

BORN TO LEAD



Malaysian Society
of Anaesthesiologists



College of
Anaesthesiologists, AMM

BERITA

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Message from the PRESIDENT OF THE MSA

Professor Dr Ina Ismiarti Shariffuddin



Dear esteemed members,

I hope this message finds you in good health and high spirits. This would be my last message in Berita Anestesiologi as the President of MSA. My tenure as the President started in August 2021 as we navigated through the aftermath of the unprecedented COVID-19 pandemic. We have reached another milestone this year as we celebrate our 60th Diamond Jubilee Anniversary. I wanted to take a moment to reflect on our collective resilience in the last two years and chart a course towards a successful future for our Society.

First and foremost, I would like to express my gratitude to each of you for your tireless efforts during the pandemic. The COVID-19 pandemic was one of the most challenging times in the history of medicine. As anaesthesiologists, we stood on the front lines to ensure patient safety and provide critical care during those trying times. I am immensely proud to lead a fraternity which practises unwavering commitment and selflessness. Only the Almighty could repay all the goodness you provided to 'Rakyat Malaysia'.

"There is a silver lining in every cloud"

While the pandemic may have disrupted our routines and tested our resilience, it had also given us opportunities for growth and innovation. We have witnessed the rapid development of new technologies, telemedicine platforms, and improved safety protocols. As we forge forward, we must integrate these advancements into our daily practice to enhance patient care

and foster progress. In fact, during this period, we could maintain our international relationship and participate in the ASEAN and ASIAN meetings via the virtual platforms, something that I felt which has really revolutionised our communication.

To lead the MSA into a prosperous future, I realise that we need to focus on a few key areas. Firstly, we must prioritise education and professional development. The pandemic has underscored the importance of ongoing training and adaptability in our field. By fostering a culture of continuous learning, we can ensure that our Society remains at the cutting edge of anaesthesiology. In MSA, under the initiative of our Director of Education, Associate Professor Dr Azarinah Izaham, we have embraced this new technology for the last two years and utilised the virtual platform to provide CMEs via our KITE series in collaboration with the College of Anaesthesiologists, AMM. The publication standard under the leadership of our Director of Publications, Dr Anand Kamalanathan, has risen tremendously over the last two years, with a wonderful series of digital Berita Anestesiologi with apt themes to educate our members. We also established our local journal, MyJA, to foster scholarly writing and knowledge sharing among Malaysian and worldwide anaesthesiologists. To support research and scholarly writing, the MSA has increased its research grant from RM10,000 to RM 20,000 per annum.

In addition, we have enhanced our outreach efforts to the broader healthcare community and the general public. We fostered

inter-disciplinary collaboration and engaged in meaningful conversations with other medical specialities to broaden our impact and contribute to comprehensive patient care. Post-pandemic, the MSA had worked with the private sector and the surgical fraternity to support access to surgery for our remote population via our Global Surgery Initiative programme. Our Director of Members' Affairs, Dr Gunalan Palari, and our Director of Internal Affairs, Dr Hasmizy Muhammad, in collaboration with the Subang Jaya Medical Centre (SJMC) and MOH, had successfully organised a collaborative effort to enable the rural population of Malaysia, particularly Sarawak, to increase access to surgeries which I believed is a genuine inclusivity initiative. To quote our previous Director-General of Health, Tan Sri Dato' Seri Dr Noor Hisham Abdullah, this is the very first private-public partnership incorporating multidisciplinary care on a large scale. In addition, in my capacity as the MSA President, I was involved with the Malaysian Society of Patient Blood Management to create and drive awareness in the community about the importance of the best practice in patient blood management in Malaysia, by participating in a multidisciplinary forum with Dato' Dr Asmayani Khalib and representatives from Surgery, Obstetrics and Gynaecology, Blood Transfusion Medicine and Haematology on "How PBM can be implemented in hospitals throughout Malaysia".

We should also endeavour to educate the public about the vital role of anaesthesiologists and dispel any misconceptions, fostering trust

and understanding. In the capacity as the MSA President, I participated in various media platforms to educate our roles in the Malaysian community, including interviews in "Malaysia Hari Ini", Doctor's in The House sessions by BFM radio station, newspaper write-ups such as Berita Harian, Sinar Harian, and KOSMO. Currently, our Director of IT and Visibility, Dr Mohd Fitry Zainal Abidin, and his team are incorporating a new segment of information for the community in our MSA website, as we now appreciate that our netizens need an appropriate channel to get their facts on anaesthesia, analgesia, and critical care, rather than obtaining them from unvetted sources.

Internationally, to enhance our visibility, I have led the MSA Executive Committee to win the bid to host AACA 2030 in Kuala Lumpur, Malaysia, at the Asian Australasian Congress of Anaesthesiologists, Seoul, South Korea. In another role, representing the Malaysian Society of Paediatric Anaesthesiologists in Malaysia, I led a team to win the bid to host ASPA 2024 in Kuching, Sarawak, Malaysia. Following our success in fostering shared leadership and knowledge with the Korean Society of Anaesthesiologists (KSA) a few years back, and with the guidance of our Director of Foreign Affairs, Professor Dr Marzida Mansor, we have started the process of signing another MOU with our esteemed neighbouring country, Thailand, via their Royal College of Anaesthesiologists of Thailand. This is still work in progress. I hope this will

materialise under the next leadership.

As leaders in our field, we must advocate for the rights and well-being of our profession and our patients. I represented our fraternity in the "Malaysian Health Coalition Group" to actively participate in healthcare policy discussions, aiming to influence decision-making processes and ensure our voices are heard. This group had issued several statements to the government to advocate for patient safety, fair compensation, and optimal working conditions, with the aim of fostering an environment that attracts the best talent and promotes the highest standards of care in our country.

Finally, anaesthesiologists should unite to practice sustainability in anaesthesia to safeguard the earth for future generations. Anaesthesiologists are estimated to contribute 0.01-0.10% of the total global carbon dioxide equivalent (CO₂e) emissions contributing to global warming. Thus, we play a crucial role in reducing the carbon footprint in our practice through a combination of sustainable practices and conscious decision-making. Therefore, we embarked on a "Green Anaesthesia campaign: Now or Never", incorporating the 6 Rs initiative (Rethink, Refuse, Reduce, Reuse, Recycle, and Research) in our daily practice.

I look forward to meeting all of you at the upcoming Malaysian Society of Anaesthesiologists and College of

Anaesthesiologists, Academy of Medicine of Malaysia Annual Scientific Congress, MyAnaesthesia 2023, in conjunction with the MSA Diamond Jubilee. This year's theme, "Leadership and Excellence in Anaesthesia Development", emphasises our commitment to exploring new frontiers, empowering visionary leaders, and fostering a culture of excellence in our patient management.

In conclusion, as we step into the next decade, my esteemed colleagues, the challenges of the COVID-19 pandemic have tested our resources. Nevertheless, it also strengthened our determination to forge ahead. Together, let us lead our MSA into a future marked by excellence, innovation, and compassion. Our collective expertise and unwavering commitment will guide us toward success as we continue to serve our patients and advance the field of anaesthesiology.

"At the heart of leadership is a desire to serve and a dedication to helping others become great"

To my team, the MSA secretariat and all members, thank you for your unwavering dedication. I am honoured to serve as your President, and I look forward to working with each of you further to shape the future of our Society.

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The Editorial Board reserves the right to amend, edit or delete any or some parts of the articles contributed by the authors and will not be held responsible for any factual inaccuracies, intents or statements appearing in the articles. All communication with regards to the above will need to be directed to the authors of the articles.

Message from the EDITOR-IN-CHIEF

Dr Anand Kamalanathan

Leadership is an innate quality that lies dormant within individuals, waiting to be awakened and harnessed. Many influential figures throughout history were born with an inherent drive to lead, shaping the course of nations, organisations, and communities. While not everyone may be destined to become a world-renowned leader, the potential to lead resides within each of us, waiting to be discovered and nurtured.

I have been blessed to have encountered such inspiring leaders throughout my career and teachers who motivated and even changed the trajectories of my life. I aspire to have such an impact on future anaesthesiologists as well. By leading this fantastic editorial team of the Berita Anestesiologi, I have been afforded the platform as the Director of Publications to highlight pertinent issues that matter to us as a fraternity. I would also like to encourage

academic writers to submit their interesting cases to our very own Malaysian Journal of Anaesthesiology (MyJA) so we can capture this data and compete internationally.

In line with the theme of our Annual Scientific Congress, MyAnaesthesia 2023 "Leadership and Excellence in Anaesthesia Development (L.E.A.D)", we decided to curate our articles to aptly suit this powerful theme. We have a wonderful article from Dr Hasmizy Muhammad on his experience attending a leadership programme at the world-renowned Harvard University, followed by a write up on the visit from leaders of the College of Anaesthesiologists of Ireland. We also have Dr Abdul Jabbar sharing his thoughts on how anaesthesiologists can lead the way in organ donation and transplantation, and recollections and reflections from the Presidents of the MSA and the CoA on their time as

leaders. I would also like to thank Dr Paul Ooi for his stunning artwork that graces this edition's front cover, as well as Dr Lakshmi for sharing her beautiful work in our creative section. Who says anaesthesiologists know only how to intubate?

While some individuals may seem to be "born to lead", the truth is that leadership potential lies within each of us. Nurturing and honing these innate qualities can transform ordinary individuals into extraordinary leaders. Embrace your potential, commit to continuous growth, and lead with integrity. Remember, leadership is not a destination but a journey of self-discovery. So, step forward with confidence, and read this edition in its entirety so we can unleash the leader within you.

The world awaits your impact.

Editors.....

Dr Anand Kamalanathan (Editor-in-Chief)
Dr Gunalan Palari
Dr Shahridan Mohd Fathil
Dr Sivaraj Chandran
Dr Ivy Sim Chui Geok
Dr Samuel Tsan Ern Hung
Dr Shairil Rahayu Ruslan

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A Journey to **LEADERSHIP PROGRAMME**

by **Dr Hasmizy bin Muhammad**
Sarawak Heart Centre, Sarawak, Malaysia

John Wick's Hotel Continental, New York

Seven years ago, I was called by my head of department to her office to pass the head of department's baton to me. Since I had never been a head before, I got help from people around me to manage the department. I learned from other people's experiences and my own mistakes. I realised that I was just a manager, gathering and coordinating the resources to perform the task and delivering the results, but not a leader.

I think I can contribute something to my employer and society, and hence I felt that I needed to have formal leadership training. Because of that, I recently attended and completed a one-year leadership programme. "Leadership in Medicine: Southeast Asia" is a certificate programme that has been developed by the Harvard Medical School Postgraduate Medical Education with the support of Sunway University and Sunway Medical Centre.

This leadership programme was started in 2017 and has a yearly intake every March. It aims to sharpen the skills of healthcare leaders and clinicians to ensure the safest, most appropriate, and highest quality standards of care are provided. The programme is open to healthcare practitioners and those who work in the healthcare sector. Although it is for Southeast Asia, Australia, and the Pacific region, my classmates, totaling 72, come from as far away as Saudi Arabia and Croatia.



Statue of Liberty, New York

The school fees were very expensive after converting the US dollar to Malaysian ringgit. Fortunately, I was granted a discount on my school fee after applying for it from Harvard.

The course syllabus was very interesting. It consists of three residential workshops (two at Sunway University, Malaysia, and one at Harvard Medical School, Boston, Massachusetts, US, pre and post COVID-19 era), pre-recorded lectures, and interactive webinars focused on relevant and complementary topics. Online lectures are only available when each module is unlocked at the scheduled date.



Iron lungs or Emerson Respirator, Paul S. Russell Museum of Medical History, Boston

The learning modules were Financial Management and Control, Quality, Patient Safety, Innovation in Healthcare, Foundations of Performance Improvement, Strategic Planning of Human Resources and lastly, Transformational Leadership and Coaching.

On top of that, we were continuously assessed. There were quizzes in each module. There were three team assignments that required presentations via webinar. I had the opportunity to represent my team in one of the presentations. We were expected to attend a minimum of 75% of the webinars. We also needed to pass the midterm and final examinations and submit the capstone projects before the deadline. The final score for these activities, which was calculated based on graded assignments, was 100 percent. After all the hard work, we passed with no remediation.

The full four-day workshop took place from 1st to 4th March 2022, the 30th August to the 2nd September 2022, and 6th to 9th

March 2023. I took leave to attend the workshop lectures, although the first two workshops were conducted virtually because of travel restrictions for some lecturers and students to come to Malaysia, while the last workshop was held at the Joseph B. Martin Conference Centre, Boston, USA.

The first workshop emphasised on adaptive leadership, health care safety and quality; the second workshop discussed organisational and teamwork issues, and performance management systems; and the last workshop studied innovation processes, initiating change across boundaries, and developing relationships and networking to support personal goals.

We were given several Harvard Business Review course packs to read before the workshop and needed to actively participate in discussions based on case studies. For example, we deeply discussed how Bhagwan Mahaveer Viklang Sahayata Samiti (BMVSS) in Jaipur, India, a non-profit and non-government organisation, can



My team assignment group. We are from Australia, Malaysia, and the Philippines. Harvard Club, Boston

sustainably provide free prosthetic limbs and mobility-assisting devices to over a million people with physical disabilities since its inception in 1975. Another example was the case of the general manager of Software Solutions Vietnam subsidiary, who faced challenges in implementing her software service strategy from local staff's inability to approve system changes, the headquarter's proposal to consolidate data centres in India instead of Vietnam, and the difficulty of recruiting and training internal implementation consultants.

The lecturers are world leaders in their fields, for example, Professor Ranjay Gulati, who is the Chair of Harvard Business School's Advanced Management Programme and author of Principles of Management; Dr Melvyn Menezes, an Associate Professor at Boston University's Questrom School of Business, who have clients including General Electric, IBM, Merck, Amgen, Biogen, Toshiba, Hewlett-Packard, AT&T, and British Telecom; Ashraf S. Hegazy, who is currently the Global Head of Leadership for Acumen and an expert on Adaptive Leadership; Katherine S Santos, who is a leading expert in

healthcare quality and performance improvement; and Dr Ajay K Singh, who is Senior Associate Dean for Postgraduate Medical Education at Harvard Medical School, to name a few.

My capstone project is entitled "Sustainability of The Global Surgery Initiative at Simunjan Hospital," with the aim of identifying the weaknesses and exploring new strategies as well as implementing new policies for the sustainability of the programme. I proposed a few interventions that involved the Simunjan Hospital's human resources, finance, infrastructure, equipment, and governance, such as identifying and assessing the suitability of the doctors for the Global Surgery Initiative programme, asking for more funds from the Ministry of Health, replacing and adding the required equipment, data collection, evaluation, and monitoring the programme.

At the end of the third workshop, we were invited to a gala dinner at The Harvard Club of Boston, a private social club whose membership is open not only to alumni and associates of Harvard University but also to the Massachusetts Institute of Technology, Yale University, and the Fletcher School of Law and Diplomacy at Tufts University. Apart from



Our team won one of the three team assignments. Harvard Club, Boston

enjoying the food, there was a prize ceremony for the best team assignment, which my team won.

The next day was the graduation ceremony at the Joseph B Martin Conference Centre. Before the certificate presentation to the 2023 Leadership In Medicine: Southeast Asia scholars, there was a prize ceremony for the Capstone Top three award, and my classmate, a Malaysian general practitioner, won the first prize. During the event, many students celebrated the auspicious occasion with their loved ones, and some of them wore their traditional attire. Before we ended the event, we took a group photo with some of the lecturers and coordinators in front of the Harvard Medical School building.

What did I get from this journey? I got a world-class leadership education, which I never imagined before, with affordable school fees. My network is expanding; I have friends both locally and overseas who are leaders in their respective fields. Automatically, I became an associate member of the Harvard Alumni Association (HAA). I visited many interesting places in New York, such as Time Square, the Rockefeller Centre, the Empire State Building, the Statue of

Liberty, The Metropolitan Museum of Art (if you want to see the originals from van Gogh, Monet, and Renoir), the National September 11 Memorial and Museum, the Ocular Centre, the Brooklyn Bridge, Central Park, the New York Public Library, John Wick's Hotel Continental, and the Friends sitcom building. While in Boston, I visited Harvard University (Harvard Medical School is a campus

separate from the main Harvard University complex), the Massachusetts Institute of Technology (MIT), the Paul S. Russell Museum of Medical History, and Brigham and Women's Hospital.

Do I recommend this programme to others? Yes, of course. The programme is suitable for anyone who wants to become a leader in healthcare.

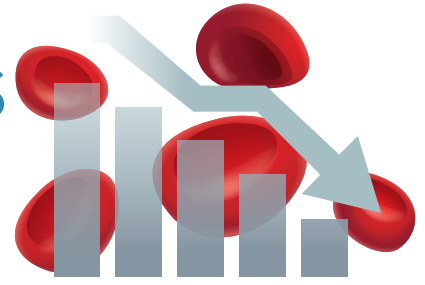


Certificate Completion ceremony with the faculty members. Joseph B Martin Conference Centre, Boston



Graduation Day. Photo taken in front of the Harvard Medical School building

ROLE OF ANAESTHESIOLOGISTS IN DECEASED DONOR ORGAN DONATION & PROCUREMENT



26th Annual Scientific Meeting Malaysia Society of Transplantation (MST)

by **Abdul Jabbar bin Ismail¹, Hasdy Haron²**

¹Universiti Malaysia Sabah, Sabah, Malaysia

²National Transplant Resource Centre, Kuala Lumpur, Malaysia

The Malaysian Society of Transplantation (MST) is not an ordinary medical-based, professional academic non-governmental organization (NGO). It is a unique NGO where, unlike other professional medical-based societies comprising a single speciality and specialists, MST members comprised of medical specialists from at least seven multi-disciplinary specialities with a similar goal and interest in improving organ donation and transplantation in Malaysia. The MST hosts its Annual Scientific Meeting to provide educational updates and allow networking between like-minded professionals in organ donation and transplantation.

The MST recently organized its 26th Annual Scientific Meeting (ASM) over three days, from 26th to 28th May 2023. Multiple pre-congress workshops were conducted on two important scientific, sold-out sessions: the Brain Death Testing Workshop and Family Donor Conversation. These sessions were crucial for managing deceased organ donation in solid organ transplantation. Participation in both sessions was overbooked, and organizers had to increase available slots due to unforeseen interest from participants from all over Malaysia.

For the first time in the MST Annual Scientific Meeting, the central scientific

theme for this year was organ donation and procurement. In organ donation and transplantation, "No Organ Donation equals No Transplantation". The organizing committee chose "Braving the Odds" as our theme to emphasize the courage and bravery of our donation and transplant professionals in overcoming challenges

in this field and increasing the number of transplants in Malaysia.

Since the organ donation program's inception in Malaysia in 1997, with the establishment of the National Transplant Resource Centre (NTRC) as the primary organization overseeing deceased organ donors nationwide, achieving the



required number of deceased organ donors has been challenging. As of May 2023, there are approximately 9,000 patients on the waiting list in need of transplants, while the number of deceased organ donors ranges from 0.2 to 1 donor per million population. This emphasizes the importance of putting more effort into increasing the number of deceased organ donors in all hospitals nationwide.



Pre-congress Brain Death Testing Workshop

In Malaysia, most deceased organ donors come from brain-death patients, who are primarily detected in critical care areas, especially ICUs and constitute the only established donor pool according to the protocol outlined in our National Transplant Policy. Therefore, it is crucial for anaesthesiologists, as part of the ICU team, to champion deceased organ donation. Early detection of brain death patients has shown successful outcomes in organ donation in ICUs.

The MST and NTRC recently recognised anaesthesiologists' growing interest in

organ donation, procurement and transplantation. This was evident in the recent 26th MST ASM, by the attendance of 23 anaesthesiology specialists and medical officers either as speakers or attendees out of a total of 150 participants, including consultants, specialists, medical officers from various fields, and paramedics. Anaesthesiology and intensive care specialists usually play the central role, and in most countries with high rates of organ donation and transplantation, the most important key figure in the hospital is the Chief Organ Donation and Transplantation Coordinator, which is

traditionally helmed by an anaesthesiologist.

The recent MST Annual Scientific Meeting allowed anaesthesiologists to come together and further learn about deceased organ donor management. Among topics discussed pertaining to the anaesthesiologists' roles were the conduct of brain death testing via a pre-congress workshop, which was designed exclusively for ICU doctors using the state-of-the-art Hospital Kuala Lumpur Simulation Center, as well as numerous other scientific sessions conducted within the scope of

practice of anaesthesiologist; including deceased donor organ maintenance and management, donor quality assessment, deceased donor coordination management, education and training, and paediatric donor and transplant management. This scientific meeting successfully gathered medical professionals in anaesthesiology who are interested in the field of organ donation and transplantation in Malaysia.

To further improve the efficiency of organ donation and procurement activities, it is hoped that the growing interest of many anaesthesiologists in organ donation and procurement activities and coordination in Malaysia will lead to the creation of a Special Interest Group (SIG) in the field of organ donation and transplantation supported by the Malaysian Society of Anaesthesiologists (MSA) and the College of Anaesthesiologists, Academy

of Medicine of Malaysia (COA AMM). Anaesthesiologists can become the key leader in the coordination of active organ donor detections, deceased donor organ maintenance and management, brain death testing, deceased donor quality assessment, anaesthesia for deceased donor organ procurement and heart, heart-lung-en-block, liver and kidney transplant anaesthesia.

On behalf of the organising committee of the 26th MST Annual Scientific Meeting, we hope that the involvement of Anaesthesiologists, medical officers and nurses will contribute to the organ donation and procurement activities and coordination in their respective workplaces and subsequently aid our Hospital Organ Procurement Unit (UPOH) in identifying more deceased organ donors, ensuring the sustainability of practices, and meeting the demand for organ transplantation. The Malaysia

Society of Transplantation will continue to provide professional training to all individuals involved in this field, focusing on organ donation and transplantation.

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Anatomy & Ultrasonography for Regional Anaesthesia (AURA) 2023

AN ANAESTHESIA COMPETENCY TRAINING IN IMMERSIVE VIRTUAL ENVIRONMENT (ACTIVE)



by Dr Iskandar Khalid, Dr Chan Weng Ken
Hospital Canselor Tuanku Muhriz UKM, Kuala Lumpur, Malaysia

Ultrasound-guided regional anaesthesia (UGRA) is a rapidly expanding and evolving field in anaesthetic practice. Whilst traditionally being a skill confined to an anaesthesiologist's arsenal, UGRA has become increasingly utilized amongst those in the field of emergency and trauma medicine as well. Anatomy & Ultrasonography for Regional Anaesthesia (AURA) is an annual UGRA workshop first conceived and organised in 2017 by the Department of Anaesthesiology & Intensive Care, Hospital Canselor Tuanku Muhriz (HCTM), Universiti Kebangsaan Malaysia (UKM). While previous workshops were conducted solely for anaesthesiology trainees, the 2023 iteration of AURA was rebranded and refreshed to be the largest, and most inclusive AURA workshop to date, being held as both a live and virtual event, and welcoming local and international participants practising in Anaesthesiology, Emergency & Trauma Medicine, and

Primary Care. AURA 2023 also heralded several firsts: the first-ever UGRA workshop to use an augmented reality simulator in Malaysia; the first AURA workshop with international participants from Universitas Hasanuddin; and a first-time collaboration with the Department of Anaesthesiology & Intensive Care, Hospital Al-Sultan Abdullah UiTM, Malaysian Special Interest Group in Regional Anaesthesia (MYSigRA), Malaysian Society of Anaesthesiologists (MSA) and College of Anaesthesiologists (COA). Industry partners included GE Healthcare, Toyo Adtec Healthcare Malaysia, Infinity Medical Sdn Bhd, Mindray, B. Braun Malaysia, Sains Medika Sdn Bhd, QST Technologies Sdn Bhd, Gemilang Asia Technology Sdn Bhd, Medi Trump Sdn Bhd and Aspen Malaysia.

"See one, do one, teach one" is an adage many of us hold true in our anaesthetic practice. As such, we

tailored AURA 2023 to include lectures, live demonstrations, and hands-on needling simulators to educate participants on the theoretical and practical aspects of common peripheral nerve and fascial plane blocks. AURA 2023 also saw the unveiling of the Anaesthesia Competency Training in Immersive Virtual Environment (ACTIVE) series - our initiative to incorporate simulation and immersive virtual environments into practical anaesthesiology skills training.

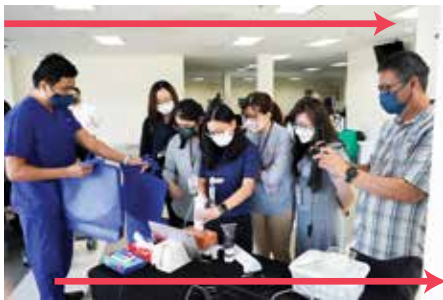
Day one of the workshop was held at the Zecon Hotel & Convention Centre, Hospital Pakar Kanak-Kanak (HPKK) UKM, with a total of 70 live and 66 virtual participants in attendance. The event began with a welcoming speech and opening lecture titled 'Ultrasonography and Needling 101' by Dr Iskandar Khalid, organizing chairperson of AURA 2023. This was followed by lectures by Dr Tan Kok Wang, Dr Afifah Samsudin, Dr Nizam

Mokhtar, and Dr Vimal Varma, covering the anatomy and ultrasonography of the various blocks of the trunk, and upper and lower limbs. The final lecture of the day was delivered by Dr Shahridan Mohd Fathil, previous convenor of the MYSigRA, who shared his vast experience covering the practical aspects of UGRA. This was followed by a question & answer session amongst the speakers and both live and virtual attendees. The lunch break saw participants flocking to the trade exhibition involving the various industry partners, with highlights being the ultrasound, needling and augmented reality devices on display. After the lunch break, participants were divided into eight groups which rotated among the various ultrasound scanning stations on simulated patients covering a wide variety of peripheral nerve and fascial

plane blocks. The first day of our workshop ended with a closing speech by Associate Professor Dr Azarinah Izaham, Head of the Department of Anaesthesiology & Intensive Care, HCTM UKM, who then presented tokens of appreciation to the workshop's speakers and facilitators.

Day two of AURA 2023 was held in the Department of Anaesthesiology & Intensive Care, HCTM, and was attended by 70 live attendees. Participants were treated to a live-streamed demonstration of UGRA by Dr Shahridan Mohd Fathil, Dr Afiq Syahmi, Dr Khairul Izam and Dr Siew Gee Ho on patients undergoing elective surgery in HCTM. This was followed by a lecture by Dr Chan Weng Ken on "Virtual and Augmented Reality in Regional Anaesthesia", which covered

the integration and application of various technologies in RA practice to improve patient care, comfort, and practitioners' training. The lecture ended with an invitation to all attendees to participate in a randomized study which was incorporated into day two of the workshop. Thereafter, participants were again dispersed into their respective groups for the rest of the day's programme. In addition to more ultrasound scanning stations on simulated patients, participants were





also able to hone their hand-eye coordination and needling technique on the various phantom models and simulators available under the keen guidance and supervision of the workshop facilitators. Day two of our workshop ended with an interactive session which allowed open discussion and exchange of feedback between facilitators and participants.

Overall, AURA 2023 was a great success, with overwhelmingly positive feedback received from participants and facilitators alike. We hope that the knowledge and skills gained will benefit participants in their clinical practice and improve patient care, in addition to acting as a stepping stone to pursue further advancement in the field of UGRA. Finally, we thank all those who made AURA 2023 possible; participants, members of the organising committee, support staff and industry partners, all of whom played a part in making our workshop a resounding success.

Hope to see you all at AURA 2024!



The College of Anaesthesiologists of Ireland accreditation visit to the Ministry of Health Hospitals

by Dr Hasmizy Muhammad

Sarawak Heart Centre, Sarawak, Malaysia



Dr Angeli Quah Aun Chyi, from the Department of Anaesthesiology and Intensive Care, Hospital Sungai Buloh, Selangor, received the accreditation plaque from Dr Brian O'Brien

On 28th April 2023, the Vice President, Dr Brian O'Brien, and the CEO, Mr Martin McCormack, of the College of Anaesthesiologists of Ireland (CAI), visited Malaysia for a six-day scouting mission to five Ministry of Health hospitals. Their visit was aimed to assess these hospitals before awarding accreditation status for the parallel pathway anaesthesia specialist training. They also paid a courtesy visit to the Deputy Director-General of Health (Medical) to discuss issues and update the FCAI parallel pathway programme.



Datin Dr Tan Li Kuan, the Sabah state anaesthesiologist, received the accreditation plaque from Dr Brian O'Brien



Dato' Dr Norly Ismail, Head of the Department of Anaesthesiology and Intensive Care, Hospital Serdang, Selangor, receiving accreditation status from Dr Brian O'Brien

The first hospital visit was to Hospital Queen Elizabeth, Kota Kinabalu, Sabah. The CAI representatives travelled from Kuala Lumpur on Sunday, 29th April 2023. They were picked up at noon at Kota Kinabalu International Airport and brought directly to the hospital. There, they were greeted by Datin Dr Tan Li Kuan, Sabah State Head of Anaesthesiology and Intensive Care Services, Dr Shazharn Muhammad Zain, the Head of the Department, and staff from the Department of Anaesthesiology and Intensive Care. The CAI studied the case mix, visited several facilities, and discussed arising issues. Later, they adjourned to their accommodation, Shangri-La Hotel, Tanjung Aru. In the evening, the Sabah team hosted dinner at Kampung

Nelayan Seafood Restaurant, where they were also enjoyed ethnic Sabah dance performances.

The next day, the CAI team travelled back to Kuala Lumpur and went to Hospital Tengku Ampuan Afzan, Klang, Selangor. They were greeted by the President of the College of Anaesthesiologists of Malaysia, Professor Dr Marzida Mansor, and the Head of the Department of Anaesthesiology and Intensive Care, Dr Mohd Rohisham Zainal Abidin, and his staff. The CAI again assessed the suitability of this hospital and especially the department for complete parallel pathway anaesthesia specialist training. In the afternoon, the group went to stay at the Mandarin Oriental Hotel to relax and rest.

There was no activity for them on 1st May 2023 since it was a public holiday. The CAI continued their visit to the third hospital, Hospital Serdang on 2nd May 2023. Dr Zalina Abd Razak, Head of Service, Anaesthesiology and Intensive Care, Ministry of Health, Dato' Dr Yong Chow Yen, a representative from the College of Anaesthesiologists (CoA), and Dr Hasmizy Muhammad, Head of Parallel Pathway, Anaesthesia Specialist Training, Ministry of Health accompanied them. They were welcomed by Dato' Dr Norly Ismail, Head of the Department of Anaesthesiology and Intensive Care, and a presentation from the specialist in charge of the parallel pathway programme followed this. Later, the team visited the operating theatres and



Dr Brian O'Brien (left) and Mr Martin McCormack (right) are enjoying a seafood dinner at the Kampung Nelayan Seafood Restaurant



Dr Brian O'Brien and Mr Martin McCormack are trying their hand with Sabah's dance performance

intensive care unit. In the afternoon, they went to Block E1, Complex E, Putrajaya, to meet the Deputy Director-General of Health (Medical), Datuk Dr Asmayani Khalib, and her officers to discuss how the parallel pathway can be sustained and to discuss any arising problems in this programme.

In conjunction with this CAI visit to Malaysia, the CoA hosted a dinner at De.Wan 1958 by Chef Wan at The Linc Kuala Lumpur. Several past presidents of the CoA and the Head of Service for Anaesthesiology and Intensive Care, Ministry of Health, attended this dinner.



Dinner hosted by the College of Anaesthesiologists of Malaysia at De.Wan 1958 by Chef Wan at The Linc Kuala Lumpur

On 3rd May 2023, Dr Brian O'Brien and Mr Martin McCormack, together with Dato Dr Yong Chow Yen and Dr Hasmizy Muhammad, travelled more than 200 kilometres up north to Hospital Raja Perempuan Tuanku Bainun, Ipoh, Perak. They were received by Dr Anizah Yamin and Dr Wan Salwanis Wan Ismail, representatives from the Department of Anaesthesiology and Intensive Care, Ipoh, Perak. The team was shown the statistics of cases performed in the operating theatres and admissions to the ICU. Later, the team visited the facilities available, including the hospital's library.

The team visited Hospital Sungai Buloh, Selangor in the afternoon, the last hospital to be assessed. They were received by the Head of the Department of Anaesthesiology and Intensive Care, Dr Angeli Quah Aun Chyi, and her team. They had a briefing on the capabilities of the hospital and department for the parallel pathway programme, including the number of supervisors available. Per the previous hospital visit, the team visited the facilities, especially the ICU, Klang Valley's designated COVID-19 ICU.

Both the CAI and the CoA were happy with the performance and facilities available in all five hospitals, and they agreed to award accreditation status to these hospitals, which means that parallel pathway training can be done there completely, including the three-year competency training.



Professor Dr Marzida Mansor, Dr Mohd Rohisham, Dr Brian O'Brien, and Mr Martin McCormack at Hospital Tengku Ampuan Afzan, Klang, Selangor



The team visited the ICU of Hospital Raja Perempuan Tuanku Bainun, Ipoh, Perak



The College of Anaesthesiologists of Ireland, the College of Anaesthesiologists of Malaysia, and Head of Anaesthesiology and Intensive Care Services, MOH, meeting the Deputy Director-General of Health (Medical), Datuk Dr Asmayani Khalib, at Putrajaya



Dr Anizah from the Department of Anaesthesiology and Intensive Care, Hospital Raja Perempuan Tuanku Bainun, Ipoh, Perak, received the accreditation plaque from Dr Brian O'Brien

Neuroanaesthesia and Neurointensive Care Fellowship in England

by **Dr Samuel Tsan Ern Hung**

University Malaysia Sarawak, Sarawak, Malaysia

About a year ago, on 3rd August 2022, I set foot for the first time in St George's Hospital, London, UK. This was a significant moment for me as it meant fulfilling a lifelong dream: to work as a doctor in England. The reason I came to England was in order to complete my neuroanaesthesia and neurointensive care subspecialty training. Looking back over the past 11 months, it has been an amazing and rewarding journey.



Why England?

England is part of the United Kingdom, which has arguably been one of the most influential nations in the world over the past millennium. The impact of British innovation and culture on the world today can be seen in science, literature, sports, language, and many more areas. The opportunity to go to London, which has been described as the "world cultural capital", was too good to miss. On a more professional level, the UK has always been at the forefront of high-quality healthcare in the world. Much of how and what we practice today in medicine has its origins in the UK. In fact, the Malaysian healthcare system is modelled after the National Health Service in the UK, which is essentially a universal healthcare system where hospitals and clinics are government-owned and operated,

funded by taxpayer money. Hence, the opportunity to come to England to pursue a subspecialty fellowship became a dream come true.

The Journey to England

In order to get a fellowship post in England, I had to apply for a job and undergo a formal interview. Following my acceptance into the post, I had to clear my IELTS exam and apply for registration with the General Medical Council. The last hurdle prior to coming to the UK was obtaining a work visa. Needless to say, the whole process was time-consuming and costly. For me, I was determined to bring my family here. The planning to bring a family of 5 (with the youngest being 8 months old then) was not easy but, as we found out, was certainly doable. We arrived in London at the height of summer, when temperatures were upwards of 25°C and the days were longer, which allowed us to settle down more smoothly.

If we had arrived during winter when temperatures were closer to 0°C and it was mostly dark, I suspect we would have had more challenges settling into a new environment.

Working in England

I work in St George's Hospital, which belongs to the St George's University Hospitals NHS Foundation Trust. This trust is one of the largest healthcare providers in the UK. Catering to around 3 million people across southwest London, Surrey and Sussex, St George's Hospital is a regional specialist centre and a major trauma centre. Additionally, St George's Hospital is also the main teaching hospital for St George's University of London medical school. The advantage of working in such a big hospital is the opportunity to experience a diverse range of anaesthetic practices and to meet many anaesthetists in different subspecialties. This has vastly enriched my fellowship experience in the UK.



With regard to neuroanaesthesia fellowship training, the St George's Hospital Atkinson Morley Neurosurgical Unit is among the foremost UK centre for both adult and paediatric neurosurgery. I was surprised to find out that the Atkinson Morley Hospital was the site of the first use of computed tomography (CT) scan on a live human being in 1971. Being in such a historical place certainly filled me with awe. Over the past 11 months or so, I have had the opportunity to be exposed to a wide variety of neurosurgical cases including neuro-oncology, neurovascular, functional neurosurgery, paediatric neurosurgery, complex spine procedures, and neurotrauma. As I progressed, I had been given more and more independence to run solo lists, which has made me grow further as a neuroanaesthetist. In addition to neurosurgical cases, I also had the opportunity to manage a wide variety of interventional neuroradiology cases. St George's Hospital in 2016 became the first hospital in the UK to offer 24/7 mechanical thrombectomy service for management of acute stroke. As a result, the caseload was high indeed, which was optimal for fellowship training.

As part of my neurointensive care fellowship training, I had the opportunity to work fully in the neurointensive care unit for 3 months from February to April 2023. This experience allowed me to observe how high-quality neurointensive care is carried out in a first-world country. The exposure to a wide variety of critically ill neurosurgical and neurology patients improved my knowledge, skills, and experience further in managing these cases. Importantly, I was able to see how the process of organ donation is carried out in a developed nation, something which will definitely be useful when I go back to Malaysia.



As part of the workforce in the anaesthetic department, I participated in the on-call rosters. On-call shifts here in the UK are 12 hours shifts, sometimes for a stretch of 4 days. As a senior registrar on call, I helped to provide anaesthetic cover for the whole hospital. Of note, I was mightily impressed at how cardiac arrest and major trauma scenarios in the hospital were handled; every team member was well-trained, and resuscitation measures were carried out smoothly like clockwork.

Being an avid researcher, my time here had given me the opportunity to meet some of the biggest names in anaesthesia research. I was able to collaborate with the neuroanaesthetic consultants here to initiate a clinical audit on the incidence and management of post-craniotomy pain. This project was a success, culminating in a poster presentation during the Neuro Anaesthesia and Critical Care Society Annual Scientific Meeting 2023 in Nottingham. I was also able to publish an editorial with the esteemed Dr Judith Dinsmore in the Journal of Neurosurgical Anaesthesiology which, although required hard work, was ultimately



rewarding in the end. At the moment, I continue to be involved in a few other research projects with various experts. This exposure to research in the UK has made me grow as a researcher, and allowed me to broaden my network for future collaborations.

As a medical lecturer at the University of Malaysia Sarawak, it is my calling to be an educator. To this end, I was able to contribute to teaching medical students at St George's University of London. I also underwent training to become a facilitator for simulation teaching and

became a facilitator in a few simulation training sessions for junior medical officers and medical students. This was beneficial to me as I believed that simulation teaching has a large role to play not just in anaesthesiology education but in medicine as a whole. In short, being a fellow here in the UK has given me so many opportunities to advance professionally not just in the field of neuroanaesthesiology and neurointensive care, but also in research and medical education.

Living in England

Settling into life here in the UK brought its own challenges. With a family of 5, we all had to adapt as best as we could. Thankfully we were able to rent a flat on the first day we set foot in London, albeit with the requirement to pay upfront 6 months' rent, which was no small matter

when the rent was £1,275 per month. However, with a proper roof over our heads, we could call London home. Our settling in was made easier when we got our car, which also occurred within the first week of our arrival in the UK. I cannot emphasize enough how rewarding it was to get a car, because with it we literally went to all corners of the UK. To date, I had driven about 11,000 miles over the past 11 months. We loved the English countryside, so driving out of London became a weekly family event.

Coming from a warm climate country like Malaysia, adjusting to life during the winter months in the UK was not easy. During the winter months, temperatures often dipped below 0°C. The only way we could survive the cold was to wear layers of clothing, and even then, it felt cold. We only had one proper day of snow, which the children greatly enjoyed, making out-of-shape snowmen and having snowball fights. During winter, there were only about 7 hours of daylight, which combined with the cold, sometimes made us feel quite miserable. The weekly occurrences of flu

during the winter months did not make things easier. In contrast, the spring and summer months were great. The hours of daylight increased, and temperatures climbed. One could literally feel the sense of newness and life in the air. Beautiful flowers were blooming everywhere, making a very pretty view.

Conclusion

In conclusion, my fellowship experience in the UK has been really rewarding. Exposure to a different health system, with a different way of doing things, allowed me to broaden my horizon in anaesthesia. The amount of caseload in terms of neuroanaesthesia and neurointensive care has allowed me to become a more knowledgeable and skilled neuroanaesthetist and neurointensivist. Having experienced a different way of life and culture in the UK, my family and I were able to grow in many ways. Overall, I would not change anything about this fellowship, and will most certainly encourage those who have this opportunity to grab hold of it!



SIMULATION TRAINING IN ANAESTHESIA WORKSHOP

From our Facilitators' Perspective

by Dr Ronny Ikmal bin Ahmad Kamil

Clinical Specialist, Universiti Malaya Medical Centre, Kuala Lumpur, Malaysia

As one of the facilitators in a two-day workshop on Simulation Training In Anaesthesia Workshop, I feel honoured to share our experience and the outcome of the above-said training programme. This workshop was held on 25th and 26th February 2023 at Hospital Shah Alam, Selangor. The workshop aimed to train trainers to set up and conduct simulation scenarios that are as realistic as possible, as well as equip them with the necessary skills to conduct simulation exercises effectively. A series of lectures were held in the morning session, delivered by our esteemed Professors from the Universiti Malaya i.e. Professor Dr Rafidah Atan, Professor Dr Nor'azim Mohd Yunos, and Associate Professor Dr Noorjahan Haneem Md

Hashim. This was followed by the hands-on crisis-simulated scenarios which were conducted on both days, with Day 1 focusing on a group of 11 clinical specialists while Day 2 was crisis simulation scenarios focusing on medical officers.

On the first day of the workshop, we focused on training the trainers with an emphasis on non-technical skills such as communication skills, facilitation points, and debriefing skills. To help trainers understand the pressure that participants feel during simulations, we immersed them in the scenarios. We also covered various aspects of simulation training and scenario setup, including setting clear objectives for each

simulation exercise and creating realistic scenarios that mimic real-life situations. We designed scenarios that challenged participants to think critically, make quick decisions, and manage unexpected events. We also emphasized the importance of considering participant feedback when refining scenarios to improve learning outcomes.

One of the key objectives of the workshop was to demonstrate that even with low-fidelity mannequins, clinical crisis simulation in anaesthesia can still be done effectively. We highlighted that the most important aspect of simulation is the briefing and debriefing part, which positively correlates with improved



learning outcomes. We trained the trainers on how to debrief effectively, including identifying key learning points, analyzing team dynamics, and providing constructive feedback. Hands-on practice demonstrated how debriefing can reinforce learning and promote continuous improvement. We highlighted the importance of creating a safe and open environment for participants to reflect and learn, and emphasized the 'no-blame, no-shame' technique regardless of mistakes made. This encouraged productive conversations that helped to improve learning outcomes. We hoped the workshop instilled good communication behaviours, making participants more empathic, non-judgmental, and reasonable in their daily lives.



On the second day of the workshop, we focussed on crisis simulation for medical officers. The drills helped participants to better understand the importance of crisis management and how to handle difficult situations effectively. We emphasized that crisis management cannot just be learned when a crisis occurs in reality, therefore making crisis simulation of utmost importance. The importance of having a team leader and role clarity of other responders were also highlighted. Focussing on the good behaviours that participants demonstrated, we highlighted what aspects they could have improved on, rather than immediately pointing out the mistakes made. This way, they felt safe to share and communicate while experiencing a good learning experience.

Overall, the clinical simulation workshop in anaesthesia was a success. The feedback from participants was excellent, and we hope that clinical simulation can complement and enhance learning experiences in

anaesthesia. We extend our gratitude to the organizers for inviting us to facilitate this workshop and look forward to participating in future events. We take this opportunity to also promote the Malaysian Society for Simulation in Healthcare (MaSSH) to those with particular interests and passion for teaching with simulation.

Special thanks to the organising committee led by Dr Sharifah Nor Binti Mohd Salleh and her team from Hospital Shah Alam as follows:

- 1) Dr Hafizah Binti Md Noor
- 2) Dr Afidzah Binti Othman
- 3) Dr Aisyah Binti Mohammad Noor
- 4) Dr Ahmad Nazrin Bin Ahmad Rafidzi
- 5) Dr Ahmad Khairulrauf Bin Ahmad Razid
- 6) Dr Goh Ling Hui
- 7) Dr Nurul Duhayati Binti Othman
- 8) Sister Rajakumari A/P Asokkumar
- 9) MA Nik Mohd Badrul Hilmi Bin Nik Mahmood
- 10) SN Noorhatifah Binti Mohammad Isa



ORGANISED BY:

 IN COLLABORATION WITH:

SIMULATION TRAINING IN ANAESTHESIA WORKSHOP

DATE 25-26th FEBRUARY 2023
 Day 1 (Sat 25th): Training of Trainers Workshop
 Day 2 (Sun 26th): Simulation for Crisis Workshop

VENUE HOSPITAL SHAH ALAM
 Lectures in Smart Room, Level 6
 Simulation in General Operating Theatre

FEES RM 200 For Specialist (Day 1 and 2)
 RM 100 For Medical Officer (Day 2 only)

*Registration deadline: 13th February 2023

For registration, kindly contact:
 0192085630 (DR NAZRIN)
 0145002963 (DR AMALINA)

Facilitators:
 Prof Dr Rafidah Atan (UM)
 Dr Ronny Ihsal Ahmad Kamil (UMAC)
 Asst Prof Dr Noorjahan Haneez Md Hashim (UM)
 Prof Dr Nor Azlin Mohd Yunus (UM)

TENTATIVE PROGRAMME

25th Saturday DAY 1 TRAINING OF TRAINERS WORKSHOP @ General OT	25th Saturday DAY 2 SIMULATION FOR CRISIS WORKSHOP @ Smart Room Level 6
0745H Registration and breakfast	0730H Registration
0820H Welcome address	0800H Welcome address
0830H Ice breaking session	0830H Talk on Crisis Management Principles
0900H Integrating simulation into institution training programme	0930H Breakfast @ General OT
1000H Structuring simulation activities for success	1000H Ice breaking session
1045H Debriefing session	1015H Station 1 and debriefing
1115H In-simulation debriefing for novice learners	1115H Break and log time
1145H Scenario design	1130H Station 2 and debriefing
1300H Lunch break and prayer	1230H Lunch break and prayer
1400H Simulation experience for facilitators	1400H Station 3 and debriefing
1500H Scenario programming - practical	1500H Coffee break
1630H Q&A	1530H Station 4 and debriefing
	1630H Closing ceremony

*Topics and timings are subject to change

SCAN TO REGISTER:

Anaesthesia with **MATES AND NO WORRIES**

by Dr Shahir Hamid Mohamed Akbar

The Queen Elizabeth II Jubilee Hospital, Queensland, Australia



Whitehaven Beach

How best to describe working as an anaesthetist in Australia? I shall attempt to paint a picture as I personally see it. The country is known for its vast landscape, one of the oldest human races, and a myriad of unusual marsupials, snakes and spiders, all co-existing in a modern and developed society. The spirit of friendliness, mateship, good humour and optimism exists in the community and the workplace. This is one of the important discriminators compared to the other places where I have worked as a doctor and anaesthetist.

My path into Australia began in a vein that many readers would appreciate. The Malaysian education system and the Ministry of Health trained me into a doctor. For some unfathomable reason, I joined the ANZCA programme when overseas candidates from Malaysia, Singapore and Hong Kong could join ANZCA. This is no longer possible under the new College training system, so it may have been pre-ordained. Upon completing my anaesthesia training with Universiti Kebangsaan Malaysia (UKM), I was settling into life being a fledgling specialist in Kuantan, Pahang. ANZCA began calling to see if I still wanted to finish the qualifications as I had been tracking quite well all along and then suddenly dropped off. I had to make a

big decision at that time, as continuing ANZCA meant big changes to myself, my family unit and my career. With much deliberation, trepidation but armed with advice from mentors, teachers, friends and family, I decided to take this leap of faith and took up the challenge to complete the ANZCA training.

My first port of call was in Singapore where I worked with Jurong Health, initially at the historic Alexandra Hospital and then with greenfield Ng Teng Fong Hospital. My year in Singapore was interesting and while the clinical work and patients were similar to Malaysia, I did experience memorable moments. The setting up of a new department and hospital was a definite highlight and many fond memories were made. My career in Singapore, like the nation itself (and I mean no offence when I say this), was always a transit point towards completing my ANZCA. I left for Perth exactly twelve months later to complete the final and fifth year of ANZCA training. There were highs and lows during this time as I struggled to prepare for the exit exams and spent much time away from the family. Apart from clinical work, I had to acclimate to new faces and places, new systems, and different patient populations. After a few years of being a pure clinician, it was also

challenging having to sit and read for fellowship exams again. Fortunately, my ANZCA training story had a sweet ending and I finally managed to get through the exams and complete the training programme in Perth.

The next big decision was whether to stay in Australia or return to Malaysia. There were a lot of conflicting emotions at this time. Thoughts of being away from my parents, siblings, extended family and the intrinsic guilt that I was not using my skills and training for the betterment of my homeland and its people were constantly in my mind. After much rationalisation, we decided to stay in Australia but, alas, another life-changing moment ensued.

I was tasked to move to the other end of the continent to a place in Queensland called Mackay. Mackay is a town with roughly 100,000 people and is set



Mad Max

amongst a tropical background with miles of sugar cane plantations and warm weather all year around. This would be a small town in most places, but Mackay is a bustling township in coastal Queensland. This is where I built most of my Australian consultant practice in both public and private practice. Australian workforce laws give staff autonomy and flexibility around working arrangements (within reason of course), which is unique, encouraged and enjoyed by most employer / employee relationships. Otherwise, Mackay is peaceful, with wide open spaces under great blue skies. I had the opportunity to live near the Great Barrier Reef just off the coastline and the Whitsundays Islands with the world-famous Whitehaven Beach. The turquoise waters swirling around the silica-heavy snow-white sandy beaches typical of this island were a wonder of nature. The years that I spent in Mackay went by very easily and happily.



At the cricket with kids

Brisbane life is amazing with the city regularly appearing on the "Top Places To Live In" list. With a population of around 2.5 million, it provides a nice balance of modern city experiences and at the same time, maintains a laid-back Queensland (QLD) charm. My work life is divided into two public hospitals under the QLD state government's health unit. At STARS (Surgical Treatment and Rehabilitation Services), we are an ultra-modern hospital with all the latest gadgets and specialist-led clinical services. The Queen Elizabeth II Jubilee Hospital, which is towards the south, is an older, more well-established hospital with a loyal catchment area and caters to the

needs of the city's south. Apart from clinical work, I have been able to develop other professional roles in anaesthesia. I also still dabble in the occasional private hospital work around Brisbane. During my years here, I was able to undertake a Monash University Perioperative Medicine Master's degree and become one of the perioperative leads in the hospital. Education and learning methodology has always interested me. ANZCA provided an educators programme that enabled me to participate further in anaesthesia teaching with the ANZCA and the University of Queensland as a senior lecturer. I currently participate in undergraduate and postgraduate training, MBBS examinations, ANZCA examinations, and assessing the College's specialist international medical graduates (SIMG) pathway. These non-clinical activities provide a break from the routine clinical work and a sense of satisfaction that I am participating in the progress of anaesthesia and medical education here in Australia.

Having lived and worked in three countries, I shall attempt to describe what I find unique about Australia. Not necessarily good or bad, but just unique. I can categorise this into work, life and family. The following discussion is by no means an exhaustive one and purely

reflects my personal opinion on them. In the interest of space, I will only highlight certain things I felt worthy of mention.

Employment in Australia as an anaesthetist in a public or government hospital begins with an application process. The jobs are advertised on various channels, including head-hunting employment companies. The hospital or health system then shortlists and interviews applicants. The successful candidate is then provided with a contract and employed directly by the hospital. The anaesthetist is free to choose which government hospital he wants to work in and is responsible personally for his own employment. Even though there is a federal Department of Health in Canberra, the various states in Australia have their own health ministry with a lot of autonomy and jurisdiction. They have their own health policies, different work rules, and even different staff salaries. A government doctor in WA may get a higher salary than one in NSW! Government doctors are deemed responsible enough not to have a timecard to record hours worked, which was a nice change because my memory of working in the Ministry of Health Malaysia was always having to use the "punch card" in front of the clock.



A foggy day at STARS

As mentioned briefly before, partial/flexible work arrangements are encouraged. It would be quite common to have someone who works both private and public anaesthesia within a department. The remuneration in private practice is, of course, higher but lacks some of the perks of public service such as access to recreation leave, sick leave, study leave and long service leave. The medical indemnity costs of private practice are also significant and could be anywhere from 10% to 20% of earnings depending on personal circumstances. These flexible work arrangements in public hospitals allow some doctors with varying experience, age and special interests to continue working together, giving a good balance of clinical, financial, teaching or research opportunities. In addition to this, public hospitals also offer locum contracts to doctors to fill gaps in the roster, and doctors from anywhere in the world (albeit accredited and registered with the medical board) are eligible to do locums. These locum roles pay generously and come with perks such as free travel, accommodation and a vehicle for personal use.

The Australian private billing system is excellent with anaesthetists able to bill as specialist clinicians and is entirely separate from the surgeon's bill. The private anaesthetist generates the bill for the anaesthesia depending on the patient's ASA classification, duration, type of surgery and clinical interventions, e.g. arterial line, central line, regional nerve blocks, etc. There have been instances where my anaesthetic bill was higher than what the surgeon charged. We are remunerated directly by the patient or their health insurance coverage. Private health insurance in Australia is complex and there are ongoing issues with insurance companies not covering remuneration sufficiently, so much so that some patients have to pay cash directly to private hospitals and doctors despite the expensive premiums to the insurance companies (called gap payments). The government may also contribute some or all payments to private hospitals to decrease the public hospital burden. This happened a lot



especially during COVID when public hospital waiting lists for surgery were very long, and many cases were distributed to private surgeons and hospitals to decrease surgical waiting times.

This system of transferring patient care to other hospitals is quite well established. Within the public system, many hospitals are specialised so that necessary resources are focused on that particular service. For example, in Brisbane, not all hospitals provide all specialities. Patients must travel or be referred to a certain hospital for that healthcare. The government pays for the transfer of these patients including travel and hotel allowance, if needed. I experienced this first-hand from a patient-family perspective when in Mackay. Huzair, my second son was born preterm at 29 weeks. The Mackay Hospital was only accredited for neonatal care from 32 weeks, necessitating an in-utero transfer to our nearest referral hospital in Townsville, which was nearly 400km north. The government flew everyone

over and once baby Huzair was 36 weeks they flew him back to the Mackay hospital for continuity of neonatal care.

Speciality hospitals are not exclusive to neurosurgery or cardiac surgery but even basic specialities like obstetrics and paediatrics. At STARS hospital, for example, there is no emergency department, obstetrics, or paediatrics; it is a purely elective surgical hospital. This system allows hospitals to have a "core business" and become very efficient in their narrow service scope. They get all the appropriate equipment, experienced staff, have a volume of practice and allows cost savings through the economics of scale. For clinicians, it does mean that we may lose certain generalised skills. Clinicians must maintain their clinical work across various hospitals if they desire to maintain that skill.

The culture of research and audit is prevalent in most departments. Senior and junior clinicians are constantly involved in quality improvement activities. The results of these QIPs are frequently used to change healthcare protocols and policies at the department, hospital and health system level to ensure the best care is provided. For specialists, it is a requirement for CPD mandated by ANZCA to have certain non-clinical activities. Specialist registration could be jeopardised if the College and AHPRA (regulatory body) CPD requirements are unmet. These



varied activities include emergency crisis simulation courses, conferences, teaching activities, attending M&Ms, etc. Junior doctors in the department constantly seek out audits and projects to get involved in as it helps them successfully enter a specialist training programme and is a requirement to progress in the training programme.

Most of the medical students in Australia are mature individuals and commonly enter medicine with a graduate qualification. Only a handful of universities teach medicine as an undergraduate course. Speciality training in a particular field of medicine varies by the speciality college, and there is no one national body controlling training. Training in surgical-based disciplines are the most competitive to secure. Some prospective candidates can only join 5 to 10 years after internship and some even do a PhD for this selection process. Anaesthesia is midground with most joining on average four years out of medical school. No universities provide anaesthesia or other speciality training; instead, Colleges have taken over postgraduate training roles.

Sustainability in medicine is quite prevalent in the Australian healthcare system. Most hospitals have "sustainability officers" who ensure environmentally friendly practices. Like in the community, the workplace is also fully equipped for recycling various materials, sometimes a value-added proposition to the institution. Hospitals focus a lot on pharmacological storage and disposal, and there is massive awareness of the harm these dangerous anaesthetic drugs can cause to people and the environment.

The well-being of the staff from physical and mental hazards is safeguarded religiously in the hospital system. There is easy access to psychological help both internally and even by external companies contracted by the health system. Physical or verbal threats to staff are not tolerated and clear processes exist to manage these situations. Hospitals take the risk of fire hazards and events very seriously. Every employee has to undertake regular fire evacuation

training and there are a multitude of active and passive fire safety systems in each hospital area.

As far as life and family are concerned, Australia is a welcoming and family-friendly location. There are a diverse range of people whom we interact with daily. Despite the troubled history of Australia's creation and past immigration policies, modern Australia is rapidly evolving to become a multicultural nation with cosmopolitan cities where diversity is appreciated and encouraged. I have always been free to practice my religion at the workplace and have access to prayer rooms and the flexible arrangements at work even allowed me to attend Friday prayers at the local mosque. My children are settling in quite nicely in local schools and experiencing a school culture totally different from my upbringing. The schools encourage the children to be adventurous and learn from experiences rather than rote learning. Weekends are leisurely with plenty of opportunities to explore the outdoors or develop various hobbies and recreational activities. Living as a small family means we have built stronger relationships as we live in isolation from other relatives back in Malaysia. There are occasions when the heart yearns to be close again to parents and extended families such as siblings, cousins, aunts and uncles, and these interactions are only limited to during holidays when we travel back to Malaysia. We struggled to accept this as it is difficult coming from a society where we are always filial and there is a natural desire to look after one's parents and elders in their golden age.

As I finish this narrative, the last thing I wanted to mention is that it never ceases to amaze me the amount of taxes a salaried person in Australia can pay. The top tax bracket, which will include government specialists, is 47%! No income source is spared as the banks and other financial institutions report directly to the tax office. Every bank account interest, stock market or land transaction that generates income for an individual is automatically recorded. On top of income tax, we also have a consumption tax in the form of GST

which is 10% currently! Every "tax time" will bring about a lot of stress as a mistake in tax returns can be very costly indeed. The Australian Tax Office (LHDN equivalent) sends a detailed breakdown after tax season as to what our tax dollar is being spent on which is nice as it brings some closure to see where our hard-earned money is going. Unsurprisingly a big fraction goes towards welfare and health expenditure of the nation. The social service support network is expensive and is funded completely by taxpayers but ensures that every resident is protected financially with pensions in the event of illness or old age.

Looking back at my time working and living in Australia, I have had huge personal development and have experienced moments that could not have been provided elsewhere. There are great instances of work and life balance to be had. I recommend it to anyone to travel outside Malaysia for work to experience a different work culture and to grow and nurture ideas, talents and skills you may have never realised you had. It does mean having to make sacrifices and requires full commitment not only from yourself but from your family as well. Ultimately, the road travelled will be worth it. As far as Australia is concerned, it's no worries, mate!



META-ANALYSIS OF PROPOFOL AND SURVIVAL

A quest on propofol's survival

by Dr Kean Seng Cheah

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Introduction

Propofol has been widely used as a hypnotic agent since its approval in 1989. The features of rapid onset and recovery, short duration of action, rapid elimination and antiemetic effects make propofol an ideal agent for induction, maintenance of anaesthesia (TIVA) and sedation. Due to concerns about potential tumorigenesis and environmental sustainability in volatile agents, propofol has become more important than ever; however, a recently published meta-analysis suggests the opposite.

This meta-analysis of randomised clinical trials (252 RCT) by Kotani *et al.* compares the outcomes of patients who received propofol vs comparator (volatile/intravenous / miscellaneous) in surgical and intensive care settings¹. This study found that mortality was higher in the propofol group than in the comparator group (760/14,754 [5.2%] vs 682/16,003 [4.3%]; RR=1.10; 95% CI, 1.01–1.20; p=0.03; I²=0%; NNH=235).¹ The statistically significant mortality in the propofol group was also observed in cardiac surgery, surgical settings, adults, volatile agents as a comparator and major studies ≥500 patients.

Is this the end for propofol?

We need to appraise this study very carefully. This meta-analysis includes

both surgical and ICU populations. propofol's administration method differs widely between OT (rapid and bolus) and ICU (infusion). To associate two very different techniques of propofol (bolus vs infusion) to similar effects/outcomes is neither ideal nor possible. Statistically significant mortality was only seen in the cardiac subgroup, the lowest number among all (N=47, RR 1.46, CI 1.13 - 1.89, P 0.004) in the meta-analysis. No significant differences were observed in the non-cardiac subgroup (N=153, RR 1.08, CI 0.90-1.31, P 0.39) and in the ICU subgroup (N=52, 1.04 (0.93–1.16, P 0.50). TABLE 1.¹

From the forest plot in the cardiac subgroup, most studies were zero event studies and weight percentage; thus it did not contribute to the outcome of the meta-analysis. Most had a wide confidence interval (CI) that crossed the null effect line. Only the study by Likhvantsev stood up among the rest with a 61% weight, larger sample size in favour of the control arm with a narrow CI. The statistically significant higher mortality observed in large study groups (≥500 patients) was mainly due to the positive RCT by the Likhvantsev study. So could this be the primary driver of the overall result? FIG.S4 and FIG. S14.¹

It is also an endeavour to accept the longest follow-up duration (17 different

follow-up times) to recruit more studies and take "all-cause mortality" as the endpoint. Although different mortality time points have been accepted for use in critical care trials,² can this also apply to surgical patients?

The explanation of the findings by the authors are theoretically correct but not indisputable. The authors mentioned the 'propofol infusion syndrome' (PIS). The incidence of PIS is reported to be 1.1% annually;³ the actual figure is likely to be higher than this but under-represented due to high awareness and early cessation on suspicion of PIS. PIS is also commonly seen in the ICU population and is less likely in surgical patients.

Regarding infection outbreaks, propofol is prone to contamination due to its lipophilic nature that promotes bacterial growth at room temperature. From 1989-2014, about 20 propofol related infections were reported, with an estimated mortality of 9.3%.⁴ The outbreak risk has been reduced recently due to sterile techniques and protocols. Both mechanisms proposed by authors are noteworthy, but the relatively low incidence from reports suggests it to be less likely the cause.

The authors also mentioned propofol-related hypotension, which is

Table 1: Effect of propofol on mortality in the overall population and subgroups

	No. of studies	Propofol	Control	Risk ratio (95% CI)	P value	I ² (%)
Overall population	252	760/14,754 (5.2%)	682/16,003 (4.3%)	1.10 (1.01–1.20)	0.03	0
Subgroup analyses						
Cardiac surgery vs. non-cardiac surgery vs. intensive care unit						
Surgical	200	294/11,617 (2.5%)	241/12,650 (1.9%)	1.21 (1.04–1.41)	0.01	0
Cardiac surgery	47	118/2,591 (4.6%)	83/2,927 (2.8%)	1.46 (1.13–1.89)	0.004	0
Non-cardiac surgery	153	176/9,026 (1.9%)	158/9,723 (1.6%)	1.09 (0.90–1.31)	0.39	0
Intensive care unit	52	466/3,137 (15%)	441/3,353 (13%)	1.04 (0.93–1.16)	0.50	0
Adult vs. pediatric ⁵						
Adult	235	690/14,044 (4.9%)	628/15,312 (4.1%)	1.10 (1.00–1.21)	0.04	0
Pediatric	17	70/710 (9.9%)	54/691 (7.8%)	1.12 (0.83–1.52)	0.46	24

more common than the former. Many would agree, but a more relevant question: Is the root cause due to 'the propofol' or 'the dose of propofol'? Propofol-related hypotension is dose-dependent and results in reduced SVR and myocardial depression. The physiological changes are usually well tolerated by healthy individuals except for the cardiac and elderly population. According to the manufacturer, the latter should receive a lower-than-usual dose (1-1.5mg/kg) for induction. However, an analysis by Adam T Phillips found that the median dose of propofol given to elderly patients (>80 years old) is often greater than the recommended dose.⁵ The same report also found that the mortality was associated with risk of

procedure and patient characteristics rather than propofol itself. The report stated no obvious reason why propofol was commonly administered at higher doses. However, it could be due to the intention to avoid light anaesthesia, but this will indirectly cause perioperative hypotension and mortality in those at risk. Hopefully, with the increasing popularity of pEEG monitoring in anaesthesia, we can see a different result soon.

Higher survival rates with volatile agents in the cardiac subgroup were likely due to its ischaemic preconditioning and organ protection effects, which are absent in propofol. Ischaemic preconditioning is a cellular and

bimolecular phenomenon that enables tissues to withstand major adverse events if exposed to an initial minor insult. It was first described in 1986, and later in 1997, Kersten and colleagues discovered preconditioning effects of volatile agents in animal models.⁶ Evidence has supported the benefits of anaesthetic preconditioning by volatile agents in cardiac surgery.⁷

A more meaningful conclusion can be extracted if we focus on specific populations in separate settings between the OT and ICU. A more definite outcome (incidence of delirium, vasopressor requirement, length of hospital stay, acute kidney injury), a fixed follow-up time, and looking at dose differences with outcome should also be considered in the future.

Conclusion

Has propofol's era come to an end? In my opinion? Far from it. We should consider changing to use volatile agents in cardiac surgery. This trial also serves as a lesson that we should look into ways to improve our usage of propofol, particularly those at risk (sepsis, critical and elderly), to use it diligently (with pEEG) and to minimise its harmful effects of hypotension.

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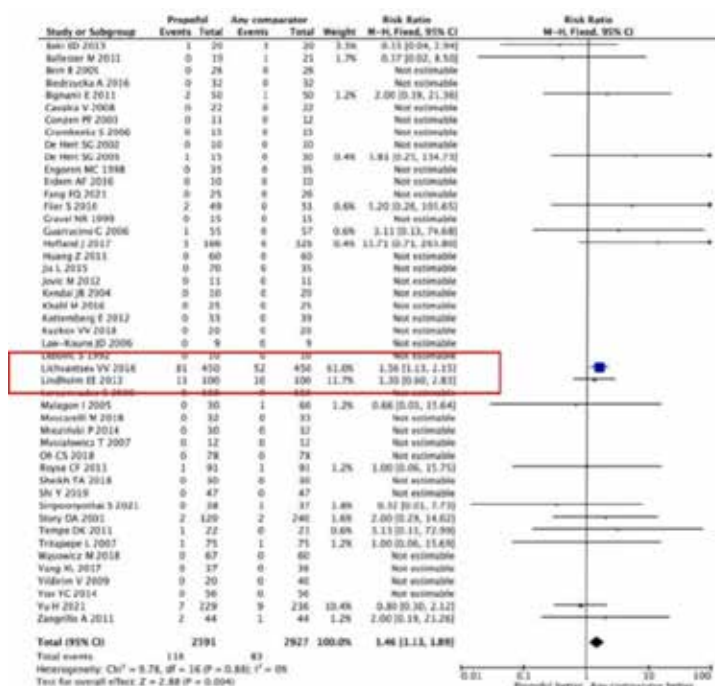


Figure S4: Forest plot for mortality in the cardiac surgery setting

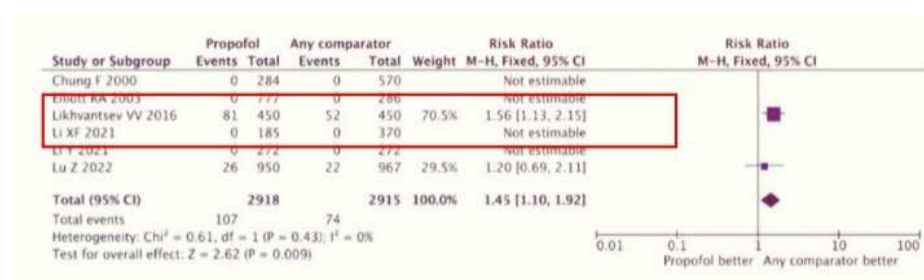


Figure S14: Forest plot for mortality in large studies enrolling ≥500 patients

Revisiting School Science Project A CRIC SIMULATION MODEL

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**“When there’s a CICO in the neighbourhood, who are you going to call?”
ANAESTHETIST!**

The updated Difficult Airway Society (DAS) guidelines in 2015 prioritised oxygenation and emphasised the activation of Plan D in the event of “Can’t Intubate, Can’t Oxygenate” (CICO) scenario. A CICO situation arises when attempts to manage the airway by tracheal intubation, face-mask ventilation, and supraglottic airway device (SAD) have failed. Despite the increased awareness, the 4th National Audit Project of the Royal College of Anaesthetists and Difficult Airway Society (NAP 4) report highlighted that CICO situations have been poorly managed. As an anaesthetist, if I were to be put in a CICO situation at this instance, I am unsure of my readiness to handle the situation smoothly and perform the scalpel cricothyroidotomy confidently. But, nevertheless, that is what is expected of us as anaesthetists.

Airway management is the foundation of anaesthetic practice. It is paramount for anaesthetic trainees to gain enough experience to become an expert in airway management. It is helpful for them to receive additional training beyond their clinical experience, more so for rare events like CICO. On a daily basis, we get to practice and polish our skills for the management of Plan A, Plan B and Plan C following the recommendations by DAS guidelines. In fact, the equipment for these plans is made readily available at most centres

in Malaysia for us to familiarise ourselves and improve our clinical experience in handling these gadgets. Unfortunately, we cannot electively perform scalpel cricothyroidotomy on patients for the purpose of skill acquisition and practice with regard to surgical airways.

For any plan to work well in an emergency, the clinician should have been trained and the procedure should have been rehearsed regularly. In a teaching hospital with a high turnover of postgraduate trainees like in our centre, simulation-based training is one of the preferred methods for training our

trainees to perform rare procedural skills such as bougie-assisted scalpel cricothyroidotomy. During the 4th Universiti Malaya Medical Centre (UMMC) Airway Management Workshop, the UMMC Airway SIG FONA team used their creativity to invent a sustainable, cost-effective Cricothyroidotomy Simulation Model. With reference to the conventional cricothyroidotomy simulation model (Figure 1), we noticed that the consumable parts of the model were the neck skin and the airway. Certain conventional model even comes with spare neck skin and airway (Figure 2).



Figure 1: 3B Scientific The TruCric model



Figure 2: Ambu Cricothyrotomy Simulator

For the airway, we discovered a 3D Cric Trainer model by The Airway App which is free to download and 3D print from www.airwaycollaboration.org/3d-cric-trainer-1. The size of a 3D Cric Trainer model is 4.87cm (W) X 3.85cm (H) X 10cm (L) (Figure 3). The trachea diameter of this model can easily fit an endotracheal tube size 6.0. We chose Polylactic Acid (PLA) Plastic Plus material for printing because it offers heat, chemical, vibration and tensile resistance up to 50%, which will ensure the resilience of this airway model. Just like a school science project, the rest of the items used to form this model were made of recycled material and items that can be found in a stationery or Mr DIY shop. The list of items used to create our Cric Simulation model is as listed below:

- Recycled cardboard box cut into 20cm (L) X 15cm (W) to form the base of the model
- Dishwashing sponge measuring 10cm (L) X 7cm (W) X 3cm (H)



- 3D Cric Trainer model printed using PLA Plus material
- Cling wrap or wide pipe tape to form the cricothyroid membrane
- A4 size foam paper (cut into 3 pieces at the long side) to form the neck skin
- Velcro tape or sticky tac or thumb tacks
- Glove to form the dummy lung
- UHU glue
- Masking tape

The base of the model was formed using the recycled cardboard. The structure of the neck was formed by the dishwashing sponge with the 3D Cric Trainer model glued on top of the sponge (Figure 4a). The cricothyroid area on the 3D Cric Trainer model is a hollow area. Hence, we used a single layer cling wrap or pipe tape to cover the hollow area mimicking the cricothyroid membrane (Figure 4b). The neck structure was then covered by a foam paper which served as neck skin (Figure 4c). We used Velcro tape to attach the neck skin to the base in order to minimise the turnover time for the instructors to replace the neck skin at each transition during the workshop.

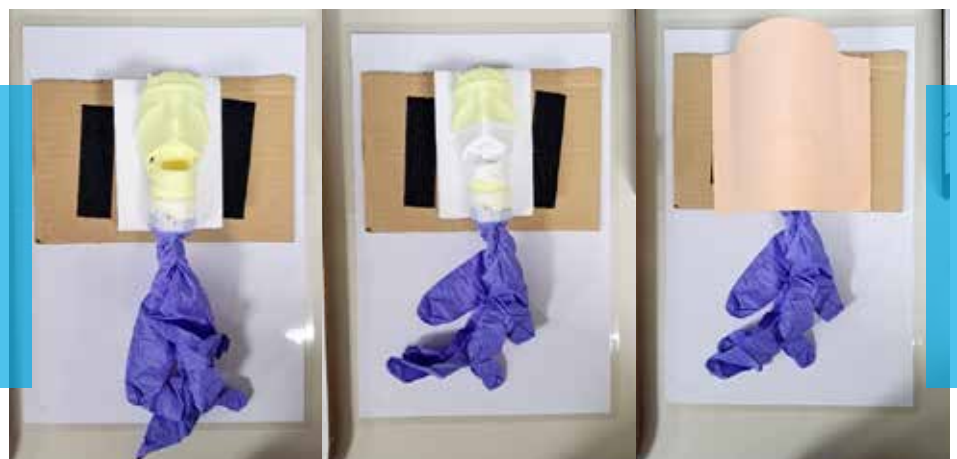
The total cost for a single unit of our model was RM 14.55. The consumable items for our model were the foam paper (neck skin) and cling wrap or pipe tape (cricothyroid membrane), which were replaced after single use. The cost for consumable items for single use was

RM 0.45. Compared to the conventional cricothyroidotomy simulation model which costs a minimum of RM 3,600 with the consumable items costing a minimum of RM 300, our model was definitely more cost-effective.

There were several advantages of this model which included lower costs, ease of assembly, and its portability. Most importantly, each operator will be able to get first-hand user experience. Moreover, the thickness of the foam paper can be altered to mimic an obese patient's neck to allow trainees to learn scalpel cricothyroidotomy where they would need to make a long vertical incision. This is a major advantage if this sort of emergency was to happen in real life during the first encounter.

One of the setbacks that we anticipated was that the whole structure might get detached during the training if extreme force was applied. Nevertheless, our models remained intact as one unit throughout the workshop and we were able to safekeep these models for future use.

To conclude, although one might not encounter this sentinel event throughout one's lifetime, this vital skill is a must for all anaesthetists. Hence it is important to educate and simulate the scenario for our current and future anaesthetists. Simulation models can be simple and cheap but still very effective. With our



airway model, trainees will experience hands-on and more effective learning,

ultimately leading to more confident and calm anaesthetists who will be able

to manage CICO situations better when the need arises.



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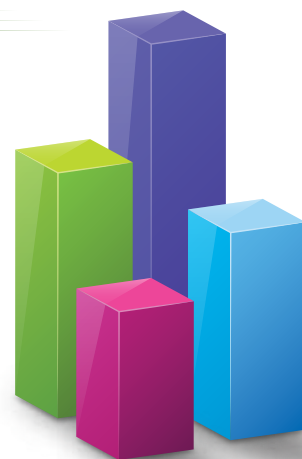
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Prehabilitation

SOLUTION FOR EARLY WARNING SIGNS FROM THE 7TH NATIONAL AUDIT PROJECT

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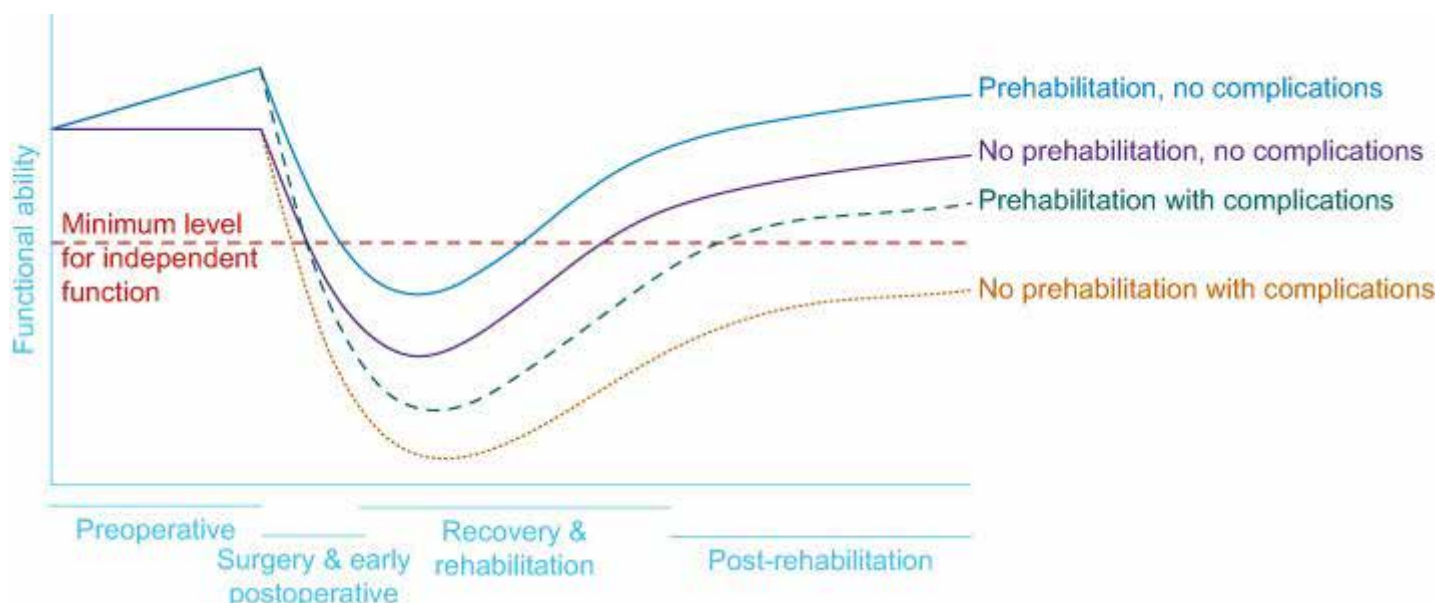
A recently published analysis from the National Audit Project (NAP) 7, particularly on patient characteristics, shows how our patients are rapidly changing in recent years. Compared to NAP 5 and 6, the proportion of ASA 1 patients dropped by about 13%.¹ Patients classified as ASA 2 and 3 increased by 5% and 6% respectively.¹ The median age of patients increased by two years.¹ There is a shift in mean body mass index (BMI) from the 'upper limit of normal' to 'overweight'.¹ Overall, patients who come for surgery are more 'complex, older and obese'. As a result, the risk of perioperative morbidity and mortality is higher. In the post-pandemic era, whether the rise in this trend is the direct consequence of lockdown protocols, work-from-home practices or social restrictions remains uncertain, but

what is certain is that it's an early warning sign of an increasing financial burden on hospital resources and complexities to the surgeon and his friendly anaesthetist.

In 1993, Kehlet *et al.* introduced the concept of enhanced recovery after surgery (ERAS) that later transformed anaesthesia and surgical care worldwide. Over the years, enough attention has been focused on intra and post-operative interventions supported by research (goal-directed fluid therapy, multimodal or regional analgesia and early mobilisation postoperatively). Every hospital started to design its own ERAS project with a written protocol. However, there is still a small gap along the patient's perioperative pathway which has been

overlooked until today, the 'prehabilitation' in the pre-operative phase. There goes a saying, "If there is rehabilitation, why isn't prehabilitation being discussed?"

Traditionally, a patient will be seen in a pre-assessment clinic after being referred by the surgeon. In the pre-assessment, patients will be risk stratified based on their medical background; decisions will be made if higher levels of care are needed post-op, blood results will be reviewed, and the airway assessed by the anaesthetist. The patient will be sent home and admitted on the day of surgery. Due to the increasing prevalence of complex patients for elective surgery, the availability of critical care backup is often limited and



Conceptual Illustration from BJA: Prehabilitation on functional capacity¹²

may not be met. In fact, the increase in waiting lists for patients not only represents an increase in absolute number but is more likely due to complex, obese and older patients. Looking at the alarming trend of patient characteristics from the NAP 7, there is no better time than NOW to find a way to incorporate prehabilitation in surgical patients.

Prehabilitation

Prehabilitation improves a patient's functional capacity before surgery to yield better outcomes. Similar to the concept of ERAS, we need to act early before the surgery to prepare our patients better. There is growing interest in prehabilitation as part of routine work-up alongside pre-assessment.

The time from decision to the day of surgery varies between different institutions and the nature of surgery itself. The average waiting, therefore, could vary from 2 weeks (for urgent cancer referrals) to 18 weeks (non-urgent referrals). Instead of 'sitting and waiting', this period should be effectively used as an opportune time to improve the patient's pre-operative status and prepare them to face the stress of surgery.

Components of prehabilitation

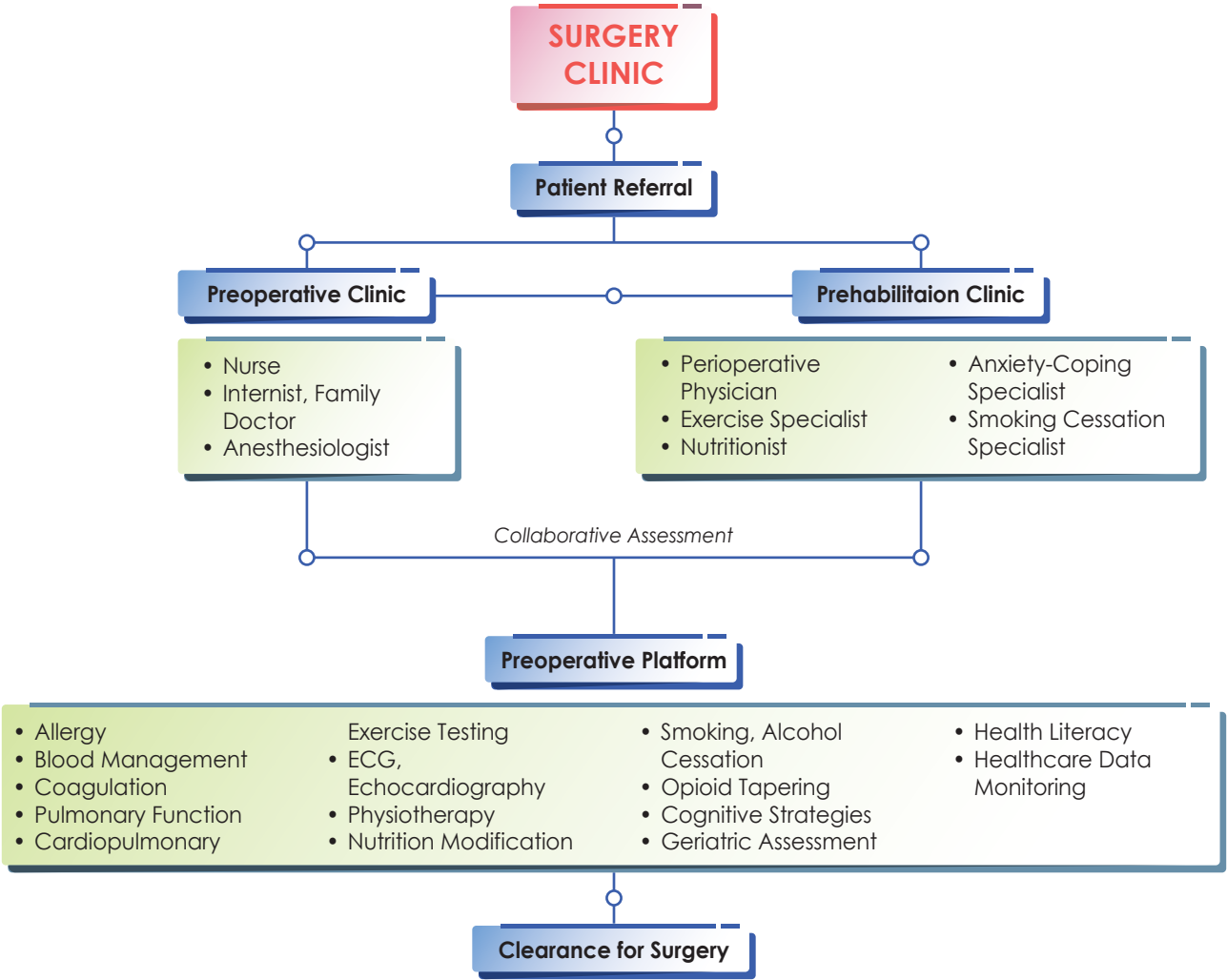
The four components of prehabilitation have been proposed and discussed in this BJA article:²

1. Medical
2. Physical

3. Nutritional
4. Psychological

Medical

Pharmacological optimisation of hypertension, diabetes, chronic obstructive pulmonary diseases and heart diseases (coronary heart disease, congestive heart failure) is traditionally the first point for every physician in pre-op optimisation. Smoking and alcohol cessation has long been recognised as beneficial (for wound infection / healing, cardiopulmonary, haemostasis and shortened hospital stay). Maintaining a normal weight is equally important, and optimisation depends on the patient's personalised target; either by reduction (obesity) or



The McGill Perioperative Program Model^{1,4}

weight gain (cancer, frail and malnourished patient).

Physical

The interest in cardiopulmonary exercise (CPET) has been growing recently for objective assessment of physical fitness. CPET has been recommended as a useful tool for risk assessment, guiding decisions on the level of post-op care, pre and rehabilitation programmes (Grade B recommendation). The ideal exercise regime has yet to be defined. The most common method to optimise personal fitness is measuring maximal heart rate (70-80%) or Borg scale (target range of 12-16). The Borg scale has an advantage as it correlates well with VO₂max, and the result is unaffected in patients taking beta-blockers. An economical, albeit subjective physical fitness assessment can be done by a 6 min walk test to assess how far a patient

can walk in 6 minutes as it allows comparison on a separate session in the future.

Nutritional

Poor nutrition is strongly associated with poorer outcomes. Metabolic demands of surgical stress and fasting contribute additional risks to those vulnerable (elder, cancer and malnourished of various causes). The primary goal of nutritional prehabilitation is to optimise metabolic stores to act as a buffer to overcome the metabolic demand of critical illness and surgery. Appropriate nutritional interventions have been shown to improve outcomes, particularly in GI and cancer surgery patients.³

Psychological

The stress and fear of going for surgery result in an immunological dysregulation

stage similar to the surgical stress response. Psychological distress like anxiety and depression is strongly associated with post-op complications, pain and slow wound healing. Psychological support helps promote a better understanding of the surgery, managing patient expectations and encouraging compliance. It also helps to reinforce behaviour modification (smoking and alcohol cessation) and encouraging a positive attitude towards surgery.

Evidence from literature

For the past 15 years, many studies have justified the introduction of prehabilitation into perioperative care, but the overall results have been equivocal at best. Some results favour intervention but with 'very low' to 'low' certainty of evidence: heterogeneity, small sample, and lack of standardisation of interventions / outcomes contribute to this uncertainty.

Summary selection of Prehabilitation trials published in recent years:

More trials can be found in the database and trial registry.

Authors	Study Method	Types of Surgery	Results	Limitation of Study and Comment by the Author
Jonathan Moran et al ⁴ (2016)	Systemic review & meta-analysis	Abdominal surgery	Inspiratory muscle, aerobic and resistance exercises reduce post-op complications.	Poor methodology
Chelsea Gillis et al ⁵ (2018)	Systemic review & meta-analysis	Colorectal surgery	Nutritional +/- exercise reduces the length of stay (LOS).	High risk of bias
Candida Fenton et al ⁶ (2021)	Pool analysis of RCT	Elective AAA repair	Moderate to high-intensity exercise has no certainty in reducing post-op complications.	Low-level certainty and risk of bias
Joel E Lambert et al ⁷ (2021)	Meta-analysis	Hepatobiliary, colorectal and upper GI cancer surgery	Reduce LOS, No difference 6-min-walk-test, post-op complications and mortality.	None
Chengyu Liu et al ⁸ (2022)	Systemic review & meta-analysis	Old surgical patients	Improved 6 min walk test at four weeks post-op. No difference in LOS, post-op complication & LOS.	None
Jain et al ⁹ (2023)	Systemic review & meta-analysis	Major abdominal surgery	Reduce overall complications. No difference in LOS, anastomotic leak and wound infection. There was no significant difference in the 6-min-walk-test at 4 and 8 weeks post-op.	Heterogeneity in population needs cautious interpretation

We need higher-quality evidence from research. Based on most authors' conclusions, a large multicentre trial with good power and low bias study is essential to strengthen the evidence. The following questions can serve as a prelude:

1. The ideal duration of prehabilitation before surgery?

It is difficult to define what is 'ideal'. The duration is often dependent on the baseline fitness and urgency of surgery. The question we should ask is, 'Do we have enough time to achieve ideal fitness before surgery?'. Although the ideal intervention length has not been established, 3 - 4 weeks of intervention has been found to increase functional capacity by 5-10%¹⁰ sufficiently.

2. The effects of prehabilitation based on patient characteristics and type of surgery

Is the decision of prehabilitation based on the nature of surgery or patient characteristics? - cancer vs non-cancer, abdominal surgery, cardiac, vascular surgery or orthopaedic surgery, etc.

3. Cost-effectiveness and impact on resource utilisation

The primary intention of prehabilitation should be patient-oriented, but can the benefits extend beyond other aspects of health care such as cost-effectiveness, reducing critical care dependency/rate of surgery cancellation and shortening the waiting list. More studies are needed on the cost, although it has been reported as cost-saving in literature.^{11,13}

4. The ideal exercise regime

There is still no definite answer regarding which type of exercise regime (moderate or high-intensity exercise vs cardio vs resistance training) is superior. Every prehabilitation programme should be tailored to individual needs rather than generalised to everyone. This inevitably imposes another challenge for quality improvement projects, audits and requires careful interpretation in the study.

5. Collaborative work and a long run

Prehabilitation is not the sole responsibility of one team, but it requires constant collaboration and communication from various disciplines (surgeon, anaesthetist, physician, nutritionist, psychologist, physiotherapist, and nurses). Each team plays its role in improving patient status and surgical outcomes. This is a baby step of a big project and it is impossible to hit the bull's eye at first throw, so it will involve repetition of the pilot project, implementation, audit and modification before a difference can be seen.

Conclusion

'Before anything else, preparation is the key to success', a quote by Alexander Graham Bell, best explains why we should prepare our patients well for surgery. Thus far, the evidence of prehabilitation is encouraging. To make it work, first we need to find the right formula.

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Block On REGIONAL ANAESTHESIA IN A DISTRICT HOSPITAL

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Non-neuraxial anaesthesia is the bread and butter of an anaesthesiologist's job. It has been widely practised by anaesthesiologists in Malaysia, especially since the year 2000. However, this is not the case in district hospitals like Hospital Pakar Sultanah Fatimah (HPSF), Muar, Johor. Many anaesthesiologists have not been exposed to or performed any regional blocks during their service medical officer (MO) years, so it could be an added stress or challenge for them during their Masters programme. Regional block is popular for its benefits for patients, especially high-risk patients, because they could avoid the cardiorespiratory effects of general anaesthesia (GA). These adverse events could happen either during induction, maintenance of anaesthesia, or reversal, which could then lead to



prolonged stay in intensive care unit stays, acute kidney injury leading to dialysis, cardiovascular events, or even death.

In HPSF, before the year 2022, regional blockade was done in maybe less than 5 cases in a year, and only "Desert Island Blocks" or "must-know-regional blocks" were performed, like supraclavicular block, femoral nerve block, and popliteal block. I still remember as an anaesthesia houseman back in the year 2021 in HPSF, a "once-in-a-thousand years" supraclavicular block had

attracted a big group of medical officers to watch how our specialist performed the block. As a houseman, I could not even see or understand what my boss was performing.

Things changed in August 2022 when we initiated the establishment of a regional anaesthesia (RA) corner. The small corner is well equipped with various sizes of Stimuplex needles, probe covers, different types and concentrations of local anaesthetic drugs, syringes, and even peripheral nerve stimulators. There is a dedicated medical officer

stationed in the regional block corner every day, and he will be alerted if there are any regional blocks that needed to be performed. His job scope is to prepare the necessary things for blocks and perform them under the supervision of a specialist. This system will save operating theatre time, for example when an elective case is called early to the RA corner while the previous elective case is ongoing. Every MO will have a chance to learn and to be exposed to regional blocks. We also have a portable toolbox if blocks needed to be performed in the





operating room, or in the recovery area. The only drawback currently is that we lack a dedicated ultrasound machine in the regional corner, which we have been sharing with the ICU.

The various types of blocks that we have been performing have received good feedback from the primary teams. Besides avoiding the adverse effects of GA, patients recover quickly and return to their preoperative functional class faster. We have been substituting postoperative patient-controlled analgesia (PCA) morphine with rectus sheath blocks and transversus abdominis plane blocks in abdominal surgery, and the results have been great. Patients start to ambulate earlier and are discharged earlier. Even if we give both regional block and postoperative PCA, the patients will be less likely to use the PCA, and we could avoid the effects of opioids which could delay the recovery phase of patients.

The success of setting up the regional corner is all thanks to Dr Jimmy Tan. He is the catalyst and initiator of regional corners in HPSF, and has been selflessly sharing his knowledge and expertise on regional blocks. Hopefully, we will set up a regional anaesthesia workshop soon and share the knowledge with others.



Paediatric Perioperative Life Support (PPLS) 2023

by Dr Phang Ye Yun

Hospital Tunku Azizah Kuala Lumpur, Kuala Lumpur, Malaysia

The Malaysian Society of Paediatric Anaesthesiologists (MSPA) together with the Anaesthesiology Department of Hospital Tunku Azizah (HTA), Kuala Lumpur successfully organised the Paediatric Perioperative Life Support (PPLS) workshop on 27th May 2023. The PPLS is an initiative by the Asian Society of Paediatric Anaesthesiologists (ASPA) and is organised in Malaysia by the MSPA at least twice a year since 2018 (except in 2021 during the COVID-19 pandemic). The objective of the PPLS workshop is to assist anaesthetists or trainees who manage children undergoing surgery to anticipate, prevent and manage perioperative events that may lead to cardiac arrest and, thus, to reduce perioperative risks of morbidity and mortality in paediatric anaesthesia.

This workshop was held in Seminar Rooms 1 to 6 of Postgraduate Medical Centre and Continuous Medical Education at level 3 of HTA and was open to anaesthetic specialists, trainees, and medical officers from both university and government hospitals especially in the Klang Valley. We received 30 enthusiastic participants and we had a total of 12 paediatric anaesthesiologists (PPLS trainers) from the universities, the Ministry of Health (MOH) Malaysia and the private hospitals who were briefed the day before to ensure consistency in content and standard in delivery.



The MSPA faculties and facilitators at this workshop were:

1. Professor Dr Felicia Lim (Chairman of ASPA PPLS Workshop Malaysia)
2. Dr Usha Nair (Assistant Chairman of ASPA PPLS Workshop Malaysia)
3. Dr Intan Zarina Fakir Mohamed (Organising Chairman of PPLS Hospital Tunku Azizah)
4. Dr Foo Sze Yuen
5. Dr Hamidah Ismail
6. Professor Dr Lucy Chan
7. Dr Mohd Lutfi Nijar
8. Dr Phang Ye Yun

9. Associate Professor Dr Rufinah Teo
10. Dr Shariffah Raguan Syed Othman
11. Dr Sivaraj Chandran
12. Dr Ujdora Goh
13. Dr Yoga Bhavani A/P M Shanmuganathan

This workshop had a full day programme, which comprised six lectures, four skills stations and six interactive case discussions along with breaking bad news role play. The workshop covered essential components of paediatric anaesthesia,

including identification and management of:

- the child at risk such as hypovolemic child from trauma and dehydration or septic child
- hypoxic cardiac arrest
- the child with hyper-reactive airway, i.e. laryngospasm or bronchospasm,
- the child at risk of airway obstruction, e.g. airway anomalies
- the common and uncommon causes of perioperative cardiac arrest, e.g. local anaesthetic toxicity, arrhythmias



The PPLS workshop also covered:

- effective management of perioperative crisis
- effective resuscitation
- management of shockable rhythms: drugs, cardioversion, and defibrillation
- teamwork during crisis management
- communication
- breaking bad news

The workshop was conducted successfully with the great enthusiasm and active participation of both the trainers and the trainees. The participants were energetic and enthusiastic especially during role playing of breaking bad news, interactive case discussions and skills stations. The participants gave positive feedback that the course was very precise, comprehensive, and informative, loaded with the essential knowledge in paediatric anaesthesia. The participants strongly agreed that PPLS is useful for their clinical practice and would recommend the workshop for medical staff who are involved in the perioperative care of children. The organising committee would like to extend its gratitude to all the facilitators especially those who had travelled from other states to conduct this workshop and for making this workshop a huge success. We hope to conduct this type of workshop again in the future with your support.





PAEDIATRIC AIRWAY AND SIMULATION WORKSHOP

by Dr Ruwaida binti Isa

The Department of Anaesthesiology and Intensive Care, Hospital Tunku Azizah (HTA), Kuala Lumpur in collaboration with the Malaysian Society of Paediatric Anaesthesiologists was privileged to organise a full-day workshop on "Paediatric Airway and Simulation", which was held on the 28th February 2023 at HTA itself.

Children are different from adults in many aspects of airway management. Although the incidence of unexpected difficult airway management in children is low, early recognition and management of the anticipated difficult airway is important. However due to the centralisation of paediatric patients coming to tertiary referral hospitals for surgery, the exposure and experience of handling paediatric patients in other general hospitals has become minimal.

The objective of the workshop was to refresh and update skills in managing paediatric airways as well as difficult vascular access using ultrasound guidance. It consisted of lectures, perioperative airway crisis simulation and skill stations with different types of airway adjuncts and advanced airway equipment.



The facilitators for this workshop consisted of consultant paediatric anaesthesiologists and consultant anaesthesiologists who are experts in conducting simulation of airway crisis scenarios. They were from different medical facilities which included the private sector, universities and Ministry of Health. Thirty participants attended this workshop and gained knowledge on handling the difficult paediatric airway, which will be useful in their daily clinical practice. Additionally in this event, participants were exposed to the latest technology and gadgets in airway management, courtesy of our industrial partners.

Ismiarti Shariffudin (Universiti Malaya Medical Centre), Dr Thavaranjitham (Assunta Hospital), Dr Noorulhana Sukarnakadi Hadzarami (Hospital Kuala Lumpur), Dr Rajeswary Kanathipillai (Hospital Tunku Jaafar), Dr Hamidah Ismail (Sunway Medical Centre), Dr Wong Wai Hong (Sunway Medical Centre), Dr Teo Shu Ching (Hospital Umum Sarawak), Dr Nurhafizhoh Abd Hamid (Hospital Sultanah Bahiyah) and Dr Sivaraj Chandran (Hospital Sultanah Bahiyah). The knowledge, experience and skills that were passed down to the junior doctors were highly appreciated.

We would like to take this opportunity to express our gratitude to all the facilitators for making the workshop a huge success: Professor Dr Felicia Lim Siew Kiau (Pusat Perubatan University Kebangsaan Malaysia), Professor Dr Ina



Participants, Committee Members and Facilitators in paediatric airway and Simulation Workshop 2023

RELAX AND REVERSE CLASS

Major Updates in NMB Guidelines and Enhanced Recovery Pathway

by **Dr Tan Zi Ti**

Hospital Sultanah Aminah, Johor Bahru, Johor, Malaysia

As part of our initiative to introduce the latest NMB guideline and recovery pathway to practicing anaesthesiology colleagues, the Department of Anaesthesiology and Intensive Care, Hospital Sultanah Aminah, Johor Bahru, with the support of MSD, organized a "Relax and Reverse" class, at Double Tree by Hilton. This half-day course, which was held on 4th February 2023, garnered the participation of about 100 participants from multiple hospitals in the state of Johor, including Hospital Kluang, Hospital Muar, Hospital Batu Pahat and Hospital Sultan Ismail.

The day started with opening remarks by Dr Joseph Abueg, MSD's regional director for medical affairs, followed by a lecture by Dr Omar bin Sulaiman, Head of Department for Anaesthesiology and Intensive Care at Hospital Sultanah Aminah Johor Bahru. In his lecture "Back to Basics: An Update on the Pharmacology of Sugammadex", Dr Omar brought us back to the basics of neuromuscular blockade, including the pharmacology of sugammadex in a simple yet memorable way. The anecdotes and small jokes that he brilliantly threw in not only got the floor chuckling, but also helped the participants to understand the pharmacology of sugammadex better.

The participants were thereafter divided into two groups for case discussion as well as a Hololens case simulation which was brought in exclusively by MSD. For case discussion, the participants were



given multiple scenarios by facilitators led by Dr Omar to ponder on the question of "To give or not to give?" when it comes to reversing a patient from general anesthesia. Participants were also given the opportunity to debate the best timing for administering the drugs. At the same time, MSD provided a visually stimulating case simulation session via a Hololens for the second group of participants, where participants were equipped with a Hololens, a mixed reality headset, and

they were able to experience anaesthetized cases as if they were managing them in real-time.

After a one-hour long lunch break, Dr Shahridan Fathil, who himself is a renowned anaesthesiologist currently practising in Gleneagles Medini Hospital, delivered the second lecture of the day. His lecture titled "Role of Sugammadex in Clinical Practice: What Does the Evidence Say?" gave the participants an overview of the uses and outcomes

of cases utilizing sugammadex. It was an eye-opener for the participant, and it most definitely instilled confidence in the participants on the usage of sugammadex in daily clinical practice.

The day continued with the participants switching stations to experience the course fully before ending the day with tea and snacks courtesy of the hotel. Participants were then rewarded with an e-certificate and CPD points for attending this course. Positive feedback has been received from the participants, citing the informative lectures and engaging case discussion as well as the immersive experience provided by the Hololens case simulation.

The organising committee was grateful for the smooth event and positive experience, and we look forward to organising more events in the future as

part of our initiative to improve our clinical practice in this ever-changing world.



Group Photo

A GIFT OF LIFE

First Organ Procurement after 23 Years in Hospital Pakar Sultanah Fatimah, Muar, Johor

by Dr Low Ren Geng, Dr Suzaliatun Kasbolah
Hospital Pakar Sultanah Fatimah, Muar, Johor, Malaysia

Organ donation and transplantation has been in practice for more than 100 years in the history of medicine. However, the shortage of donor organs remains one of the most challenging global problems in successful organ transplantation, with an increasing number of patients requiring organ transplants. With no exception, Malaysia too, is facing a similar problem. According to data from our National Transplant Resource Centre (NTRC), up to December 2022, there were 10,118 patients on the waiting list for organ transplantation. There were only 833 cases of organ donation from deceased donors from the year 1997 until February 2023. The average waiting time for patients in Malaysia is 10 to 15 years, mainly due to a shortage of donor organs. This makes Malaysia among the countries with the longest waiting times for organ donors compared to other countries in Europe and Asia.

2nd March 2023 marked a meaningful day in Hospital Pakar Sultanah Fatimah (HPSF) Muar, Johor, as we were blessed with the opportunity to conduct an organ procurement from a brain-dead donor. A middle-aged man with a massive brainstem bleed was identified as a potential organ donor on the morning of 1st March 2023. The HPSF TOP team was alerted, and a conversation about organ donation was initiated with the patient's family members. The TOP team discovered that family members showed great awareness and desire for organ donation, and several family members were already pledgers. The case was reviewed by coordinators of the HPSF TOP team, Dr Noraza Azmeera and Dr Nik Nor Aini, to ensure the patient was medically eligible for donation.

In the afternoon, the patient was brought into ICU for brain death testing after family members agreed to the

organ donation. The case was activated to NTRC by the head of Department of Anaesthesia HPSF, Dr Suzaliatun, who is also chairman of the HPSF TOP Team. A central line and an arterial line were inserted, and the patient was optimised for brain death testing and organ donation. The radiology team also helped in performing an ultrasound abdomen in the ICU. The first brain death test was conducted at 4.12pm, led by Dr Suzaliatun and physician, Dr Chia. All brain death criteria were fulfilled, and another brain death test was planned six hours later. In the meantime, another conference was held by the TOP team to update the regarding the first brain death test and consent for donation was obtained.

The second test later confirmed brain death. Arrangements and planning were made for liver procurement by

Hepatobiliary (HPB) surgeons from Hospital Selayang and Hospital Melaka, heart valve and femoral artery procurement by the Institut Jantung Negara (IJN) team and cornea procurement by the Ophthalmology team in HPSF. Unfortunately, kidney procurement was rejected as the patient developed acute kidney injury. The patient was sent the operation theatre at 2.00 am on 2nd March 2023. The surgery started with liver procurement led by Mr Padmaan, which took three and a half hours, followed by heart valve and femoral artery procurement and then cornea procurement. The whole process of liver and tissue procurement took around eight hours.

This was the first organ procurement at HPSF after a long 23-year wait and it was an uphill task for the involved medical personnel, particularly the TOP team and anaesthesia team, who were mostly inexperienced and unfamiliar with managing patients and procedures for organ procurement in addition to the routine daily and on-call duty. However, with the excellent teamwork and sharing of knowledge among the TOP team - anaesthetists, surgeons and

physicians - the challenges were overcome with the spirit of ensuring this noble act of organ donation was a success.

We received feedback that the liver procured was transplanted to a man who suffered from Hepatitis C liver cirrhosis with hepatocellular carcinoma, and the corneas were successfully transplanted in two recipients. Thank you, Mr L and your family members, for the compassionate act which helped in gifting another three people a renewed life with less suffering. We hope that this inspiring success of organ procurement can further raise the awareness and willingness of the public to be organ donors while members of HPSF can be more motivated in handling the case better if the need arises.

A short appreciation video recording of the honourable event of procurement is available for viewing on Derma Organ Muar's Facebook page at the link: <https://fb.watch/kWO0ik4B28/>

Special Acknowledgements

TOP team, Anaesthesia, ICU & OT staff, Medical team, Surgical team, Ophthalmology team, Radiology team,

Pathology team, Forensic department and hospital administration of HPSF Muar, Hepatobiliary team from Hospital Selayang & Hospital Melaka, IJN procurement team, and last but not least National Transplant Resource Centre (NTRC), HKL.



Bloodless Transfusion Symposium

by Dr Chan Weng Ken, Dr Iskandar Khalid
Hospital Canselor Tuanku Muhriz, Kuala Lumpur, Malaysia



*“Bloodless or blood-less?
To transfuse or not to transfuse?”*

Ever since obstetrician James Blundell performed the first successful blood transfusion on a human in 1818, the practice of blood transfusion has hit one revolutionary milestone after another, culminating in the development of Transfusion Medicine (and Transfusion Medicine Specialists) to ensure the appropriate use of blood products whilst minimising the associated risks. However, despite the passing of two centuries since Blundell's experiment, many risks of transfusion remain, including allergic reactions, transfusion-related acute lung injury (TRALI), transfusion-associated circulatory overload (TACO), and transmission of viruses, bacteria and prions. Additionally, there is a population of patients for whom blood transfusion may not be permitted for personal, religious and cultural reasons, which require surgery with a risk of significant bleeding. From this have emerged internationally recognised champions

of a modernised approach to coagulopathy and patient blood management, such as the John Hopkins Center for Bloodless Medicine and Surgery.

The Department of Anaesthesiology and Intensive Care, Hospital Canselor Tuanku Muhriz (HCTM), Universiti Kebangsaan Malaysia, recently organised the 'Bloodless Transfusion Symposium' (BTS), an international symposium held physically on the 17th of February 2023 in collaboration with Medi-Life (M) Sdn Bhd and Pharmaniaga Marketing Sdn Bhd. The symposium aimed to educate participants on the concept, benefits and practical aspects of goal-directed coagulopathy management and point-of-care coagulation testing. We were privileged to host esteemed speakers such as Dr Shahridan bin Mohd Fathil (Consultant Anaesthesiologist, Gleneagles Hospital Medini Johor), Dr

Abu Sufian bin Ahmad (Transfusion Medicine Specialist, Gleneagles Hospital Medini Johor), Dr Florence Rivault (Pharmacist PhD, Singapore) as well as Professor Keyvan Karkouti (Chief of the Department of Anesthesia and Pain Management, Sinai Health and Professor at the University of Toronto). A total of 54 participants attended the symposium, consisting of anaesthesiologists, transfusion medicine specialists, pathologists, emergency physicians, medical officers, medical lab scientists, and technologists.

Dr Chan Weng Ken, an anaesthesiologist and the organising chairperson, delivered the opening speech, followed by the first lecture titled "Haemostatic resuscitation", which touched on resuscitation strategies and non-surgical methods to control bleeding. The second lecture, "Blood for bleeding: are we doing more harm?"



Bloodless Transfusion Symposium 2023



Dr Ken delivering the opening speech

was delivered by Dr Iskandar Khalid, an anaesthesiologist who spoke on the known and less recognised risks of blood and blood product transfusion. After a break for lunch and Friday prayers, the participants were treated to the third lecture of the symposium titled "From patient blood management to goal-directed coagulation management", where Dr Shahridan expounded on his experience initiating changes towards a patient clinical management and blood transfusion system at an organisational level. This

was followed by one of the highlights of the symposium, a talk on "Thromboelastography (TEG): interpretation and clinical applications" by Dr Abu Sufian, who shed light on the challenging concept of viscoelastic measurement for those in attendance. The esteemed panel of speakers further consolidated the audience's understanding of TEG in a case and scenario discussion presented by Dr Kanesh Kumar a/l Doraisamy (Anaesthesiologist) and Dr Ngu Pei Hwa

(Anaesthesiology Trainee). Interesting and pertinent real-life cases compiled from the general operating theatre (OT), cardiothoracic OT and general intensive care unit were analysed and discussed to demonstrate the utilisation of a goal-directed transfusion approach to managing coagulopathy. A particularly fascinating area of discussion was how different phases of cardiac surgery performed with or without cardiopulmonary bypass affected the TEG readings.



Dr Ngu presenting cases from the ICU and General OT

Our international guest speaker, Dr Florence, delivered the final symposium lecture on "4-factor PCC and fibrinogen concentrate in bleeding management", an avant-garde approach to coagulopathy management. To everyone's delight, it was shared that fibrinogen concentrates will be made available in Malaysia soon (at the time of writing). Our head of department, Associate Professor Dr Azarinah Izaham, concluded the symposium with a closing speech, followed by presenting tokens of appreciation to the invited speakers.

We hope this symposium raised awareness of precision medicine on blood product usage and coagulopathy management. We were also pleased to have participants from various medical specialties as a multidisciplinary team approach to patient blood management which will further benefit patient care. We ended by thanking members of the organising committee, speakers, participants, and our industrial partners for making this symposium a success.



Dr Kanesh presenting cases from the Cardiothoracic OT



Dr Florence receiving appreciation gift from Associate Professor Dr Azarinah



Dr Florence delivering her talk



Department of Anaesthesiology & Intensive Care, Universiti Teknologi MARA (UiTM) have successfully hosted the Applied Basic Medical Science Course for Medical Officers 2023 on 10th & 11th June 2023. The two-day course was held at the UiTM Sungai Buloh Campus and brought together experienced professors and lecturers from various medical specialties within the Faculty of Medicine, UiTM. The main goal of the course was to empower medical officers with important basic science knowledge and to enhance their ability to provide effective medical care in their daily clinical practice.

A total of 102 medical officers from different regions of Malaysia attended the course, with the majority coming from the anaesthesiology department and some from the emergency department. The two-day course, packed from 8.00am to 5pm, covered crucial topics in physiology and

pharmacology, providing a comprehensive foundation for the participating medical officers.

Dr Vimal Varma, representing the organising committee, welcomed the participants warmly, setting a positive and inspiring tone for the enriching sessions that awaited them.

The focus on the first day of the course was on physiology - a crucial aspect of medical knowledge. The session began with a lecture on the anatomy of the cardiorespiratory system by Associate Professor Dr Muhammad 'Abid, who is a cardiothoracic surgeon. Following this, Dr Rusnaini and Dr Khaijul Shafiq, a cardiothoracic anaesthesiologist and cardiologist respectively, discussed the mechanical and electrical complexities of the cardiovascular system. Later, Professor Dr Karis Misiran, a highly respected figure in Anaesthesiology, wowed the audience with his

presentation skills and vast knowledge, simplifying even the most complex respiratory system concepts. It is safe to say that everyone was fully engaged and alert throughout the lecture without needing any caffeine or sugar boosts!

After the presentation, Dr Engku Naim took the lead and provided an in-depth explanation of the mechanics of the respiratory system.

Following lunch break, Dr Muhammad Iqbal, a consultant nephrologist, gave a lecture on the renal system where he touched on the complex mechanisms involved in the filtration and elimination of waste, as well as the regulation of electrolyte and acid-base balance. Assoc. Professor Dr Hazlyna, a consultant rheumatologist, then shared her knowledge on immunology topics, ranging from basic immune mechanisms to immunopathology, including hypersensitivity reactions and



autoimmunity. The first day concluded with Professor Dr Karis returning to the stage to enlighten the participants on the central nervous system.

On the second day, the focus was on pharmacology. The participants were brimming with fresh energy and enthusiasm, eager to expand their knowledge. Professor Nafeeza, a distinguished professor of pharmacology, initiated the day's proceedings by explaining the basics of pharmacokinetics and pharmacodynamics. Dr Isqandar, a cardiothoracic anaesthesiologist, then navigated through essential pharmacological concepts with his unique teaching style, ensuring a solid foundation for the subsequent sessions.

The day progressed with a series of lectures delivered by the experts, which focused on drugs that are considered as 'bread-and-butter' of our daily clinical practice.

Dr Asmah explained opioids and non-opioid analgesics, shedding light on their usage and potential challenges of pain management. Dr Afifah continued to discuss neuromuscular physiology and muscle relaxants, elucidating their mechanisms of action and clinical implications.

Dr Vimal Varma captured the participants' attention with his interactive quizzes before going into the important topic of reversal agents and neuromuscular monitoring. For the

afternoon session, Dr Siti Aznida delivered a talk on intravenous anaesthetic agents while Dr Fauziah enthusiastically explored the topic of inhalational agents, including their historical aspects and use in modern medical practice.

Dr Ivy Sim delivered the final session, providing a comprehensive explanation of local anaesthetics and sharing her expertise on the matter. It was fascinating to learn that Coca-Cola was once infused with cocaine (although it no longer does!).

The two-day course ended with a group photo session which captured the sense of camaraderie and shared experiences among the participants.



Despite the time constraints of the course, every effort was made to ensure that participants received a comprehensive and informative learning experience.

Online Q&A sessions were conducted online to provide participants with ample opportunities to seek clarification and address any uncertainties they may have had.

The course's remarkable success and the incredibly positive feedback we received from participants have motivated us to organise similar courses in the future. Our goal is to empower medical officers with the necessary knowledge and promote a culture of continuous learning, enabling them to deliver better care to their patients.



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Iftar Ramadhan Program, 2023

by Dr Nor Hashini, Dr Fazilawati Z, Dr Rohayati, Dr Farah Fatmawati C W, Dr Nor Hidayah Z A
Hospital Raja Perempuan Zainab 2 (HRPZ2), Kota Bharu, Kelantan, Malaysia



The month of Ramadhan is the month of blessings to all. For all Muslims, this is the time for self-improvement, increased devotion and worshipping of Allah. Despite working hard to help our patients in critical care and providing anaesthesia inside the operating theatre and around the hospital, we are called to serve and engage with the community from different aspects of our life.

Therefore, we have had the opportunity to welcome an initiative and livelihood program called "*Infaq Dari Warga Kerja Jabatan Bius*" lead by Dr Nor Hashini, by providing food for *iftar* ("breaking of fast") to the family members waiting for the patients inside the hospital compound while waiting for their loved ones. Some of them were from unfortunate socioeconomic backgrounds. Some brought their family as they could not afford to return back home due to domestic and financial constraints. They might even be unable



to afford a proper *iftar* meal during times of distress and pain.

Donating and engaging in charitable work allows us to adhere to the teachings of Islam to be implemented during the holy month of Ramadhan. Although we should be making an effort to donate to charitable causes throughout the year, giving charity during Ramadan is more rewarding compared to other months.



This program is a yearly activity by our Anaesthesia Department. However, over the years, we have received more and more contributions from the Anaesthesia department staff and doctors. We were thankful to have extra *rezeki* to share with our fellow patients' relatives. The meal was comprised of rice, one side dish like chicken and fish and vegetables for their *iftar*. We were able to distribute about 70 to 250 packs of food per day for the whole month of Ramadhan 2023.

We felt grateful that the charity program had received contributions from the Anaesthesia and Critical Care

Department doctors and staff. The great effort has enabled many people to break their fast and eat nutritious food during the holy month of Ramadhan. Examples of the food were *kerabu* rice, tomato rice and fried chicken rice. Food distribution involving house officers, medical officers, medical assistants, nurses and specialists at the same time encourage good teamwork when it comes to helping the community.

Most admitted patients in the hospital have their family and friends to look after them, especially in general wards. We hope that providing *iftar* daily during Ramadhan may ease their burden,

especially for those waiting for their family members who were undergoing operations or even admitted to the ICU.

Our department's charity may reflect salvation and generosity, which is urged more during the holy month of Ramadhan. We hope that we can follow the generosity of other NGOs by sharing God's love with other human beings to make the world kinder, just and a better place.

Ramadan charity will make a significant difference to the patients and the family members who will benefit from alleviating their struggles and to our personal path towards being a good citizen. We hope this program would encourage more organisations, especially in the hospital setting together in hand to hand to provide care and friendliness to the patient's relatives around the hospital, thus, strengthening the bond with the community.

Acknowledgement

We would like to thank and congratulate all Critical Care and Operation Theatre staff nurses, medical assistants, Anaesthesia doctors and the Head of Department Anaesthesia and Intensive Care HRPZ2, Dato Dr Nasharuddin Wan Ismail, for the effort and teamwork in this program.



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SPIVA

Abbreviated Summary of Product Characteristic

Propofol Emulsion for Injection or Infusion (1% w/v) with MCT-LCT (1% w/v) **Description:** SPIVA™, is a white milky emulsion, practically free from extraneous particulate contamination and large oil droplets. **Composition:** Each ml contains: Propofol BP 10 mg. Excipients: Soybean Oil USP, Medium chain triglycerides BP, Glycerol USP, Egg Lecithin, Sodium Oleate, Sodium Hydroxide BP, Water for Injections BP q.s. **Preclinical Safety Data:** Published studies in animals (including primates) at doses resulting in light to moderate anaesthesia demonstrate that the use of anaesthetic agents during the period of rapid brain growth or synaptogenesis results in cell loss in the developing brain that can be associated with prolonged cognitive deficiencies. The clinical significance of these nonclinical findings is not known. **Indication:** SPIVA™ is a short-acting intravenous anaesthetic agent suitable for induction and maintenance of general anaesthesia. SPIVA™ may also be used for sedation of ventilated adult patients receiving intensive care. SPIVA™ may also be used for conscious sedation for surgical and diagnostic procedures. **Recommended Dose:** Supplementary analgesic agents are generally required in addition to SPIVA™. SPIVA™ has been used in association with spinal and epidural anaesthesia and with commonly used premedications, neuromuscular blocking drugs, inhalation agents and analgesic agents; no pharmacological incompatibility has been encountered. Lower doses of SPIVA™ may be required where general anaesthesia is used as an adjunct to regional anaesthetic techniques. **Route of Administration:** Intravenous [IV] **Contraindications:** SPIVA™ is contraindicated in patients with a known hypersensitivity to propofol or any of the excipients. SPIVA™ is contraindicated for sedation in intensive care of patients of 16 years of age or younger [see 'Special Warnings and Special Precautions for Use']. SPIVA™ contains soya oil and should not be used in patients who are hypersensitive to peanut or soya. **Warnings & Precautions:** SPIVA™ should be given by those trained in anaesthesia or, where appropriate, doctors trained in the care of patients in Intensive Care. Patients should be constantly monitored and facilities for maintenance of a patent airway, artificial ventilation, oxygen enrichment and other resuscitative facilities should be readily available at all times. SPIVA™ should not be administered by the person conducting the diagnostic or surgical procedure. **Pregnancy and Lactation:** Pregnancy. The safety of SPIVA™ during pregnancy has not been established. Studies in animals have shown reproductive toxicity [see Section Preclinical Safety Data]. Therefore SPIVA™ should not be used in pregnancy unless clearly necessary. SPIVA™ has been used, however, during termination of pregnancy in the first trimester. Lactation. Safety to the neonate has not been established following the use of SPIVA™ in mothers who are breast feeding. **Side Effects:** General. Induction of anaesthesia with SPIVA™ is generally smooth with minimal evidence of excitation. The most commonly reported ADRs are pharmacologically predictable side effects of an anaesthetic agent, such as hypotension. Given the nature of anaesthesia and those patients receiving intensive care, events reported in association with anaesthesia and intensive care may also be related to the procedures being undertaken or the recipient's condition. **Incompatibilities:** The neuromuscular blocking agents, atracurium and mivacurium should not be given through the same intravenous line as SPIVA™ without prior flushing. **Instructions for Use:** In-use precautions. Containers should be shaken before use. Any portion of the contents remaining after use should be discarded. Asepsis for SPIVA™ and infusion equipment must be maintained [see 'Additional Precautions']. **Storage Condition:** Store below 30°C. Do not freeze. **Presentation:** It is available in 20ml Glass Vial, [20ml in a vial x 5 vial] **Shelf Life:** 24 Months. **Date of Revision:** 06/2020

For Healthcare Professionals Only.

Baxter Healthcare (Malaysia) Sdn Bhd (159204-W)
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Baxter

Anaesthesiologists
CREATIVES

by Dr Lakshmi Thiyagarajan
KPJ Perlis Specialist Hospital, Perlis, Malaysia





Thank you for offering to feature my art in Berita Anestesiologi!

I have been interested in art from young but never went for formal training apart from the basics in school. I started painting during the pandemic when I saw a friend in private practice doing "Paint by Numbers". I thought it was a good way to quell my anxiety and I liked it very much. I then progressed to buying my own canvas sheets and copying art I saw online. Fast forward three years later, I do commissioned artwork and sell it for a nominal fee, mainly to close friends on Facebook. You may view my work on my Facebook page Lakshmi Thiyagarajan under #goodforthesoulart, #commissionedartwork #affordableartworkforeveryone.

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health. We must create an environment that fosters wellness, compassion, and support for all our colleagues.

In conclusion, I want to express my deepest gratitude to each and every one of you. Your dedication to your profession and the well-being of our

patients has been nothing short of awe-inspiring. Together, we have shown the world the true essence of a medical community that stands united in the face of adversity.

Let us continue this journey of service with a renewed sense of purpose and

determination. Together, we can shape a better future for healthcare in Malaysia and beyond. Thank you for your unwavering support, and I look forward to witnessing both the CoA and the MSA blossom under new leadership.

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Message from the **PRESIDENT OF THE COLLEGE OF ANAESTHESIOLOGISTS, AMM**

Professor Dr Marzida Mansor



To my fellow members in the Malaysian Society of Anaesthesiologists, my heartiest congratulations on the Diamond Jubilee Anniversary celebrations, marking the 60th year of our Society's existence and our contribution towards promoting the arts and science of anaesthesiology and critical care through excellence in education and patient care.

I am deeply humbled and honoured to address you for the last time as the President of the College of Anaesthesiologists, Academy of Medicine of Malaysia. The journey we have traversed together through the unprecedented challenges of the COVID-19 pandemic has been nothing but remarkable! Your resilience, dedication and unwavering commitment to your patients and profession have been truly exemplary. I was privileged to have been part of the team to organise the first ever totally virtual Annual Scientific Congress 2021 and the hybrid Congress 2022. The development of practice guidelines with regards to the preparation and management of the pandemic was another regular feature during the pandemic.

When I assumed the role of the President, little did I know that my journey would be defined by such an extraordinary crisis. The pandemic

tested us in ways we could never have imagined, pushing us to our limits and forcing us to adapt quickly to new circumstances. As leaders in our field, we had to make tough decisions and chart a course through uncertainty, all while prioritizing the safety and well-being of our patients and colleagues. We certainly went through the worst times but emerged as heroes and heroines! So, nothing can stop us now.

Throughout, I have witnessed the exceptional spirit of unity among our members. We came together as a cohesive force, pooling our expertise and resources to face the pandemic head-on. Our fellow colleagues have always been at the forefront, playing a vital role in critical care and supporting patients during surgeries amidst the pandemic's uncertainties. Your tireless efforts and dedication have been commendable.

The pandemic highlighted the need for agile leadership and the ability to adapt swiftly to changing circumstances. We have embraced new technologies, implemented telemedicine solutions, and ensured the continuation of essential medical services despite the obstacles before us. Our resilience and innovation have been our strength in navigating these uncharted waters.

But as we acknowledge our achievements, we must also recognize the sacrifices and challenges faced by each one of us. We have lost colleagues and friends to this relentless virus. We have battled fatigue and burnout, yet we persisted with unwavering determination. Our commitment to our patients and the greater community never wavered.

As we look towards the future, let us not forget the lessons we have learned during the trying time. Let us hold on to the spirit of camaraderie and collaboration that arose from the pandemic. Together, we are stronger and, together, we can overcome any obstacle that comes our way.

In the wake of the pandemic, we have an opportunity to build a stronger, more resilient healthcare system. We must advocate for better support, training, and resources for our healthcare professionals. We must invest in research and development to enhance our understanding of infectious diseases and improve patient outcomes.

As leaders in anaesthesiology, we must also prioritize the well-being of our members. It is crucial that we take care of ourselves and each other, recognizing the toll that the pandemic has taken on our mental and emotional

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