

THE DENTAL SURGEON

DECEMBER 2016 ISSUE



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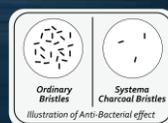
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EDITOR'S NOTE

Teamwork

I'm pleased to see how *The Dental Surgeon* team has grown over the past issues. This is only necessary and expected in order for us to continue delivering a myriad of quality content to you. Thus, I want to dedicate this issue to my expanded editorial team of volunteers who have worked very hard to bring you this publication. I would like to introduce Dr. Dephne Leong, Convenor and Editor, along with Dr. Tan Keng Wee, Layout Editor. They join my other stalwart Editors Dr. Tong Huei Jinn and Dr. Ivan Koh to assist me in this creative endeavour. I apologise for any errors in print or content that may have arisen from previous issues, and ask for your understanding in our constant striving to be better. I love how our Clinical Features section has developed, and am grateful to Dr. Loh Poey Ling, a widely-respected prosthodontist, for sharing her clinical expertise with us this issue. Last but definitely not least, I also want to thank my regular and dedicated contributors, and welcome aboard a fresh infusion of young views, which you will all see more of in issues to come. As with our profession, we move ever forward.

Dr. Terry Teo
Editor-in-Chief
The Dental Surgeon

Terry is a paediatric dentist in private practice, and a part-time tutor at the Faculty of Dentistry at NUS. When he was young he loved reading and writing, until life and dentistry got in the way. He thus relishes this opportunity to have his cake and to eat it at the same time.

Convenor and Editor



Dr. Dephne Leong is an endodontist at Jurong-Health. Dephne is a Singapore Dental Association Council Member and has recently joined *The Dental Surgeon* team. With her eye for detail, she hopes to contribute to maintaining the high quality of the publication so that readers will continue enjoying it. Dephne loves travelling and playing squash in her free time.

Layout Editor



Dr. Tan Keng Wee is a general practitioner in private practice and has recently joined the editorial team of *The Dental Surgeon*. He hopes to be able to contribute to the publication and help maintain its high quality. Keng Wee also volunteers with the SDA Ethics Committee as a mediator, and spends his free time practising yoga and searching for the perfect waffle.

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Editors



Dr. Tong Huei Jinn is currently teaching at the Faculty of Dentistry in NUS, and works as a paediatric dentist in NUH and School Dental Services, HPB. Huei Jinn is delighted to return to **The Dental Surgeon** after her stint as its Editor before leaving for post-graduate studies in 2007, and hopes to continue to do the magazine and our profession proud. When time permits, Huei Jinn loves travelling.



Dr. Ivan Koh is an endodontist at NUH, and a part-time tutor at the Faculty of Dentistry in NUS. Ivan has been with **The Dental Surgeon** since 2005, starting off by contributing an article or two per issue. He then took on the role of layout editor for 3 years before taking a hiatus for his MDS studies and he is now back as Editor. Ivan likes to read in his free time and that has been one of the driving forces for him to rejoin **The Dental Surgeon** team. He hopes readers find joy in this publication, not looking at it merely as a "dental newsletter", but perhaps, as a magazine worth its weight to leave on the coffee table at the reception area of their clinics!

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President's Message

BY DR. LIM LII

How time flies! Half a year has whizzed by since my Council and I were elected into office. Even though I had served on the previous Council as General Secretary for four years, I was still ill-prepared for the enormous task of being leader of the pack. Indeed, my respect for my predecessor Dr. Kuan Chee Keong has increased ten-fold!

My manifesto for SDA as the President has always been to focus on the core of our Association: our MEMBERS. Under the able leadership of past Presidents, the Association has achieved a very stable footing, for which I am most grateful. To continue their legacy, I have been blessed with a vibrant, enthusiastic Council who plunged into their roles immediately after AGM. All committees were in top gear from day one, racing out initiatives for the benefit of our members.

The CHAS and Medisave forum, organized by Dr. Asha and her committee, received overwhelming response and had a sold out crowd of 470 for that evening. This was indeed timely in view of the unfavourable media attention that our profession was getting. In this edition, you will find more information covering this event by the Ethics and Practice Management Committee.



The Continuing Dental Education (CDE) Committee, helmed by Dr. Shawn Goh, successfully re-ignited the Everyday Dentistry Series and has in the past six months put together numerous interesting evening lectures for our members.

We also welcome our new Welfare Committee Chairman Dr. Gabriel Lee, a fresh graduate. Gabriel, together with his young and creative team, has already planned some exciting events for the coming year that will appeal to and invigorate our sense of well-being.

But the most exciting highlight of our plans will be for 2017!

On March 27th 2017, SDA will celebrate its 50th Birthday. In view of this momentous event, members will enjoy a special registration rate of \$50 for our SDA Convention. The SDA Convention 2017, under the most experienced guidance

of Professor Chew Chong Lin, boasts a two-day power packed series of lectures by esteemed speakers. It will be held on 22-23rd April, so don't forget to register fast.

Apart from the Convention, there will also be many exciting celebration events for members in our 50th year of service. Do visit our website for more updates.

Signing off for now, Dr. Lim Lii. 



Dr. Lim Lii is a Singaporean who graduated from the University of Western Australia. She came back home in 1997, after a two-year working stint with Australian Dental Services, to be closer to her family. She has been in private practice since and now maintains a part-time position, allowing her to contribute wholly to SDA. She has thus served SDA since 2003 in almost every subcommittee. She is married to Desmond, and they are blessed with two teenage sons, as well as two adopted fur-kids.



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An Evening of CHAS and Medisave

BY DR. ASHA KARUNAKARAN AND DR. SURINDER POONIAN

On Thursday 4th August 2016, nearly 400 delegates gathered in the auditorium of the Academia for a forum on CHAS and Medisave organised by the SDA. Many in the audience wanted clarification on the application of these systems from the panel, which included the Chief Dental Officer, Clinical Associate Professor Patrick Tseng, and the Dental Advisor to Medisave, Clinical Associate Professor Andrew Tay.

The programme opened with Dr. Raymond Ang, an active member of the SDA, a member of the SDC and Chief Operating Officer (COO) of Q&M chain of clinics, sharing his experiences with CHAS and Medisave audits.

He made the point that CHAS subsidies and Medisave significantly help dentists to provide affordable dental care to patients. They are government policies and thus the government makes the final decision on how they are applied. There would not be any issue if everyone played by the rules.

Dr. Ang stated that last year, 650,000 patients used CHAS and Pioneer Generation (PG) schemes for dental and medical subsidies totalling \$167 million from the Ministry of Health (MOH). MOH conducts more auditing of clinics that have high claims.

As dentists, the onus is on us as individual practitioners to know the regulations and rulings on the submission of claims, and abide by them. There have been cases in which practitioners were dishonest; knowingly falsifying records or invoices is fraud and constitutes a criminal offence. The process of auditing is of paramount importance in ensuring that claims are fair to both patients and practitioners.

Dr. Ang's recommendation for group practices is to appoint an internal audit officer to ensure that all dentists and staff are aware of how the two schemes are applied. This would greatly minimize the possibility of rejections in an external audit by MOH.

CHAS

The Community Health Assist Scheme (CHAS) was established in 2012 as an extension of the Primary Care Partnership Scheme (PCPS) to aid the public in obtaining affordable and convenient primary or basic medical and dental care. It was also intended to relieve the heavy load of patients at polyclinics.

CHAS is designed to be a co-payment scheme

Dr. Ang felt that altering our professional fees specifically to draw subsidized patients results in an undermining of the value of dental services and the profession as a whole. If practices choose to do this, it is of utmost importance to retain all invoices and receipts even in cases of "zero up-front payment" as evidence that procedures were indeed carried out.

Dr. Ang closed with some advice for general dental practitioners (GDPs). The issue is not about genuine mistakes in claims. Dishonest claim is the issue. Honesty is always the best policy and it is up to us to ensure we keep meticulous clinical, radiographic and, when necessary, photographic records as evidence of any claims made.

Medisave

Medisave is a long-standing national savings scheme that helps Central Provident Fund (CPF) board members save for future medical expenses, especially after retirement. Under this national savings scheme, a part of one's monthly salary is contributed to the Medisave Account (MA).

Prof. Andrew Tay, the Dental Advisor for Medisave, posed a thought: "If a Medisave account is wiped out due to dental implants, how will the patient cover hospitalization charges if a later illness of cancer or a heart attack presents?" In his view, if a patient cannot afford a dental implant, it is worth considering a bridge or denture.

There is an abundance of information available on submission of claims. The Medisave guidebook contains a comprehensive table with descriptions on what each code can be used for. The Best Practice Manual put together by the College of Dental Surgeons, Singapore, and the College of General Dental Practitioners, Singapore, as well as the Medisave coding workshops are all highly recommended to practitioners to gain a better understanding of how and what to claim.

Where inappropriate or incorrect Medisave claims have been made, practitioners may be subjected to the sanctions below:

Level of infringement	Administrative sanction
First infringement	Letter from MOH stating incorrect claims and corrective actions required
Second infringement	Letter of advice
Third infringement	Letter of first warning
Fourth infringement	Letter of second warning
Fifth infringement	Suspension from making Medisave claims for specified period/revocation of approval

In the event of breach of any regulations, circulars, guidelines or Medisave terms and conditions, MOH may revoke or suspend a practitioner from making Medisave claims for any amount of time deemed fit.



SOME QUESTIONS POSED TO THE PANEL:

- **How do we prevent people from abusing the system or making dishonest claims?**
 Issuing receipts to patients with an itemized list of treatments (charged or not charged) will help with regard to accountability for each item claimed.
- **Sometimes anterior teeth are difficult to extract. Can we claim 'complex' in these cases?**
 This is a matter of 'give and take'. Extracting a periodontally involved molar is simple. Some tooth extractions will be difficult, some easier. It is easier to audit when there are defined guidelines. We have to remember that CHAS is a subsidy scheme that is not meant to cover the full cost of treatment. If a dentist feels the need to charge more for a certain procedure, the patient should be told that he/she would need to bear more 'out of pocket' payment as the quantum of subsidy is fixed for that procedure.
- **What evidence do I provide for a chairside reline?**
 Take a photograph to show the denture before and after relining. Or keep accurate clinical records. Where things are difficult to prove, the clinician is usually given the benefit of the doubt.
- **When can I claim \$300 Medisave consumables?**
 If a surgical procedure in the Table of Surgical Procedures (TOSP) has been performed, related consultation, radiographs and medications can be claimed under the \$300 Medisave limit for "Daily Hospital Charges".
- **Is a radiograph required to 'prove' a tooth fracture in extraction before surgery is performed, if an existing radiograph exists?**
 Clinical judgement should be exercised here. If a radiograph is needed clinically, then it should be taken. If it is not needed, then it should not be taken.
- **Can a CHAS claim be submitted on the day of preparation for a RCT or preparation for a crown?**
 The reason the claim is submitted at the end of treatment is to ensure the treatment is carried out completely. This makes the auditor's job much easier in cases where payment is collected in stages or if patients transfer care to another dentist. If payment is to be collected at the first visit, dentists should have the patient pay the 'out of pocket' portion instead of using CHAS.



Top tips for CHAS

- Keep all receipts, invoices and lab bills for patients as evidence of treatments.
- Keep accurate and contemporaneous treatment notes, as they will be used as evidence during an audit.
- Re-cementation cannot be claimed if the dentist had issued the same crown or bridge.
- A restoration done to serve as the core for a crown cannot be claimed as a separate procedure.
- Only the registered dentist should make a CHAS claim.
- If the treatment fee for a procedure is more than 12 times the subsidy limit, the clinic will need to write in to CHAS to explain the claim.

- CHAS and Pioneer Generation cards are for GDP clinics only and not for specialist clinics.

Top tips for Medisave

- Read the relevant documentation – it is clearly stated what can be claimed.
- If you are unsure, claim the lower amount.
- When claiming for a dental implant, additional procedures cannot be claimed. The higher code should be claimed only.
- Procedures can only be claimed from either CHAS or Medisave, not both.





In Conclusion:

- Both CHAS and Medisave are to help patients lower their costs of dental treatments. The schemes are to help the patient, and not for the dentist to change his practice to maximize revenues.
- As a scheme using public funds to benefit the masses, rules have to be devised based on conventional clinical practices and norms. It is incumbent on the participating dentist to know what these rules are.
- Audits need not be daunting if the clinician keeps thorough records to corroborate necessary procedures. There are avenues for appeal.
- If we do not govern ourselves, others will be compelled to do so. This may lead to more onerous changes in existing policies.

Dr. Asha Karunakaran is a long-time volunteer of the SDA currently serving as Chair of the Ethics & Practice Management Committee. She is a general dentist in her own practice in Novena Medical Center.



Dr. Surinder Poonian is a general dental practitioner in Singapore taking a holistic view on healthcare. In her spare time she enjoys travelling, outdoor activities, karate and has a keen interest in general well-being. Surinder has also been involved with various volunteering projects including dental mission trips, teen retreats and public education on oral health.

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Breaking the Barriers to Better Dental Health

The Community Health Assist Scheme (CHAS) has enabled dentists to reach out to more people to help them receive the dental treatment they need. We talk to dentists about the success of the scheme.

By **Agency for Integrated Care**

A fear of the dentist and high bills may be commonplace, but avoiding a visit does not bode well for anyone's dental health. Thankfully, CHAS has paved the way for more Singaporeans to receive better dental care.

Eliminating Patient Fears and Healthcare Barriers

Introduced in 2012 by the Ministry of Health (MOH), CHAS offers subsidies for medical and dental services to lower and middle-income households at participating CHAS clinics. The lower out-of-pocket payment and convenient access to a wide choice of dental clinics whether in the city or in the heartlands encourage CHAS beneficiaries to access the dental services they need.

"There are patients who come in with severe tooth decay and gum disease because they have not seen a dentist for a long time," said Dr. Teo Hiow Hoong from Sengkang Dental Surgery at Rivervale Plaza. "Yet dental disease is the most preventable disease in our bodies so we can stop it. CHAS has enabled patients to get treatment without the fear of high costs."

Agreeing with this is Dr. Teo's patient, Jasbir Kaur, who saw Dr. Teo for her dental treatment in October this year despite her fear of dentists. "After leaving primary school, I never saw a dentist until I was 23. Then I didn't see a dentist again until I got the CHAS card five years ago and I'm 45 now!"

"After leaving primary school, I never saw a dentist until I was 23. Then I didn't see a dentist again until I got the CHAS card five years ago and I'm 45 now!"

—Ms. Jasbir Kaur

The freelance enrichment teacher admits that the reluctance to seek dental treatment is due to the worry of a big bill, a deterrent for those with lower income, such as her. "But with CHAS, I can visit the dentist twice a year without any problem. And CHAS is extended to my husband and kids too," added Ms. Kaur.

Improving Patient's Wellbeing through Dental Care

On top of allowing patients to enjoy reduced dental fees, CHAS benefits citizens in a holistic manner, points out Dr. Jeffrey Ng, dental surgeon at the Advanced Dental Clinic in the Bedok South estate.

With CHAS breaking down the financial barrier for patients and opening the door for regular dental appointments, dental practitioners gain the opportunity to inform and educate the general public on how to maintain dental hygiene. Good oral health is important and has a positive impact on a patient's

general wellbeing. "These are little steps but it goes a big way in improving the overall dental health of the patient," said Dr. Ng.

Dr. Ng has seen a spike in CHAS patients, despite the clinic opening only three months ago. One such patient is 61-year old cleaner, Mdm. Wee Kim Hua, who used the CHAS subsidies to see Dr. Ng for dentures.

"Whenever I see pictures of the CHAS card in clinics, I take down the clinic's number and give it to my friends who need treatment," said Mdm. Wee.



Dr. Jeffrey Ng and his CHAS patient, Mdm. Wee Kim Hua

The 61-year-old said that the subsidies have provided some financial relief for her and prompted her to go for more regular dental check-ups.

Supporting the Dental Profession

Such word-of-mouth recommendations for CHAS give rise to a groundswell of awareness about available dental care resources to those who need them. "People are more aware of the clinic if you are CHAS-accredited," said Dr. Ng, who is also the General Secretary of the Singapore Dental Association (SDA). "CHAS brings credibility to clinics and to the profession as people know that you are helping them."

The fact that CHAS benefits dental practitioners, like Dr. Ng, is recognised by his peers too. "The dental fraternity has always been supportive of the CHAS scheme since its implementation as many Singaporeans have benefitted," said Dr. Lim Lii, President of the SDA. "We feel honoured to be able to partner the Ministry of Health in this important programme as it is an excellent opportunity for dentists to give back to society."



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“Oral Humour – The Show with Bite”

BY THE FACULTY OF DENTISTRY, NATIONAL UNIVERSITY OF SINGAPORE

The idea of a fundraising show was first seeded in April 2016 when the Faculty of Dentistry was introduced to Ms. Andrea Teo, well known for her TV comedies such as *Under One Roof* and *Phua Chu Kang*. The seed soon sprouted and took root with the assembly of a full cast of popular artistes such as Hossan Leong, Sebastian Tan, Darius Tan, Dennis Heng, Rani Singam,

Yeo Yann Yann, Koh Chieng Mun and Nora Samosir. The Faculty was also privileged to have a team of talented alumni cast who volunteered their time to showcase their hidden talents for the show. Everyone worked hard and put together a well-orchestrated show which took to the stage on 28th August 2016 at the Esplanade Concert Hall.

The Geisha sharing the dental school experience

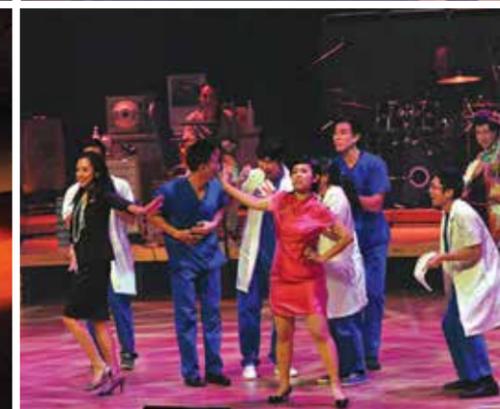


The Tooth Fairy – Hossan Leong



FEATURE

The angelic dances and voices of the children from the Kids Performing™ Academy of the Arts



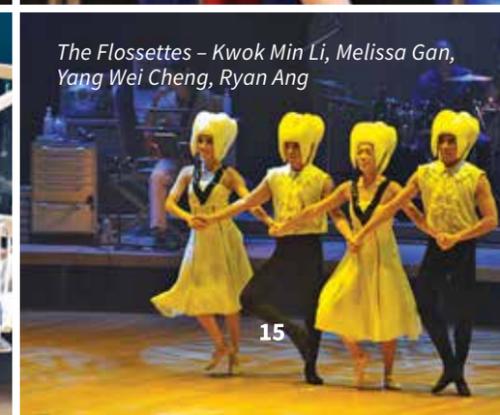
The Dental Sisters for the evening – Koh Chieng Mun and Nora Samosir



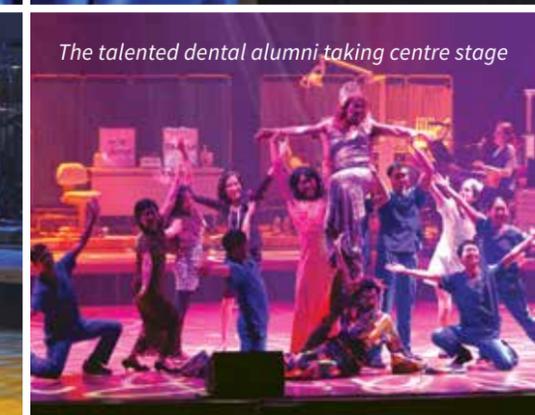
Our daily encounters as dental professionals



The Flossettes – Kwok Min Li, Melissa Gan, Yang Wei Cheng, Ryan Ang



The talented dental alumni taking centre stage





SDA President Dr. Lim Lii with Associate Professor Wong Mun Loke at the post-show reception



The REAL dentists aka alumni of the Faculty of Dentistry spoofing their professors



(From Left) Dr. Evelyn Lee; Professor Finbarr Allen, Dean, Faculty of Dentistry/Chair, Oral Humour Organising Committee; Guest-of-Honour, Dr. Lam Pin Min, Minister of State for Health; Associate Professor Grace Ong, Co-Chair Oral Humour Organising Committee; Professor Tan Chorh Chuan, President, NUS

The event was graced by our Minister of State for Health Dr. Lam Pin Min. With him were other distinguished guests including Chairman of the National University of Singapore (NUS) Board of Trustees Mr. Wong Ngit Liong, NUS Board members Mr. Phillip Tan and Ms. Chong Siak Ching, NUS President Professor Tan Chorh Chuan, Singapore Dental Association (SDA) President Dr. Lim Lii and Chief Dental Officer, Associate Professor Patrick Tseng.

“Oral Humour – The Show with Bite” was the Faculty’s first foray into a musical. It set the stage to celebrate the contributions of the dental profession in bringing smiles to the community. Memories of dental school and dental training, great oral health tips to keep teeth for a lifetime, and reminders of the importance of oral health were packed into bite-sized skits of light-hearted music, song, dance and drama. It was not surprising that the diverse talents of comedians, actors and singers provided a lethally humorous combination sending peals of laughter across the concert hall throughout the evening.

The sold-out show was attended by over 1,400 guests, alumni and friends of the Faculty. The Faculty is heartened by the strong support and generous contributions that raised net proceeds



Guest-of-Honour Dr. Lam Pin Min taking a selfie with the children from the Kids Performing™ Academy of the Arts

of S\$432,000. This amount will go a long way to support its ongoing efforts to improve the oral health of the community (and especially the elderly) through research and clinical services. The contributions will also go towards supporting dental education to train future generations of oral health care professionals.

The Faculty of Dentistry would like to thank everyone who has been a part of this fundraising show in one way or another. Because of your effort and encouragement, the show was a resounding success. More importantly, you have made a big difference to the future of oral health.

How to Make Satisfactory Dentures

WORDS AND PHOTOS BY DR. LOH POEY LING AND DRAWING BY DR. SABRINA ONG



Time and again, renowned speakers share with us their experience of frustrated patients who bring along bags full of unsuccessful dentures, asking for new and better ones.

The question is - how many of these patients truly have denture problems that are a result of poorly fabricated dentures, and how many actually have an undiagnosed problem that is beyond the dentist's capability to help? I will share with you two examples.

Case 1

An upper denture "pulled out" the existing crown and caused the loosening of a fixed partial denture (FPD) (Figs. 1-4; photos courtesy of Dr. Keiko Sakurai).



Fig. 1: Frontal view.



Fig. 2: Upper arch occlusal view. #13 root with large post space. #23 root fractured.



Fig. 3: Lower arch occlusal view.



Fig. 4: Denture with acrylic "clasps", with the dislodged #13 crown and #23-#25 FPD.

The denture had acrylic resin "clasps" at #13 and #25. The major connector was a bar over the palate. There was no lower denture or other restoration planned for the lower posterior teeth. (See Dental Panoramic Tomography image, Fig. 5.) The patient explained that she recently had this new set of dentures made in a foreign country, and a week after her return to Singapore, the crown on #13 "came out" with the denture while she was removing it. #23-#25 FPD had de-cemented, and the abutment #25 had fractured. She confessed that she had expressed concern to the dentist that she did not want "metal wires" in her dentures for aesthetic reasons.



Fig. 5: DPT. #13, #25 and #47 retained roots. Periapical radiolucencies at #23 and #36.

The immediate solution was to re-cement the #13 crown, which had the post and core still firmly attached. #23 retainer was retrieved from the bridge by sectioning at the connector and then re-cemented. The remaining section of the FPD was attached to the denture acrylic resin “clasp” to avoid the compromise in aesthetics.

There were many learning issues in this case study. It was likely that #13 with the large post and #25 with compromised tooth structure were failing before the denture was placed. These findings were not highlighted to the patient at the time of consultation prior to commencement of treatment.

The problems in this case were as follows:

- The patient dictated that she did not want the use of metal clasps. The clinician obliged and used a non-flexible material, acrylic resin, for retention.
- The denture design was not ideal, and did not apply the basic principles in denture design, thus inducing increased stress onto the existing fixed prostheses.
- There was also a lack of comprehensive treatment planning and proper sequencing of the treatment procedures. Failing restorations at #25, #36, #44 and #45 had not been given attention.

There were some measures that could have been taken to prevent this “catastrophe”:

- Educating the patient to accept retentive metal clasps, while incorporating an appropriate design to make them less obvious.
- Considering the use of flexible resin material (i.e. Valplast) for denture retention (Figs. 6 & 7).



Fig. 6: Pre-op.



Fig. 7: Post op. Flexible resin (Valplast) clasp at #13.

- Allowing proper stress distribution in the denture design with a more suitable major connector, instead of using a posterior palatal bar.
- Considering the use of implants for retention of the denture to eliminate the need for retentive clasps. An implant-supported fixed partial denture could also be recommended to eliminate the use of removable partial denture.

A preliminary treatment plan, which included the need for removal of old crowns to assess the restorability of #44 and #45 and the removal of retained roots, was conveyed to the patient. The patient was also informed of the guarded to poor prognosis of #13 and #36, and that they needed endodontic retreatment. Upper and lower transitional dentures were fabricated to help stabilize her condition. The “worst case scenario” involving the need for extraction of un-restorable teeth was highlighted. This helped to mentally prepare the patient and save her from going through a state of panic or anger upon finding out that her restorations and existing teeth had failed.

In a complex treatment need situation, it is beneficial for the clinician to recognize the difficulties and address them accordingly. Involving other colleagues in a team approach for such cases is often of paramount importance.

Case 2

An old lady presented with her family members who requested that adjustments be made to her existing denture to “make it stay properly in the mouth”. They were hoping to resolve the denture problem immediately as the patient’s daughter’s wedding was in three weeks’ time. Her existing upper denture was only used at meal times with the aid of a lot of denture adhesives.

The patient had another old denture that was more than 10 years old and could not be used anymore. The present denture was made one year ago, which she claimed just “would not stay in the mouth unless lots of denture adhesive was used”.

The problems were highlighted as follows:

- The upper denture “dropped out” easily, and she could not chew her food properly even with the use of denture adhesives.
- Her family found that she looked “strange” with the denture, but looked even worse without the denture (Figs. 8a & 8b).



Fig. 8a: Lip posturing with denture.



Fig. 8b: Lip posturing without denture.

- She was not wearing the denture most of the time.

Upon examination, it was found that the patient's edentulous upper arch had moderately severe resorption. The patient's oral hygiene was poor, and all her existing lower teeth had severe generalized chronic periodontitis (Figs. 9 & 10).



Fig. 9: Mandibular view. Lower teeth with severe generalized chronic periodontitis and drifted teeth.



Fig. 10: DPT. Teeth with severe generalized chronic periodontitis and poor prognosis.

The causes of the problematic denture were as follows:

- The periodontally involved teeth were tilted and drifted. Her lower teeth were proclined. As a result of that, the denture teeth were set too far labially out of the neutral zone. This contributed to the abnormal lip position, which resulted in the change in her appearance (Figs. 11 & 12).



Fig. 11: Non-retentive upper denture with corresponding ridge. Note the poor anterior teeth positioning.

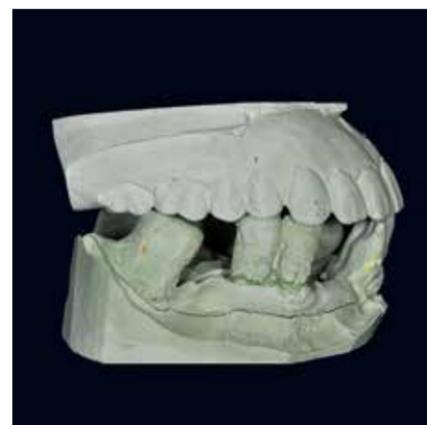


Fig. 12: Casts. Upper denture occluding with lower drifted teeth.

- The maxillo-mandibular relationship (MMR) was incorrect.
- The denture borders were over-extended resulting in easy dislodgement of the denture.
- The denture was unable to achieve an acceptable occlusal scheme due to her poor lower teeth alignment and position.

All these factors combined resulted in poor retention and unacceptable function of the denture. The solution to solving her problems was first to address the periodontal problem before fabricating a new set of upper and lower immediate complete dentures in the shortest possible time. Due to periodontal disease, her lower incisors were in an abnormal position. Her upper denture anterior teeth would need to be set with a large reverse horizontal overlap.

The patient had to be informed of the following facts:

1. The existing denture could not be adjusted to solve her problem.
2. A new set had to be made.
3. All the lower teeth had to be removed.
4. A long period of time might be required for adaptation to a new denture.
5. Multiple denture adjustment visits might be required.
6. The lower denture would need to be re-lined within the next few months.
7. There was minimal time to get the work done in time for her daughter's wedding!

There were many things to consider in this case. From the patient's perspective, she had to come to terms with the fact that she was going to lose all her teeth, which could be very upsetting and unacceptable to her. She also had to grapple with the uncertainty of what could happen after the extractions. On the other hand, the clinician should be wary that if the new complete dentures were not delivered on time and did not function properly, it would result in a very difficult situation for both parties.

Perhaps, this was the reason the previous dentist chose to leave the lower teeth status quo. However, it should be the duty of the clinician to inform the patient of her existing periodontal condition and the imminent loss of the lower teeth. The sequence of treatment in this case was as follows:

1. Primary impression

The patient was forewarned that the teeth might "come out" (exfoliate) while removing the lower impression. An impression of the old denture was made to give the technician and clinician additional information.

2. Extraction of all lower teeth

To expedite the treatment process, extractions of all her lower teeth were completed in one or two sessions (as much as she could tolerate). A new impression was then made a few days after the extractions.

3. Master impression

A custom tray was used. The importance of custom trays cannot be over-emphasized. Having a poorly made tray with over-extension or severe under-extension will make a good impression impossible. The laboratory technologist has no access to the clinical situation to identify the location of the functional sulcus. It is the clinician's responsibility to help with the laboratory process by outlining the sulcus for the technician. It was especially important in this case that the clinician helped define the extension as the extraction sockets made it difficult to determine the denture extension.

4. MMR

This step has traditionally been regarded by novice dentists as being the most mystical and difficult procedure. It is essential to have well-fitting and stable record bases with properly contoured wax rims. The extension of the wax base needs to be correct and frenal attachments relieved properly.

In this case where recent extractions were done, the soft tissue contour would continue to change as the treatment progressed. Therefore, the stability would be compromised for the lower denture record base.

In many denture cases, the old denture can provide information on vertical dimension, lip support and incisal level. This will help reduce the chairside time needed at the MMR appointment. The wax rim must be contoured to proper lip support when vertical dimension is established. In this case, the upper record rim was made to follow the old denture dimension. However, the determination of vertical dimension and MMR was challenging as the patient had developed an undesirable mandibular and lip posturing.

Chin-point technique and bi-manual manipulation are some familiar techniques recommended for registering the MMR. The choice of technique is personal. A tip to share is to feel for the condylar translation and rotation. It is essential to help the patient relax and close his/her mouth while feeling for the condyles as they go from translational to rotational movements. Another tip is to refrain from “pushing” the mandible, which may initiate patient reacting to the pressure and posturing in a protruded position.

Patients who use dentures with incorrect MMR tend to posture the mandible while a record is made. This will cause the new denture to have an unacceptable occlusal record.

5. Try-in

At this appointment, the aesthetics, phonetics, denture extension, vertical dimension and MMR were assessed and confirmed. Trial dentures with properly sized teeth set up will allow the patient to relax. With this, MMR recording becomes more accurate. Usually, if the MMR was done correctly and record rim contoured properly in the previous appointment, this appointment will be a smooth and short one. For patients with habitual mandibular posturing, the occlusal relationship needs to be checked carefully and repeatedly for confirmation.

6. Issue of dentures

The main focus in this appointment was to adjust the fitting surfaces of the dentures so that they properly adapt to the mucosa. The use of pressure indicating paste (PIP) to identify the pressure spots is essential. The occlusal contacts in both centric and eccentric positions must be refined to achieve even contacts.

7. Review appointment

Putting the whole treatment procedure in a nutshell seemed very easy. If previous visits all went smoothly with proper master impressions, correct MMR and vertical dimension, the denture issue stage would often be relatively problem-free. The subsequent review appointment should then also be a simple visit. However, denture treatment is such that the cumulative errors of the treatment stages may only show up at the review stage.

Case 2 was completed well ahead of the patient’s daughter’s wedding (Figs. 13 & 14). The adaptation period of the patient was shorter than anticipated. And thankfully, she only needed one review appointment after the denture was delivered to her.



Fig. 13: Post denture delivery. Patient still posturing her lips



Fig. 14: Post denture delivery. Patient smiling.

Personal experience has shown that the care and concern given by the dentist will be felt by the patient. Often, the comfort and confidence of the patient in the clinician has direct influence on his/her level of cooperation during the treatment process, and this is evident especially during the MMR and vertical dimension determination stages.

There are no failures in denture treatment, only various degrees of success. The purpose of this sharing is to encourage fellow clinicians to approach the difficult patient confidently, but gently, and to always put the patient’s comfort and primary concern at heart. Pay attention to details at every stage of the work, and the outcome will be a satisfactory one. 🙌



Dr. Loh Poey Ling is a specialist Prosthodontist and one of the directors at Ko Djeng Dental Centre. She is also an Adjunct Associate Professor at the Faculty of Dentistry, National University of Singapore (NUS) and teaches in both undergraduate and postgraduate programmes. She serves on the dental fraternity as chairman of the Joint Committee of Dental Specialist Accreditation and Council Member of the College of Dental Surgeons and Women Doctor Association. In addition to volunteering at the Tsu Chi Free Dental Clinic, Dr. Loh also enjoys writing Chinese calligraphy.



Dr. Sabrina Ong, a Queensland graduate, is practicing at Dental Werks. She would love to contribute her artistic talents to future issues of **The Dental Surgeon**.

Asia Pacific Dental Students' Association Annual Congress Singapore 2016

BY LI SHU



After twelve long years, the APDSA Annual Congress was finally back in Singapore. It will always be an event to remember, both for the foreign friends who attended and us the local organising committee.

A total of 143 of our local students and 315 foreign dental students and dentists from all eleven member-countries came to Singapore during the summit from the 10th to the 13th of August. We spent a whirlwind three days of lectures, research competitions, city tours and social events. Kick-starting the Congress was the grand Opening Ceremony that was held at Grand Copthorne Waterfront Hotel on the first evening, graciously sponsored by the Singapore Dental Association.

Many other prominent figures in the dental industry helped to make this year's APDSA possible, including our

kind speakers, workshop holders, research competition judges and generous supporters.

In the following days, we participated in the lecture series themed "Volunteerism and Practice Management", followed by day and night city tours. On the NUS Faculty of Dentistry campus, we held research competitions, dental exhibitions, and various workshops to broaden the horizon of the students.

It was definitely too short a journey, but nonetheless a very fulfilling one. Despite being the only dental school on this small island, we again realised that our regional and international community is borderless – there are so many friends to be made out there.

Once APDSA, always APDSA! 

Li Shu, International President of the Asia-Pacific Dental Students Association 2015-2016, is a 3rd year dental student of the NUS Faculty of Dentistry. He loves hiking, travelling and meeting interesting people from different backgrounds. He dedicates this article to the SDA for its strong support of student initiatives.



Who Says Dentists Aren't Good With Their Feet

BY DR. LEE KWANG YUEH



The Singapore Dental Association's equivalent of the FIFA World Cup was held on 22nd October 2016. The event saw a high number of participating teams and concluded with newcomer Team James stunning the dental world as the champion.

Seven teams from all walks of dental life competed in the gruelling two-hour competition, which had a new round robin format allowing each team to play against every other team, adding an extra element of excitement for all.

Teams Gaylong and Apple consisted of dentists from the graduating batches of 2011 and 2012. Thus, many took the opportunity to catch up with old friends. Both teams played their hearts out and found themselves in the respectable position of joint-sixth (i.e. second from last). The undergraduate Team Benteke Suarez showed that age (or the lack of it) did not hinder its enthusiasm. Experience, however, triumphed over youth. It finished the competition in fifth place.

The aptly named Team Magikarp, consisting of first year Dental Officers, threatened to make a splash at this year's competition, just like the signature move of the team's

Pokemon namesake. However, unlike the Magikarp, the team failed to evolve into the powerful and fabled Gyarados, and struggled at the end into fourth place.

The patriotic Team Willis, consisting of mostly Dental Officers and Dental Assistants from the Singapore Armed Forces, packed enough firepower to blast its way to third spot. Team Q&M, the team with the largest talent pool of players to call upon, lived up to its hype, coming in a close second.

However, it was the mighty Team James, led by Golden Boot winner and Captain James, that emerged as the ultimate dark horse winner of the competition. Star striker James bore such a striking resemblance to legendary Barcelona striker Luis Suarez in both looks and skills, that he led some to believe they were related (photos are attached for you to decide).

The night concluded with a sumptuous buffet dinner and sponsorship gifts from Colgate, GSK and Lion Corporation.

Do drop us an email at sda.soccertron@gmail.com if you wish to participate in next year's event!

"SPLASH! SPLASH! SPLASH!" - Magikarp Cheer 2016



Dr. Lee Kwang Yueh is currently the dental officer in charge at Queenstown Polyclinic.

In his free time, he enjoys playing football and is a huge fan of Liverpool Football Club. His love for football has driven him to be part of the organising committee for Soccertron 2016.

Apart from soccer, he also enjoys catching the latest blockbusters, especially Sci-Fi and Zombie movies.

He believes that life is a series of experiences, and therefore enjoys travelling, feeling alive and appreciating the sights and sounds of the only world with friends and loved ones.



Rightfully Left

BY DR. WONG LI BENG



“Mickey: Left-handed fighters they’re the worst. They try to come in there with that big left. Right’s no damn good. They ought to outlaw southpaws.”

Rocky Balboa: Why didn’t you tell me this before?

Mickey: I didn’t wanna hurt your feelings.”

Quotes from the movie Rocky II, between the left-handed boxer Rocky and his coach Mickey.

Background

Unlike mutants in the popular movie X-Men who can keep their powers under wraps, left-handers in our

society are exposed the moment they sign for their credit card bills, dig their noses, or for dentists, when they pick up the handpieces. According to Hardyck & Petrinovich (1977), the prevalence of left-handers in the population is around 8-10%, and the number seems to be higher in professional musicians and other artistic professions (McManus 2002, Kopiez et al. 2009).

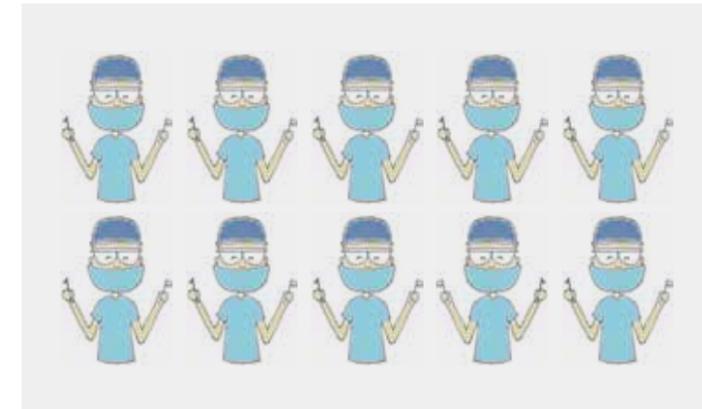
Left-handers have to adapt quickly and with stoic calm in this right-handed world – everything from writing, buttoning of shirts, to operating various equipment. However, due to certain cultural or social norms, especially in traditional Asian societies, left-handed ten-

dency is perceived as a taboo and needs deprogramming. Hence the word “sinister” originally was associated with “left”. It has been found that left-handers are less lateralized and more heterogeneous than right-handers (Borod et al. 1984). Left-handers are less dependent on their dominant hands in performing activities compared to right-handers, and 25% of left-handers may be truly ambidextrous.

Coming back to dentistry, a profession that requires high degree of manual dexterity to perform clinical procedures, many dental schools do not have dental chairs designed specifically for left-handed dental students (Kaya & Orbak 2004). In tandem with the real world, left-handed dental students or dentists have to adapt to the right-handed dental practice. In a recent survey done on left-handed dental students (Al-Johany 2013), slightly more than half of the left-handers reported that they have no problems being left-handers, and 80% of them can use devices designed for right-handed dentists. However, a majority of them (68%) reported having problems with their supervisors who are right-handed, and most of them (85%) would prefer to use dental chairs designed especially for left-handed dentists.

My Journey

I am the only southpaw in my family of four siblings. My mother used to endure chopstick beatings on her left hand by my grandmother when she used it for writing. Eventually, she was converted to a mixed-hander (someone who favours one hand for certain tasks like writing, and the other hand for other tasks like sewing, cutting vegetables, etc). But she bears no resentment against her mother. Unlike my grandmother, my mother allowed me to use my left hand to write and tried to make me feel as normal as possible. In fact, I was so comfortable with myself that I only realized I was the odd one out when my left hand kept hitting against the right hand of my classmate during handwriting practices in kindergarten.



During my school days, my writing exercise book would be constantly smudged as I dragged the dorsal surface of the middle phalangeal last finger over the freshly inked words while writing from left to right. The transparency film for overhead projector (anyone remem-

bers those days?) would also be in a smudged mess when I wrote in this manner. Besides some of these inconveniences, there was nothing much to complain about being a southpaw in my early school years. I was pretty much a normal happy teenager.

My experience as a leftie dental student, however, was more fraught with ups and downs. I probably topped the class during undergraduate pre-clinical years in purchasing the most number of frasaco teeth for repeats during operative technique modules. My crown preparation was consistently lopsided as I had to wrestle with the tug force from the handpiece tubing on my right side. It was rather depressing and I still remember a comment by one of the instructors: “I think you have no pride in your work, you can forget about dentistry.” It was heart-rending considering that I was always one of the first to arrive and probably the last to leave the lab, devoting all my time to improving my technique, but not understanding the real problem behind it.

Fortunately Dr. Hilary Thean, a stern benefactor, pointed out the problem one fine day when she happened to walk past. She patiently demonstrated how I could use the “over-the-patient delivery method” for left-handers to eliminate handpiece tug forces. This saved me from further misery and allowed me to graduate eventually in one piece.

Good mentors are to be cherished. Apart from Dr. Thean, Dr. Koh Chu Guan and Dr. Marianne Ong were also instrumental in fine-tuning my techniques during my specialty training years. From root planing and periodontal surgeries, to sitting position and assistant position, Drs. Koh and Ong who are left-handers themselves were better able to share with me how they had mastered the art of left-handed periodontal practice in the right-handed environment.



My journey as a left-handed dentist was tough initially, but fulfilling as the years went by. Little perks came along, when for example, I could establish immediate rapport with my left-handed patients when they realized that I was “one of them”. There were also occasions when patients would comment: “Wah you left-handed ah? Left-handed people usually very clever one.” Comments like these, although not scientifically proven, can give you an ego boost once in a while.

Being left-handed is neither a handicap nor a talent. It deserves neither shame nor glorification. It is simply a work of nature for diversification in laterality. Fellow left-handers like myself quietly and humbly overcome day-to-day challenges in the rightie-dominated world without self-pity or self-doubt, blending ourselves seamlessly with our lateral counterparts in shaping human civilization. With enhanced knowledge, acceptance and open-mindedness, I would with much optimism, envision a better world for the future generations of southpaws. As Rocky aptly said about life: “It ain’t about how hard you hit, it’s about how hard you can get hit and keep moving forward.”

My Humble Recommendations

1. It would be preferable to have a left-handed dental chair with basic instrumentation in a left-handed setup for fresh left-handed dental students to concentrate on mastering their fundamentals like cavity and crown preparations, calculus removal, etc. Once they have achieved a comparable level of competency as their right-handed counterparts, they can then ease themselves into the “real world” dominated by right-handed dental chairs and equipment.
2. The availability of left-handed instructors and mentors in institutions to provide proper guidance and “tender loving care” to the left-handed dental students.
3. The formation of left-handed dental support groups for the like-minded lefties to share tips on how they can overcome operational challenges in the right-handed dominated world. 13th August is the designated International Left-Handers Day, first observed in the year 1976. It might be an auspicious day to organize an annual conference for left-handed dentists. (It has to be CDE accredited, of course!)
4. The formal training of dental surgery assistants should include a short module on how to assist left-handed dentists. Well, they will never know if their future bosses turn out to be southpaw dentists.

What Do Our Left-handed Dentists Have To Say?

“The proportion of left-handed dentists is actually more than the average number of left-handers in any population. It must mean something! Creativity, good 3D perception, superior hand-eye coordination! Perhaps?”

**A/Prof. Patrick Tseng, Endodontist,
Chief Dental Officer**

“Only 10% of the world is left-handed, so patients get a one-of-a-kind dentist when they see me for treatment!”

**Dr. Lui Jee Nee, Endodontist,
National Dental Centre**

“Being in this right-handed world helped me get used to using both hands for work. This works out to be convenient and helps speed up the treatment a little.”

Dr. Ng Yuk Ching, Endodontist

“Being left-handed forces you to constantly adapt. It keeps you alert because you have to problem-solve all the time in a right-handed world.”

**Dr. Winston Tan, OMS,
The Oral Maxillofacial Practice**

“I think being a leftie dentist is cool because we are more adaptable. Dental chairs and equipment are made for right-handed people but we make do anyway.”

**Dr. Joanne Uy, Prosthodontist,
University Dental Cluster**

“Living in a right-handed world has always been a challenge and that includes dentistry! I’m happy that I’m able to help budding fellow left-handed dental professionals adapt to work.”

**Dr. Koh Chu Guan, Periodontist,
National Dental Centre**

“Being a leftie is an advantage in direct supervision either when assisting residents during their periodontal surgeries, or showing them how to access posterior areas they have difficulty with inside the patient’s oral cavity.”

**Dr. Marianne Ong, Periodontist,
National Dental Centre**

“Given that the world is built for right-handers by right-handers, being a left-hander gives me the opportunity to learn how to use both left and right hands.”

**Dr. Edwin Goh, Periodontist,
National Dental Centre**

“I get to train up my right hand and be ambidextrous. I get to share a trait with Lee Hsien Loong, Mark Zuckerberg and Obama.”

**Dr. Yang Jingrong, Periodontist,
National Dental Centre**

“To be trained and to practise as a pure left-handed clinician, I learn that life is not always about conforming but more importantly overcoming the odds, staying true to yourself and following your heart so that your inner essence can truly shine.”

**Ms. Soon Lay Yong, OHT,
Nanyang Polytechnic**

“Being a leftie has never hindered my career as a dentist. Perhaps some minor positional difficulties had to be overcome in dental school but I always believed being a competent and compassionate professional comes from the heart and will.”

**Dr. Kenny Wong, General Practitioner,
SmileArts Dental Studio**

“Lefties work with both right- and left-handed dental chair setups with ease but right-handers will probably find left-hand setups very awkward!”

**Dr. Chay Pui Ling, Paediatric Dentist,
KKH**

“It’s great to know that I can adapt so well to a dental chair made for right-handers. Can they adapt as well to left-handed chairs?”

**Dr. Tay Xue Li, Orthodontist,
The Braces Practice**

Dr. Wong Li Beng graduated from NUS in 2005 and went on to obtain his MDS in Periodontics in 2010. In 2012, he received the certificate of Specialist Registration with Singapore Dental Council as a Periodontist. Besides Dentistry, he also obtained his Graduate Diploma in Acupuncture in 2011 from the Singapore College of Traditional Chinese Medicine. He is currently working in Ng Teng Fong General Hospital and Jurong Medical Centre, serving as a Consultant and Director of Service for Preventive Dentistry.





Scuba Diving

Life Inexhaustible

BY DR. TERRY TEO

Sigh, not again. I could not put off my Basic Cardiac Life Support (BCLS) re-certification any longer. Every two years in order to renew my dental license, I grit my teeth and search for the course that would hopefully provide the most painless way to pass those infuriat-

ing dummy chest compression tests – a process no doubt shared by most dental colleagues. Having known Dr. Margaret Tan for a few years and hearing that she worked with the Singapore Life Guard Academy (SLGA) to conduct BCLS courses, I decided to give her course a try.

Margaret is no ordinary dentist. A swimming instructor, advanced diving instructor and life-saving coach, it becomes apparent when one speaks to her that her true passion belongs to the field of life-support and safety in the realm of aquatic sport, and this is the area where she has dedicated herself to a life of service. Why would a busy senior practitioner of dentistry take so much time off from clinical practice to conduct BCLS courses? Or even to teach children how to swim and dive?

She remembers vividly when her calling started in the early nineties, having seen a healthy man suddenly collapse while playing badminton. Everyone else at the scene panicked, leaving only her to perform the rudimentary fundamentals of Cardio-Pulmonary Resuscitation (CPR) alone on him. It was an incident that haunted her for a long time, taking many years for her to find closure. “Since then,” recalls Margaret, “I have

strongly believed that everyone (especially medical and dental professionals) should be familiar with life-saving skills such as CPR, First Aid and Water Rescue, so as not to be totally helpless during such an emergency.” Because of this belief, she has steadily accumulated training and knowledge over the years in these various fields until obtaining instructor-level proficiency.

She joined the SLGA, which is the corporate training division of V3 Aquatic Club Pte Ltd, a company founded in 1999. The V3 Aquatic Club specialises in water sports and water safety, education and recreation. Her main objective was thus to promote the art of natation with strong emphasis on water safety, personal survival, aquatic and sub-aqua life saving, and first aid.

Throughout that Sunday, Margaret and her team of instructors conducted a friendly, per-



SLGA BCLS with my group that Sunday



SLGA trained lifeguards volunteering for the Singapore Scout Association's SG50 International Jamboree 2015.



Invited as Technical Official for the Lifesaving World Championships - Rescue 2014 France.



V3 Aquatic Club weekly Children Swimming training.

sonable and pain-free re-certification class. Their enthusiasm was infectious, and their instructions so clear and simple that not a single participant had to repeat any of the stations.

Along with the SLGA's vision, her team also conducts numerous other related life-support courses as well, such as National Resuscitation Council accredited CPR and Automated External Defibrillator (AED) certification, and National First Aid Council accredited Standard First Aid certification. More relevant to clinical practices, Margaret conducts in-house resuscitation equipment training such as Bag Valve Mask (BVM), Pocket Mask and Oxygen training. Most of these being standard first-aid equipment compulsory to all clinics, Margaret feels that all clinical staff should be proficient in their use as ventilation with these equipment is far more effective during an emergency.

Besides her passion in life-saving training, Margaret is an avid dive master. From this hobby, she draws charming parallels between clinical practice and the natural world. Cleaning stations are underwater locations such as outcroppings of rocks or coral. Around these "clinics", fish, turtles and other aquatic life congregate to be cleaned by cleaner shrimp and cleaner fish such as wrasses and gobies. When the "patient", for example, a shark, approaches a cleaning station, it will open its mouth wide or position its body in such a way to signal that it needs cleaning. The cleaner will then remove and eat the parasites from the skin, even swimming into the mouth and gills of any shark being cleaned without facing the danger of becoming lunch. "Of course, we dentists do not eat the plaque removed from our patients' teeth, but it is this mutually beneficial cleaning symbiosis that reminds me of work when I'm out in the ocean," laughs Margaret.

As if all that were not enough, Margaret also finds the time to be a swimming instructor for children. "Water, children, laughter, growth and development - this is an unbeatable combination," she muses, "by nurturing the needs of each individual at each phase, celebrating every small step along the way, we are able to create the best enjoyable learning environment, helping the child to generate a lifelong love and respect of the water, as well as a lifelong hunger for learning and exploration, inspiring the child to unfold their full potential at their natural pace. Swimming can bring so much fun to a six-month-old baby,

or a six-year-old child, or anyone who is over sixty. We might have forgotten about it sometimes, but we can never outgrow our sense of fun."

Our most precious commodity is time. No matter how passionate we are, our time is not inexhaustible. But Margaret's seems to be. How does she do it? Her answer is simple, "I embrace the idea that learning is a lifelong

process - one in which the reward is the journey rather than the destination. Learning and sharing is always my hobby, and I am rewarded constantly.

No matter how busy, we can always make time for our hobbies, and the main purpose of acquiring knowledge is to give it away."

Dr. Margaret Tan graduated from the National University of Singapore in 1992. Her return to public service from private practice in 2012 allowed her to strengthen the bridge between our dental community and the Singapore Life Guard Academy. Those interested in making enquiries can email instructor@v3club.org. Her various proficiencies are as follows:

Life Saving:

- Lifesaving Instructor registered with Singapore Life Saving Society (SLSS).
- Technical Official (local, regional & international) for NUS Invitational Lifesaving Championship, SLSS National Life Saving Championship, Life Saving Society Malaysia's National Life Saving Competition & International Lifesaving Sports Challenge & Lifesaving World Championship's in France.

First Aid & Life Support:

- Chief Instructor & Chief Instructor-Trainer for Basic Cardiac Life Support (BCLS) & AED, accredited by National Resuscitation Council Singapore (NRC), appointed

by Singapore Medical Association (SMA) / Singapore Nurses Association (SNA).

- First Aid Instructor registered with National First Aid Council Singapore (NFAC).
- Competition Judge for Zone & National First Aid & Home Nursing Competitions of St. John Ambulance Singapore.

Snorkel & Scuba Diving:

- Life Member & Nationally Qualified Instructor of British Sub-Aqua Club (BSAC).
- Technical Diver certifications from Technical Diving International (TDI).
- Oxygen & First Aid Trainer licensed by Divers Alert Network, Asia Pacific (DAN).

Swimming:

- Swimming Coach registered with National Registry of Coaches Singapore (NROC).
- Aquatic Educator & Assessor accredited with SwimSafer (National Swimming & Water Safety Programme).
- Swimming Coach certified by International Swimming Federation, Federation Internationale de Natation (FINA).





Qinghai 2016

BY DR. WAYNE TAI



It took three flights to deliver a Singapore team of thirty-six volunteers in July 2016 onto the tarmac of Yushu Batang airport, which is dramatically set within a river valley at an elevation of 3,890m above mean sea level. The volunteers were greeted with *khata* blessings and the first signs of altitude sickness on arrival, despite prophylactic administration of acetazolamide with the consequent diuresis and paraesthesia in the preceding few days.

The barely acclimatised team then boarded minivans for a six-hour jaunt on National Highway G214 and County Road X827 from Yushu City through Nangqên County, up the highlands, alongside tributaries of the Mekong and Yangtze rivers, and past billboards featuring a beaming President Xi Jinping. The weather was fickle in the summer months, alternating between glorious intense sunlight and gloomy overcast skies.

Zhaoxiaxiang Township, situated on the rolling Baga grasslands at an approximate 4,400m above mean sea level, was the destination. It is Khampa heartland amongst the southernmost mountains and pastures of Yushu Tibetan Autonomous Prefecture in Qinghai, China, and borders Qamdo of the Tibet Autonomous Region. Women are robed in silk with accessories of silver, coral and turquoise. Men trot around in leather boots and cowboy hats. Yak and goat herding is the way of life, and annual income is occasionally supplemented by scouring the hills in summer for prized *dongchongxiacao* (*cordyceps sinensis*). The nomadic pastoralists rely on staples such as tsampa, balep, yak meat, milk, yoghurt, and ironically, instant noodles.

Spartan living standards are apparent. There were frequent sightings of locals living out of blue govern-



ment-issued disaster relief tents with portable gas stoves, remnants of the 2010 Yushu earthquake. Medical facilities were sorely lacking throughout the rural region. Seeking treatment means travelling for hours by motorcycle or sport-utility vehicle to Nangqên or Yushu. Major hospitals are days away in provincial capital Xining or Chengdu, Sichuan.

The volunteers experienced life on the roof of the world, contending with wide temperature variations between 6 °C and 23 °C, nomadic tents, dry showers and pit toilets. This was albeit tempered with warm blankets, reliable hydroelectricity and nourishing meals prepared by accompanying chef Lily.

Months of preparation finally came to fruition. Locals came from the surrounding villages and the township's boarding school. Through the combined efforts of the Singapore team and local health clinic, 1980 adults and children were attended to over four days. The services provided were dental fillings and extractions, obstetric and gynaecological consultations, pelvic ultrasounds, general health screenings and medical treatments, eye examinations and vision tests, eyeglass prescriptions, sunglasses provisions, traditional Chinese medicine and health education. 



Dr. Wayne Tai, a dental officer at Toa Payoh Polyclinic, is a city boy who daydreams of getting away from it all. This sometimes means roughing it out while navigating through foreign lands and cultures, be it by scuba diving or motorcycle rides.



Lost in Translation, the Journey to Poznan (and 2016 FDI Annual World Dental Congress)

BY DR. TRACIE OOI



Dr. Lim Lii,
Dr. Seow Yan
San and I in
Plac Wolności

Europe always has a special place in my heart. It is brilliant for its vast history, dense variety of cultures, and amazing interconnectivity allowing ease of movement even for the solo traveller. When I heard the 2016 FDI Annual World Dental Congress was going to be held in Poznan, Poland, I jumped at the opportunity of attending my first dental conference as a foreign delegate, as well as discovering Poland for the first time.

Poznan is rather out of the way for most major air carriers, as its airport mainly serves local and select European routes. To get to Poznan, I decided to fly to Warsaw via Helsinki, and then catch a regional train to Poznan.

I took a local train from the airport to one of Warsaw's main stations and at that point, the language barrier became apparent. Even in a station with regional and international rail routes, most station staff, mainly older folks, spoke only Polish. Having travelled across countries via train before, I carried a trusty little notebook with selected routes written down, and the staff audibly breathed a sigh of relief at not having to interpret butchered pronunciations of their language.

Getting a pre-boarding nibble was a tad more challenging. A nearby *bar mleczny* offered largely unfamiliar fare, and seeing that the patient proprietor and I were clearly lost in translation, I pointed to a dish on the menu and he whipped up a hearty soup of soured rye and smoked sausages which I thoroughly devoured and now know it to be *Zurek*.

The intercity train to Poznan was a bit of an old banger, vastly different from the smooth sailing ICEs and Thalys of Poland's western neighbours. Nevertheless, I managed to get cozy, reading my book and occasionally glancing out at passing farmlands. I arrived at Poznan and checked into Cinnamon Hostel – well placed between the conference venue and the *Stary Rynek* (the touristic old town square of Poznan).

It was an affordable and clean hostel with friendly staff. Having gotten over the squeamishness in past trips, I stayed in a four-bed mixed dormitory. Some fellow delegates, mainly younger Polish and Ukrainian dentists, bunked in the same hostel so it was quite fun discussing which lectures we would be going to and sharing our experiences of dentistry in our respective countries.

2016 FDI Annual World Dental Congress (AWDC)

For the regular delegate, the AWDC offered a four-day scientific program, a trade exhibition and forums with speakers well-versed in their fields. The conference was held at Poznan International Fair and was incred-



My conference badge and booklet

ibly well-organized; handling thousands of delegates and exhibitors from all parts of the world was no easy feat. There were around six lecture halls, one of which was dedicated to lectures just in Polish where regional speakers were given the opportunity to share and teach the international community promising research and ideas that sometimes may not necessarily be known just because they are not in English. During the opening ceremony, I met a couple of familiar faces!

One of the more memorable lectures I had involved learning about the use of expandable 3-D NiTi technology by utilizing its shape-memory properties to treat more complex root canal anatomies. I signed myself up for the hands-on session with FKG later on in the conference and was lucky to get into one

of their limited English sessions despite overwhelming interest. The FDI had, at this year's conference, released a white paper on "Dental Caries Prevention and Management" by Professors Nigel Pitts and Dominick Zero, which was a beautiful summary of how caries management has shifted towards a paradigm of prevention-orientated minimal intervention.

Touring Poznan

Poznan, situated in the *Wielkopolska* region, is one of the oldest cities in Poland, and was the seat of the first historically recorded rulers of the early Polish state in the tenth century. The city enjoyed political, religious, cultural and trade significance over the centuries and has amassed a vast number of historical monuments. However, the old town was almost completely destroyed during the last days of World War II in 1945, in the "Battle of Poznan". The old town, *Stare Miasto*, was eventually completely rebuilt.

Poznan is easy to get around through its small network of buses and trams, and one can cover the entire centre by foot in a day. It is relatively safe and not too



The Archcathedral Basilica of St. Peter and St. Paul

difficult asking for help from younger Poles who mostly have a fair command of English. Walking around the old town square, one is treated to the visual delight of multi-coloured merchant houses that line the square's perimeter. The mannerist-style town hall (*Ratusz*) proudly sits within the square and features an incredibly embellished loggia, with mechanical fighting goats that emerge at the stroke of twelve, much to tourist's

delight. The old town is very picturesque and relaxing to walk through, and there are ample choices of unique cafes, bars and restaurants to patron.

On an afternoon off, I took a tram a little further north-east of the centre to the *Ostrów Tumski* (Cathedral Island) to see the Archcathedral Basilica of St. Peter and St. Paul, and the surrounding ecclesiastical buildings.



Giovanni Volpe – a chic ice cream parlour close to the town square



Pierogi – served traditionally with a side of sour cream

Beneath this rested the crypts of Poland's first rulers and past bishops.

Dining in restaurants is affordable and food is usually of good quality; their portions are by no means small! I was treated to hearty soups and variations of *pierogi* (Polish dumplings), which even had a version consisting of sweet plum filling which is usually eaten as a main



St. Martin's croissants – they have to be of a specific weight and be made by licensed bakeries to be sold with that name!

course in the summer. Other dishes worth sampling are their stuffed cabbage parcels called *gotqski*, and *bigos*, which is a traditional meat stew.

Poznań is teeming with ice cream parlours where €1 will get you a generous creamy scoop of ice cream. Two parlours I loved were Kolorowa and Giovanni Volpe. The *rogale świętomarcińskie* (St. Martin's croissant) is a



The altar of the Fara Poznańska Basilica Minor. The church is rich in baroque splendor.



regional specialty and is a croissant stuffed with a sweet poppy seed filling. The recipe is legally protected and only licensed regional bakeries are allowed to name their croissants so. However, at the Rogalowe Muzeum Poznania you will have the chance to try your hand at making these croissants and its show is incredibly interactive.

As this trip was such an enriching experience, I cannot wait for the next FDI AWDC that will be held in Madrid, Spain. It does take a bit of courage to travel to another country on your own, but definitely do some research and just go with the flow! 🙌

Dr. Tracie Ooi lived seven years in the UK, graduated from King's College London in 2014, and is currently working at the National Dental Centre, Singapore. Tracie spends her free time tinkering on the piano, learning German and racing competitively in local Dragon-boat regattas. She is particularly fond of long train journeys and backpacking trips. She is also currently completing her final year towards the Associate-ship of King's College.

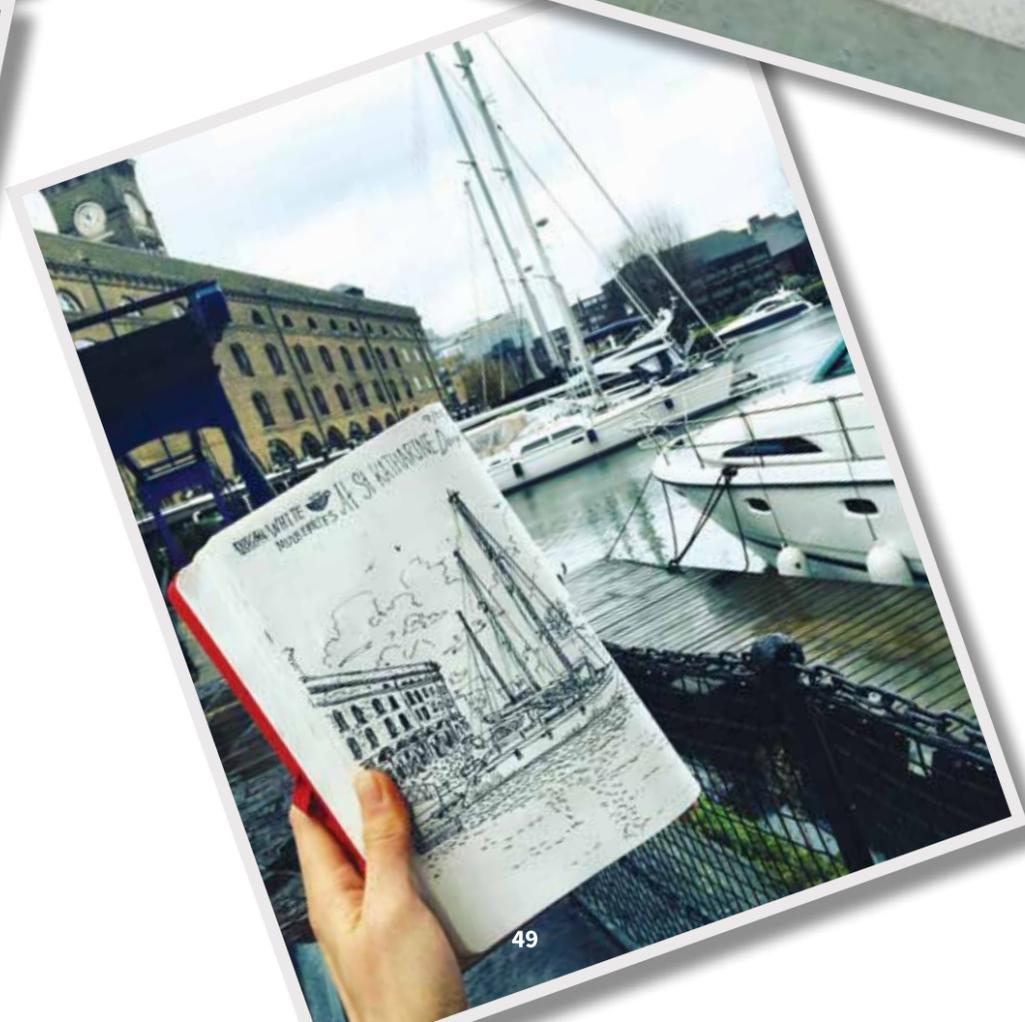


My Visual Diary

BY DR. TESSMIN OOI

I am not sure if I can really call myself an artist, having received no formal training. However my love for sketching blossomed since I was young, where I loved to participate in art competitions. I have always sketched in a manga-like style.

During my final year at King's College London, I was fascinated by London, which reshaped my passion and artistic direction in sketching. The city gave me infinite inspiration with its historical streets, iconic bridges and architectural landmarks. When I sketched London, I absorbed the details of the city that one easily takes for granted, such as the Victorian lampposts and glittering nightlights along the River Thames.





Cafés are a particular interest of mine, as each of them has its own unique interior design, set to create a different mood and atmosphere. Cafés also draw people of similar interests and temperaments together, and I have bonded with a number of strangers over coffee and art. Now that I'm finally back home, I hope to discover more cafés and local scenes of Singapore and add them to my growing collection.

My sketchbook is my visual diary: from it I not only recall the subject of my sketch, but also evoke the sounds, smells and atmosphere of that particular session – achieving a far more powerful sense of memory and nostalgia than with words alone. 📖

Dr. Tessmin Ooi graduated from King's College London in 2016. A self-taught artist, whenever she explores London or travels to other countries, she is never without her sketchbook and pens. She is currently working in National Healthcare Group Polyclinics and sketches around Singapore during the weekends.



Under the Covers: Are You Getting Enough?

BY DR. SURINDER POONIAN



“Beep, beep, beep beep”. The sound of the alarm clock in the morning. Time to wake up. But I hit the snooze button. “Five more minutes,” I think to myself as I roll over and drift back into a deep slumber. Sounds familiar? In a rapidly evolving world with busy lives and technological advances, this can be pretty common.

What is sleep?

Sleep can be defined as a natural periodic state of rest in which the eyes usually close and consciousness is partially

or completely lost. There is a characteristic cycle of brain wave activity. We spend 36% of our lives sleeping. If we live to 90 years of age, that is 32 years asleep! Clearly this behaviour is an essential part of the human experience¹.

There are multiple schools of thought on why we need to sleep. Some of these include restoring and replacing physiological structures through the night, conserving energy (sleep uses around 110 calories a night), and processing information and consolidating memories in the brain.

Both the quantity and quality of sleep have an impact on how we feel when we wake up in the morning. Many life-

style and health factors govern the amount of sleep each individual requires. In general, infants require about 12 to 15 hours a day, teenagers need about 8 to 10 hours and for most adults, 7 to 9 hours is recommended but is often a luxury². Few of us make sleep a priority which can lead to ‘sleep debt’, where you ‘owe’ your body rest. This deprivation can make itself known in a number of ways.

There are several tell-tale signs that you are not getting enough sleep^{3,4}:

- Hitting the ‘snooze’ button regularly
- Drowsiness, lack of focus

- Impaired memory and physical performance
- Increase in blood pressure
- Reaching for caffeine, sugars or carbohydrates to get you through the day
- Weight gain due to an increase in ghrelin (the hunger hormone) and decrease in leptin (the hormone that tells you to stop eating)
- Insulin resistance leading to type 2 diabetes
- Increased cortisol levels and stress
- Coughs and colds due to a compromised immune system

Benefits of sleep

Sleep is a fundamental pillar of our overall health through the rest and repair of vital structures⁵.

Nervous system	Neurons are given a chance to repair themselves.
Hormones and metabolism	Important hormones such as growth hormone, cortisol, follicle-stimulating hormone, luteinizing hormone, ghrelin and leptin are regulated.
Proteins	Proteins are building blocks for cell growth and repair. During sleep, many cells show an increase in production and there is a reduction in the breakdown of proteins.
Brain	Activity in parts of the brain that control emotions, decision-making processes, and social interactions is drastically reduced during deep sleep, suggesting that sleep may help people maintain optimal emotional and social functioning when awake.
Cognitive performance and mood	Improved memory: a study in rats showed that certain nerve-signaling patterns that the rats generated during the day were repeated during deep sleep. Improved alertness and motor function.
Immune system	Recovery of injuries such as cuts and sore muscles. Helps your body to defend itself. During sleep, more white blood cells are produced. Sleep may help the body to conserve energy in order to mount an immune response and fight disease.

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Stages of sleep^{6,7}

The two main stages of sleep are rapid-eye-movement (REM) sleep and non-rapid-eye-movement (NREM) sleep, which can be monitored by electroencephalograms (EEGs) recording brain activity. The sleep cycle repeats itself around every 90 minutes.

NREM (75% of night): As we begin to fall asleep, we enter NREM sleep, which is composed of stages 1-4. Brain waves become slower as the stages progress.

Stage 1

- Between being awake and falling asleep
- Light sleep

Stage 2

- Onset of sleep
- Becoming disengaged from surroundings
- Breathing and heart rate are regular
- Body temperature drops (so sleeping in a cool room is helpful)

Stages 3 and 4

- Deepest and most restorative sleep
- Blood pressure drops
- Breathing becomes slower
- Muscles are relaxed
- Blood supply to muscles increases
- Tissue growth and repair occur
- Energy is restored
- Hormones are released

REM (25% of night): First occurs about 90 minutes after falling asleep and recurs every 90 minutes, getting longer later in the night. The “active” portion of sleep.

- Provides energy to brain and body
- Supports daytime performance
- Brain is active and dreams occur
- Eyes dart back and forth

Sleep for Dummies

Some top tips that may help with getting a good night's rest:

- Wind down – get into a bedtime routine and give your body and mind time to relax.
- Lower the lighting – creating a dark and quiet environment will allow the brain to produce more melatonin which makes us feel less alert. Melatonin levels decrease again by morning, preparing the body for being awake.
- Turn off technology – they act as a stimulus and distraction to rest.
- Cut the caffeine and alcohol – stimulants keep the brain awake and depressants will have a mildly sedative effect but will harm repair processes. Both result in poor biological sleep.
- Keep sleep times consistent – your body will get into a natural routine and will later know when it is time to wake up and sleep.
- Choose light foods before bed – this will allow your body to rest and repair rather than rest and digest which may improve quality of sleep⁵.



Dr. Surinder Poonian is a general dental practitioner in Singapore taking a holistic view on healthcare. In her spare time she enjoys travelling, outdoor activities, karate and has a keen interest in general well-being. Surinder has also been involved with various volunteering projects including dental mission trips, teen retreats and public education on oral health.

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[11 CDE points]

L'enfant Magnifique de Washington

The intrepid and indomitable Travelling Gourmet™ embarks on a gastronomic safari in the United States of America. Nowhere in the world is there so much power concentrated in one city but in Washington, District of Columbia.

STORY AND PHOTOS BY DR. MICHAEL LIM, The Travelling Gourmet™



The city of Washington was designed in 1791 by Pierre L'Enfant and the original design remains largely in place. Major L'Enfant (1755-1825) was a French artist, engineer & soldier. A close comrade of General George Washington, they fought the British in the Revolutionary War. Due to Pierre L'Enfant's brilliant design, Washington DC is very easy to navigate; everything is mapped upon a criss-cross grid system.

In January 24, 1791, President George Washington announced the permanent location of the national capital, a diamond-shaped ten-mile tract at the confluence of the Potomac & Eastern Branch Rivers.

Mandarin Oriental Washington DC was my base. I was very impressed with this luxurious hotel. On arrival, I caught sight of two oriental silk jackets on display, and looking round, noted on display; Asian *objets d'art* everywhere.

The hotel boasts an excellent location that is within walking distance of the Washington Monument amongst other famous sights, her suites offer spectacular views of the Potomac River, Washington Monument and Jefferson Memorial plus the capital's splendid skyline.

It was therefore only right that I would take a stroll to the stunning obelisk that is the Washington Monument, only sixteen minutes from the Mandarin Oriental. The historic stone obelisk was completed in 1884 and stands at an imposing 555ft 5in! One can go right up to the pinnacle for panoramic views to kill for!

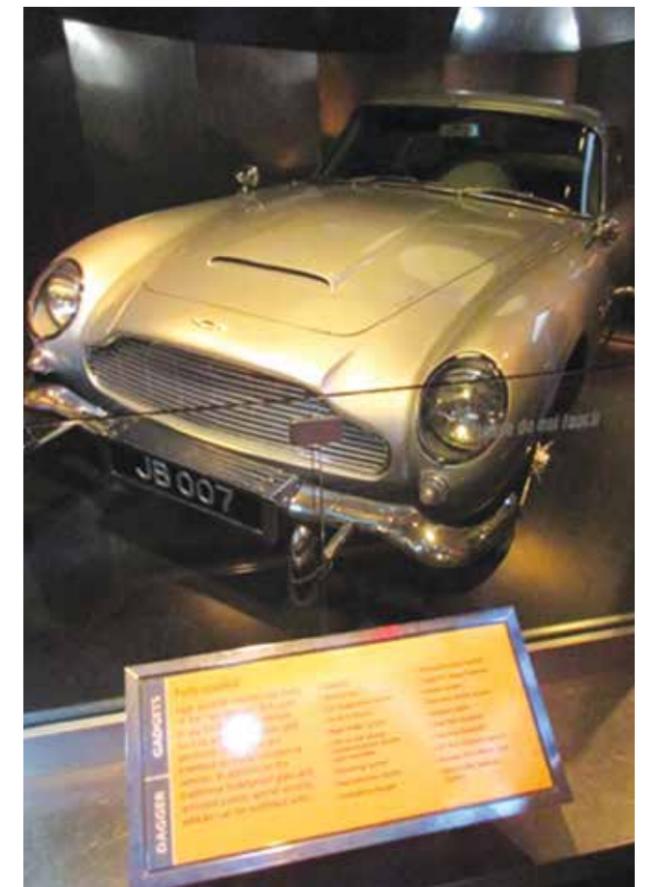
Also on my must-visit list was the International Spy Museum, showcasing the real life as well as fictional escapades and covert workings of the clandestine operators, their equipment and tradecraft. From the Cambridge Spy Ring to alluring Mata Hari, you will find that invariably, truth is stranger than fiction. Not many of us know that spying is the world's second oldest profession.

This unique museum is very informative and entertaining. At the start of my tour, I was invited to pick a "cover" and "legend" and at the end of the tour, I was tested to see if I had the makings of a spook (colloquial for spies in the world of espionage).

One impressive exhibit was James Bond's Aston Martin DB5 seen in "Goldfinger". All fitted out with hidden .30 calibre machine guns, a bullet-resistant rear screen and an ejector seat.



Cloak.....And Dagger



007's Aston Martin DG5

Muze

I was treated to an eclectic mix of flavours over dinner prepared by Chef Adam Tanner's restaurant, Muze. Relishing cosmopolitan epicurean delights here is a joy! Chef Adam's wife is Thai and he loves Asian cuisine, so modern American cuisine with Asian and particularly Thai influences is *de rigueur* at Muze. The tropical roll, a sushi roll with crispy soft shell crab, is a mouthwatering *hors d'oeuvre* I recommend. I matched it with clean & crisp Eroica 2014 Riesling that had refreshing acidity and balance. Rieslings always go well with seafood, which leads on to dinner proper. Then sashimi, followed by XO Maine lobster with shiitake mushrooms; a real winner when it comes to gourmet food! Finally, Chef's take on sticky dan dan noodles was a fantastic interpretation of the classic Beijing dish.

Awesome Occidental Grill

The military genius and five-star general Douglas MacArthur loved to dine in this 110 years old iconic restaurant, similarly sharing his favourites with others who wielded power, influence and fame. John Edgar Hoover, the longest-serving Director of the Federal Bureau of Investigation, was but one of the luminaries. On the hallowed walls, his and many other photographs gaze upon the diners at their meals.

Just steps from the White House, Occidental Grill & Seafood is an elegant combination of the classic and the *avant-garde*. A cutting-edge menu of American cuisine.

Dinner was Amish chicken three ways, featuring brined breast, juicy and tender thigh *roulade* and fried "lollipop" leg. Desserts came as sweet & sour *brûléed* pineapple, apricot gelée with black rice and coconut salad. I strongly recommend coming here when in DC!



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Mandarin Oriental Washington DC

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International Spy Museum

800 F Street Northwest
Washington DC 20004

Occidental Grill and Seafood

1475 Pennsylvania Avenue NW
Washington DC 20004
Tel: +1 (201) 783 1475

A Tale of Two Wines and the King

The inspiring and audacious Travelling Gourmet™ explains about Pinot Noir, Shiraz and Champagne.

STORY AND PHOTOS BY DR. MICHAEL LIM, The Travelling Gourmet™

Sacred Hill Pinot Noir 2014 from Marlborough in New Zealand 13.5% abv

Wines are sometimes likened to people, possessing of vitality and life and like Man, having their individual personalities. It has been said that Pinot Noir may be likened to Cate Blanchett, the famous actress of *My name is Charlotte Gray*. The movie was inspired by the amazing heroine of the Special Operations Executive in World War Two, Nancy Wake. Like the lead, the wine is at once mysterious and subdued and yet laden with hidden depths of fiery passion.

Pinot Noir always brings to mind 2003 when I was the first gourmet in the world to match mooncakes from the Singapore Marriott with wines. Hailing from New Zealand, Palliser Estate's Pinot Noir with its fresh strawberry flavours and refreshing acids was the exquisite wine I selected. It is low in tannins and high in acidity (originating from a thin-skinned grape), and thus the wine is seductive, smooth and silky.

The gold standard for many aficionados is the racy Pinot Noir from Burgundy in France; those from the Côte de Nuits are extremely elegant and subtle, and so are the ones from the Loire Valley. New World Pinot Noirs are more expressive but when well crafted are not mere "fruit bombs". Washing-



Pinot Noir and Goi Cuon

ton State in the USA and many New Zealand's wineries also make excellent Pinot Noirs prized for their unique *terroir*.

Tasting Notes

Pale crimson colour, red berries, sour prunes, lifted fruit and red currants on the nose. Spiced cherries and cranberry flavours on the palate. A lovely texture of fine satin. Savoury notes on the end palate with hints of *Prosciutto di Parma*. Medium in length. As a *Le Cordon Bleu* and Culinary Institute of America trained Chef, I made Vietnamese Goi Cuon – Saigon Style, which married well with this Pinot Noir. A perfect foil to this classic Vietnamese dish is aromatic and pungent *Nuoc Mam* dipping sauce.

Available at
Auric Pacific Singapore
50 Collyer Quay
#06-03, OUE Bayfront
Singapore 049321
Tel: +65 6336 2262

Shotfire Barossa Shiraz 2014 by Thorn-Clarke 14.5% abv

Legend has it that Shiraz originated from the town of Shiraz in Persia, now Iran. Like a spy, it has an alias, Syrah. Like those operating in the world of espionage, Shiraz takes on many guises depending on its origin and the wine-making technique used. Shiraz to me is a bit like Angelina Jolie in *Salt*. The typical New World Shiraz has distinct and sometimes intense white and/or black pepper notes, hence making it excellent for USDA Tenderloin done 'medium' with a Green Peppercorn sauce. The wines from the Rhone Valley in France are more "rustic" with smoky nuances and red currant flavours and only a subtle hint of pepper.

Tasting Notes

The fascinating name comes from the *Shotfire*, a person in charge of setting and detonating the explosive charges in the gold mines of the Barossa Valley. The wine is of a deep,

dark crimson colour. One finds aromas of black cherries and pepper on the nose. On the palate, one finds complex flavours of dark chocolate, ripe plums and vanilla as a result of careful oak treatment. Soft, fine structured tannins and full bodied, this is a beautiful wine. Complex, balanced & well structured. The history of this winery dates back to 1870! I really like this with Venison served medium rare with a Pommery Mustard sauce.

Available at
1855 The Bottle Shop
 112 East Coast Road
 #B1-06, 112 Katong
 Singapore 428802
 Tel: +65 6783 1855

Champagne Philippe Gonet Brut Rose 12% abv

The King of Wines, also the Wine of Kings, needs little introduction. Champagne speaks for itself. When you behold the moon over the Côte d'Azur, smell the gardenias in the air, admire the topaz blue sea from the Grand Hôtel du Cap Ferrat, and sit with your loved one with a glass of cool sparkling Gonet Champagne, you will never forget the experience. I have done the harvest there and stayed in one of their lovely chateaus. The owner is tireless and très jolie Chantal Gonet, whose classical beauty is only matched by her superbly crafted champagnes.

Tasting Notes

Spicy and pleasantly mineral, it is made with 10% Pinot Noir from Ver-tus and 90% Chardonnay from Le Mesnil-sur-Oger. Brioche notes from *sur lie* (aging on the lees of yeast) seduce and entice. A most elegant Champagne with finesse. Hints of fresh lime and citrus. Lovely with Sevruga Caviar from Azerbaijan and crème brûlée.

Available at
Wine Selection Pte Ltd
 605A Macpherson Road
 Citimac Building
 Singapore 368239

Nothing better than Rosé Champagne to celebrate the fast approach-ing Christmas and the New Year! Champagne invariably goes very well with any festive occasion! May we all have happiness and good health! à Votre Santé from the Travelling Gourmet™!



Shotfire Shiraz



Gonet Rose Champagne - King of Wines



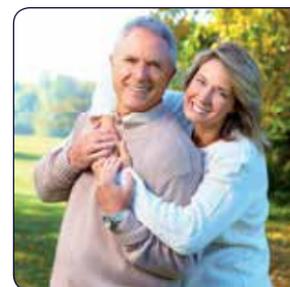
Dr. Michael Lim is The Travelling Gourmet™ Travel, Food & Wine Writer/Editor/Educator extraordinaire.

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Meta-analysis confirms effectiveness of BioGaia ProDentis as an effective adjuvant to standard periodontitis treatment

In a newly published systematic review, *Lactobacillus reuteri* Prodentis was shown to be the only probiotic effective as adjunct to standard treatment of periodontitis. The results are similar to those of other adjuncts to treatment of periodontitis, such as systemic antibiotics. In the trials, *Lactobacillus reuteri* Prodentis consistently showed a statistically significant improvement versus standard treatment only.

The authors also suggested that *L. reuteri* may be used to reduce the use of systemic antibiotics and by that, potentially, lowering the risk for antibiotic resistance.”

[Journal of Periodontology](#) 11 March 2016

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2016 MINI Clubman

BY DR. KEVIN CO

Introduction

MINI Asia has introduced the new, reworked Clubman in Singapore. The new Mini Clubman retains the quirky style and unconventional design of the previous generation, but comes with improvement on many fronts. It is the largest MINI on offer today which promises practicality, versatility, a great ride and comfort. So, if you are looking for a compact family car, the new MINI Clubman might just be the right vehicle for you.

Appearance

The MINI Clubman stands out in a sea of compact family cars for its oddball looks. While exterior design has evolved from the third generation MINI hatchback, there are some unique touches that differentiate the Clubman from the rest of the MINI range.

The feature that stands out the most is the split rear tailgate. The cupboard doors now have a 50-50 split instead



of the asymmetric split tailgate of the previous Clubman models. The front is still unmistakably MINI with round, expressive headlights and a wide hexagonal grille. When viewed from the side, the new Clubman does look more like a van, but for the floating roof that adds a bit of spice to the styling. Towards the rear, the taillights have been redesigned and now feature circular LED elements with a twin-chrome handle in the centre.

MINI engineers have also reworked the aerodynamics of the new Clubman. Airflow has been optimised with air curtains and breathers, and a spoiler has been added to maximally cut down drag.

Interior and Comfort

The new Clubman has grown in size compared to its predecessor. It is now 270mm longer and 30mm wider, measuring over 4m in length and 1.8m in width. It offers 360 litres of luggage space that can be increased to 1250 litres by folding down the rear seats. It can seat five adults in comfort and still boast plenty of room to spare for their luggage. I tried loading it with IKEA wares and it handled like a pro, not forgetting to mention the ease with which child seats can be set up. Clearly, interior space is one measurable improvement over the outgoing model.

The Clubman uses the new dashboard layout found in all the latest generation MINIs. The characteristic round centre console houses the infotainment display. It is a system based on

BMW's iDrive, which is one of the best systems around. A 6.5-inch display is available with the entry-level model while an 8.8-inch screen adorns the Cooper S variant.

Another design feature that made its debut on the new generation MINI is the LED surround for the centre console. The lighting theme changes by switching through the different driving modes. Moreover, illuminated decorative strips on the door panels further add to the ambience.

Performance and Drive

The 2016 MINI Clubman comes in two variants, the Cooper and Cooper S, powered by three and four cylinder engines respectively. A 1.5l 3-cylinder petrol engine powers the basic version with BMW's Twin Power Turbo Technology, giving it 136hp and 220Nm of torque at 1250rpm.

The sportier of the two is the Cooper S featuring a 2l 4-cylinder engine capable of putting out 192hp and 280Nm of torque at 1250 rpm. This engine is matched with a sublime 8-speed Sports Automatic transmission with paddle shifts; the base model gets a 6-speed auto.

Performance is brisk. The Cooper S manages to accelerate from 0-100kph in 7.1 seconds and has top speed of 228km/h with its 4-cylinder engine. The 3-cylinder engine manages 9.1 seconds to reach 100kph and can accelerate up to 205km/hr. Both Euro 6 compliant engines offer decent mileage and lower CO2 emissions.



The 3-cylinder engine manages to deliver 5.4l/100km, while the 4-cylinder engine takes 5.9l/100 km of mileage.

MINIs have always had a sporty feel when driving. The Clubman might be a large family hatchback, yet it still manages to offer a performance drive. Additionally, the crisp 8-speed gearbox is a joy to use as the Head-Up display guides along. Other features include Park Distance Control, Parking Assist, Cruise Control, and optional Driving Assist.

Final Say

The MINI Clubman is a good choice if you are looking for a family car with room for five people, loaded with the latest electronic gadgets and safety systems. There is also sufficient luggage space and an airy interior, making the Clubman very practical. Furthermore, in terms of design, it is unlike any other family car and with the option of a 192hp engine, the Clubman will eat up miles at great speed.



Dr. Kevin Co is a full-time private practitioner at his clinic TLC Dental Centre. Cars remain his lifelong passion.

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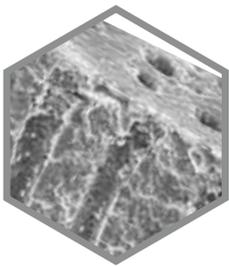
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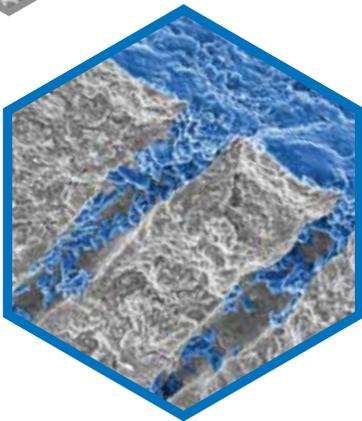


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