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By Dr Tan Yia Swam, Editor

FIRST, an announcement: Dr Martin Chio has stepped down from the Editorial Board, due to increased work commitments at National Skin Centre. We thank him for his seven years of service, and hope that he will continue to contribute his lovely travel articles and photos to the Indulge column. I also welcome Dr Tan Tze Lee aboard as a Deputy Editor, increasing our representation of primary care physicians.

This month, we are honoured to have a feature article by A/Prof Low Cheng Ooi and Dr Daniel Li, which gives us a historical overview of IT development in public healthcare. The National Electronic Health Record is a complex and powerful programme that allows different hospitals and polyclinics rapid access to most of the vital patient medical records, minimising a lack of information. I am confident that as usage increases and continuous improvements are made, it will contribute to seamless care for all our patients.

We thank Dr Chew Shing Chai for his open letter, on his comments about the challenges and joys of obstetric practice, and its inherent risks to the practitioner.

Continuing our workplace safety and health series, Dr Tan Keng Leong gives us a succinct, yet thorough review of occupational asthma. We are also privileged to have an interview with Prof Douglas A McKim, the Ministry of Health's 2014/2015 HMDP Visiting Expert in Home Ventilation, conducted by Dr Chan Yeow.

Dr Desmond Wai provides personal insights on staff management and manpower issues, based on his experience in private practice. He also has some ideas on how SMA can help – do let us know whether you agree these will be of use in your practice.

Our medical students continue to inspire us. Alfred Wong reflects on the lessons he has learnt from his attachment to the community care teams at Tan Tock Seng Hospital. Muhammad Nur Dinie was invited by myself to write on the Muslim Medicine Outreach Program, held in January – an initiative that I was very impressed by, as medical students were actively giving back to their community. The report took a while to be published as he needed approval from the National University Health System corp comms prior to submission to *SMA News*. Hargaven Singh Gill reports on Project Khoj Ma, an overseas community involvement project to Kathmandu, Nepal, in December 2014. In the wake of the recent earthquake, our thoughts are with the victims and their families, and we are grateful to all rescue personnel and volunteers for assisting in this crisis.

Launching a new column, GP Matters, Dr Leong Choon Kit muses on some lessons from the late Mr Lee Kuan Yew, and how they may be applied to healthcare. Dr Juliana Poh shares about the Indonesian city of Makassar – now one of the places on my list of must-visits after her great introduction!

As SMA News continues to evolve, I look forward to your feedback on how to make it more relevant, useful and interesting for you (email news@sma.org.sg) – thank you! ■



Dr Tan Yia Swam is an associate consultant at the Breast Unit 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.



Dr Tan Tze Lee

The invitation to join the SMA News Editorial Board a few weeks ago was one I couldn't refuse, and I look forward to contributing to it!

I graduated from Edinburgh University Medical School in 1987, and after a stint in National University Hospital, have been working as a GP in a small practice with my wife in Choa Chu Kang since 1992. In recent years, I have become increasingly involved in SMA and the College of Family Physicians, working to further the cause of GPs like myself and the cause of primary care as a whole.

A Tolkien fan (some would say fanatic!), I have read the *Lord of the Rings* trilogy from cover to cover a total of 11 times in my undergraduate days, and still have the same three volumes on my bookshelf. I still pick up a book or two, and for me nothing beats sitting in a quiet corner with a volume in hand to while away the wee hours. In my spare time, I love nothing better than to go for long walks, and snap some photos along the way with my trusty 35mm film camera.

Drug allergies and medical alerts, a precursor of the Critical Medical Information System (CMIS), were

subsequently incorporated in these systems to alert healthcare workers of this critical information at the point of registration.

> With the corporatisation of the five hospitals, starting with National University Hospital (NUH) (Kent Ridge Hospital) in the mid 1980s under the Health Corporation of Singapore, the development of ancillary and specialty systems were then brought onto the electronic platform in the then "public" but private limited hospitals. The computer system in the Singapore General Hospital's Department of Pathology, which was the first to be upgraded in 1983, was extended to the other laboratory services such as haematology, microbiology and histopathology in 1991. These formed the first enterprise system in the hospital.

The earliest attempt at electronic documentation started at Tan Tock Seng Hospital's Eye Clinic in 1993. It was selected their own respective areas.

In 1998, NUH initiated an enterprise-level electronic medical record (EMR) system, commencing with laboratory results and radiology reports pulled from the specialty systems into a display engine and referenced to the bespoke admission, discharge and transfer system used for patient administration. This was then scaled to enable outpatient medication orders which flowed into the pharmacy management systems.

The restructuring of acute care hospitals, specialty centres, and primary care polyclinics into two integrated clusters took place in the early 2000s. Both clusters adopted different approaches for their respective EMR systems. One procured a singleinstance EMR system that covered the entire cluster; while the other developed different modules in-house based on the Computerised Patient Support System developed at NUH, and linked them together as an enterprise EMR system. Over the years, the two systems matured

with the introduction of outpatient

medication orders, followed by computerised physician order entry of laboratory and radiology orders.

This approach was initially chosen over carrying out electronic documentation, as it had greater value from the patient safety point of view, and was easier to achieve as it was possible to ensure operational optimisation as the initial step. It allowed the standardising of processes, introducing of clinical decision support (CDS) and overcoming illegible handwriting.

The EMR systems in both clusters served their intended purposes well, but were essentially independent of each other. It soon became apparent that a significant number of patients were moving across clusters and specialty centres. This inevitably resulted in requests for physical case notes, and the glaring digital gap prompted both IT and clinical specialists to start looking for a solution to address the issue electronically.

The Electronic Medical Record Exchange (EMRX)

By 2004, a system called EMRX, that allowed viewing of hospital inpatient discharge summaries, was built under direction of the Ministry of Health. Within a short time, A&E discharge summaries, radiology reports, laboratory tests results and medications also became available to clinicians from both clusters.

For the first time, this platform permitted the free exchange of medical information between the whole of the public healthcare continuum as the patient transitioned from one healthcare cluster to another. However, only staff of the public healthcare institutions, and subsequently medical officers in the Singapore Armed Forces could use this information, as access was limited by existing information sharing agreements.

Nevertheless, CMIS (commissioned in 2005) was the first national system which allowed bidirectional sharing of drug allergies and alerts into our EMRs. This system greatly improved patient safety and improved the notification of adverse drug events to the Health Sciences Authority.

One patient, one record: the National Electronic Health Record (NEHR)

To move beyond the exchange platform to capture summaries from any patient encounters within the healthcare ecosystem, a concept paper was conceived in 2008. The vision of "One patient, one record" is a single useful overview of a patient's healthcare journey for his entire lifetime. It would include information currently missing from the EMRX system.

NEHR differs from previous EMR systems as it is a repository of visit summaries specific to an individual. While EMR systems contain detailed information of a patient in their respective institutions, NEHR collects

key subsets of health information from these multiple healthcare encounters. This information includes all inpatient and A&E discharge summaries, laboratory tests results, radiology reports, details of procedures and operations, as well as medications prescribed. The longitudinal record is designed to facilitate the sharing of clinical information across the continuum of care.

Broad stakeholders were engaged as NEHR was not an IT project but one which involved business and clinical transformation across the sector. Early clinical engagement was established in order to understand informational needs and requirements of both the clinician and the patient.

NEHR went live in 2011, with the successful uploading of healthcare information from the public hospitals, from that year onwards. By the first year, all restructured hospitals, specialist centres and polyclinics, six community hospitals, eight nursing homes, and an increase from an initial 50 to 250 GP clinics had access to NEHR. Adoption of NEHR was initially slow among users with mature clusterwide EMRs systems, especially when they still had the existing EMRX system. On the other hand, users without such systems found NEHR useful as they did not have to depend on handwritten memos, referral letters or phone calls to verify pertinent clinical information.

Enhancements were subsequently made to improve the user interface and customise care setting views to fit various clinical workflows. NEHR facilitated better integration and transfers from acute hospitals to primary care and vice versa. Its usage grew quickly, and

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PATIENTS."

as of February this year, about 550 (or 37% of 1,500) private GP clinics have access to it. Direct access to EMRX was eventually removed from one of the clusters' EMR system as they found greater value in NEHR. However, healthcare information prior to 2011 in EMRX was still made available via NEHR.

To give care providers a clear overview of a patient's clinical problems and medications, active medications and problem list reconciliations are in the works. A care and case management system is also being rolled out for case managers, care coordinators and the nursing community to support chronically ill patients with complex care nationally. The overall strategy is to integrate care across care silos and build systems around the patient for better care.

Going forward, NEHR will continue to expand its suite of IT functions and provide information for the integration of patient care services across the healthcare sector. New information elements, in addition to what is already available in NEHR, such as care plans and care team members, are important information for integrating care. These will be incorporated in the Continuity of Care platform – an extension of NEHR.

In our journey from the early stages of clinical systems to the present, there has been increased demand for healthcare professionals to be directly involved in and to lead the care transformation. A new group of healthcare specialists - medical informaticists - who are proficient in both clinical and IT knowledge is required. They can contribute to the design of effective interfaces because they understand clinical uses and processes well. They will enhance the communication between clinicians and IT specialists, in order to ensure new clinical IT systems are user-friendly and effective in improving care delivery. The adoption of health IT systems is not merely an automation of an analogue process, but also involves changes in the way work is done. It can be built to reduce inefficiencies, and provide appropriate clinical information at the point of care. Intelligent CDS systems can be developed to assist clinicians through timely and relevant alerts and notifications. There is a great need for such clinicians to step forward to lead in this transformation.

Challenges ahead

The emphasis on completeness of medical records across the healthcare continuum, patient safety and patient engagement warrants the greater adoption of health IT by clinicians. The maturity of IT systems is an important consideration as we shift from paper to electronic records. The use of clinical applications also needs to be optimised, as our healthcare environment evolves from an institution-specific model to one which is more community- and



patient-centric. Over time, health IT should be less of a digitisation of old paper-based processes, but more towards a newer and better workflow emphasising safety, accountability and accuracy.

A large-scale consultation exercise with public and private stakeholders was recently concluded to put together a Health IT Master Plan, or HITMAP, to guide us forward in our IT investments. The key challenge across all applications will be adherence to the basic goal of medical informatics, that is: to develop systems that are usable, cost-effective and of value to patients and healthcare providers.

Conclusion

The transformation of medical practice in the years to come will involve the use of technology, similar to how smartphones radicalise our world today. While mindful of these challenges, we should embrace technology and work towards maximising the potential it has to offer with solutions designed by clinicians for clinicians, and ultimately for patients.

Acknowledgements

The authors are grateful to our pioneers in the healthcare IT journey, Prof Benjamin Ong and Prof James Yip for their input, and also to Peter Tan for his valuable recollections.



A/Prof Low Cheng Ooi is an orthopaedic surgeon by training. He is currently seconded to Ministry of Health/MOH Holdings as Chief Medical Informatics Officer. He has a strong interest in Health IT and is an advocate for digital healthcare.



Dr Daniel Li is a medical informaticist at MOH Holdings and also a family physician. He has an interest in clinical decision support and is a strong advocate for solutions designed by clinicians for clinicians. He believes that IT need not be expensive or difficult.



SMA WAS formed in 1959 through the merging of the Malaya Branch of the British Medical Association and the Alumni Association of the King Edward VII College of Medicine. The first president of SMA was Dr B R Sreenivasan.

The Association's role at that time was to foster unity in the medical profession, promote medical sciences in Singapore, uphold a high standard of medical ethics and conduct, voice its opinion regarding the attitudes and practice of the profession to the Government and other relevant bodies, and to enlighten and direct public opinion on Singapore's healthcare landscape.

Progressing with an evolving healthcare environment

Many of SMA's roles have not changed. However, the delivery

of these functions has evolved significantly in the past decades.

Medicine as a scientific field has expanded dramatically and with the advent of new technologies and new knowledge, the boundaries of medical ethics and the way the profession is defined are constantly being challenged. Medical systems, healthcare funding and healthcare delivery have undergone rapid changes. For the population at large, these developments have heralded a new era of technologically driven capabilities in diagnostic procedures, medical therapeutics and open access to information. The public's expectations of the healthcare system have been set very high, and they insist on being treated fairly and being given good quality and affordable healthcare.

The Association must also evolve to keep up with these changes. When

SMA was first formed, the membership was not very large and the population of both doctors and citizens was small. The Association was a place where doctors could gather for networking and social activities to establish professional relationships. Educational activities were organised to keep members informed of the developments in medicine, the forerunner of today's continuing medical education (CME) activities.

Fast forward to today. With the multitude and variety of social activities and events catered for medical professionals, and the ability of doctors to organise themselves and form their own interest groups, practitioners no longer see the Association as a social club for the profession.

The Association also has to compete with other organisations

such as the hospital clusters, academic colleges, universities, and pharmaceutical companies on hosting CME activities. The doctor has no shortage of venues or topics to keep himself up to date. Be it in a plush hotel ballroom, a lecture hall in one of the government buildings, or a seminar room within one of the hospitals, there seems to be so many seminars and lectures vying for our attention that one is able to pick and choose between a few events to attend on any given weekend.

In the present environment, open and easy access to information through the media and Internet has changed how society views and utilises healthcare services. The doctor is no longer the bastion of knowledge that holds the keys to information. Instead he is someone who helps the patient navigate the dense jungle of medical knowledge and guide her down the complex paths of medical decisionmaking. This has its clear advantages, as the patient is now empowered more than ever before. However information overload can sometimes be overwhelming or even misleading, especially in murky ethical or medicolegal issues. The Association must be able to respond in a timely manner to address such matters and to reassure the public with unbiased opinions.

SMA is trying its best to keep up with these new challenges. It now provides a wide array of activities and programmes including educational courses, lectures, and training for both medical doctors and allied health professionals. Additionally, the Association also administers medical protection schemes, runs a charity, and sets the benchmarks for medical ethics and professionalism through the activities of our Centre for Medical Ethics & Professionalism. The various special interest groups organise sporting events, dance and cultural activities, and social dinners. Through SMA News, we are the Voice of the Profession because we engage our members and encourage contributions from medical students, residents, and doctors in both public service and private practice. There is real value in being an SMA member.

However, perhaps because of these very broad areas of engagement, SMA is not an easy organisation to understand at first glance. Nonmember doctors perceive SMA as an organisation that guards the interests of doctors and serves a function akin to a union of medical professionals. Members of the public see the Association as an organisation that represents doctors, and therefore the go-to place for complaints when a problem of ethics or malpractice arises. Those of us who have been in SMA long enough would have heard our past leaders emphasising the need to put the interests of our patients first, because we believe that what is good for our patients will eventually benefit the profession as a whole in the long term - we are not a union or guild which puts its members' interests above others'. So the question often arises: is SMA for doctors, or is it for patients, or perhaps both?

For doctors, for patients

It is timely now for SMA to reinvent itself, to modernise, and to be restructured such that it is more flexible in adapting to the rapidly changing needs of both its members and the public. The different roles within SMA need to come together as a cohesive whole with a clear purpose in mind. This role, and purpose, then has to be communicated to the profession and public.

How can SMA fulfill its role for its members, represent the medical profession as a whole, and meet the expectations of the public at the same time? Is there something that can clearly communicate the role of the medical association?

I believe that the solution lies in identifying what it is in the medical profession that intrinsically binds both the physician and the patient. Medicine is not only about cure,

care and comfort but it is also fundamentally about a relationship - that between the doctor and his patient.

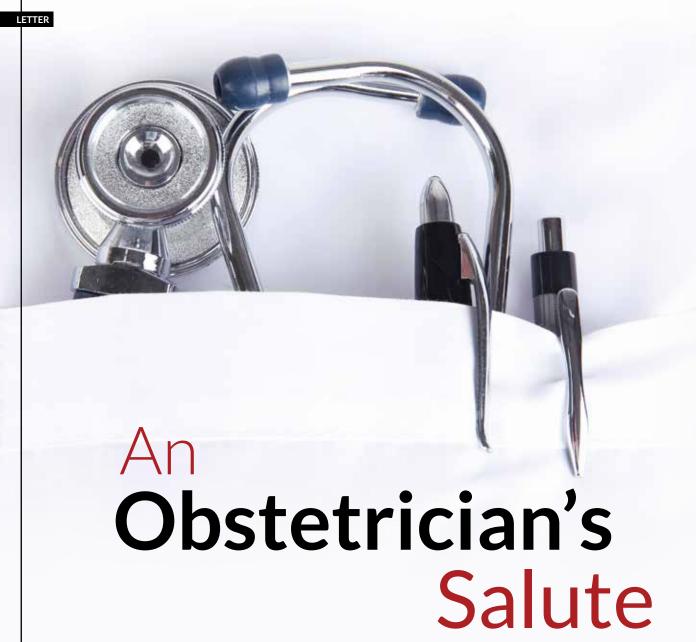
The doctor-patient relationship is the forum through which effective communication resides, because it is not based on one encounter but numerous visits built up over time. It is an entity that requires both parties to invest time and effort, eventually culminating in mutual respect and a deep sense of trust. An effective doctor-patient relationship is in itself therapeutic.

Over the past decades, medicine has gone through many paradigms, reacting to changes in healthcare policy, population dynamics, developments in technology and new business practices. With each paradigm shift, the boundaries of ethics and professionalism are pushed and strained, resulting in the traditional doctor-patient relationship coming under threat. We need to be cognizant of these changes and respond appropriately in its defence.

In the coming months, SMA will seek to rebrand itself with this in mind. Through this forum, I will explore the concept of the doctor-patient relationship as the fundamental unit of medical care; how it can balance information asymmetry; and how ethics and professionalism fit in this framework. We will be launching a new tagline to focus our vision, and in our Council retreat in May, we will see how our various departments can be better aligned to serve this new mission. Watch this space.



Dr Wong Tien Hua is President of the 56th SMA Council. He is a family medicine physician practising in Sengkang. Dr Wong has an interest in primary care, patient communication, and medical ethics



By Dr Chew Shing Chai

OBSTETRICS (from Latin obstare meaning "to stand by" or "the one who waits") indicates that delivery is a normal process where one merely has to await the natural outcome. Indeed the buzzwords are "watchful waiting" and "masterly inactivity". Overenthusiastic interventions in the third stage of labour has been called "fundus fiddling".

Historically, deliveries were left to women of low esteem, who were practically mendicants called "midwives", and within the medical fraternity obstetrics always had a low status and ranking.

The low importance of midwives' contributions was emphasised by the Health Minister in 1978 when he closed down the School of Midwives, stating in the press that he himself was delivered in Batu Gajah by a mere "bidan" (a

Malay term, meaning "minimally trained local midwife"). This attitude was shared by a head of department in Kandang Kerbau Hospital who allocated the Medisave claim for deliveries to Table 1A (later to 1B) which allowed a claim of \$180. Since January 2014, it has been under Table 2B and a claim of \$750 is allowed.

This simple, natural and "cheap" procedure has become the most expensive burden for the Medical Protection Society (MPS) and bankrupted other medical defence companies as well.

Obviously, while most deliveries are simple and can be left to *bidans*, complications can be sudden, unexpected, terrifying and beyond control. This can only be fully appreciated by obstetricians through personal experience.

In 1969, I read Ian Donald's textbook *Practical Obstetric Problems*. He dedicated his book not to any person in particular, but "to those who have known doubt as I have, to those who have known fear as I have..." It was awesome that someone of his stature and experience had doubts and encountered fear in his professional practice.

Some of the conditions associated with unexpected bad outcomes include vasa previa, cord complications, amniotic fluid embolism and adherent placentas. These however are not in MPS's blacklist, as they can be successfully defended under the Bolam principle.

The current top two on the hit list are cerebral palsy and shoulder dystocia.

While there is no absolute index for shoulder dystocia, a cheek-to-cheek/biparietal diameter (BPD) ratio of over 88% is ominous, a BPD of over 100 millimetres and thoracic diameter over 110 millimetres should raise a red flag.

Cerebral palsy results in very high claims for damages as the child lives for many years. Recent colour scanning studies in Japan have shown that neuronal migration in utero may be defective, causing severe mental retardation which may only be seen three years after delivery. As this is difficult to prove, the obstetrician is blamed although it was a congenital condition.

The landmark case Whitehouse v Jordan [1981] was from a failed trial of forceps ending with caesarean section and cerebral palsy. The learned judge, Lord Denning (Master of the Rolls) applied the Bolam principle and dismissed the claim.

In Singapore, the Bolam principle has been applied in negligence cases, eg, Khoo v Gunapathy [2002], but of late there is a trend away from this. The lawyers have realised that levelling their charges based on "informed consent" is easier to win as Bolam does not apply.

In addition, Singaporeans can appeal to the Health Minister if their complaint is dismissed by the Preliminary Proceedings Committee and the Discipline Committee of the Singapore Medical Council (SMC). This subjects the doctor to "triple jeopardy" and increases MPS's financial burden.

Recently, Dr Lawrence Ang who went through this Trial by Ordeal was totally exonerated by the Chief Justice (CJ) who also chastised the Minister and awarded charges against SMC. (To obstetricians, there are such things called "Trial of Labour" and "Trial of Forceps". If it is going to fail, we say that it is a "Trial by Ordeal".) We are fortunate that the CJ, like the Master of the Rolls, upheld the rule of law and showed his impartiality in a truly landmark case.

The Royal College of Obstetricians and Gynaecologists' motto is "Super Ardua" and its logo depicts a shield with half light and half darkness, indicating that we work by day and by night, often sacrificing sleep, health, and even personal/family time. It is ironic that a medical insurance company was needed to highlight that we work in laborious conditions (pun intended).

As I bow to the inevitable, I salute my colleagues and friends who continue.

If I have any advice it is this:

- 1. Keep abreast of technology.
- 2. Hone your skills to keep out of trouble.
- 3. Keep Trials of Forceps to a minimum and remember Otify's grading for moulding before applying the forceps/ ventouse. Failed forceps is not an option!
- 4. Avoid doing heroic procedures. Remember the words of Hoffmeister (a master oncologic gynaecologist): "In heroic surgery it is the patient, not the surgeon, who is the hero."
- 5. Foreigners are not for the faint-hearted they are scarier than lawyers who actually are nice patients.

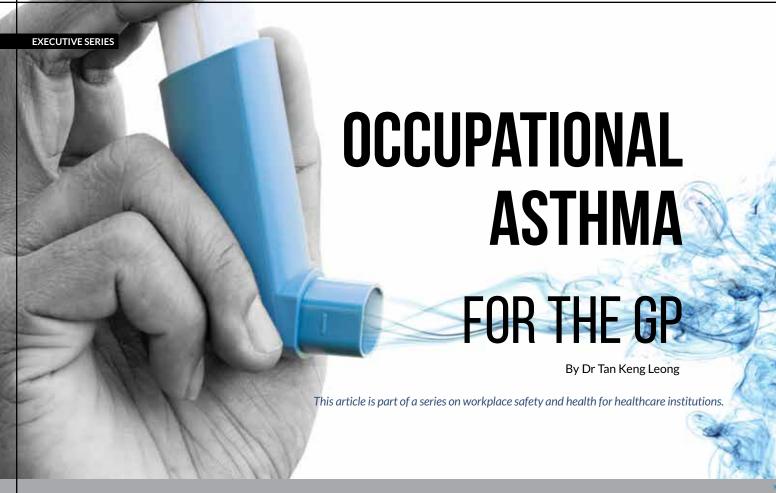
Vaya con Dios.

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Your views

We want to hear from you! Do you have comments on the stories in *SMA News*? Bouquets? Brickbats? Send your thoughts to news@sma.org.sg. Letters published may be edited for length and clarity.



A 41-year-old who had been a carpenter for more than 20 years, presented with rhinitis, chest tightness and cough after exposure to chengal wood dust for one year. He had previously worked with different woods without any health problems. He was well during his month-long vacation when he was back in his home country. His symptoms recurred upon his return to work with chengal wood dust exposure. Serial peak flow monitoring showed significant drop in peak flows during workplace exposure to chengal wood dust. Specific inhalational challenge test resulted in an isolated immediate asthmatic reaction, thus confirming the first reported case of occupational asthma due to chengal wood dust.

Key points

- Occupational asthma is now the most common occupational respiratory disease in Singapore.
- It is a legally notifiable
 occupational disease under the
 Workplace Safety and Health
 (WSH) Act and a compensable
 occupational disease under the
 Work Injury Compensation Act.
- 3. Appropriate management and prevention is important because of the medical, socio-economic and legal consequences.
- 4. Continued exposure to the causative agent may lead to permanent airway damage, resulting in persistent asthma

- even after removal from exposure.
- 5. Identification of the specific causative agent and early removal from exposure can prevent the risk of a severe or fatal asthmatic attack in the workplace.

Definition

Occupational asthma is defined as asthma due to conditions attributable to work exposures and not to causes outside the workplace.

Types

The two types of occupational asthma are distinguished by whether they appear after a latency period:

Sensitiser-induced asthma

This is characterised by a variable time (latency period) during which "sensitisation" to a specific agent present in the worksite takes place. The patient does not experience any respiratory problems during the latency period of weeks to years. Once sensitisation has occurred, the worker may be affected by very low concentrations of the offending agent.

Irritant-induced asthma

This occurs without a latent period after substantial exposure to an irritating dust, mist, vapour or fume (such as chlorine, sulphur dioxide or acid fumes). Reactive airways dysfunction

syndrome is a term used by some to describe irritant-induced asthma caused by short-term, high-intensity exposure (eg, an accidental spill or other high level respiratory irritant exposures).

Prevalence

Recent estimates suggest that 9% to 15% of adult asthmatics may have occupational asthma.2 In Singapore, although the disease is common, it is likely to be under-diagnosed and under-reported.

Causative agents and occupations at risk

Substances that cause occupational asthma are classified either as high molecular weight or low molecular weight allergens. High molecular weight allergens include: products of animal, plant or microbial origin such as laboratory animal allergens, fish and seafood proteins, flour and detergent enzymes. Low molecular weight allergens include: chemicals and metallic agents such as acid anhydrides, antibiotics, isocyanates, western red cedar, amines, colophony and metals.

In Singapore, the most common causative agents reported were isocyanates (31%), colophony fluxes and solders (13%), welding fumes (9%) and wood dust (4%).3 Isocyanates are the leading cause of occupational asthma in a number of other industrialised countries.4 Some common causative agents of occupational asthma and the occupations at risk are summarised in Table 1.

Diagnostic approach

Take a detailed medical and occupational history to assess current and previous job exposure to causative agents such as chemicals, proteins, organic dusts and animal products.

Knowledge of common causative agents and their associations with various occupations and industries, and information obtained from safety data sheet (SDSs) are often

Table 1: Common causes of occupational asthma and occupations at

Causative agents	Occupations
Isocyanates (eg, toluene diisocyanate)	Polyurethane foam workersSpray painters and varnishersInsulation workers
Acid anhydrides (eg, phthallic anhydride)	Chemical workers making or using polyester, epoxy, alkyl resinsSpray painters
Pharmaceuticals (eg, antibiotics, glutaraldehyde)	Pharmaceutical techniciansHealth care workersVeterinary workersAnimal feed workers
Soldering flux, colophony	Soldering operators
Welding fumes	Welders
Wood dust	Carpenters
Metals and their salts (eg, nickel, cobalt, chromium)	 Electroplaters Welders Machinists
Foodstuffs (eg, grain, soybean, flour)	Food processing workers
Enzymes (eg, Bacillus subtilis)	BakersDetergent workersPharmaceutical workers
Animal products (eg, dander, excreta, urine)	FarmersZookeepersLaboratory technicians

helpful. An SDS is a document that contains information on the potential hazards (health, fire, reactivity and environmental) and how to work safely with the chemical product. WSH Regulations require the employer to make the SDSs available to workers who may potentially be exposed to hazardous substances at the workplace.

Diagnosis

The diagnosis is made by:

- 1. Establishing the presence of asthma;
- 2. Demonstrating relationship between asthma symptoms and work; and
- 3. Establishing exposure to a specific causative agent.

A clinical diagnosis of asthma is made based on appropriate clinical history and evidence of reversible

airflow obstruction. Symptoms include episodic breathlessness, wheezing, coughing or chest tightness, commonly in response to certain trigger factors.

A childhood history of asthma does not exclude the diagnosis of occupational asthma, as these patients may also become sensitised to a specific agent in the workplace.

Work-relatedness may be suggested based on: the history of improvement when away from work (eg, annual or maternity leave), and onset of symptoms during working periods.

Diagnostic pitfalls

Bronchial asthma

Occupational asthma may also present as chronic cough (eg, without episodic breathlessness or wheezing). Repeated absence from work due to frequent "bronchitis" is another typical presentation and should trigger the suspicion of occupational asthma.

Relationship to work

In occupational asthma, there is a temporal relationship between the asthma symptoms and exposure at work. For instance, the patient may report that asthma occurs soon after entering the workplace or when performing specific tasks. The patient may not necessarily be aware that the symptoms are temporally related to work as the asthma symptoms are commonly more pronounced in the evening, at night, or in the early morning (ie, outside the workplace). Symptoms (eg, wheezing) may be triggered by inhaled irritants, such as cigarette smoke, engine exhaust, strong odours, cold, exercise, which also frequently occur outside the workplace (eg, in pubs or during exercise). Therefore, a major pitfall in the clinical diagnosis of occupational asthma is that the patient with occupational asthma may have few symptoms during work and most symptoms outside the workplace.

Occupational asthma often responds well to appropriate medical treatment, at least initially. This may lead to the missed or late diagnosis of occupational asthma.

Hypersensitivity pneumonitis

Hypersensitivity pneumonitis may mimic occupational asthma. Numerous inciting agents have been described, including, but not limited to, agricultural dusts, bioaerosols, and certain reactive chemical species. Typical features of hypersensitivity pneumonitis include: respiratory and constitutional symptoms and signs, such as crepitations on chest examination, weight loss, coughing, breathlessness, febrile episodes, wheezing, and fatigue appearing several hours after antigen exposure; and reticular, nodular, or ground glass opacity on chest radiographs. In occupational asthma, typically, chest radiographs are clear and constitutional symptoms are absent.

Serial peak expiratory flow rate

Clinical history alone is generally not sufficient to make a definitive diagnosis of occupational asthma. Serial peak expiratory flow rate during periods at work and away from work is a useful tool for the objective documentation of work-relatedness.

Specific bronchial provocation test (specific inhalation challenge test)

A positive specific inhalation challenge test to the causative agent is considered the gold standard for the diagnosis of occupational asthma. A workplace challenge may sometimes be performed when it is not possible to perform controlled specific challenges in the laboratory.

Environmental monitoring

Environmental monitoring is useful in documenting exposure to the specific agent. It is also useful in the assessment of risk and effectiveness of industrial hygiene control measures based on the level of exposure. Personal air sampling of workers using portable collection devices at various workstations and different breathing zones may be performed to study the pattern of

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exposure at various locations in the plant. This is useful in establishing a non-exposed work area where the patient could be transferred to. In addition, high risk areas requiring further control measures can be identified.

Management

For all workers confirmed to have occupational asthma, permanent transfer to a job with absolutely no exposure to the causative agent is recommended as further exposure may trigger a severe or even fatal asthma attack.

The patient should be counselled with regard to the disease, role of medications (preventers and relievers), inhaler technique, avoidance of trigger factors and treatment compliance.

Pharmacological treatment

Pharmacological treatment is similar as for any patient with asthma. Short-acting inhaled beta2agonists, taken as needed, are used in the treatment of acute asthma symptoms and exacerbations and in the prevention of exerciseinduced bronchospasm. Persistent asthma is controlled with daily anti-inflammatory therapy (preventer medication, ie, inhaled glucocorticosteroids). The Global Initiative for Asthma guidelines for the management and prevention of asthma are available on their website at http://www.ginasthma.com.

Prevention

With delayed diagnosis and continued exposure, progressive deterioration in lung function may lead to persistent asthma symptoms. When the relationship of symptoms to work becomes less obvious, the diagnosis of occupational asthma becomes more difficult.

Eliminate workplace exposure by substituting the causative agent or totally enclosing the process. Early removal from exposure is associated with a better prognosis.

Reduce exposure to causative agents through the use of local exhaust ventilation systems, dilution ventilation, dust suppression and respiratory protection.

Notification and compensation

All registered medical practitioners are required to report any of the occupational diseases listed in the second schedule of the WSH Act (Table 2) within ten days from the diagnosis of the disease. Non-compliance with the reporting may result in a fine of up to \$5,000 for first offence, and up to \$10,000 or/and an imprisonment for second or subsequent offence.

All suspected cases of occupational asthma should be referred for further evaluation and management. The WSH (Incident Reporting) Regulations requires all medical doctors to notify such cases through http://www.mom.gov.sg/ireport/.

Conclusion

The possibility of occupational asthma should be considered in any adult patient with asthma. The physician plays an important role in the early recognition of possible cases of occupational asthma and in the prevention of further cases.

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Table 2: List of reportable occupational diseases in Singapore under the WSH Act

- 1. Aniline poisoning
- 2. Anthrax
- 3. Arsenical poisoning
- 4. Asbestosis
- 5. Barotrauma
- 6. Beryllium poisoning
- 7. Byssinosis
- 8. Cadmium poisoning
- 9. Carbarmate poisoning
- 10. Cataracts due to infrared, ultraviolet or X-ray radiation
- 11. Compressed air illness or its sequelae, including dysbaric osteonecrosis
- 12. Cyanide poisoning
- 13. Diseases caused by excessive heat
- 14. Diseases caused by ionising radiation
- 15. Glanders
- 16. Hydrogen sulphide poisoning
- 17. Lead poisoning
- 18. Leptospirosis or its sequelae
- 19. Liver angiosarcoma
- 20. Manganese poisoning
- 21. Mercurial poisoning
- 22. Mesothelioma
- 23. Musculoskeletal disorders of the upper limb
- 24. Noise-induced deafness
- 25. Occupational asthma
- 26. Occupational skin cancers
- 27. Occupational skin diseases
- 28. Organophosphate poisoning
- 29. Phosphorous poisoning
- 30. Poisoning by benzene or a homologue of benzene
- 31. Poisoning by carbon dioxide gas sequelae, including dysbaric osteonecrosis
- 32. Poisoning by carbon disulphide
- 33. Poisoning by carbon monoxide gas
- 34. Poisoning by oxides of nitrogen
- 35. Poisoning from halogen derivatives of hydrocarbon compounds
- 36. Silicosis
- 37. Toxic anaemia
- 38. Toxic hepatitis
- 39. Tuberculosis
- 40. Ulceration of the corneal surface of the eye from exposure to tar, pitch, bitumen, mineral oil (including paraffin), soot



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STAFFING ISSUES IN PRIVATE PRACTICE

By Dr Desmond Wai

"Without good people, an emperor cannot rule a country well (贤才不备,不足以为治)."

– Zhu Yuanzhang, founding emperor of the Ming Dynasty

Most of us doctors have little experience in hiring and firing staff. But when we run our private practices, we have to make many human resource management decisions which we are not trained in. In my experience, finding good clinic staff is much more difficult than finding patients. And keeping your staff happy is harder than keeping your patients happy.

Fundamentals for starting your own clinic

Besides being a respected and a competent doctor yourself, you also need the following basic elements to run your own private practice: a clinic space, a clinic assistant (CA), a clinic manager, a clinic management system, a company secretary and accountant, and a corporate bank. Among all these aspects, I personally feel that finding and keeping good clinic staff is the most important and most difficult.

CAs can make or break your practice

At my gastroenterology clinic, my CA has to carry out the following chain of events for each patient: taking their phone calls for appointments, greeting and registering them when they turn up, keying in their personal data into the system, booking procedures and imaging studies for them, explaining to them when and where to turn up for procedures, dispensing medicines, and collecting payments.

Each of the above tasks is simple to carry out, but executing them in a coordinated manner is not that easy. For example, making an endoscopic retrograde cholangiopancreatogram (ERCP) appointment would require a minimum of four phone calls: to book the nurses and equipment at the endoscopy centre, to book a slot in the fluoroscopy room at the X-ray department, to book a hospital bed at the admission office, and to book a slot with an anaesthetist. For me to be able to do an ERCP as scheduled, all the above appointments must be fulfilled together.

The CA must also be meticulous in collecting payments and dispensing medications. Collecting or giving more or less than the exact amount required will create problems.

I have come across rude and difficult CAs from some clinics, who make me think thrice before referring patients to these clinics. Some CAs would not accept new cases after 4 pm, as they were worried the cases would drag on and cause them to close the clinics late. I found out later that this was done without the knowledge of the doctors in the clinics.

On the other hand, I have also come across many excellent CAs from other clinics. Some CAs would escort patients to various parts of the hospital to ensure that they do not get lost. Others would bring medications from the clinic to patients waiting in the carpark to help them save time.

Hiring new staff

Those who have sat on medical school interview panels should be well aware of the difficulties and

limitations in choosing deserving students via a simple interview. Likewise, the same issues apply when selecting clinic staff.

I have found speaking with prospective employees' personal referees to be useful. Once, a candidate applied to work for me. I made inquiries to her former employer, a senior specialist, who replied, "She is still young." As I was in urgent need for staff, I hired her. She resigned after three weeks, and I agreed that she was really "still young" and not performing.

Interviewing is a two-way process. While I am evaluating if a potential hire would fit into my clinic, she should also judge for herself if my clinic is suitable for her. I would normally inform interviewees what is expected of them. It is not easy for people who have never worked in healthcare, to adjust to working in a clinic.

Remuneration

In the market economy, remuneration is a balance between supply and demand. We ought to pay our staff fairly and competitively. But how much is reasonable and how much is excessive? That is a tough question to answer.

One way is to gauge the market rate by talking to colleagues. The coffee and tea breaks during SMA activities are convenient platforms to do so. Another way is to ask for potential employees' last drawn pay and their expected salaries. Naturally, in order to attract staff, it is important to offer salaries which meet their expectations.

But even if your staff agrees to work for you, it is important to keep your ears and eyes open, as changes in the real world can be drastic. With the recent increase in new healthcare facilities opening, the demand for nurses and CAs has increased tremendously. Clinics or hospitals who are desperate for healthcare workers may just poach your staff with a substantial pay rise.

Creative ways to retain staff

Making your staff happy is essential in keeping them. The most basic way is to offer competitive pay packages (as mentioned above). Paying your staff less than the market rate, even if she is happy about it, would make her easily poachable. To make their employees less poachable or even unpoachable, some clinics use the strategy of paying them higher than the market rate.

Another way is to show appreciation and basic courtesy to your staff. For example, some doctors share gifts they receive from patients (usually fruits or other foodstuff) with their staff.

But not all humans are motivated by money and material items. So you can consider offering non-financial incentives to keep staff:

Flexible working hours

Some staff prefer to enjoy time off once a week to pursue their personal interests, like attending part-time courses.

Fixed working hours

Allow staff to leave the clinic by a certain time, even if the clinic is still busy beyond the usual working hours.

Clinic-sponsored volunteer work

Such activities, which include running charity clinics, are particularly attractive to the younger generation, as corporate social responsibility is important to them.

Regular training sessions

For example, you can engage external consultants to educate staff on customer service, or sponsor staff to attend nursing courses (with a bond upon graduation). This appeals to ambitious people who want to upgrade themselves. Such courses could be partially funded by government grants so the cost to the clinic is manageable.

To sum up, we ought to exercise creativity in making our staff happy.

Discipline

Although it is crucial to retain your staff, disciplining becomes necessary if they are not performing – like continuously losing medicines, misplacing money from the cash box, coming to work late, being engrossed with personal things, or treating patients rudely.

Screaming, using harsh words, or throwing tantrums at your staff may lead to their immediate resignation and retaliation, which is bad for your clinic. But being too tolerant and gentle in disciplining may not correct their misdeeds either. With regard to disciplining staff, it is hard strike the right balance between being firm and assertive, and being thoughtful and considerate.

I will normally ask my clinic manager to speak with the staff behind closed doors and explain the clinic's concerns to her. If you have to discipline a particular staff often, it is probably time to let her go and look for a better one.

Doing personal things during office hours

One of my former CAs was always playing with her mobile phone. She sent SMSes even when she was receiving payments from patients. To me, that is unprofessional. She later confessed that she was actually running an online business so she needed to message her clients regularly. Another past CA of mine watched online movies while I was not in the clinic, leaving lots of clinic paperwork undone.

So I decided not to allow my staff to do personal things in the clinic during working hours. Of course, making occasional urgent phone calls or SMSes is all right. But by and large, I want them to be focused on their jobs during operating hours, and distracted staff are more likely to make mistakes.

Mistakes in cash collection and drug dispensation

My accountant recommends that

my clinic does a cash count daily, and stock check regularly, to ensure there are no mistakes in cash collection and drugs dispensation. A shortfall in cash or drug stocks may be genuine mistakes. But it may also mean fraud.

I have worked with many CAs over the past three years, and I can say that meticulous ones hardly make mistakes in this area. Some clinics make their CAs pay for the missing cash or drugs, but I am not sure that is a good idea, as it may not be easy to prove that it was the CAs' fault, and it will also upset them. If a CA keeps making mistakes in such matters, it is probably better to let her go.

Staff dismissal

The Ministry of Manpower (MOM) has guidelines on staff dismissal, a must-read for all clinics. Obviously, if a CA commits a dishonest act, you can dismiss her on the spot without notice or compensation.

But staff who feel that they were dismissed unfairly or without proper procedures may lodge a complaint to MOM against you for unlawful dismissal, and seek compensation. So if you want to sack your staff, you need to follow some proper procedures.

Prior to firing a staff, you need to document her misdeeds and communicate this to her officially. The problem is that once your CA has received the first warning, she may start looking for jobs elsewhere and tender her resignation unexpectedly.

So you ought to find a replacement before you officially notify your current CA of her unsatisfactory work performance. However, it does become obvious to your first CA, if you bring in a second staff while she is being disciplined.

Once a decision is made to terminate a CA, most clinics would give at least one month's notice. During this period, you will not be certain if your CA will continue to serve the interests of the clinic. I have heard horror stories of while CAs

who created problems for their clinics while they were serving termination notice.

If your staff's performance is so unsatisfactory that she deserves termination, it is better to sack her amicably and let her go on the spot (with one month's salary of course).

Final advice

New world economy

When I was still working at a public hospital many years ago, most of the office and clinic staff had been employed there for decades. But in the new economy, such long-serving staff are hard to come by. So be prepared that no matter how well you treat your staff, many will still leave and look for greener pastures elsewhere.

Have redundancy

Many clinics hire two or more CAs even though they are not that busy. One of the reasons is that we must always be prepared for unexpected events like sudden staff resignation, or emergencies. If your sole CA resigns or goes on urgent leave/long medical leave, your clinic may descend into chaos. So it is best to have at least two staff. However, I have also come across instances where both CAs at a clinic tendered their resignation on the same day.

Prepare backup

I was fortunate that when my CA resigned, my clinic manager (who is my wife) helped fill the gap, till I found a new CA. It is important to have backups in case emergencies happen. Some clinics maintain contacts of parttime staff to help fill any unexpected gap. The clinic doctor should also be the last resort. The other day when both my CA and my wife could not come to work, I did everything myself, including booking scans, dispensing medicines, and swiping patients' credit cards.

Beware of big trends

Major trends in society affect

everybody and we ought to be mindful of them. Currently, many new hospitals (private and public included) will be obtaining their Temporary Occupation Permits soon, and they will need staff to run. Foreign worker numbers are being tightened. Unemployment is at a historic low of 2%. These factors mean that the labour market is tight and will continue to be so in foreseeable future.

What can SMA do?

SMA, the biggest professional body for local doctors, has always been helpful in improving our practice. The following are some things that SMA can do to help us further:

Organising both formal or informal meetings

Attending SMA activities is important, as I often learn a lot about clinic and staff management over lunch or coffee. I am never shy to ask experienced and senior doctors how they solve their clinic problems. It is through such sharing and exchanges that we can gain knowledge of many good practices in handling difficult situations from each other.

Business or management classes

We have more than enough continuing medical education activities throughout the year. But maybe SMA can plan more business or management classes, like talent management, interviewing skills, and customer service. Senior doctors, GPs and private specialists alike, will be a rich source of resources.

Standard employment contract

When I hired my first CA, I had to search high and low for an employment contract template. How long should the probation period be? How much annual and sick leave should a CA be given? What would the recommended duration of termination notice for staff be? SMA can suggest standard staff benefits and providing sample employment contracts.

Guidelines for compensation packages

It is always difficult to decide how much to compensate our staff, including the monthly pay, yearend bonus, sick leave, and health benefits. How much should we pay for a 19-year-old fresh graduate of the Institute of Technical Education, a 25-year-old staff nurse with four years of clinical experience, and a 60-year-old CA with 30 years' clinic experience? SMA can assist by drafting some salary guidelines, based on candidates' duration of experience, skill level, and educational background.

Blacklist

Fraud is not uncommon in private clinics. Upon encountering fraudulent staff, many doctors would just sack them, instead of taking them to the police. And the same staff can look for jobs elsewhere and repeat the same tricks. SMA can set up a clinic staff blacklist so that affected parties could record their experience with such staff onto the list, in order to warn other clinics.

Conclusion

Running your own practice is exciting, rewarding and satisfying. But there are many teething issues that ought to be taken care of. To me, staff/talent management is the most difficult challenge to tackle. Before thinking of how to attract new patients, and how to sharpen our medical knowledge, we also ought to ensure we are keeping our good staff. Without reliable and dedicated staff, it is difficult to run a successful clinic.



Desmond is a gastroenterologist in private practice. Like other medical colleagues, he is still struggling to balance family and work. Desmond believes sharing our thoughts and experience are important in moving our profession forward.





46TH SMA NATIONAL MEDICAL CONVENTION

Good Urological Health

PUBLIC SYMPOSIUM 8.30 AM - 12 PM

FOR THE MEDICAL FRATERNITY

LUNCH SYMPOSIUM 1PM - 2.30 PM MEDICAL SYMPOSIUM 2.30 PM - 5.15 PM

*1 CME point will be allocated for attending the Lunch Symposium, and 2 for the Medical Symposium

For more information, visit http://www.sma.org.sg/convention











Your Charitable Giving – What You Should Know about **Donating to SMACF**

By Jennifer Lee, Deputy Manager, SMA Charity Fund

1. How can I donate to the SMA **Charity Fund (SMACF)?**

For online donations, we recommend that donors go through SG Gives, an online donation portal for donors who want to give to Singaporeregistered charities. Visit our SG Gives page at https://www.sggives.org/smacf. Major credit cards are accepted.

You can also download our donation form from our website at https://www.sma.org.sg/smacares/ index.aspx?ID=240 and send it to us with your payment details.

2. What is a tax donation benefit? Do I qualify?

All contributions to SMACF above \$50 will qualify for tax donation benefits unless otherwise specified. SMACF will transmit donors' details to the Inland Revenue Authority of Singapore (IRAS) electronically, and tax deductions for the donations will be automatically reflected in their tax assessments. Donors will not need to make separate claims in their tax returns or send donation receipts to IRAS. They will need to supply their personal identification numbers so that SMACF can register the donations as tax deductible. Donors who provide their mailing addresses will receive printed tax receipts in the following calendar month.

3. I would like to make regular donations to SMACF. How can I do so?

Donors who wish to commit to a

long-term regular donation can sign up for our monthly donation plan (by using our donation form).

4. How are the funds utilised?

Your generous donations will help SMACF in furthering our cause to create a positive impact on healthcare, for the benefit of the community. Three of our initiatives: financial bursaries, supporting learning exposure and promoting volunteerism, are direct cost-based programmes that are heavily dependent on donors' support. By designating your donations to the general purpose fund, you will enable the Board of Directors to channel resources to where they are most needed to, for the advancement of SMACF's works.

To run our programmes, supporting costs (including operational and governance costs) are required. The utilisation of all donations is reviewed and approved by the Board. Our financial information is subject to auditing and published online as part of our governance requirements.

If you specify that your donation should go towards the SMA Medical Students' Assistance Fund (SMA-MSAF), it will be 100% utilised for the financial bursary programme. SMACF supports needy medical students from the three local medical schools. All applicants go through a stringent needs assessment, and are reviewed and approved by the Board before funds are disbursed.



Changes to tax benefits for 2015

All donations to SMACF between 1 January 2015 to 31 December 2015 (both dates inclusive) will enjoy a tax deduction of 300%!

What this means to you:

Example:

If your total income for Year of Assessment 2016 is \$150,000 (ie, you earned \$150,000 in 2015), and you made a donation of \$10,000 to SMACF, your assessable income would be calculated as follows:

Total statutory income

\$150,000

\$10,000 x 300%

Less: approved donations to SMACF*

= \$30,000

*You may report other expenses.

Assessable

\$150,000 - \$30,000

income

= \$120.000

Note: for more information on tax benefits, please check the Inland Revenue Authority of Singapore website at http://www.iras.gov.sg.

For further enquiries on donating to SMACF, please contact us at smacharity@sma.org.sg.

ANNOUNCEMENT

Application for the SMA-MSAF financial bursary is now open for Academic Year 2015/2016. Students pursuing their medical education at Duke-NUS Graduate Medical School can apply online at https://www.sma.org.sg/smacares. All past applicants must reapply to be considered for the bursary. Applicants must submit all supporting documents. The closing date is 20 June 2015.



Calling all photography enthusiasts! Life in Pixels is back for 2015! To celebrate Singapore's 50th year of independence, we're releasing a series of themes which reflect the richness of life on this little red dot.

Theme*	Closing date	Release of results
1. "Culinary Heritage" – the best local gastronomic delights that are a feast for the eyes	19 July	End July
2. "Singapore by Night" – capture the bright lights of our city after the sun goes down	13 September	End September
3. "Nation Building" – a play on words: members of the pioneer generation and buildings of historical significance	15 November	End November

^{*}SMA will be holding relevant photo workshops in conjunction with each theme. For more info, go to http://goo.gl/6Wg3mv.

The winner of each theme will take home \$50 in CapitaVouchers, a Crumpler camera bag and a Canon Digital Ixus lanyard with 16GB thumbdrive. The winning entries will also be featured in the pages of SMA News.

Send us your best photos along with your name and MCR/matriculation number at **lifeinpixels@sma.org.sg**, with the name of the theme as email subject. All images must be in JPEG format, and sized to at least 2,480 x 3,508 pixels. Include a short descriptive legend (maximum 20 words) with each picture.

This contest is open to SMA members in good standing only. Before submission, check out the contest details at https://www.sma.org.sg/lifeinpixels.

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In celebration of







"AS OF 11 pm 26th March, the waiting time is nine hours."

My original plan to bring my children to pay respects to our late Minister Mentor was derailed when I read that online after work. So I spent the next two hours sharing with my daughter what it was like to grow up in the era of Mr Lee Kuan Yew.

"The mark of an extraordinary man is his ability to bring many together despite their differences, even in his death." This was what a friend heavily involved in grassroots activities told me just the day before. I have to agree.

Reflecting on the medical fraternity, we certainly do not have a doctor in that category, nor even anyone close to that. Not even in the general practice and family medicine community. Why is that so? I can think of a few possibilities and maybe you can share yours too.

With this, I am grateful to SMA News for kick-starting this brand new column called "GP Matters", which will focus on everything regarding GPs and family physicians. We hope to bring up issues, ideas and opinions that will benefit everyone. In addition, whenever any SMA member writes in with questions regarding GP practices, we will seek the invaluable views and advice of fellow colleagues and publish them here. Email your thoughts to news@sma.org.sg. Your contribution is important and much appreciated.

To start our brain cells firing, I would briefly mention a few lessons I have learnt while queuing up to pay tribute and expand them in the subsequent issues of this publication.

Our training, health system and structure, and upbringing

Our training has taught us to be individualistic and self-centric. It is cost-efficient, cost-effective and reduces confusion. Translated into

real world medical practice, GPs are alone in our clinics. After a while, we only care about ourselves.

"I just stopped my subscriptions to SMA and CFPS (College of Family Physicians Singapore)." This is something I have heard often. And the commonest reason given is: "Why should I? After all these years of paying, I have not received any tangible returns."

The healthcare system in Singapore is divisive in structure. Free market principles were brought in; we were encouraged to compete to bring out the best of one another, and hopefully lower healthcare costs. In the process, our trust and camaraderie were affected.

As medical science and technology advances, medical practice is divided into more specialties and subspecialties. This phenomenon creates difficulties in grooming a doctor to unify the fraternity. General practice and family medicine are not spared. We have various interest groups as well.

Doctors, by selection, are gentle people. We are cordial even if we have differences. We consider others' feelings, and seldom really trade blows, at least not in public. However, that would also mean that we lack the opportunity to develop a strong character to lead.

The public often reminds us that we are specially chosen people, that we should abide by the Hippocratic Oath, that we should waive all fees, and the list goes on.

With all these challenges, it seems that we are facing an impossible task. Hopefully not.

Unity first

First, we desperately need to be unified. Mr Lee has shown us how he united a country more diverse than our specialties and subspecialties.

Mr Lee gave Singapore a common identity but not a combined identity. He managed to build a successful country with a huge diversity of people, yet at the same time, he allowed each group to keep their unique identity. Likewise, we require a common identity and a common vision, yet contribute to the unity with our specialised skills and training.

On top of having a common medical identity, we must simultaneously acknowledge the distinctive and important role everyone plays, from the frontline GPs to the acute settings at emergency departments to the specialists in tertiary hospitals.

Self-pride

Second, Mr Lee instilled pride in Singaporeans and gave them self-confidence. We need to restore our self-confidence and improve our image in the public eye.

I was brought up in the era when our country had the world's busiest port, the world's largest oil refinery, and later the world's best airline and best airport. Similarly, instead of fighting with other doctors to be the best in Singapore, let us help one another to achieve global standards.

GPs in the private sector are nimble and cover large geographical areas with unmatchable access. On the other hand, polyclinics have large financial backings and resources. Both can work hand in hand to achieve greatness.

Family physicians in primary care can help tertiary hospitals see complicated cases and relieve their loads. The former can also refer the difficult and complicated patients upwards for the latter to work on and achieve greatness.

With all the systems working in synchrony, the public will have a truly world-class healthcare system that

both the public and our Ministry of Health can boast about.

Honesty and integrity

Third, Mr Lee insisted on absolute integrity and honesty without sacrificing pragmatism. This is very sensitive. Our current system is certainly robust enough to weed out the obviously wrong.

Many things happen in the grey areas, some deliberately but the majority due to ignorance. Only an experienced and well-trained doctor can pick these up. The public, relying on the Internet, will not be able to discern them. We in the medical profession have a duty to educate them about medical knowledge. Concurrently, we have to upkeep the highest standard in integrity and honesty, so that the trust the public has in us will not be eroded.

Back to my friends who confide in me about them severing ties with the respective professional bodies, I urge that we take the first step towards unity. That is, to rejoin these professional bodies, and let us work together to create a future for the public and our fraternity, one which our late Minister Mentor would be proud of.*

*Visit https://www.sma.org.sg/ membership to sign up for SMA membership.



Dr Leong Choon Kit is a GP in the private sector. He feels strongly about doctors contributing back to society. As a result, he tries to lend a voice to the silent majority in every issue he has come across, particularly those in healthcare, educational and other social concerns.



Serving the Community

Text by Muhammad Nur Dinie Bin Abdul Aziz Photos courtesy of *Berita Harian*

"Kindness is helping others pursue their dreams." – Muhammad Nur Dinie

A GROUP of Muslim students from Singapore's medical fraternity steered this year's Muslim Medicine Outreach Program, or MMOP. More than 100 participants attended the event, held on 3 January 2015 at the National University of Singapore Yong Loo Lin School of Medicine (NUS YLLSoM). The day's schedule included presentations by guest speakers and circuit stations for hands-on activities.

Supported by the YLLSoM Dean's Office and the Muslim Healthcare Professionals Association (MHPA), MMOP is a student-led initiative in its fifth year running. The outreach programme aims to give students an insight into life within the medical profession, and motivate them to become doctors who dedicate their services to fellow Singaporeans. Through various avenues to interact with members of the profession, MMOP gives students a better understanding of medicine and serves to guide them in making an informed decision.

Sharing experiences

This year, three doctors and three medical students were invited to speak at MMOP. Dr Ibrahim Muhammad Hanif, a senior resident in internal medicine from SingHealth, shared his lessons and life stories as a graduate. Dr Abdul Shakoor, a consultant in endocrinology at Tan Tock Seng Hospital, shed light on his roles and responsibilities in public medical practice. Dr Jazlan Joosoph, an obstetrician and gynaecologist from Raffles Hospital, discussed his work-life balance in private medical practice.

According to Dr Jazlan, doctors could talk about personal experiences to give premedical students an insight into professional life. "Doctors can share heartfelt reflections on medicine as a respectable career and welcome aspiring doctors to the medical fraternity," he opined.

Two of the three medical students showcased their experiences and involvement at NUS. Marcus Azizan Goh talked about his involvement in last year's Rag and Flag,

an annual fundraising campaign and dance production dedicated to the public. Nadia Azlan introduced the community involvement projects that medical students can participate in, such as Project DAMAI. Volunteers from Project DAMAI organise an annual healthcare expedition to aid villages in Indonesia with low access to medical services, through health screenings and educational programmes.

Meanwhile, Md Fahamy Iskandar, a final year medical student from the University of Queensland, touched on other routes into medicine apart from the local universities. "It is important to get more people to know that there are other routes to study medicine, and financial assistance is available," he declared. "Premedical students who have genuine interest and capability should consider these options too."

In addition, the audience also witnessed exciting medical procedures conducted by student facilitators! These included taking capillary blood glucose, intubation, urinary catheterisation, and phlebotomy demonstrations.

The MMOP participants came from a diverse background, including madrasahs and polytechnics. Most of them, however, were junior college and secondary school students. Syifa Azhar, president of this year's MMOP organising committee, commented, "Being young and impressionable, we hope that both sharing sessions and demonstrations appealed to our younger participants."

Wind beneath MMOP's wings

Many seniors had provided feedback to improve our programme's effectiveness. As Arif Uzair mentioned, "We encourage our juniors and share past experiences hoping that doing so will improve this programme's long-term efficacy. Participating in MMOP lets me meet aspiring students, some of whom became my juniors. To me, that makes MMOP special."

As a further development, MMOP pioneered a



From left

Members of the MMOP 2015 organising committee having a discussion with Dr Zuraimi Bin Mohamed Dahlan, president of MHPA A student facilitator conducting a demonstration for MMOP participants

programme booklet for participants this year. "The booklet serves as a source of reflection on what it means to apply for medicine," explained Sanaa Sheriff. "We believe it can continue to provide help for participants and give them a guide to refer to after the programme."

Our organising committee utilised social media to promote this year's event to a wider audience. Media coverage by *Berita Harian* also helped in expanding outreach efforts. "The medical students earnestly dedicated time and effort to make MMOP a success for the benefit of aspiring medical students," stated Noor Ahmed Alkaff.

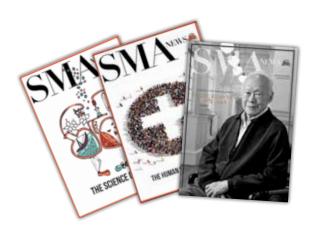
MMOP also coordinates student internships for premedical students at local hospitals and clinics. Almost all participants who attended the programme indicated interest for a job-shadowing attachment to better understand life in medicine.

This programme would not have been successful without support from all collaborating partners. We hope this year's MMOP was effective in helping to create better awareness of medicine and help our participants arrive at an informed decision. We also hope that MMOP will inspire future batches of premedical students and continue to be relevant in meeting society's needs.

To find out more about MMOP, visit our Facebook page at https://www.facebook.com/mymno. Readers interested to host students for future internships can email the MMOP organising committee at medicineoutreach2015@gmail.com.



Muhammad Nur Dinie, a medical student from NUS, enjoys music, doing volunteer work, and is interested in surgery. Dinie desires to grow and learn from the wisdom and knowledge of nurturing doctors to benefit those in need. His goal is to serve selflessly and build wisdom for future generations. He can be contacted at mndinie@u.nus.edu.



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Answering the Call for Aid

Text by Alfred Ka-Shing Wong Illustration by Nicole Low



Names have been changed to protect the privacy and confidentiality of the patients and staff mentioned in this article.

THROUGHOUT OUR years as medical students, we are imbued with the ideals of holistic care, to treat the whole patient and recognise needs and issues that extend beyond their medical problems. Indeed, the World Health Organization defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".1 It is only beyond the walls of the classroom that one can meet the natural challenges and barriers of achieving this simple aim. For we now live in a time of change. The patients are changing; in the developed world there will be more of the elderly than the young. The needs of patients are changing; people want to be more independent and involved with their care, and also demand more accountability from providers. The science is changing; medical knowledge and recommendations are being revised almost constantly.

Yet from that encompassing view of health and despite our abundance of knowledge, the external aspects of health that involve factors in a patient's home environment and lifestyle, are often inadequately addressed in many health systems around the world. Examples of these factors include: physical hazards at home, social isolation or abuse, and reduced access to health services – that all disproportionally affect the vulnerable and elderly in our community. Transitional care programmes and out-of-hospital follow-ups are deployed today to bridge that gap. As a medical student, I was recently embedded with the community care teams based at Tan Tock Seng Hospital, and would like to share personal reflections on my experience, which is part of my journey to becoming a physician.

A day in the field

When patients need support after discharge, home care medical teams are sometimes called upon to provide





From left Physiotherapists assist patients with basic mobility exercises as part of the PACH programme

The PACH team provides advice to caregivers, helping them gain the competence and confidence to manage the patients at home and reduce the need for institutionalised care

Facing "This illustration emphasises aiding, giving and caring with the use of hand language, decorated with blooming flowers that represents 'Giving Life' through these actions." – Nicole Low

them with additional assistance for a period of time. After spending a day with one of the Post Acute Care at Home (PACH) teams, I could not help but be reminded of the doctors of yesteryear, who conducted house calls. Eugene Smith's striking black and white images of a doctor practising in a mountainous Colorado community, taken for LIFE magazine in 1948, came to my mind. That of a single doctor crossing an open field, dark clouds overhead, wearing tie and jacket, with medical bag in hand. On his face and eyes lie deep lines wrought from experience; his expression is that of gravity and concern.

That day, there were three of us: Dr Lavender, Nurse Cheng and me. Our medical bag was a piece of luggage with plastic wheels, and we found ourselves within a concrete jungle (as opposed to wide pastures). Still, each time the door opened for us, we were greeted with a welcoming smile. We saw three follow-up patients in all.

During each visit, both the nurse and the doctor shared the work: taking vital signs and blood pressure, or tending to bedsores in immobile patients often with advanced dementia. In one instance, I observed Nurse Cheng teaching a caregiver how to monitor for bedsores and change dressings. Some patients had shopping bags full of medications at home; during each visit, Nurse Cheng and Dr Lavender sifted thoroughly through each bag with caregivers, discarding unnecessary drugs. Care and effort were made to ensure that the caregivers were comfortable and capable in their role in supporting the patients.

After returning to the hospital, blood samples were dispatched for investigation and calls were made for referrals or anything else patients might need. When there were tough cases, multidisciplinary meetings would be held to tackle problems and make plans.

"Value for money" is a growing concern in healthcare. And any programme must pass the test of delivering acceptable results for the resources they utilise. With the increased use of multidisciplinary teams and case reviews that incur higher upfront labour hours per patient, one might assume that the PACH initiative would also be costlier to deliver. However this common-sense conclusion might not be the reality. Dr Lavender roughly estimated that each subsidised PACH visit would cost from \$115 to \$300, and the total charge for ten follow-up visits over three months would be \$1,150 to \$3,000. In contrast, the general ward charge at a hospital would cost from \$42 to \$281 daily after subsidies.

In a 2009 news article titled "The Cost Conundrum", Harvard surgeon and medical writer Atul Gawande revealed through a case study that ironically the highest quality and most technologically advanced centres in the USA, such as Mayo Clinic of Minneapolis, Geisinger Health of Danville, Kaiser Permanente of California, actually rank below the national median for Medicare expenditures per patient.² He cited one compelling reason: the time and effort taken to manage patients in an interdisciplinary manner. At these institutions, weekly meetings were held to discuss patient cases, generating plans drawn from input across specialties. This process was aimed at setting clear goals for patient care, expediting necessary consults, and most importantly, reducing the number of non-vital tests and interventions that were the main drivers of increased costs.

Meeting Mr Seng

One patient we visited stood out in my mind. Mr Seng was a 49-year-old software programmer married with a wife and young son. Two years ago, he suffered a massive posterior circulation stroke complicated by secondary hemorrhage. His stroke had left him a functional quadriplegic; his jaw was also paralysed, leaving him unable to open his mouth to eat or speak, necessitating the use of nasal gastric tube feeding. Moreover, after his stroke, Mr Seng had spent much of his life shuttling in and out of hospitals, suffering from recurrent chest infections due to near constant aspiration – a consequence of the

neurological damage to his swallowing reflexes. Painful bedsores had begun to form due to prolonged rest in bed, and with each longer visit to the hospital, Mr Seng was at risk of catching even more serious infections.

Dr Lavender remembered that when she first saw Mr Seng as a new referral, he was crying. He and his family had been told repeatedly by many doctors that his future rehabilitation potential was poor, given the time elapsed since the stroke; moreover, surgeons could think of no solution for his paralysed jaw. For such a young professional with a family, his stroke had changed his life forever, and he had to deal with the grim prospect of being dependent on others to feed and move him.

After carrying out an assessment, Dr Lavender had disagreed with these prior opinions about his prognosis. Though Mr Seng was young in the eyes of medicine, geriatric care principles that focused on assessment and attainment of functional goals were still applicable. As a patient who had been formerly healthy, Dr Lavender believed that he deserved another chance. Under her guidance and the care of the PACH team, Mr Seng underwent a series of intensive physiotherapy sessions. When Mr Seng's nine-year-old son became involved in helping exercise his paralysed body, he drew motivation from the love of his boy and family to give his all to complete the slow and demanding course of rehabilitation.

Behind the scenes, the team had advocated and secured funding for walking aids custom built and flown in from the USA because of his height – I could see several of these wheeled frames in the living room. In addition, the team consulted many medical colleagues in other hospitals and specialties on interventions for his paralysed jaw muscles and to develop visual aids to help him communicate with family and caregivers. Over the next few months, Mr Seng regained the ability to move his arms, and walk assisted by devices. He could now physically interact with his son, and even sit at the dinner table with his family – something his mother said she thought she would never see him do again.

When I met Mr Seng in his home that afternoon, he was resting in his bed and being tended to by his mother. After Dr Lavender introduced me, she proceeded to examine him. I couldn't help but notice how the family took to Dr Lavender and Nurse Cheng like old friends. The way Mr Seng responded with his eyes and hand gestures to questions, the way they made shared care decisions, to the way the pride collected in Dr Lavender's voice as she recounted how far he had come despite the odds – which all spoke to the strength of the patient-physician relationship. Dr Lavender explained that Mr Seng's next goal was to regain the function in his fingers, after which it would be possible to access funding for a mobile scooter and computers operable with joysticks.

As he grows stronger, I cannot help but think of how different Mr Seng's outlook now is. Although he will not regain all the physical ability he has lost, he has regained the ability to participate in life and the lives of his loved ones.

Soon, Mr Seng will be discharged from the care of the PACH team, due to the programme limit of three months of follow-up. The community of allied health providers, volunteers, and friends will continue to care for Mr Seng, with the PACH team providing support if required.

Reflections

It was a privilege to be invited into the homes of patients, and to see and help in the work of these dedicated multidisciplinary teams like Dr Lavender and Nurse Cheng. There are difficulties unique to home care, such as the extensive travel times for providers and difficulties in accessing areas poorly served by transit. Providers need to be more self-reliant, because once "out there", they are relatively isolated from the resources of a hospital. In the words of Dr Lavender, "you only have what you bring with you". There are also the unexpected costs that teams spend out of pocket for patients, such as food and supplies that are often not reimbursed by the hospital. Most of all, they must deal with the uncertainty of what they might face behind each door.

Though clinical frameworks are helpful, there will never be a checklist to capture all the resources, some of which lie latent in the community, that are needed to be marshalled for each patient. But like many other home teams I have met, Dr Lavender and Nurse Cheng shrug off these frustrations as part of the challenge of delivering a more complete form of care: holistic care.

The multidisciplinary community care units encompassing both post-acute care and palliative care across the country are defining what medicine can be for each patient. Returning once more to that image of the doctor poised on her patient's doorstep, I believe they are the modern equivalents of the few who journey through rain or shine, answering calls for help.

Acknowledgements

I wish to thank my mentors, Dr Mark Chan, Dr Adrian Tan, Dr Ian Leong, Dr Violet Tang and the entire PACH team; their support and guidance made everything possible. ■

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Alfred Wong is a medical student at Duke-NUS Graduate Medical School. Previously he served as the coordinator at a ministry-funded community diabetes programme in Toronto, Ontario, Canada; and holds undergraduate degrees in medical sciences and business administration. His research interest is in health services and systems, quality assurance, and public health.

When Family Calls, We Come Running

Text by Hargaven Singh Gill Photos by Evelyn Wong

A TEAM from Project Khoj Ma, an overseas community involvement project, headed for its second trip to Kathmandu (since its establishment in December 2013) with a group consisting of one nursing and 12 medical students, as well as two doctors (pictured below). We stayed in the outskirts of the Nepali capital from 18 to 31 December 2014, and had the good fortune to work with four beneficiaries, all of whom served marginalised facets of society.





Handicapped residents with Team Khoj Ma at the prayer tower

Kathmandu Christian Prayer Tower

Upon arrival at Tribhuvan International Airport, we travelled by car and van to Chalnakhel village an hour away. We stayed at a prayer tower that provided a 24/7 prayer service for anyone in the village. This tower comprised a sheltered home for the handicapped and is looked after by Pastor Narayan and his family. They have taken in people from all over the country who have been abandoned by their families, due to reasons of finance, social discrimination, and overwhelming medical care.

These residents make their living by performing household chores like cooking, building and farming to keep the place running. During our stay, we forged friendships and enjoyed Christmas celebrations with them, and they soon took us in as their own. They comprised a segregated part of society but remained individuals with hopes and dreams. We might not have provided medical services and medicines, but I believe the provision of affection and friendship brought more comfort than any physical entity would. Sometimes we are endowed with more riches or talents in life, by sheer luck, and we can do anything with them. However, I realised that our talents would only acquire their full meaning when they are used to better the lives of others.

New Hope Ministries

I've never met a more charismatic group of adults than the leaders of New Hope Ministries. We've all come across mentors who have inspired us in one way or another. Here were two couples, Paul and Ruth Thapa alongside Shiva and Rina Shrestha, who have sacrificed their careers and dedicated their lives to a group of children that they had no initial relation to. The ministry has two arms, New Hope Girls' Home and New Hope Hospice.

New Hope Girls' Home shelters girls around the age of ten who were saved from becoming victims of the sex trade. Other volunteers of the ministry also invested efforts in monitoring key border points between India and Nepal that are frequently used by traffickers. About 10,000 to 15,000 girls are trafficked across the border annually, and many of them are vulnerable village girls who were tricked into leaving for a "better" life with strangers who had spent time befriending their families. Furthermore, Indian and Nepalese citizens do not require official documents to cross the border, thus accentuating the problem. The home takes in such homeless girls and provides them with a family and a decent life through education.

New Hope Hospice was originally the house of one of the couples. They have since opened up their home to HIV-positive women who have travelled to hospitals in Kathmandu for treatment. Some hospitals send these females to the hospice for step-down care before they are fit to return home.

The leaders of the ministry have envisioned building a New Hope Village where they could house close to 50 HIV-positive women and more trafficked children. They have acquired a plot of land, and with the help of Team Khoj Ma, have begun digging works on the land. We also spent days clearing weeds and digging trenches, while establishing friendships with the children at the same time. It was my second year volunteering with this ministry. This time, I could sense the stark uplift in the mood and liveliness of the New Hope girls and their leaders, who all had a newfound faith in their eyes. I've seen what our friendships, bonds and affection can potentially do to better someone, but it's difficult to comprehend this statement unless one experiences the journey personally.







Both these beneficiaries take in HIV-positive Nepali boys and girls who have been orphaned for various reasons. At Baby Life Home, teachers are brought in to teach the children of varying grades; while at NKP, there are sufficient funds to send the individual children to local public schools. The needs of the two institutions are therefore different.

At Baby Life Home, we taught lessons on science, maths, geography, art and dance, depending on how senior or junior the children were. At NKP, we planned a more interactive session of painting and drawing on the walls of the rooms, as well as interacted with the children, adopting roles of older brothers and sisters in their lives. Sometimes it was hard to put ourselves in their shoes, because we couldn't comprehend the pains and rejections they had faced from their society. I would say that each person I met had been through more hardships than I had at their age, and if I were in their place, it would be highly unlikely that I would be where I am today. That thought kills me.

Prior to the trip, we had raised funds in Singapore for distribution among the four beneficiaries. Although it might make more sense to save on flight tickets and simply send the money over, I believe there is a fundamental benefit and



Clockwise from top left

Team Khoj Ma, standing in the shadows of the setting sun, after digging laboriously throughout the day

Third year medical students, Darren Choo and Deanna Ng educating the younger children at BabyLife

Painting the walls together with the children at NKP

value in "putting a face" behind the donation, allowing the recipient to see your willingness to be there for them. The emotional utility provided by a team of 15 members being in Nepal cannot be replaced by 15 cheques' worth of donations.

Many of us may have experienced bereavement or a moment of complete despair in our lives, and like these ministries and homes in Nepal, we have or are constantly fighting to stay afloat. It's the reason for what we do that provides us strength, and it is in the middle of these people, that I regained some understanding of my purpose in the medical profession. On this trip, the team may not have built physical entities such as toilets and houses or provided many tangible supplies, but sometimes, the cure, treatment and comfort lie more in the world of intangibles.

For more information on Project Khoj Ma or other projects planned under its parent organisation, Seeds of Nations Ltd, please feel free to check out their website: http://www.son.com.sg.



Hargaven Singh Gill is a second year medical student at the Yong Loo Lin School of Medicine, National University of Singapore. He has a passion for rugby and tries to incorporate that same enthusiasm in other aspects of his life.

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Independence through Ventilation – Interview with Prof Douglas A McKim

Conducted by Dr Chan Yeow

TREMENDOUS EPHEMERAL interest has been generated in amyotrophic lateral sclerosis (ALS) by the recent Ice Bucket Challenge, which was a global phenomenon. Coincidentally, Singapore's Ministry of Health had recently invited Prof Douglas A McKim to be the Healthcare Manpower Development Plan Visiting Expert for Home Ventilation in Financial Year 2014/2015. Hopefully, the fruits of his visit in January this year will be more durable and impactful.

Prof McKim, a respirologist from Ottawa, Canada, has dedicated his professional life to caring for patients with neuromuscular weakness (such as those with ALS), enabling them to live independently using breathing and cough assistance. Dr Chan Yeow, director of Tan Tock Seng Hospital's Home Ventilation and Respiratory Support Service, checks in with Prof McKim to find out more about his work.

Dr Chan Yeow – CY: Douglas, welcome to Singapore. Can you tell us what some of the things that have left a deep impression on you are?

Prof Douglas A McKim – DM: I was not quite expecting such a green city. I was expecting a dense concrete jungle, somewhat like Hong Kong. You have such towering green trees with beautiful ferns growing on their branches and orchids everywhere!

Working with patients requiring ventilation

CY: Tell us about a typical work week.

DM: I work in Ottawa Hospital Rehabilitation Centre as director of the CANVent (Canadian Alternatives in Non-Invasive Ventilation) programme within the Respiratory Rehabilitation programme. I look after patients with respiratory insufficiency due to neuromuscular and restrictive thoracic disorders, and have one other colleague who looks after COPD (chronic obstructive pulmonary disease) rehabilitation. I spend approximately one-and-a-half days weekly in clinic seeing new patients and reviewing follow-up patients. I also review patients in acute care and ICUs (intensive care units) within the hospital, and provide advice

on ventilator weaning, non-invasive airway clearance and tracheostomy decannulation. The other half of my time is spent as a sleep physician – I am director of the Sleep Laboratory, and I see patients, often with severe sleep disordered breathing, respiratory failure and review sleep studies.

CY: Long term ventilation is such a niche area. How did you get started?

DM: All of us encounter a moment that marks a turning point in our professional lives. In my case, as an internal medicine resident in respirology in 1987, I looked after a pregnant mother with severe chest wall restriction from kyphoscoliosis. She was in severe hypercapnic respiratory failure. My attending physician prescribed non-invasive ventilation (NIV) for her, and we managed to help her deliver a healthy daughter. I have been intrigued by NIV from that time onwards.

CY: In my case, it was looking after a middle-aged gentleman in ICU with high cervical fracture. How did the mother and daughter do, and are you still in touch with her?

DM: Her condition was stable after delivery so she gradually withdrew from NIV and follow-up. I have only recently (after 20 years) seen her again in clinic. She was again in respiratory failure due to severe restriction, so we have restarted her on NIV and also introduced LVR. Her daughter is now a beautiful young lady!

The value of sighs

CY: What is LVR?

DM: Lung volume recruitment. The vital capacity (how much air one can maximally exhale into a spirometer) is an index that tells us about the performance of the pulmonary system. It is affected by lung volume, lung stiffness, resistance in the small airways, chest wall stiffness (ribcage

and abdomen), and condition of the breathing muscles.

You and I take between five to ten sighs each hour, and each sigh is double or triple our resting tidal volume. During exercise or straining, we may inhale to full lung capacity. Deep breaths have been shown to help stimulate surfactant production, which decreases alveolar surface tension. With muscle weakness, one is unable to inhale deeply, and over time, the intercostal muscles and sternocostal joints stiffen. The alveoli remain small, and may collapse from mucus plugging, and over time the load to the breathing muscles actually increases, which constitutes additional insult to the already weak breathing muscles.

CY: I don't think we dwelt so much on breathing muscles in medical school.

DM: This is an area of great importance. You would not imagine a cardiologist not considering the state of the myocardium. A student can tell you that a stiff, weak joint should be mobilised and yet we ignore a vital organ surrounded by joints! Why should a respirologist not be interested in the state of the breathing muscles and thorax?

Managing patients with different degrees of respiratory deterioration in neuromuscular disease

DM: In our practice, every patient with ALS or a myopathy is immediately referred to us. Initially, their breathing condition may be normal, and we consider them at-risk. We encourage infection prevention (flu and pneumococcal vaccination) and make the baseline lung function measurements

As their condition progresses, they have difficulty taking deep breaths and coughing effectively. We introduce LVR (using a manual resuscitator bag and a one-way valve) and teach manually assisted cough. They may also benefit from mechanical cough assistance with

"in-exsufflation".

In the next stage, they begin to have difficulty sleeping, having many arousals and dips in oxygen, particularly during rapid eye movement (REM) sleep. This is because our skeletal muscles (except the diaphragm and eye muscles) become paralysed during REM to prevent us acting out our dreams. At this stage, they may benefit from non-invasive mask ventilation during sleep.

By the time they need some ventilatory assistance in the day (more than 12 out of 24 hours), we typically prescribe mouthpiece ventilation if they are able to speak, safely swallow and protect their airway. This allows them to get additional breathing support as and when needed, and also allows them to breath-stack to recruit more normal lung volumes.

At any point along this trajectory, if they develop respiratory failure from infections, using these techniques offers them a better chance of not needing intubation, or if intubated, being extubated back to NIV and cough assistance.

CY: Isn't 24-hour ventilation a very expensive proposition to a healthcare system?

DM: On the contrary! Specifically, for 24-hour ventilated Duchenne patients, in more than 80 patient-years, we have only had four admissions attributable to respiratory causes. If you consider that each day in ICU costs thousands of dollars, this constitutes a tremendous cost savings, and since NIV is less complicated, quality of life may be better.

The province of Ontario operates a ventilator equipment pool for long term ventilator users. Through bulk purchase and recycling of used ventilators, it was able to decrease the equipment cost for a fully ventilated patient to less than CAD\$1,000 (\$\$1,100) per patient per year (2005).

CY: What are your thoughts on tracheostomy?



Prof McKim with one of his long-time Duchenne muscular dystrophy patients, who has been using mouthpiece ventilation for over 12 years

DM: Often they are not necessary when the patient has adequate bulbar function, and the correct NIV and airway clearance therapies are applied. Patients with severe bulbar dysfunction will not do well on NIV and will die unless trached. Tracheostomy can be compatible with good quality of life, but is more costly and more care is required with more frequent hospitalisation. The patients also suffer complications that come with the surgery and an artificial airway.

Ventilation, independence and quality of life

CY: How is the quality of life of your patients on 24-hour ventilation?

DM: Pretty good. I have had students who have graduated from college, and are holding jobs. They can even attend ice hockey matches. One of my ALS patients was the deputy governor of the Bank of Canada, and he continued working even when he was on 24-hour ventilation.

Choosing to stop ventilatory treatment

CY: That sounds too good to be true. Do you have patients who suffer and want to stop it all?

DM: We initiate advance care planning discussions early, and frequently review their decisions. This is one of the most

difficult but essential tasks in my work. Basically we have treatments that prolong survival, but the illness often takes its toll in disability and dignity. When I was a medical student, we were less clear in our understanding and used terms like "passive euthanasia". Now we recognise that giving up ventilation is equivalent to a cancer patient foregoing surgery or chemotherapy, or even a patient with ischaemic heart disease who refuses to take antiplatelet therapy. Basically, each patient has a right to decide what treatment to receive as long as they have the capacity to make this decision and are fully informed.

CY: In Asia, often the family makes a collective decision. Filial piety, Asian values...

DM: Yes, perhaps true, but in our view anyway, the patient has the final say. It is the patient who lives with the decision.

CY: Do patients suffer when ventilation is withdrawn?

DM: We need to make sure the terminal weaning is done carefully, with patient comfort ensured. Sufficient narcotics and sedatives should be administered to ensure absence of shortness of breath, pain or fear, but the patient should not "die because of the narcotic dosing". This is the

principle of double effect, and is widely accepted.

Concluding thoughts

CY: What is your assessment of our care of patients with neuromuscular respiratory insufficiency?

DM: I have witnessed enthusiastic teams, with fantastic collegiality, in several of your hospitals. It is good that you have family physicians involved in your work. The system of co-payment is wise, will contribute to sustainability of the services and prevents abuse of healthcare funding.

CY: However, chronic respiratory insufficiency is not even recognised as an entity, and our patients have difficulty paying for their care.

DM: This is a shame. In Ontario, the provincial health plan recognises that these patients are more complex than the typical COPD/asthmatic patient, and therefore, not only recognised, there is a special, extra fee code for caring for them.

CY: What are your plans for the future?

DM: We are developing a CANVent NIVAM (Non-Invasive Ventilation and Airway Management) website, which will make educational materials and instructional videos available to patients and their families. We have also completed and published some retrospective data on the effects of LVR, and are currently performing two prospective randomised studies on these techniques in multiple sclerosis and Duchenne muscular dystrophy.

CY: Thank you for this interview and for all the things we have learnt from you. Wishing you, your family, your team, and patients all the very best!

DM: Thank you for the opportunity to visit this beautiful country and to learn from your approaches as well. All the best to you all too!



MAKASSAR, the sixth largest city in Indonesia and the capital of South Sulawesi, was never on my list of places-to-see-before-I-die. However, I knew there had to be good reasons for SilkAir to start flying thrice weekly to this city I knew little about, and jumped on the opportunity to visit as a team member of a SingHealth-University of Hasanuddin collaboration.

Days start early in Makassar, with full daylight and street activity beginning at 5 am. There is no time difference between Singapore and Makassar, so it was challenging to get my engine going at such an unearthly hour. Both my trips there were made during the wet season, which runs from October to May. It was my very first time in a place with 100% humidity (according to the Apple weather app)! The showers were so sudden and heavy that the lecturers in the university auditorium were completely outdone by the sound of the rain. Meanwhile, the dry season runs from June to September. I can only imagine the heat in this period, as we were already perspiring like horses in November and February. When in Makassar, always dress light and comfortable.

Eat eat eat

Our packed programme didn't allow much sightseeing, but I was informed by the Vice Dean that Makassar is well known for culinary tourism, and not conventional tourism. Indeed, that was a very useful nugget of information that motivated our team to enjoy our end-of-day adventures at various eating spots. The cuisine in Sulawesi is different from those of Java and Sumatra, not just with regard to the raw ingredients, but also in the methods of preparation.

One has not been to Makassar if one hasn't indulged in the amazing variety of seafood available here. The *kudu kudu* fish deserves special mention, and we were lucky to savour this delicious cousin of the puffer fish at Apong, a popular seafood restaurant. It is found in deep waters only in Makassar, and nowhere else in the world. Its flesh tastes just like chicken. The boxy fish has a thick leathery jacket which someone in the team contemplated making a clutch bag out of!

Crabs and prawns are also plentiful, and it will take a few meals to sample all the different versions – black pepper, chilli, salted egg yolk, soya sauce and garlic. Prices











Photos

- 1. Losari beachfront at sunset
- 2. Kudu kudu fish which tastes like chicken!
- 3. Grounds of Fort Rotterdam
- 4. Boat sculpture at the waterfront
- 5. Pancake from London Terbul sinfully delicious!
- 6. First floating mosque in Indonesia

were reasonable and fairly consistent throughout the main seafood restaurants so we knew we could "go forth and order". *Otak-otak* is a common starter at these eateries. I would describe the local *otak* as thick, springy fishcake wrapped in fragrant banana leaves, and best eaten with a mixture of chilli and kaffir lime. Truly delectable and definitely whets one's appetite for the seafood feast to follow! We relished it at almost every dinner!

Fish curry and fish soup are must-tries. These use a salmon-like fish with many bones, and I would be extra careful when partaking in them. (One may be somewhat reassured to know that there are many hospitals with proper emergency departments in the city, in case of the unfortunate event of a foreign body in the throat.)

Forget plain rice. Go for *nasi goreng merah*, which is rice stir-fried with tomato sauce so that the whole dish is crimson. The Vice Dean commented that Nelayan, a cosy restaurant near M-Regency Hotel (where we put up), served the best red fried rice in the city. I could not agree more!

Staying near the sea allowed us to take strolls along Losari Beach. The Makassar sunset, which happens at about 6.30 pm, is as breathtaking as that of Gordon Beach in Tel Aviv and Psalidi Beach in Kos, Greece. I only got to witness it just once (that's how late we ended each day), and it was a sweet and memorable ending to that hectic day – I would love to watch it again on my upcoming third trip! It

takes about 40 minutes to walk from the hotel end of the waterfront to the end featuring the first floating mosque in Indonesia, which was out of bounds to visitors, but we managed to see austere busts of important people from Makassar's history lining its exterior.

Once the sun drops beyond the horizon, seaside activity is dominated by stalls selling *pisang epe*. Let me explain further. Small palm-sized bananas are smashed with wooden blocks and grilled over charcoal. Syrup (chocolate, durian, strawberry, coconut – just to name a few from the long list of flavours) is then lathered over the bananas and a generous sprinkling of grated cheese completes the snack. Try three bananas for 10,000 rupiah, which is about \$\$1! Forget about the calories just once.

Don't miss London Terbul, a chain famous for pancakes. Choose from tiramisu, strawberry or pandan as bases for the pancakes, and top half of it with chopped chocolate like white Toblerone, Nutella, Ritter Sport, Chunky Bar or SilverQueen. The other half comprises grated cheese. I must say the mixture of partly melted chocolate and cheese tasted so sinfully delicious, that I had to resist going for a second helping!

Shop and see

For history buffs, Fort Rotterdam is a gem to visit, to gain more insight into Makassar during Dutch rule. The entrance of the fortress is marked by a statue of Sultan

Hasanuddin on a horse in a stately pose. Saunter along the canal, climb the fort walls and explore the tunnels. Museum La Galigo, sited in one of the numerous buildings within the fort grounds, charged a token 5,000 rupiah for admission. I found it well worth the ticket price, and spent more than an hour browsing the numerous exhibits. It explained the series of bold red words displayed at the Losari waterfront: the Bugis, the Makassar and the Toraja are the three main tribes in Makassar. The Toraja region is renowned for coffee, widely available in the numerous gift shops facing the Losari waterfront, so you can pick up some boxes as souvenirs. Also check out the passionfruit cordial which was so fruity and fragrant – they were packaged with pretty handwoven baskets, perfect as gifts! The shops were also well stocked with all sorts of kacang produced in the area, such as cashews and peanuts. These were of excellent quality and became popular requested items from the department secretariat.

Once over dinner, I quizzed the Vice Dean about batik (thinking I was in the best place to stock up for smart casual dinner outfits), and she imparted to me another interesting fact. The Bugis tribe in Makassar produces silk, not batik. Unfortunately, we didn't see it in the few stores we visited, and I hope to get my hands on some silk fabric and garments next round. We did manage to shop at Batik Keris, a popular Indonesian batik brand, which has a large boutique in Trans Studio Mall. Trans Studio is the newest and biggest mall in

the city, with loads of eateries, upmarket shops like Guess and Louis Vuitton, and also Carrefour. The mall houses the third largest indoor theme park in the world, and we spent a couple of hours trying out the rides on a quiet Saturday morning. Admission fees were about S\$20, and we had a 1-for-1 discount with a promotion so it was a steal! If you are visiting with young children, this theme park would be a fun place to while away at least three hours.

In addition, there are several other notable sights, such as the Malino tea plantation, Takapala Waterfall, Bugis silk weaving and Bantimurung National Park, which require driving out of the city. I recommend those who want an unconventional holiday to consider touring Makassar.



Dr Poh is a part-time emergency physician and fulltime mother, who dabbles in cooking experiments and clan work, leaving no time to spare.

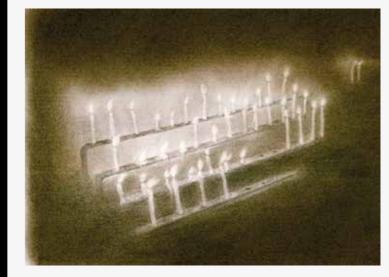
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Lotus Pond at KKH

Text and illustrations by Shashendra Aponso there is art to medicine as well as

"I WILL remember that there is art to medicine as well as science" reads a line from the modern Hippocratic Oath. My clinical mentors have demonstrated that medicine is certainly an art - one in which critical thinking and compassion are carefully blended together, where the artist often steps back to reassess management plans, and where the mind and scalpel serve as palette and paintbrush. For me, this line from the Hippocratic Oath strikes a special

I have enjoyed painting ever since I was a child, and science and art have complemented each other at every stage of my life. As a schoolboy I relished sketching out coloured diagrams of the human heart during Biology, almost as much as I enjoyed comprehending the subject matter. During my undergraduate years at Stanford, I was awestruck by the whimsical anatomical drawings of Bernhard Siegfried Albinus and the impeccable details of Leonardo da Vinci's anatomical sketches that I encountered in my Art and Biology class. Indeed, da Vinci is said to have written, on principles for the development of a complete

mind: "Study the science of art. Study the art of science. Develop your senses - especially learn how to see."

How true these words are! While we, as students, strive to cultivate our powers of observation along our medical journey, medical artwork has been an invaluable aid. Frank Netter's famous textbook illustrations have guided us through many a challenging dissection session, delineating human anatomy in exquisite detail and hues - the perfect example of how art contributes to the study of medicine.

On the other hand, medicine has often been the subject of many a work of art. Be it the rich symbolism of a human skull next to an hourglass in Dutch painter Philippe de Champaigne's Still Life with a Skull, or the masterfully portrayed dissection in Rembrandt's The Anatomy Lesson of Dr Nicolaes Tulp, artists have strived to capture the meaning, gravitas and wonder surrounding their medical subjects.

During my time in the wards, I find that sometimes the most ordinary aspects of hospital routines can stir the mind and appear completely new and wonderful. It is these moments that I try to capture in my works. The fanned-out toes in the plantar reflex, the machine-like dilation of a pupil and the dexterity of hands are just some of the subjects that I have portrayed in my digital paintings above.



Shashendra Aponso is a fourth year medical student t Duke-NUS Graduate Medical School. As a Sri Lankan vho was born and raised in Oman, before completing his indergraduate studies in the US and moving to Singapore or medical school, Shashendra cherishes the diverse Iltural experiences that come with having so many places

Candles in a Church

This picture of the votive candles in the Slipper Chapel in Walsingham, Norfolk, England, was drawn with charcoal on paper. The chapel was built in the 14th century to serve English pilgrims.

Light has long played an important role in human culture. Darkness, the absence of light, was seen by early Man to represent danger and the unknown. It is no wonder that candles have been such powerful symbols in many cultures and religions. As one of the earliest sources of artificial light, the candle, work of bees and human hands, allowed mankind mastery over the darkness.

Votive candles are particularly poignant; people light them for the intention of a loved one, or for needs personal to themselves. To different people, these lit candles may have different meanings. To me, they represent, among other things, hope. In some ways, the medical profession is like a lit candle, bringing hope and support to people in need.



Chan Wee Lee is a first year medical student at Duke-NUS Graduate Medical School. In his free time, he enjoys running, rambling, and reading, particularly works by Graham Greene and Evelyn Waugh. He hopes to be a physician-scientist one day.

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SCS-SMA Cancer Education Seminar Series 2015





Date: 6 June 2015, Saturday **Time:** 1 pm to 5.30 pm

Venue: Health Promotion Board Lecture Hall (3 Second Hospital Avenue)

Number of CME Points: Pending approval from the Singapore Medical Council

To register, visit https://www.sma.org.sg/academy or fill in the form below.

THEME: CERVICAL CANCER

Women can be at risk of developing gynaecological cancers. Other than adopting a healthier lifestyle, knowledge of family history and early screening also help to detect cancer at its early stages to save lives. GPs can advise, encourage and empower their patients to take ownership in cancer prevention and adopt healthy lifestyle practices. Your participation could be a life changer for the patients you care for. Sign up for the SCS-SMA Cancer Education Series now to learn more!

<u>Time</u> **Programme** 1 pm Registration (Lunch will be provided) 2 pm - Mr David Matthew Fong, Chief Operating Officer, Singapore Cancer Society (SCS) **Opening Address** 2.10 pm - Dr Chia Yin Nin, President, Society for Colposcopy & Cervical Pathology of Singapore 2.15 pm Topics Covered: Overview of Women's Gynaecological Cancer Role of Human Papillomavirus (HPV) Testing and Pap Smear Screening **Prevention of Cervical Cancer** Ovarian Cancer Screening (What Is the Current Evidence) Genetic Testing for Ovarian Cancer Irregular Bleeding 3.45 pm Panel Discussion 4.30 pm Closing Remarks **End of Seminar** Speakers: The Society for Colposcopy & Cervical Pathology of Singapore (SCCPS)

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Please return this slip for SCS-SMA Cancer Education Seminar Series 2015 to Mellissa Ang, Singapore Medical Association, 2 College Road, Level 2, Alumni Medical Centre, Singapore 169850. Tel: 6223 1264, fax: 6224 7827 or email: mellissa@sma.org.sg. A confirmation email will be issued to all applicants.

Name:	MCR no.:		
Email:	Handphone no.:		
Profession/Specialty:	SMA member: Yes / No		
Registration fees (inclusive of GST)			
SMA member: complimentary	By registering for this event, you consent to the collection, usage and disclosure of personal data provided for the		
□ Non-member: \$120	purpose of this event, as well as having your photographs and/or videos taken by SMA and its appointed agents for the		
Mode of payment	purpose of publicity and reporting of the event.		
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Signature:	Date:		

SMA EVENTS JUNE - AUGUST 2015

DATE	EVENT	VENUE	CME POINTS	WHO SHOULD ATTEND?	CONTACT
CME Activities					
6 June Saturday	SCS-SMA Cancer Education Series 2015: Cervical Cancer	Health Promotion Board	TBC	Doctors and Healthcare Professionals	Mellissa Ang 6223 1264 mellissa@sma.org.sg
8 June Monday	Mastering Adverse Outcomes	Sheraton Towers Singapore	2	Family Medicine and All Specialties	Margaret Chan 6223 1264 margaret@sma.org.sg
28 June Sunday	BCLS Course	Alumni Medical Centre	2	Doctors and Clinic Staff	Siti Nurhuda or Lin Shirong 6223 1264 cpr@sma.org.sg
29 June Monday	Mastering Difficult Interactions with Patients	Sheraton Towers Singapore	2	Family Medicine and All Specialties	Margaret Chan 6223 1264 margaret@sma.org.sg
30 June Tuesday	Mastering Shared Decision Making	Sheraton Towers Singapore	2	Family Medicine and All Specialties	Margaret Chan 6223 1264 margaret@sma.org.sg
1 July Wednesday	Mastering Your Risk	Sheraton Towers Singapore	2	Family Medicine and All Specialties	Margaret Chan 6223 1264 margaret@sma.org.sg
2 July Thursday	Mastering Difficult Interactions with Patients	Sheraton Towers Singapore	2	Family Medicine and All Specialties	Margaret Chan 6223 1264 margaret@sma.org.sg
4 July Saturday	Mastering Adverse Outcomes	Sheraton Towers Singapore	2	Family Medicine and All Specialties	Margaret Chan 6223 1264 margaret@sma.org.sg
4 July Saturday	SMA Training Workshop: Core Concepts in Medical Professionalism	Ramada Singapore at Zhongshan Park	TBC	Doctors and Healthcare Professionals	Denise Tan 6223 1264 denisetan@sma.org.sg
11 July Saturday	Mastering Adverse Outcomes	The Elizabeth Hotel	2	Family Medicine and All Specialties	Margaret Chan 6223 1264 margaret@sma.org.sg
20 July Monday	Mastering Difficult Interactions with Patients	Sheraton Towers Singapore	2	Family Medicine and All Specialties	Margaret Chan 6223 1264 margaret@sma.org.sg
25 July Saturday	46th SMA National Medical Convention	Sheraton Towers Singapore	ТВС	Doctors, Healthcare Professionals and General Public	Margaret Chan 6223 1264 margaret@sma.org.sg
Non-CME Activities					
12 July Sunday	Pocari Sweat Run	Kallang Practice Track	NA	SMA Members (special promo code available)	Jennifer Lee 6223 1264 jenniferlee@sma.org.sg
19 August Wednesday	SMA Annual Golf Tournament	ТВС	NA	SMA Members and Guests	Azliena Samhudi 6223 1264 liena@sma.org.sg



Depression, anxiety, obsessive compulsive disorder, and dementia — these are common mental health conditions affecting Singaporeans. For instance, one in 17 people has suffered from a major depressive disorder at some point in their lifetime. The majority of such affected people do not receive the help they need.

Early therapeutic intervention empowers clients in managing their conditions, offering them and their families a better quality of life. As general practitioners (GPs) are often the first line of support for clients with mental health conditions, the Agency for Integrated Care (AIC) aims to enhance the GPs' capability in caring for new and/or existing clients with mental health conditions in the community through its Integrated Mental Health and Dementia Network.

The network facilitates the collaboration between primary care providers such as hospitals, polyclinics and GPs, and community partners, namely allied health professionals, so that clients with mental health conditions can be managed holistically within the community instead of in different care settings. Patients can thus enjoy quick and easy access to specialised care and mental health support services closer to home.

MEETING COMMUNITIES' NEEDS BY INTEGRATED NETWORK

Living at Home Unwell & Back to Hospital Care in Community Assessment needed Community Residents Assessment by Care and Supported in need of stabilisation by by GPs. COMMUNITY POLYCLINICS mental health SUPPORT IMH or PUBLIC and MENTAL support are **TEAMS** HOSPITALS **HEALTH VWOS** identified by (comprising **GRASSROOTS** to provide allied-health **LEADERS** and counselling, care professionals VOLUNTEERS coordination and and nurses) caregiver suport who require COMMUNITY OUTREACH TEAM (CREST) in SACs Supported by to provide basic FAMILY and emotional support FRIENDS and linkages

Currently, the network includes allied health-led teams and physician-led teams (psychiatrist or GDMP trained family physician) to provide intermediate intervention for those with mild and moderate mental health conditions.

Clients with mental health conditions often have additional requirements that GPs may not be able to address fully, and this is where allied health-led teams and physician-led teams can lighten GPs' loads. "I can quickly refer a patient with mental illness to an allied health-led team for more specialised care. This reduces the extended consultation time that clients with mental health conditions typically require," said Dr Kwek Thiam Soo of Bukit Batok Medical Clinic.

With GPs, allied health-led teams and physician-led teams working hand in hand to serve in the community, clients with mental health conditions will certainly have an easier time finding their footing.

One-access point by AIC (Singapore Silver Line 1800 650 6060, careinmind@aic.sg)

Over the past year, I referred patients to the Eastern Community Health Centre's (CHC) Health Wellness Programme when they have trouble coping with stress, retirement, grief, insomnia, relationship problems and serious illnesses like cancer.

MAINTAINING THE BALANCE

Dr Henry Yeo, GP at Bedok Medical Centre, shares how he helps his patients manage both their physical and mental health, with the support of community allied health services.

Being in this field for 39 years, can you share some of your views about practising family medicine and managing mental health conditions?

I realised that with every health condition there is always an emotional

and psychological component. The ability to understand those needs is essential to manage the patients and help them comply with treatment especially in managing chronic conditions. In my practice, I see many patients with anxiety and with psychosomatic problems. However, for those with more severe conditions like psychosis, I refer them to my psychiatric colleagues in the hospital or specialist outpatient clinic.

What have you found useful in helping patients with mental health conditions?

Over the past year, I referred

patients to the Eastern Community Health Centre's (CHC) Health Wellness Programme (HWP) when they have trouble coping with stress, retirement, grief, insomnia, relationship problems and serious illnesses like cancer.

My patients find the neighbourhood location of the CHC very convenient as some of them worry about the stigma of going to the hospital psychological department for treatment. Many of them have found the HWP counselling session useful and opted for further individual follow-up sessions.

ABOUT COMMUNITY INTERVENTION TEAM AND ASSESSMENT & SHARED CARE TEAM

Clients with mental health conditions can be referred either to an allied health-led community intervention team, or a physicianled assessment and shared care team. Each team comprises counsellors, occupational therapists, psychologists, nurses and programme coordinators, who can:

- Perform assessments of clients and caregivers
- Provide counselling and other psycho-social therapy for clients and caregivers
 - Develop individualised intervention plans for clients and monitor them, with appropriate referrals for GP or hospital follow-up, or social services
- Follow up closely with clients and caregivers through home visits
 - Provide care coordination for clients to ensure appropriate integration, coordination and right-siting of care
 - Train caregivers in managing and caring for their loved ones so as to reduce caregiver stress or burnout

If you have clients requiring counselling or psychotherapy, you can refer them to their nearest allied health-led team or physician-led team.

Area	Service Provider
North	Physician-led team@North THRIVE (Khoo Teck Puat Hospital) Hotline: 6555 8828
North	Allied health-led teams: O'Joy Care Services Hotline: 6749 0190 Clarity Singapore Hotline: 6757 7990
East	Allied health-led team: Eastern CHC (Bedok South) Health Wellness Programme Hotline: 6449 5419
Central	Physician-led team @Central (Ang Mo Kio Polyclinic) Hotline: 6355 3000
	Allied health-led team: O'Joy Care Services Hotline: 6749 0190

LI SMS & WIN!

Enjoyed the article? Recieve a 2GB thumb drive/stylus pen by sharing your experience/feedback with us if you have referred patients to any of the physician-led/allied health-led teams.

SMS your experience/feedback to 9125 4665, together with your name and MCR number by 15 June 2015! The first 50 to SMS us will receive the pen.