SMA news

For Doctors, For Patients

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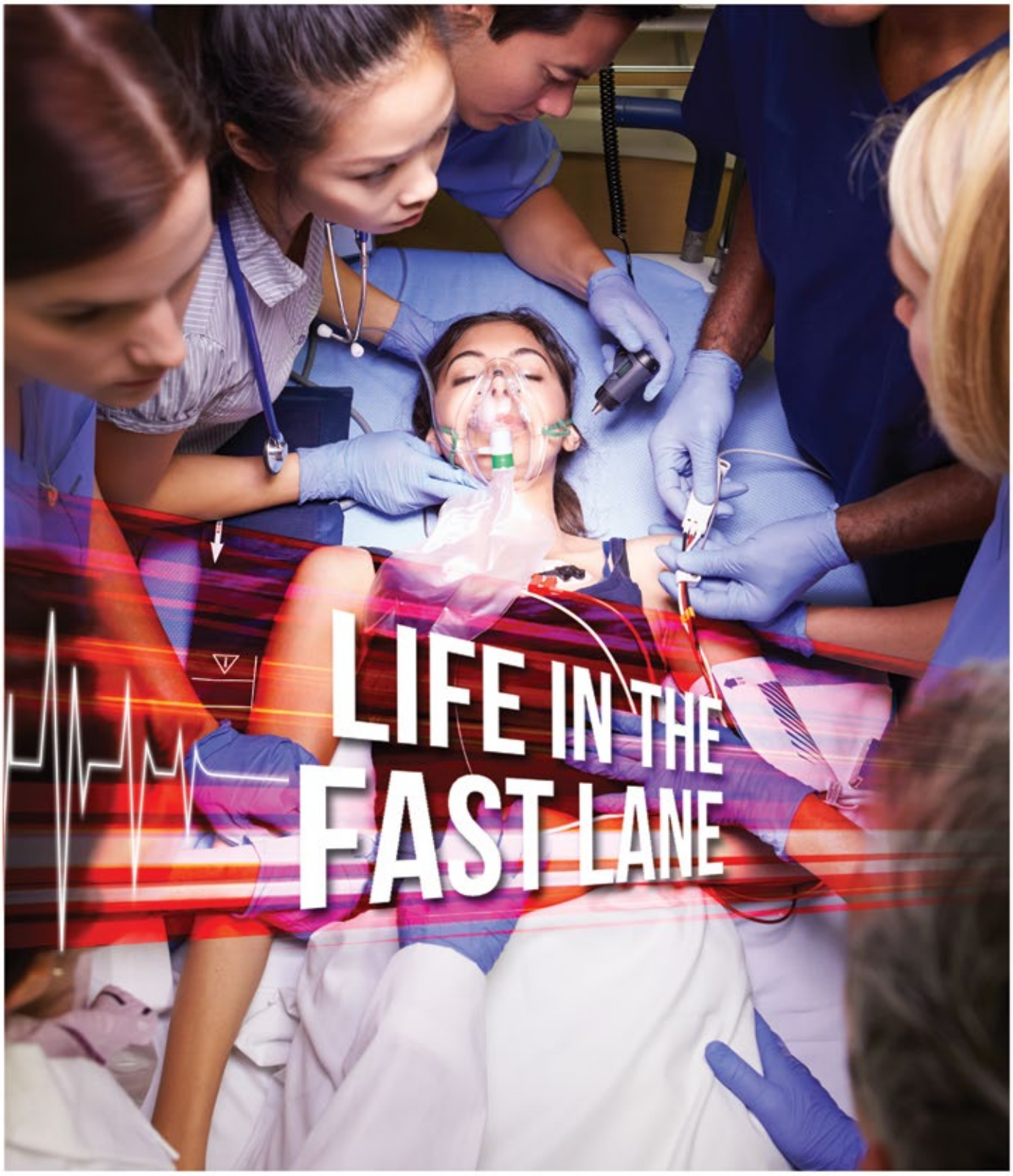

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GUARDIANS *and* EDUCATORS

Layman's perception of the emergency department (ED) probably falls into one of two categories: stat action all the time as per television series *ER* or *Code Black*, or a 20-hour waiting time in priority level 3 areas as per local complaints…

How about doctors' perception? Do GPs send patients to the A&E expecting everything to be sorted out? Do specialists denigrate A&E doctors as mere postmen?

The truth is that emergency medicine (EM) has evolved very much in the past few decades. It is a recognised specialty in its own right and has various subspecialties. My guest editor, Jipson, has gathered some of his close friends in EM to piece together a great issue on this specialty, bringing us an insider's review on what it actually means to be an EM specialist today. Enjoy, be impressed and appreciate them!

Dr Tan Yia Swam is a consultant at the Breast Department of KK Women's and Children's Hospital. She continues to juggle the commitments of being a doctor, a mother, a wife and the increased duties of *SMA News* Editor. She also tries to keep time aside for herself and friends, both old and new.

Yia Swam
Editor

Dr Jipson Quah is a medical officer who has recently completed his National Service and is currently attached to the Department of Pathology at Singapore General Hospital. He enjoys music-making, fitness-related activities and editorial work in his free time.

Jipson Quah
Guest Editor

In this issue, *SMA News* is proud to feature the frontline warriors of EM, an irreplaceable component of our healthcare landscape. One must marvel at how thousands of new patients of all age groups and varying presentations are managed effectively at the pre-hospital front and emergency departments all over the country every day. In contrast, we hear of overseas hospital counterparts having to shut down their emergency care facilities due to lack of funding, or manpower or political issues. Fortunately, through visionary leadership and strong support, our EM capabilities have been growing from strength to strength over the decades. In our Feature, we have esteemed clinicians, Prof V Anantharaman, Clinical Prof Goh Siang Hiong and Clinical A/Prof Eillyne Seow, reminiscing about their earlier years in EM.

Not only do our ED colleagues play critical roles in initial patient management, but they are also essential pillars of medical education. Many of the outstanding clinician-educators are ED specialists who have taught numerous generations of physicians and surgeons alike. I fondly remember the legendary clinical and ECG tutorials conducted by Prof Anantharaman and A/Prof Suresh Pillai, respectively, during my medical school days. A/Prof Shirley Ooi, whose passion for teaching and mentoring has influenced many, and whose book co-authored with A/Prof Peter Manning sits on innumerable shelves, shares her remarkable journey in medical education.

We often take our peace and security for granted, but what happens during a mass casualty situation? We hark back to the night of the 2013 Little India riot, which was previously an unimaginable scenario. While many of us merely read about the incident in sheer disbelief, Dr Chan Wui Ling recounts her first-hand experience of that dramatic night. Moving along the theme of emergency response, we have Col (Dr) Ng Yih Yng from the Singapore Civil Defence Force, with the latest developments at the pre-hospital front. Imagine a "Pokemon GO" app designed to address cardiac arrest cases – that's the myResponder app!

All our EDs are extremely busy and crowded, but have you ever wondered which among them might have the highest caseload? A/Prof Ng Kee Chong and Dr Lee Khai Pin tell us more about the Children's Emergency at KK Women's and Children's Hospital, an ever-present oasis of relief and comfort for children, parents, grandparents and often other extended family members.

We have also invited a pair of EM residents, Drs Joanna and Jonathan Chan (who happen to be siblings), to share snippets of their lives and careers as junior ED specialists. One can only imagine their conversations at family gatherings!

Lastly, I would also like to thank all esteemed colleagues for their insightful articles, as well as Drs Desmond Mao and Lim Jia Hao, for their invaluable contributions in making this special issue of *SMA News* a truly memorable one. ◆

Life in the Fast Lane

– Interview with Prof V Anantharaman, Clinical Prof Goh Siang Hiong and Clinical A/Prof Eillyne Seow

There is no other speciality in which the saying "every second matters" is more true than emergency medicine (EM). Every decision made in this fast-paced environment leaves an indelible impact on all who pass through the department, and it could make all the difference between life and death. *SMA News* is thus pleased to have three esteemed emergency physicians – **Prof V Anantharaman (VA), Clinical Prof Goh Siang Hiong (GSH) and Clinical A/Prof Eillyne Seow (ES)** – share with us their careers in EM, and their hopes and dreams for future generations of emergency physicians.

Prof V Anantharaman

Prof V Anantharaman is a senior consultant at Singapore General Hospital's (SGH) Emergency Department (ED), clinical professor at National University of Singapore and adjunct professor at Duke-NUS Medical School. He chairs Singapore's National Resuscitation Council and is immediate past president of the College of Emergency Physicians, Singapore. He is also a member of the Singapore Medical Council. Prof Anantharaman was head of SGH's ED from 1994 to 2003; founding president of the Society for Emergency Medicine in Singapore and also the Asian Society for Emergency Medicine. For many years, he chaired Ministry of Health's Emergency Medicine Services committee and the Medical Advisory Committee for the Ministry of Home Affairs. He was awarded the Order of the International Federation for Emergency Medicine in 2004.

Clinical Prof Goh Siang Hiong

Clinical Prof Goh Siang Hiong is the president for the College of Emergency Physicians Singapore. He is also a past president for the Society for Emergency Medicine in Singapore. He has an interest in medical informatics and medical gadgets.

Clinical A/Prof Eillyne Seow

From March 1995 to March 2015, Clinical A/Prof Eillyne Seow held the following posts at Tan Tock Seng Hospital: Deputy Head and Head, Emergency Department; Assistant Chairman Medical Board (Clinical Development); and Divisional Chairman (Ambulatory and Diagnostic Medicine). She was awarded the Medal of Valour for the Singapore National Day Award in 2003 and the National Health Group's Distinguished Achievement Award in 2012. She joined Khoo Teck Puat Hospital's A&E department in July 2015.

Back in those days, emergency medicine (EM) was not yet a recognised medical specialty. What influenced your decision to specialise in EM?

VA: In the mid-1980s, I was invited by the late Dr Lim Swee Keng, who was then head of the emergency department (ED) at Singapore General Hospital (SGH), to join his department as a registrar. This was shortly after I had obtained my MRCP (UK). I had previously worked at SGH's ED as a medical officer (MO) and had often complained to him about our inability to do much for patients. In those days, we were only allowed to do very minimal investigations and treatments such as ECGs, plain X-rays and applications of backslab.

Credit must go to Dr Lim for his foresight and agreement to open up selected investigative and treatment resources in the ED, and he asked me to join the department to help him make the change in the nature of care being provided. Many of my friends asked me to reconsider joining the ED because EM was not yet a recognised medical discipline in Singapore. After carefully considering the potential for pushing boundaries to improve emergency care, I agreed to join Dr Lim and entered EM as a career.

Since I was trained in internal medicine (IM), Dr Lim arranged for me to do a general surgery posting under the mentorship of Prof Raj Nambiar at SGH. Subsequently, I took leave and spent some time at the ED of the Royal Infirmary of Edinburgh as an unpaid registrar under the tutelage of Dr Keith Little, the head of department (HOD) and convenor of the FRCS Ed (A&E) examinations.


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ES: During my first houseman posting in 1985, in the then Medical Unit III at Tan Tock Seng Hospital (TTSH), Prof Poh Soo Chuan, the HOD, asked three of us housemen what we intended to specialise in. One of my friends said paediatrics, the other said surgery and I answered, "A GP". There were a few giggles in the group but Prof Poh waved them aside and commented, "She may be making the best choice." However, in my first MO posting in TTSH's Orthopaedics, I met Dr Jimmy Yeoh, an EM trainee. It was then that I discovered that EM is a discipline that I would never be bored in for there would always be new horizons to conquer.

GSH: I was previously an IM trainee and it was during one of my rotations back in the 1990s that I met Dr Lim Swee Han, one of the first few EM trainees in Singapore, who later became a good friend of mine. He told me about this new field and it seemed to me that it was quite an exciting new specialty. Although internal medicine was broad-based and had intensive care unit rotations as well, I was also sad to have to give up my knowledge in orthopaedics, paediatrics and surgery. After a posting in SGH's ED, I was convinced that it was a really promising and exciting field. With permission from the Ministry of Health (MOH), I made the switch to EM.

What were some major changes that the EM has gone through over the course of your careers, be it in clinical, teaching or administration aspects?

VA: In the more than 30 years that I have spent in EM, we have indeed made much progress. For example, soon after SGH initiated the first Advanced Cardiac Life Support (ACLS) course in late 1985, we were successful in having every doctor posted to the various EDs certified in both Basic Cardiac Life Support (BCLS) and ACLS. Within a few years, the then head of cardiology at SGH remarked that the standard of resuscitations done at the ED had improved tremendously and that patients collapsing while being sent to the wards had become a rare sight.

Perhaps the area of clinical service with the greatest impact on outcomes has been emergency cardiac care. There was close collaboration with the then Department of Cardiology (now the National Heart Centre) in developing protocols for the management of emergency cardiac conditions. This collaboration has resulted in landmark scientific papers in the management of conditions, such as supraventricular tachycardia, that have influenced international guidelines, and in the introduction of thrombolytic therapy for patients with acute myocardial infarction. Other efforts include reducing door-to-balloon times for patients who require percutaneous coronary interventions in Singapore, and introducing therapeutic hypothermia for patients with return of spontaneous circulation.

Other major changes that have occurred in clinical practice in the ED include the introduction of specific treatments for poisoned patients presenting to the ED and in the development of emergency observation medicine, which has led to more judicious admissions. We developed areas of emergency trauma care by working closely with the trauma service, and introduced the use of focused emergency ultrasound and CT scans within the ED in 1998. In addition, training in management of the airway has been led by the current SGH ED head, Dr Evelyn Wong. These changes that were started in the 1990s have all led to significantly improved diagnostics and management.

In 1989, we started the first Specialist Training Committee (STC) in EM. I had to obtain the assistance of some of the stalwarts in medicine from a variety of hospitals to be members

of this STC. I wish to thank Prof Chia Boon Lock (National University Hospital), Prof Low Cheng Hock (TTSH), Prof Ng Han Seong (SGH) and Dr Wong Ho Poh (TTSH) for having assisted me.

EM was one of the first disciplines to have a structured post-graduate training programme with log books that were periodically reviewed by the STC. In 2001, the STC introduced the MMed (EM), in collaboration with the Academy of Medicine, Singapore (AMS), and the Graduate School of Medical Studies at the National University of Singapore. The examinations were initially organised with the Royal College of Surgeons of Edinburgh and later, with the College of Emergency Medicine in the UK. In 2014, we started our own independent MMed (EM) examinations which are now conducted twice a year.

Research was not conducted when I first started out in EM. The earliest organised EM research projects in Singapore were carried out at SGH in the late 1980s and were on better ways to manage patients with bronchial asthma. Today, senior members of the profession are associate editors or members of editorial boards of reputable peer-reviewed international journals in the field of EM. Research teams that have sprung up within EM in Singapore are now leading major international projects, such as the Pan-Asian Resuscitation Outcomes Study, and are also involved in major international research committees such as with the International Federation for Emergency Medicine (IFEM).

Singapore also became the first country outside of the four founding members of IFEM (the UK, the US, Canada and Australia) to organise the International Conferences on Emergency Medicine in 2010, and this major research and educational effort has earned Singapore respectable recognition in the international EM scene as having one of the best mature EM programmes in the world.

ES: Over the last three decades, the landscape of EM practice has changed as much as that of Singapore's skyline. When I first started as an MO, the heads of the EDs were non-emergency physicians (EPs), and were often orthopaedic surgeons. Today, the EDs are all helmed by a consultant EP, with EPs on the floor 24/7.

GSH: Our patient demographics are also changing; we see an increasing amount of geriatric conditions such as strokes, ischaemic bowels, elderly sepsis and malignant conditions. Sometimes, we even have to practise palliative care in the ED. Also, with the improvements in specialty training, our residents are much better trained than ever.

The standard of EM practice varies greatly all over the world. Where did you do your Health Manpower Development Plan (HMDP) and what were the greatest lessons during your fellowships?

ES: My first HMDP from August 1990 to July 1991 took place in two different centres in the UK. In the first, I saw how excellent clinicians were equipped to give great care; while in the second, I saw how excellent clinicians struggled to give safe care. My second HMDP from July 1994 to January 1995 saw me riding with one of the best emergency ambulance

> “I also hope to see nurses and allied health professionals being allowed to take on more responsibilities in patient care, as well as roles in clinical leadership.”

Clinical Prof Goh Siang Hiong

teams in the US. I learnt that the pre-hospital teams have it rougher than us physicians who practise in an ED. It was also the first time I attempted to perform intubation on the street – the patient had been shot in the head in broad daylight.

On “9/11”, a friend from Singapore called me when I was on my third HMDP in Ann Arbor, Michigan, US, while I was on an attachment with the risk management guru of EM, Dr Greg Henry. “World Trade Centre has been bombed!” she said. “Huh?” I responded, wondering why anyone would want to attack World Trade Centre next to Sentosa. At that point, I was due to change posting within the next few days to study observational medicine in Connecticut, a 12- hour drive away. Fortunately, the skies opened and I could fly as scheduled.

VA: I did my HMDP in Israel and it was the first HMDP fellowship for further training in EM outside of the old basic specialist training programme. There, I learnt that we need a national organisation to bring together all EPs to espouse and lead the cause of good emergency care for our patients. It is also important to be well organised with good clinical care protocols and working with other clinical departments to advocate for and advance the care of emergency patients in a collegial manner for the good of these common patients.

Towards this end, we formed various organisations such as the Society for Emergency Medicine in Singapore in 1993, as well as the Chapter of Emergency Physicians in 2007 within the AMS, which became the College of Emergency Physicians in 2014. The College now has more than 100 members. In 1998, Singapore initiated and led the formation of the Asian Society for Emergency Medicine.

Over the years, I have also viewed many systems of emergency care around the world. It is often felt by many that we lack knowledge in emergency planning and emergency care, but few realise that we have a system of quality emergency care provision that is very comprehensive and almost second to none. We have also developed a large group of young and very talented EPs in the country, who if appropriately empowered, can work together to push Singapore right to the forefront of EM development.

Indeed, we have high hopes that our younger EM colleagues will step up to bring the specialty to greater heights. In your opinion, what are the current challenges that EM faces and what future developments do you hope to see?

GSH: The current challenges are well known, from rapid ageing of the population to access block. Fortunately, the government is coming to grips with these problems. I think we can see a bigger role for general medicine specialists and geriatricians, family medicine practitioners and also general surgeons, with less emphasis on specialisation. I also hope to see nurses and allied health professionals being allowed to take on more responsibilities in patient care as well as roles in clinical leadership. This will also help in right-siting care for patients in the community and help devolve care away from doctors.

Other than that, important things that I can see coming are the increasing use of medical robotics in ED care, wearable monitoring devices for patients, and medical informatics devices that help doctors and nurses make critical decisions at the bedside.

VA: Indeed, there is very good evidence that ED overcrowding leads

to a number of adverse outcomes for patients and no patient of ours deserves to wait for an inpatient bed. Other challenges to tackle are the creation of an integrated approach by the health services to address the access block issue, building up a strong cadre of trained EPs well skilled in the service needs, training future generations of medical practitioners in initial emergency care and using research as the basis for learning better how to guide the care of their future patients. This should result in a consultant-led and consultant-based service that gives us the ability to ensure that every patient coming into the various EDs will be at least reviewed by a trained EP before final disposition.

I hope we develop a training system that we can call our own, without copying but learning and working with other Asian countries in creating a strong Asian/regional EM training and assessment system.

In your career thus far, who were some of your key mentors?

VA: The late Prof Seah Cheng Siang, who was the head of Medical Unit III at SGH, taught me the value of good clinical history taking, systematic physical examination, and rational basis for investigation and treatment of patients. My predecessor as head of the ED at SGH, the late Dr Lim Swee Keng, taught me the value of humility, listening and working in a team, regardless of differing perspectives.

ES: The first of many who were happy to guide me was Prof Chee Yam Cheng, whom I met during my first houseman posting. I learnt administrative skills from Dr Tham Kok Wah, former director of Medical Affairs, TTSH; while Mrs Kang Gek Inn, former manager of Patient Relations Services, TTSH, taught me how to investigate and manage feedback. In my work with the international EM community, Dr Albert Yip Sai Hang from Hong Kong, Dr Wang Lee-Min from Taiwan and Prof Colin Robertson from Scotland provided me with different perspectives.

GSH: From my days in internal medicine, there was Prof Ng Han Seong, Prof Chee Yam Cheng and Dr Roland Chong. Later, as I began my EM practice, I learnt a lot from Prof V Anantharaman, Clinical A/Prof Eillyne Seow and my immediate HOD, Prof Low Boon Yong. All of them taught me many skills, both clinical and administrative, and I learnt from them values such as tact, integrity, humility and resilience. I also had many interesting peers like A/Prof Mark Leong, A/Prof Tham Kum Ying, A/Prof Mohan Tiru, Dr Lee Wee Yee, Dr Lee Shu Woan and A/Prof Shirley Ooi. Nowadays, I also find that I learn a lot from my younger colleagues, all of whom are brimming with enthusiasm and new knowledge.

What advice would you give to a young budding EM trainee, be it a medical student or junior resident?

GSH: If you like to be a generalist, with lots of procedures and critical care, this field is for you. It is a good field for mothers and those with family responsibilities. However, you must be resilient and learn to balance work with family, so as to avoid burnout. There are many fields you can further grow into (besides our EM subspecialties), such as education, research, risk management, medical informatics, clinician leadership, and international medical and academic collaborations. Self-renewal is the key. Also, the imperfect nature of our EM practice can sometimes lead to missed diagnoses and misdiagnoses; you have to know that this is not your personal fault. Be gentle on yourself!

ES: EM is a tough road to take. It may look glamorous to a young person, but it requires resilience and the ability to accept uncertainties. However if you can persevere, you will rarely be bored!

VA: The opportunities for development in EM are tremendous. EM provides opportunities for one to see a patient getting better in front of them. The work is hard and the remuneration may not be great, but the joy and benefit you bring to others will be significant. What greater privilege can there be for a doctor?

As EM physicians running shifts, your work schedule must be quite irregular. Outside of work, what are some of your hobbies and interests? What would you like to do if you had six extra hours a day?

VA: Outside of work, my family is my greatest source of joy and comfort. My grandson is fantastic to be with. My sons and daughter inspire me constantly to do my best, and they are amazing children. My wife is a tremendous source of strength and support. I also work with various community groups to help those whose ability to manage their daily situations can be improved because I can teach them relevant skills and

“I hope we develop a training system that we can call our own, without copying but learning and working with other Asian countries in creating a strong Asian/regional EM training and assessment system.”

Prof V Anantharaman

provide the necessary advice. Brisk walking is currently my main form of exercise.

GSH: I try to spend as much time as possible with my children and family members. Besides running and reading, I also keep hamsters, download and watch a lot of TV comedies, and play about with technological devices. I enjoy food a lot more than I should. I would like to travel more often too.

> "EM is a tough road to take. It may look glamorous to a young person, but it requires resilience and the ability to accept uncertainties."

Clinical A/Prof Eillyne Seow

ES: I read, travel, write, watch Korean shows and meet friends (not in order of frequency) to prevent burnout, but I wish I had more time to 品茶 (*pin cha* – drink tea slowly and appreciate it) with friends.

Writing has been a cathartic experience for me. I write to remember people and events that have left an impression on me. The last book that I published, *The Newspaper That Lines the Bottom of a Bird Cage and Other Stories from the Emergency Department* was also written to share the world of the ED with those who have little or no contact with it. It is my tribute to the warriors of EDs and to the patients we have been privileged to care for. ◆

For the full transcript of this interview, please visit https://goo.gl/iVKPsX.

Legend

1. Prof Goh teaching his trainees how to use the Glidescope
2. Prof Anantharaman (extreme left) and attendees of the official inauguration of College of Emergency Physicians
3. Prof Goh (top row, first from the left) with Changi General Hospital's emergency department members during an end-of-posting dinner
4. Enjoying a cup of good tea and having the opportunity to write helps Prof Seow to unwind
5. A/Prof Seow taking time out in England

ATTENDING TO EMERGENCIES: SERVICE BEFORE SELF

Scenario 1: It has been two hours since take off from Changi Airport and the plane is cruising steadily at an altitude of 40,000 feet. Comfortably settled into your seat, you try to balance that spoon of dessert as you attempt to eat and watch the movie at the same time, all the while taking note of the queue outside the lavatories five rows aft and the approaching attendant serving coffee ten rows in front. Suddenly, the movie screen freezes mid-action and a flight attendant's voice crackles into your earphones: "We are sorry to disturb you at this time, but we have a passenger who needs medical attention. If you are a doctor, please identify yourself to the flight attendants immediately."

You think to yourself: you are on a plane with 300 other passengers and nobody knows who you are. In any case, you are on your way to a large medical conference and there has to be another doctor on board. Also, what good can a doctor possibly do with no access to any equipment or medication high up in the air?

Scenario 2: It is a busy Monday morning in the clinic. Your small waiting room is packed with patients already standing outside due to the lack of space. You are attending to an elderly patient with an acute fever and multiple underlying chronic conditions. In the treatment room next door, is a patient on the nebuliser and you can hear her coughing and spluttering away, over and above the sounds of the wailing child outside who has been inconsolable for the past ten minutes. The queue list on your computer is getting longer. Suddenly, your clinic assistant opens the small window that connects the consultation room to the reception area. With an urgent look on her face, she reports that someone had just walked in to inform that a man had fallen into a "fit" at the food court nearby and needs medical attention immediately.

You think to yourself: you have ten patients waiting in line and someone could just call the ambulance. Moreover, why did that member of the public not go to another clinic much nearer to the food court?

Many of us can identify with the scenarios given above. We are trained professionals who deliver healthcare to our patients in all areas of society. However, we differ in our areas of expertise, training and experience. Having the title "doctor" does not mean that all of us are prepared to respond to emergency situations. Some of us might be currently working in or have recently rotated through A&E departments, and are well-oiled and trained in the latest resuscitation protocols, while some of us are working in purely administrative or research positions and may not have seen a clinical case for years, and may even hesitate to use an automated external defibrillator.

Indeed, each emergency situation is unique, unpredictable and thrust upon us when we are unprepared. What is the nature of the emergency? Are there others around or am I alone? What tools do I have at my disposal? These questions assume that we are willing to help, but before we even address these, we must first think about our willingness to step forward. Do I feel professionally competent to render assistance? Am I legally liable? Will my medical protection cover me if things go wrong? Do I have an ethical responsibility to attend to a patient when a doctor-patient relationship does not exist?

PROFESSIONALISM

As doctors, we are expected to demonstrate "professional" behaviour. What does this entail? Professionals are members of society who possess a body of specialised knowledge and technical expertise, acquired through a long and structured training process. Professionals regulate themselves and profess their best interests to society through a code of ethics. A profession has a contract with society, and in the case of medicine, it is the healing of the sick and mending of the stricken. Medical ethics is about doing what is good and right. In the context of a medical emergency, society therefore expects us to come forward to help, to set aside personal needs and put the needs of society first.

This ethos is so important that it is emblazoned in the SMA logo with the words "Service before Self", and has been protected by the SMA constitution since its inception in 1959.

DIFFUSION OF RESPONSIBILITY

With this in mind, let us consider the two scenarios above. The second scenario is quite clear: the doctor is operating in his clinic and is readily identifiable by the public. He has the necessary skills and equipment to respond and attend to emergencies, whether they are within or outside the premises. Although I am unaware of a legal obligation to do so, there are ethical reasons to help and attend to

Illustration: Dr Kevin Loy

PROFILE

TEXT BY

DR WONG TIEN HUA

Dr Wong Tien Hua is President of the 57th SMA Council. He is a family medicine physician practising in Sengkang. Dr Wong has an interest in primary care, patient communication and medical ethics.

emergencies when they have been brought to the doctor's attention. He should therefore attend to the emergency as soon as other more urgent cases, if any, are settled in his clinic.

However, it is different on the plane as the doctor can readily assume anonymity among the masses. In a crowd of people, there is a natural *desire* to blend in and consequently, a strong psychological *resistance* to stand out and volunteer oneself. One is less inclined to take responsibility for a situation when others are present. This **diffusion of responsibility** has been well studied and documented.

A similar social phenomenon, known as the **bystander effect**, occurs when individuals do not render help to an accident victim when others are present. Studies have shown that the probability of help is inversely related to the number of bystanders. Driving past an accident scene, you have only seconds to decide whether to help or not before the scene disappears from your rear view mirror, and that decision is influenced by this phenomenon. The mind reasons that it is not your responsibility and that there are many others who will help, or that the ambulance is probably on its way.

EXCUSES DEBUNKED

When called to attend to an emergency on an aircraft, it is no excuse to think that equipment and emergency medication are not available. Contents of medical kits vary depending on the airline, but most major airlines stock an impressive array of first aid equipment and resuscitation drugs. Just take a look at Appendix B of the International Air Transport Association's medical manual found here: https://goo.gl/mw8AD2.

In terms of medical protection cover, local indemnity providers such as the Medical Protection Society (MPS), NTUC Income and Aon do provide coverage for Good Samaritan acts. I quote the MPS's Frequently Asked Questions dated June 2016: "In the unlikely event that you are sued as a result of a Good Samaritan act, you can apply for assistance from Medical Protection, no matter where in the world the action is brought."

In 2013, Ms Alessandra Connie Leong, a final year nursing student at Ngee Ann Polytechnic, responded to a road traffic accident and was presented with a Public Spiritedness Award by the Singapore Civil Defence Force. A motorcyclist had skidded and crashed into a lamp post, and Ms Leong performed roadside cardiopulmonary resuscitation on the injured motorcyclist. She placed the needs of society above her own, and upheld the high level of professionalism of the nursing profession. A few years ago, when I was attending to an injured motorcyclist near National University of Singapore (NUS), two young men approached to offer help, identifying themselves as medical students from NUS Yong Loo Lin School of Medicine.

I therefore conclude this article with the challenge to doctors who may still harbour lingering self-doubt regarding their own expertise – if nursing and medical students are willing and able to step forward and render help in emergencies, what excuse do you still have as a qualified medical doctor? ◆

HIGHLIGHTS FROM THE **HONORARY SECRETARY**

SMA OBTAINS CLARIFICATION ON MANAGED CARE PRACTICES

SMA was alerted to concerns about business practices that may have an impact on the practice of medicine in Singapore. On 23 February 2016, SMA sought clarification from the Singapore Medical Council (SMC) regarding the administrative fees charged by some managed care companies in Singapore to participating doctors.

Members who intend to or are contracting with managed care companies should pay attention to SMC's response on this matter. SMC's full reply can be found here: https://goo.gl/ZudIwE.

MEETING WITH HSA ON HEALTH PRODUCTS ACT

On 4 October 2016, Health Sciences Authority (HSA) Chief Executive Officer (CEO) Dr Mimi Choong met with representatives from SMA; Academy of Medicine, Singapore; College of Family Physicians Singapore; and Singapore Dental Association. The purpose of the meeting was to introduce the transition of regulatory controls of pharmaceutical products in the Medicines Act to the controls of therapeutic products in the Health Products Act (HPA).

The HPA was introduced in 2007 to consolidate and streamline the regulatory controls of health products under one single Act. The consolidation was done in phases to cover a range of health products, including medical devices and cosmetic products. In addition, pharmaceutical products will henceforth be regulated as "therapeutic products" (TP) in the HPA. Thereafter, the existing controls under the Medicines Act and Poisons Act will no longer be applicable to pharmaceutical products.

HSA informed the associations that following two public consultations and focus group discussions, the regulations for TP were gazetted on 15 July 2016 and will take effect on 1 November 2016.

SMA had highlighted various concerns including implementation timeline and compliance costs. HSA has since informed that it will allow a period of six months from 1 November 2016 to 30 April 2017 for practitioners to comply with the new requirements. HSA has also issued a circular to provide a summary of the changes and it can be found at https://www.sma.org.sg/hsahealthproductsact.

More details of the changes can be found on the HSA webpage (https://goo.gl/ltKRfQ).

2016 WORKPLACE SAFETY AND HEALTH SEMINAR

The SMA Seminar on Workplace Safety and Health (WSH) for medical practice owners was held on 8 October 2016 at M Hotel Singapore, with over 70 doctors and clinic assistants in attendance. Dr Wong Sin Yew from Infectious Diseases Partners Pte Ltd commenced the session by sharing some statistics from the WSH survey conducted in 2014. Ms Moon Loh from ST Electronics (E-services) Pte Ltd touched on Risk Assessment for Ambulatory Care and Infection Control Considerations in the Family Physician Clinic. Dr Adrian Wang from Gleneagles Medical Centre shared about his experience in Handling Aggressive and Violent Patients. The seminar was well received and closed with a lively panel discussion with the attendees. ◆

PROFILE

REPORT BY

DR DANIEL LEE

Dr Daniel Lee Hsien Chieh (MBBS [S'pore], GDFM [S'pore], MPH [Harvard], FAMS) is Honorary Secretary of the 57th SMA Council. He is a public health specialist and Deputy Director of Clinical Services at Changi General Hospital.

PROFILE

TEXT BY

JASMINE SOO

Executive, Event and Committee Support

CORE CONCEPTS IN MEDICAL PROFESSIONALISM

Core Concepts in Medical Professionalism, a signature educational programme of the SMA Centre for Medical Ethics and Professionalism (CMEP), saw its third run on Saturday, 1 October 2016, at Ng Teng Fong General Hospital (NTFGH). Medical professionalism embodies the relationship between medicine and society, and it forms the basis of patient-physician trust. This course is aimed at the leaders and teachers in medicine.

This year's course had 43 participants representing the various healthcare professions, including senior medical leaders, heads of clinical department, senior consultants, clinician educators, nursing leaders and hospital administrators.

The programme covered topics on Professionalism, Collegiality, the Doctor-Patient Relationship and Ethical Case Analysis, Professional Accountability and Governance, Consent, Conflict of Interest, Confidentiality and Privacy, and Evaluating Professionalism. Speakers were from the SMA CMEP core faculty and included Dr T Thirumoorthy, Dr Hairil Abdullah, Dr Luke Toh, A/Prof Jason Yap, Dr Peter Loke, A/Prof Gerald Chua, Dr Shelat Vishalkumar and Dr Devanand Anantham. With their experience in teaching the advanced specialist training course – Ethics, Professionalism and Health Law, attended by all doctors seeking a specialist registration with the Specialist and Family Physicians Accreditation Boards, the faculty brought with them teaching and clinical experiences from an array of clinical specialities such as surgery, internal medicine, radiology and anaesthesiology.

Participants were challenged with thought-provoking and stimulating case studies, which allowed for a range of opinions and solutions for the different case studies, harnessing on the strength of experience and knowledge of both the participants and faculty. The interactive teaching approach with the use of case scenarios, audience response clickers and active discussion with an engaged faculty of senior clinicians, as well as the conducive environment, greatly raised the educational value of the event. One participant even remarked that "a complex topic was then made simpler and easier to understand through this workshop".

The workshop ended with positive feedback from participants, with a weighted average of 4.37 to 4.63 (out of 5) for the various aspects on the overall effectiveness of the course. SMA CMEP would like to thank the participants, speakers and the secretariat of SMA CMEP for their time and dedicated effort in creating this dynamic learning experience within the healthcare profession. SMA CMEP would also like to put on record the help and effort of the staff of NTFGH in offering their premises and services to ensure the success of this event.

Medicine belongs to the society and is held in trust by healthcare professionals through medical professionalism – doctors and healthcare professionals are the promoters and custodians. It is thus the primary responsibility of the leadership of the healthcare profession to promote and preserve medical professionalism. This educational course, Core Concepts in Medical Professionalism, contributes to enabling the fulfilling of this responsibility. ◆

Legend

1. Participants were kept engaged throughout the workshop as they were given opportunities to share their views on the different case studies provided

Setting the Wheels of Networking in Motion

PROFILE

TEXT BY

MELLISSA ANG

Senior Executive, Membership Services

Jointly organised by the SMA and the Law Society of Singapore (LSS), the Annual Lawyer-Doctor Networking Event 2016 was held on 22 September at the sleek and futuristic-looking Audi Centre Singapore, which opened its doors to the public just three years ago. Members from the Association of Women Doctors (Singapore) and Singapore Corporate Counsel Association were invited to join in for a night of networking with their medical and legal counterparts, on top of opportunities to test drive Audi's repertoire of cars, courtesy of the premium automobile brand. The spacious Audi Sportback series was a hit among the SMA Member participants during the test drives.

More than 100 medical and legal practitioners, along with their guests, indulged in the generous dinner buffet spread and alcohol sponsored by Standard Chartered Singapore, while catching up with old friends and meeting new ones throughout the night.

SMA President Dr Wong Tien Hua addressed the bustling crowd, thanking them for taking time off their busy schedules to attend the event. He even egged the crowd in a tongue-in-cheek manner to purchase an Audi car in response to the long-standing debate about the spending power of doctors versus lawyers.

Although we still do not have a resolution to that age-old debate at the time of writing, there was a lucky winner from LSS who walked away with a complimentary 48-hour weekend drive of either the Audi A8 or Audi TT. We hope that all participants enjoyed an unwinding evening with light-hearted conversations and live band music! ◆

Legend

1. SMA President Dr Wong Tien Hua (right) enjoyed light-hearted conversations with guests
2. Guests had the opportunity to test drive Audi's automobile range
3. Medical and legal practitioners, along with their guests, mingled over a sumptuous dinner buffet spread

Photos by Prestige Magazine

AN INTEGRAL COMPONENT OF MEDICAL TRAINING

I have often been asked what kept me practising emergency medicine (EM) all these years and my answer has always remained – teaching! If I were to live my life again, I would still choose to be an emergency physician closely involved with teaching. Why is this so? There are many reasons, but I personally think that EM offers the best opportunity to teach and train medical students and doctors while remaining in touch with all fields of medicine throughout my working life. I really treasure this privilege!

ALL-ROUNDED LEARNING

Which other discipline would allow doctors to hone their skills as they endeavour to be excellent diagnosticians who will be able to manage a patient presenting with an undifferentiated symptom complaint by relying on their clinical acumen in a time- and resource-constrained situation, while learning to multitask? For medical students and junior doctors, the emergency department (ED) can be the place where they really learn to test their approaches to patients presenting with an undifferentiated complaint without knowing which organ system or specialty the patient falls under. Every patient whom they clerk fresh from the street allows them to be a medical detective! Isn't this a basic skill that every doctor needs and what better place to acquire these skills than in the ED? The added advantage of learning in the ED is that students are able to see to and learn from a wide range of patients that cuts across various specialties within a short span of time. The patients are often very cooperative and allow the students to clerk them. I also tell my medical students that EM is the best revision posting for them to prepare for their final MBBS exams.

One can never be bored with a diverse specialty such as EM. Unlike other specialties (except for family medicine) which dwell deep into a subject, EM is at its core broad and cuts across all specialties. However, it does not stop one from going deep in a particular subspecialty of interest. Taking me for example, with my interest in emergency cardiology, especially in the teaching of ECG reading, I have taught various groups of learners and have also been invited overseas to teach ECG reading in workshops and conferences.

Being able to recognise a life-threatening condition, resuscitate and stabilise a patient are among the most critical skills of a doctor, especially a junior one, at the frontline of patient care. Working in the ED is the best way to learn how to secure an unprepared airway in a collapsed patient and perform cardiopulmonary resuscitation beyond simulation training. I have heard my EM colleagues say that they feel like "real" doctors, as they can handle almost anything in the acute phase!

HANDS-ON EXPERIENCE

Despite having practised EM for a few decades, every clinical shift with medical students and junior doctors to teach still recharges me. I particularly like the fact that there is minimal hierarchy, such that I can teach my students by being intimately involved with patient care in the acute phase. I also enjoy the opportunity to keep my procedural skills intact, even in something as basic as intravenous cannulation, and being able to teach and share tips with my medical students and junior doctors. Indeed, the ED provides many opportunities for medical students to learn under supervision the basic essential procedures required of a house officer. These procedures include venepunctures, intravenous cannulation, arterial blood gas tests, blood cultures and urinary catheterisation.

I think overall, EM is the branch of medicine with the greatest opportunity to demonstrate public service ethos to train the next generation of doctors. This is because the ED is a refuge for all; the rich and

poor from all strata of society are able to walk in and receive the treatment they need without the differential class status. Patients are attended to based on the principle of triage, which means they are seen according to how serious their condition is and not on a first come, first served basis. As such, an emergency physician is able to teach medical students and junior doctors how to manage patients with the most appropriate care.

TEAMWORK AND COLLABORATION

EM offers ample opportunities to learn interpersonal and communication skills. It has been said that if one does not like to talk or deal with many patients within a short span of time, it is best not to be in EM over the long haul and how true that is! When patients come to the ED, they are stressed and anxious. It takes good communication skills to be able to reassure the patient and their family members. One learns to empathise and break bad news to the patients and their family. One also learns to communicate with colleagues from all departments and specialties, as the ED is the "front door" of the hospital and many specialties converge or begin from there.

The ED is a good place to train a junior doctor on the importance of teamwork, as well as inter- and trans-professional collaboration. It is not a place for prima donnas but one where the ability to work in a team is integral in the daily functioning of the care of the emergency patients. It is a place where the word "we" is used more often than "I". We teach our junior doctors personal and collective accountability to our patients.

A doctor may be the primary doctor, but when he/she goes off shift, the patient is deliberately handed over to the next doctor who then assumes primary responsibility.

An EM rotation is good for learning systems-based practice to see how a patient flows through the healthcare system. One gets a good idea of the workings of the whole hospital, and gets to interface with the community. In fact, working exposure in EM teaches one administrative skills early in one's career, as it is very important to learn how to lead a team in resuscitation, handle a patient complaint, deal with a mass disaster, and set up multidisciplinary pathways and protocols. It is no wonder the EM exit exam has a unique mandatory component called "Administration"!

All in all, EM is a key specialty that helps equip every medical student and doctor with the essential skills to be a safe and competent doctor. I hope that EM will be made a compulsory posting for all junior doctors before they are allowed to exit to practise in their respective specialties or in private practice. ◆

PROFILE

TEXT BY

A/PROF SHIRLEY OOI

A/Prof Shirley Ooi is a senior consultant at the Emergency Medicine Department, National University Hospital and the Designated Institutional Official of the National University Health System Residency Programme. She won the National Outstanding Clinician Educator award in 2013 and has written three books: *Guide to the Essentials in Emergency Medicine (1st and 2nd editions)* and *Medicolegal Issues in Emergency Medicine and Family Practice: Case Scenarios.*

Legend

1. A/Prof Ooi supervising a junior doctor in resuscitating a patient in the emergency department

The Chan Siblings: Our EM Journey

It was pure coincidence that both of us chose to work in emergency medicine (EM).

Joanna (J1): During my rotation at Changi General Hospital's emergency department (ED) as a medical student, I was impressed by the formidable ED bosses and their calm and competent responses to a broad range of emergency situations ranging from cardiac arrest to a pouring nosebleed in a patient on warfarin. Subsequently, I chose to do a posting there as a baby medical officer (MO) in order to learn more. Although ED is considered a "hardship posting" by many, a willingness to work hard and learn, which was shared by my fellow Medical Officer Posting Exercise (MOPEX) MOs, made it such a positive experience that five of us from that batch applied for the SingHealth Residency Emergency Medicine Programme!

Jonathan (J2): I developed an interest in EM early on in secondary school as a member of St John Ambulance Brigade, reading about acute management of medical conditions, practising first-aid drills and teaching my juniors. At the end of Year 5 in medical school, I spent my two-week break on a voluntary EM Student Internship Programme. The programme allowed me to get more hands-on experience of working in the ED before starting residency (since in my time we could apply for residency as fresh graduates).

A MEANINGFUL SPECIALTY

J1: Patients come in their street clothes without having been "labelled" with a diagnosis. I like being part of the thought process which helps to form a problem list, and being able to give timely treatment that can stabilise the patient and sometimes solve their problem without an admission. It's a job which I find very meaningful. As someone in the front line, the doctor can make a big difference by going the extra mile for the patient's sake, whether it's taking a thorough history or a simple step like serving analgesia early instead of leaving a patient in pain.

J2: You can "cure pain" and relieve suffering. I like the sense of being part of a tag team with other providers, both pre-hospital and in the wards downstream, to provide the care that a patient needs. One memory I have is of a national serviceman who came in with a headache. In the ED, he had normal physical findings and no red flags, and he could easily have been dismissed as a low acuity case. However, his camp MO, who accompanied him, showed me a video clip he had taken of ophthalmoplegia which he exhibited earlier during the headache. We sent the video clip on to the ward doctors. Thanks to the proactive camp MO, this patient got the respect which his condition deserved and was admitted for MRI.

A DAY'S WORK

J2: There is no "daily routine" in ED. Every day is different and better experienced than described.

J1: We work in shifts and are rostered to see patients of different triage acuities during each shift. In Resuscitation, we see critically ill patients. In the Priority 2 area, we see trolley patients who need early assessment, and in the Priority 3 area, we see those with non-life- or non-limb-threatening conditions who may end up waiting much longer. Each group of patients carries its own set of pressures and challenges.

UNFORGETTABLE CASES

J2: There are some gory cases that I recall. There was a construction worker who fell from a height of two storeys. He came in with blood streaming from his nose and ears, and he had a low score on the Glasgow Coma Scale. It was my first trauma intubation. Unfortunately, although he survived the CT scan, he didn't make it to a good outcome. Later on, the neurosurgeon identified that the white substance we saw floating in the suction bottle along with all the blood we had suctioned

during the intubation was… his brains. Another patient whom I saw was a soldier who had his fingers blown off by a flash grenade that went off in his hand. Oh yes, my struggle with a plum-sized pile has to be up there on the list too!

J1: There are so many cases which I remember for various reasons. For example, I remember all the paediatric deaths, which included a previously healthy eight-month old who was found dead in infant care due to either sudden infant death syndrome or from choking on milk. I also recall the challenging cases I saw in Resuscitation, such as the difficult central lines in shocked patients who were so dry there was no flashback. I also remember many sad patient stories which were the result of social issues within vulnerable populations – loneliness and neglect among the elderly, poverty, and financial woes for migrant workers who can't pay for treatment.

Of course, there are also many humorous moments. My favourite was when a boy in children's emergency commented on the roll of paper used to line the bed: "Is that a giant toilet roll? It must be for a giant bum! [*turns to address his father*] Like your bum!"

CHALLENGES IN EM

J2: In junior residency, the frequent rotations, administrative work like procedure logs, patient follow-ups, and mini clinical evaluation exercises can sometimes pose a challenge to one's organisational skills. In addition, shift work, of course, means that sometimes one has to forego social engagements on weekends when one's friends are free. Fortunately, I have a very understanding fiancée and family members.

J1: Spousal support is very important for shift work, especially when children are in the picture – even more so for a child who is not yet sleeping through the night! My poor husband had to endure nights, when I was on duty, soothing a child back to sleep five times through the entire night and still returning for a full day's work the next day.

ADVICE FOR POTENTIAL EM DOCTORS

J2: One of the most important qualities an EM doctor must have is the ability to work with other people. In EM, we work closely with our valuable and powerful nurses. They have taught me how to dilute morphine, helped me to find plugs when I couldn't find them, pumped me up to receive standby cases as a young postgraduate Year 1 doctor and rushed to check when I needed help in seeing challenging patients…

J1: There is a steep learning curve in EM and one has to be prepared to ask seniors liberally when unsure, and to learn from one's mistakes. The shift work and the time pressure are not for everyone and I would suggest (as it worked well for me) that doctors who aspire to pursue EM should do an MO posting first, before deciding to make the commitment to residency. Putting patients first equates to a certain degree of obsessive checking. For example, you have to make sure the analgesia or nebuliser that you ordered gets delivered now (and not two hours later), and ensure adequate handover to the ward team. In the busy ED, when there are so many tasks vying for attention, you have to be your patient's champion for the important things that will make a difference to patient experience and outcome. ◆

PROFILE

TEXT BY

DR JOANNA CHAN SHI-EN

DR JONATHAN CHAN ZHAO WANG

Dr Joanna Chan Shi-En and Dr Jonathan Chan Zhao Wang have known each other for 28 years. They share a love for EM, Star Wars (X-Wing pilots, not Jedi) and British comedy shows. They both stayed in King Edward VII Hall throughout all five years of medical school. Joanna is a senior resident under SingHealth EM Residency and Jonathan is in his third residency year under the National University Health System. They have a younger brother who wisely chose to do something not related to medicine.

THE NEW NORMAL

I'm in the critical care area of my emergency department. It's 10.30 pm on a Tuesday; the post-dinner surge of patients which started after 7 pm is showing no signs of abating and everyone's struggling to keep up with the load.

It's been a busy shift – there were 24 patients on trolleys waiting to be seen when I started at 4 pm, and the last I checked, there were about 40 patients outside in the consultation area where the ambulatory patients are waiting. It's been a blur of patients since then, as my fellow emergency medicine colleague and I vet and clear cases with the medical officers, in order to come up with early plans and dispositions for the patients on the "shop floor", in an attempt to thin the waiting crowd. The observation ward is full; however, the wards upstairs haven't been able to take in the admitted patients yet, so all the patients that have already been seen and admitted are still stuck with us.

In order to maximise the use of the limited space in the department, the nurses have lined trolleys side by side, with each trolley almost touching the other (an infection control nightmare). I see two department radiographers shuffling sideways through the narrow pathways between the trolleys, trying to reach their target patient – an elderly lady from a nursing home. They then proceed on to the game of rearranging beds (much like a sliding puzzle game, where you attempt to rearrange tiles to assemble a picture), in order to create a pathway to move that trolley out of the morass of beds that the patient in question is trapped in, just so that they can bring the patient to do her X-rays.

The access gridlock in the emergency department is beginning to cause the gears of the emergency department to grind slowly down, and has rendered the department a three-walled enclosure. Patients and ambulance casualties are flowing into the department continuously, with almost no patients leaving for the wards upstairs in the near foreseeable future. The nurses struggle to keep up with their tasks as the number of patients grows, while the doctors struggle to find their patients in the crowd and not let the pressure of the queue get to them. It is hard though – four out of the six medical officers doing the evening shift have missed their dinner.

It is noisy. There's the conversation between nurses as they hand over tasks and instructions to one another; the constant chatter of medical officers with their patients as they take history; the casual conversations of patients commiserating with one another as they lie waiting; the moans of patients in pain; the vulgarities yelled by an alcohol-intoxicated man; and the constant ringing of the telephones. I can hear the security personnel just beyond the doors of the critical care area explaining to impatient family members that they will have to wait until one of the physicians or nurses comes out to update them. I hear the annoyingly high-pitched beeps of the trolley call bells. I hear the reporting of an 87-year-old cancer patient's medical history to my colleague as he goes through another case with a medical officer nearby.

From the resuscitation area, located just a few metres and an open doorway away, I hear the rhythmic compressions of a mechanical cardiopulmonary resuscitation (CPR) device and instructions delivered by

an urgent voice. It's the cardiac arrest case that was brought in earlier as a standby case by the Singapore Civil Defence Force ambulance.

I enter the resuscitation area to see if there's anything I can do to help. Oh, the smell. The patient in cardiac arrest had loosened his or her bowels at some point. I can't see the casualty as there are too many people around – nurses, paramedics and doctors. I see medical students standing at the side watching the cardiac arrest resuscitation unfold, eyes wide open as a scenario that they've only till now been reading about finally play itself out in real life.

I squeeze myself next to the resuscitation leader who is a senior resident. The casualty is female. She is frail, thin, elderly and tiny-looking on the trolley, wrapped by the compression band of the CPR device, head lolling from side to side from the force of the compressions delivered, with an endotracheal tube emerging from her mouth. My colleague looks exhausted; it's been a long resuscitation. Too long. Asystole. She is not coming back. He looked at me and sighed morosely. He's going to let her go, he says. He steps out to break the news.

The ambulance standby alarm sounds – piercing and shrilling, silencing all the doctors and nurses outside. A soft collective moan goes up from the exhausted nurses in the resuscitation area. "Standby for a 54-year-old male, case of chest pains, ETA seven minutes."

Another wave of frantic activities break over the nurses as they hasten to prepare another cubicle for the impending arrival of another patient, exchanging rapid-fire instructions with one another as they divide the tasks among themselves.

The senior resident returns; his expression sombre at the news he had to break to the deceased's family. I can hear their wails coming from outside the department.
He hears of the incoming case and I see him visibly shrugging off the weight of the previous case and preparing himself to move on to receive the next casualty.

A young man grimacing in pain from a dislocated shoulder is pushed in, past the shrouded deceased patient, into the next cubicle, opposite an intubated patient with septic shock that has been waiting for an intensive care unit bed for the past two hours now. I tell my resident that I will deal with the shoulder dislocation and invited the students to help me. They happily oblige, full of energy still. I'm tired; it's nearing seven hours into my shift. My thoughts feel dull and my footsteps are sluggish. I think of all my emergency physician colleagues around Singapore, who are all struggling in their own ways, in their own embattled departments, fighting their own fatigue and hunger to treat the sick and the dying. I don't feel so tired now. At least I know I'm not alone in my experience.

It's almost midnight now and I've finished handing over the shift to my night shift colleagues. I say my goodbyes and tell them I will see them in several hours as I'm scheduled for work in the morning shift. They make sympathetic faces.

They ask me how my shift was and I dully tell them, "It was okay."

I drive home, turning north on the expressway. I turn off the radio, preferring to drive in silence for a while. Too much… noise today. I'm starving, as I've not had dinner. On a whim, I exit the expressway and drive to a Japanese restaurant that I know opens till late.

The sukiyaki is delicious; the meat tender and the beer, icy cold.

I think it's been a good day after all. ◆

PROFILE

TEXT BY

DR LIM JIA HAO

Dr Lim Jia Hao is a full-time emergency physician working in the Singapore General Hospital's Department of Emergency Medicine. He has a special interest in critical care and medical education, and is extremely grateful for the fraternity of emergency physicians in Singapore who have taught him so many values and lessons.

Advancing Pre-Hospital Emergency Care in Singapore

The Singapore Civil Defence Force (SCDF) Emergency Medical Service (EMS) provides 24/7 island-wide coverage for all medical emergencies and each SCDF emergency ambulance is staffed by a paramedic, a firefighter emergency medical technician (EMT) and a full-time national service EMT. Since 2012, we have transformed the structure of the SCDF EMS and have been collaborating closely with the Ministry of Health (MOH) to enhance our EMS capabilities and capacity. We have also continually improved the integration of our emergency care with restructured hospitals' emergency departments. Both the Ministry of Home Affairs and MOH are currently working closely to enhance the preparedness of citizens to swiftly respond to emergencies, as part of SCDF's strategy to build "A Nation of Lifesavers" by year 2025.

In Singapore, there is a relentless increase in demand for healthcare, including pre-hospital emergency care. Since 1997, ambulance calls received by the SCDF have increased at an average rate of 5% annually. This is largely due to the increasing population, ageing demographics and rise in chronic illnesses over the last decade.

Over the last four years, we have increased our ambulance fleet, enhanced our capabilities with mechanical cardiopulmonary resuscitation (CPR), conducted cross training of firefighters as medical first responders on motorcycles with automated external defibrillators (AEDs), and deployed stronger pain relief drugs like inhaled Penthrox[1] and intramuscular tramadol injections. Hence, don't be surprised if you see a firefighter arriving on scene when you call 995 for a medical emergency!

ONLY A STRONG COMMUNITY SURVIVES CARDIAC ARREST

Annually, there are over 2,300 cardiac arrest cases locally with 70% of them occurring in residential areas. Although our cardiac arrest survival rate has improved from 1% in 2001 to 3% in 2012, this is still relatively low in comparison to many developed countries.

Physicians in the community can play a key role in changing that. When they encounter patients with high risk, physicians can start by educating the caregivers to take CPR/AED training – so they can recognise the emergency, call 995 immediately and start chest compressions.

Since August 2015, the SCDF has piloted the installation of AEDs at the lift lobbies of Housing & Development Board (HDB) estates in six constituencies. This is to enable the community first responders' easy access to AEDs for swift CPR/AED intervention, so as to improve the out-of-hospital cardiac arrest survival rates. Besides the HDB estates, AEDs are also found in many commercial buildings, schools, transport hubs, sports facilities and government buildings today.

However, having publicly accessible AEDs alone is pointless in addressing our low cardiac arrest survival rate if members of the community do not use them. Although AEDs come with built-in step-by-step audio guide that are so easy to follow that even untrained persons can and are encouraged to utilise them, the reality is that very few do. And those who are trained may not always be available. To address this problem, SCDF has partnered with MOH, the People's Association and the Singapore Heart Foundation to conduct a succinct 40-minute CPR-AED awareness programme in the community and schools.

1

In 2015, SCDF launched the myResponder mobile application to crowdsource CPR/AED-trained persons to attend to potential cardiac arrest cases nearby. There are now over 8,000 registered responders and over 1,000 responses since 2015. These community responders receive alerts on their smartphone if they are within 400 metres of a potential cardiac arrest case reported to the SCDF 995 emergency call centre. The response by notified responders is absolutely *voluntary*. The app also displays the location of nearby AEDs so that responders can bring it along. The app is available on iOS and Android platforms; anyone can download it but to register as a responder, you must be above 15 years old and a SingPass account is required. By doing this, you immediately become a virtual volunteer, making your neighbourhood a safer environment!

EMERGENCY MEDICAL SERVICES OPERATIONS

Although most restructured hospitals have similar standards, certain services such as paediatrics, obstetrics, burns, trauma and interventional cardiology are not available in all hospitals round-the-clock. Thus, SCDF conveys each patient to the nearest and most *appropriate* hospital. In addition, SCDF also conveys lower acuity emergency patients to Raffles Hospital as part of a MOH public-private partnership. If you call 995 on behalf of a patient, it is useful to know that the SCDF may convey the patient to a further hospital for specific conditions after assessment, depending on the patient's condition.

WE DON'T MEAN TO DISRESPECT YOU

Paramedics are trained to deliver care in a very specific way guided by carefully considered protocols that are approved by a committee of senior medical specialists appointed by the Ministry of Home Affairs. Paramedics have to deliver patients' care in accordance to these protocols and are audited regularly for their compliance to the care pathways. Over the years, I've received comments and sometimes complaints from family physician colleagues that our paramedics "refused to accept" their diagnosis or "disrespected their clinical acumen" by repeating a head-to-toe examination, which in their view wasted a significant amount of time. While it does take time, the paramedics have an operational obligation to perform their initial patient assessment based on the established protocols. By adhering to such protocols, they systematically screen for conditions that may be amendable to immediate intervention. An example of this is hypoglycaemia, which may be initially missed out even by medical professionals.

WE ARE NOT WASTING THE PATIENT'S TIME

On various occasions, I've also received feedback from physicians that our paramedics have delayed the conveyance of the patient by insisting on repeating an ECG at their clinic when the earlier ECG that the physicians performed clearly showed an ST-segment elevation myocardial infarction. The reason that our paramedics repeat the ECG at the clinic is not because we are rigid and inflexible, but that our defibrillators can remotely transmit recorded ECGs directly to the A&E department! The duty emergency physician then activates the cardiac catheterisation laboratory to prepare for a primary percutaneous coronary intervention upon arrival of the patient. Time is myocardium – spending the three minutes to perform and transmit an ECG on scene shortens the door-to-balloon by over 20 minutes.

The result? Better survival outcomes!

WE ARE ONE HEALTHCARE SYSTEM

SCDF continues to innovate in pre-hospital emergency care – we plan to move towards seamless data sharing with the hospitals by 2020. The goal is to retrieve patients' records from the National Electronic Health Record on scene, use it to provide better care and seamlessly transfer data back to the receiving hospital before arrival. In addition, the sharing of operational data will enable better load balancing of emergency patients with specific requirements such as surgery or intensive care unit, or safely cope with sudden surges in emergency care demand. We hope to realise the Smart Health initiative as part of Singapore's Smart Nation initiative, to create a truly seamless national healthcare network for better patient care. ◆

Note

1. Penthrox is a novel inhaled patient-controlled analgesia approved by Health Sciences Authority; proven by SCDF research to be effective in musculoskeletal trauma in pre-hospital emergency care.

PROFILE

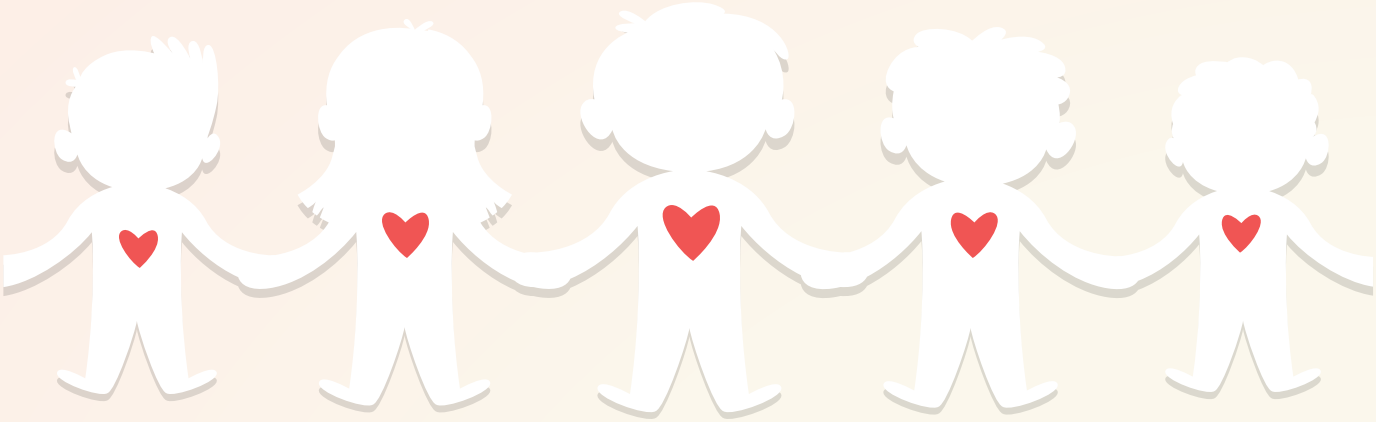
TEXT BY

COL (DR) NG YIH YNG

COL (Dr) Ng Yih Yng has been the Chief Medical Officer of the Singapore Civil Defence Force since 2012. He is trained in emergency medicine, public health and business administration. This potpourri of skills is what he uses to design innovative public health interventions for emergency medical services in Singapore.

Legend

1. SCDF ambulance crew extricating a trauma patient



PIONEERING LOCAL PAEDIATRIC EMERGENCY CARE:

KKH Children's Emergency

INTRODUCTION

The Children's Emergency (CE) at KK Women's and Children's Hospital (KKH) started operations on 10 May 1997, Saturday, concurrently with the opening of the first consolidated Children's Hospital in Singapore and the region.

Dr Sim Tiong Peng was the first Head. As an emergency department (ED) physician, he had a special interest in paediatric emergency and was appointed Head-Designate in 1995. I (A/Prof Ng Kee Chong) subsequently joined Dr Sim to help spearhead the setting up of CE and Dr Angelina Ang joined the team shortly after. The three of us went on to craft and build CE from scratch in the span of about 18 months. Dr Tham Lai Peng joined CE in 1998, with Dr Lee Khai Pin joining the team much later in 2009.

A BRAND NEW DISCIPLINE AND DEPARTMENT

Given the opportunity to set up a new discipline and department, the team worked on an open canvas with only rules to be set up and none to be broken. The key role in CE, to put it simply, was to effectively "identify, stabilise and treat" paediatric patients – or in Latin "*agnosco, stabilisio* and *tracto*".

Prior to this, the EDs of general hospitals dealt acutely with paediatric emergencies. Singapore General Hospital (SGH), through Prof V Anantharaman and Dr Sim Tiong Peng's efforts, pioneered paediatric emergency care in the early 1990s by having a section within its Priority Level 3 area (the P3/"Yellow" area) to deal with paediatric cases.

We merry band of three went round getting views and input from the key clinician stakeholders, including Prof Vijeyakaran Thuraisingam Joseph from Surgery, Prof Lee Eng Hin from Orthopaedics, Prof Foo Chee Liam from Plastics, A/Prof Balakrishnan Abhilash from Otolaryngology and Dr Vivian Balakrishnan from Ophthalmology, among others. Operational and process issues were discussed and clinical workflows were customised accordingly.

Under Dr Sim's leadership, the CE Clinical Guidelines were developed, with the very first edition numbering about 100 pages and covering all the essential clinical and operational issues within CE. These guidelines have been revised every six months and now, 19 years on, it runs to about 300 pages in its latest 2016 version.

A very strong nursing team was formed by tapping from the paediatric nursing pool in SGH, Tan Tock Seng Hospital (TTSH) and Alexandra Hospital (AH). The first three nursing officers were Sisters Lee Choy Kuan, Chia Lai Heng (both from TTSH) and Sister Zainab Amat (from SGH). The Ministry of Health (MOH) posted eight medical officers to the CE, including Dr Angeline Lai (who was then a paediatric trainee), and they were the magnificent pioneering eight.

Based on the existing paediatric numbers from the EDs at SGH, TTSH and AH, it was estimated that the CE load would be approximately 150 patients a day. However, on hindsight, this number was a vast underestimation. With the beacon of a truly full-fledged children's hospital – the very first of its kind in Singapore and the region – the masses would naturally flock to CE, regardless of the acuity of the paediatric medical complaints. Furthermore, in 1997, the Government had decided to raise the definition of a child from the erstwhile 12 years old and below, to 16 years old and below.

Also, it is well known that in all paediatric emergency departments internationally, a sizeable number of patients are what some would term "social emergencies". These medically benign cases are deemed serious in the eyes of worried, concerned and

anxious parents and caregivers, and form a substantive proportion of our CE patients locally.

TWO DECADES ON

We have not looked back since the official opening of the department. KKH CE has never had a day with an attendance below 200 and has even reached peaks of 1,000 patients on Chinese New Year's Day.

There have been many challenges throughout the years, especially in dealing with the ginormous crowd with high expectations. We constantly tweak our processes and remain focused on delivering prompt care, especially to our P1 and P2 patients. In spite of the storms and challenges, we achieved recognition as the Best ED in the MOH's Patient Satisfaction Survey in 2008/2009. We also renovated to expand our capacity to cope with the patient numbers that appear to be creeping up again after seemingly being stabilised in 2013 and 2014.

By sheer numbers, we are probably one of the busiest EDs in Singapore. Of course, the comparison with the general EDs is not congruent. General/adult EDs clearly deal with P1 and P2 patients who are more seriously ill and deserving of a higher acuity of care. In CE, the main load is our P3 patients. While of a much lower acuity, the high CE P3 load is not easy to handle in a different respect. One needs to spend far more time to engage and communicate with the families of P3 patients than with a seriously ill P1 patient. For a critically ill P1 patient, the response is reflexive and protocol-driven, with immediate resuscitation, intubation and admission, utilising more endogenous adrenaline but technically a lot less time.

We recall some P3 and non-urgent cases that take up significantly more time to understand and manage: the fearful 18-year-old first-time mother barely coping with the care of her newborn and pleading for admission for respite care; the autistic child being coaxed by three caregivers, two doctors and two nurses to allow the removal of a nasal foreign body; the six-year-old boy with multiple contusions and cane marks all over his body speaking up defensively for his mother, who was the alleged perpetrator of the non-accidental injury; and the mother of a student wanting to register her child to get a medical certificate to excuse him from the Chinese Language Primary School Leaving Examination. Despite the frustration and angst when dealing with these patients and caregivers then, one would always recall these incidents with a bittersweet aftertaste, a sigh of relief and the slightest hint of a smile at the corner of the mouth.

Providing appropriate and optimal acute care to our paediatric patients is now part and parcel of our DNA and we daresay, part of our culture at CE – and of this we are especially proud. The next step forward is to develop a more comprehensive and integrated ecosystem to better right-site acute paediatric care, by working closely and collaboratively with the community.

We are proud to have pioneered paediatric emergency care in Singapore and the region. After we started CE in 1997 at KKH, National University Hospital followed suit in 2003 with its own children's ED to complement its paediatric medicine department.

Today, we are proud to be leading and driving the curriculum and training in paediatric emergency care for the community, as well as for medical students, nurses and paramedics in Singapore and the region.

In leaps and bounds, paediatric emergency medicine is now clearly recognised as an important discipline not just in emergency medicine but in paediatrics and family medicine practice in Singapore. ◆

PROFILE

TEXT BY

ADJ A/PROF NG KEE CHONG

Adj A/Prof Ng Kee Chong is chairman, Division of Medicine (KK Women's and Children's Hospital), senior consultant and campus director (Medical Innovation & Care Transformation), adjunct associate professor and paediatric programme lead at Duke-NUS Medical School, Singapore, and core faculty at SingHealth Paediatrics and Emergency Medicine Residency programmes.

TEXT BY

DR LEE KHAI PIN

Dr Lee Khai Pin is the head and consultant of the Department of Emergency Medicine, KK Women's and Children's Hospital, Singapore.

MANAGING MASS CASUALTY: THAT NIGHT IN LITTLE INDIA

PROFILE

TEXT BY

DR CHAN WUI LING

Dr Chan Wui Ling is a consultant at Tan Tock Seng Hospital's Emergency Department. She is also one of the clinical toxicologists in the hospital and a member of the national disaster site medical command team. Her clinical and research interests are in recreational drugs toxicity, prescription medicine misuse, chemical/hazardous material management and training.

> "By failing to prepare, you are preparing to fail."
>
> **Benjamin Franklin**

Emergency physicians (EPs) are used to working in a chaotic and unpredictable environment and will definitely agree with the above saying. Many of us would have been involved in either the planning of our respective hospitals' civil emergency response plans or the execution of these carefully thought out plans at the various disaster response drills conducted by the Ministry of Health.

In my department, we frequently encounter patients arriving unannounced at our doorstep (eg, patients from mass food poisonings, casualties from multi-vehicle collisions or patients from suspected infectious disease outbreaks). Each day, we come to work not knowing what is in store for us…

A TURN OF EVENTS

It was an uneventful evening on 8 December 2013, when the EPs for the afternoon shift were going about their usual activities in the emergency department (ED) – supervising resuscitation of ill patients and helping medical officers with their consultation of the ED patients. Everything was as usual until about 9 pm, when the Singapore Civil Defence Force (SCDF) paramedics who conveyed two injured casualties from the Little India area mentioned that there was an ongoing riot in Little India. The EPs sensed trouble and immediately asked if there were more casualties going to be sent to our ED. However, the paramedics were uncertain of the situation too.

Soon, more casualties were being sent our way and they arrived in groups of ten to 15 people. The senior doctors quickly decided that the ED could potentially get overwhelmed and would not be able to contain all the casualties. The decision to open our decontamination facility to house all the casualties from the riot was thus made. In consultation with the head of department, hospital disaster plans

were not activated as the injuries sustained by most of the casualties were musculoskeletal injuries and were not life-threatening. The team felt that they could handle this surge in addition to the usual ED crowd. In total, 36 casualties were seen and treated in the ED. Only one patient required inpatient admission.

CONTROLLING THE SITUATION

The senior doctors were cognisant of the departmental disaster workflow on how to manage mass casualty incident and knew the ED operations during peacetime and disaster mode well. Having good situational awareness also helped them realise quickly that the evening of 8 December 2013 was not going to be a usual ED shift, as they could sense the impending surge of casualties arriving at our doorstep. The quick decision to open up our decontamination facility to hold all the casualties prevented the regular ED clinical areas from being overcrowded by both our usual ED patients and casualties from the riot.

The doctors' ability to think on their feet also ensured the safety of the staff and the general public. There were armed policemen who were brought in as casualties and our doctors activated the nearest police post for arrangement to disarm them in the ED. In the decontamination facility, injured rioters were kept separated from the policemen and SCDF ambulance crew. A team of doctors and nurses were quickly assembled to take care of these casualties from the riot, while the rest of the team took care of the other ED patients. This ensured that usual ED patient care and treatment were not compromised as a result of this unforeseen surge in ED attendance. The team worked as one throughout the night and everyone was glad when the shift was over and all the patients were well taken care of.

PUTTING PLANS INTO PRACTICE

This is the first riot that most of us have witnessed in Singapore and it illustrated some very important points. Firstly, a good working relationship between the ED staff and the SDCF paramedics ensured that we received first-hand information that a riot was taking place well before it was announced through the official channels. Having a good idea of the department disaster response plan, being able to analyse the situation well and make swift decisions, even if it means that one has to deviate slightly from the planned response, and excellent team work are important factors that determine how well a team leader can guide the team through such a chaotic shift, while also ensuring that the well-being of the staff and the patients are taken care of.

These traits make the job of an EP very unique and different from the rest of the disciplines, as our training has taught us to think on our feet and to expect the unexpected. Last but not least, the fact that patients arrive unscheduled at different times of the day with varying acuities and numbers definitely makes each of our lives as an EP a very exciting one! ◆

A Glimpse into the Past

MEDICINE IN SINGAPORE (PART 8)
FEBRUARY 1942 TO SEPTEMBER 1945: THE JAPANESE OCCUPATION YEARS

This is the eighth instalment of a series on the history of medicine in Singapore

The medical school at the College of Medicine was closed by the Japanese on 16 February 1942 and was used as the base for the Japanese Army Medical Corps to receive war casualties. The local hospital's doctors and dentists were allowed to hold examinations for 22 medical and seven dental students, who received diplomas issued by the Japanese Military Administration. The students later dispersed; some set off homeward and others went to strike out and make a living for themselves.

Dr Oon Chiew Seng wrote in the 1994/1995 Alumni Association Annual Report: "Within minutes (of bombs dropping in Singapore), the principal Dr George Allen rang to inform us of the outbreak of war. At that moment, most of us did not appreciate the impact of the news, though some did break down. All classes at the College were suspended. Some who could return home did. They were mostly from Raffles College. The rest of us, mostly medical students, joined the Auxiliary Medical Service stationed at the [Kandang Kerbau Hospital]. The only duty I can recall doing was rolling bandages in the company of some expatriate wives. As the days went by, with reports of the fall of Penang and Northern Malaya, some went to stay with friends and only a few of us were left in Holne Chase. I was lucky to have two brothers who insisted that I leave Singapore with their families – two women and eight children. We left Singapore on 6 February at almost midnight and arrived in Bombay a week later."

The students who went homeward up-country had to obtain written permission from the Japanese High Command. A group of 13 students led by Aziz Omar (later Dato Dr) went to the Municipal building and obtained group permits. An account of their return to Penang

was written by Dr Cheong Mow Lum in 1973:[1] "[W]e learned that the Japanese were going to take over the [General Hospital] for the use of their sick and wounded, and we were to leave immediately. … The hospital compound was full of cars and bicycles, while inside the nurses' hostel, all sorts of tinned food could be found. We helped ourselves to some of the tinned food and filled a few small gunny sacks with rice and sugar. I helped myself to a Hercules bicycle and two of the others did the same. … The 13 of us … were all set to walk back to our homes. … We … saw many people, both old and young, slowly making their way in the direction of Orchard Road, with a few Japanese soldiers *kuariing* (herding) them along…with fixed bayonets… We were stopped a number of times by soldiers, but on inspecting the pass issued to us by the Military Headquarters, we were allowed to get on our way. This was the big round up that took place in Singapore shortly after the surrender in which hundreds of Singaporeans were picked out by hooded informers and were taken away and shot. We did not realise how lucky we were then … On the Singapore side of the Causeway, the huts built by the British were by then occupied by Japanese guards. To cross the Causeway, we had to pass this guard house. In front of the huts, we saw two Chinese men tied to a lamp post with ropes. We came to a halt here not knowing what to do next. Hean Phek and Chung Hian slowly walked to the post to see the officer-in-charge. It was about half an hour later before they emerged. … We were to follow them to the huts. … we are going to be shot we thought to ourselves. However, to our great relief, we were ordered to clear up all the rubbish, which had been left there by the British … after which we were told we could proceed on our way. As [we] were walking along the Causeway, we could see a few dead bodies, with their hands tied behind them, floating in the water. … There was another guard post at the JP end … However, to our surprise, we were given a cordial reception by the soldiers on duty here and offered Japanese tea under a tent. After a series of bows to our kind soldiers we hurried away to the town centre. … We reached Kulai, about 17 miles away from Johore Bahru, in the afternoon. Some Japanese soldiers were billeted in the railway quarters … Chung Hian explained to them by writing in Chinese characters on paper who we were and what we were doing there … the next day a train with a number of empty wagons came along and we were told to get into one of them. After a lot of bowing and profuse thanks to our kind hosts, we scrambled on board … at Bukit Mertajam where we quickly jumped off the train. From here we made our way, this time truly on foot, to Butterworth beach, where there were a number of sampans waiting to ferry us across the channel to Penang Island. …When the Japanese opened the Medical College in Malacca, a couple of us got admitted there. Instead of learning medicine there, most of those who went learned Nippon Seishin (the Japanese spirit) instead. All 13 of us returned to College in June 1946. Only one did not complete his dental studies. Tan Boon Teong left after a few months and proceeded to Australia where he qualified as a chartered accountant. Lim Khoon Huat qualified as a doctor and became a city health officer in Penang. … The whereabouts of the other 11 are as follows:

1. Dr Stanley Keong Hean Peck, State Dental Director, Penang.
2. Dr Tai Yen Hooi, Director of Dental Services, Ministry of Health, Kuala Lumpur.
3. Dr Chee Phui Hung, private practitioner, Singapore.
4. Dr Lee Seng Guan, Professor of Restorative Dentistry, University of Malaya.
5. Dr Wong Poh Lam, ophthalmologist, emigrated to Australia.
6. Dato Dr Wee Khoon Hock, private practitioner, Kota Bahru, Kelantan.
7. Dr Michael Kheong Hean Kin, Deputy Director of Dental Services, Singapore.
8. Dato Dr Lim Kee Jin, consultant physician, [General Hospital] (GH), Johore Bahru.
9. Dr Chong Chung Hian, former gynaecologist and Director of Medical Services, Sarawak; now with [World Health Organization] in Korea.
10. Dr Sin Ban Seng, private practitioner, Penang.
11. Dr Cheong Mow Lum, dental specialist, Bukit Mertajam."

Later, the Japanese used the College of Medicine Building (COMB) as a serum and vaccine institute. In April 1943, the Japanese Military Administration established The Marai Ika Daigaku (Syonan Medical College) at the Tan Tock Seng Hospital (TTSH) (then renamed Hakuai Byoin, Syonan). Thus, TTSH can rightly claim to be the Singapore's Medical College briefly. When the Syonan Medical College first opened, all former students of the King Edward VII College of Medicine were accepted, and a total of about 200 students became Ika Daigakusei (medical students): 100 from Malaya and Singapore, and 100 from Indonesia, nearly all from Sumatra. There were only two teachers – a primary school teacher named Ozaki and a physical instructor named Kameyama. Students did not learn anything about medicine,

PROFILE

TEXT BY

A/PROF CUTHBERT TEO

Editorial Advisor

A/Prof Cuthbert Teo is trained as a forensic pathologist. The views expressed in the above article are his personal opinions, and do not represent those of his employer.

but were instead taught how to sing the Umi Yukaba (Seafaring) and Kimigayo (national anthem of Japan), how to bow deeply in the direction of the Imperial Palace in Japan and physical exercises. [The Umi Yukaba is a solemn *gunka* or military song. It was initially a song composed in 1880 to be used for naval ceremonies. The words were the military's oath of loyalty to the Emperor.] Even then, there was an attempt to start ragging, but this was apparently quickly given up because the Dutch-speaking Sumatran students objected to it with razors drawn.

The Japanese then shifted the Medical School to Malacca GH in February 1944, where it functioned (with all Japanese teachers) till the end of the Japanese Occupation in September 1945.[2] The warden of the Medical College in Malacca was Dr Keigo Shima, who was a surgeon and said to be a fine gentleman who never raised his hand to anyone. Dr Shima was said to have had a wry sense of humour, illustrated when he confronted a student with a nurse near the mortuary in the Malacca GH after lights out. He shone the torch, and when he identified the person concerned, he said "Sonna tokora demo" (Even in such a place).[3] Dr Shima also had a flair for handling undergraduates. The students had hard-labour sessions on Sundays. This consisted of felling a rubber plantation to plant tapioca, and was supposed to take place from 2 to 4.30 in the afternoon. The Japanese teachers would make the students start exactly at 2 pm and will not end earlier than 4.30 pm, and so the students would take their time to chop down the trees, chopping down about eight trees per session. When it was Dr Shima's turn to supervise, he asked the students what the average number of trees chopped was, and on being told it was eight, he pointed to eight trees and said that whenever they finished that allotment of trees, they could go off. The students chopped down the eight trees within an hour, and had the rest of the afternoon off for an outing to town, which was said to invariably include a visit to a casino. After the war, Dr Shima became professor of orthopaedic surgery in the University of Hokkaido. Dr Chee Phui Hung, then one of the students, said that they remembered Dr Shima as a doctor and not as a member of the Japanese Occupation forces. ◆

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SMA EVENTS DEC 2016 – FEB 2017

DATE	EVENT	VENUE	CME POINTS	WHO SHOULD ATTEND?	CONTACT
CME Activities					
18 December Sunday	BCLS/CPR+AED	SMA Conference Room	2	Family Medicine and All Specialities	Huda or Shirong 6223 1264 cpr@sma.org.sg
15 January Sunday	BCLS/CPR+AED	SMA Conference Room	2	Family Medicine and All Specialities	Huda or Shirong 6223 1264 cpr@sma.org.sg
19 February Sunday	BCLS/CPR+AED	SMA Conference Room	2	Family Medicine and All Specialities	Huda or Shirong 6223 1264 cpr@sma.org.sg
Non-CME Activities					
15 December Thursday	SMA Members' Appreciation Nite *(Rogue One: A Star Wars Story)* FULLY BOOKED	GV Great World City	NA	SMA Members and Guests	Rita 6223 1264 rita@sma.org.sg

WHAT YOU NEED TO KNOW ABOUT FATS (FALLS, AGGRESSION, TRIPS AND SHARPS): AN UPDATE ON WORKPLACE SAFETY AND HEALTH IN THE SINGAPORE HEALTHCARE SECTOR

We often read of serious workplace accidents in the construction and shipbuilding industries in which some have resulted in fatality. It is important to remind ourselves that the same Act, namely the Workplace Safety and Health (WSH) Act, also applies to the healthcare sector. SMA has appointed a member to participate in the committee since the inception of the WSH Council (Healthcare) Committee in 2008. With continued workplace fatalities in Singapore, the Ministry of Manpower (MOM) has announced in May 2016 that it will step up enforcement action on breaches of the WSH Act. In their press release dated 12 May 2016, MOM has described stiffer enforcement penalties and companies issued with stop work orders will also be placed on the Business Under Surveillance programme. While MOM will focus on the most affected sectors, such as the construction and shipbuilding sectors, healthcare professionals must not be complacent.

WSH Council (Healthcare) Committee has recently released a research report on workplace incidents in the healthcare sector that occurred in 2014. It is timely to review these results and discuss the implications of the survey. We hope that this review will help the busy medical practitioner who manages his own clinic to focus on the common problems faced in the healthcare sector. In addition, it will help the practitioner to do a proper risk assessment of the medical practice. By way of background, the report involved the Workplace Safety and Health Institute (WSHI) and eight major healthcare institutions, covering 30,900 workers, which constituted about one-third of the estimated workforce in the healthcare sector in Singapore.

Figure 1 shows the injuries by incident type and the category of medical leave (by number of days) received. Out of the 1,749 workplace injuries reported, the vast majority (96%) resulted in less than three days of medical leave. For medical leave of less than three days, the three most common injuries were from sharps (43%), falls (31%) and workplace aggression (17%). For medical leave exceeding three days (76 reported injuries in total), the most common were injuries resulting from falls (37%) and being hit by moving or falling objects (21%).

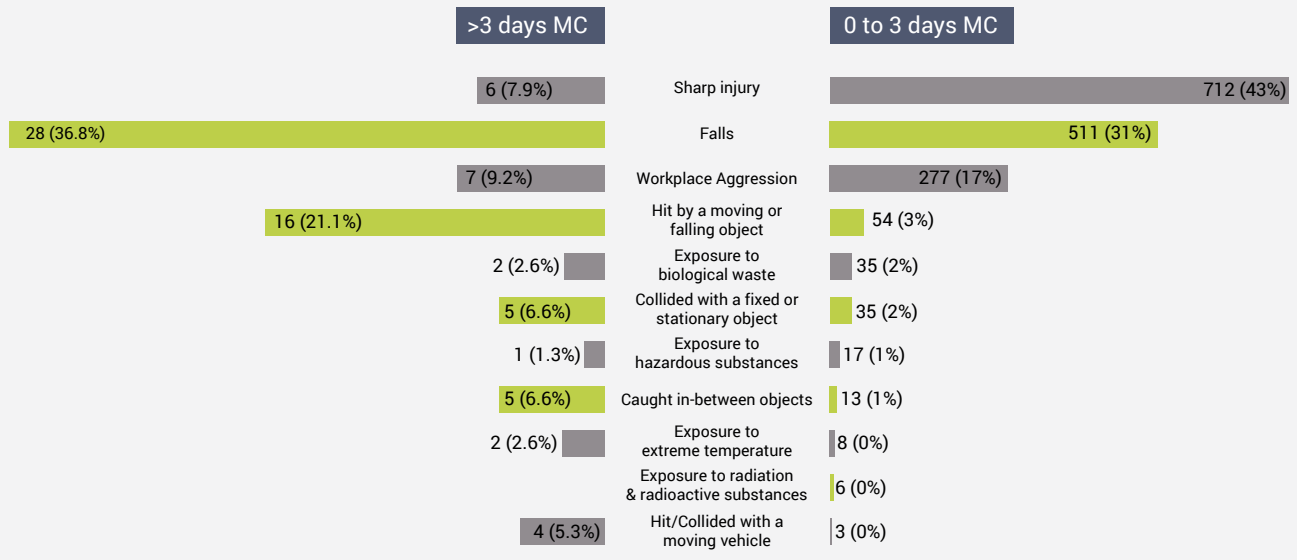

Figure 1 Injuries by Incident Type and Length of Medical Leave, 2014 (Figure 3 in WSH Survey)

SHARP INJURIES

It should worry us to see the continued dominance of sharp injuries contributing to workplace injuries in the healthcare sector. While we have made significant progress in this area with "needleless systems", it remains the most common injury for cases involving the short duration medical leave. Anecdotally (and not reported in this WSH survey), sharp injuries occurring in the operating theatres (OT) and those suffered by "cleaners" have been a problem in certain healthcare institutions. Changes in work processes and work instructions in the OT have been instituted to reduce sharp injuries during stitching, passing of instruments, etc. Carelessness in misplacing sharps in trash bags/containers was the main reason for "cleaners" to suffer workplace injuries due to sharps. Disposal systems need to be reviewed and improved.

TRIPS, FALLS AND FALLING OBJECTS

Although trips and falls in the healthcare sector do not have the same severity as in some other industries, it is a highly preventable event and we must work towards zero occurrence. Some simple things to avoid at medical practices are wet floors, loose wires or cables, and heavy boxes placed on upper shelves. It is strongly advised that the medical practice itself is insured against accidents that result in injuries from trips and falls. Such events occurring in clinics with injuries sustained by staff, patients and/or their relatives may be liable for litigation and claims.

WORKPLACE AGGRESSION

We wish to highlight issues relating to workplace aggression in the healthcare sector. In the US, the Bureau of Labor Statistics documents that while less than 20% of workplace injuries involve healthcare workers, 50% of workplace-related assaults involve healthcare workers. Out of the 1,749 cases of workplace injuries in Singapore healthcare reported in the 2014 survey, 284 were categorised as cases involving workplace aggression. All of the eight healthcare institutions surveyed indicated that they monitor workplace aggression closely. This monitoring is important as reporting such events is critical to the development of an effective workplace violence prevention programme. There may be a tendency to under-report such events if staff perceive that such experiences are "part of the job" and that reporting is unlikely to result in any action by those in leadership. Figure 2 revealed the breakdown of the type of abuse and Figure 3 demonstrates the category of staff involved – clearly, the nurses bear the brunt of the aggression from the patients and visitors. 78% of the cases resulted from the patient being the aggressor and 21% occurred with visitors implicated as the aggressor. Inherent aggression, mental instability, frustration and anxiety are the common reasons for aggressive behaviour and this is elucidated in Figure 4.

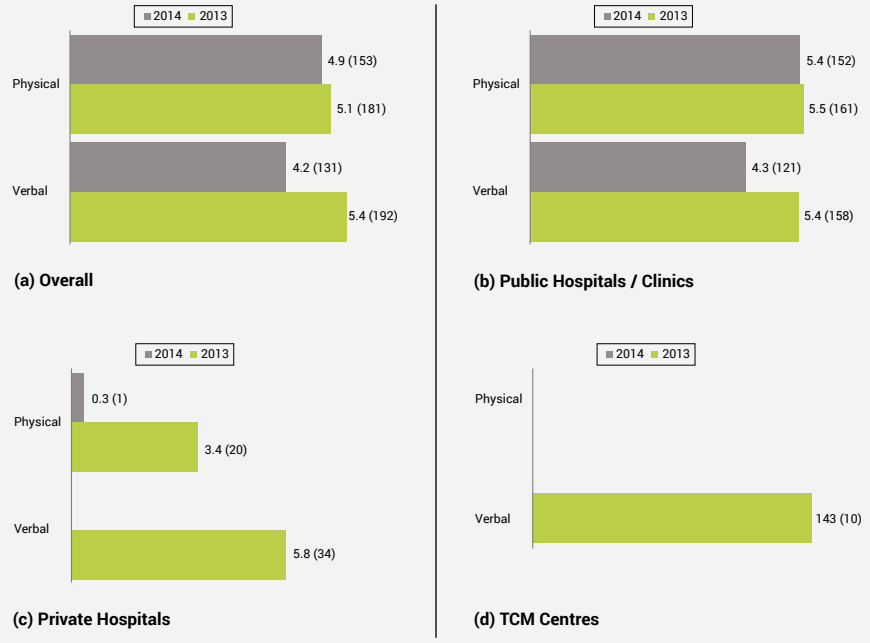

Figure 2 Workplace aggression rates per 1,000 employed persons by organisation setting (Figure 6 in WSH Survey)
Note: *Figures are rates per 1,000 employees and in parenthesis are absolute numbers*

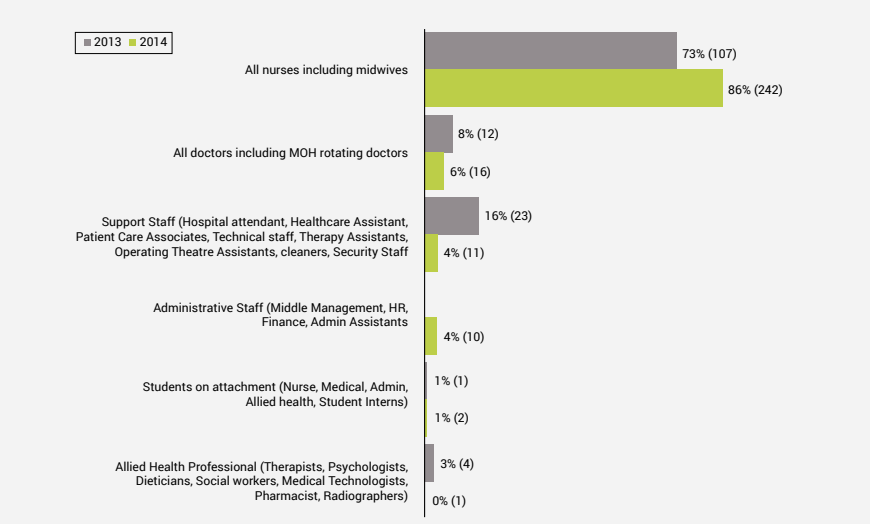

Figure 3 Aggression Victims' Profile (Figure 8 in WSH Survey)
Note: *Figures in parenthesis are number of cases*

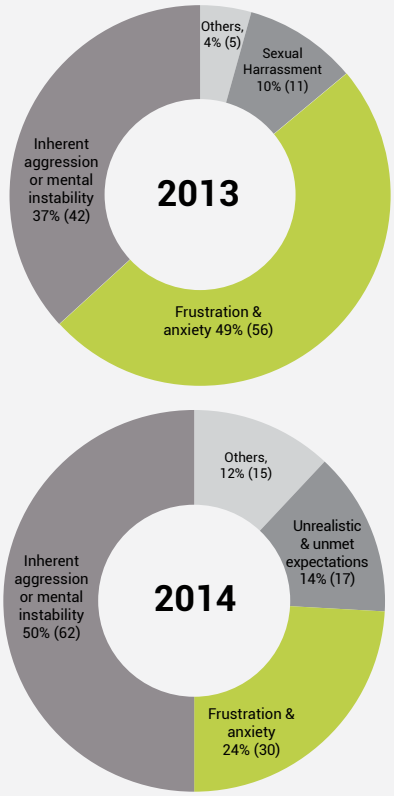

Figure 4 Top 3 Causes for aggression (Figure 7 in WSH Survey)
Note: *Figures in parenthesis are number of cases*

Healthcare staff should be trained to identify such biopsychosocial factors in patients, relatives and visitors. We urge the medical practitioner to demonstrate leadership and commitment by working with your nurses and staff on clinic processes that will help to reduce the risks of aggression by patients and their relatives at your practice. Oftentimes, your staff may just "grin and bear it", but such incidents are often mentally traumatic. For extremely difficult patients and relatives, you and your staff must be prepared to file a police report when such workplace violence occurs.

ROOT CAUSE ANALYSES

In Table 1, the results of 713 root cause analyses of workplace incidents and ill health were identified and tabulated. Human factors (eg, distraction, carelessness), inadequate training and low competency levels were the most common root causes accounting for almost half of the cases. Formal training programmes for new staff on the use of equipment and regular ongoing refresher courses can address the training and competency issues. With regard to "human factors", we need to look at work volume, staffing numbers, repetitive work, etc, to reduce workplace incidents and ill health.

In this short summary, we have highlighted several aspects of the 2014 WSH survey on the healthcare sector. You may access the full report at https://goo.gl/Jrh5oS. This recent 2014 survey on the healthcare sector has focused on larger healthcare institutions and it will be interesting to obtain similar information from smaller medical and dental practices in the future.

Under the WSH Act, every medical practice must have a risk assessment done every two years. This must be documented and is subject to audit by MOM or its agent. If you have not done so, please form a team at your practice and document your activities. You may wish to take advantage of an online basic workplace safety and health course for healthcare workers which is available at https://wshc.sg/elearning.

The WSH Council also has a standard template on risk assessment for medical clinics which can assist you in workplace safety measures. You may access it at https://goo.gl/QeTkqG.

We wish you a safe workplace at your medical practice! ◆

PROFILE

TEXT BY

DR LAM MUN SAN
DR WONG SIN YEW

Dr Lam Mun San and Dr Wong Sin Yew are infectious disease physicians in private practice. They are strong advocates of vaccination for healthcare workers and are building their group practice into an organisation which focuses on patient safety and quality care.

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Table 1 Root causes for work related incidents and ill health (Table 3 in WSH Survey)

Root causes	No.	%
Human Factor e.g. ergonomics, distraction, decision errors	204	28%
Training & Competency e.g. knowledge/skills to operate equipment, Inadequate training	157	21%
Abuse & Harassment	119	16%
Equipment or machinery failure/lack of appropriate equipment	105	14%
Environmental factors e.g. poor lighting, flooring, drainage problem	77	11%
Lack of Communication	36	5%
Medical Conditions i.e. pre-existing medical conditions, etc.	12	2%
Poor housekeeping	9	1%
Administrative constraints e.g. policies/guidelines/safe work procedure	8	1%
Manpower challenges e.g. scheduling shift work problem, shortage of staff, excessive overtime	4	1%

CORE COMMUNICATION SKILLS IN THE MEDICAL INTERVIEW

INTRODUCTION

The medical interview is probably the most important and most frequently used clinical tool. An average physician in active clinical practice would be doing six to seven thousand medical interviews in a year. Good medical interview skills ensure that the doctor collects all the important and relevant facts necessary for making an accurate diagnosis, developing an effective patient-centred management plan and building a strong therapeutic relationship.

Effective communication between patients and physicians is fundamental for good medical practice. Patients in primary care have identified interpersonal communication skills as the most important and desirable attribute of professionalism that affects the process of healthcare.[1] Good communication skills have benefits for patients, doctors and the process of care. Organisation-wide relationship-centred communication skills training at the Cleveland Clinic has improved patient satisfaction scores, physician empathy and self-efficacy, and reduced physician burnout.[2]

CORE COMMUNICATION SKILLS

A consensus among medical educators in the US identified the seven essential elements of communication in medical encounters as: building the doctor-patient relationship; open the discussion; gather information; understand the patient's perspective; share information; reach an agreement on problems and plans; and provide closure.[3] Similar core communication skills and strategies are essential for all clinical encounters, including giving a new diagnosis and starting a new therapy. In this article, six core or essential communication skills in the medical interview are explained. The micro skills are not discussed.

Introduction or invest in the beginning (open the discussion or make the personal connection): The introduction involves a greeting: the doctor's name and designation in the team; the patient's name and identification; a brief of the proposed agenda for the encounter; and finally, ensuring the patient's comfort and consent before starting. A good introduction ensures smooth flow for the interview.

Active listening (gather information): This skill is demonstrated by making good eye contact, listening without any interruptions, appreciating the facts (cognitive) of the patient's narrative and perceiving the emotional and other impact that the illness has on the patient. Start with open-ended questions, and use body language and facilitating gestures to elicit the patient's story. It is important to permit the patient to complete the opening statement without interruptions. Only when there is no new information in the narrative does the doctor use clarifying questions and closed-ended questions to seek specific data to test the medical diagnostic hypothesis.

Expressing empathy: The first step in demonstrating this skill is by picking up the emotional cues in the words and body language of the patient when the patient is narrating the story of illness.

The second step involves naming the emotion (eg, *worried, sad, upset and confused*) followed by paraphrasing (using the patient's own words) or using a reflective statement (eg,"*I hear from what you are saying that the pain has made daily life difficult for you.*") and conveying it to the patient.

The third step is to give a brief supportive statement (eg, "*Knowing how difficult it has been, we will do all that is necessary to help.*").

When physicians were empathic and used reflective statements, patients were more likely to report high satisfaction with the physician and feel understood, supported and confident in adherence to medical advice.[4]

Eliciting the patient's perspective: In building an effective therapeutic relationship in the medical interview, it is not adequate to elicit only the biomedical facts of the disease, but explore empathically the psychosocial, economic and cultural aspects and impact of the illness. The best way to elicit the patient's concerns, ideas, feelings and expectations is to ask the patient.

Ask questions on the events surrounding the onset of the illness (eg, *"Tell me in your own words what was happening in your life when the symptoms started."*) and the effect of illness on the patient's life (eg, *"How has all this affected what you can and cannot do?"*). Elicit the patient's ideas (eg, *"What do you think is the cause of your problem?"*) and feelings (eg, *"How has all this made you feel?"* or *"How are you coping with the illness?"*). Elicit the patient's expectations from the clinical encounter and expected outcomes (eg, *"What are your expectations?"* or *"How are you hoping we could be of help?"*).

The surveying technique is to ask a "what else" question (eg, *"Is there anything else you have missed saying?"*, *"Are there any other questions you have?" or "Are there any other concerns or worries?"*). When used at different points of the interview, it will often encourage the reluctant patient to share more and elicit a hidden agenda, if any.

Summarising: Summaries are good opportunities to ensure that the doctor has understood and appreciated the context of the narrative, and to check on its accuracy.

This skill is demonstrated by asking the patient to relate what you have heard to ensure you got it right (eg, "*Let me make a summary of what you have said and let me know if I have gotten the facts right.*"). Summarise the medical facts of the narrative, the emotional and other impact the illness has on the patient, and the patient's expectations. A good summary makes the patient feel – this doctor has heard me, he knows the facts and he cares. A summary is timely at the end of the history of present illness and if needed, at the end of the consultation.

Closure and journey (invest in the end): The skill in closure of the interview involves thanking the patient for the sharing and stating the action plan to follow. Make a final check to ensure the patient has no outstanding issues or concerns, using a "what else" question.

A closing solidarity statement, affirming that the healthcare team is committed in working with the patient to resolve the medical problems, gives the feeling of support.

CONCLUSION

The medical interview still remains an essential clinical tool for diagnosis and management of the medical problems of patients, in addition to building an effective therapeutic relationship.

A strong therapeutic relationship is established by extending the interview beyond the biomedical aspects to the psychosocial aspects and other contextual issues of the illness experience. Active empathic listening with reflective responses is the heart of compassionate communication.

Effective communication skills are core skills and essential components of clinical competence for all clinicians and should not be downplayed as optional soft skills. Communication skills can be learnt, practised and continually improved like other clinical skills in medical practice. Even with all the technological advances, the doctor who practises effective communication skills with competence and compassion remains as the most efficient diagnostic and therapeutic agent in medicine. ◆

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PROFILE

TEXT BY

DR T THIRUMOORTHY

Immediate Past Executive Director, SMA Centre for Medical Ethics and Professionalism

Continuing Education in the Practice of Aesthetics

"*Primum Non Nocere* – First, do no harm" is a fundamental principle which guides the medical practice of every doctor regardless of field or expertise, but must be held in the highest accord particularly in the context of aesthetic practice. This is because patients who seek aesthetic treatments are often not sick, but desire improvements in appearance and well-being. As such, it is paramount for a doctor in aesthetic practice to take every step possible to minimise complications arising from such treatments, from undesirable aesthetic outcomes to catastrophic medical sequelae. Yet, how can a well-meaning, diligent doctor avoid doing harm to a patient, if he does not know that what he is doing is potentially harmful?

The real challenge, then, is ignorance. And the only solution is knowledge.

FACING THE CHALLENGE

In the practice of aesthetics, there is no structured teaching, no exams, no research obligations or any specific impetus to accumulate knowledge. At the same time, there are new technologies and new techniques being developed every day in our industry, as well as in the (almost completely unregulated but closely related) beauty industry. Coupled with the fact that many young doctors initially enter the industry with little to no experience in aesthetics, it is clear to see how easily a knowledge gap can form.

A sound understanding of the fundamentals will stand any doctor in a good stead. Dermatologists and plastic surgeons in aesthetic practice will have acquired these fundamentals through their specialty training; yet, they must still constantly update themselves to keep up with the rapidly evolving practice. For GPs like me, it is crucial for us to work doubly hard to secure those fundamentals, *and* to keep up to date.

THE IMPORTANCE OF SELF-LEARNING

When a doctor is self-motivated to learn, he will find that resources are everywhere. Senior doctors with years of experience in the practice are literally vaults of knowledge that can be tapped upon, while discussions and sharing with colleagues can often be most insightful. At the same time, teaching a younger doctor is an excellent way to consolidate knowledge, as well as identify one's own knowledge gaps. Every patient encounter is a valuable learning opportunity; so much can be gained just by truly listening to them, as well as to feedback from one's own assistants and staff.

Books may not be fashionable anymore, but remain an excellent and inexpensive source of knowledge. For example, there are books that do not just teach anatomy, but specifically the importance of understanding anatomy correlating to each area into which we commonly inject; as well as to each indication that we commonly treat. Today, up-to-date journals, research articles and publications are also easily accessible through a single click on the Internet.

THE ROLE OF STRUCTURED LEARNING

Today, there are hundreds of GP clinics in Singapore which primarily offer aesthetic services. Young doctors are joining the industry on a monthly basis – just flip to the last page of this magazine and chances are you will find an advertisement looking to hire one. It is crucial that our regulator, the Singapore Medical Council (SMC), recognises the very real fact that hundreds of GPs perform hundreds of thousands of aesthetic procedures yearly in Singapore; and that continuing medical education (CME) for this group of doctors in areas pertinent to their daily practice is paramount for patient safety.

The Certificate of Competence (COC) course organised by Dermatologists is an excellent starting point where a breadth of knowledge across the multiple facets of aesthetic practice is taught, basic sciences explained, and potential complications highlighted. It must be noted how successfully the SMC's Aesthetic Practice Oversight Committee (APOG) ensured

that all this knowledge were effectively transferred, by making the COC course and accreditation compulsory for all doctors in aesthetic practice.

However, currently, almost every course or conference related to aesthetic practice is not CME accredited, and by extension unrecognised. In fact, even the COC course itself is not accredited for CME! Try to submit a journal you have read for accreditation on the CME website, and you will find a checkbox specifically asking whether that journal is related to aesthetics, in which case it will almost certainly be rejected.

ACCREDITATION EMPOWERS LEARNING

I have had the privilege of attending many such courses and conferences, and I have learnt a great deal from them that has continuously changed my daily practice for safer, and for better. Though many of these conferences are organised by our suppliers, based on my experience, the focus of these talks are invariably always on patient safety and minimising risks and complications, followed by methods to improve or more consistently deliver desirable aesthetic outcomes. The products carried by the suppliers are mentioned only in passing, while off-label and non-Health Sciences Authority-approved products and procedures are never directly addressed during the talks.

For example, I attended a cadaveric dissection course held at Singapore General Hospital's Academia which was organised by a major pharmaceutical company. The speakers at the course were renowned anatomists and plastic surgeons from around the world. For a GP like myself, watching the dissection live while listening to the experts point out the crucial anatomical landmarks, danger zones to avoid, age and ethnic variations, as well as how the understanding of anatomy directly correlates with the injections I do gave me far greater understanding of my daily work. Subsequently, I spoke to the organisers, and was told that CME accreditation for that conference was rejected year after year by the SMC, despite the fact that it is affiliated to a university, follows strict guidelines, and is accredited by similar regulatory bodies in many other countries where it is held.

THE CULTURE OF EDUCATION

It is my sincere hope that all doctors in aesthetic practice will have the chance to attend such conferences regularly, which will help provide the young doctors with a solid foundation to build upon, as well as help the experienced doctors consolidate their knowledge and keep them up to date. With support from the regulatory bodies through CME accreditation, organisers can better understand and comply with guidelines required for the professional conduct of these courses, while doctors will be more motivated to attend. In turn, this will lead to more of such courses being organised, and organised within the required regulations, which will improve both the reach and the quality of continuing education in the practice of aesthetics in Singapore.

Such a culture of education can only truly be realised through motivation of the doctors, support from the suppliers and recognition by the regulatory bodies. By working together towards the common goal of patient safety, a positive feedback loop of continuing education can be set in place, which will be beneficial for all the parties involved; but most importantly, for our patients.

PROFILE

TEXT BY

DR FELIX LI

Dr Felix Li is the Medical Director of The Face Aesthetic Clinic. He was born on the same day as his wife, and they are excitedly anticipating the arrival of their little boy – their first! – come January. However, things may get complicated when Ford delivers his second wife in December.

Managing Diabetes in the Community

In March, we introduced the Mobile Community Health Centre (CHC) whose allied health services can be delivered at the GPs' clinics or in the neighborhoods, complementing GPs' chronic disease management. In this issue, we bring you information on two new options available to GPs to help patients fight diabetes in the community – NKF Diabetes Health Bus and the newly opened CHC in Nee Soon Central.

By **Agency for Integrated Care**

When Dr Elly Sabrina, Director and Family Physician at Banyan Clinic, first learnt that Singapore had the second-highest proportion of diabetics among developed nations, she was shocked.

"We are way up there, in terms of the number of renal complications arising from diabetes. Our numbers are even higher than America's, which is really shocking," Dr Elly said.

And diabetes is showing no signs of slowing down. "Diabetics are getting younger. If one belongs to a group at risk such as Malays or Indians, he should check his fasting blood glucose at age 18 instead of 40," Dr Elly highlighted. And with that, this makes the need for systematic diabetic management more important than ever.

National Kidney Foundation (NKF) Diabetes Health Bus

With this in mind, National Kidney Foundation (NKF) rolled out the Diabetes Health Bus, which aims to partner General Practitioners (GPs) in their management of diabetes.

The roving Diabetes Health Bus, which launched in June, is staffed with NKF nurses and will make rounds to partnering clinics to screen diabetics at no cost and help them manage their patient's condition. Services include free blood tests to dietary and lifestyle counselling.

To refer existing diabetics to the bus, GPs can contact NKF at 6299 0200 or email them at contact_us@nkfs.org.

"The Diabetes Health Bus brings the clinic to the patient, which makes it very accessible for them," Dr Elly explained.

National Kidney Foundation (NKF) Diabetes Health Bus which aims to reduce diabetes-induced kidney failure in patients

Dr. Elly Sabrina, Director and Family Physician at Banyan Clinic with her patient, Mr Haji Saad Bin Elias whom she has been managing his diabetes for a decade

"It is convenient for patients as they can take their blood tests while waiting to see the doctor. Many patients are usually reluctant to go for blood tests because they have to travel elsewhere, which they find time-consuming."

Dr Elly's diabetic patient since 2006, Mr Haji Saad Bin Elias remarked that "It is good that it is free. Otherwise, it will be very expensive to go for a check-up every three months." "By going for my follow-ups regularly, I managed to bring my HBA1c level down from 7.8 to 7.1mmol/L."

Once a patient is screened on the bus, their medical report is sent to the GP who then reviews and readjusts their medical dosage accordingly. This workflow helps to ensure that each patient undergoes a thorough screening and receives optimal treatment and support. It also frees up time for GPs to carry out more clinical work.

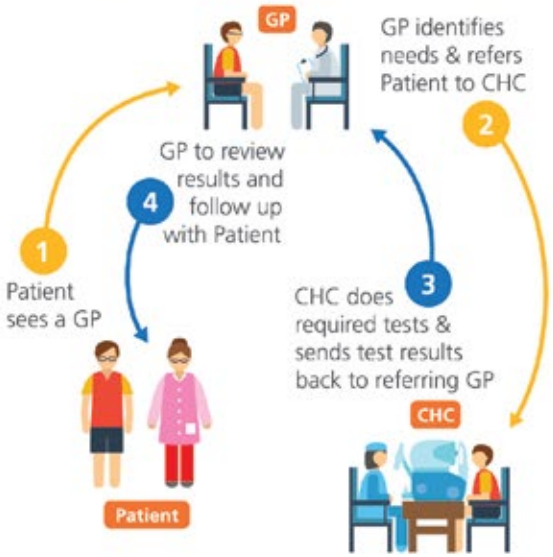
This process also helps GPs to detect early stage diabetes that, if aggressively treated, may be reversed. "This particular window period is critical because it can help us reverse and prevent the patient's renal function from going downhill. This is where the bus comes in as a solution," Dr Elly commented.

Newly opened Community Health Centre (Nee Soon Central)

GPs can also partner with Community Health Centres (CHCs) to help patients better manage diabetes. There are a total of eight operating CHCs now with CHC Nee Soon Central (CHC NSC) which started operating this September as the latest addition.

The CHC NSC provides ancillary services such as diabetic eye and foot screening, and nurse counselling to support GPs practicing in the North to manage patients with chronic conditions like diabetes.

Below: Process flow between patient, GP and CHC



Located at Block 766 Yishun Ave 3, it is the first CHC to be located together with a Senior Care Centre (St Luke's Eldercare Senior Care Centre). Residents can now easily access services from both centres under one roof.

A GP's referral is required for patients to use these services. Once patients are screened, their results are sent back to their GPs, who will follow up with them and put an appropriate care plan in place.

Diabetic Eye Screening at the newly opened CHC Nee Soon Central

Universal Medical Clinic's Dr Ow Boon Hin believes CHC NSC will be of much help to diabetic patients in the vicinity as "it makes healthcare more convenient for them, especially the CHAS patients". Health Assist and Pioneer Generation Cardholders are entitled to subsidised rates for CHC services.

Dr Ow also encourages fellow GPs to refer their patients to CHCs, as he believes that this partnership is beneficial for both doctor and patient. "Patients do appreciate what you do for them. I have experienced this in my partnership with both CHC and CHAS," he said.

COMMUNITY HEALTH CENTRES IN THE NEIGHBOURHOOD

NORTH

[New!] CHC Nee Soon Central
Blk 766, Yishun Ave 3, #01-295, Singapore 760766
Tel: 6759 9053 | Fax: 6759 1296

SOUTH

Tiong Bahru CHC
Blk 19, Jalan Membina, #01-24, Singapore 163019
Tel: 6376 0158 | Fax: 6271 7239

CENTRAL

CHC @ Ang Mo Kio - Thye Hua Kwan
Ang Mo Kio - Thye Hua Kwan Hospital,
17, Ang Mo Kio Avenue 9, Singapore 569766
Tel: 6507 9491 | Fax: 6507 9492

NHG Mobile CHC
Areas covered: Bishan | Thomson | Toa Payoh | Hougang | Serangoon | Kallang | Whampoa | Geylang
Tel: 9088 5562

EAST

Eastern CHC (Bedok North)
Blk 201A, Bedok North St 1, #01-563, Singapore 461201
Tel: 6446 7200 | Fax: 6446 7207

Eastern CHC (Bedok South)
Siglap Community Centre,
300, Bedok South Ave 3, #01-04, Singapore 469299
Tel: 6449 5419 | Fax: 6243 8916

Eastern CHC (Tampines)
Our Tampines Hub, 51,
Tampines Ave 4, #03-33, Singapore 529684
Tel: 6782 6885 | Fax: 6782 9591

WEST

Jurong East CHC
Blk 229, Jurong East St 21, #01-701, Singapore 600229
Tel: 6665 1291 | Fax: 6896 1832

If you would like to make referrals or know more about the CHCs, call our GP hotline at **6632 1199**, email Agency for Integrated Care (AIC) at **gp@aic.sg**, or visit **www.primarycarepages.sg/CHC**.

BUILDING THE HEARTWARE IN MEDICINE

PROFILE

TEXT BY

JENNIFER LEE

Deputy Manager, SMA Charity Fund

Legend

1. Student volunteers from NUS Medicine attending to participants during the PHS event
2. LKCMedicine students engaging with an elderly resident during their FOCCIP

Getting into Medicine is one of the greatest gifts for many individuals. Barely into their 20s, these students are eager to pursue the skills in medical practice and they look forward to the day when they can make a difference with what they have learnt in medical school.

These aspiring medical doctors must know that the patient should always be their primary concern. Beyond diagnosing and treating the symptoms, they should also take into consideration the person experiencing them and seek to provide the best treatment, by treating the patient holistically instead of addressing only the symptoms.

The doctor-patient relationship can be a complex and intriguing one. From a patient's perspective, a good doctor is often one who is able to hear, feel and understand the situation he/she is caught in, and not just treat the symptoms he/she presents. It is the deep awareness of the suffering of one, coupled with the wish to relieve it, that will make one a good doctor – equipped with both the heartware and hardware.

NURTURING A CARING PROFESSION

At SMA Charity Fund (SMACF), supporting medical students from modest family backgrounds has always been one of our objectives. We want these students to be able to focus on their medical training without undue financial stress. Beyond supporting medical students financially, SMACF also seeks to benefit the community through healthcare projects, with the aim of inculcating the values of compassion and service among our medical students and professionals.

Every year, a percentage of SMACF's operating expenses go into supporting local community projects carried out by students from the three medical schools. These projects provide exposure to our medical students, where they could develop their heartware and experience what medical doctors would face in their practice.

Each year, these projects translate into approximately 5,000 volunteer hours and many opportunities for our young medical students to learn about medicine in totality. ◆

Supported projects	The impact
Project Legacy	Project Legacy is an initiative spearheaded by a group of NUS Yong Loo Lin School of Medicine (NUS Medicine) students who believe in helping palliative patients celebrate their lives by leaving keepsakes for their loved ones. It helps to inculcate the humane approach in students, by allowing them to gain experience in caring for the dying and increase their understanding of caregivers' responsibilities, so that they can better manage future patients.
Public Health Screening (PHS)	PHS is an annual event, organised by the NUS Medical Society, which aims to raise health awareness among the public. The annual flagship event sees a huge involvement of medical students from NUS Medicine and provides a platform where medical students could work on the ground and communicate with a diverse group of individuals.
Camp Simba	Camp Simba is modelled after Camp Kesem, a camp organised in the US by students in colleges such as Duke University, Stanford University and many others. The intent of the camp is to give children affected by a parent's cancer the opportunity to express their emotions in a fun environment, providing respite from the stress they face at home. Locally, it is organised by medical students from Duke-NUS Medical School and NUS Medical Society, and provides opportunities for medical students to understand, and work to allay, the fears of the patient's children.
Freshmen Orientation Camp Community Involvement Program (FOCCIP)	FOCCIP is arranged as part of the Freshmen Orientation Camp in both NUS Medicine and Lee Kong Chian School of Medicine. Held at the beginning of each academic year, freshmen are required to do a day of community service as part of their orientation camp. The intent of the FOCCIP is to provide the M1s a glimpse into their future career, and more importantly, to educate them that medicine is a profession targeted at serving the community with not just the skills but also the heart to serve.

"Wherever the art of medicine is loved, there is also a love of humanity."

Hippocrates

"Project Legacy was my first exposure to palliative care and I felt that it was a new experience talking to patients in their homes as compared to the hospital setting. I volunteered for the project because I felt that it was a meaningful project whereby one would be able to interact with patients in a different setting, work with their love ones, and see and understand a different side of healthcare."

Zelia, Volunteer for Project Legacy, Cycle 5 (August 2015 to June 2016)

Support our efforts to build a compassionate profession to impact healthcare! Contribute to our cause on https://www.giving.sg/smacf or send your cheque, payable to "SMA Charity Fund", to

SMA Charity Fund
c/o Singapore Medical Association
Alumni Medical Centre, Level 2
2 College Road
Singapore 169850

Attention to donors: *All donations made via cheque and credit card have to be received by SMA Charity Fund by 25 December 2016 to ensure prompt tax filing and claims for Year 2016.*

For Doctors, For Patients

SMA MEMBERSHIP
PRIVILEGES AT A GLANCE

SMA's efforts to enhance the local healthcare landscape can only come to fruition with the support of every medical professional in Singapore.

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PEAK

To find out more about the SMA Membership or to register, please visit https://www.sma.org.sg.
Remember to use your Membership Portal to enjoy the uniquely SMA privileges as well as sign up for courses and events!

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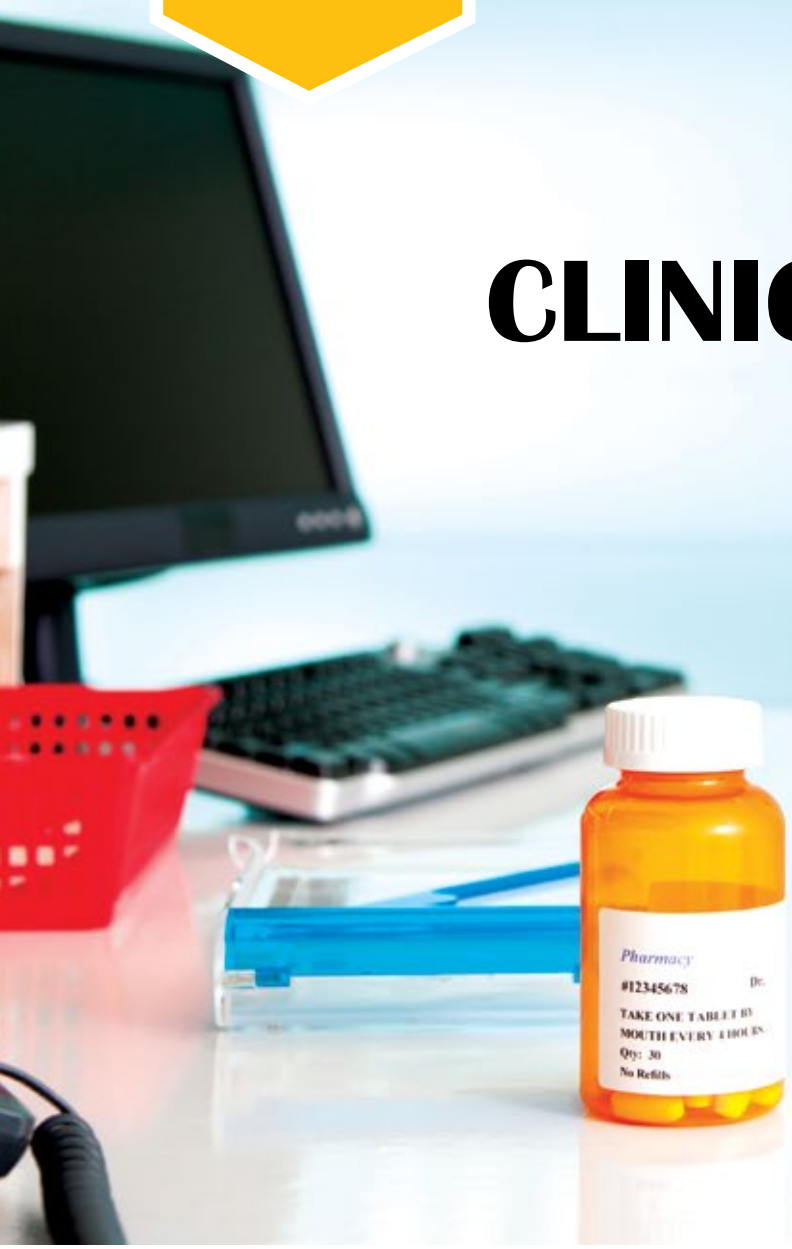
INTERVIEW AND RECRUIT SMA-TRAINED CLINIC ASSISTANTS BECAUSE...



THE PERSON BEHIND YOUR CLINIC COUNTER *MATTERS*

Supported by:

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Better Jobs For Life
Employment and Employability Institute

The inaugural SMA Clinic Assistant Introductory Skills Course has concluded on 12 November 2016! Course graduates have been trained in the basic skills required of a clinic assistant, such as managing infection control, performing ECGs, and collecting and despatching biological specimens. The next Clinic Assistant Introductory Skills Course will be held from 11 to 14 January 2017.

Visit https://www.sma.org.sg/trainandplace and log in to your membership portal to indicate your clinic's vacancies if you're interested in interviewing and hiring SMA-trained clinic assistants.
If you're unsure about your membership login details or have any queries about the programme, please email Mellissa (SMA Secretariat) at mellissa@sma.org.sg or call her at 6223 1264.

STEPPING INTO SHANGHAI

TEXT AND PHOTOS BY

DR CHIE ZHI YING

Dr Chie Zhi Ying enjoys freelance writing and singing. She writes for *Lianhe Zaobao*, *Shin Min Daily News* and *Health No. 1*. She can be reached at chiezhiying@gmail.com.

Legend

1. The central altar at *cheng huang miao*
2. Soup-filled pork dumplings are one of Shanghai's top delicacies
3. With its double sphere and sharp apex design, the Oriental Pearl Tower stands out among the rest of the buildings along the banks of the Huangpu River
4. *Cheng huang miao* district at night
5. Nanjing Road is the main shopping belt of Shanghai

What comes to your mind when you hear the name "Shanghai"? For me, it's a retro scene of Chinese ladies and gentlemen waltzing on the dance floor to jazz music playing in the background. Often lauded as the "Paris of the Orient" and the financial and cultural centre of China, Shanghai prides itself as being one of the largest and most prosperous cities in the world. What's more, it is the epitome of the east meeting the west, with colonial buildings lining its bunds and yet retaining its unique oriental identity.

As my family members and I exited the Shanghai Pudong International Airport, we were greeted by highways lined with lush greenery. The road network was simply fascinating; there were multi-layered highways intertwining at each juncture (if you find it hard to picture this, just imagine your Lego train set with multi-layered tracks). The Pudong New Area flourishes with modern skyscrapers and traditional Chinese architecture – a testimony of China's rapid economic developments in the last few decades.

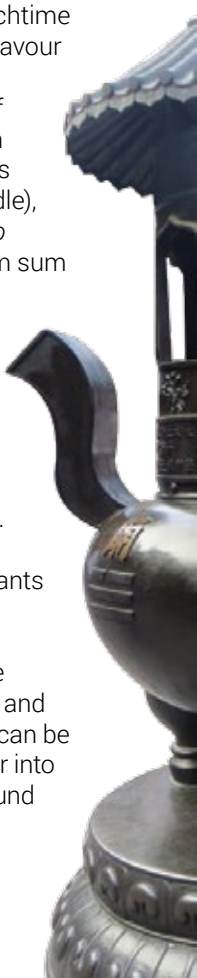
EXPERIENCING LOCAL CULTURE

One of Shanghai's renowned cultural landmarks is the City God Temple of Shanghai, also known as the *cheng huang miao*, where believers pray for good fortune and peace. Due to its popularity, the temple has expanded into a sprawling commercial district, boasting hundreds of shops that sell anything from local delicacies and trinkets to the latest fashion apparels. Entering the temple was like transiting into a world of serenity and calmness, and the fragrance of incense exuded an air of sacredness.

After exploring the temple, lunchtime beckoned and we were off to savour the local signature delicacies! Shanghainese cuisine is one of the best cuisines in China, with mouth-watering dishes such as *la mian* (a type of Chinese noodle), the delightful *xiao long tang bao* (soup-filled pork dumpling), dim sum and a variety of seafood like crabs and lobsters.

EXHILARATING SIGHTS AND SOUNDS

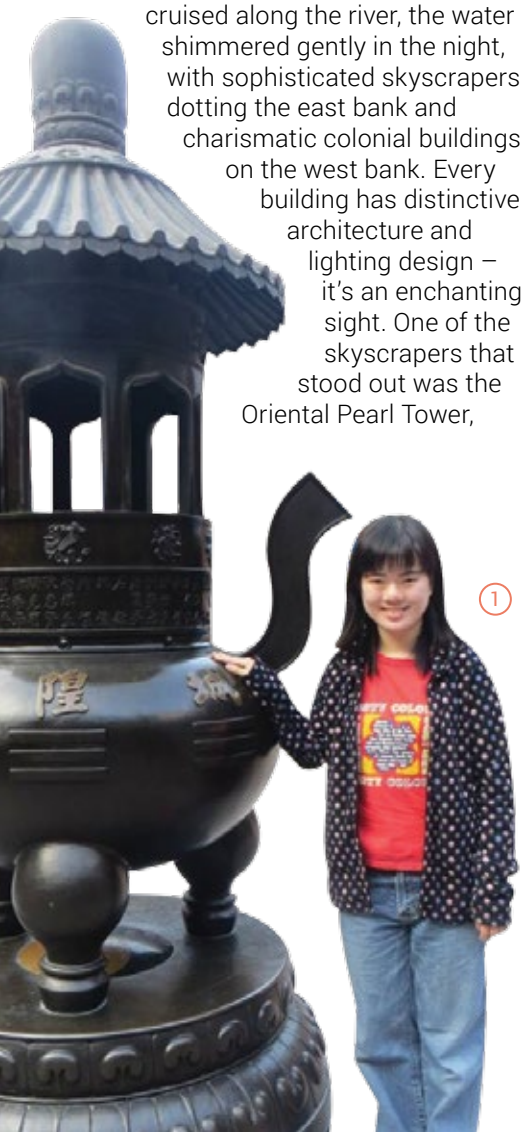
For those who love to shop, it is a must to visit Nanjing Road. With both international brands ranging from fast food restaurants to boutiques, and traditional century-old jewellery shops, Nanjing Road is undeniably the favourite haunt of local youths and families. Traditional craftsmen can be seen hammering gold and silver into little trinkets, as the clinking sound



of the hammer echoes through the alley. The entire shopping belt seems endless, and with colourful lightings and booming music, one is bound to feel the pulsating heartbeat of the city.

Next up, we were given a mind-boggling visual treat by a famous acrobatic group. One stunt featured multiple acrobats hopping in and out of a giant wheel with ease despite its speed and height. Then, there was a beautiful couple who performed graceful gymnastic stunts with silk ribbons from at least two storeys above the ground (oblivious to the audience's apprehension). The most heart-stopping moments during the show, however, were when eight motorcyclists zigzagged each other deftly in a confined space of a giant steel globe. If there was a moment of hesitation from any performer, the consequences would be unthinkable. I really applaud the team for their death-defying stunts and skills!

It is said that if you haven't taken the night cruise on the Huangpu River, you have not been to Shanghai. As we cruised along the river, the water shimmered gently in the night, with sophisticated skyscrapers dotting the east bank and charismatic colonial buildings on the west bank. Every building has distinctive architecture and lighting design – it's an enchanting sight. One of the skyscrapers that stood out was the Oriental Pearl Tower, brightly lit with its ever-changing LED lights. Its double sphere design, coupled with a sharp apex, makes it hard to miss in the enthralling city skyline. We also caught a glimpse of Singapore's DBS Bank building and could hardly contain our excitement! The cool and refreshing night air further added to the magical feeling.



The next day, we visited the observatory of the Shanghai World Financial Centre, one of the tallest skyscrapers in the world, which stands at a height of 498 metres. Before we ascended, our tour guides told us that individuals suffering from acrophobia should not proceed. As we ascended the skyscraper in a super-fast lift, silence filled the enclosed space. The only thing we could hear was the beeping panel, which indicated the rapidly changing floor numbers. When we stepped out of the lift at the 100th floor, I was momentarily blinded by the sheer brightness of sunlight. I gingerly walked across the glass floor and the view from such a dizzying height was honestly a sight to behold. Giant trucks and cars resembling toy cars zoomed in and out of the city and one truly gets to have a panoramic view of the city. What an experience!

All too soon, we had to bid goodbye to this beautiful and charming city. Going back to the airport was fast and easy; we hopped onto the Shanghai Maglev Train, the first commercial high speed magnetic levitation line in the world which travels at a neck-breaking speed of 430 km/h. It was well furnished, comfy and quiet, and we reached Shanghai Pudong International Airport in the wink of an eye. I will always remember the vibrancy and vitality of Shanghai. With its breathtaking sights and colourful lights, it is indeed a city that never sleeps. ◆

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Serviced clinic for rent at Mount Elizabeth Novena Hospital. Fully equipped and staffed with IT support. Immediate occupancy. Choice of sessional and long term lease. Suitable for all specialties. Please call 8668 6818 or email serviced.clinic@gmail.com

Gleneagles Medical Centre room for rent. Newly renovated. Please call 9438 7367. No agents please.

Gleneagles Medical Centre clinic for rent. 400 sq ft. Waiting area, reception counter and consultation room. Immediate. SMS 9680 2200.

Jurong East Street 31 clinic for rent. Near HS Rail Terminal, NTUC Mart behind. Sharing with Eye Surgeon. Call 9856 0386.

Buy/Sell clinics/premises: Takeovers: (1) D14, industrial/ HDB area; (2) D21, high net-worth patients; (3) D14, established practice, good human traffic. Rental: (a) D21, share with specialist, near MRT. (b) Novena Medical Centre, 452 sq ft, fitted clinic. Hp: 9671 9602.

Room (10 x 11 ft) for rent at Mount Elizabeth Medical Centre, 3 Mount Elizabeth. Shared reception and waiting area. $6.5k per month, negotiable. In-clinic Recovery Room and Minor Operating Theatre available. Call 6738 8331 office hours.

Medical unit for rent. SBF Mediplex. SBF Centre, 160 Robinson Road, Singapore. Next to Tanjong Pagar MRT station. 645 sq ft. Dual entrance. Direct access via escalator from street level. Asking $8k. Please call Landa at 8186 6604.

Clinic room for rent at Farrer Park Medical Centre Connexion. Fully renovated room in functioning clinic. 12.4 sq meters. Plus use of facilities. Please call 9176 1683.

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NUS National University of Singapore | University Health Centre

University Health Centre (UHC) set up under NUS, is a holistic healthcare provider for the entire NUS community of over 38,000 students and 11,000 staff. We strive to improve the quality of life in NUS community with our multi-disciplinary team of professionals providing wide range of healthcare services from primary care to outreach programs that promote good health and wellbeing through preventive medical care and health education.

Our primary care at UHC provides a wide range of service from routine health examinations to managing acute and chronic illnesses. Our one-stop Centre is fully equipped with treatment and procedural amenities including radiology (x-ray), laboratory, pharmacy and treatment rooms. We operate 5 days a week and during office hours.

We invite dedicated individuals who are passionate and driven to join us as:

- **Senior Health Physicians / Health Physicians**
- **Locum**

You will provide medical consultation, health examination and minor surgery to the NUS community. You will, together with your colleagues, educate, enlighten and promote preventive medical care to the NUS community and there is also an emphasis towards sports and travel medicine.

Requirements:

- Qualified medical practitioner, registered with the Singapore Medical Council
- At least 5 - 6 years of general practice and minor surgical experience
- Pleasant personality with good communications skills and commitment
- Knowledge of standard IT applications
- Good team player

Successful candidates can look forward to a rewarding career with excellent work-life balance.

Interested applicants are invited to apply with your comprehensive resume with full details and email to: **ohrphee@nus.edu.sg**

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MEDICAL DOCTOR
(FULL TIME / PART TIME)

Responsibilities
Based in Singapore, you will be part of a team of dedicated doctors and medical staff rendering healthcare and providing comprehensive care to our patients. You will also play a key role in the maintenance of clinic standards and the delivery of a service experience for our patients.

Requirements
- Basic medical qualification registrable with Singapore Medical Council
- Postgraduate medical qualifications are an advantage
- Possess a valid practising certificate from the Singapore Medical Council
- Good oral & written communication skills
- Good interpersonal skills
- Good team player

Additional information
If you would like to take advantage of this exciting opportunity, we would love to meet you. Please e-mail your detailed resume with a recent photograph, stating your availability, current and expected salaries to **hr@mindchamps.org.**

For more information about MindChamps Medical, please visit **http://mindchamps-medical.com**

We regret that only shortlisted candidates will be notified.

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We are looking for enthusiastic aesthetic doctor to join our practice part or fulltime. Extensive and continuous training will be provided. Registered doctor with Certificate of Competence for laser and injections.

Please send resume to **careers@1stcompany-singapore.com**, Tel: **9772 7711** Fax: **6221 4098**

AESTHETIC DOCTOR

Requirement:
1. A medical degree from a recognised university and fully license by MOH to practice privately in Singapore
2. At least 1 year of experience in the medical aesthetic field with experience in handling incontestable and lasers
3. Able to work as a team with the Group's management team to develop the medical division at rapid pace
4. Self-driven individual for success
5. Strong interpersonal communication skills
6. Well-groomed with pleasant personality

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2. Training centre is recognised and certified by Japan Society of Plastic & Reconstructive Surgery

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DOCTOR (EXECUTIVE HEALTH SCREENER)

Job Description

a) To provide executive health screening services to all patients.

b) To participate in and support the Physician Leader/Medical Director in design and implementation of customized health screening packages and clinical related pathways/ protocols.

Job Requirements

a) MBBS or equivalent

b) The doctor must have a valid and updated BCLS/AED certification and Medical Indemnity Insurance at all times

c) Preferable to have more than 3 years of clinical experience in outpatient general practice/executive health screening setting

d) Excellent interpersonal and communication skills

e) Computer literate

f) Word Processing skills

Interested applicants who meet the above criteria are invited to write in their detailed resume to.

Director, Corporate Human Resources
Thomson Medical Centre
339 Thomson Road, Singapore 307677
Email: philipyeo@thomsonmedical.com

Yona 月华
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This plan is protected under the Policy Owners' Protection Scheme which is administered by the Singapore Deposit Insurance Corporation (SDIC). Coverage for the plan is automatic and no further action is required from you. For more information on the types of benefits that are covered under the scheme as well as the limits of coverage, where applicable, please contact us or visit the LIA or SDIC websites (www.lia.org.sg or www.sdic.org.sg).

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- Medical Officers with A&E experience
- Doctors wishing to work overseas, China, Vietnam, Cambodia

Both full and conditionally registered doctors may apply, full time or part time.

Please send your full CV to:
Dr Michael Lee | Email: lee_michael@rafflesmedical.com
Dr Wilson Wong | Email: wwong@rafflesmedical.com
Tel: 6311 2276 | www.rafflesmedical.com

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- Consultant Obstetrician and Gynaecologist
- Consultant Respiratory Physician / Intensivist
- Consultant General Physician / Hospitalist

If you possess the appropriate Specialist degrees recognised by the Singapore Medical Council and the Specialist Accreditation Board and believe that only through teamwork can the best patient care be achieved, we would like to hear from you.

Please submit a full CV and contact details to:
Mr Ronnie Khoo | **Email:** khoo_ronnie@rafflesmedical.com
Website: www.rafflesmedicalgroup.com

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Clinical Associate, Department of Haematology-Oncology, National University Cancer Institute

The Department of Haematology-Oncology, National University Cancer Institute provides Oncology, Haematology and Palliative care services at the National University Hospital. It is a highly academic unit that provides state-of-the-art training for motivated doctors in managing patients with cancer. Successful applicants will be responsible for comprehensive management of patients under the supervision of senior doctors and in collaboration with other healthcare professionals. Duties include conducting ward rounds, performing procedures, on-call/night duties, running outpatient clinics, participating in teaching sessions and working in tandem with other staff. The department is active in clinical and translational research, and interested candidates may also choose to participate in research projects, outside of clinical working hours. The salary will be offered based on type of registration, qualifications and experience, and is typically in the range of 4000-5000 SGD per month, with additional on-call remuneration.

Applicants can learn more about the Department at **http://www.ncis.com.sg/**

Job Requirements:

- Possess a basic medical qualification from one of the universities/ medical institutions listed in the Schedules of the Singapore Medical Council. The basic medical degree must be registrable with the Singapore Medical Council (information available on SMC webpage).
- Possess at least 3 years of post-housemanship experience as a medical officer (or equivalent) in a relevant medical discipline, and currently in active clinical practice.
- Proficiency in written and spoken English is essential.
- A postgraduate training in medicine (MRCP or equivalent) will be preferred.
- Prior experience in oncology or cancer research is also beneficial.

Career progression opportunities: This position is for a period of 2 years, and renewable based on performance. Following this period, promising candidates may choose to apply for the Staff Registrar Scheme in Oncology (**http://ams.edu.sg/education-training/staff-registrar-scheme-diploma**). Candidates with outstanding clinical and research performance may also consider applying for a highly competitive residency in internal medicine.

To apply, please send us your updated CV and a cover letter outlining your experience in internal medicine/haematology-oncology to:

Medical Affairs (HR) Department
National University Health System Pte Ltd
1E Kent Ridge Road, NUHS Tower Block, Level 6
Singapore 119228
E-mail: medical@nuhs.edu.sg

Shortlisted candidates will be invited for a phone/video-conference interview.

NUH National University Hospital | NUS National University of Singapore
Yong Loo Lin School of Medicine
Faculty of Dentistry
Saw Swee Hock School of Public Health

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- Possess a valid practising certificate from the Singapore Medical Council
- At least 3 years of clinical experience post-housemanship
- Postgraduate medical qualifications and relevant experience are advantages
- Good oral and written communication skills
- Good interpersonal skills
- Good team player

Kindly email: **steve.tan@parkwaypantai.com** or call **9670 0472** for a friendly discussion.

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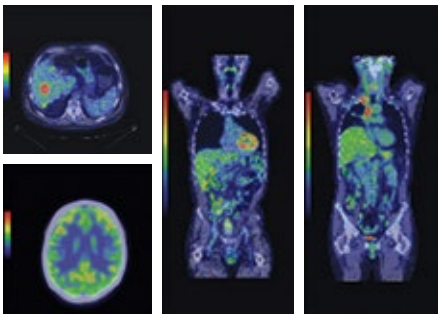

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