The Dental Probe
You make a difference to those who suffer from dentine hypersensitivity

The majority of people who suffer from dentine hypersensitivity experience pain, but simply cope with it.

Suffering in Silence

Research conducted by Sensodyne, involving over four thousand people, showed that as many as 67% of people who suffer wouldn’t ask about the condition. They don’t associate painful twinges with tooth sensitivity and so don’t talk about it.

Talking motivates patients

Talking about tooth sensitivity during their regular dental appointment was shown to be the key trigger for patients to start actively managing their dentine hypersensitivity with a specially formulated sensitivity toothpaste such as Sensodyne.

Your Sensodyne recommendation makes a difference

Diagnosing sensitivity, educating sensitivity patients and recommending Sensodyne can make a real difference to the lives of your patients with dentine hypersensitivity.

Twice daily brushing with Sensodyne is clinically proven to provide ongoing protection from the pain of dentine hypersensitivity1–6.

By recommending Sensodyne, you can help your patients to confidently manage their dentine hypersensitivity.

References:

By Dr David Muscat

Dear colleagues,

Since the last issue we have been busy with events. The AGM will be held on Wednesday 4th February at the Federation building in Gzira.

I wish you all a Merry Christmas and a Happy New Year.

I would like to remind you all to pay your subscriptions as early as possible for 2015 using the enclosed slip in the journal.

Cover photo kindly supplied by Dr. Kristian Vella

Best regards,

Dr David Muscat B.D.S. (LON) Editor / President, P.R.O., I.R.O. DAM.

DENTAL ASSOCIATION OF MALTA

Sliema Road, Gzira

Tel: 21 312888

Email: info@dam.com.mt

ISSN 2076-6181

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Under its Director, Professor Angus Walls, Edinburgh Dental Institute is moving forward with new postgraduate degrees in development. The University of Edinburgh has invested significant resource to support new academic staff appointments and in developing distance learning.

The online distance learning version of the popular MSc in primary dental care was launched in February 2013 and has had great feedback form the current students. It covers a wide range of advanced general practice topics supported by a bespoke virtual learning environment.

Students can log-in on the move, in the practice and at home to access all the teaching material any time. The course is very interactive but flexible to suit students all over the world with different time commitments.

Bringing together a structured arrangement with the Royal College of Surgeons of Edinburgh, successful students also receive a Membership in primary dental care from RCSEd without further examination.

The Edinburgh Dental Institute was established in 1999 to develop educational opportunities for dental postgraduates and the dental team. It has excellent facilities and is situated centrally within the historic and vibrant capital of Scotland, in Lauriston Place in Central Edinburgh. It occupies the top three floors of the Lauriston Building which is a dedicated out-patient centre for dentistry and a number of other medical disciplines. Edinburgh Dental Institute works in partnership with two major organisations to deliver high quality education, research and patient care.

The activities of EDI are as a result of strong cooperation and collaboration between the University of Edinburgh, NHS Lothian, NHS Education for Scotland and the Royal College of Surgeons of Edinburgh. Great opportunities exist for high quality education and research within a welcoming and friendly environment.

The modern facilities and the presence of staff who are experts in their fields allow students to make the most of their postgraduate studies.
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The University of Edinburgh

COLLEGE OF MEDICINE AND VETERINARY MEDICINE
EDINBURGH DENTAL INSTITUTE

Continues from page 6.

Our modern College of Medicine also has an international reputation. In the last research assessment exercise, it was rated top in the UK for medical research submitted to the Hospital-based Clinical Subjects Panel. All of the work was rated at International level and 40% at the very highest ‘world-leading’ level.

EDI currently deliver teaching for the following University of Edinburgh degree programmes:

UNDERGRADUATE
BSc in Oral Health Sciences

POSTGRADUATE
MSc in primary dental care
MClInDent in prosthodontics
MClInDent in orthodontics
MClInDent in paediatric dentistry
MClInDent in oral surgery
PhD
DDS
MSc in dental implants (first intake 2015)

The BSc in oral health sciences is an undergraduate degree that allows graduates to register as dental therapists or to apply for graduate entry further training.

The MSc in primary dental care is an online distance learning programme providing Masters-level education for primary care dentists with particular emphasis on restorative dentistry and advanced general practice.

The MClInDent degree programmes are 2-year full-time taught masters programmes in a range of dental specialties designed to provide education, clinical training and research experience within their chosen field. There is the option of remaining for a 3rd year to prepare to sit the relevant specialty membership diploma from RCS Edinburgh to allow application to the relevant UK specialist list via mediated entry. These posts do NOT attract a National Training Number (NTN).

PhD degrees are dental research degrees that are either offered full time (three years) or part time (six years). The research degrees provide training in specific research methodologies. Those registered for formal research degrees also have the opportunity for formal generic training in research skills, provided within the College.

For more information please visit www.dentistry.ed.ac.uk

Dr David Muscat editor of the Dental Probe presenting the Journal to Dr Domagh Laurie, Head of Masters in Primary Dental Care (Online Distance Learning) Postgraduate course at Edinburgh Dental Institute of the University of Edinburgh.
**The Principles of Adhesion**
Wet the prepared surface intimately and change the adhesive from a liquid to a solid in an undisturbed manner. If the surface is micromechanically rough, one has good adhesion.

**Surface Preparation**
- Macro-mechanical-parallel
- Walls undercut
- Sandblasting
- Citric acid

**Bonding Surface**
- Enamel, dentin, porcelain, metal, composite, resin
- Silanated porcelain has a bond strength of 44 megapascals. Silanes need to be applied at the time of fit. Their half-life is 3-4 months so it goes off within a year. Note that in the new Futurabond modified 6th generation dual cure there is a silane agent incorporated into the bonding agent so you can use this for ceramic repairs without having to buy a kit.

**Very Important Points**
- Properties of Adhesives
  - Non-cytotoxic, pulpal sensitivity, compatibility with resins, bond strength.
  - To be effective the bond strength has to be at least 15 megapascals. The film thickness is usually about 5-10 microns.
- Type of cure, long term follow up, microleakage, shelf life, ease of use/cost.

**Composite Variables**
- Filler size particle will affect polishesibility.
- Method of cure
- Shading opaque/transparent
- Physical properties relate to filler size.

**Microhybrid**
- Strong but looks dull.
- Mixture of glass particle fillers with a mean particle size of 0.4-0.6 microns.
- Silicon dioxide filler 0.04 microns.

**Microfill**
- Smaller filler particles.
- Lack strength resulting in marginal ridge or incisal ridge chipping.
- Can be finished and polished to a high gloss.

**Nanofill**
- Particles up to 100nm in diameter. Pack more into composite.
- Strength of hybrids but can be polished better.

**Curing Lights**
1. Halogen output 200MW/CM
- Frequency drops off with use as does the depth of cure. Needs to be checked with a light meter. Bulbs need changing.
2. LED 300-1500MW/CM
- Most common. Frequency does not fall. On or off. To check your bulb, stack several washers on top of one another, place composite inside and cure. Check depth to how far down you have cured.
3. Plasma Air Light 200MW/CM

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**GrandoBiofill and 13% Resin**
- High hardness, abrasion resistant and fracture resistant.

**The Secrets of Successful Composites**

**By Dr Wynn Jenkins BDS DPDS**
Venue: Phantom Head Room, Biomedical Building, Level O, Msida Campus, University of Malta
Summarised by Dr David Muscat
Representatives of CED member and observer organisations met in Athens, Greece on 23 and 24 May 2014 for a regular six-monthly General Meeting, under the chairmanship of CED President Dr. Wolfgang Doneus.

The meeting was hosted by the Hellenic Dental Association, in the context of the Greek EU Presidency.

The meeting started with a welcome address by the Greek Minister of Health, Mr Spyridon Adonis Georgiadis. The CED representatives were also welcomed by the President of the Hellenic Dental Association, Dr Athanasios Katsikis.

The Council of European Dentists (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.

VOCATIONAL TRAINING

During the plenary session, Members of the CED unanimously adopted a Resolution on vocational training (VT).

CED Members stressed that VT is not aimed at providing knowledge which is already part of the basic dental training, neither to question the ability of new graduates to practise dentistry, but to help them implement the theoretical knowledge into practice and equip them with more clinical and managerial experience for a better overall patient management in an independent environment.

The CED recognizes that health systems delivering oral healthcare are different across the European Union and considers the recommendations set out in the Resolution as a tool which can be adapted and used on a voluntary basis according to each CED Member’s national legal framework, higher education system, professional practice model as well as requirements of the modernised Directive 2005/36/EC.

The Resolution is the result of fruitful work of the CED Working Group Education and Professional Qualifications which until the CED General Meeting in Athens was led by Prof. Dr. Konstantinos Oulis. Prof. Dr. Oulis stepped down as Working Group chair during the General Meeting.

The CED would like to express its deepest gratitude for all his valuable work and commitment to the CED and the dental profession for many years. CED representatives appointed Prof. Dr. Paulo Melo as a new Working Group chair.

ANTIMICROBIAL RESISTANCE

CED Members unanimously adopted a Resolution on antimicrobial resistance (AMR).

The European dentists acknowledge the importance of the use of antibiotics in dentistry, as they account for a broad majority of medicines prescribed in dentistry.

The CED is concerned with the serious consequence of AMR which will no longer allow to prevent or treat some infections.

CED Members believe that it is essential in terms of both public and oral health that dentists prescribe antibiotics in a responsible way.

The CED supports patients’ feedback to help dentists maintain high standards and quality and improve patient experience in their practices. However, the European dentists are concerned with websites posting anonymous reviews which lack of moderation.

Therefore, the CED recommends some quality criteria for online evaluation of dentists in order to ensure that patients are provided with fair and accurate information.

EUROPEAN ORAL HEALTH DAY 2014

CED Board recommended to CED Member Associations to focus on the theme “Oral health and diabetes” on the occasion of the European Oral Health Day on 12 September 2014.

The choice of the theme was guided by the dramatic increase during the last decade of the number of people suffering from diabetes and rather poor public awareness of how to prevent oral disease in diabetes patients.

This presents a unique opportunity to raise awareness about the links between diabetes and oral health and about the important role dentists can and increasingly do play in early diagnosing and management of treatment of diabetes across the EU.
THE FEDCAR ASSEMBLY IN ROME
MAY SPRING MEETING

The FEDCAR Spring meeting was held in Rome by FNOMCeO at the NH Hotel Leonardo da Vinci on 9 May 2014. It was attended by 20 delegates from 13 countries. After the adoption of the minutes of the last meeting there were several items discussed.

1. THE DIRECTIVE 2013/55
   The IMI technical adaptation – this act involves notification by member states of the specific competent authority sending and receiving the alert etc. not automatically the CA or the registration body. Training on IMI during 2015 and operational by 18/2/2016.

   Member states who send an alert will also have to update the EPC file accordingly. Updates will include all information relating to prohibition or restriction. Forging documents is subject to alert only after a decision to sanction ‘who have subsequently been found by courts to have falsified evidence of professional qualifications.’

2. DENTAL SPECIALITIES PARTIAL ACCESS
   The professional must be fully qualified. He may be rejected for overriding reasons of general interest.

3. PROFESSIONAL CARD - NO PLANS FOR THIS IN DENTISTRY
   Selected activities such as nurses, doctors, pharmacists, physiotherapists, engineers, mountain guides and real estate agents.

4. EVALUATION OF REGULATED PROFESSIONS NEW ARTICLE 9 OF RFQ DIRECTIVE
   Member states shall examine whether requirements restricting the access to a profession by the holders of a specific professional qualifications are compatible with the following:
   a. must not be discriminatory on the basis of nationality or residence
   b. must be justified by reasons of national interest
   c. must be suitable for securing the objective and not go beyond what is necessary to attain that objective.

5. EU INITIATIVES TO REPORT
   There is a working group set up to identify the top 10 obstacles to market entry in terms of hampering, complicating or slowing down business operations such as documentation, financial reporting, re-registration, re-registration, re-registering qualifications or labour legislation.

   Minimal professional standards and compliance with codes of professional ethics are considered appropriate to protect the trust of the service recipients. There has to be a balance between the identity and the objective of mobility.

   The commission will welcome a ‘one stop shop’, ‘once-only reporting’; electronic submissions and sampling procedures. The commission will work towards the development of common framework of professional standards.

   The next steps of the commission are:
   a. formal representation of the professional societies
   b. a liberal professional forum
   c. explore creation of working groups

6. RESULTS OF SURVEY
   Blood taking by dentists for platelet rich plasma for use in implant surgeries – rules vary in different countries as to who is allowed to do this.

   NITROUS OXIDE SEDATION
   Some countries allow properly trained dentists usually supported by another member of the dental team. In some countries such as Estonia, Croatia and certain parts of Spain such as Madrid and Canary Islands an anaesthetist has to be present.

   Dr. David Muscat BDS (LON) Medical Council of Malta Member

   Dr David Muscat DAM International Relations Officer presenting the Probe to Dr. Diana Terleric Dabic from Croatia at the FEDCAR Conference in Rome in May 2014

   DATA PROTECTION
   The rules regarding data protection office, conduct of risk assessment and impact assessment and requesting prior authorisation from national supervisory authority are too unrealistic and these have to change.

   AMALGAM
   Still not enough information to make comprehensive risk assessment on environment. One has to look at what alternatives such as resins contain.

   RADIATION – COUNCIL DIRECTIVE 2013/59
   Basic safety standards for protection against the dangers arising from exposure to radiation in force.

   The Dental Probe
   December 2014 – Issue 52

   www.tepe.com

   Interdental Cleaning – the easy way

   - Eight colour coded sizes
   - Plastic coated wire
   - User-friendly handle
   - Developed in collaboration with Swedish dental professionals

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   Distributed in Malta by Alfred Gera & Sons Ltd., 10, Triq il-Masgar, Qormi QRM3217, Malta, Tel.: 2144 6205
How did the idea for a sculpting instrument with foam tips originate? My two partners, Dr. Dominik Viscomi and Brian Viscomi, and I were fooling around with foam to sculpt a direct resin veneer and we discovered that it would not stick to any composite and left no marks when moving the composite. Brian then went on to design a handle and a way to hole the foam on the handle.

What is so special about OptraSculpt Pad? In addition to what I mentioned above, the fact that there are disposables tips in varying sizes makes it suitable for many types of restorations. And, the reference scales on the handle are quite valuable when doing direct anterior restorations.

What are the advantages of OptraSculpt Pad compared with other composite modelling instruments? a) Moves composite easily and leaves no marks b) You can place and spread the composite without any pull-back, stickiness (i.e. sticking to the instrument) or leaving any indentations c) Surface requires only minimal finishing and polishing, which saves time and money! d) No other instrument to my knowledge has a reference scale which indicates the average size of the anterior teeth and their natural inclination toward the midline.

In your opinion, what kind of influence does OptraSculpt Pad have on the treatment procedure involving composite resin filling materials? There is no doubt that the profession is rapidly moving towards more direct composite restorations in part due to the economy, and in a great part, due to the esthetic nature of composite restorations. OptraSculpt Pad will be a genuine asset to the profession in composite placement.

What kind of advice would you give to your colleagues for using OptraSculpt Pad? Once you try the OptraSculpt Pad you will never use a metal instrument on resin again for sculpting and contouring. This is a no-brainer when it comes to time savings and achieving a highly aesthetic result.

Clinical case: Dr L. Enggist, Ivoclar Vivadent AG, Schaan, 2013

OptraSculpt Pad

Non-stick effect for efficient contouring

Ivoclar Vivadent has developed the innovative modelling instrument OptraSculpt Pad in order to meet the demand for efficient processing of highly-esthetic composites.

Despite the excellent mechanical properties of composite materials, their contouring remains a very demanding task for dentists even today. Highly esthetic composites, in particular, sometimes demonstrate a very adhesive consistency due to their filler composition, and they are thus more difficult to shape.

OptraSculpt Pad is a contouring instrument with special foam pad attachments, which is designed for the efficient, non-stick forming and shaping of composites. It is especially suitable for the contouring of class II, IV and V restorations as well as of direct veneers.

Non-stick shaping and contouring
The non-stick attachments of OptraSculpt Pad enable composite materials to be shaped and contoured with ease, without leaving any unwanted marks. Thus, composite restorations with smooth and even surfaces are fabricated with utmost efficiency.

Smooth and even surfaces
Due to the special material of the pads, natural-looking restorations are easily accomplished in only a few steps. The highly flexible synthetic foam pads optimally adjust to the anatomical contours and allow smooth modelling.

Professional esthetic results
The reference scales on the instrument handle assist in the creation of esthetic and anatomically-correct restorations. The markings allow the clinical situation to be compared with the ideal average tooth width proportions and angular alignments in the upper anterior dentition.

For further information, please visit www.ivoclarvivadent.com
Are you ready for a better way to relieve tooth sensitivity?

That sharp, stabbing feeling of sensitivity is something you may no longer need to endure.

Announcing the arrival of a toothpaste so revolutionary, so different, it addresses the cause of sensitivity, not just the signs.

And with direct application, it can give instant sensitivity relief.

Colgate® Sensitive Pro-Relief™ is the only toothpaste to contain the advanced PRO-ARGN™ technology. This breakthrough formula works by instantly plugging the channels leading to the tooth centre.

Brush twice a day for lasting sensitivity relief.

Sounds incredible? That’s why we want you to try Colgate® Sensitive Pro-Relief™ for yourself. For details, or to learn more, log on to www.colgatesensitive.com.
ORTHODONTIC ALIGNERS
TIPS AND TUMBLERS

Guidelines - Unofficial
- Patients who have had orthodontic treatment in the past and have now relapsed
- Adults whose mouths are likely to contain crowns, bridges, and implants
- May be an indication for compromised health patients where oral hygiene is mandatory
- Part of a hybrid orthodontic treatment plan.

Why Correct? - American Orthodontic Society
- There is an increased chance of plaque, food, and residue buildup occurring between teeth
- Increased wear may cause excessive wear on the crowns of both upper and lower front teeth
- An improper bite may impair chewing which can lead to G.I. problems

Consent - Salient Points
- Teeth which have been overlapped for long periods of time may be missing the gingival tissue below the interproximal contact once the teeth are aligned, leading to the appearance of a “black triangle” space.

Consent - Salient Points
- Sheet clinical crowns can pose appliances retention issues and inhibit tooth movement.
- On light of this these cases will often require a hybrid approach including a short course of fixed appliance therapy at the end of treatment.

Biomechanics
- Sberian's first Law of Biomechanics

Consent - Salient Points
- A tooth that has been previously treated, or significantly restored may be augmented. In rare instances the useful life of a tooth may be reduced...

Consent - Fine Print
“Align Technology is not a provider of medical, dental, or healthcare services and does not and cannot practice medicine, diagnose or give medical advice. Be the treating doctor you are solely responsible for the treatment of your patients.”

Consent
- As with any other orthodontic treatments various potential risks may present
- The official invisalign consent form lists 30 “Pleas and inconveniences” !!!

Consent - Salient Points
- As one may expect most cosmetic issues are ramifications of the patient’s oral hygiene, periodontal and restorative status

Tips - Keep them Clear!
- Do NOT use denture cleansers to clean aligners.
- Do NOT use them in mouthwash.
- Those products can damage the surface of the aligner, causing it to become dull and more visible.

Tips - Watch the gingivae!
- Clearly, Orthodontic treatment of any kind should not be undertaken where there is active disease
- Watch for toothbrush trauma or gingivae (Ardern 2006)
ORTHODONTIC ALIGNERS
TIPS AND TUMBLERS

Continues from page 19.

Tips - Compliance
• Patient non-compliance can cause all sorts of difficulties
  
“Compliance indicators are not immune to simple intentional or unintentional manipulations. Therefore, they can best show an estimate of wear time but cannot be recommended as objective wear-time indicators”
  
(Slot and Gye 2011)

Tips - IPR
1. Interproximal dies (should only be used using the gauges)
2. Interproximal strips – hand pulled or motor driven
3. Air-erosion with (LAS) using thin diamond tipped (3μm) or carbide burs (6μm)

Tips - Space Analysis / Limitations
• Buccal / lingual spacing should not exceed 3mm
• Arch expansion / proclination can accommodate between 4-5mm of crowding

Tips - Interproximal Reduction
• Various recommendations of amounts that can be removed 5-9mm
• Approximately half the enamel thickness may be removed (Boos 1980)
• Influenced by tooth shape
• No increased incidence of dental problems in a group of subjects that had had IPR more than 10 years previously (Zachrisson 2007)

Advantages of IPR
1. Less loss of tooth material
2. Smaller tooth movements
3. Less treatment time
4. Less root resorption risk
5. Greater Stability
6. Better Aesthetics
7. Initiation of a physiological process because extensive attrition was a feature of the natural human dentition before civilization led to consumption of increasingly soft food

Tumbles - Guaranteed Law Suit
Judicious
Over Zealous

Tumbles - Crowding vs Crowding
• Cylindrical teeth generally cannot be resolved by standard aligners
• “The accuracy of rotation for the mandibular canine (54.8%) was significantly lower than that of the mandibular central incisors (54.2%)” (Nunes et al 2009)
• If the canines are rotated more than 10° then traditional braces or combination therapy should be used to achieve desired result.
• Molar rotation may also be a problem due to root resistance

Tumbles - Rotations
• The use of buttons and ‘power ridges’ may help improve rotary efficiency
• However the evidence for this remains weak especially when treating canines
• Vertical elastics attachments and IPR do not significantly improve the accuracy of canine rotation (Barnes et al 2004)

Continues on page 22.
ORTHODONTIC ALIGNERS TIPS AND TUMBLERS

Is there a limit?

Tips - Tooth Size Discrepancy

- Occlusal plane.
- Inconsistency between the size of the maxillary and mandibular arches.
- Consider doing a Bolton analysis as part of your case assessment.
- A discrepancy greater than 2 mm from the norm is considered significant.

Tips - Tooth Size Discrepancy / Options

1. Extract tooth in the arch with excessive tooth mass.
2. Interproximal reduction in the arch with excessive tooth mass.
3. Compromise angulation to occupy more or less space.
4. Composite build-ups/ Veneers at end of treatment to close spaces.
5. Accept residual spacing.

Tips - Narrow Arches

- Narrow arches are characterized by being tapered rather than U-shaped.
- Ideal cases may permit Sequence per arch of expansion.
- The limiting factor is the amount of bony base available and underlying periodontium.

Tips - Aligner Fit

- Before inserting into the mouth: Immerse the aligners in water to counteract the aligners hydrophilic nature.
- Fit is acceptable if all teeth are fully covered by the aligner material, with all margins being smooth and fitting close to the abutments without impingement (Metzke and Vogl 2005).

Tumbles - Aligner Fit

- Presence of saliva bubbles between tooth and inner aligner surface indicates inadequate fit.
- Inconsistencies between initial edges/attachments and aligner can easily identify fit discrepancies.

Tumbles - Aligner Fit

- Every previous aligners should be reviewed sequenced until the case is finished.
- All cases can benefit on the aligners for closing or moving teeth.

Stability and Retention

- Teeth have remarkable memories for their previous mispositions, and this will require continued use of retainers, at least on a part-time basis. Ordinarily, night-time wear will suffice, but if patients notice unwanted changes occurring they will need to wear them more.

White 2008

Retention

- There is a progressive move to Indefinite retention.
- Choice of retainer will depend on:
  - Occlusion
  - Alignment
  - Stability
  - Treatment

Stability and Retention

- Treatment that repositions anterior teeth will involve some degree of canine expansion which is highly prone to relapse.
- Some weak evidence that patients treated with Orthodontic Aligners relapse more than patients treated with fixed appliances (Kuwabara et al. 2007)

...however

Protect your investment; use a retainer!

N.B. Using the final aligner as a retainer is NOT recommended

Conclusion

- Experience with Aligner therapy and continuing education are the two key requirements for a dentist to make treatment effective. Education in new techniques and procedures as well as choosing the right patient are the keys required to employ this treatment modality. 
PATIENT ADAPTATION TO NEW DENTURES

HOW CAN THE PRACTITIONER HELP?

Dr A Busuttil BChD, MSc

The practitioner can help significantly in the adaptation process by providing dentures that address the patient’s functional and aesthetic requirements as effectively as possible.

PATIENT ADAPTATION TO NEW DENTURES: HOW CAN THE PRACTITIONER HELP?

Dr A Busuttil BChD, MSc

WHAT’S YOUR ANSWER?

The Dental Probe

December 2014 – Issue 52

PATIENT ADAPTATION TO NEW DENTURES

STAGE 1: HISTORY-TAKING

Age

1. Referred medical history
   - Medical history
   - Patient’s emotional state

2. Nature of previous dentures
   - Patient’s satisfaction of previous dentures

3. Patient’s current denture needs
   - Medical history

STAGE 2: CLINICAL EXAMINATION

Extra-Oral

- Fruity
- Obvious dental/soft tissue distortions
- Greater care needed in positioning teeth & achieving denture stability
- Increased lip activity / tight lips
- Special attention needed to create acceptable aesthetic result

Intra-Oral

- Likelihood of reduced tolerance to prosthetics
- Greater care needed in positioning teeth & achieving denture stability
- High smile line

STAGE 2: CLINICAL EXAMINATION

Intra-Oral (cont.)

- Undercuts
- Bone surface beneath mucosa
- Symptomatic & less stable
- Possible interference with denture contact, may need relief of tongue, cheeks & lower denture base

STAGE 2: CLINICAL EXAMINATION

Assessment of previous dentures

- Successful features to be incorporated into newly constructed dentures.
- Poor design features that need improving.
- Signs of wear which may indicate parafunctional habits that may influence the patient’s adaptation to dentures.

STAGE 3: TREATMENT PLANNING

What are the options for new dentures?

- Traditional Provisional dentures
- Replica / Copy dentures
- Conventional dentures

Overdentures

Implant-retained prostheses

Continues on page 28.
What is the worst that can happen? Who knows it depends on how severe the storm can be! How hard financially can it hit me? It can never be that bad… can it? These few sentences which are common between friends and business colleagues are all within the context of what it would mean if business insurance cover was not purchased and you left your business risk or risks in the hands of a greater power and always hoping for the best. We never really expect that a major disaster can hit us as it always happens to someone else… never to us!

In realistic terms an insurance policy covering the business operation is not going to cost and arm and a leg… or indeed require deep root treatment! A basic policy can offer and provide very simple and yet effective all round cover that will let you get on with your business without having to set aside additional financial resources or even lay wide awake thinking what can and cannot happen. A simple insurance policy can provide protection for the following:

- Building, Furniture, Fixtures and Fittings
- Equipment and tools (fixed and portable)
- Stocks
- Rent
- Glass
- Machinery
- Money
- Personal Accident

In addition to the above the policy can also be extended to cover Liabilities to the general public for slips and trips and even for property damage to the neighbours. Employees can be covered for work related injuries where the employer is legally liable to pay compensation.

Where one would want to expand the cover more a business interruption cover will provide payment in the event that the business will incur downtime and where the turnover can be covered for the loss of Gross Profit.

Think it over but don’t be left exposed. Talk to your insurance advisor to make an appointment and discuss your personal requirements.

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PATIENT ADAPTATION TO NEW DENTURES

**STAGE 3: TREATMENT PLANNING**

Good communication essential for optimal prosthetic outcomes!

Invest time educating your patient:
- Is your patient understanding the implications of prosthetic rehabilitation?
- Can the patient’s expectations be met?

**STAGE 4: PRE-TREATMENT PHASE**

- **When you provide an anatomy:**
  - Assess oral mucosal surface.
  - Provide adaptation exercises.
  - **Adjustments to faulty dentures:**

**STAGE 5: DENTURE CONSTRUCTION**

- **IMPRESSION TAKING:**
  - *The crucial step*
    - Meticulous attention and care in the construction of dentures will minimize faults that may adversely affect the patient’s ability to adapt to the final prosthesis with respect to function and aesthetics.
    - Appreciate the importance and aims of each clinical and laboratory step.
    - Keep a mental checklist for each stage of denture construction.

- **REGISTRATION OF JAW RELATIONSHIPS**
  - *To achieve reproducible interocclusal relationships to improve both the vertical and the lateral dimension.*

**STAGE 6: DENTURE INSERTION**

**EXTRA-ORAL EXAMINATION OF FINISHED DENTURES PRIOR TO DELIVERY**
- Visual and digital inspection of the dentures before placement.
- Examine fitting surfaces, borders, polished surfaces.
- Removal of sharp edges and roughness to avoid mucosal trauma during function.

**STAGE 6: DENTURE INSERTION**

**INTRA-ORAL EXAMINATION OF FINISHED DENTURES**
- Location and relief of pressure areas in denture base especially at free and fixed attachments and undercuts.
- Identification and reduction of over-extended or under-extended borders. Special attention to free areas.

**STAGE 7: REVIEW, MAINTENANCE & RECALL**

- Even the best dentures are bound to give some post-insertion problems.
- A review appointment is recommended soon after dentures insertion.
- Effective communication with the patient is necessary to get to the core of any problems and resolve them as effectively as possible.
- Long-term monitoring is also important.

**CONCLUSION**

With this approach it appears that most patients are able to adapt and function well with conventional dentures, with a reasonable quality of life.
CONSCIOUS SEDATION – AN OVERVIEW

Introduction

- Fear of dentistry has been recognised for many years
- A survey of 1000 adults answered the question “going to the dentist” second only to fear of public speaking on a list of most feared activities
- Fear of dentistry is real and it is a problem
- Previous patients recall treatment with the result of needing much more tranquillisation
- This can be more complex, take longer and often cause more anxiety like extraction, root canal treatment and implants which are more invasive and traumatic

Dr Nicolas Bezzina
BChD, MFDS(Eng), PGDip(Conscious Sedation)

History

- MDS: First barbiturate (Amytal) is produced
- 1964: Short acting barbiturate formulations (intranasal and intravenous) used to produce “rapid sedation” in patients undergoing dental treatment
- 1974: First benzodiazepine (Valium) is approved
- 1981: Chloral Hydrate first used in hospital to provide dental sedation
- 1985: Midazolam becomes available
- 1988: Flumazenil (zevax) a benzodiazepine reversal agent was introduced

Definition of Conscious Sedation

A technique in which the use of a drug or drugs produces a state of depression of the central nervous system enabling treatment to be carried out, but where verbal contact with the patient is maintained throughout the period of sedation. The drugs and techniques used to provide conscious sedation should carry a margin of safety wide enough to render loss of consciousness unlikely.

General Centre, Saudi AR

Properties of the Ideal Sedative

- Palatable or injectable
- Rapid onset
- Predictable sedative and analgesic action
- Commensurate duration of action
- Produces analgesia
- Minimal side effects
- Rapid and complete recovery
- Not addictive
- Not a narcotic

Routes of Administration

- Oral
- Inhalation
- Intravenous
- Intravenous sedation
- Intramuscular

Indications for Conscious Sedation

- To treat patients with dental anxiety and phobia
- To make an unpleasant procedure more acceptable to the regular patient
- To examine and treat special care patients
- Strong gag reflex
- To avoid general anaesthesia

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BChD, MFDS(Eng), PGDip(Conscious Sedation)

Continues on page 34.
On 12 November 2014 Dr Edward Sammut BChD MSc MClinDent MFDS MRD RCS ED led the first ITI Study Club in Malta at Palazzo Castelletti. The Study Club has just received approval from ITI HQ and this event was sponsored by Straumann and Bart Enterprises Ltd.

The event was well attended with all seats taken up. Dr. Sammut introduced us to the world of ITI and outlined the benefits of becoming an ITI member. The study club is held 3-4 times a year and is open to all ITI members. Non-members may attend up to three meetings but need to become ITI members to continue to attend thereafter.

The mission of the ITI is “to promote and disseminate knowledge on all aspects of implant dentistry and related tissue regeneration through education and research for the benefit of the patient”.

In 2014 the ITI had in excess of 14,000 members and is growing fast. Money goes towards research and education. Straumann also donates funds for research and development. The ITI study clubs are held on all aspects of implant dentistry including treatment planning, treatment delivery, handling of complications, practice management as well as technical and laboratory aspects of implant dentistry.

The first meeting was an introduction to the ITI and included a demonstration of the online SAC assessment tool, and a brief lecture about soft tissue aesthetics and related tissue regeneration.

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*Activity on in vitro bacterial biofilms after 5-minute soak. †When used as directed.

References

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www.aspynorth.com
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CONSCIOUS SEDATION
– AN OVERVIEW

Continues from page 35.

Recovery and Discharge

- Alien patient to recover in a quiet environment
- Patient must remain under observation until fully recovered
- Recovery time should be explored as an approximate standard
- Discharge only after review by qualified practitioner
- Patient should be free to stand and walk without assistance
- Remove nasogastric tube
- Nitrous & vomiting bags in case of vomiting, regarded as normal in such patient and responsive adult
- Avoid alcohol, driving, operating machinery, signing documents, unsafe shopping or operating on easily broken objects
- Patient discharged into the care of the responsible adult for the rest of the day

Pitfalls

- Communication and expectations
- Problems with patient’s inclinations
- Patient sedated, regurgitation, need for additional sedatives, skill limited to child
- Interactions, prolonged recovery
- Under-sedation: patient too alert, Squadron leader, sedation to benzodiazepine
- Rapid recovery, cervical spine injury, crying, diarrhea (subsequent adverse effects)

Summary: Why Conscious Sedation?

- Safe
- Effective
- Wider range of treatments available compared to GA
- More accessible
- Cost effective

How does it help me?

- Offering patients a wider range of options including anxiety management
- Visiting sedatives for complex work such as wisdom teeth extraction, implant placement, etc.
- Sedation responds to the sedative equipment
- Local anaesthesia is still adequate in size
- Sedation allows family presence to reduce stress.
- Reduction and pricing
- Patients under sedation referred to a specialist practice for treatment and discharged back to the care of their own doctors

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CONTENTS
NEW FROM VOĆO: THE ALTERNATIVE TO CAD-CAM

If you wish to produce a composite inlay, use the new Voco kit. Take an impression of the cavity in alginate. Then use a silicone material in the alginate and within a minute you can produce a model. On this model you can manufacture your inlay and trim and polish it.

Bifix and Futurabond are used to cement the inlay. An excellent technique which produces an inlay of extreme hardness. And of course at a low cost. In the kit also come the polishers. On has enough for about 30 inlays. Besides the microfine diamonds one can use the new impregnated carbide brush.

GRAND TEC

This is a system I have been using successfully for several years. Composites have good compressive strength but poor tensile strength. Grand Tec, (which consists of a bundle of parallel-sided glass fibres) gives the tensile strength. It creates a synergy, and adapts the shade of the flowable composite.

The material consists of light-sensitive fibre systems so one needs to keep out light. The material is used to splint. This may be used to refix teeth once one has removed the root or even to replace a tooth temporarily if one is missing. A wedge should be used so that the composite does not flow into embrasures. Grand Tec can also be used in conjunction with ‘Structur’ to reinforce temporary bridges. Of course it can be used following trauma to splint or replace a missing tooth.

When using to refix a (periodontally affected tooth that needs to be extracted) lower tooth once one has cut off the root part one can first make a ‘composite handle’ onto the adjacent teeth prior to extracting. Grand Tec can also be used to build up core posts-use self cure Bifix with this.

One can also use Grand Tec in conjunction with preformed veneers in cases of avulsion when tooth cannot be found.

GRANDIO FLOW

This flowable composite is so strong that it can be used on its own to build up teeth. For example, with heavily worn down lower teeth, an impression can be taken and a model made up. The teeth are built up on the model and a blow down splint is then made.

The splint is filled with flowable composite and transferred to the patient. The appearance will also be very good. A microfine diamond can then be used to separate them as can a ‘serrisaw’. Grandio Flow can be used to replace missing teeth. eg to replace a premolar use 2 pieces of fibre. Cut the foil in half using scissors. Then go from the palatal aspect of the 5 to the buccal surface of the 3. Then use a second strip to go from the buccal of the 3 to the buccal of the 5.

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