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The Dental Probe

The Maltese Dental Journal

Editorial

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DENTAL ASSOCIATION OF MALTA
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By Dr David Muscat

Dear colleagues,

At the FDI General Assembly in Poznan this year, the FDI redefined **Oral Health**. This definition lays the foundation for the future developments of standardised assessment and measurement tools.

Oral Health is multi-faceted and includes the ability to speak, smile, smell, taste, touch, chew, swallow and convey a range of emotions through facial expressions with confidence and without pain, discomfort and disease of the craniofacial complex

Oral Health:

- Is a fundamental component of health and physical and mental well being
- Reflects physiological ,social and psychological attributes essential to the quality of life
- Is influenced by individuals changing experiences, perceptions, expectations and ability to adapt to circumstances.

In 2017 the FDI will focus on the development of a standard measurement instrument that can be applied across countries and across settings.

At our last EGM a subcommittee was set up to look into the issue of foreign dental schools opening in Malta. The DAM has had meetings with the Health authorities regarding the Draft Dental clinics regulations. There will be further Medical Emergencies courses. There will also be a course on 3D radiography.

The DAM Christmas party will be held on 7th December at The Hilton. *A Happy Christmas to you all!*

The cover picture is by Jacqui Agius 'Floriana Steps'

Best regards,

David

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

Dr David Muscat, President of The Dental Association of Malta and editor of The Dental Probe, presents the Maltese Dental Journal to her Excellency Marie Louise Preca, President of The Republic of Malta, on Friday 21st October at The Palace Valletta on the occasion of the formal visit by The Federation of Professional Associations of Malta. 'Common Values of Professionals in Europe' was the theme of the discussion and a leaflet outlining the work of the Federation in this regard was presented to The President. The Federation also made a donation to Hstrina. The Dental Association of Malta was also represented by Dr Chris Satariano, DAM committee representative on the Federation.

Dr David Muscat, President of the DAM, presents the Dental Probe Journal to Professor Frauke Muller from Geneva on Friday 11th November at the Valletta campus of the University of Malta. Prof. Muller, who is a professor of Gerodontology presented a lecture on Geriatric Dentistry. On 26-28 April 2017 Dr Alexander Schembri, current President of the European College of Gerodontology is organising a Gerodontology Annual Congress in Malta on behalf of the European College in collaboration with The Faculty of Dental Surgery and the Department of Gerodontology Faculty Of Well Being, University of Malta. The Congress is entitled 'Overcoming Barriers In Oral Health In Later Life.'

Dr David Muscat, President of the DAM presenting the Probe to Dr Matthew Perkins at Palazzo Castelletti on Friday 4th November at the ITI Study club lecture entitled 'Applying Digital Dentistry to the Patient Journey'. The lecture focused on digital planning in implant cases; explored the digital workflow intra- operatively; looked at the restorative workflow and laboratory digital technology. The event was organised by Dr Edward Sammut of the ITI Study Club and Bart Enterprises. A truly excellent evening.

Drs David Muscat and Roberto Cutajar, joint winners of the DAM shooting event with Dr David Agius, runner-up, at the shooting range.

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OPTRASCULPT PAD
INTERVIEW WITH DR GLAZER

HOW DID THE IDEA FOR A SCULPTING INSTRUMENT WITH FOAM TIPS ORIGINATE?
My two partners, Dr. Dominic 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.

HOW DID YOU SCULPT STICKY COMPOSITE RESINS IN THE PAST? WHAT WERE THE DISADVANTAGES?
In the past all we had were metal instruments and then over time other instruments evolved with tips of rubber, silicone, teflon or even gold but none worked well. These types of instruments would leave indentations and a rough appearance to the composite surface.

We also have had composite warmers and vibrating/oscillating instruments that all tried to make the composites more fluid to allow for better placement. Sometimes we would use a fine sable brush to move and shape the composite resins but these brushes would leave striations on the composite surface and we had to make them disposable since there was no effective way to sterilize them between patients.

IN WHAT WAY HAS OPTRASCULPT PAD CHANGED YOUR WORK WITH COMPOSITE RESINS?
OptraSculpt Pad has made it remarkably easy to work with any composite since it is an ideal modeling instrument for shaping and contouring all composites. You can work faster and achieve a great esthetic result in less than half the time using any other instrument. A real bonus is how the OptraSculpt Pad leaves the surface in a state that requires very little finishing and polishing.

WHAT IS SO SPECIAL ABOUT OPTRASCULPT PAD?
In addition to what I mentioned above, the fact that there are disposable 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?
- Moves composite easily and leaves no marks
- You can place and spread the composite without any pull-back, stickiness (i.e. sticking to the instrument) or leaving any indentations
- Surface requires only minimal finishing and polishing, which saves time and money!
- 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 esthetic result.

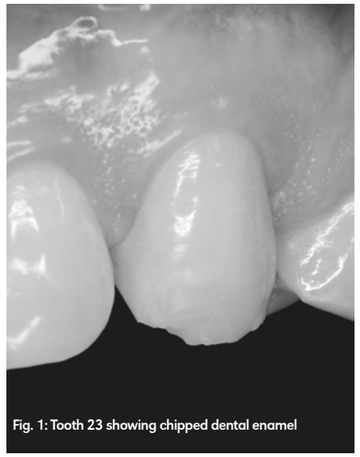


Fig. 1: Tooth 23 showing chipped dental enamel

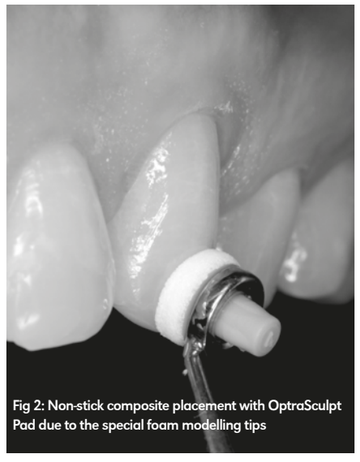


Fig 2: Non-stick composite placement with OptraSculpt Pad due to the special foam modelling tips

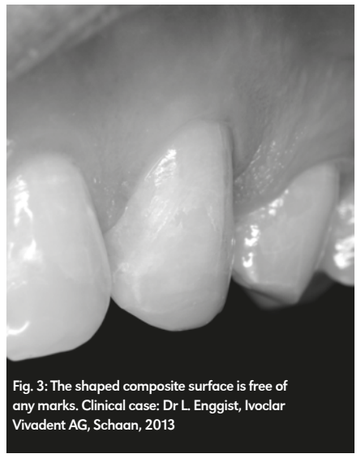


Fig. 3: The shaped composite surface is free of any marks. Clinical case: Dr L. Enggist, Ivoclar Vivadent AG, Schaan, 2013

A STUDY OF THE RELATIONSHIP BETWEEN VENOUS DISEASE AND DIABETES MELLITUS IN MALTA

Schembri Leonard, Schembri Maria – Mater Dei Hospital – Malta

INTRODUCTION

The aim of this study was to assess the prevalence of Venous Disease in Diabetics compared with the general population in Malta (European Health Interview Survey EHIS 2008). Data was collected prospectively by one vascular surgeon in a tertiary referral hospital over a period of 5 years (N=5620). Diabetes was ascertained from patient histories within the same database. Diabetic patients in the population under study were compared to the diabetic population in the EHIS by gender and age group. The Odds Ratio for Venous Disease in patients with Diabetes was obtained for each group.

RESULTS

Significant p value findings in <30 age group who have both Venous Disease and Diabetes Mellitus whereas the rest of the EHIS population do not.

CRITERIA

Inclusion:

Patients diagnosed with Venous Disease and venous leg ulcers over 18 years of age.

Exclusion:

- Patients with autoimmune disease
- mixed aetiology disease
- haematological disorders
- Hansen's disease
- peripheral vascular disease
- bowel disease
- crural disease
- malignancy
- donor graft from the affected lower limb
- and incomplete data

TOTAL POPULATION OF PATIENTS WITH:

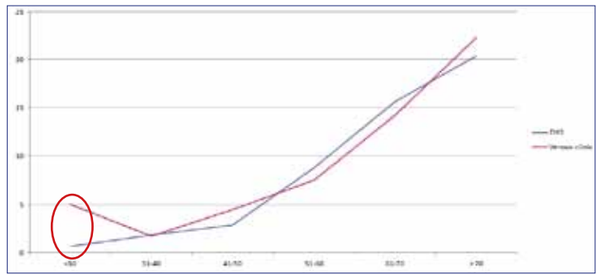
VENOUS DISEASE	VENOUS DISEASE & DIABETES MELLITUS
1409	184
179 (excluded)	41
1230	143
100%	8.6%

FINDINGS

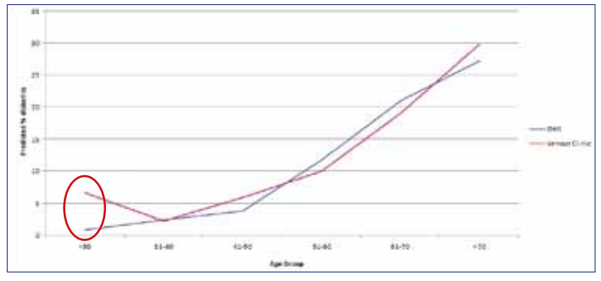
After calculating the Odds Ratio for the two populations, an overall p value <0.001 was only found in the <30 age group as explained in the table below. This was driving the difference in the two groups

AGE GROUPS	VENOUS DISEASE & DIABETES MELLITUS	EUROPEAN HEALTH INTERVIEW SURVEY 2008
<30	8.48	0.009
31 – 40	0.76	0.731
41 – 50	1.60	0.227
51 – 60	0.91	0.715
61 – 70	0.91	0.621
>70	1.05	0.723

FEMALES



MALES



CONCLUSION

There is a significant difference when the total populations in both groups were examined for both gender and age (p<0.001). The difference became insignificant when age groups were considered separately (p>0.05). However, the previous significant difference was explained by a strong p value with the <30 age group (p<0.009).

RECOMMENDATIONS

Future studies to explore the high prevalence of Diabetes and Venous Disease in <30 age group.

REFERENCES

Apelqvist J., Bakker K., van Houtum W.H., Schaper N.C., (2011). "International Working Group on the Diabetic Foot", International Consensus on the Diabetic Foot.Fava S., (2011). "Most Diabetics are Centrally Obese", The Times of Malta, 12 Nov

ACKNOWLEDGEMENTS

Barbara D., Bartolo J., Cauchi A., Micallef S., Muscat Simitciu O., Sammut J., Schembri O., Wubbels M. And special thanks to Dr Neville Calleja and Prof Kevin Cassar.

PROPOLIS TINCTURE 50% AND ITS SPECIFIC USE FOR MOUTH ULCERS FOLLOWING CHEMOTHERAPY

Leonard Schembri, S.N. – Tissue Viability Unit – Mater Dei Hospital – Malta

WHAT IS PROPOLIS?

Propolis is made up of components of resin which the bees collect from flowers, trees and plants. The worker bees take these resins to the beehive. The bees in the hive receive the resin and masticate it once more, enriching it with proper components, principally with enzymes.

Bees use propolis for the following reasons:-

a. To close or block openings or cracks in the beehive
b. To diminish the opening of the entrance
c. To impede the entrance of enemies
d. To ensure a stable temperature in cold regions
e. To maintain a reserve for conserving their mummified enemies
f. To glue the frames in their vertical framework and to fix them in the beehive
g. To cover all the honeycombs with one thin layer of propolis. Even the interior of the cells, before the queen lays her eggs, is covered

Many researchers confirm that bees mix the propolis with enzymes which they secrete, thereby producing a form of defense (antibody) which acts against viruses, fungi and bacteria.

Bees collect propolis when there is good nectar harvest. Nectar is the sweet fluid produced by plants. The bees produce most propolis at the end of the harvest. The worker bees dedicate themselves to this activity in the very hot hours of the day, that is, between 1000 hrs and 1500 hrs. During these hours, propolis turns out to be easy to handle by the bees.

The sources most rich in resin or propolis are from the flower buds, the leaves of the plants and from the tree bark. Being a natural substance, its composition depends on various factors, such as, the type of vegetation around the hives, the climate and the species of bees.

Besides the innumerable benefits that propolis has for the bees and man, it also has some side effects. People who are generally allergic to bee stings are, as well, allergic to the use or application of propolis, honey, royal jelly and pollen. The direct contact with propolis (to those who are allergic) could cause red marks in the hands and face.

Translated from the book, "Plantas – Saude para o povo by Centro Popular de Saude – Yanten/Moviemento Popular de Mulheres do Parana, 1994".

OBJECTIVES OF PROPOLIS TREATMENT

1. To avoid the development of ulcer pain when administered as prophylaxis.
2. To relieve the patient from pain within 24 hours (or thereabouts) if the mouth ulcer/s are already present.
3. To help heal the patient's mouth ulcers.
4. To avoid admitting the patient to hospital with mouth ulcers, thereby saving thousands of euros for one admission alone.
5. To avoid separating the child or young teen from his/her immediate family and friends.

BEFORE THE ADMINISTRATION OF PROPOLIS

It is necessary to ask the parents whether the child* (refer to footnote) is allergic to bees or their products. If s/he is, then they would be allergic to propolis. If they do not know, then you would have to check whether the child is allergic to the medication. To do this, one drop of the tincture is to be smeared or rubbed gently on the wrist. This is done some five or six days before the administration of the radiotherapy/chemotherapy. Propolis cream could be applied instead of the tincture, as the alcohol in the tincture might cause some irritation but not an allergy. Propolis cream is easily manipulated. It could be prepared by mixing a spatula of aqueous cream, for example, with five drops of propolis tincture.

If no reaction takes place, then treatment ought to be commenced on day one of the radiotherapy/chemotherapy, that is, some 5 to 6 days when the ulcers are bound to become painful. (Please refer to ADMINISTRATION OF PROPOLIS TINCTURE 50%, point number 4).

The other option is to start the treatment when the child starts complaining of pain in one's mouth. (Refer to ADMINISTRATION OF PROPOLIS TINCTURE 50%, point number 1). However, it is better to commence treatment on day one of the chemotherapy/radiotherapy.

GENERAL NOTES ABOUT PROPOLIS

1. ***Its general use***
   As described earlier, Propolis is produced by the honey bees. It is then manipulated with alcohol to produce a tincture. It can be used for quite a big range of illnesses. It is used both internally and externally. It can be used internally for: upper and lower respiratory tract infections, sinusitis, rhinitis, tonsillitis, cough, colds, bronchitis and pharyngitis. It is used externally for: wounds, furuncles, eczema, whitlow, burns, warts, gingivitis, mouth ulcers, athlete's foot and onychomycosis.

Continues on page 10.

PROPOLIS TINCTURE 50% AND ITS SPECIFIC USE FOR MOUTH ULCERS FOLLOWING CHEMOTHERAPY

Continues from page 9.

2. ***Different forms of propolis***
Propolis can be manipulated in order to produce a tincture, pomade, a cream, an ointment, oil or different strength suspensions and tablets. It can also be taken raw. Propolis sweets are also available on the market. There is also a spray which is not available in Malta. There might be other forms which are not mentioned here. The tincture (which could come in different strengths) can be mixed with water to do with it a suspension or with honey. The tincture is alcohol based and the 50% tincture is the only one available in Malta.

3. ***Adults and mouth ulcers***
Propolis is administered in tincture form to adults. Some 2 to 3 drops are usually put onto a cotton bud until the cotton bud is saturated with the propolis. It is dabbed onto the ulcer directly from once to four or five times daily. Ulcer pain normally disappears altogether within 24 to 36 hours. It is also a fact that the continuous use of propolis cures the mouth ulcers completely.

4. ***Why mix it with honey?***
Adult patients have reported that the tincture burns for a short while when applied directly to the ulcer and that it is unpleasant to taste. To overcome these two minor problems it would be better to mix the tincture with honey when administering it to children. Honey makes it palatable and it will remove the sting or burning sensation experienced by adults. Another reason is to have it linger in the mouth and down the oesophagus for as long as possible. This way, the medication will cover all those areas it comes into contact with, especially where there are the mouth ulcers.

5. ***A guide for health professionals – correct administration***
As paediatric oncology patients might have more than one ulcer, then the attached table (Appendix 1) can be used to act as a guide to those administering it. This is done not to exceed the very safe daily drop allowance of the medication and also because the patient might have other ulcers in the throat and further down the throat which are not visible to the naked eye. The medication (propolis and honey) mixed with the saliva will reach most of these areas, whereas those ulcers which could be identified or are visible in the mouth, could have the medication applied directly with the forefinger or cotton bud by that of the health practioner or parent.

It is imperative that the child is not given anything to drink or eat for at least half-an-hour after the administration of the treatment. An hour is preferable. This is done not to have the medication, which is meant to act locally (i.e. on the ulcers), flushed down the stomach by any liquids or solids.

There are two more points to remember. The first one is that the recommended daily dose (as described in appendix 1) may be administered in the one go or divided into two, that is, at twelve hourly intervals. The second point to remember is to have the mixed propolis and honey stored away in the refrigerator. This is to make it less viscous, consequently making it easier to apply. And as it takes the form of paste, it can remain on the ulcers for a slightly longer period of time, whereas it would not, if it had to be applied soon after it was mixed.

6. ***Other general information***
Other than acting locally, the medication will also help combat any impending or likely infections, such as, upper and lower respiratory infections.

This is quite advantageous to the child undergoing radiological/ chemotherapeutical treatment because of his/her very low immune response to combat infections. Thus it also acts as a prophylaxis.

Throughout the child's hospitalization, it would be better to invest heavily in educating the parents. Explain to the parents the complications which are likely to arise after aggressive chemotherapy (e.g. the continuous mouth ulcer pain), so that they will comply with the propolis treatment if the need arises and also because they would feel that they are being involved with the child's treatment. Education and sharing of knowledge, which are synonymous with each other, among all the health professions is a must. Let us not forget that our main objective is the child.

ADMINISTRATION OF PROPOLIS TINCTURE (50%) FOR DIFFERENT FORMS OF TREATMENT IN THE MOUTH CAVITY, PHARYNX AND FURTHER DOWN THE GASTOINTESTINAL TRACT

1. ***For preventative treatment:*** mix 5 drops/day in 20mls of lukewarm water/milk and instruct the patient to swish and gargle with this solution. After swishing and gargling encourage him/her to swallow the solution. Please refer to point number 4f below as well.

Note that when the mouth ulcer/s become visible and/or painful, then stop this treatment and go to step 2 below. It might pay off to prepare the right number of propolis drops with honey (if using honey – point number 4d below) and put it in the refrigerator some days beforehand so that it is less viscous.

2. ***For pain caused by the visible mouth ulcer/s:*** either (i) apply 2 to 3 drops onto a cotton bud (or until completely soaked) of the propolis tincture and then dab/apply it onto the ulcer from twice to four times daily. This may be applied more frequently if the patient is still in pain after 36 hours. Or (ii) mix the right amount of propolis tincture (from appendix 1) with 20 to 30mls of lukewarm water/ milk and inform the child/teen to swish and gargle this. S/he may then swallow the solution. Please refer to point number 4f below as well. Or (iii) go to step number 4 below and mix with honey as explained.

3. ***For complete healing of the mouth ulcer/s:*** all as point number 2 above. However, continue applying the propolis tincture or solution until the mouth ulcer/s disappear/s. Please refer to point number 4f below as well.

4. ***For ulcer/s which are either in the mouth and/or the naso-pharynx and may be further down:***
   a. Refer to appendix 1: Table of 50% Propolis Tincture.
   b. Identify the age group.
   c. Identify the amount of drops which is across from the age group.
   d. Mix the right number of drops either (a) with one teaspoon of honey (i.e. 1 to 2 mls of honey) in a small pot (e.g. pill cup) or (b) with 20 to 30 mls of lukewarm water/milk. Please note that if you select the honey, then it would be better to refrigerate it the day before so that it becomes less viscous.
   e. Administer this to the patient. Dab/Apply some of it with a cotton bud onto the mouth ulcers first and the remainder may be introduced into the mouth with a teaspoon. Inform the child to swallow this.
   f. Do not let the child eat or drink anything by mouth for at least half-an-hour after the treatment. One hour is better.
   g. Encourage propolis lozenges. Inform the child/teen to suck these and not to crush them with his/her teeth. If following the steps above (i.e. points a to f), then do not forget to allow half-an-hour or one hour before encouraging these lozenges.
   h. If the pain persists, then as a last resort, you may repeat the dose. This step may also be carried out when a patient is not given any propolis treatment, for some reason or other, and then presents him/herself with painful ulcers for the first time. This double bolus dose may be repeated for up to 3 days, however, normal propolis treatment (as per table in appendix one) is to be resumed when the patient is completely free of pain.

NOTES;

1. Use one teaspoon of honey with the number of drops above.
2. The doses mentioned above can be administered for either 5, 7, 10 or 15 days or until all the ulcers disappear. It all depends on the severity of the ulcers.
3. When one encounters 5.2 drops/day, 6 drops can be administered and not 5 drops. This medication is fairly safe if all the steps mentioned in this paper are followed to the letter.
4. The adult daily dose is from 26 to 36 drops and the prophylactic dose is 10 drops daily.

AGE	DAILY DOSE
0 – 6 months	2.4 drops
6 months – 1 year	3.6 drops
1 - 1½ years	4.4 drops
1½ - 2 years	4.8 drops
2 - 2½ years	5.2 drops
2½ - 3 years	5.6 drops
3 - 3½ years	6 drops
3½ - 4 years	6.4 drops
4 - 4½ years	6.8 drops
4½ - 5 years	7.2 drops
5 – 6 years	8 drops
6 – 7 years	8.8 drops
7 – 8 years	9.6 drops
8 – 9 years	10.4 drops
9 – 10 years	11.2 drops
10 – 11 years	12 drops
11 – 12 years	13.2 drops
12 – 13 years	14.4 drops
13 – 14 years	15.6 drops
14 – 15 years	16.8 drops
15 – 16 years	18 drops
16 – 17 years	19.2 drops
17 – 18 years	20.4 drops
ADULT, that is, 18 years and over	10 drops (prophylactic dose) 26 to 36 drops (treatment dose)

RESULTS OF CED GENERAL MEETING IN THE HAGUE

Press Release – 25 May 2016

Representatives of CED Member and Observer organisations met in The Hague, The Netherlands on 20-21 May 2016 for the first General Meeting under the chairmanship of CED President Dr. Marco Landi. The meeting was hosted by the Royal Dutch Dental Association in the context of the Dutch EU Council Presidency. It started with a welcome address by Dr. Hendrike van Drie, acting President of the Royal Dutch Dental Association.

SPECIALIST DENTISTS

A dentist is qualified to carry out all acts performed by specialists and must not be forbidden to perform any activities of specialists. This was the statement unanimously adopted by the General Meeting on 20 May. The main difference between a dentist and a specialist is that the specialist is more likely to perform the activities related to the specialty in question on a daily basis.

SUGAR

Sugar is a leading cause of tooth decay, particularly among children and the elderly. European dentists are very much concerned with the increasing consumption of sugar by EU citizens and have unanimously adopted a resolution to raise awareness to decision-makers to the pain and suffering caused by this preventable disease. Reducing the frequency and amount of sugar consumption are crucial for the prevention of both dental and systemic diseases. The CED believes that action is required to help EU citizens to improve their food choices.

NEW RULES FOR DENTAL AMALGAM

The impact of the Commission's proposal for a regulation on mercury was also discussed by delegates.

The Commission proposes that dental amalgam should be restricted to encapsulated form and the mandatory use of amalgam separators from 1 January 2019.

"The proposal takes into account the opinions of both scientific committees SCHER and SCENIHR. I believe that it is well-considered, proportionate and balanced.

"We would now like to see Member States more engaged in tackling oral diseases, by setting national objectives for dental caries prevention and investing in oral health promotion programmes", says Dr Susie Sanderson, Board Member and Chair of CED Working Group on Amalgam & Other Restorative Materials.

Further information:
http://www.cedentists.eu/index.php?option=com_newsletter&view=newsletter&id=99&sbid=659&tmpl=ajax

FUTURE OF DENTISTRY

European dentists also raised concerns on the future of dentistry.

CED President Dr Marco Landi explains: "I am concerned with the commercial drivers affecting patients' rights to receive dental healthcare in their best interests. The CED will be dedicating more resources to look into this issue".

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.

For more information contact:
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FEDCAR'S EUROPEAN CODE OF CONDUCT FOR DENTISTS

1. PUT PATIENTS' HEALTH INTERESTS FIRST

2. RESPECT THE RIGHT OF PATIENTS TO BE CARED FOR BY THE DENTIST OF THEIR CHOICE

Recall of minimum EU law: individual patients may seek healthcare in a Member State other than the Member State of affiliation (Recital 11 & 29 of Patients Directive).

3. PROVIDE CARE WITH RESPECT, DIGNITY AND WITHOUT DISCRIMINATION

Recall of minimum EU law: "Member States shall ensure that the healthcare providers on their territory apply the same scale of fees for healthcare for patients from other Member States, as for domestic patients in a comparable medical situation, or that they charge a price calculated according to objective, non-discriminatory criteria if there is no comparable price for domestic patients." (Article 4(4) of Patients Directive)

4. NEVER OVERSTATE OR EMBELLISH YOUR ABILITIES AND QUALIFICATIONS, OR ENGAGE IN ANY ACTIVITY, INCLUDING ADVERTISING OR SPEECH THAT COULD MISLEAD A REASONABLE PERSON

4.1 You must make sure that any material you produce is accurate and not misleading, and complies with the Dental Authority's guidance on ethical advertising of the country where you are registered and where you apply the promotional material.

Recall of minimum EU law : "'commercial communication': any form of communication designed to promote, directly or indirectly, the goods, services or image of a company, organisation or person pursuing a commercial, industrial or craft activity or exercising a regulated profession. The following do not in themselves constitute commercial communications:

- iInformation allowing direct access to the activity of the company, organisation or person, in particular a domain name or an electronic-mail address,
- Communications relating to the goods, services or image of the company, organisation or person compiled in an independent manner, particularly when this is without financial consideration;" (Article 2(f), Electronic Commerce Directive)
- "This concept therefore covers (…) professional cards mentioning the title and specialisation of the service provided." (DG Internal Market in The role of European Code of Conduct, 2007)

Recall of minimum EU law: "1. Member States shall ensure that the use of commercial communications which are part of, or constitute, an information society service provided by a member of a regulated profession is permitted subject to compliance with the professional rules regarding, in particular, the independence, dignity and honour of the profession, professional secrecy and fairness towards clients and other members of the profession." (Article 8, Electronic Commerce Directive).

Recall of minimum EU law: "In order to remove barriers to the development of cross-border services within the Community which members of the regulated professions might offer on the Internet, it is necessary that compliance be guaranteed at Community level with professional rules aiming, in particular, to protect consumers or public health; codes of conduct at Community level would be the best means of determining the rules on professional ethics applicable to commercial communication; the drawingup or, where appropriate, the adaptation of such rules should be encouraged without prejudice to the autonomy of professional bodies and associations." (Recital 32, Electronic Commerce Directive).

Recall of minimum EU law: "1. Unfair commercial practices shall be prohibited. 2. A commercial practice shall be unfair if: (a) it is contrary to the require-ments of professional diligence, and (b) it materially distorts or is likely to materially distort the economic behaviour with regard to the product of the average consumer whom it reaches or to whom it is addressed, or of the average member of the group when a commercial practice is directed to a particular group of consumers." (Article 5, Directive 2005/29 on Unfair commercial practices).

A commercial practice that misleads consumers is unfair and, therefore, prohibited, and there is no need to show that it is contrary to the requirements of professional diligence (EU case-law C-435/11).

5. COMMUNICATE EFFECTIVELY WITH PATIENTS

5.1 Use a language that you are sure the patient understands.

Recall of minimum EU law: "Professionals benefiting from the recognition of professional qualifications shall have a knowledge of languages necessary for practising the profession in the host Member State." (Article 53 of RPQ Directive).

"Member States may require that, where the service provider first moves from one Member State to another in order to provide services, he shall inform the competent authority in the host Member State in a written declaration to be made in advance including (…) for professions that have patient safety implications, a declaration about the applicant's knowledge of the language necessary for practising the profession in the host Member State;" (Article 7(f) of RPQ Directive).

5.2 Provide the patient with information complaints procedure.

Continues on page 16.

FEDCAR'S EUROPEAN CODE OF CONDUCT FOR DENTISTS

Continues from page 15.

Recall of minimum EU law: "The Member State of treatment shall ensure that: (…) there are transparent complaints procedures and mechanisms in place for patients, in order for them to seek remedies in accordance with the legislation of the Member State of treatment if they suffer harm arising from the healthcare they receive;" (Article 4(2)(c) of Patients Directive).

6. OBTAIN VALID CONSENT FROM THE PATIENT

6.1 Obtain valid consent before starting treatment, explaining all the relevant options with associated benefits, risks and costs.

6.2 Make sure that patients (or their representatives) understand the decisions they are being asked to make.

6.3 Make sure that the patient's consent remains valid at each stage of investigation or treatment.

Recall of minimum EU law: "The Member State of treatment shall ensure that: (b) healthcare providers provide relevant information to help individual patients to make an informed choice, including on treatment options, on the availability, quality and safety of the healthcare they provide in the Member State of treatment and that they also provide clear invoices and clear information on prices, as well as on their authorisation or registration status, their insurance cover or other means of personal or collective protection with regard to professional liability.

"To the extent that healthcare providers already provide patients resident in the Member State of treatment with relevant information on these subjects, this Directive does not oblige healthcare providers to provide more extensive information to patients from other Member States;" (Article 4(2)(b)) of Patients Directive).

7. ACCEPT RESPONSIBILITY FOR THE CARE PROVIDED BY AUTHORIZED DENTAL PERSONNEL

Recall of minimum EU law: "The Member State of treatment shall ensure that: (b) healthcare providers provide relevant information to help individual patients to make an informed choice, including on treatment options, on the availability, quality and safety of the healthcare they provide in the Member State of treatment and that they also provide clear invoices and clear information on prices, as well as on their authorisation or registration status, their insurance cover or other means of personal or collective protection with regard to professional liability. To the extent that healthcare providers already provide patients resident in the Member State of treatment with relevant information on these subjects, this Directive does not oblige healthcare providers to provide more extensive information to patients from other Member States;" (Article 4(2)(b)) of Patients Directive).

8. ESTABLISH FEES WITH TACT AND MODERATION IN THE INTEREST OF THE PATIENT AND NATIONAL HEALTH SYSTEM

9. DECIDE IN INDEPENDENCE AND WITH IMPARTIALITY ABOUT THE TREATMENT AND SERVICES NEEDED FOR THE PATIENT'S ORAL HEALTH.

Recall of minimum EU law: "(…) this Directive includes also liberal professions, which are, according to this Directive, those practised on the basis of relevant professional qualifications in a personal, responsible and professionally independent capacity by those providing intellectual and conceptual services in the interest of the client and the public. The exercise of the profession might be subject in the Member States, in conformity with the Treaty, to specific legal constraints based on national legislation and on the statutory provisions laid down autonomously, within that framework, by the respective professional representative bodies, safeguarding and developing their professionalism and quality of service and the confidentiality of relations with the client." (RQP Directive, Recital 43)

10. MAINTAIN A SAFE AND HEALTHY OFFICE ENVIRONMENT

11. WORK WITH COLLEAGUES IN A WAY THAT IS IN PATIENTS' BEST INTERESTS

12. PROTECT THE CONFIDENTIALITY OF THE PERSONAL AND HEALTH INFORMATION OF PATIENTS

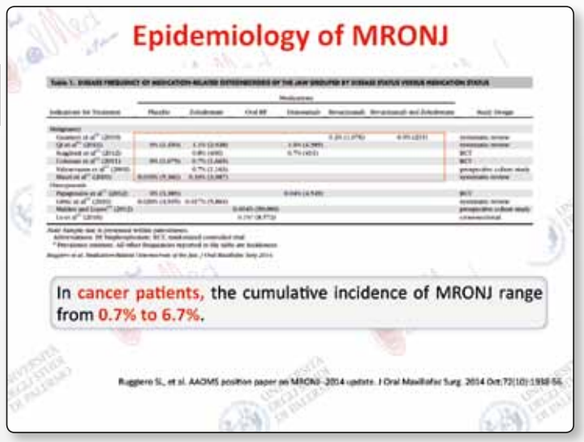
12.1 Protect the confidentiality of personal and health patients' information and only use it for the purpose for which it was given. Only release a patient's information without their permission in exceptional circumstances. Recall of minimum EU law: "1. Member States shall prohibit (…) the processing of data concerning health or sex life. (…) Paragraph 1 shall not apply where processing of the data is required for the purposes of preventive medicine, medical diagnosis, the provision of care or treatment or the management of health-care services, and where those data are processed by a health professional subject under national law or rules established by national competent bodies to the obligation of pro-fessional secrecy or by another person also subject to an equivalent obligation of secrecy." (Data Protection Directive, Article 8(3)).

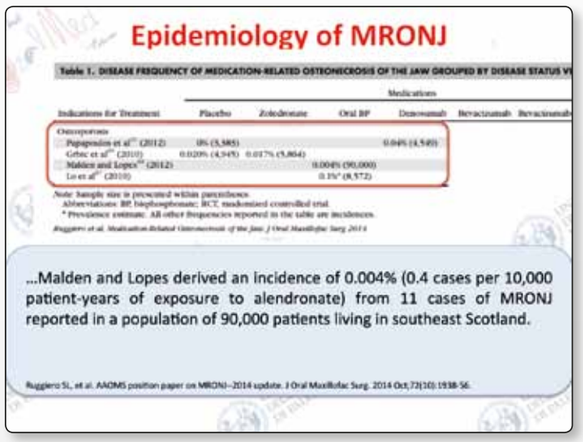
12.2 Ensure that patients can have access to their records. Recall of minimum EU law: "The Member State of treatment shall ensure that: in order to ensure continuity of care, patients who have received treatment are entitled to a written or electronic medical record of such treatment, and access to at least a copy of this record in conformity with and subject to national measures implementing Union provisions on the protection of personal data, in particular Directives 95/46/EC and 2002/58/EC.» (Article 4(2)(f)) of Patients Directive).

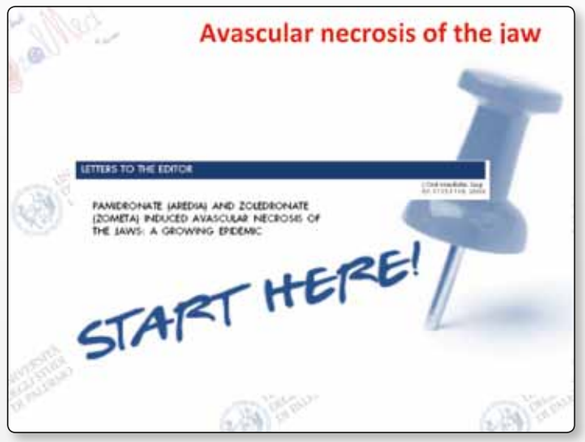
Continues on page 25.

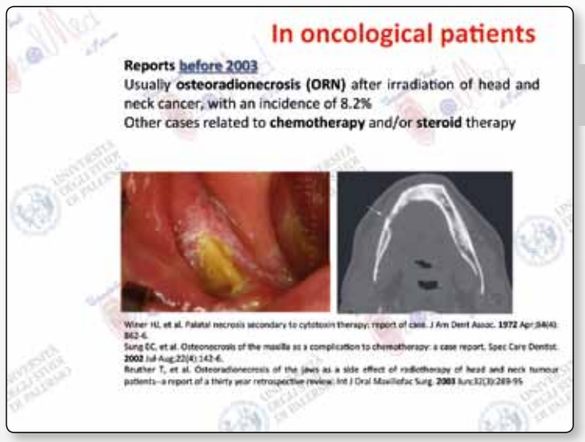
MRONJ: FROM DIAGNOSIS TO DENTAL MANAGEMENT

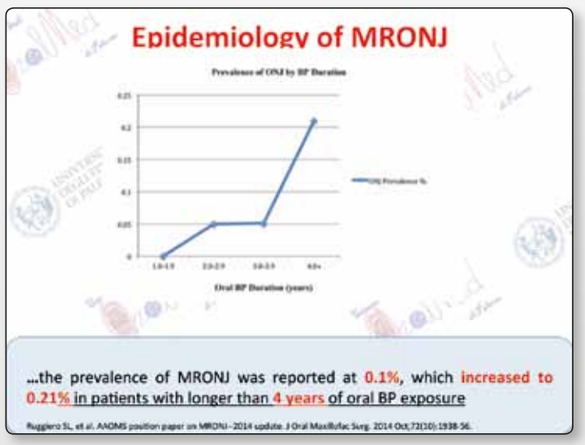
Olga Di Fede, DDS, PhD, MS
Sector of Oral Medicine "V. Margio4a"
University of Palermo

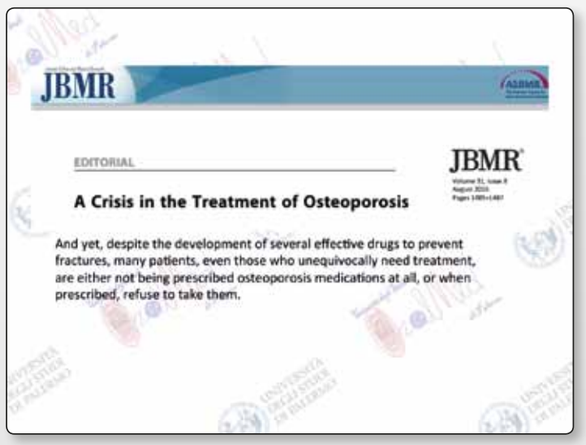


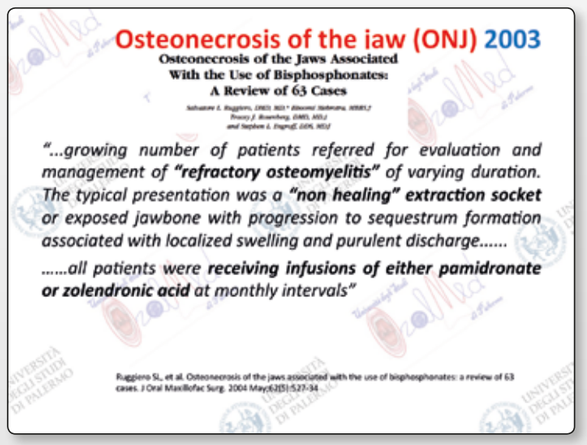












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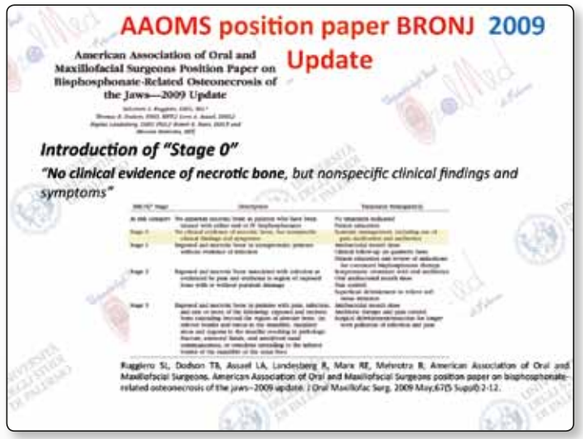
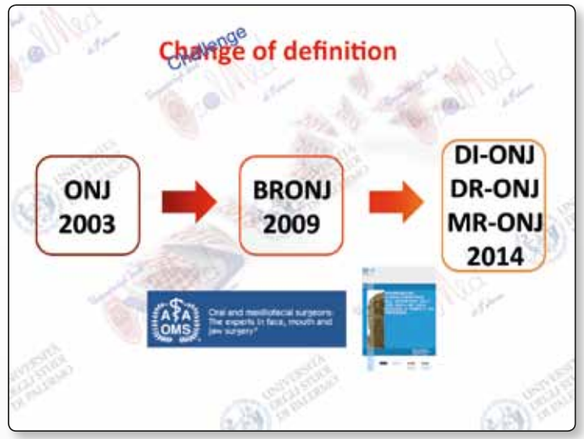
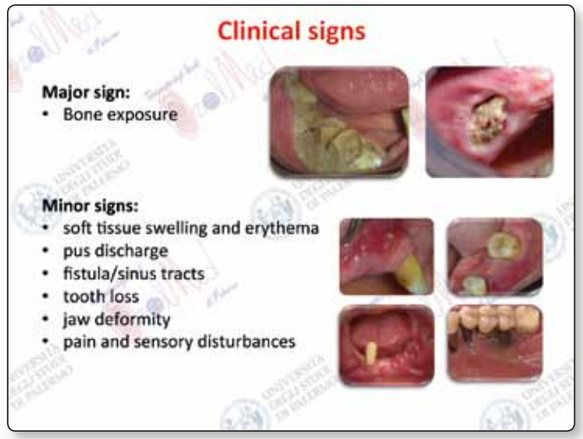
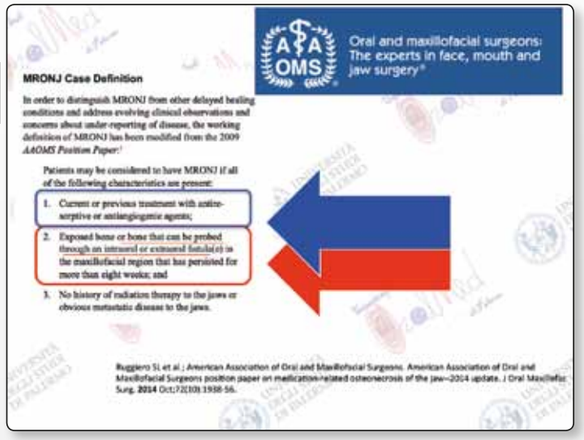
MRONJ: FROM DIAGNOSIS TO DENTAL MANAGEMENT

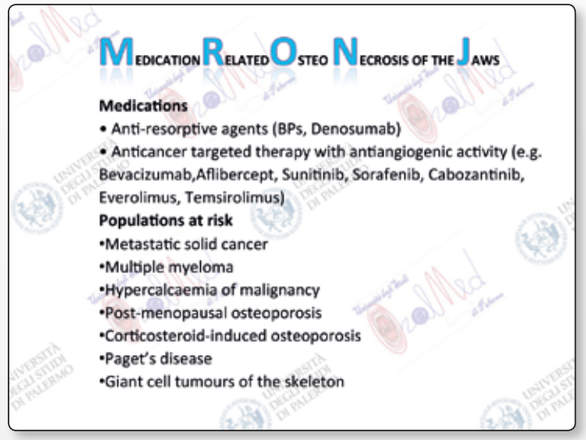
Continues from page 19.

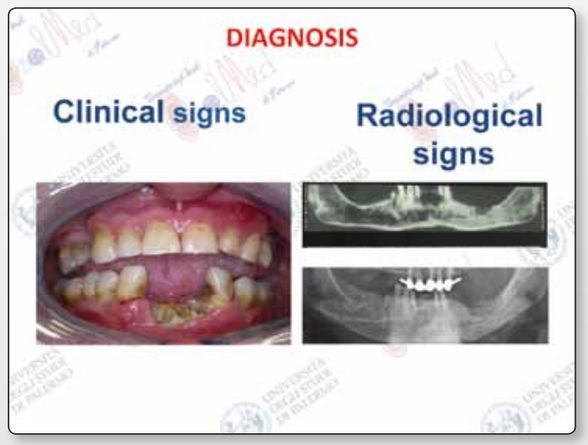


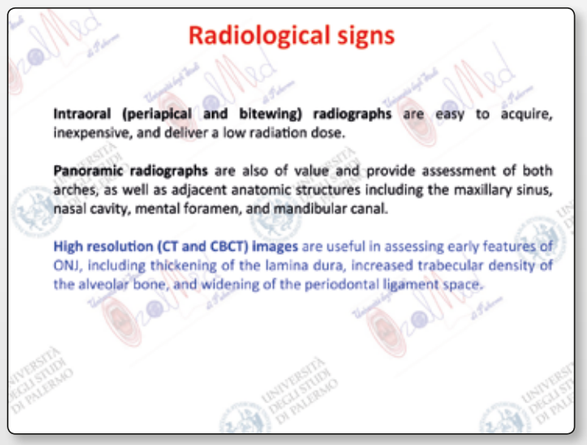


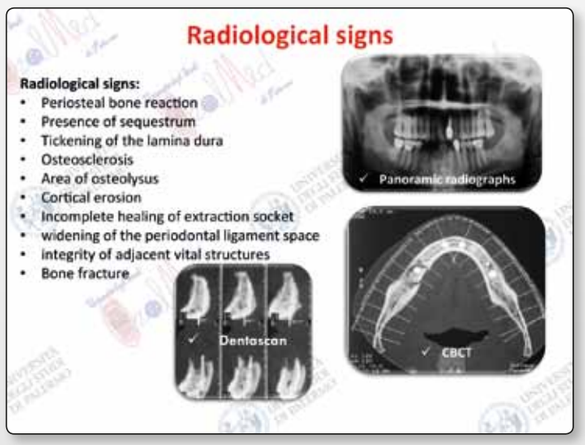












Continues on page 23.

MRONJ: FROM DIAGNOSIS TO DENTAL MANAGEMENT

Continues from page 22.

Staging and Treatment SIPMO/SICMF

MRONJ† Staging	Treatment Strategies‡
At risk category No apparent necrotic bone in patients who have been treated with either oral or IV bisphosphonates	• No treatment indicated • Patient education
Stage 0 No clinical evidence of necrotic bone, but non-specific clinical findings, radiographic changes and symptoms	• Systemic management, including the use of pain medication and antibiotics
Stage 1 Exposed and necrotic bone, or fistulas that probes to bone, in patients who are asymptomatic and have no evidence of infection	• Antibacterial mouth rinse • Clinical follow-up on a quarterly basis • Patient education and review of indications for continued bisphosphonate therapy
Stage 2 Exposed and necrotic bone, or fistulas that probes to bone, associated with infection as evidenced by pain and erythema in the region of the exposed bone with or without purulent drainage	• Symptomatic treatment with oral antibiotics • Oral antibacterial mouth rinse • Pain control • Debridement to relieve soft tissue irritation and infection control
Stage 3 Exposed and necrotic bone or a fistula that probes to bone in patients with pain, infection, and one or more of the following: exposed and necrotic bone extending beyond the region of alveolar bone,(i.e., inferior border and ramus in the mandible, maxillary sinus and zygoma in the maxilla) resulting in pathologic fracture, extra-oral fistula, oral antral/oral nasal communication, or osteolysis extending to the inferior border of the mandible of sinus floor	• Antibacterial mouth rinse • Antibiotic therapy and pain control • Surgical debridement/resection for longer term palliation of infection and pain

MRONJ

- DEFINITION
- DIAGNOSIS
- RISK ASSESSMENT
- DENTAL PROTOCOLS

MRONJ risk in cancer patients

AAOMS position paper 2014

Asymptomatic patients receiving IV BPs and/or antiangiogenic drugs **for cancer:**

"...procedures that involve direct osseous injury **should be avoided"**...*or better.. performed before BP-if necessary*

Cancer patients in treatment with MRONJ-related medications should be considered at **high risk of MRONJ even after a single infusion of BPS in the presence of local risk factors** (e.g. dental/periodontal infection)

Potential predisposing risk factors:
- Concomitant chemotherapy
- Treatment with glucocorticoids or thalidomid
- Length of exposure to BP treatments
- Presence of comorbidities

MRONJ cases have been reported after treatment including **antiangiogenic agents** and other targeted therapy, **with or without antiresorptive drugs.**

MRONJ risk factors in non-cancer patients

AAOMS position paper 2014

Asymptomatic patients receiving antiresorptive therapy **for osteoporosis: "elective dentoalveolar surgery** does not appear to be controindicated **in this group.**

The risk of developing MRONJ associated with oral BPs appears to increase when the duration of the therapy exceed 4 years. The time maybe shortened in the presence of certain comorbidities..."

Ruggiero SL et al.; American Association of Oral and Maxillofacial Surgeons. American Association of Oral and Maxillofacial Surgeons position paper on medication-related osteonecrosis of the jaw--2014 update. J Oral Maxillofac Surg. 2014 Oct;72(10):1938-56.

Prevention of MRONJ

Dental screening and **appropriate dental measures** before initiating anti-resorptive therapy lowered the risk of ONJ in several prospective studies.

Early screening: examination of the oral cavity and a **radiographic assessment** in order to identify acute infection and sites of potential infection and to prevent future sequelae.

It includes **patient motivation and education** regarding dental care.

Khan A, Morrison A, Cheung A, Hasbem W, Compston J. Osteonecrosis of the jaw (ONJ): diagnosis and management in 2015. Osteoporos Int. 2016 Mar;27(3):853-9
Ruggiero SL, Dodson TB., Mehrotra B, O'Ryan F; American Association of Oral and Maxillofacial Surgeons. American Association of Oral and Maxillofacial Surgeons position paper on medication-related osteonecrosis of the jaw--2014 update. J Oral Maxillofac Surg. 2014 Oct;72(10):1938-56.

MRONJ risk factors

Oral risk factors	Strength
Dental implant surgery	+++
Dental/periodontal infection	++
Removable dentures	+++
Dentoalveolar surgery	
Simple dental extraction	+++
Regenerative bone procedures	++
Endodontic surgery	++
Periodontal surgery	++
Preimplant bone surgery	+++
Anatomical conditions	
Tori and exostosis	+/-
Pronounced mylohyoid ridge	+

Risk factor	Strength
Drug (BP)	
Proshot (subdermate vs other)	+++
Route of administration (iv vs oral)	++
Cumulative dosage	+++
Duration of treatment	+++
Underlying disease for which treatment with N-BP is indicated	
Solid tumors	++
Multiple myeloma	++
Supportive care	
Chemotherapy	-/+
Steroids in cancer patients	-/+
Antiangiogenic drugs (i.e., bevacizumab and sunitinib)	++
Thalidomide	+/-
Erythropoietin stimulation factors	+/-

Lifestyle	
Smoking	+/-
Alcohol	-/+
Obesity	+/-
Individual features	
Sex	+/-
Age	+/-
Genetic factors	+/-
Comorbidity	
Diabetes	+/-
Rheumatoid arthritis	+
Hypocalcemia, hyperparathyroidism	+
Vitamin D deficit, osteomalacia	+
Renal dialysis	+/-
Anemia	+/-

Campisi G, Fedele S, Fusco V, Pizzo G, Di Fede O, Bedogni A. Epidemiology, clinical manifestations, risk reduction and treatment strategies of jaw osteonecrosis in cancer patients exposed to antiresorptive agents. Future Oncol. 2014 Feb;10(2):257-75

Risk assessment of MRONJ in osteoporotic patients

ONJ in **non-cancer patients** has been associated with **duration of BPs treatment**, with an estimated **range of 1.6 to 4.7 years**, with a **median** of 2.7 years.

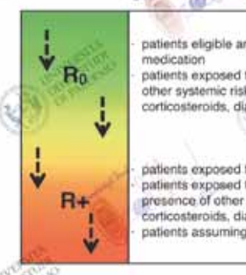
The **current level of evidence is not strong** and hence there is no agreement between the scientific society in the assessment of the risk in this group of patients.

Lapi F, Cipriani F, Cupadi AP, Corrao G, Vaccheri A, Sturkenboom MC, Di Bari M, Gregori D, Carle F, Stanicka T, Vestri A, Brandi M, Fusco V, Campisi G, Mazzaglia G; Bisphosphonates Efficacy-Safety Tradeoff (BEST) study group. Assessing the risk of osteonecrosis of the jaw due to bisphosphonate therapy in the secondary prevention of osteoporotic fractures. Osteoporos Int. 2013 Feb;24(2):697-705

Risk assessment of MRONJ in osteoporotic patients

SPMO

(local triggers not considered)



- patients eligible and not yet treated with MRONJ related medication
- patients exposed to BPs for less than 3 years, in the absence of other systemic risk factors (i.e. concomitant use of corticosteroids, diabetes, rheumatoid arthritis)

- patients exposed to BPs for more than 3 years
- patients exposed to BPs for less than 3 years and in the presence of other systemic risk factors (i.e. concomitant use of corticosteroids, diabetes, rheumatoid arthritis)
- patients assuming BPs by im

NEW

Main local triggers

UNIPA (2012-2015) **Pt followed** at least 6 months after exo **N=510**	**ONJ after exo N(%)** Pre-Drug Primary prevention YES	**ONJ after exo N(%)** Pre-Drug Primary prevention NO	
Cancer pt **N= 140**	**3/71 (4.23%)**	**11/69 (15.94)**	**P value 0.0425**
Non-cancer pt At risk (>3yrs BP) **N= 370**	**0/91 (0.0)**	**3/279 (1,08%)**	

Periodontitis and specific **IgG titers against P. gingivalis** are greatly **associated with ONJ.** Three possible mechanisms:

1)Patients with **periodontitis** are more likely to have **teeth extracted** and dentures

2)Periodontitis increases remodeling demands on jaw bone,

3)Existing periodontitis and NBP exposure might act synergistically to **increase the inflammatory environment in the periodontium**

Periodontitis occurs in 71% to 84% of ONJ cases

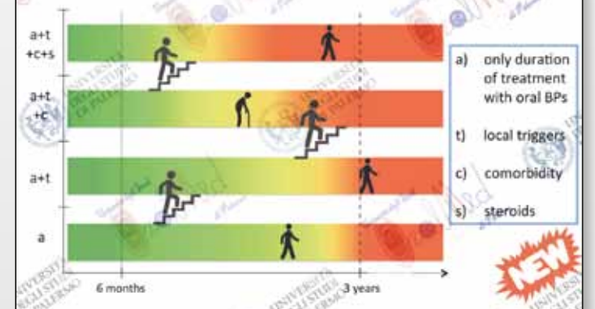
Dental implants should be **avoided in oncologic patients** treated with **intravenous BPs,** while for patients receiving **oral BPs,** dental implant placement is **not explicitly contraindicated.**

- Short term risk: related to **surgical trauma in patients at high risk of MRONJ**
- Long term risk: related to **peri-implantitis** and **microcracks** (not definable risk)

Tsao C, Darby I, Ebeling PR, Walsh K, O'Brien-Simpson N, Reynolds E, Borromeo G. Oral health risk factors for bisphosphonate-associated jaw osteonecrosis. J Oral Maxillofac Surg. 2013 Aug;71(8):1360-6.
Kwon TG, Lee CO, Park JW, Choi SY, Rijal G, Shin HI, Osteonecrosis associated with dental implants in patients undergoing bisphosphonate treatment. Clin Oral Implants Res. 2014 May;25(5):632-40.

Risk assessment of BRONJ in osteoporotic patients

SPMO



NEW

MRONJ

- DEFINITION
- DIAGNOSIS
- RISK ASSESSMENT
- DENTAL PROTOCOLS

Continues on page 30.

FEDCAR'S EUROPEAN CODE OF CONDUCT FOR DENTISTS

Continues from page 16.

12.3 Keep patients' information secure at all times, whether your records are held on paper or electronically. (mHEALTH initiative, draft General Data Protection Regulation).

13. ENSURE THAT THE DENTAL TEAM MAY RAISE CONCERNS IF PATIENTS OR COLLEAGUES ARE AT RISK

13.1 Act promptly if patient's or colleague's health is at risk and take measures to protect them.

13.2 Make sure if you employ, manage or lead a team that you encourage and support a culture where staff can raise concerns openly and without fear of reprisal.

13.3 Make sure if you employ, manage or lead a team that there is an effective procedure in place for raising concerns, that the procedure is readily available to all staff and that it is followed at all times. Recall of minimum EU law: healthcare professionals are encouraged to report to the manufacturer or to their competent authority in accordance with national guidance, any serious incident in respect of devices made available on the Union market (current Guidelines on a medical devices vigilance system; Article 61 of the draft proposal of Regulation on Medical Devices). Likewise, they are encouraged to report adverse drug reaction (Regulation 1027/2012 & Directive 2012/26 on pharmacovigilance).

14. PARTICIPATE IN THE PERMANENT CARE AND ON-CALL DUTY THAT ARE ORGANIZED IN YOUR COUNTRY OF PRACTICE

15. BE TRUTHFUL AND OBEY ALL APPLICABLE LAWS OF THE COUNTRY WHERE HIS PRACTICE TAKES PLACE, AS A TRAINEE OR A FULLY QUALIFIED PROFESSIONAL, WHETHER ON A AD HOC OR ON A PERMANENT BASIS

Recall of minimum EU law: "(…) the person providing a service may (…) temporarily pursue his activity in the Member State where the service is provided, under the same conditions as are imposed by that State on its own nationals." (Article 57 TFEU in fine).

Recall of minimum EU law: "Where a service provider moves, he shall be subject to professional rules of a professional, statutory or administrative nature which are directly linked to professional qualifications, such as the definition of the profession, the use of titles and serious professional malpractice which is directly and specifically linked to consumer protection and safety, as well as disciplinary provisions which are applicable in the host Member State to professionals who pursue the same profession in that Member State." (Article 5 of RPQ Directive).

"The service provider should be subject to the application of disciplinary rules of the host Member State having a direct and specific link with the professional qualifications, such as the definition of the profession, the scope of activities covered by a profession or reserved to it, the use of titles and serious professional malpractice which is directly and specifically linked to consumer protection and safety." (Recital 8 of RQP Directive).

Recall of minimum EU law: Where a dentist moves, he shall be subject to the pro-fessional rule for calculating fees or the rule prohibiting unprofessional advertising provided they are compatible with the Single Market's requirements (case-law C-475/11, para.35-46).

Recall of minimum EU law: "Nationals of a Member State who practise their profession in another Member State are bound to observe the rules that govern the practice in that Member State of the profession in question. Where the professions of doctor, dentist and veterinary surgeon are concerned, those rules are in particular those inspired by concern to protect the health of humans and animals as efficiently and fully as possible." (case-law C-351/90). Recall of minimum EU law: When completing a professional traineeship in a host Member State or in a third coutry, the dental trainee is subject to guidelines on the recognition and on the organisation of the professional traineeship, in particular on the role of his supervisor (Article 55a RPQ Directive).

16. MAINTAIN, DEVELOP AND WORK WITHIN HIS PROFESSIONAL KNOWLEDGE AND SKILLS

16.1 Continuing professional development (CPD) activity is not mandatory in all EU countries.

16.2 You must however make sure that you know how much continuing professional development (CPD) activity is required for you to maintain your registration in your country of establishment and that you carry it out within the required time.

17. MAKE SURE HIS PERSONAL BEHAVIOUR MAINTAINS PATIENTS' CONFIDENCE IN HIS PERSON AND THE DENTAL PROFESSION

17.1 Maintain appropriate and dignified boundaries in relationships with patients.

17.2 Ensure that your conduct, both at work and in your personal life, justifies patients' trust in you and the public's trust in the dental profession.

17.3 Protect patients and colleagues from risks posed by your health, conduct or performance.

18.IN CASE OF PROFESSIONAL MOBILITY, INFORM THE HOME COMPETENT AUTHORITY AND LIAISE WITH THE HOST COMPETENT AUTHORITY

18.1 Co-operate with any relevant formal or informal (e.g. European Certificate of Current Professional Status) inquiry and give full and truthful information.

Continues on page 36.

ARE YOU LOOKING FOR A PROFESSIONAL INDEMNITY POLICY OR ABOUT TO RENEW YOUR POLICY? **SPEAK TO MIB!**

Together with the Dentists Association of Malta, MIB have set up a scheme exclusively for the members of DAM.

This scheme includes the following:

- Most competitive premium available for Professional Indemnity cover in Malta & Gozo;
- Widest cover available;
- Various Limits of Indemnity to choose from;
- Optional extensions to choose from including:
  - European Jurisdiction
  - Retroactive Cover
  - Botox & Dermal fillers extension
- Claims support in the event of a claim

On the other hand if your policy is already insured under the scheme, you need to ensure that:

- Your limit of indemnity is still adequate;
- Your cover still reflects your present operation, example if you are performing Botox &/or Dermal fillers you have availed yourself of the relative extension.

Contact MIB for a no obligation quotation on +356 234 33 234 or email info@mib.com.mt

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KA1 ERASMUS+ PROJECT DISSEMINATION
THE USE OF COMPOSITE MATERIAL IN THE RESTORATION OF ANTERIOR TEETH

Co-funded by the Erasmus+ Programme of the European Union

By Dr Alison Xuereb BChd(Melit)
and Dr William Borg BChd(Melit)MSc(Melit)

Dental materials have advanced greatly over the past years. In particular, composite resin have been improved and enhanced in many aspects. A composite material consists of two main components – the resin phase and the reinforcing filler. The resin conveys advantages such as the ability to be moulded and shaped freely at ambient temperatures, coupled with the fact that setting through polymerisation can be achieved in a controlled fashion and in a conveniently short time.
The filler on the other hand conveys advantages such as rigidity, hardness, strength and a lower value for the coefficient of thermal expansion.

In addition to all these advantages, a high proportion of filler content will significantly decrease the value of setting contraction. Different types, shapes, sizes and amounts of filler incorporated in a composite resin will impart different properties to the composite material, meaning that the plethora of composite materials one can select for a specific clinical scenario is quite extensive. Another key advantage is that composite materials adhere to tooth structure.

Nowadays, and it has been for quite a while, the key word in dentistry is conservation and minimal invasiveness. The idea is to cut as little tooth tissue as possible, while restoring what has been lost through decay, trauma and wear or as a result of genetic or developmental tooth malformations. Anterior teeth are particularly prone to trauma, for example during motor-vehicle accidents. Accidents in playgrounds are also quite common.Individuals who engage in close-contact or combat sports have a much higher incidence of damaging their anterior teeth due to trauma, even though wearing a mouth guard has become compulsory across many different disciplines. With the advent of adhesive dentistry, restoring such teeth while conserving as much natural tooth tissue as possible, has become one of the mainstays of modern dentistry.

Before embarking on a detailed discussion on restoration of anterior teeth, it is important to note that case selection is a key factor. Mild to moderate loss of tooth tissue can, in many cases, be successfully restored with adhesive composite materials.

However, severe loss of tooth tissue usually requires the use of bonded porcelain. At the same time, patient expectations and any recommendations have to be discussed in detail and patient consent has to be obtained prior to commencing any treatment.

When discussing restorations on anterior teeth, the aesthetic qualities of the material have to be as close to tooth structure as possible. In particular, optical properties of the material have to be as similar to tooth material as possible(1-4). Apart from this, the general characteristics required of all restorative materials (including the ones used for restoration of posterior teeth) still have to be met. The techniques employed during the actual restoration will also have a great impact on the aesthetic qualities. Harmonization with the surrounding tooth structure, colour and the rest of the oral tissues is imperative if the operator wants to achieve a good aesthetic result. It is therefore important to, first and foremost, understand the characteristics of natural tooth colour in order to be able to develop composite materials that can replicate these characteristics.

Colour is light, such is the law of physics. The interaction between light and composite materials has to be comparable to the interaction between light and dental tooth tissue (5). The understanding of colour and the components making it up is of utmost importance for biomimetic tooth restoration.

Colour is a general termencompassing the spectrum making up the rainbow. The three primary colours – red, blue and yellow – and their combinations together make up white light.

Hue refers to the specific characteristics of colour that distinguish red from blue from yellow. It depends mainly on the dominant light wavelength emitted or reflected from an object. Mixing together of the three primary hues produces all other hues. With respect to tooth colour, four main hues are considered – yellow-orange, white, blue and amber(5).

Chroma means colourfulness – how much hue can be found in a colour. The purer the colour the higher its chroma, for example dark blue has a high chroma value while light blue has a low chroma value. Achromatic colours appear grey as they have no hue.

Value can be described as how light or dark a colour is. Value is important for determination of form and the illusion of space. Bright colours have a high value and vice versa.

Saturation refers to intensity. It refers to the concentration of a certain colour pigment that determines the strength of the colour, for example, dense blue or faint blue.

Opalescence describes a milky appearance that can appear to have various colours when viewed from different angles. It is a term usually used to describe dentine.

Fluorescence refers to the ability of a material to emit light while exposed to light. The wavelength of the light emitted is longer than that of the light absorbed.

Dentine is responsible for hue, chroma and fluorescence of teeth. Value is attributed to enamel(5).

Apart from the characteristics describing light and colour interaction, the method of application of the restorative material is also greatly influential. One of the methods described that can be easily applied clinically is a stratification technique, whereby different composite materials differing in visual characteristics are applied in layers to mimic the strata found in dental tissues – dentine and enamel.

Dentine and enamel have different compositions which together make up tooth colour. Dentine has a tubular structure composed of collagen and calcium depositions. By contrast, enamel consists of densely packed hydroxyapatite crystals that give it its hard, translucent properties and also make it very resistant to chemical attack. Since dentine is more opaque than enamel, it is the characteristics of the overlying enamel layer that determine tooth colour. Translucency or opacity of enamel in turn depend on enamel thickness that is influenced by tooth wear of various forms, both chemical and physical. Enamel shade can also be influenced by procedures such as tooth bleaching.

The first step is colour determination of the natural tooth following the characteristics described above. Colour charting is important as colour varies from one part of the tooth to another.

Several individual characterizations such as demineralisation lesions can also be charted andmimicked in the final result, if necessary and/or if the patient wishes.

Other characterizations to be take into consideration include mammelons and any cracks that can appear in older teeth. (5). Shade taking requires skill and certain criteria need to be followed. The shade should be taken when the tooth is moist as it differs when the tooth is dry(1).Bright light sources should be avoided and natural light used. Bright backgrounds and surroundings (such as lipsticks and brightly painted surgery walls) should also be minimized. Shade-taking is very often carried out using shade-guides. The Classic VITA Shade Guide (Vident; Brea, CA) presents four basic hues (A, B, C, D) and four chromas for each hue. (5) Nowadays, however, several digital tools exist, such as SpectroShadeTMMicro (MHT Optic Research AG) to help the operator determine the tooth shade in a more accurate and less time-consuming manner. Digital photography is another important tool for the analysis of colour dimensions as it allows more detailed examination of a tooth on a computer (5).

The initial preparations prior to commencement of the stratification technique involve the following steps: an impression is first taken to create a diagnostic wax-up. A putty material can be used to produce a silicone key which can be cut to leave only the palatal surface intact. Cavity preparation is as minimal as possible, using a small high-speed round bur to create a 90°butt joint on the palatal and interproximal margins and a short chamfer in the buccal margin. A rubber slow-speed polishing bur is used to smoothen the surfaces (5).

The procedure is strictly done under rubber dam. Adhesion is completely dependent on a dry field; any amount of moisture contamination will inhibit adhesion and lead to failure. After the surfaces are etched, an adhesive bonding agent is used and excess is removed by spraying gently with air. A second layer may then be applied.

Stratification occurs by first building a thin palatal enamel shell using the silicone key created. Once this layer is light-cured, the silicone key can be removed. The dentinal body is built up a layer at a time, making sure to leave enough space for inter-dental enamel interproximally. Roughening and shaping of dentine is done at this stage before curing. Interproximal enamel composite is then placed, followed by any specific characterizations.The final vestibular enamel composite layer can then be placed. A small brush may be used to smoothen out this final layer. Final rough and fine polishing can then be carried out.Polishing imparts brilliance to the restoration surfaces (5).

Stratification techniques are important to achieve excellent aesthetic results. It has been proven that use of composite material in 0.5mm increments can very accurately match the opalescence, transparent and fluorescence characteristics of both enamel and dentine (6).

Restoring defects in anterior teeth can be quite challenging. To achieve the same tooth structure, morphology and texture can be quite a task. To ensure maintenance of results, periodic maintenance is always necessary (6).

All of the above and much more were highlighted during the SIDOC (SocietaItaliana di OdontoiatriaConservatrice) conference titled 'Fundamentals and new trends in Esthetic Restorative Dentistry' on the 12th and 13th February 2016.

We attended this conference as part of the KA1 EU training programme in Rome organised by the DAM. A series of inspirational lectures were given by renowned speakers all of whom presented their own personal takes on several different restorative and conservational techniques.

Overall, their motivation and the effort and energy with which they practiced their profession, as well as their plentiful experience and knowledge was really an eye-opener to us, and probably also to all those who were present.

REFERENCES:

Vanini L, Mangani FM. Determination and communication of color using the five color dimensions of teeth. PractProcedAesthet Dent. 2001;13(1):19-26.

Vanini L. Light and color in anterior composite restorations. Pract Periodontics Aesthet Dent. 1996 Sep;8(7):673-82.

Vanini L, Mangani F, Klimovskaia O. Conservative restoration of anterior teeth. Viterbo (Italy): Editing ACME; 2005

Vanini L. Anatomic stratification technique. Presented at the 26th Annual AACD Scientific Session; Grapevine, TX, April 27, 2010

Vanini L. Conservative composite restoration that mimic nature. A step-by-step anatomical stratification technique. J of Cosmetic Dent. 2010 Fall;26(3):80-98.

Kirilova J, Kirov D, Topalova-Pirinska S. Stratification Technique in Maxillary Anterior Incisors Restoration. J of IMAB. 2014 Jul-Sep;20(3):550-553. Doi: http://dx.doi.org/10.5272/jimab.2014203.550

MRONJ: FROM DIAGNOSIS TO DENTAL MANAGEMENT

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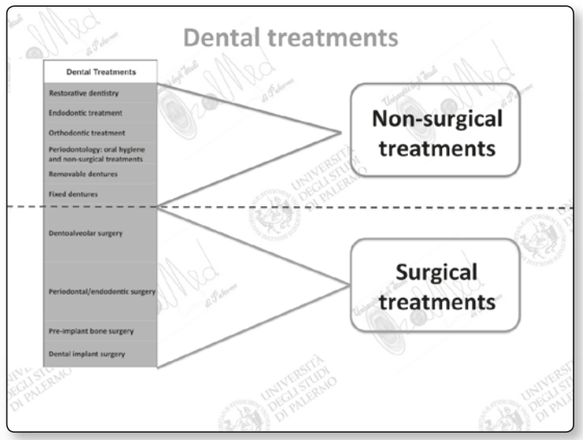

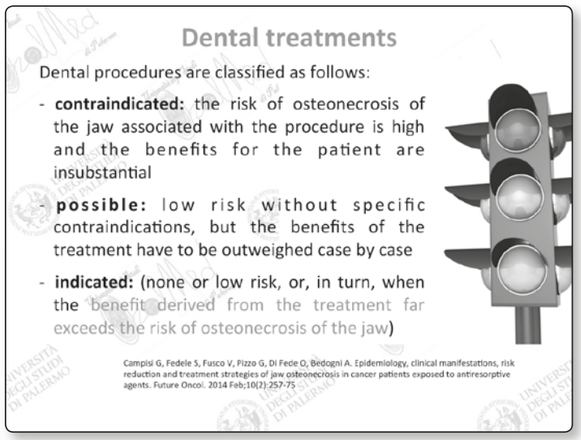

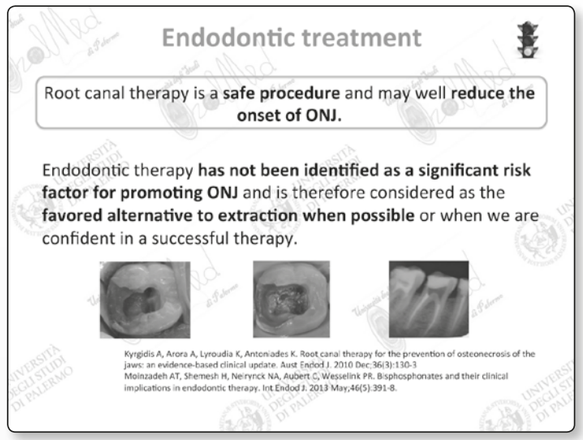

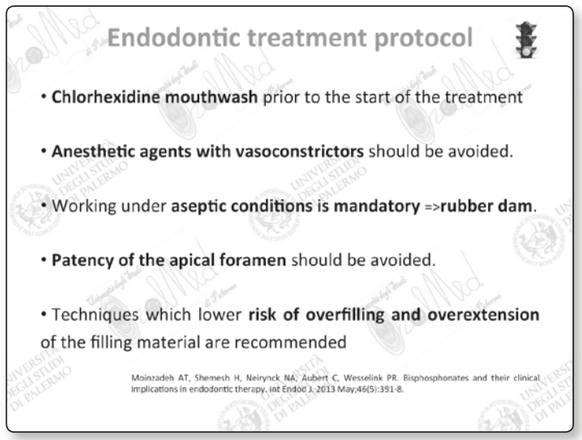

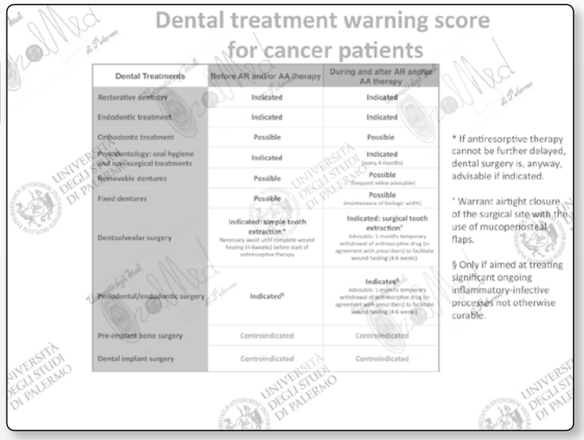

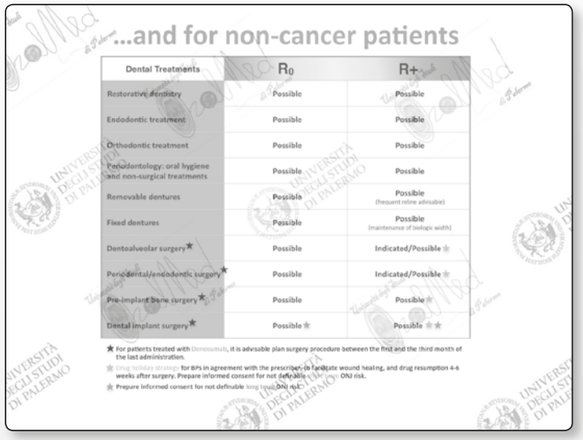

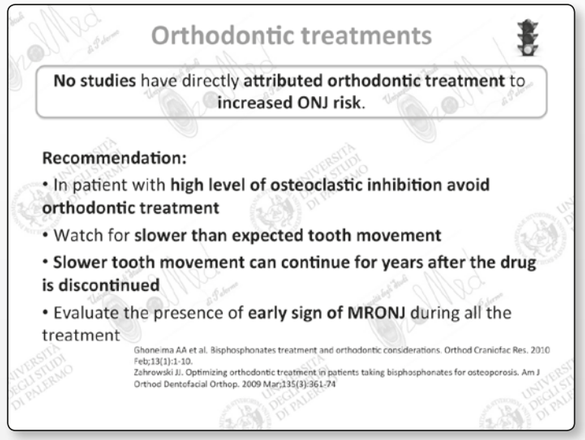

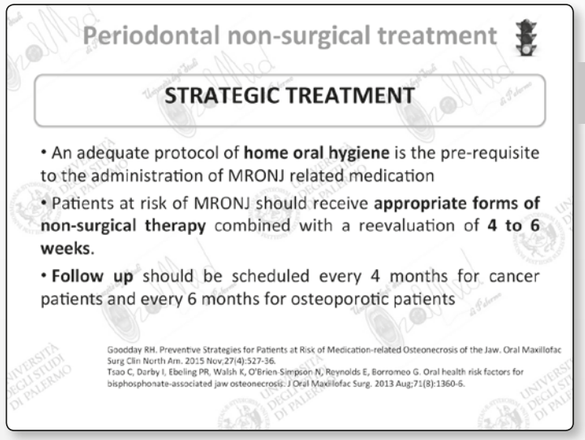

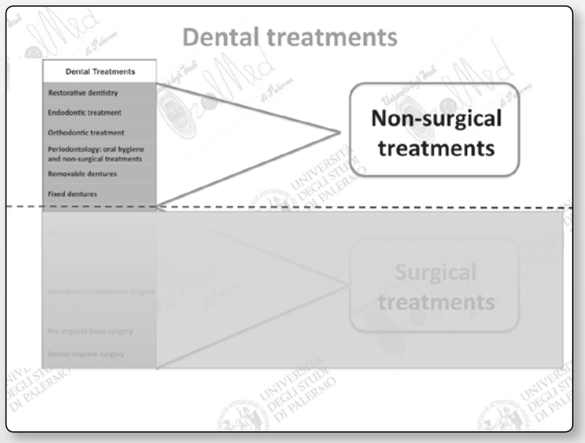

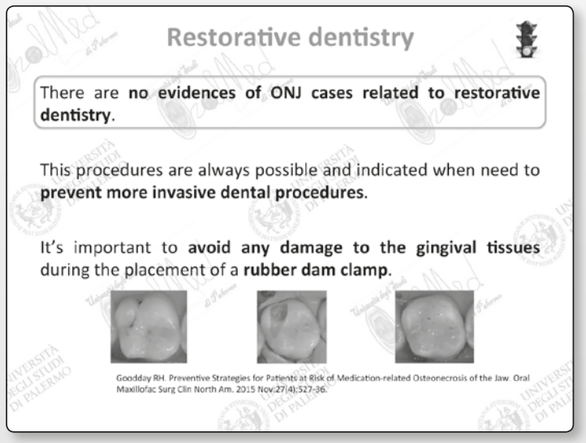

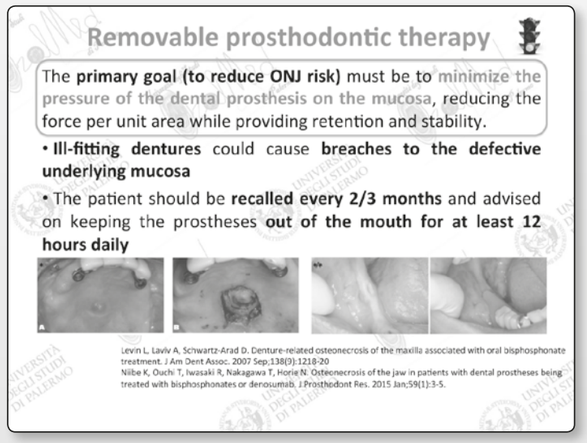

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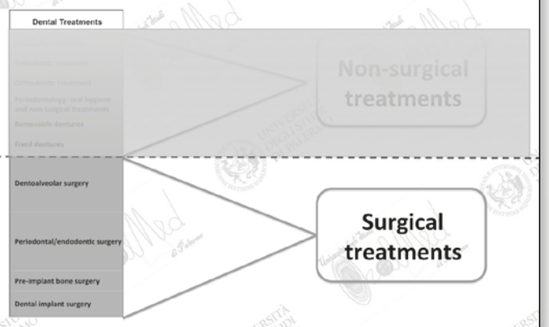
MRONJ: FROM DIAGNOSIS TO DENTAL MANAGEMENT

Continues from page 31.

Dental treatments



Dental implants

While implant placement should be **avoided in cancer patients**, it is a potential elective procedure in non-cancer patients.

Rare risk of MRONJ need to be explained to the patients and is advisable to achieve the **informed consent**:

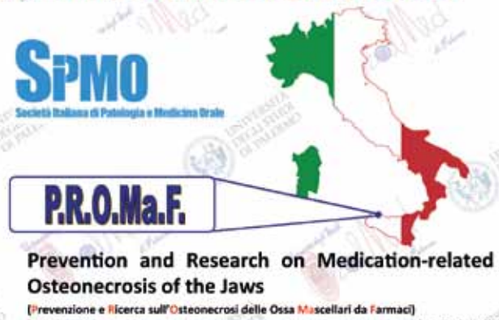
R_0	- **Long term** risk: related to **peri-implantitis** and **microcracks** (not definible risk)
R+	- Short term risk: related to **surgical trauma in patients at high risk of MRONJ** - Long term risk: related to **peri-implantitis** and **microcracks** (not definible risk)

Protocol should consider appropriateness of:

- Antibiotic prophylaxis
- Drug Holiday
- Suture of the flaps to achieve a tension-free soft tissue closure

Bedogni A., Campisi G., Fusco V., Agrillo A. Clinical and therapeutic recommendations on Osteonecrosis of the Jaw associated with Bisphosphonates and its prevention. Version 2.0. SICMF-SPMO. (In press)

Experience of dental surgery protocols



Prevention and Research on Medication-related Osteonecrosis of the Jaws

(**P**revenzione e **R**icerca sull'**O**steonecrosi delle Ossa **M**ascellari da **F**armaci)

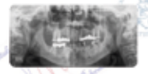
Previously PRUMeB protocol. Prevention and research for bisphosphonates-related Osteonecrosis of the Jaws, funded by the Health Department –Regional Health Authority, Sicily – Prot. n. 1779

P.R.O.Ma.F. protocol

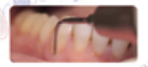
Preliminary stage:

- Assessment of the **patient's category**: - Cancer patients
  - Non-cancer patients

- **Radiological investigation for dental visit and care** [1st level- OPT; 2nd level- CT]



- In presence of **poor oral hygiene**, provide plaque and tartar removal



Periodontal/endodontic surgery

- All patients at high risk of MRONJ development should avoid surgical procedures.

- Where surgical procedures cannot be avoided, periodontal and endodontic **surgical procedures are indicated** to treat significant ongoing inflammatory-infective process not otherwise curable

- Surgical procedures should be guided by the **same recommendation applied to dentoalveolar surgery:**

- Medical therapy
- Drug holiday
- Suture of the flaps to achieve a tension-free soft tissue closure

Goodday RH. Preventive Strategies for Patients at Risk of Medication-related Osteonecrosis of the Jaw. Oral Maxillofac Surg Clin North Am. 2015 Nov;27(4):527-36.
Campisi G, Fedele S, Fusco V, Pizzo G, Di Fede O, Bedogni A. Epidemiology, clinical manifestations, risk reduction and treatment strategies of jaw osteonecrosis in cancer patients exposed to antiresorptive agents. Future Oncol. 2014 Feb; 10(2):257-75

What happens if dental surgical procedures (extraction or endo-perio surgery) are indispensable to control local infection?

P.R.O.Ma.F. dental surgery protocol

Pre-operative stage:

- **"Drug holiday"** planning
  to be discussed with the prescriber

- **Medical therapy** prescription

Pre-operative stage

Drug holiday

Suggested among **risk-reduction strategies**, the **choice to discontinue** the medication should always be taken together with the **prescribing physician**

	Active pharmaceutical ingredient	Last administration	Therapy resumption
Cancer pt	Bisphosphonate	1 week before	4-6 weeks after
	Denosumab (AR)	1 week before	4-6 weeks after
	Bevacizumab (AA)	6-7 weeks before	4-6 weeks after
	Sunitinib (AA)	1 week before	4-6 weeks after
Non-cancer pt	Active pharmaceutical ingredient	Last administration	Therapy resumption
	Bisphosphonate*	1 week before	4-6 weeks after
	Denosumab (AR)	NO SUSPENSION**	

* Administered by more than three years or for less than three years and in the presence of other systemic risk factors (e.g. chronic use of systemic corticosteroids, rheumatoid arthritis)

** Suspension is not needed thanks to the latency between drug administrations (i.e. every 6 months). It is useful to perform invasive procedures between the first and the third month from the last administration, so as to ensure an adequate period for healing before the next dose.

Bedogni A., Campisi G., Fusco V., Agrillo A. Clinical and therapeutic recommendations on Osteonecrosis of the Jaw associated with Bisphosphonates and its prevention. Version 2.0. SICMF-SPMO. (In press)

Pre-operative stage:

Drug Holiday

- A **temporary cessation** has been suggested among **risk-reduction strategies**
- It is possible that the **healing potential** of bone and mucosa could progressively **improve following the cessation of medication**, by reducing drug accumulation into the operated site
- There remains **no study demonstrating significant benefits** from drug holiday
- The choice to **discontinue the medication** should always be taken together with the **prescribing physician**

Campisi G, Fedele S, Fusco V, Pizzo G, Di Fede O, Bedogni A. Epidemiology, clinical manifestations, risk reduction and treatment strategies of jaw osteonecrosis in cancer patients exposed to antiresorptive agents. Future Oncol. 2014 Feb;;10(2):257-75

Preventive strategies

	Pre-operative stage	Post-operative stage	Drug Holiday
Heufelder et al. Oral Surg Oral Med Oral Pathol Oral Radiol 2014;117:e429-435	• Amoxicillin/clavulanic acid (875mg/125mg) every 12 hours, starting 48 hours before surgery	• Amoxicillin/clavulanic acid (875mg/125mg) every 12 hours, for 7 days	Not specified
Lodi G et al. J Oral Maxillofac Surg 2010; 68:107-110	• Professional oral hygiene, 2-3 wk before • Chlorexidne 0,2% rinse once a day • Amoxicillin/clavulanate (1gr tablets) every 8 hours, starting 3 das before surgery	For 17 days: •Amoxicillin/clavulanic acid (875mg/125mg) every 8 hours •Chlorexidine gel 1%, 3 times/days	No
Saia G. et al. J Oral Maxillofac Surg 2010;68:797-804	Only in patients with a VAS greater then 5: •**Amoxicillin/clavulanic acid** (875mg/125mg) 3 times/day for 3 days and 2 times/day for 4 days • **Metronidazole** (500 mg) 3 times/day for 4 days and 500 mg 2 times/day for 4 days Patients with a know allergy to penicillin were given 500mg of lyncomicin b.i.d for 7days	• **Amoxicillin/clavulanic acid** (875mg/125mg) 3 times/day for 3 days and 2times/day for 4 days • **Metronidazole** (500 mg) 3 times/day for 4 days and after 2 times/day for 4 days Patients with a know allergy to penicillin were given 500mg of lyncomicin b.i.d for 7days	Yes: 1 month before dental procedure
Scoletta S. et al. J Oral Maxillofac Surg 2010; 69:456-462	• Professional oral hygiene, 2 wk before • Chlorexidne 0,2% rinse b.i.d. for 7 days • Amoxicillin/clavulanic acid (875mg/125mg) every 8hr, starting 1 day before surgery Patients with a know allergy to penicillin assumed erythromicin tablets (600 mg) every 8hr	• amoxicillin/clavulanate (1gr tablets) every 8hr, for 6 days Patients allergic to penicillin assumed erythromicin tablets (600 mg) every 8hr	Not specified

P.R.O.Ma.F. dental surgery protocol

Pre-operative medical therapy

Antibiotic systemic treatment

- **amoxicillin/clavulanate potassium:** 1 gr per os 3xdaily, starting 1 day pre-operatively
- **metronidazole*:** 500mg per os 3xdaily, starting 1 day pre-operatively

In patients reporting penicillin allergy, **lincomycin**: 500 mg per os 2xdaily starting 1day pre-operatively

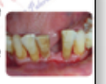
Chlorexidine 0,2% mouthwashes 3x daily starting 7 days pre-operatively

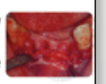
Gastrointestinal probiotics 1x daily starting 1 day pre-operatively

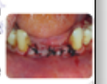
* Offlabel use, written informed consent is needed

Clinical procedures:

1. One minute mouthrinse with **0,2% Chlorexidine (CHX)**
2. Anesthesia achieved using **3% mepivacaine hydrochloride without adrenaline**
3. Elevation of a **full-thickness mucoperiosteal flap** to expose the surgical area
4. Tooth **luxation and avulsion** gently performed
5. If necessary, osteotomy and/or subsequent osteoplasty were done with an ultrasonic surgical device
6. **Debridment** and irrigation with rifamycin sodium of the post-extraction socket
7. Use, where available and suitable, laser bio-stimulation and/or ozone bio-stimulation, or autologous platelet concentrates.
8. Suture of the flaps to achieve a **tension-free soft tissue closure**







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MRONJ: FROM DIAGNOSIS TO DENTAL MANAGEMENT

Continues from page 33.

P.R.O.Ma.F. protocol

Post-operative medical therapy

Antibiotic prophylaxis:

- **Amoxicillin/clavulanate potassium:** 1gr per os 3xdaily for 6 days
- **Metronidazole*:** 500 mg per os 3xdaily for 7 days

In patients reporting penicillin allergy, **lincomycin**: 500mg per os 2xdaily for 6 days)

Chlorexidine 0,2% mouthwashes: 3x daily 15 days

Gastrointestinal probiotics x daily 15 days

Chlorexidine 0,5% gel 3xdaily for 10 days

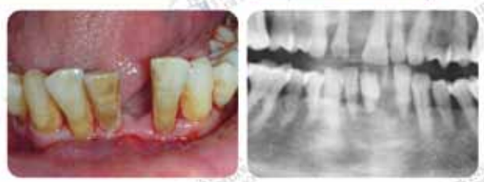
Amino-acids and sodium hyaluronate gel 3xdaily for 10 days

* Offlabel use, written informed consent is needed

Standard protocol – example

Pt: C.G.

- **Primary disease: Osteoporosis**
- **In therapy with medication ONJ-associated: Risedronic acid (38 months)**
- **Poor oral condition:** presence of plaque and tartar, teeth 4.2 - 4.1 - 3.2 with mobility grade III, spontaneous loss of the tooth 4.1

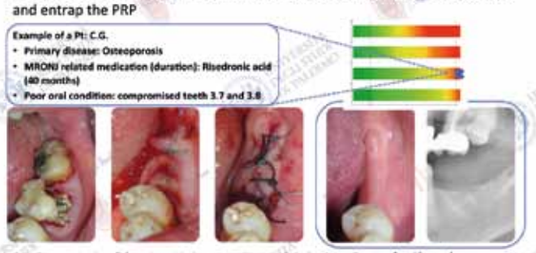


Standard protocol + PRP

The PRP **(Platelet-Rich Plasma)** is applied in the post-extraction socket, then the suture of the flaps is made to achieve a tension-free soft tissue closure and entrap the PRP

Example of a Pt: C.G.

- **Primary disease: Osteoporosis**
- **MRONJ related medication (duration): Risedronic acid (40 months)**
- **Poor oral condition: compromised teeth 3.7 and 3.8**



in collaboration with the Immunohaematology Service and Transfusion Medicine (SIMT),responsible Dr. G. Mazzola

after 12 months

Standard protocol + L-PRF

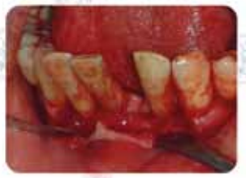
L-PRF **(Leukocyte- and Platelet-Rich Fibrin)** is a **dense fibrin matrix**, so the execution of **flaps may be avoided.** The post-extraction sockets is filled with L-PRF, then suture is applied to maintain the stability of the L-PRF.

Example of a Pt: Q.C.

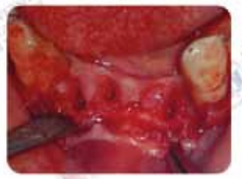
- **Primary disease: Breast Cancer**
- **MRONJ related medication (duration): Zoledronic acid (7 months)**
- **Poor oral condition:** presence of plaque and tartar, tooth 4.8 with mobility grade III

Clinical case

Exposure of the surgical area, through the elevation of a **full-thickness mucoperiosteal flap**

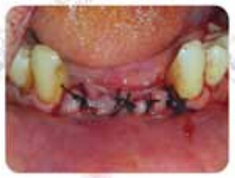


Tooth **luxation and avulsion** and **debridment** of the post-extraction sockets

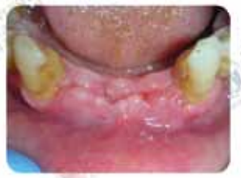


Clinical case

Suture of the flaps to achieve a tension-free soft tissue closure

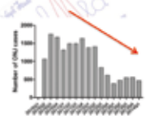


Remove the suture at seven days



Conclusions

- Although MRONJ **epidemiology and pathogenesis remain unclear,** significant improvement have been made to **improve risk-reduction strategies**
- Elective **surgical procedure** can be **safely carried out** in some cohorts
- **Specific surgical protocols** must be applied when surgical procedures are mandatory **to treat** significant ongoing **inflammatory-infective process**

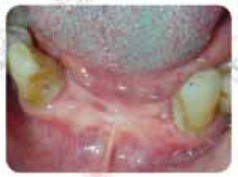


Conclusions

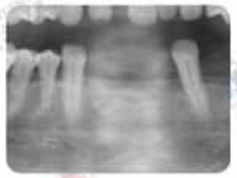
- **Patients** must be **aware of the risk of MRONJ** related to surgical procedures
- Any **invasive surgical procedure** in patients at risk of MRONJ should combined with **broad-spectrum antibiotic prophylaxis**
- **"Drug holiday"** should be discussed with prescribers
- **A tension-free soft tissue closure** should be achieved every time a flap is necessary

Clinical case

Follow up visit at 12 months



Panoramic radiography (detail) at 12 months



Dental extraction and platelet concentrates

The use of **autologous platelet concentrates** as an **adjunct to oral surgery** procedures may have a beneficial effect, improving bone and soft tissue healing.

The three types mostly used are:

-PRP: platelet-rich plasma

-PRGF: plasma rich in growth factors

-PRF: platelet-rich fibrin

All are characterized by a **concentration of platelets** higher than in systemic blood, which develops an exponential **release of multiple bioactive factors** (VEGF, PDGF, TGF-β, CTGF).

Del Fabbro M, Gallesio G, Mozzati M. Autologous platelet concentrates for bisphosphonate-related osteonecrosis of the jaw: treatment and prevention. A systematic review of the literature. Eur J Cancer. 2015 Jan;51(1):62-74.

Conclusions

The increasing awareness of the risk for ONJ among health care providers

+

The institution of appropriate dental screening before the initiation of MRONJ-related medications

+

The development of consensus guidelines and position papers **regarding dental procedures**

Safe procedure

Counselling

MRONJ Cases

FEDCAR'S EUROPEAN CODE OF CONDUCT FOR DENTISTS

Continues from page 25.

18.2 Inform the Dental Authority to which you are registered or to which you intend to register if you are subject to criminal proceedings or a regulatory finding is made against you anywhere within the EU.

Recall of minimum EU law: "Moreover, for the first provision of services or if there is a material change in the situation substantiated by the documents, Member States may require that the declaration be accompanied by the following documents: (…) for professions in the security sector, in the health sector and professions related to the education of minors, including in childcare and early childhood education, where the Member State so requires for its own nationals, an attestation confirming the absence of temporary or final suspensions from exercising the profession or of criminal convictions;" (Article 7(2)(e) of RPQ Directive).

"The competent authorities of the home and the host Member States shall exchange information regarding disciplinary action or criminal sanctions taken or any other serious, specific circumstances which are likely to have consequences for the pursuit of activities under this Directive." (Article 56(2) of RPQ Directive).

Recall of minimum EU law: "The competent authorities of a Member State shall inform the competent authorities of all other Member States about a dentist, a specialist dentist or any other professionals exercising activities that have patient safety implications where the professional is pursuing a profession regulated in that Member State" (RPQ Directive, Article 56a).

ANNEX I – COPY OF FORMER FEDCAR'S ETHICAL PRINCIPLES ADOPTED IN NOVEMBER 2008 (UNDER THE FORMER NAME OF CODE) :

CODE Ethical Principles

C.O.D.E. is the Conference of Orders and Assimilated Bodies of Dental Practitioners in Europe bringing together European competent authorities responsible for the regulation, the registration and the supervision of dental practitioners. In November 2008, CODE members agreed to set core ethical principles.

Why?

- In the context of increased mobility of practitioners, some general principles are necessary both for professionals and patients crossing borders
- The European Commission is promoting the development of codes of conduct at European level.
- CODE Members represent European authorities that are responsible for imple-menting national codes of ethics. They consider they have a role to play in the process of establishing common principles of good conduct for dental practitio-ners at European level.

What?

The objective of this CODE initiative is not to harmonise national rules. It does not intend to replace national Ethics codes that must be respected by all dental practitioners work-ing in a specific country.

CODE Members commit to respect these core ethical principles and ensure that their national Codes of Ethics do not conflict with these common principles.

The core principles

These are the core ethical principles for those that practice dentistry in the EU, according to the definition provided by the directive 2005/36/EC: "dental practitioners are gener-ally able to gain access to and pursue the activities of prevention, diagnosis and treat-ment of anomalies and diseases affecting the teeth, mouth, jaws and adjoining tissue (…)" (article 36.3).

Continues on page 38.

PAYMENT FORM

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

TO:

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

NAME: _____

ADDRESS: _____

_____

_____

FEDCAR'S EUROPEAN CODE OF CONDUCT FOR DENTISTS

Continues from page 36.

As a dental practitioner, you must:

1. Put patients' interests first and act to protect them
2. Respect patients' dignity
3. Give appropriate information to patients and respect their choices
4. Protect the confidentiality of patients' information
5. Cooperate with the appropriate national authorities and other healthcare colleagues in the interest of patients
6. Maintain your professional knowledge and competence
7. Be trustworthy
8. If you intend to treat patients in any member state you must inform the competent authority in that country.

ANNEX II - EXTRACTS FROM DIRECTIVE 2000/31 ON CERTAIN LEGAL ASPECTS OF INFORMATION SOCIETY SERVICES, IN PARTICULAR ELECTRONIC COMMERCE, IN THE INTERNAL MARKET (DIRECTIVE ON ELECTRONIC COMMERCE)

Note that this Directive applies to health professions.

(Recital 32) In order to remove barriers to the development of cross-border services within the Community which members of the regulated professions might offer on the Internet, it is necessary that compliance be guaranteed at Community level with professional rules aiming, in particular, to protect consumers or public health; codes of conduct at Commu-nity level would be the best means of determining the rules on professional ethics applica-ble to commercial communication; the drawing-up or, where appropriate, the adaptation of such rules should be encouraged without prejudice to the autonomy of professional bodies and associations.

(49) Member States and the Commission are to encourage the drawing-up of codes of conduct; this is not to impair the voluntary nature of such codes and the possibility for in-terested parties of deciding freely whether to adhere to such codes.

Article 8 – Regulated professions

1. Member States shall ensure that the use of commercial communications which are part of, or constitute, an information society service provided by a member of a regulated profession is permitted subject to compliance with the professional rules regarding, in particu-lar, the independence, dignity and honour of the profession, professional secrecy and fair-ness towards clients and other members of the profession.

2. Without prejudice to the autonomy of professional bodies and associations, Member States and the Commission shall encourage professional associations and bodies to establish codes of conduct at Community level in order to determine the types of information that can be given for the purposes of commercial communication in conformity with the rules referred to in paragraph 1

3. When drawing up proposals for Community initiatives which may become necessary to ensure the proper functioning of the Internal Market with regard to the information referred to in paragraph 2, the Commission shall take due account of codes of conduct applicable at Community level and shall act in close cooperation with the relevant professional asso-ciations and bodies.

4. This Directive shall apply in addition to Community Directives concerning access to, and the exercise of, activities of the regulated professions.

GLOSSARY

Patients Directive refers to: Directive 2011/24 of 9 March 2011 on the application of patients' rights in crossborder healthcare.

RPQ Directive refers to: Revised Directive 2005/36 of 7 September 2005 on the recognition of professional qualifications.
Electronic Commerce Directive refers to: Directive 2000/3 of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market

Health initiative refers to: The Green Paper on mobile Health ("mHealth") published on 10 April 2014 along with a public consultation on the merits of mHealth and on the needs to enhance its regulation.

Draft General Data Protection Regulation: Proposal for a Regulation updating and modernising the protection of personal data.

SALIENT POINTS FROM 'DENTAL PHOTOGRAPHY' ITI LECTURE BY DR EDWARD SAMMUT

1. A mobile phone never produces an image of sufficient quality for publication or for reference purposes.
2. Prime lenses have a fixed focal length. They have a high resolving power.
3. One should always buy a filter. This in addition protects the lens.
4. Impose aperture. The aperture is the priority. We want a depth of field. The aperture will boost the flash and the exposure will be uniform.

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TAKE-HOME

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What was great, just **got better!**

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- **Gentle 6% hydrogen peroxide formula minimizes risk of sensitivity**
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