| | #2 | 0.9 |
| | #3 | 1.1 |
| | #4 | 1.3 |
| | #5 | 1.5 |
| | #6 | 1.7 |


# COMBINING TMJ, OSA AND MYOFUNCTIONAL ORTHODONTICS

A day course organised in collaboration with Myofunctional Research Co.
Presented by Mr Niels Hulsink .
A Marletta Enterprises Ltd event held at The Palace, Sliema on Wednesday 29 November 2023.
Summarised by Dr David Muscat.

Myofunctional Therapy is treatment that is aimed at changing muscle function and possibly influencing jaw growth and tooth position.

Mouthbreathing causes oxygen deficiency which results in an increase in heart rate and sleep disordered breathing. An incorrect tongue position will result in a narrow upper arch ,which will result in snoring and TMJ issues.

Myofunctional appliances focus on breathing .mouth breathing causes reverse swallowing. This results in TMJ and neck pain. We swallow about 2000-3000 times a day.

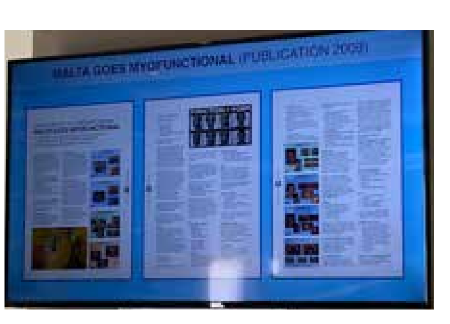
Myofunctional appliances depend on the natural forces of the oro-facial musculature for their action.

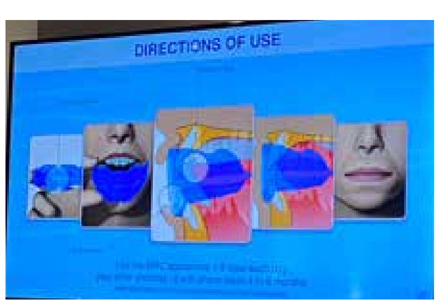
Myofunctional therapy improves issue with talking, eating and breathing as well as an effective treatment for sleep-disordered breathing.

One obtains results within a four month period and they are long lasting and sustainable.

Dysfunctional breathing is a major contributor of health problems as well as malocclusion,poor jaw growth and TMJ disorders.

The MYOBRACE treats malocclusion by addressing



the underlying breathing and myofunctional causes. This is used for children aged 3-15 years old.

The MYOSA integrates the treatment of breathing, myofunctional and TMJ disorders in both children and adults. There is a range of sleep appliances to treat SDB (sleep disordered breathing). MYOTALEA is a device that improves the strength and tone of the airway and orofacial muscles. It is a tongue and lip exercise appliance.

The TMJ system contains a range of prefabricated appliances out of a box.

# Invest wisely, retire happily.

Investing wisely is crucial for a flourishing financial present, but planning for your future is just as important. **IVApension** by **IVALIFE** offers flexible and tax-efficient retirement solutions to help ensure that your retirement years will be as fulfilling and prosperous as your active ones.

Benefit from a tax credit of 25% up to €750 annually.

**Call us now to help you plan for your retirement today.**
**8007 2206**

www.jesmondmizzi.com

Hamrun | Valletta | Birkirkara | Ta' Xbiex

+356 2122 4410

INVESTMENT ADVICE | WEALTH MANAGEMENT | CORPORATE SERVICES | INSURANCE | PENSIONS

Jesmond Mizzi Financial Advisors Limited (C30176) is an enrolled Tied Insurance Intermediary under the Insurance Distribution Act for IVALIFE Insurance Ltd (IVALIFE) for class 3 business of insurance 'unit-linked'. IVALIFE (C-94404) is authorised under the Insurance Business Act and both entities are regulated by the Malta Financial Services Authority.

IVApension is manufactured by IVALIFE and distributed by Jesmond Mizzi Financial Advisors Ltd (JMFA). Tax treatment depends on the individual circumstances. Tax legislation and the amount of rebate may change in the future. If you stop paying your plan before the chosen retirement date, you may not get back as much as you invested. If you invest in this product, you will not have access to your money before the retirement date. The value you get from this investment may go down as well as up and you may lose some or all of the money invested. Prospective clients should refer to the Product Information Document, which may be obtained from the JMFA offices in hard copy free of charge or electronically by e-mail on request.

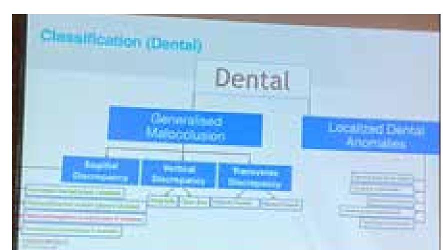
# THE CLEAR CORRECT EVENT

By Bart Enterprises Ltd / Straumann. Summarised by Dr David Muscat.

The principles of clear Correct were outlined by Key Opinion Leader Dr. Marwa Arzoky and a practical session was then carried out on two cases in several groups by the attending dentists.

There are four steps in the prescription were described and each care is based on first checking through these salient points.

1. Patient CHIEF COMPLAINT EG broad smile, correct crowding
2. Describe an upper anterior tooth reference point. Consider soft tissue profile. Upper lip support. Lower lip competence use UR1 as reference point. Describe the movement of that tooth to reach a good position.
3. Describe upper expansion. Consider aesthetic result, space requirements and tissue biotype
4. Lower anterior tooth reference point plus over jet and overbite.



# THE DS SIROLASER BLUE DIODE (DENTSPLY SIRONA) LASER WORKSHOP

At the AX Palace Hotel by Bart Enterprises Ltd on 11th November 2023
By Dr Ivan Katalinic DMD PhD
Summarised by Dr David Muscat

The Sirolaser Blue has blue, infrared as well as a red diode.

This has about 20 indications. It has triple wavelength technology providing three different forms of laser in the same device.

The modalities are as follows:

1. Blue cutting - a continuous working motion and disinfection (with yellow 0.1% riboflavin liquid) Use blue light for haemostasis. The blue 445nM wavelength is used for soft tissue management .This cuts without even touching the tissue and initiating the fiber.
2. The infra red 970nM wavelength is used for perio and hygiene workflow. This has been shown to reduce bacterial levels in endodontics and periodontology.
3. The visible red 660nm wavelength can be used for photobiomodulation.

With the laser there is less post operative pain and mostly scar free healing of surgical wounds. One may possibly get away without using antibiotics.

Surgical indications include biopsy crown lengthening, excisions of lesions, exposure of unerupted teeth, removal of fibromas, frenectomies, gingivectomies, gingivoplasty, implant recovery and laser assisted flap surgery. In periodontology one can use the laser to remove diseased, necrotic soft tissue as well for sulcular debridement

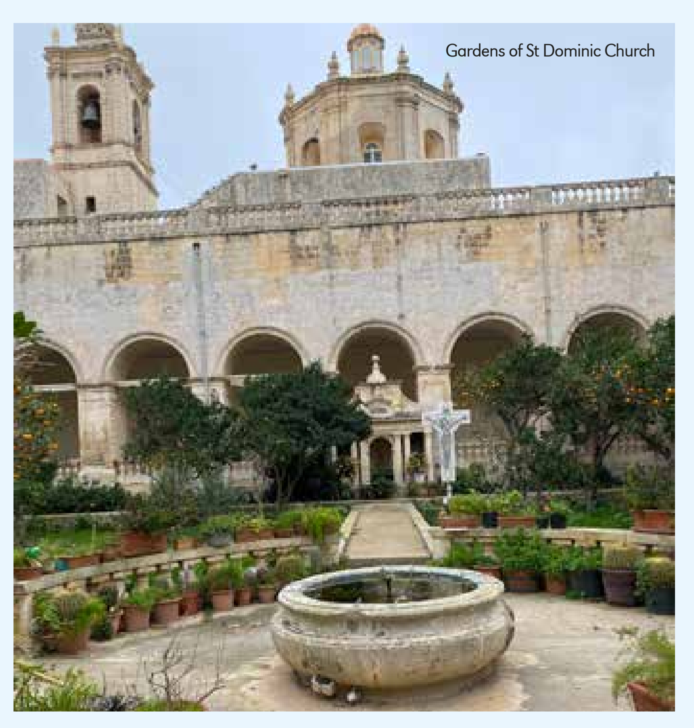
In endodontics one can us it for pulpotomy as well as an adjunct to root canal treatment. The laser may be used for haemostasis, ulcers as well as for tooth whitening.

# SAINT APOLLONIA

10 February 2024

Saint Apollonia was celebrated at Saint Dominic s Church in Rabat by Father Mark Montebello the chaplain of the Dental association of Malta. Prior to the mass a tour of the church museum and garden was organised. Following the mass a group had a very nice lunch at Fork and Cork in Rabat.

The St Apollonia Diners


Gardens of St Dominic Church

Fr Charles Tonna in his beloved garden

Fr Mark Montebello Celebrating Mass

Tour of the museum of St Dominic Church, Rabat

# THE 3 SHAPE TRIOS 5 SCANNER

## – AN APPRAISAL

By Dr David Muscat

The Trios 5 scanner is an intelligent wireless intraoral scanner, which is sleek and has a pen grip, with great ergonomics.

It is great for digital impressions. The scanner of course reduces the need for oral impressions and improves the patient experience. It also provides excellent digital impressions that you send directly to your laboratory.

I personally have used the scanner for e max crowns as well as Zirconium crowns. For bonded crowns one may as well use ordinary impressions as the technician will have to print a model and he will charge you for this.

This particular latest model is not compatible with Invisalign but you can use it with other systems. The 3 shape Trios 2 is accepted by Invisalign. The previous models I noted were too large to hold comfortably and rather large inside the patients mouth.

A scanner improves your workflow and reduces paper documents and models and their collection and delivery.

The Trios 5 has the facility to take the shade and an HD photo. The scans are analysed and you are prompted where to rescan or where you have not scanned properly. You have the chance to inspect the clearance and the margin line and are able to 'freeze' the margin if you are happy with it before the gums collapses.

The bite scan is impressive as there is a reassuring 'snap' sound when the bite scan is completed.

One has to avoid bubbles of saliva and the teeth need to be very dry – one has the facility to trim away artefacts and rescan the area using a Trim tool.

There is also a patient specific motion page –the patient grinds their teeth in the desired direction and the motion is recorded .One can replay the actual movement of the patient .On the validation page you can check to see if there is enough space.

The contact points are recoded-blue is static and red dynamic.

The single crown workflow is easy to follow.

One can rotate the image and one can mark the preparation .If you have not scanned properly a pop up will advise you where to improve.

What one has to wary of is bleeding. I had a patient who bled quite profusely and had dried blood on the preparation during the digital impression and my technician thought that was an undercut.

The scanner is used with crowns, veneers, implants, bridges and aligners and some dentures. One can use the scanner to make copy dentures.

There is also a caries analysis feature and a patient monitoring feature.

The scanners are expensive but one needs to move with the times and pay for the technology.

The Trios 5 also has a 3 Shape Community where one can learn and interact – even at my age. ■

# OBSTRUCTIVE SLEEP APNOEA AND BRUXISM

By Dr David Muscat

Bruxism is often linked to stress and anxiety. It is also linked to sleep problems like snoring and sleep apnoea. In addition certain antidepressants like SSRIs Selective Serotonin Receptor Inhibitors can also cause bruxism.

Sleep Apnoea occurs when your breathing stops and starts while you sleep. Sleep Apnoea can be detected using Polysomnography (OSA) Obstructive Sleep Apnoea is the most common type and needs to be treated.

A CPAP Continuous Positive Airway Pressure machine can be used. This delivers just enough air pressure to a mask to keep the upper airway passages open, preventing snoring and sleep apnoea. Symptoms of obstructive sleep apnoea include excessive daytime sleepiness, loud snoring waking up at night gasping or choking. In addition there could be headaches and trouble concentrating during the day. There could be a dry mouth or a sore throat in the morning. Ones partner may observe episodes when breathing stops during sleep.

Untreated sleep apnoea may result in Type 2 diabetes, strokes, heart attacks, a shortened lifespan and an increase in pressure in blood vessels around the heart.

Obesity, large tonsils as well as hormonal changes may predispose to obstructive sleep apnoea.

People with sleep apnoea can stop breathing for about 10-30 seconds at a time whilst they sleep. This may happen about 400 times a night.

The patient should be advised to sleep on the side or stomach so as to help keep the airways open. Medicines for this include Armodafinil. Prevelance increases with age.

Besides CPAP therapy exercise and weight loss is indicated as well as oral appliances in mild to moderate cases. ■

# PROFESSIONALS MAKE IT e MAX

Summarised by Dr David Muscat

The IPS E MAX Bart Enterprises Event was held at the Salini Hotel on June 22nd 2023. The lecture was given by Maria Spanopoulou Ivoclair Opinion Leader and covered the various types of ceramic.

It was stressed that laboratory technicians need to us the correct e max ovens as otherwise the ceramic may not be so compatible and errors may occur.

It was also stressed that with veneers and crowns the dentist must also take the shade of the core rather than just the tooth before it is cut.

It was also stressed that in certain cases there are laboratory errors as not sufficient time is allowed for cooling after baking. The IPS e max is aesthetic as well as strong.

It is available for both Press as well as for Cad Cam applications. The IPS e max CAD is suitable for full contour restorations and is strong and versatile. The IPS e max Press is a lithium disilicate glass ceramic. For Cad Cam one may use the IPS e max AD, lithium disilicate glass ceramic blocks or high strength IPS e max Zinc Cad Prime Zirkonium Oxide. The IPS e max Ceram is used to veneer multiple materials including lithium disilicate glass ceramic or zirconium oxide. One must use the monobond etch and prime with e max crowns or veneers prior to fitting but it is important NOT to use hydrofluoric acid etching gel when using Zirkonium.

1944 2024

## 75TH ANNIVERSARY OF THE DENTAL ASSOCIATION OF MALTA

The Dental Association of Malta is a non-profit organisation founded with the scope of providing continued education for its members and to represent the Dental community in Goverment matters. The DAM is one of the founding members of the Federation of Professional Associations of Malta.

ivoclar.com
Making People Smile

# Don’t just go with the flow.
# Pick the right flow!

## FLOWABLE YET STABLE RESTORATIVE MATERIAL

**You have the choice:**

- **Light Flow – low viscosity**
  Precise application thanks to the very fine cannula and therefore optimally suitable for hard-to-reach areas and small cavities — **76 %***
- **Flow – medium viscosity**
  Outstanding flow behaviour, universal and precise application — **81 %***
- **Heavy Flow – high viscosity**
  Increased stability, i.e. universal application and no undesirable runoff — **83 %***

Also available as Caps

*Filler content by weight

**For more information please contact:**
Tel. 2735 5564 · info@pagehealth.mt

THE DENTALISTS

VOCO GmbH · Anton-Flettner-Straße 1-3 · 27472 Cuxhaven · Germany · Freecall 00 800 44 444 555 · www.voco.dental