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Patient Centered, Minimally Invasive Dentistry - A Caring Paradigm
Think all toothpastes work the same?

Colgate Total® is proven to help prevent gingival inflammation.¹

**Colgate Total® contains a Triclosan + Copolymer formula that helps fight gingival inflammation in two ways:**¹ ² ³ ⁴

- **Kills plaque bacteria for a full 12 hours² to help reduce plaque by up to 98% and gingivitis by up to 88%³.**
- **Shown to directly reduce gingival inflammation⁴**

**Reduction compared with control**

<table>
<thead>
<tr>
<th></th>
<th>Plaque</th>
<th>Gingivitis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plaque and Bleeding Scores</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ordinary Fluoride Toothpaste</strong></td>
<td>0.25</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Colgate Total®</strong></td>
<td>0.15</td>
<td>0.8</td>
</tr>
</tbody>
</table>

**Gingivitis Index Score⁶**

- **Baseline:** 1.2
- **Time:** 1.0
- **6 months:** 0.8

**At sites with Plaque Index Score = 0**

Refer to Colgate Total® package for approved uses


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Dear respected friends and colleagues,

The past 5 months have been very hectic and certainly very prolific. We have successfully organized 4 major zone conferences and 9 Community Oral Health Projects and countless local CPD Seminars. The Council has been working very hard at all levels, the zones have also been very industrious, contributing to the overall productivity of our association and its valued members.

- **Zone Conference expanding towards national level**
  It is inspiring to know that our Zone CPD, i.e. 2nd Melaka Symposium, 3rd MDA-SDA Joint Conference, 9th Penang Dental Conference and the 1st Miri Dental Conference and the 1st Miri Dental Conference have expanded into national level events. Each of these conferences have achieved record attendance, reflecting the remarkable efforts of the local organizing committees.

- **Young and energetic members are revitalizing the MDA**
  It is also encouraging to note that many young graduates are volunteering their efforts to help MDA grow. This is in line with our vision of encouraging more young talents to serve the MDA. I hope that MDA would be a good training ground to groom our future leaders to lead our beloved association to the next level.

- **Community Social Responsibility Projects**
  We have also organized 9 Community Oral Health Awareness cum Free Dental Screening projects, i.e. Sibu, Bintulu, Penang, IMU (KL) and the other 4 in Bentong organized in conjunction with the Ministry of Health. We have the opportunity to work with new strategic partners to pool the resources together and create a greater positive impact. For instance, we have collaborated with the Rotary Club in Sibu and Bintulu, we are partners with IMU in their Free Dental Screening and Education project, we have teamed up with Lion’s Club and the Ministry of Health in 4 difference constituencies of Bentong, we worked with Morning Kiss and Farlin Shopping Mall in Penang, just to name a few. We are now looking into building a strategic partnership with the Lembaga Promosi Kesihatan Malaysia (LPKM), better known as the Malaysian Health Promotion Board.

On 6th Nov 2010, we further our commitment by offering free dental screening and treatment to the Orang Asli in Pahang. This noble project is made possible with the smart partnership with the Lion's Club and the Ministry of Health. MDA is broadening our presence by partnering with the government and NGOs, who share the similar objectives and combine resources to contribute to our community and uplift our professional image.

**MDA’s PEACE Mission and Vision**

<table>
<thead>
<tr>
<th>Professional</th>
<th>MDA seeks to unite all sectors of services, civil, military dental, academia, private under one umbrella; bringing all specialties together and integrating the dental students, technician, dental nurses, therapists and auxiliaries within one Dental family. This transcends into both horizontal and vertical integration.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>This comprises Continuing Professional Development (CPD) at local, zone, national and international levels. We have evolved from national to international status last year for our 67th AGM/FDI International Convention and have gained recognition from MYCEB (Malaysian Convention and Exhibition Bureau) and MATRADE (Malaysia External Trade Development Corporation). We have also begun to attract more overseas dental exhibitors to our international conferences. This has brought about educational and economic benefits to our profession as well as the nation.</td>
</tr>
<tr>
<td>Ascension to International Level</td>
<td>MDA has been very active in holding top key positions in International Dental Professional organizations such as, FDI, APDF, the Commonwealth Dental Association, CHINA-ASEAN Forum. With the Asia Pacific region propelling the world economy, it is timely for MDA to continue to exert our influence and help lead the regional national dental associations (NDAs) into prominence.</td>
</tr>
<tr>
<td>Community Service</td>
<td>Community Dental Service has always been at the heart of MDA. We were extremely active this year. MDA have organized 15 big scale ‘Free Public Dental Screenings’ throughout the nation from Jan-Nov 2010. This is highly commendable, made possible by collaboratio with other stakeholders. One potential strategic partner would be the Malaysian Health Promotion Board (LPKM) for future oral health promotion activities.</td>
</tr>
<tr>
<td>Environment</td>
<td>World Environment Day would be celebrating its 11th Anniversary on Sunday 5th of June 2011. Each year on this designated day, the UN (United Nation) seeks to focus world attention on the environment, and in particular, on positive programmes that work towards protecting or restoring the world’s natural heritage. MDA would like to actively promote World Environment Day through spreading the “MDA Going Green Project”. We aim to save on printing, utilities costs and promote public awareness to do our bit towards saving our ailing Earth.</td>
</tr>
</tbody>
</table>
Shaping the Direction for the MDA in line with our National Oral Health Plan 2011-2020

On 16th Oct 2010, MDA was invited by the Ministry of Health, along with all other stakeholders to put our visions together in shaping the future direction for the next 10 years.

We sincerely invite all members to share our PEACE Mission and together we can contribute towards our National Oral Health Plan and materialize our 1 Malaysia 1 Dental Family Dream. This dream, however, will not be complete without our Wisma MDA.

Wisma MDA Project – Setting up the Wisma MDA Board
To set things into action and make our dreams come true, the Council has been working very hard to source land to build our very own Wisma MDA. I have invited some outstanding past Presidents as well as prominent figures within our dental profession to serve in the Wisma MDA Board. This would be a standing committee to be approved and endorsed by the House during the General Assembly and empower the Board to serve till the completion of the Project. We are honoured to invite our Honorable Minister and Deputy Minister of Health to serve as Advisors to our Board and this has also clearly demonstrated our full commitment and integration to government and private partnership.

The Wisma MDA is not a dream, it is a reality if we all work and pray together for this noble project for our Dental Family.

Dato’ Dr How Kim Chuan
President
Malaysian Dental Association

Dear friends and colleagues,
Assalamualaikum and Salam 1 MDA!
I hope it is not too late to wish our Muslim members a happy ‘Hari Raya Aidilfitri’, and yet November is going to be another festive month where our Indian and Muslim friends are going to celebrate Deepavali and Hari Raya Aidiladha respectively. I hope this festive month will bring happiness and strong unity among us.

FDI World Dental Congress 2010
This year the FDI World Dental Congress was held in Salvador de Bahia in Brazil. The journey to Salvador was a very tiring one. Nevertheless, MDA was well represented in all official business meetings and functions. Below were the MDA representatives:

1. Dr. How Kim Chuan
2. Dr. Mohamad Muzafar Hamirudin
3. Dr. Neoh Gim Bok
4. Dr. Haja Badrudeen
5. Dr. V. Nedunchelian
6. Datuk Dr. N. Lakshmanan
7. Dr. Nurul Asyikin Yahya

However, it was unfortunate that Dato’ Prof. Dr. Ratnanesan could not join our contingent this year due to his medical condition. His presence would have undoubtedly helped to boost the support from the delegates for Dr How Kim Chuan’s candidacy for FDI councilor post. I really admire our President’s charisma and commitment for the betterment our association. His efforts were well received amongst the international delegates who attended for this convention.

Internationalization of MDA
MDA has planned to strengthen ties with the regional dental associations and to be active in Asia Pacific Dental Federation (APDF). This would elevate MDA’s image as one of the major key players in striving for excellence in the dental profession. In the recent meeting with SDA’s President, SDA has agreed to share and exchange their local and international speakers with MDA to provide CPD talks in Malaysia, and vice-versa.

As the chairman for the MDA International Relations Committee Dato’ Prof. Dr. A. Ratnanesan has pledged to:

a) His committee will assist the Organizing Committee for the MDA-Commonwealth Dental Association Congress in 2012.
b) Further promotional efforts are to be made for the 35th APDC with the guidance of the Organizing Committee.
c) A major effort will be sustained to secure the bid to host a future FDI Annual World Dental Congress in Kuala Lumpur, Malaysia.
Dear Members,

I trust that everyone is doing well. The MDA secretariat is now running smoothly with all the staff doing an excellent job of maintaining the office. The 18th FDI/MDA Scientific Convention and Trade exhibition will be held on 15th to 17th January 2011. I hope all members will grab this opportunity to collect CPD points which may be required for next year’s APC applications. Under the able leadership of Dr. Teh Tat Beng, the organizing committee have come up with excellent scientific programmes designed to improve our knowledge and clinical skills.

I also wish to inform members at present that the Ministry of Health is reviewing and amending Rules and Regulation PHFSA 1998. As such the scale of fees under PHFSA are also up for review. MDA, together with all its affiliates and associates have been given the task to come up with dental schedules of fees for a report to the Fee Schedule Task Force set up by Ministry of Health.

Under the guidance of Dr. Elise Monerasinghe, the Senior Principal Assistant Director, Oral Health Division of MOH, a meeting was called on the 2nd October 2010. A comprehensive fee schedule model was drawn up with the involvement of the affiliates and associates. Dr. Elise had compiled all the feedback and the resultant fee schedule, referred to as MDA Schedules of Fees. Feedback and comments were received on the “proposed and compiled” document from various affiliates, some with apprehension, though most were concurring. MDA will assist all parties in conveying any opinions and disagreement before the finalization of the said document in accordance with the PHFS Act format, via a Dialogue Session (details below).

We strongly urge all interested parties to attend this Dialogue to ensure that the proposed scale of fees can be finalized in the spirit of diligence, professionalism and cooperation amongst the dental community. MDA is in the process of arranging an additional Dialogue Session prior to the above date, pending confirmation from relevant government agencies in the MOH. I will keep members informed of further developments regarding this.

Best wishes,

Dr. Neoh Gim Bok
Honorary General Secretary
Malaysian Dental Association

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**Continuous Professional Development**

We have planned to upgrade and organize bigger scale scientific conventions right at your doorstep. It is hoped that the CPD programmes would work out to be more cost effective and elevated in terms of quality. Please block your diaries for the following conventions:

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Location</th>
<th>Event/Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>November</td>
<td>13-14th November 2010</td>
<td>JW Marriot, Miri</td>
<td>Miri Dental Congress</td>
</tr>
<tr>
<td>January</td>
<td>14-16th January 2011</td>
<td>KLCC, Kuala Lumpur</td>
<td>18th FDI/MDA Scientific Convention &amp; Trade Exhibition</td>
</tr>
<tr>
<td>February</td>
<td>20th February 2010</td>
<td>TBA</td>
<td>JB Symposium cum MDASZ AGM 2011</td>
</tr>
<tr>
<td></td>
<td>26th - 27th February 2011</td>
<td>TBA</td>
<td>2nd AGM/Borneo Dental Congress</td>
</tr>
<tr>
<td></td>
<td>27th February 2011</td>
<td>City Bayview Hotel, Penang</td>
<td>MDA Northern Zone AGM</td>
</tr>
<tr>
<td>April</td>
<td>17th April 2011</td>
<td>TBA</td>
<td>Ipoh CPD Programme</td>
</tr>
<tr>
<td>June</td>
<td>10-12th June 2011</td>
<td>KLCC</td>
<td>68th MDA AGM/FDI International Scientific Convention and Trade Exhibition</td>
</tr>
</tbody>
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**Dialogue Session between the Dental Affiliates and officials from Ministry of Health**

**Date:** 14 January 2010, Friday  
**Time:** 2.30pm  
**Venue:** KLCC Convention Centre

**Agenda:**
1) Professional Scale of Fees  
2) Dental Act Amendment
On the morning of 27th August 2010, the Malaysian Dental Association met the Minister of Health, Dato Seri Liow Thong Lai at his office. Also present was the Director General of Health, Tan Sri Merican Ismail and Director Oral Health Division, Dato’ Norian Abu Talib. Other attendees include Dr. Mohd Rashid Baharom, Dr. Khairiyah Abd Muttalib and Dr. Husna Abbas from the Oral Health Division, MOH and Dr. Noormi Othman from the Malaysian Dental Council. MDA’s representation included Dr. How Kim Chuan, Dr. Lee Soon Boon, Prof Emeritus Dr Lian Chin Boon (Interim President of Academy of Dental Specialists), Dato’ Dr Ratnanesan, Brigadier General Dato Dr Ilham and other council members.

The President of MDA, Dr. How Kim Chuan, briefly introduced the MDA delegation, which had a broad representation from both private and public sectors. With the current total membership of 3580 members, MDA consists of 80% of the country’s total population of dentists, and is currently the largest dental association in South East Asia.

The Health Minister welcomed the new MDA council members and congratulated Dr. How Kim Chuan’s ascension as the President of MDA. Below are some important points discussed during the meeting:

- **Manpower Needs**
  Presently, the Health Ministry is focussed on the distribution of manpower in the Oral Health Division. The Minister pointed out the following concerns:

  1) Lack of dentists in Sabah and Sarawak and the need for mobile dental clinics in some remote areas.
  2) In Peninsular Malaysia, most of the dentists are in the cities/towns and lacking in rural areas.

  Meanwhile, SCODOS (Section Concerning Dental Officers & Specialists) appealed to YB Dato Seri Liow that automatic promotion at age of 54 will create a bottleneck in the service as there are not enough posts to accommodate for the increase number of officers promoted. The Minister assured that this matter has the attention of his office and that the KSU and DG are actively looking into a better projection of manpower and providing more benefits to the work force.

- **Public Dental Health**
  The Minister acknowledged that the Oral Health Division had done very well with school children through the dental school services and this has resulted in a reduction of caries index among the children. However dental awareness among the general public is still very poor. More dental health awareness campaigns and community dental services are needed. Hence, he urged MDA to work closely with the Ministry to carry out such campaigns and contribute ideas to improve on this area.

- **National Key Economic Areas (NKEA)**
  Ministry of Health, being one of the drivers in the country’s economic sector, hoped to generate good economic growth for the nation, particularly in the dental service sector with MDA. Three of the six entry points have been identified to generate economic growth are:

  1) Generic Drugs
  2) Health Tourism.
  3) CRC, research and training. An area of land in the University Malaya has been reserved to materialize the concept of a health metropolis, in which University Malaya will play a big role.

- **Wisma MDA**
  The MDA Council sought assistance from YB Dato Seri Liow in erecting MDA’s own building after having been established 75 years ago. Wisma MDA will be a home for all MDA’s affiliates, dental specialist organizations and the Academy of Dental Sciences. For the purpose of this project, a charity night dinner called the Wisma MDA Night will be held on 15th January 2011 at KLCC, aimed at raising RM 200,000 – 500,000. The Minister has agreed to attend as the guest of honour for the special evening.

- **Community Oral Health Project**
  Following the YB Dato Seri Liow’s call for more involvement of health professionals to promote oral health to the general public, Dr How
mentioned that the current council will make Community Oral Health projects as one of its top priorities. The aims of such projects will include raising general public awareness on oral health, oral health promotion and provision of dental treatment.

The MDA President pointed out that previous oral health projects were not supported financially by LPKM (Lembaga Promosi Kesihatan Malaysia) and he hoped that the Ministry of Health could help with this matter. The Health Minister pledged to facilitate this potential for future collaborations.

- **NKEA support by MDA**
  Dr. How drew the attention to the fact that 90% of private dental practices are solo practices while about 10% are small group practices. In foreign countries, group dental practice can be quite big consisting more than 10 practices and are allowed to form limited companies and expand their business. On the other hand in our country, most of the solo practices either close up or are sold when the dentist retires. In fact when AFTA (ASEAN Free Trade Area) was implemented, foreign dental practices are allowed to set up in Malaysia, albeit with some limitations. Due their corporate experience they can do better than the local practices. This problem arises due to fact that in the Dental Act, dental practice to be incorporated as limited company all the shareholders had to be dentists. In addition, logos are not allowed to be used on signboards. In order to allow local dental practices to grow and contribute to country’s economy, Dr. How appealed to the Ministry to remove these restrictions.

The President suggested another way for dental practices to contribute to the economic activity of the country to promote dental tourism through “Sun, Surf, Shop” activities. Dr. How then appealed to Ministry to allow a separate entity such as dental tourism and allow MDA to assist. The Minister was supportive of the idea and urged MDA to work closely with the tourism board. Dr Lee Soon Boon is already working diligently on creating a blueprint for dental tourism with various government agencies.

- **Centre for International Conferences**
  The Minister was informed that MDA has successfully secured two international conferences namely CDA-MDA International Conference 2012 in Kuching and the 35th APDC in KL 2013. MDA is also bidding for the FDI World Dental Congress in 2015 FDI World Congress in Brazil tomorrow (28th August 2010).

  Dr. How also mentioned that 67th AGM was recognized as international conference and therefore had the support of MYCEB and MATRADE.

- **PHFSA (Private Healthcare Facilities and Services Act) Grievances Mechanism**
  The mechanism for tackling patients’ complaints was discussed. Under the PHFSA, there are three avenues where patients can make complaints when unsatisfied with any treatment done by dental practitioner; through MDC, MDA and consumer’s association. MDA has an arrangement with Medical Protection Limited (MPL) which provides insurance coverage for dentists. Patient Complaints Bureau Committee (PCBC) has been set up with the help of MPL, in order to mediate a settlement for patients, if justified. Mediators in PCBC are well trained and competent in dealing with complaints.

- **CPD points for APC application**
  Dr. How appealed to YB Dato Seri Liow to implement CPD points with APC application. This move will not only help in the promotion of local and international dental conferences and upgrade the dental service to the general public, but also facilitate MDA in assisting non-members especially government officers, in collecting CPD points. When made mandatory, MDA will develop a mechanism to keep track of the points, which can then be sent to the existing recording software. Presently, there is tracking mechanism to confirm dentists attendance to conferences and lectures.

At the conclusion of this important meeting, MDA thanked all involved and pledged to execute the agreed upon actions soon. Members will continue to be updated of MDA’s progress in upcoming publications and online via the MDA website.

**IN MEMORIUM**

Dr. Loganathan Seenivasagam (Life Member) passed on 1st October 2010

Dr. Thilaganathan Kandiah (Ordinary Member) passed on 6th October 2010

Dato' Seri Dr. Chin Chein Tet (MDA Past President) passed on 6th October 2010.
Dear Esteemed Members/ Philanthropists,

A Dream is Coming True
I am pleased to share with you a dream which we have had held since 1938. This dream is now slowly but definitely transforming into reality. We can gladly attribute this to the past, present and future Councils as well as to everyone whose supports and contributions have made this dream closer to reality.

The Dental Profession Needs a Home
Malaysian Dental Association was established in 1938. After 72 years of operation, we have not got a building of our own to cater for our 3600 plus strong membership’s needs till to date. We are currently operating from a small office in Damansara Height which has reached a bottle neck and highly inadequate to serve the ever expanding dental professional needs.

Establishment of Wisma MDA Board
The Malaysian Dental Association Council has unanimously decided to establish a Wisma MDA Board tasked with this solemn duty of creating a One Dental Family for the Dental Profession as well as to raise fund for the construction of a building to house the Malaysian Dental Association’s secretariat and all the dental affiliates of the MDA. The Council would amend the Constitution to allow the formation of Wisma MDA Board so as to empower the Board to carry out this solemn mission.

I am pleased to announce that The Honorable Minister of Health Malaysia - Yang Berhormat Dato’ Seri Dr Liow Tiong Lai, and The Honourable Deputy Minister of Health Malaysia - Yang Berhormat Datuk Hajah Rosnah Hj Abdul Rashid Shirlin, have gracefully agreed to serve as the Honorary Advisory for the WISMA MDA Board. Our Patron is none other than our Most Honourable Prime Minister of Malaysia, Yang Amat Berhormat Datuk Seri Mohd Najib Tun Razak

Our Theme “One Malaysia, One Dental Family”
Under our Honourable Prime Minister Yang Amat Berhormat Datuk Seri Mohd Najib Tun Razak’s One Malaysia policy, which aims at uniting all races to form a powerful nation, share the fruits of economic success and lead the nation into a high income society by 2020. Our One Dental Family theme echoes our Prime Minister’s vision by uniting the Dental Profession from all services to be united into one single cohesive family.

Setting up a RM10 million Tax Exemption Building Fund
The first step forward is to establish a Tax Exempted Building Fund. This would serve as an epitome of government-institution cooperation in transforming our dreams into reality. Our deepest appreciation goes to our Honourable Health Minister YB Dato’ Seri Liow Tiong Lai for his undivided support for MDA in setting up this Tax Exemption Fund.

Appeal for a piece of government land for Wisma MDA
Our Fellow Medical colleague has got a land from the government to build their Association Home many years ago; It is high time for the Dental Profession to build a Home for our Dental Family. This Home should be big enough to cater for all the current eight (8) Dental Specialties, Dental Students, Dental Auxiliaries and Dental Traders, under one roof.

Our Vision of Wisma MDA
May I take this opportunity to present you our Vision of WISMA MDA – which shall contain the following features:-

1) A Multi-Purpose Hall with a minimum capacity of 500 pax for holding dental functions, lunch , dinners as well as ceremony;
2) An Auditorium with a minimum capacity of 500 pax for holding CPD talk, seminar, lecture, Keynote speech which can effectively save us thousands of dollars from renting from the hotel;
3) Seminar rooms to conduct smaller lecture, Hands-on as well as small function;
4) Meeting rooms for our Council as well as affiliates association;
5) Demonstration Clinic for conducting Live Surgery complete with audio video facilities as well as for community dental project;
6) Regional Headquarter for the FDI, APDF, Commonwealth and APDSA;
7) A Centre for Oral Health Awareness, Education & Promotion for the Dental Profession
8) Management Office for the Association as well as for the affiliates;
9) Museum to archive our historical record and honour our achievements.
10) A Club Lounge complete with a Karaoke room for members to interact and networking.
Offering Malaysia as the Regional Headquarter for the FDI World Dental Federation, Asia Pacific Dental Federation and Asia Pacific Dental Student Association

With this new Home, we will be able to serve as a regional Headquarter for the FDI World Dental Federation, APDF Asia Pacific Dental Federation and CDA Commonwealth Dental Association as well as the Asia Pacific Dental Student Association, which will have a positive impact in shaping Malaysia as the leader in Dentistry locally, regionally as well as internationally. This would also bring unity to our members and our nation’s dental profession as a whole.

Wisma MDA to serve as a Centre for Oral and Dental Health Promotion Centre

MDA has always been very active in oral health awareness promotion, we have done a record of 20 Oral Health Awareness Promotion nationwide in Year 2010 and had screened not less than 20,000 people. With the establishment of Wisma MDA, we could work closely with the Malaysian Health Promotion Board (LPKM) and be the centre of Oral Health Promotion and Education in Malaysia as well as in the region.

To summarize, the purpose of the WISMA MDA is to serve the increasing need of members, to promote the oral health status in the nation and to advance our Dental Profession to world class standard under the MDA’s “One Malaysia One Dental Family” Vision.

We need your help

MDA will be organizing a WISMA MDA Night, in conjunction with the 18th FDI / MDA Convention, to appeal for your generous donation on this memorable fundraising dinner ceremony.

<table>
<thead>
<tr>
<th>Date</th>
<th>Saturday, 15th January 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>7.00 – 11:00pm</td>
</tr>
<tr>
<td>Venue</td>
<td>KLCC Convention Centre</td>
</tr>
<tr>
<td>Dress Code</td>
<td>Formal / Batik</td>
</tr>
<tr>
<td>Ticket Price</td>
<td>By your Generous Donation (each ticket worth RM200)</td>
</tr>
</tbody>
</table>

I am pleased to announce that our Guest of Honour would be The Honourable Minister of Health Malaysia - Yang Berhormat Dato’ Seri Dr Liow Tiong Lai and our Honourable deputy Minister of Health YB Datuk Hajah Rosnah Hj Abdul Rashid Shirlin. Our Honourable Minister has also assist us to invite our Patron YAB Most Honourable Prime Minister of Malaysia, Yang Amat Berhormat Datuk Seri Mohd Najib Tun Razak. It would be our greatest honour if the Prime Minister could accept our invitation to grace this special Dinner occasion.

We have prepared a series of meaningful programmes for the Dinner. Your esteemed presence will make this evening a memorable night which will be captured and remembered throughout generations to come.

In addition to donating your dinner ticket, please consider making additional donation to the WISMA MDA Building Fund.

All donations, regardless of size and amount, are deeply appreciated,. Your donation would be tax exempted and a tax exemption receipt will be issued to you. Rest assured all monies raised will be used exclusively for the Wisma MDA Project

We shall be happy to immortalize any donations for amount above RM1,000. Besides having your name and donation level will be engraved and placed at a dedicated location within WISMA MDA to register your contribution permanently.

You could also consider expanding your contribution in the following ways:

- **RM 1,000,000**: The main auditorium will be name after the donor
- **RM 1,000,000**: The Multi-purpose Hall will be named after the donor
- **RM 500,000**: The Demonstration Clinic will be named after the donor
- **RM 500,000**: The MDA Museum will be named after the donor
- **RM 250,000**: The Main Conference Room will be named after the donor
- **RM 100,000**: The Seminar room will be named after the donor
- **RM 50,000**: The meeting room will be named after the donor
- **RM 10,000**: The name would be engraved in the Window
- **RM 5,000**: The name will be engraved on the ceramic tiles in the MDA Museum
- **RM 2,500**: The name will be engraved on the ceramic tiles within the Building
- **RM 1,000**: The name will be engraved on the Donor Commemorative Stone

All the donors’ names would be printed in the eloquently printed Wisma MDA Commemorative Issue
We respectfully request for your kind support for the work that MDA is doing now and we humbly pray that our “One Malaysia, One Dental Family” Vision would come through.

Attached is a Donation Reply for your kind action. Please mark your donation accordingly in the boxes provided and return the marked Reply to the Secretariat with your donation cheque, made payable to “Wisma MDA Building Fund”.

Respectfully Yours,
For and On Behalf of Malaysian Dental Association

Dato’ Dr How Kim Chuan
President
Malaysian Dental Association
MDA Community Project: Dental Screening at SRJK (C) Kung Man Jointly Organized By MDA, Faculty of Dentistry of UKM and Lion’s Club Serdang.

MDA, the Faculty of Dentistry of Universiti Kebangsaan Malaysia (UKM) and Lion’s Club Serdang successfully organized a dental screening for standard 6 students at SRJK (C) Kung Man. This was carried out on the 29th of October 2010 from 9am till 12 pm. About 240 students participated in this programme. Screening was conducted by our MDA past President, Dr. Lee Boon Soon, along with the Paediatric Dentistry postgraduate students from UKM. All participating students were also given oral hygiene instruction and education. This endeavour is in line with the organizers’ commitment towards community service and oral health promotion. The Malaysian Dental Association would like to take this opportunity to thank the Prof. Dato’ Dr Ghazali Mat Nor, Dean, Faculty of Dentistry, UKM, Lt. Kol. (B) Dr Nagarajan MP Sockalingam, Head of Department of Operative Dentistry, UKM and the Lion’s Club Serdang for their kind collaborative efforts in making this project a success.

Congratulations

to

Dato’ Dr How Kim Chuan

on receiving

The Outstanding Overseas Dentist Award

during the Opening Ceremony of the 1st Global Chinese Dentists Congress on 2 Dec 2010 at Xiamen, China
Colgate® 360°® ActiFlex
The latest addition to the 360°® line

Helpful for **patients who desire a wide range of cleaning action**

- **Unique flexing brush head**
  Bends to maneuver into difficult spaces and access tooth and soft tissue surfaces

- **Flexible action bridge**
  Allows the bristles to clean around and between teeth

- **Pinched TPE and rope-like spine**
  Facilitate torsion effect

- **Stability ball**
  Firms up mouth feel and improves torsion movement

- **Raised cleaning tip**
  Cleans hard-to-reach places in the back of the mouth and between the teeth

- **Unique soft-textured cheek and tongue cleaner**
  Gently cleans inner cheeks during tooth brushing

  - Removes odor-causing bacteria from the tongue
  - Has a soft, massaging texture
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Art and challenges of reproducing lost gingivae without surgery

Enhanced aesthetic outcome can be achieved with precision and predictability due to recent advances in restorative materials and methods. These developments provided more options for dental surgeons and their patients yet there are growing number of patients that aren’t lucky to benefit from all that. They are described by some practitioners as impossible to do, in addition to that the cost factor and fear that surgery could take too long, or as some other cases gum may recede back to its original level as it was before surgery. The objective of this article is to present an alternative method to over come aesthetic challenges of a restorative system to replace lost gingival in shortest time, with less cost and no surgery.

The case represented here involved an elderly female patient with gummy smile and history of disappointment following unsuccessful periodontal gum surgeries leaving her with almost no hope for a presentable smile. Bad oral hygiene followed by considerable amount of receding gingival causing mobility on incisors, indicating the need for a restorative design that provides stability by liking incisors together as requested by dental specialist.

At the same time it was also requested by patient that her teeth should be preserved as much as possible so porcelain veneers were the only options accepted.

The goal was to design a gingival flange that not only provides natural color and contour in harmony with neighboring natural gingival but also enables dentist to monitor from time to time the areas of gingival that should be covered by gingival flange thus maintaining perfect oral hygiene for long term.

I begin my own technical analysis by studying models and drawing sketches trying to understand the complex situation so that engineering a proper design could be possible.

To stabilize the teeth involved I fabricated a metal plate made from white gold that could be cemented palataly. Little room for cleaning was considered at areas close to gingival. It was designed with an access hole to insert palatal screw, connecting gingival flange from labial side.

It is important to try the waxed gingival flange and direction of palatal screw together with palatal plate. At this point any failure on fabrication, fitting and joining of each part could undermine successful outcome.

To fabricate porcelain veneers I studied different position of upper lip toward temporary veneers made of acrylic tooth color material. At the same time I had a good chance to view the correct height and width of inter dental papilla.

After cementing porcelain veneers and palatal metal plate we continued with trying the fitting of all parts to assure it was working properly.

While preparing for direct gingival build up, it’s wise to analyze the natural colors of gingival just to make sure that there are no inflamed gingival, as we are trying to imitate the natural colors of gingival, we need to assure that we are not color matching our restorative gingival flange with original gingival that for some reason is temporarily discolored.

To protect the areas of gingival that should not be covered with gingival flange material I suggested using gingival barrier, which is usually used to isolate gingival while smile whitening at dental clinics.

The thin layer of composite gingival opaque is applied only after preparation of metal surface first being sand blasted with 50 micron sand and later painted with metal bonding making it possible to block the dark shadow from beneath. Subsequent multi layers of composite colors mixed together to create an illusion of natural looking gingival.

Understanding the natural colors of gingival requires more study to determine the variety of colors existing deep down and reflecting into the surface colors. Thus introducing greater challenges that sometimes require more attention as compared to multi layer tooth build up.

The unusual dark brown pigments effects translucent red pink and light orange including all other translucent colors often on the surface. Generally light and translucent colors are influenced by dark colors with higher chroma.

To reduce the negative impact of colors with dark chroma, sometimes it’s possible to use light colors with stronger chroma where ever we need to block the darker gingival colors.

Building the final layer should include all necessary texture forms and highlights sometimes using much translucent shades.

Some composites produce slight change in color tone immediately after being light cured, it needs to be tested prior to build up.

The polishing part could be performed out side patients’ mouth so that all parts are well polished to a high luster. It must be done in such a way that finishing line is not broken or shortened or deformed.

Figure 1: The photo was taken prior to treatment as shown here, previous practitioner tried to stabilize the left maxillary central incisor by linking it to neighboring incisors, using composite and orthodontic wire.

Nasser Shademan
Mr. Nasser Shademan, German trained dental technologist, an artist and the founder of Oral museum a concept that introduces unique approach for three dimensional smile design in harmony with individual facial forms, skin color, gender characteristics as well as individual desirable smile characteristics.

Highly recommended for his innovative aesthetic solutions and technical ability in engineering modern restorative mechanisms for some of the most challenging restorative cases in close collaboration with highly qualified prosthodontists in different parts of the world including Australia, Germany, turkey, Taiwan, Hong Kong, Singapore, Indonesia, Malaysia etc. Mr. Nasser understands the complexity of harmonious smile design and utilizes most sophisticated dental technologies to design and fabricate stunningly natural looking dental restorations.
Figure 2: The patient seemed very reluctant to smile, no matter how hard we tried.

Figure 3: Finally she accepted to smile after we convinced her that it was necessary to collect photos for case analysis.

Figure 4: While retracting lips one could see the extension of problem!

Figure 5: I was drawing some sketch from actual situation, trying to engineer a mechanism which could address issue such as aesthetic, hygiene maintenance and simplicity.

Figure 6: The system comes with highly polished fine metal plate (made of white gold) with an access hole for palatal screw, meant to be cemented from palatal. Also allowing little room towards gingival for cleaning with dental floss.

Figure 7: This is how I designed the labial flange that (from labial side) could be connected to palatal screw (inserted from palatal side).

Figure 8: A sample of palatal screw that I used with this case.

Figure 9: Small metal base was fabricated from white gold to support the composite base gingival flange while insertion and removal on future inspections by dentist.

Figure 10: Monitoring the spaces between the incisors to make sure the right size and direction is designed for palatal plate.

Figure 11: Incisors were prepared for porcelain veneer, it is very important not to exceed the porcelain margins of veneers over area that meant to be covered by gingival flange, as it may cause fracture of porcelain margins.

Figure 12: Mapping out the gingival flange on model.

Figure 13: Trying acrylic temporary veneers to monitor the height and width of inter dental papilla.

Figure 14: Wider smile shows irregular gingival deformities that have to be covered with labial flange.

Figure 15: Porcelain veneers are cemented on.

Figure 16: Another view of porcelain veneers after cementation.
The palatal plate is already cemented and now gingival flange has to be painted, at this point surrounding gingival should not be injected, in order to maintain the natural color of gingival.

Figure 17: The palatal plate is already cemented and now gingival flange has to be painted, at this point surrounding gingival should not be injected, in order to maintain the natural color of gingival.

Figure 18: Isolating areas that need not to be covered with pink composite, using gingival barrier.

Figure 19: Isolating areas that need not to be covered with pink composite, using gingival barrier.

Figure 20: Applying test gingival base colors to collect more information on exact tone of each color that has to be used.

Editors’ note:

For those who are interested in learning more about this intriguing aesthetic technique and its applications, don’t miss Mr Nasser Shademan’s lecture at the upcoming 18th FDI/MDA International Scientific Convention and Trade Exhibition, from 13-16 January 2011 at the KLCC Convention Centre.

Editors’ note:

The author would like to thank elaborate (Australia) and Dental Inc (Singapore) for permission to publish excerpts of this article.
MDA Northern Zone marked another highlight of the year when the 9th Penang Dental Congress (PDC) was carried out with great success. Under the stewardship of Dr Yong Peng San, the young and dynamic organizing committee of this year’s congress attracted more than 400 delegates, consisting of dentists and dental students from all over Malaysia and also from overseas including Singapore, Brunei, Australia, Myanmar, Uruguay and Indonesia.

The 9th Penang Dental Congress was held from 23rd to 24th October 2010 at Bayview Beach Resort Hotel, Batu Feringghi, Penang. Eight eminent speakers were invited to share their knowledge and expertise on various subjects including Orthodontics, Endodontics, Paediatrics, Restorative and Aesthetic Dentistry. Three hands-on workshops were held before the Congress, from 20th – 22nd October, covering such diverse topics such as implant dentistry (by Dr Firdaus Hanapiah and Dr Chow Kai Foo), composite layering and polishing techniques (by Dr Rafael Beolchi) and contemporary endodontics (by Dr Alex WK Chan). Congress delegates had many areas of interest covered and were certainly spoilt for choice.

A total of 36 traders participated for the trade exhibition, displaying and explaining to delegates on their latest products and materials at their respective booths. A few traders including GSK also sponsored the events as the main sponsor while Novella Dental Tech and Morning Kiss as co-sponsors.

For the first time in PDC history, an Informal Night event (Oriental Night) was included for speakers, VIPs, delegates and students to enjoy a relaxing and eventful night as well as having a sumptuous dinner. AIMST students put up an excellent performance during the Informal Night, ensuring those present were thoroughly entertained.

Following the success of the 9th PDC, MDA Northern Zone also organized an Oral Health Awareness Campaign with the theme “Towards a Lifetime of Oral Wellness” on the 30th-31st October 2010 at Sunshine Supermarket, Farlim, Penang. This event was sponsored by Morning Kiss.
1 Malaysia OHD-MDA-GSK Oral Health Awareness Campaign at Boulevard Shopping Mall, Miri on 28th November 2010

Reported by Dr. Wan Mariam

The campaign in Miri was the fourth in the series of Oral Health Campaign held in the state of Sarawak. The purpose of the campaign is to encourage people to go for regular dental examinations, to get to know the public better as well as sharing knowledge on importance of dental care and some of the diseases related with the oral cavity. With the help of RTM and local newspaper as well as flyers prepared by dental staffs, we managed to get good response from the public. The health staffs from Miri City Health Clinic with the NCD screening help out with encouraging shoppers to visit all the booths. From there we were able to get more people to go for dental examination. Besides dental examination, public were able to check their plague status, pH of saliva as well as take a closer look at the oral cavity using the intra oral camera. There was also a display of oral prosthesis by the dental technologist from Miri Dental Specialist Clinic from Miri Hospital. The posters for exhibition were prepared by Dental Officers and Nurses from Miri Oral Health Service. Tokens and prizes for the campaign were sponsored by GSK.

The invited guests for the day were, Dato' Dr. How Kim Chuan (MDA President) Dr. John Ting (MDA Eastern Zone chairman), Dr. Abdul Rashid Hassan (MDA Eastern zone committee member from Sabah), Ms. Julie Lai (GSK representative), Mr. Johnson Wee (Marketing Manager Boulevard Shopping Mall) our co sponsor, private practitioners, lists of government head of department and private sectors.

The final campaign for this year was officiated by our Sarawak Deputy State Director (Oral Health Division) Dr. Ling Kwok Sung. The programme of the day started off with the welcoming dance performed by the Miri Dental nurses. Opening speeches were by Dr. Wan Mariam Wan Abdul Rahman, Miri Divisional Dental Officer cum organizing chairperson for the event. Dato’ Dr. How gave a very comprehensive speech on the importance of oral health awareness as well as plans on organizing more campaigns in the near future. Dr. Ling Kwok Sung, after giving a very informative speech on the oral health status in Sarawak, officiate the event by striking the ‘gong’ to officially launched the campaign. After visiting the booths and exhibitions, guest of honor and invited guest were treated for lunch hosted by MDA Eastern Zone at the Function room, Boulevard Shopping Mall.

The afternoon programme started off with colouring competition for 5-6 year olds children and an informative talk by Dr. Lorend Telajan Achol, Dental Pediatric Specialist, Miri Hospital on ‘Never Too Early To Start’. Over all attendances for the campaign was over 100 people but in the near future we would like to get more participation from the public with more activities and interaction in order to gain confidence and increase awareness among them.

We would like to thank all the officers and dental staffs from Miri Oral Health Service, our main sponsor GSK for the tokens and prizes, Private practitioners Dr. Abdul Aziz Hj. Abdul Rahim, Dr. Sim Rouh Hern, Dr. Chua Hui Jin, Dr. Huang, Dr. Raymond Hu, Dr. Ho, Dr. Nguan, Dr. Lawrence Lau who volunteered in the free dental screening, the staffs from Miri City Health Clinic and list of suppliers namely 3A Pharma, Prima Maju, Kenyalang Dental and Am Utama for supporting our programme.

Role Play by Tadika Sedidik Kampung Muhibbah, Baram

‘Memberus Gigi Berkesan’ Performance by SJK Chung Hua Miri
The 3rd SDA MDASZ Scientific Convention and Trade Exhibition was a great success, achieving good attendance in Johor Bahru and further establishing our reputation as the industry’s leading conference in the Southern Zone. It took place at the Thistle Hotel, Johor Bahru from 2nd – 3rd October 2010. The theme for this event was “STRIVING TOWARDS DENTAL EXCELLENCE TOGETHER”.

More than 140 participants from the Malaysia and Singapore convened at Thistle Hotel, Johor Bahru. Participants acquired the latest dental updates, trends and knowledge from the industry’s top speakers. Furthermore, they shared experiences with colleagues, made new contacts and strengthened existing relationships during the conference. The scientific programme was a rich mix of dental specialties ranging from Endodontics, Periodontology, Implantology, Orthodontics to Prosthodontics. A total of 7 speakers from Malaysia and Singapore delivered lectures in the conference followed by question and answer sessions.

The Opening Ceremony of the 3rd SDA MDASZ Scientific Convention and Trade Exhibition officially addressed by Dr Hajah Mahrusah binti Haji Jamaludin, Deputy Director (Oral Health) of Johor Health Department. She gave a welcoming speech, encouraging more events such as this be carried out to foster closer ties between MDA and SDA members.

This conference also featured 2 exciting pre-conference workshops on 1st October 2010, designed to provide participants with practical knowledge and skills from leading experts in the field of implantology (by Dr. Tan Min Seet & Dr. Matthias Quake) and endodontics (by Dr. Tan Boon Tik).

Council members from MDA and their counterparts from SDA took the opportunity to organize a meeting to discuss various strategies to foster closer ties between the two associations. Major headway was made in terms of future collaborations in organizing scientific conferences. Both MDA and SDA committed to fully supporting each others’ events and ensuring that the close bond would continue to benefit all members.

The straits of Johor was the perfect setting for the Danga Bay cruise dinner in the evening on 2nd October 2010. It provided entertainment for the participants and traders after the conference. The participants enjoyed the live band and karaoke session.

Dr. Hong Yong Huat expressed special thanks and appreciation to former SDA president, Dr Lewis Lee for establishing good relationship between SDA and MDA.

A total of 26 traders participated in the trade exhibition. The 3rd SDA MDASZ Scientific Convention and Trade Exhibition was a success shared with the main sponsors, Colgate and co-sponsors Glaxo Smith Kline and Listerine, along with all other traders who showed their support and commitment.

Announcement for the MDASZ GENERAL ANNUAL MEETING 2011
Venue: Selesa Hotel, Johor Bahru
Date: 20 February 2011
Building Friendship with Africa – Nigerian Trip

Reported by: Dato’ Dr How Kim Chuan

Nigeria officially the Federal Republic of Nigeria, is a country located in West Africa. It is a multi-racial country, the three largest and most influential ethnic groups in Nigeria are the Hausa, Igbo and Yoruba. In terms of religion Nigeria is roughly split half and half between Muslims and Christians with a very small minority who practice traditional religion. The people of Nigeria have an extensive history. Archaeological evidence shows that human habitation of the area dates back to at least 9000 BC.

The name Nigeria was taken from the Niger River running through the country. Nigeria is the most populous country in Africa, the eighth most populous country in the world, and the most populous country in the world in which the majority of the population is black. It is listed among the “Next Eleven” economies, and is a member of the Commonwealth of Nations. The economy of Nigeria is one of the fastest growing in the world, with the International Monetary Fund projecting a growth of 9% in 2008 and 8.3% in 2009. It is the third largest economy in Africa, it is also the largest exporter of oil in Africa and is a regional power that is also the hegemon in West Africa.

I was invited by the Nigerian Association of Orthodontists as the Annual Guest Speaker for the 4th Nigerian Association of Orthodontists’ Orthodontic Conference from 5-7 Oct 2010. The Conference was very well attended. There was a full day Pre-Conference Workshop on the Self Ligating Bracket system and Orthodontic Bone Screw. There was also a panel discussion on orthodontic education worldwide. A special lecture on the use of Lasers in Dentistry as well as Orthodontics was also held. The Conference culminated with the Annual Guest Speaker Lecture, whereby I was given this rare privilege to deliver a keynote speech on the use of Cone Beam CT as integrated treatment in orthodontics. This was indeed a great opportunity for the Malaysian Dental Association to foster ties with our Nigerian colleagues, and the certainly in my opinion, heralds the beginning of a long-term, mutually beneficial relationship.
The greatest achievement is selflessness.
The greatest worth is self-mastery.
The greatest quality is seeking to serve others.
The greatest precept is continual awareness.
The greatest goodness is a peaceful mind.
The greatest patience is humility.
The greatest effort is not concerned with results.
The greatest wisdom is seeing through appearances (Wise Oriental Saying)

That sums up an outstanding personality in none other than the incumbent MDA President, Dato’ Dr How Kim Chuan. It is my pleasure and privilege to scribe a few words in honour of one of our most respected and admired colleagues. Dato’ Dr How is undoubtedly a mover and shaker of the highest order and distinguished bearer of blessed good tidings to the dental profession. He is a luminescent omnipotent whirlwind that swirls good portents to all associated with him.

On behalf of the MDA, we would like to proudly announce that Dato’ Dr How Kim Chuan was recently honored with the esteemed DIMP award in recognition of his contributions and endeavours to dentistry in particular and the state of Pahang in general. The requirements of this award demands the recipient to be exemplary in his character, industrious in his discipline and quintessence in his work and imperious in personality.

Blessed with an acute intellect, and currently the incumbent MDA President, Dato’ Dr How has proven his work ethic and organisational prowess time and again by fine tuning and improving the policies and statement intent of the Association and consistently proven himself equal to the task of leading the MDA to wider horizons and greater heights.

Born in Pahang in 1966, he excelled at all levels in academics and won many scholastic awards on his way to the BDS (Singapore) in 1991. He obtained multiple postgraduate qualifications in orthodontics and oral surgery and currently runs a thriving private dental practice in downtown Bangsar. He is married to Alice How and blessed with four children.

Dato’ Dr How, we salute you and thank you for bringing honour and prestige to the Malaysian Dental Association and dental profession.

Heartiest Congratulations to

DATO’ DR HOW KIM CHUAN
President of Malaysian Dental Association

On the conferment of
Darjah Kebesaran Mahkota Pahang Yang Amat Mulia
Darjah Indera Mahkota Pahang (DIMP)
On the 80th Birthday of the Duli Yang Maha Mulia Sultan of Pahang on 24th October 2010

From:
Malaysian Dental Association
CDE SELF ASSESSMENT IN CLINICAL DENTISTRY (PART XXIV SECT 2)
MALIGNANT NEOPLASMS AND THE DENTIST (Part I)

ASSOC PROFESSOR DR. WONG FOOT MEOW
BDS(Mal), FDSRCPs (Glasg), FICD, AM (Mal), FICOI
Honorary Associate Clinical Professor, ICE, Warwick Medical School, UK

Our original aim which started this series 14 years ago remains the same. We are firm advocates of the Socratic method which postulate that academically, the best way to teach is to question. Fortunately we also provide answers and invite feedback. This CDE format of questions and answers has stood this Socratic test for 14 years and I must again thank my colleagues for their encouragement and referrals to keep this project robust. Clinical scenarios are presented here in an effort to familiarise readers with the intricacies of Oral Neoplasms.

QUESTION 1
General knowledge: State of the science on the practise of Malaysian Dentists.
(a) What do you think is your role as a dentist in the management of oral cancer?
(b) Are you aware of the various relevant statistics on oral cancer?
(c) What is VELscope fluorescence technology?
(d) What do you understand by full thickness biopsy (as illustrated below, Figures 1 and 2)?
(e) What are the risk factors of oral cancer?
(f) Oral cancers are usually considered under primary epithelial neoplasms, primary mesodermal neoplasms and metastatic tumours. Please elaborate and list down the various tumours and their tissue of origin.
(g) What are precancerous conditions? Can you name 7 of these? (Please refer Figures 3-6)

QUESTION 2
Gingivae: Figures 7, 8 and 9 are orally related malignancies.
(a) The 17 year old Chinese female student (Figure 7) had a rapidly expanding cancerous lesion of the upper jaw. What would be your tentative diagnosis and why?
(b) Figures 8 and 9 revealed this nasty looking bleeding friable gingival condition in a 7 year old child. What are the possible disease conditions that commonly cause this in children and what is the pathogenesis?

QUESTION 3
Buccal mucosa: Figures 3 (refer Question 1),10,11,12 and 13 show four conditions of the buccal mucosa.
Figures 14, 15, 16, and 17 illustrate an auto-immune condition which initially mimicked oral cancer.

Figures 18 and 19 demonstrate benign conditions. Figures 20 to 23 illustrate typical metastases.

Figures 24 and 25 give the comparison between cystic growth expansion and metastatic bone destruction.

(a) Can you visually identify the conditions in Figures 3, 10, 11, and 12?
(b) What features in Figures 18 and 19 indicate that the tumour is benign? Also, see the cyst removed in Figure 25. The lesion in Figures 12 and 13 are definitely not benign. Why?
(c) What are oral metastatic tumours (Figure 20)?
(d) Name the 6 primary sites that commonly metastasize to the mouth?
(e) Discuss the pathology and clinical features of oral metastatic tumours?
(f) Figures 22 and 23 illustrate the destructive nature of metastatic bone lesions. Describe what you can see. Compare this with the cystic lesion of Figure 24.
(g) Can a vesiculobullous lesion mimic oral cancer? (Figures 14 to 17) How would you differentiate them? Is the prognosis and mode of treatment different?

ANSWERS

QUESTION 1
Each year, oral cancer kills more people than does cervical cancer, malignant melanoma, or Hodgkin’s disease. Oral cancers usually involve the tongue, lips, floor of the mouth, soft palate, tonsils, salivary glands and the back of the throat. More than 90% of oral and pharyngeal cancers occur in individuals over 45 years of age; males are more likely than females to develop them. As oral healthcare professionals, we have the opportunity to make a significant difference in the quality of life and overall health for our patients while promoting the true value of the dental services we provide. The most valuable and yet under-utilized and under-appreciated procedure we perform is the routine dental check-up. A detailed oral mucosal examination, looking for everything from an oral ulcer to oral cancer is essential. In this instance, pain, local fixation and involvement of regional lymph nodes are ominous signs.
General knowledge

(a) Role of dentists in the management of oral cancer.

As oral healthcare practitioners we evaluate, treat, and manage a myriad of conditions involving both the hard and soft tissues of the oral cavity. Our responsibility and obligation extends far beyond the teeth, and include all the oral cavity structures, as well as, the overall well being of our patients.

The role of the dentist in this effort is fundamental: to screen patients, to detect any problems at the earliest possible stage, and to aggressively manage diagnosis and treatment eg. multiple studies have shown the now widely accepted concept that periodontal disease is correlated with multiple systemic conditions, such as cardiac problems and low birth-weight children. However, periodontal health is not the only oral condition that has a significant effect on our patients’ overall well-being. It is important that dentists and all oral health practitioners recognize and become involved in the diagnosis and management of all oral diseases.

By incorporating new technologies, we have the opportunity to make a significant contribution to health and quality of life of our patients. Our goal should be to discover any mucosal abnormality, especially potentially malignant conditions in the earliest stages. This enables more conservative treatment and management with fewer complications and improved outcomes, greatly increasing the quality of life for those afflicted. All clinicians need to be aware of technological advances in adjunctive screening as they become available and to adopt them as dentists who are committed to providing this care. We need to be prepared, and to devise a system of seamless, efficient documentation, communication, and follow-up procedures.

(b) Relevant statistics on oral cancer.

In a regional cancer registry survey, the 10 leading cancers among males in Malaysia, were lung, nasopharynx, stomach, urinary bladder, rectum, non-Hodgkin’s lymphoma, larynx, liver, colon and esophagus and in females cervix, breast, ovary, lung, nasopharynx, esophagus, thyroid, colon, rectum and non-Hodgkin’s lymphoma. 

Oral cancer is ranked 15th amongst Malaysians. In Malaysian Indian females, the 3rd most common cancer is cancer of the tongue. The commonest childhood tumours were leukemias (35%), tumours of the brain and spinal cord, lymphomas, neuroblastoma, gonadal and germ cell tumors, kidney tumors, soft tissue sarcomas and retinoblastomas.

Oral Cancer is the sixth most common cancer in the world. Squamous cell carcinoma make up to 95% of malignant oral tumours. The mortality rate has not decreased in the last 50 years. Patients all too often do not survive; the five year survival rate is still approximately 50% and this has not changed significantly in decades. 65% of oral cancer is diagnosed in the late stages. Oral cancer has one of the lowest 5-year survival rates of all major cancers, probably because most lesions are not diagnosed until they are advanced. However, when detected early, the probability of surviving from oral cancer is remarkably better than for most other cancers.

Theoretically, morbidity and mortality due to oral cancers can be reduced dramatically with appropriate interventions; Oral Cancer is also one of the most disfiguring, affecting a person’s ability to eat, speak, breathe, and socialize. These physical deformities often keep patients from returning to work. In fact, patients treated for head and neck cancer have the highest rate of work disability and unemployment. Dental professionals must initiate and be actively involved in this dialogue with their patients in order to raise public awareness of Oral Cancer and to educate everyone about the associated risks factors.

(c) VELscope fluorescence technology.

A new device in the quest for early identification of cancerous and precancerous squamous epithelium has recently been introduced: the VELscope Mucosal Examination System. The handheld device emits a beam of blue light of a specific frequency band onto the oral mucosa and excites the various fluorescent molecules (ie fluorophores) within the tissue. The clinician examines the oral mucosa by looking through the VELscope viewpiece. This non-invasive technology enables the direct visualization of fluorescence in the context of surrounding normal tissue.

Under VELscope examination, normal, healthy tissue typically emits a bright apple-green glow, while potential early tumours and dysplastic or cancerous cells can appear as dark maroon to black (as in severe dysplasia, carcinoma in situ, or invasive squamous cell carcinoma). The goal of oral mucosal screening is to find any abnormality at the earliest possible stage. This enables minimally invasive treatment which leads to improved outcomes.

Other technologies that add value to the examination process include magnification (often referred to as loupes). It is estimated that approximately 40% of Malaysian clinicians are using magnification today. It would be a good investment to purchase digital cameras with special adapters for the technology used in the enhanced screening. These are essential for photo documentation, communication, and follow-up comparisons to be made.

(d) Full thickness biopsy.

It is important to remember that a full thickness surgical biopsy (of intact tissue with a microscopic examination) is still the only accepted method of diagnosing cancer. The role of a surgical biopsy is to rule out malignancy and should be performed anytime that there is an area that may become cancerous or dysplastic. Once an invasive cancer is ruled out, it is used to assess the grade of dysplasia (if present) or to identify other known specific conditions. The findings established with the biopsy are for the state of the condition at the time the biopsy was performed, and it is important to remember that all abnormal conditions need to be continually monitored for changes or progression.

(e) Risk factors of oral cancer.

The primary risk factors for oral cancers in this country are betel quid/areca nut chewing, tobacco and alcohol use; for lip cancer, exposure to the sun is most important. Advanced oral cancer and its sequelae cause chronic pain, loss of function, and irreparable, socially disfiguring impairment. The functional, cosmetic, and psychological insults suffered by oral cancer patients often result in social isolation, significantly burdening patients, their families and society.
(f) Classification of oral cancers; These can be considered under the following main headings:

1. Primary Epithelial Neoplasms
   - Papilloma and squamous-cell carcinoma
   - Adenomas and adenocarcinomas ('salivary' tumours)
   - Pigmented hamartomas and tumours
2. Primary Mesodermal Neoplasms
   - Connective tissue tumours and sarcomas
   - Lymphoid and reticular tumours
3. Metastatic Tumours

Of all the tumours listed above, the commonest is the squamous-cell carcinoma (95%) and because it carries a high mortality, it overshadows all the others in importance.

(g) Oral Precancerous Conditions

This term refers to a recognizable abnormality of the oral mucosa in which cancer develops more frequently than in normal mucosa. Oral cancer may occur on visibly altered mucosa which is subsequently obscured by the growth of the neoplasm. Some squamous carcinomas present as white lesions which are clinically indistinguishable from idiopathic or frictional keratosis. There is, however, much evidence to indicate that some lesions of the oral mucosa are precancerous as defined above. They include:

- Chronic hyperplastic candidosis.
- Sublingual 'butterfly' keratosis.
- Tobacco-induced keratosis.
- Idiopathic keratosis.
- Syphilitic keratosis.
- Lichen planus.
- Oral submucous fibrosis.

Leucoplakia: The WHO definition of this condition is a white patch of the oral mucosa, which cannot be rubbed off and which is not due to an identifiable cause. (refer Figure 3)

If histology is not considered, the majority of white patches of the oral mucosa are due to thickening/oedema of the epidermal layer of the oral mucosa and infiltration with chronic inflammatory cells (refer Figure 10). In some cases abnormalities of the epithelial cells in some way render the epithelium less transparent (more reflective). The histology of such lesions may extend from:

- Invasive squamous-cell carcinoma.
- Carcinoma-in-situ.
- Dyskeratosis.
- Hyperkeratosis.
- Acanthosis
- Inflammatory changes

Precancerous lesions:

- **Chronic hyperplastic candidiosis**: There appears to be an intimate relationship between this condition and subsequent carcinomas. When first seen the majority of such cases show dyskeratosis and a high proportion – perhaps almost 100 per cent – subsequently develop invasive squamous-cell carcinoma. The majority of such patients have no systemic disease accounting for the candidal mucosal lesion. On this basis chronic hyperplastic candidosis (clinically recognizable but basically a histological entity) may require further subdivision

  - **Sublingual ‘butterfly’ keratosis**: this is an easily recognizable lesion which is known to degenerate into invasive carcinoma in 50 per cent, often, however, many years after recognition.

  - **Tobacco-induced keratosis**: Stomatitis nicotina appears not to be precancerous; the reason is not known. Persistent pipe or cigarette smoking may induce keratotic changes in the lip which is precancerous. Intra- orally, keratosis in heavy smokers (although commoner than in non-smokers) is associated with less subsequent carcinoma than that in non-smokers (idiopathic keratosis). They also noted the intimate relationship between ‘erosive’ leucoplakia (speckled leucoplakia) and subsequent carcinoma.

  - **Idiopathic keratosis**: (refer Figure 3) When a white patch is noted with no identifiable cause it must be regarded with caution as subsequent carcinoma is more common than in many other white lesions.

  - **Syphilitic keratosis**: this affects the dorsum of the tongue and is so rare that syphilis cannot be counted as a factor in the aetiology of oral carcinoma.

  - **Lichen planus**: (refer Figure 11) Silverman and Griffith have shown that the incidence of carcinoma is 5 cases amongst 200 patients followed up for a variable period. Thus lichen planus must be regarded as at least as likely to undergo malignant degeneration as ‘leucoplakia’. In all these cases the earliest clinical sign of the development of oral carcinoma is the occurrence of red shiny atrophic or velvety areas i.e. speckled leucoplakia. Later, more obvious clinical features occur with ulceration of papilliferous plaques.

  - **Oral submucous fibrosis**: this condition which affects Indians mainly is strongly associated with oral carcinoma which develops in about 25% of cases. Pindborg suggests the oral submucous fibrosis predisposes the associated epithelium to the action of environmental carcinogens.

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**QUESTION 2: Gingivae**

(a) Chinese female student had a rapidly expanding cancerous lesion of the upper jaw.

Children and young people are more likely than adults to have bone cancers.

Sarcomas of the jaws are characterised by the abnormal degree of deformity, the rapidity of its development, absence of inflammatory signs, destruction of bone and displacement of teeth. In this instance, a rapidly expanding unilateral, painless facial swelling causing nasal obstruction in a teenager is bad news. She is afflicted with a primary bone cancer of the maxilla called an osteosarcoma.

There are several different types of sarcoma and each type begins in a different kind of bone tissue. The most common sarcomas are osteosarcoma, Ewing’s sarcoma, and chondrosarcoma. In young people, the most common type of bone cancer is osteosarcoma, usually occurring between 10 and 25 years of age. More often, males are affected than females. Ewing’s sarcoma usually affects Caucasian teenagers, and other symptoms may include fatigue, fever, weight loss and anaemia.

(b) Hyperplastic, bleeding friable gingival condition in a 7 year old child.

The complaint of a patient that he had experienced sudden...
gingival bleeding or gingival hyperplasia suggest the possibility of leukaemia. Leukaemia is the commonest Malaysian childhood malignancy accounting for some 35% of childhood cancers. Gingival hyperplasia is often an early finding in Acute Monocytic, Lymphocytic or Myelocytic Leukemia. The patient has Acute Monocytic Leukaemia.

Notice that the gingivae in Figures 8 and 9 show no sign of stippling with a bluish red colour. Gingival tissues were enlarged, soft, oedematous, easily compressed, tender and bled on touching. Sometimes there is rapid tooth mobility due to necrosis of the periodontal ligament and destruction of the alveolar bone. Histology of the gingival hyperplasia will confirm that the tissues are packed with immature leucocytes in the oedematous connective tissue. Nearly 90% of patients with Acute Monocytic Leukaemia manifest with oral lesions. Acute Lymphoblastic Leukaemia is the least likely to produce oral lesions.

QUESTION 3: Buccal mucosa

(a) Visual clinical identification.

Figure 3: carcinoma –in–situ, Figure 10: smoker’s keratosis, Figure 11: lichen planus, and Figure 12: invasive squamous cell carcinoma

(b) Features of a benign growth

The lesion in Figures 18 and 19 is pedunculated, and has smooth normal coloured mucosa with rounded margins. It has an elastic texture and freely mobile. In addition it is slow growing. Compare this with the sinister lesion in Figures 12, 13 and 20 to appreciate the dramatic difference. Malignancies are usually elevated, raised with broad, irregular margins/surfaces and fixated to the surrounding tissues. Lymphadenopathy is present if there is early metastasis.

(c) Oral metastatic tumours

Oral metastases derived from neoplasms outside the mouth are unusual and it is exceptional for an occult malignancy to be diagnosed on the basis of an oral lesion.

The primary is usually a carcinoma but may be a sarcoma.

(d) 6 primary sites that commonly metastasize and spread to the mouth via the bloodstream can derive from many sites but particularly the bronchus, breast, kidney, large bowel, prostate and thyroid. The metastatic tumour in Figure 20 originated from the right lung (Figure 21) of this middle-aged Malay executive.

(e) Pathology and clinical features of oral metastatic tumours

If these tumours invade the jaws, they usually produce bone destruction with no periosteal reaction. Notice that in Figure 24, there is a periosteal reaction with rounded peripheral bone margins. Deposits may develop in the soft tissue of the mouth, often in the gingival margin where rapid proliferation leads to the development of a maroon fleshy mass (Figure 20). Take note of this image as it is extremely unique! This may be indistinguishable from the peripheral giant-cell granuloma and diagnosis is revealed only by histological examination. Many such gingival metastases derive from renal carcinoma. In this case, the primary originated from the lower lobe of the right lung (Figure 21). A similar clinical picture may occur with central adenocarcinoma, myeloma and sarcomas or histiocytosis-X.

(f) Destructive nature of metastatic bone lesions

If these tumours invade the jaws, they usually produce bone destruction with no periosteal reaction (Figure 22). If teeth are involved they may be resorbed but usually progress is so rapid that the teeth are left undamaged, the surrounding bone being removed piecemeal. Occasionally osteoblastic metastases can occur, with the malignant cells infiltrating the jaw stimulating the adjacent osteoblasts to produce new bone. Such neoplasms commonly derive from the breast or prostate.

In the majority of cases of oral metastases occuring in the jaws, particularly the mandible, they commonly lodge in relationship to the inferior dental canal at the angle of the mandible (Figure 22). Pain may be the first symptom but is rapidly succeeded by swelling and paraesthesia or anaesthesia of the mental nerve. Alternatively, pathological fracture may occur (Figure 23). Radiographs reveal a roughly circular area of bone destruction with very irregular fluffy edges (Figure 22). Sometimes, a tumour in the alveolus of the jaw presents as a rapidly expanding swelling which looks inflammatory and is treated by tooth extraction. Subsequently, the tumour fungates from the tooth socket. Radiographs then reveal bone destruction and the diagnosis is confirmed by biopsy.

(g) Vesiculobullous lesion and oral cancer

The differential diagnosis of the case illustrated in Figures 14-17, can either be pemphigus vulgaris or mucous membrane pemphigoid. The oral lesions of pemphigus vulgaris are very painful. In Figure 24, the patient had massive areas of ulceration with a fibrin base and erythematous margin. The relatively painless nature of this case indicates mucous membrane pemphigoid. Immunoflourescence studies will confirm the precise diagnosis.

Figure 14 certainly looks like a cancerous lesion to the uninitiated. However, a positive Nikolsky’s sign and immediate response to high doses of steroids (see Figure 16) will confirm that this vesiculobullous lesion of pemphigus has a better prognosis.

Editors’ note: Do look out for Malignant Neoplasms & The Dentist (Part II) in the next issue of MDA News, whereby dramatic scenarios involving lesions of the tongue, palate and salivary glands will be covered. We would like to thank Assoc. Prof Dr Wong Foot Meow for his generous contributions to this CDE column, which continue to challenge our knowledge and broaden our horizons as dentists.
Restoring anterior tooth fracture using

Flowable Frame Technique (FFT)

Dr Sushil Koirala is the founding president of the Vedic Institute of Smile Aesthetics and the chief instructor of Comprehensive Aesthetic Dentistry, a two-year training programme based upon Vedic philosophy of beauty and aesthetics. He maintains a private practice focusing primarily on MI cosmetic dentistry (MICD). Based on more than 17 years of clinical experience in aesthetic dentistry, Dr Koirala developed the Vedic Smile Concept, the Smile Design Wheel, the MICD TP, and various clinical techniques for direct aesthetic restorations. He is the founding president of the Nepalese Academy of Cosmetic and Aesthetic Dentistry and South Asian Academy of Aesthetic Dentistry. He has published numerous clinical articles in aesthetic dentistry and authored a clinical guide to Direct Cosmetic Restorations with Gioner, published by Dental Tribune International GmbH. He frequently conducts hands-on programmes and delivers lectures globally on smile aesthetics. He can be contacted at skoirala@wlink.com.np.

A 17-year-old boy was presented to our centre with a fractured central incisor (tooth 11). The patient did not complain about pain or sensitivity and very minimal dentin surface was involved. Both, the patient and his parents, were very concerned about the boys’ dental aesthetics. After various treatment options had been discussed, direct cosmetic restoration was requested. The main clinical challenges in this case were the proper shade selection, masking the restorative margins and obtaining the natural surface texture. We decided on the Flowable Frame Technique (FFT) with Beautifil Flow shade A3T (Shofu Inc., Singapore) to achieve a suitable lingual frame for the layering technique. Beautifil II, shades A3O and A2, orange and white stain (effect material) as well as Beautifil II enamel shade INC were used to achieve the desired aesthetics with an invisible restoration.

**Step–by–step procedure**

- Fig. 1: Smile with anterior tooth fracture.
- Fig. 2: Fractured incisal third of tooth 11.
- Fig. 3: Incisal view of the fracture site. Note the dentin involvement.
- Fig. 4: Isolation of the tooth with cotton rolls and cheek retractor.
- Fig. 5: Beveling of the fracture margin to increase the bonding area.
- Fig. 6: Enamel etching with phosphoric acid.
- Fig. 7: Note etched tooth surface – forested white.
- Fig. 8: Priming and bonding of the etched area.
- Fig. 9: Light curing of the bonding layer with LED light for 10 seconds.
- Fig. 10: Restorative plan.
- Fig. 11: A plastic strip is being inserted to support the flowable resin.

- Fig. 12: The plastic strip is being adapted with index finger and flowable resin is being injected.
- Fig. 13: After curing, a flowable frame is created for an easy build-up of the dentin layer.
- Fig. 14: Modification of the thickness and shape of the flowable frame with a diamond point.
- Fig. 15: Lingual frame after thickness and shape modification.
Fig. 16: Reapplication of the bonding agent.
Fig. 17: After curing the bonding agent, the Opacious Dentin A30, is applied at the fracture junction.
Fig. 18: The dentin layer is being build-up incrementally.

Fig. 23: Restoration after fine finishing (Rainbow Finishing Technique).
Fig. 24: Restoration after final polishing (Rainbow Polishing Technique).
Fig. 25: Smile after tooth restoration. Note the shade, shape and texture. An invisible direct restoration.

This article originally appeared in cosmetic dentistry_beauty & science Vol. 3, Issue 3/2008. It is published with permission by Dental Tribune International GmbH. © 2010 Dental Tribune International GmbH. All rights reserved.
Patient Centered, Minimally Invasive Dentistry - A Caring Paradigm

By Thomas Giacobbi, DDS, FAG

DT: Ultradent Products, Inc. has evolved into a global products manufacturer. Can you share the Ultradent story?

Dr. Fischer: In school, I discovered that the greatest challenge for quality impressions was to adequately control bleeding and retract issues. The materials we had at the time were simply not adequate. As a result, I set up a lab in the basement of my home. After working on patients during the day, I would go to my lab at night and test different chemistries to stop bleeding – usually drawing blood on myself! My first endeavor was a hemostatic solution called Astringedent®. I soon learned that the delivery was critical to this technology, so the development of the syringe delivery system, the Dento-Infusor, soon followed. My initial plan wasn’t to start a dental company. However, I soon learned that the only logical way to get this technology to dentists was through a quality dental company. In order to do this, I needed the support of my family to make the process possible. Most people don’t know that Ultradent started as a family company. The first manufacturing lot was processed on our kitchen table. It wasn’t long before we became FDA compliant with the appropriate facility, good manufacturing practices, etc.

DT: What does “minimally invasive” dentistry mean to you?

Dr. Fischer: I define “minimally invasive” dentistry as; first, maximizing preventive dentistry; and second, relative to operative dentistry, facilitating treatment in ways that preserves as much of the patient’s original dentin and enamel as reasonably possible. With respect to the latter, it is important to be cognizant about alternatives in conventional dentistry such as maximizing the value of high-strength adhesives and quality composite materials. With the drive for esthetics and quality-of-life, particularly with regard to “smiles,” we have real challenges ahead of us to keep up with the pace. This requires us to rethink how we treat our patients. Our solutions must keep conservation of hard and soft tissues in mind. The new “minimally invasive, patient-centered” paradigm will require us to use new technologies to reach more people in varying socio-economic groups, providing affordable dentistry. We must invent and develop ways to deliver these exciting technologies to humans around the globe.

The clinician is providing much more of a service than just “filling a hole.” One may argue that a large, ACR can take a substantial amount of time when done correctly. I would say that an emphasis on keeping it practical can enable us to facilitate quality and esthetic care that is affordable and can be achieved in less time. I also would suggest taking a closer look at the economic logic behind practicality. With a little practice, a dentist can reconstruct one to two proximal surfaces and one to two cusps in about 30-45 minutes. This estimate includes time for placement of one to two dentin shades and an enamel shade. If using only one shade, we need to reconstruct in layers. Using two to three different shades doesn’t take any longer. This type of restoration may cost the patient $200 to $350 dollars compared to an indirect restoration which could range between $600 to $850 dollars. In making a comparison, there are other costs that need to be considered such as the time required to make an impression, fabricate a provisional, cement the provisional, clean up the excess cement, etc. In the case of the laboratory procedure, the patient will need to be rescheduled for another appointment adding to the patient’s inconvenience. The second appointment will add to the overall cost by requiring a second injection, removal of the provisional, scouring the preparation, cleaning and fitting the prosthesis complete with adjustments, polishing the restoration where it’s been adjusted externally, isolating the tissues and again controlling the bleeding, etc. Occasionally, the lab will have to add

Dr Dan E. Fischer, Ultradent Founder & CEO will be lecturing in Kuala Lumpur on May 29th 2011.

Dentistry that incorporates a global vision should not only be affordable to patients, it also should provide dentists with a healthy income. Indirect procedures may require expensive laboratory fees or equipment such as a CEREC-type machines. For example, the owner of a CEREC may be required to generate a specific amount of restorations to pay for his or her equipment. In the specific case where the indirect is constructed by the laboratory, there is always a need to arrange a second appointment complete with a second injection, provisional removal, etc. We must consider other alternatives to be fair to ourselves and our patients! Adhesive systems and composite resins have continued to improve over the years. Studies have shown that these resins can wear as well as or close to natural enamel. These improvements can save us a great deal of time, but we must learn to appropriately prepare the substrate (dentin and enamel). This requires paying attention to all the potential contaminants, the use of quality, non-compromising adhesives (which seldom take longer to apply than compromising “quick” adhesives) and using care to place a quality, esthetic composite. Adhesive composite reconstructions often rival and in some cases exceed indirect restorations. The larger restorations are different than what we would typically call a “filling.” I feel the term “adhesive composite reconstruction” (ACR) is a much more accurate description.

The clinician is providing much more of a service than just “filling a hole.” One may argue that a large, ACR can take a substantial amount of time when done correctly. I would say that an emphasis on keeping it practical can enable us to facilitate quality and esthetic care that is affordable and can be achieved in less time. I also would suggest taking a closer look at the economic logic behind practicality. With a little practice, a dentist can reconstruct one to two proximal surfaces and one to two cusps in about 30-45 minutes. This estimate includes time for placement of one to two dentin shades and an enamel shade. If using only one shade, we need to reconstruct in layers. Using two to three different shades doesn’t take any longer. This type of restoration may cost the patient $200 to $350 dollars compared to an indirect restoration which could range between $600 to $850 dollars. In making a comparison, there are other costs that need to be considered such as the time required to make an impression, fabricate a provisional, cement the provisional, clean up the excess cement, etc. In the case of the laboratory procedure, the patient will need to be rescheduled for another appointment adding to the patient’s inconvenience. The second appointment will add to the overall cost by requiring a second injection, removal of the provisional, scouring the preparation, cleaning and fitting the prosthesis complete with adjustments, polishing the restoration where it’s been adjusted externally, isolating the tissues and again controlling the bleeding, etc. Occasionally, the lab will have to add
to the restoration or repair it prior to cementation. Next, the prosthesis will be cemented and the excess cement will be removed. What is the cost of another operatory setup complete with cleanup, disinfection, etc.? What is the laboratory cost or equivalent CEREC cost? This is why it's important to calculate net income. At the end of the day, profitability must account for time, materials, overhead, taxes, etc. And, at the end of the day, it is the “net” not “gross” income that is important. ACRs facilitate another modern requirement in gorgeous ways, namely repairability. Repairability brings a rich new ethical meaning to dentistry. It should be our first choice in terms of options. Why? Repairability is a very important contributor to the “minimally invasive” need. We’ve lived and practiced “total replacement dentistry” for too long. Our tendency has been to replace an entire restoration every time we encounter a problem. This contributes to the cumulative trauma of a tooth. With resins, we have the ability to preserve the entire “old” composite that is still bonded to old dentin and/or enamel. New technologies and repairability together provide economic and caring “patient-centered” directions for operative dentistry.

For a small repair, it is rare that anesthesia will be required. The procedure will typically only last a few minutes. As a result, repairability often enables us to provide treatments at a lower cost to more patients, providing us with the ability to reach lower income groups and maintain profitability. The gorgeous part is that this type of dentistry is often what we’d prefer for ourselves, our families and our friends even if they could afford the high ticket solutions! As dentists, we are driven to protect our own enamel and dentin. We understand that the more we cut a tooth, the more we weaken the tooth and cause its eventual loss in vitality. What could possibly be better than being able to provide a consistent message to all patients, regardless of economical status with the same level of esthetics? For the long-lasting success in a capitalist society, there are two critical foundations. First, we must be darn honest with a single clear and consistent message; and second, we must listen to the needs of those we serve. These two requirements set the stage for a third very important foundation: establishing quality caring relationships with our patient/customers. It is important to realize that “permanent” is a falsehood in dentistry! We’ve called “definitive” restorations “permanent” for years, but in reality everything is temporary. In dentistry as in life, we’re simply buying time. With every age group, particularly with our aging population, adhesive repairability enables us to “keep the tread on the tires” in caring ways to “restore the sidewalks” with minimal invasive care. It also enables our patients to remain dentate when the alternative would be the complete loss of dentition and replacement with dentures. Repairability is a virtual mandate for our aging patients who are fragile in their overall health. More invasive procedures have the potential to cause more harm in the systemic sense.

DT: Ultradent pioneered another segment in the industry being one of the first companies to manufacture syringe-packaged materials. Can you tell us more about this?

Dr. Fischer: The first area of significant research for me was related to the subject of controlling bleeding and tissue displacement, or what is called “tissue management.” This research was driven by my love for full-mouth reconstruction. For every type of restoration, the most critical issue is the gingival margin. Poor tissue management, especially when making impressions, is the major reason for inadequate impressions. This has a direct translation to other issues, such as poor fitting crowns. Discovering the ability of ferric ion, first in Astringedent and now in ViscoStat®, used with the Dento-Infusor® to predictably obtain profound hemostasis dramatically changed the way I practice dentistry. Using these tools, I was able to save a significant amount of time with each procedure and the quality of my impressions was virtually without fault. At the same time, I embraced adhesive dentistry and discovered that having quality control of not only bleeding but also subcular fluid was paramount. Because subcular fluid is clear, we often ignore it because it isn’t as readily seen as blood. No adhesive procedure performed near the gingiva or subgingival should be performed without controlling sulcular fluid. Ultradent’s hemostatic agents combined with cord and/or the Dento-Infusor became part of my routine for controlling sulcular fluid. Ultradent is often referred to as the “syringe company.” It’s really hard to beat the convenience of a syringe with specialty applicator tips for quickly and dependably placing the right material in just the right spot and in just the right quantity. We also benefit from “syringe hydraulics,” which enables us to deliver against pressure when needed. With the speed at which we’re required to work today, it’s great that we don’t have to open containers on our trays and counters that are prone to spilling. Instead of going back and forth between the dappen dish and the preparation, we can stay in the oral cavity with a syringe-tip delivery. I found that using syringe delivery saved me a great deal of time. As the demand for syringe-delivered products grew, Ultradent developed an in-house injection molding facility. Over the years, this has allowed us to produce a variety of plastic materials and devices. These materials range from syringe tips to all-purpose stacking containers and medical kit covers. We even produce materials and devices for other companies.

Conclusion

More than just a syringe company, Ultradent is guided by a leader with a vision for minimally invasive dentistry and patient centered treatment. The company continues to innovate with new products, and if you should ever be in Utah, call ahead for a visit. “At Ultradent, we’re excited about the future of our company and our ability to make a difference,” says Dr. Fischer, “Thank you for taking the time to get to know us better. If you’re ever near our facility, please stop by. If you come around lunchtime, lunch is on us!”
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Indeed, with LOTTE XYLITOL, chewing gum is now key to maintaining good oral health. A sugar-free dental health chewing gum, LOTTE XYLITOL is scientifically proven to effectively prevent tooth decay and is the first chewing gum to be approved by the Malaysian Dental Association. And with over 50% XYLITOL – more than any other chewing gum – LOTTE XYLITOL is a powerful, oral bacteria-reducing tool that should be made a part of your daily oral hygiene regimen.

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XYLITOL is able to resist being metabolized by harmful oral bacteria. Starved of nutrients, the bacteria are unable to function and multiply, and quickly die out.

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What Do Scientific Studies On XYLITOL Show?

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Is XYLITOL Safe?

Absolutely. XYLITOL is found naturally in the White Birch tree, as well as fruits and vegetables. It is also a key ingredient in numerous oral hygiene products, such as toothpastes and mouthwashes.

LOTTE XYLITOL Is Recommended For Pregnant Women And Diabetics. Why?

Research has revealed that expectant mothers who ingest XYLITOL are less likely to transmit cavity-causing bacteria to their babies. XYLITOL also benefits diabetics, as it aids in keeping their insulin levels low, ensuring that their blood sugar levels are kept stable and safe.

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* Reference to dental journals and researches.

SCIENCE OF WELLNESS SDN BHD (881876-T)
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Toothbrushing + Listerine Teeth & Gum Defence

Strengthens teeth enamel against dental caries

Listerine® Teeth & Gum Defence is highly recommended for:

✓ Patients above 12 years old who cannot brush well and faced with both dental caries and gingivitis
✓ Orthodontic patients who are more susceptible to dental caries and gingivitis due to their braces

70%* MORE CAVITIES REDUCTION VS. BRUSHING ALONE

*Toothbrushing + Listerine Teeth & Gum Defence
Finally, instant* sensitivity relief patients can take home.

A breakthrough: Pro-Argin™ Technology

BEFORE¹

In Vitro SEM photograph of untreated dentin surface.

The tubules that lead to sensitivity are open

AFTER¹

In Vitro SEM photograph of dentin surface after application.

The tubules are plugged for instant, lasting relief

With Pro-Argin™ Technology, you can finally provide instant* and lasting relief from dentin hypersensitivity using the Colgate® Sensitive Pro-Relief™ Treatment Program:

- In-office desensitizing paste
- At-home everyday toothpaste*

Pro-Argin™ Technology works through a natural process of dentin tubule occlusion that attracts arginine and calcium carbonate to the dentin surface to form a protective seal that provides instant relief.²

*Instant relief is achieved with direct application of toothpaste massaged on sensitive tooth for 1 minute.


The results are revolutionary

Instant relief achieved with direct application of toothpaste massaged on sensitive tooth for one minute and continued relief with subsequent twice-daily brushing³

When applied directly to the sensitive tooth with a fingertip and gently massaged for 1 minute, Colgate® Sensitive Pro-Relief™ Toothpaste provides instant sensitivity relief compared to the positive and negative controls. The relief was maintained after 3 days of twice-daily brushing.

Visit www.colgateprofessional.com.my to learn more about how instant relief from dentin hypersensitivity can impact your practice.