

BERITA ANESTESIOLOGI



Malaysian Society
of Anaesthesiologists



College of
Anaesthesiologists
AMA

November 2023 Vol 36 Issue 3



GREEN ANAESTHESIA
NOW or NEVER

Message from the PRESIDENT OF THE MSA

Dato' Dr Yong Chow Yen



It is with profound humility that I find myself in a privileged position to pen my first message as the President of Malaysian Society of Anaesthesiologists (MSA) for the term 2023-2025, a role I took over in August 2023 at the conclusion of the last Annual General Meeting held at Kuching, Sarawak. It has been a short three months so far but long enough for the newly elected Executive Committee for 2023-2024 and I to be mindful of the gratitude we feel to those who served before us. They have laid a solid foundation for us to continue to build on. We would like to give a big hand to our Immediate Past President, Professor Dr Ina Ismiarti Shariffuddin, and the Executive Committee Members for two terms 2022-2023 and 2023-2024 under her leadership, for their contributions and commitment to the Society for the past two years.

Our Society's mission is to promote the art and science of Anaesthesiology. It coordinates the activities of Anaesthesiologists, represents Anaesthesiologists and protects their interests. It encourages and promotes co-operation and friendship between Anaesthesiologists, and liaised with similar bodies and other specialties of the region. As we embark on a new term, we hope to fulfil the responsibility entrusted on us to honour our Society's mission.

A Society is made up of a group of individuals with similarities and a shared goal. However, each of us is far from similar. We are diverse, each with unique perspectives, experiences, and expectations. The world of medicine is constantly surging forward with challenges, and in modern human history, the end is always one of advancement. In order that we thrive as a profession and advance ourselves in the world around us, the Society leadership and members need to capitalise on our diversity to

handle the complex challenges of our time. Together, and we do need to work together, we can facilitate innovation and progress, foster inclusivity and participation, and create an environment that supports the personal and professional growth of our members. I encourage each member to play an active role in shaping our Society's direction. Your ideas, your dedication, and your passion will be the driving force behind the Society's success. I look forward to working closely with each of you to achieve our shared goals.

In this first message from me in the Berita Anestesiologi, I wish to report on a few recently concluded events and other developments of interest to our members.

MSA Annual General Meeting (AGM) 2023

The AGM was held on 4th August 2023 at the Borneo Convention Centre, Kuching, Sarawak. The AGM was attended by 33 members. Dr Hasmizy Muhammad was voted in as the President-Elect for 2023-2025. Heartiest congratulations to our future leader and President.

The floor raised a pertinent query on sponsorship for the coming World Congress of Anaesthesiologists 2024 to be held in March 2024 in Singapore. Members are encouraged to refer to the financial support for overseas conferences in the MSA website and apply accordingly in time for the event.

MyAnaesthesia 2023: MSA-COA Annual Scientific Congress (ASC), 60th MSA Diamond Jubilee Celebration

The ASC 2023 was held at the Borneo Convention Centre, Kuching, Sarawak, from 4th to 6th August 2023. It celebrated the 60th anniversary of the creation of the MSA and its long

history of service and dedication to the betterment of the profession and its members.

The decision to hold the ASC in Sarawak was timely. Sarawak has made tremendous progress in providing accessible and quality healthcare to the people despite geographical challenges. It has a sizable community of anaesthesia healthcare providers that the Society aimed to reach out to when considering the locality of the event. It was attended by more than 700 delegates, many of whom were excited to experience the ASC on home ground and many came from other states to enjoy the hospitality of their colleagues and friends from Sarawak. The opening ceremony was graced by the Honourable Datuk Patinggi Tan Sri (Dr) Abang Haji Abdul Rahman Zohari Bin Tun Datuk Haji Openg, the Premier of Sarawak, in an event which showcased the cultural richness of the Land of the Hornbills.

The MSA conferred Honorary Membership on Dr Mohamad Namazie Ibrahim at the opening ceremony. Dr Mohamad Namazie was a past President as well as Past Chairman of the Society.

In the face of extreme weather patterns and threat of irreversible climate change probably occurring within the next two decades, the MSA and the COA launched our sustainability campaign with the tagline "Green Anaesthesia: Now or Never" during the opening ceremony. It helped to raise awareness amongst anaesthesiologists on our responsibilities and duties towards planet earth by adopting sustainable and environmentally friendly practices and habits in our personal and professional lives.

The Scientific Committee drew up an excellent scientific programme. There was something for everyone; there were a total of four pre-congress workshops, six plenaries and 17 symposia. Of note was a Leadership in Anaesthesia workshop attended by leaders of the Anaesthesiology and Critical Care fraternity from all over Malaysia.

The 60th MSA Diamond Jubilee Celebration took off with a bang during the Gala Dinner with the theme: Great Gatsby and Indiana Jones. Delegates were certainly all dressed to the hilt with the ladies opting to arrive with all the blings and glitters of the 1920s and the handsome men as Harrison Ford reincarnates. The hands of the clock stood still and many went into apnoeic episodes as the winners of the MSA 60th MSA Diamond Jubilee Membership Drive were announced, and again when the wheel of fortune determined the lucky few who took home coveted diamonds and prizes. In the mist of jubilant moods and outpouring of camaraderie, the dinner also focussed on more serious matters, namely the announcement of the free paper and MSA Young Investigator's award winners and the Dato' Dr Radha Krishna Sabapathy Award for the Best Student in Masters in Anaesthesiology for two examinations. It was an honour to have YBhg Dato' Dr Mohd Azman Bin Yacob, Director, Medical Developmental Division, Ministry of Health Malaysia, as the guest of honour.

For a more detailed report and pictures I will let Berita do justice to the memorable event.

23rd ASEAN Congress of Anaesthesiologists (ACA 2023)

This year's meeting was held in Bangkok, Thailand from 1st to 3rd September 2023. We are proud that Malaysians traditionally, and still do, make a significant presence at ACA congresses as speakers, poster presenters and delegates. The Confederation of the Asean Societies of Anaesthesiologists (CASA) met in

Bangkok and voted to hold the next ACA in 2025 in Manila, Philippines to be followed by Malaysia in 2027. The MSA was represented by myself and Associate Professor Dr Azarinah Izaham as MSA President and Honorary Secretary respectively at the CASA Board meeting. I am proud to announce that the MSA will assume the presidency of CASA in 2025 in preparation for ACA 2027.

National Anaesthesia Day (NAD) 2023: "Green Anaesthesia: Now or Never"

World Anaesthesia Day is celebrated on the 16th of October globally as this is the anniversary of the day in 1846 where ether anaesthesia was demonstrated publicly in Boston, Massachusetts, USA.

This year, the national level celebration was entrusted to our colleagues in Kota Kinabalu under the capable leadership of Dr Shazharn Muhammad Zain, Head of Department of Anaesthesiology and Intensive Care, Hospital Queen Elizabeth, Kota Kinabalu. The date was set on 15th October 2023 to allow a national level launching followed by nationwide local celebrations. The theme "Green Anaesthesia: Now or Never" was the culmination of the MSA and the COA sustainability campaign which started during MyAnaesthesia 2023 culminating in the national level NAD celebration in an all-out Sustainability Pledge ceremony where anaesthesiologists as a group and as individuals were given the opportunity to commit themselves to make greener and sustainable choices. Again, we had the support of YBhg Dato' Dr Mohd Azman Bin Yacob, Director, Medical Developmental Division, Ministry of Health Malaysia who graced the event as our guest of honour. The enthusiasm, flurry of activities and press coverage were phenomenal. The MSA Executive Committee wishes to record our sincere appreciation to Dr Shazharn and his brilliant team for making the celebration truly successful and meaningful. Congratulations! Syabas!

There are special reports on the event and the Sustainability Pledge in Berita. Hospitals which celebrated NAD locally and submitted write-ups to the Berita are eligible to apply for a subsidy of RM1,000 per hospital for expenses incurred.

1st National ECMO (NECMO) Conference 2023

MSA wishes to congratulate the Malaysian Society of Cardiothoracic Anaesthesiology and Perfusion (MASCAP) for successfully bringing into fruition the inaugural 1st NECMO conference in Malaysia which was held at the Le Meridien Hotel at Putrajaya from 5th to 7th October 2023. The event was endorsed by the MSA and the COA, with active participation of the Cardiac Anaesthesiology SIG of the COA and exco members of MSA as speakers, facilitators and delegates. A special report in Berita on the event is available.

KoreaAnaesthesia 2023

The MSA continues to strengthen our relationship with the Korean Society of Anaesthesiologists (KSA). Since the Memorandum of Understanding was inked in 2017, many Malaysian anaesthesiologists have benefited from attending at the KSA annual scientific meetings. The KSA celebrated its 100th Annual Scientific Meeting in Seoul, Korea from 9th to 11th November 2023. On this occasion, the KSA offered a special extended abstract submission deadline to Malaysians as well as free congress registration for accepted abstract presenters who were also eligible to apply for travel grants from the KSA. The MSA is very proud that many of our young anaesthesiologists took this opportunity offered to present and compete with their international peers from all over the world.

7th National Annual Patient Safety in Anaesthesia Conference (NAPSAC) 2023

The College of Anaesthesiologists of Ireland (CAI) is hosting the 7th NAPSAC 2023 on Friday 17th November 2023 as a hybrid meeting. The CAI has offered free registrations to MSA and COA

members who are involved in anaesthesiology training programmes, as well as anaesthesia trainees to attend the conference virtually.

Membership

The membership of the Society stands at 694 life members, 175 ordinary and 50 associate members of good standing as of 30th October 2023. This is after the successful membership drive mentioned earlier in my message. The strength of representation by the Society is as good as the number of its members. I urge anaesthesiology healthcare providers to be members and allow the Society to exercise its weight in matters pertaining to our

professional development and growth. Please note that membership to the Society is open to all medical personnel in the field of anaesthesia be they medical officers or allied health personnel and not just limited to specialists.

Online Journals

The Society is continuing the subscription of online journals for the benefit of members. Members are advised to obtain their username and password from the Secretariat and to make use of this facility to keep themselves abreast with the latest knowledge in anaesthesiology.

MyAnaesthesia 2024

Lastly, I would like to announce that MyAnaesthesia 2024 will be held from 2nd to 4th August 2024 at Shangri-La Kuala Lumpur.

As the season of festivities approaches in the next few months before the next Berita, the MSA wishes all our Hindu friends and colleagues "Happy Deepavali" in November, our Christian friends and colleagues a joyous Advent season and Merry Christmas in December, everyone a Happy New Year in January 2024 and to all our Chinese friends and colleagues Gong Xi Fa Cai in February 2024.

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Published by:

Malaysian Society of Anaesthesiologists (MSA)

Unit 1.6, Level 1, Hive 4, Mranti Park, Jalan Inovasi 1, Bukit Jalil, 57000 Kuala Lumpur, Malaysia

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Berita Anestesiologi is published every four months.

Message from the EDITOR-IN-CHIEF

Dr Anand Kamalanathan

Dearest readers,

A poignant reminder of the passing of time is that all good things must come to an end. I am writing to express my gratitude to Dr Gunalan Palari Arumugam, the former Chief Editor of our Berita, for his outstanding service and dedication over the past twelve years. Dr Gunalan's tireless efforts and unwavering commitment since 2011 have been instrumental in shaping the magazine into the reputable publication it is today. His passion for the field of anaesthesiology and his ability to convey complex concepts clearly and concisely have been invaluable to our readers. Under his leadership as Editor-in-Chief from 2013, the Berita has grown in both readership and quality and has become a trusted source of information for anaesthesiologists in Malaysia and beyond. Dr Gunalan's contributions will be remembered for

years to come, and we are grateful for the mark he has left on our publication and our lives. But alas, he has decided to take a step back and leave the Berita in our hopefully capable hands. His parting words to me before he left for greener pastures were, 'We only hold it (Berita) in trust for the next generation to build on from it.'

Speaking of greener pastures, as we navigate the intricate realm of anaesthesiology, let us remember our vital role in fostering sustainability within our practices. Like the delicate balance of gases in our operating rooms, the equilibrium of our planet's ecosystem relies on our conscious efforts towards a greener future. This month's theme is aptly titled Green Anaesthesia: Now or Never, showcasing the MSA's vision to elevate our standing to the next level. To help us achieve these lofty goals, we have curated five articles detailing

how to not only to administer anaesthesia but also preach a sustainable and environmentally conscious approach to our practice.

Just as we meticulously monitor the pulse and respiration of our patients, let us extend our vigilance to the health of our environment. From reducing our carbon footprint to implementing eco-friendly anaesthesia techniques, our collective commitment to sustainability can create ripples of positive change beyond the confines of our medical facilities. Remember, the efficiency of our work is not merely measured by the precision of our techniques but also by the consciousness with which we minimize our environmental impact.

Finally we wish you all, a Happy Deepavali, Merry Christmas and a Happy New Year !

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EMPOWERING TOMORROW

Malaysian Society of Anaesthesiologists' Pledge to a Sustainable Future

by Dr Samuel Tsan Ern Hung

Universiti Malaysia Sarawak, Sarawak, Malaysia

We, the undersigned professionals in the field of anaesthesiology, acknowledge the critical importance of incorporating sustainability principles into our practices. With a steadfast commitment to improving patient care while minimising our environmental impact, we hereby pledge to uphold and champion the following principles:

1. Efficient Resource Management:

We commit to optimising the utilisation of resources within our anaesthesiology practices. By implementing efficient techniques and technologies, we will reduce waste, conserve resources, and minimise our ecological footprint.

2. Green Anaesthetic Agents:

Recognising the significance of anaesthetic agents in our practice, we pledge to prioritise the use of environmentally friendly options whenever feasible. We will remain informed about the latest research and advancements to select agents with reduced environmental impact.

3. Waste Minimisation:

We will actively adopt strategies to minimise waste generation during our anaesthesiology procedures. Through responsible waste disposal, recycling, and thoughtful management, we will contribute to a cleaner and healthier environment.

4. Embrace Reusability:

We will advocate for the integration of reusable medical equipment where safety and clinical outcomes permit. By minimising single-use items, we aim to decrease our contribution to the waste stream and promote sustainable practices.

5. Energy Efficiency:

In our pursuit of sustainable anaesthesia, we are committed to employing energy-efficient equipment and procedures. By monitoring and regulating energy consumption, we will reduce our energy footprint while maintaining optimal patient care.

6. Lifelong Learning:

We will proactively seek opportunities for continuous education in sustainable anaesthesiology practices. Staying current with the latest developments will empower us to seamlessly incorporate environmental consciousness into our patient care routines.

7. Champion Sustainability:

Recognising our role as advocates, we pledge to actively promote sustainability within our healthcare institutions and professional networks. Through our leadership and example, we aim to inspire the widespread adoption of eco-conscious practices.

8. Collaborative Approach:

We understand that sustainability is a collaborative endeavour. We will collaborate with all advocates of sustainability to drive sustainable practices throughout the perioperative care process, promoting interdisciplinary teamwork.

In unison, we pledge to adhere to these principles and integrate sustainability seamlessly into our daily practices in anaesthesiology. By doing so, we aim to enhance patient outcomes, contribute to environmental preservation, and lead by example in the pursuit of a healthier, more sustainable world.

Figure 1: The Malaysian Society of Anaesthesiologists sustainability pledge

"Climate change is the biggest threat to global health in the 21st century", states the 2018 *Lancet Countdown* report,¹ which was carried out to track the impacts of climate change on health. This emphatic pronouncement is a stark warning of the consequences of global warming. If left unheeded, it may lead to untold suffering not just in Malaysia but for the whole world. It has been shown that healthcare is responsible for up to 5% of total emissions of global greenhouse gases.¹ Although data for measures of emissions from anaesthetic practices are lacking, reports from the National Health Service showed that inhalational anaesthetic agents contributed almost 3% of total carbon emissions in England.² Additionally, perioperative services have been shown to intensively consume resources such as materials, energy, and water. Up to 25% of all hospital waste was produced by the operating theatres, of which 25% came from anaesthetic practices.³ These data provide a snapshot of the dire need for action from anaesthesiology healthcare practitioners in Malaysia. The Malaysian Society of Anaesthesiologists (MSA) answered the call for definitive action to protect the environment this year, by incorporating the theme "Green Anaesthesia: It's Now or Never" in this year's national-level World Anaesthesia Day celebration.

As part of the initiatives for environmental friendliness, throughout October, the MSA established a pledge to promote sustainable anaesthetic practices (Figure 1). It was written based on the consensus principles set out by the World Federation of Societies of Anaesthesiologists for environmentally sustainable anaesthesia (Figure 2).⁴ This pledge was subsequently disseminated electronically to all anaesthesiology healthcare practitioners across Malaysia to be signed. During the national-level celebration of World Anaesthesia Day in Kota Kinabalu on the 15th of October 2023, the pledge was officially recited

by all the attendees, followed by the formal signing of the pledge by the President of MSA, President of the College of Anaesthesiologists Academy of Medicine, Chairman of MSA, Head of Service for Anaesthesia in Ministry of Health, and Organising Chairman of National Anaesthesia Day 2023 celebration.

1. Minimise the environmental impact of their clinical practice.
2. Use environmentally preferable medications and equipment when clinically safe to do so.
3. Minimise the overuse/waste of medications, equipment, energy and water.
4. Incorporate environmental sustainability principles within formal anaesthesia education.
5. Embed environmental sustainability principles within anaesthesia research and quality improvement programmes.
6. Lead environmental sustainability activity within their healthcare organisations.
7. Collaborate with industry to improve environmental sustainability.

Figure 2: Consensus principles of environmentally sustainable anaesthesia by the World Federation of Societies of Anaesthesiologists

Overall, the sustainability pledge campaign was a resounding success. In total, 286 anaesthesiology healthcare practitioners comprising specialists, medical officers, assistant medical officers and nurses signed the pledge (Figure 3). More importantly, the sustainability pledge endeavour created a lasting awareness of the importance of environmental-friendly anaesthetic practices, to be propagated further by the new champions of sustainable anaesthesia.



Figure 3: Signatories to the MSA sustainability pledge



Abdul Halim Latheef
 Abdul Jabbar bin Ismail
 Abing A Hamid
 Adeline Yip
 Adrian Kidar
 Ahmad Afifi Mohd Arshad
 Ahmad Faris Ngimron
 Ahmad Kamil bin Arbain
 Ahmad Zulhilmi bin Yusof
 Aida Nazera Abidin
 Aini Farhana Asmuni
 Ainun Nadwah binti Abdul Raof
 Alan Wong
 Alckysia Pileh
 Alexander Tan Zhi Sheng
 Aliah Farhah binti Azlan
 Alice Lee
 Allan Ang
 Amanda Stella Stephane
 Aminuddin Ahmad
 Anand Kamalanathan
 Anantha Raman a/l Selvarajan
 Andeyzemah
 Angelina Beh Ee Leen
 Anisah binti Ibnu Hassan
 Anizah bt Bin Yamin
 Annie Ak Maxwell
 Arman Izzuddin Yahaya
 Arnellia Nelly bt Noivi
 Asrina binti Man
 Ayusliza binti Ahmad
 Azarinah Izaham
 Azhar Mohamed
 Azlina Masdar
 Azrin Mohd Azidin
 Beatrice Wong Seow Wei
 Bede Rukasim
 Caroline binti Ukin
 Caroline Jimat Embug
 Caryn Yeow Kai Ling
 Chan See Yun
 Chang Yi Ling
 Charis Ong Chee En
 Charlene Chew Shao Lynn
 Cheng Choon Guan

Chiew Yee Soon
 Chong Si Ching
 Christine
 Cisca Gabriel
 Connie Chiew Sin Jiew
 Dayang Shariza binti Abang Abdillah
 Delima Radzwa binti Hasan
 Della Ferianna binti Ariffin
 Eddinawatey binti Lamree
 Edward
 Elka
 Emilda Jimmy
 Esther Teow
 Fakhirudin Mohd Razali
 Farah Aziera binti Asmawi
 Farah Nasuha Mohd Daut
 Fasihatul Hayati binti Dahlan
 Fatima Ahmad Katran
 Felicia binti Stephen
 Fung Eng Ming
 Georgina sindin
 Goh Ce Cin
 Goh Cheng Chun
 Goh Way Phing
 Gowri a/p Jayaraman
 Hanim
 Herna Marlynnie
 Hion Yuen Teng
 Ilmi Mifdhal bin Mustafa
 Ina Ismiarti Shariffuddin
 Iqbalmunawir bin Ab Rashid
 Irene Tan Ai Leng
 Iskandar Khalid
 Isma Syarina binti Ismail
 Ivy Sim
 Izza Liyana
 Jacintha Maluda
 Jahizah Hj Hassan
 Jalwati Amirah binti johari
 Janasca Silip
 Jasmine Jena anak Jabang
 Jenifer Sikah
 Jennyfer binti Langit
 Jeremy Tan Sin Hun
 Johnny Kiu Toh Sing

Joyce Ann Fernandez
 Juliana
 Julie Razak
 Jurini binti Jawatah
 Jusim binti Lugu
 Justina Tobi
 Kanesh Kumar Doraisamy
 Katrinah Hamdan
 Kenny Tiew Siew Ho
 Kerpagam Nadarajan
 Kerstie
 Khairiyah
 Khaironisa Abu Bakar
 Khairul Fakry bin Mohd Said
 Khairulfaizah binti Isnin
 Khaw Ju Lin
 Khaw Soon Keong
 Koh Kian Chuan
 Komathi Nair a/p Murugesan
 Krishalyah A/p Sivasubramaniam
 Kwok Fan Yin
 Laura Gampulot
 Lee Gayan
 Lee Kwan Tuck
 Lee Soh Nam
 Liew Kenlee
 Lim Chee Hui
 Lim Shaun Jing
 Liow Ying Tian
 Loh Li Sen
 Looi Ji Keon
 Lynora bt Fong Ming
 Maizura binti Kadir
 Marzida Mansor
 Maseeda binti Mohamed Yusof
 Mira Asilah binti Adam
 Miriam Azizi
 Mohammad Hanfi bin Mohd
 Mohammad Jefri bin Abdullah
 Mohd Azizan Ghazali
 Mohd Faeiz Pauzi
 Mohd Faizal bin Hj Mohd Hisham
 Mohd Hamdan bin Hassan
 Mohd Nurikhwan bin Tai
 Mohd Rathoshukri bin Yussof



Mohd Rohisham bin Zainal Abidin
 Mohd Sany bin Shoib
 Mohd Shaiful Zahiri bin Mohd Yusoff
 Molly Kong
 Monica Tau Sang
 Muhamad Rasydan bin Abd Ghani
 Muhammad Fikri Johari
 Muhammad Haziq Hasbullah bin
 Zainal Abidin
 Muhammad Iqbal bin A Ghani
 Muhammad Maaya
 Muhammad Nur Amin
 Muhammad Ridhwan Abd Razak
 Muhd Ihsan bin A Wahab
 Muhd Nur Aiman bin Sazali
 Murni Sari
 Nabilah binti Abdul Ghani
 Naeemah binti Abd Aziz
 Nagarajan Nagalingam
 Nahla Irtiza Ismail
 Nancy Mantan
 Nanthini Balakrishnan
 Natasha Yasmin binti Hashim
 Navkiran Singh Gill
 Nazatul Shahnaz binti Mohd Nazri
 Nik Abdullah Nik Mohamad
 Noor Aida Hajamohidin
 Noor Zahidah binti Yahya
 Noorjahan Haneem Md Hashim
 Noorshasheila Faradila binti Ab Hamid
 Noorul Asyikeen
 Nor Hafiza binti Ibrahim
 Nor Hidayah binti Zainool Abidin
 Nor Khali Salhah binti Ahmad Zaini
 Nor Syafawati Osnamila binti Abdullah
 Noraslawati Razak
 Norazim Sabdani
 Nordalila binti Ali
 Noreen Noman
 Norfazilah Hazzah binti muslimin
 Norliza Othman
 Norlyn Syafiqha binti Roslin
 Norsiah binti Mat Hussin
 Nozieana binti Digong
 Nur Athira Azhar

Nur Fatin Aishah binti Stapa
 Nur Khairunnisa binti Abdul Aziz
 Nur Shahida binti Ahmad Rasidi
 Nur Shazatul Rahimah binti Rosli
 Nur Syamimi binti Zulkikli
 Nurhidayu binti Ismail
 Nurul Farahin Izzati binti Ismail
 Nursyazwani binti Badron
 Nurul Farhain
 Nurul Fatiehah binti Marzuki
 Nurulsyazana Nabila binti Abd Hamid
 Pang Su Su
 Peter Tan
 Philip Chua Yi Shean
 Priscilla a/p Manymuthu
 Priscilla Delbert
 Putri Nabilah binti Abdul Razak
 R Usha S Rajah
 Rachel Christel Richard Jolly
 Raechell Soibin
 Rahilah binti Zahari
 Raveenthiran Rasiah
 Raynee binti Kumilau
 Rohayu binti Ahmad Kasim
 Rosenani binti Jali
 Rosnah binti Ab Latif
 Rosnani Masulin
 Rosnariza binti Kusairi
 Rukiah Yahya
 Rukina Gilod Abdullah
 Rynessa binti Rinu
 Salfarina binti Kassim
 Samsualang bin Bacho
 Samuel Tsan
 Sarah Mong Xiao Yi
 Selnie binti Walun
 Shairil Rahayu Ruslan
 Sharifah Nor binti Mohd Salleh
 Shazharn bin Muhammad Zain
 Shereen Shabudin
 Sherliza binti Wahab
 Shivany a/p Sinnappu
 Siti Aznida
 Siti Fatimah binti Bakar
 Siti Nor Azbaiah Othman

Siti Normalawani binti Ismail
 Siti Suhaida binti Suliman
 Siti Syakirah binti Mohd Shaibi
 Sivaraj Chandran
 Soo Ki Yang
 Soo Sean Li
 Soo Wei Ji'e
 Su Thin A/D Din Chom
 Suha Norzam
 Suhaimi Jaafar
 Suhartina Kudien
 Suzanna James
 Suzy ak Belaja
 Syahirah Ghazali
 Syaima Naqiah binti Kamarudin
 Syed Rozaidi Wafa bin Syed Hussain Wafa
 Tam Kah Chun
 Tan Hai Siang
 Tan Ru Yi
 Tay Kah Hey
 Terrenz Tay Mui Ping
 Thanalakshimi Ravinttiran
 Thiyagu Ramachendren
 Thohiroh binti Abdul Razak
 Thong Chwee Ling
 Tioh Beng Siong
 TKumaravadivel Dharmalingam
 Victor Johnny
 Vimal Varma
 W Mohd Nazaruddin bin W Hassan
 Wan Ahmad Asyraf bin Wan Md Adnan
 Wan Rahiza Wan Mat
 Wong Wai Kit
 Wong Zi Sien
 Yew Cheng Hoe
 Yong Chow Yen
 Yusnita Yusri
 Yusnizah binti Mohd Nasir
 Yusrina Zahari
 Zayuah binti Mat Sulaiman
 Zion Lik Ka Vui
 Zul Iskandar Fareezal bin Zulkepli
 Zulkifli Salleh

ANAESTHESIA & CLIMATE CHANGE

Examining the Environmental Impact of Anaesthesia & Perioperative Services



by Iskandar Khalid

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It is September 1987, "Didn't We Almost Have It All" by Whitney Houston topped the billboard charts, the sitcom Full House (the American one) aired its first-ever episode and the Montreal Protocol, a treaty representing a monumental international commitment to protect the ozone layer was signed in the city which shares its name. This was a crucial and timely intervention to mitigate a progressively growing defect in the Antarctic ozone layer by phasing out the production of chlorofluorocarbons (CFCs) and other ozone-depleting substances (ODS). The Montreal Protocol and its subsequent amendments were a remarkable feat of global cooperation. One hundred ninety-eight parties signed it, fittingly described by former UN Secretary-General, Kofi Annan, as "perhaps the single most successful international agreement to date". Most importantly, it was a resounding success; atmospheric levels of key ODS have since decreased (Figure 1), and if compliance with the Protocol's provisions are maintained, it is projected that the ozone layer should return to pre-1980 levels by 2050.

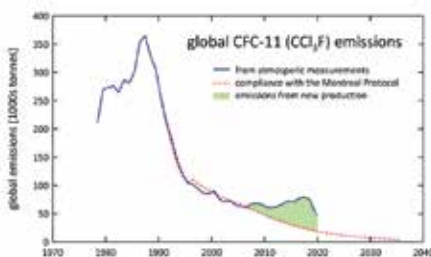


Figure 1: Global CFC-11 emissions based on atmospheric measurements from the AGAGE global network compared to expected emissions under the Montreal Protocol

Fast forward to 2023 and a new environmental crisis has come to the forefront leaving humanity at a precipice. The Earth is at least 1°C warmer today than it has been for the last thousand years, a direct effect of greenhouse gas (GHG) emissions which absorb infrared radiation in the atmosphere, trapping heat from the sun (Figure 2). Carbon dioxide (CO₂) accounts for 70-80% of these GHGs, with methane, nitrous oxide, and fluorinated carbons accounting for much of the rest. Of more significant concern is not the absolute global temperature change but the rate of increase which has occurred over a relatively short period of time; oscillations in global temperatures known as Milankovitch

cycles have naturally occurred over multi-millennial time scales (10,000 to 100,000-year periods) leading Earth in and out of ice ages. However, the rise of 1°C has occurred just over the last 100 years, a starkly short period, undoubtedly a result of human intervention and industrialisation (Figure 3). While a single-degree change may seem insignificant, an analogy can be made to human physiology, where haemostatic and compensatory mechanisms may become quickly overwhelmed when a physiological change occurs abruptly. This holds true for our planet as rapid global warming portends a climate disaster unlike any that humanity has faced before.

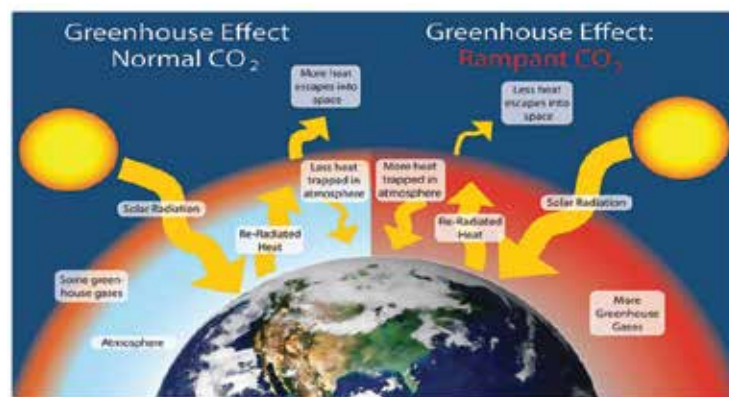


Figure 2: The greenhouse effect

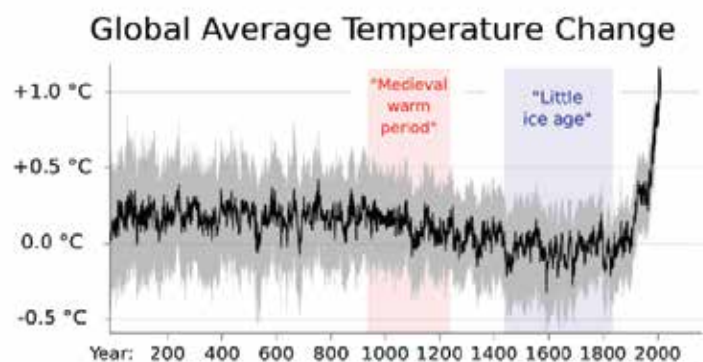


Figure 3: Global average temperature of the last 2,000 years

Global warming: Why should we care?

The WHO has called global climate change 'the greatest threat to global health in the 21st century'. As dramatic as it seems, this statement is backed by a growing and irrefutable mountain of scientific evidence proving the negative impact of global warming over the past several decades. In an era where climate change deniers exist even amongst politicians, professionals and the highly educated, it is worthwhile to explore the actual impact of global warming on the denizens of our Earth. Countless animal species have been hit hard by climate change, with extinction occurring at unprecedented rates and close to 500 species being declared extinct in the past decade alone. If climate change proceeds as expected, one in six species of plants and animals will face extinction by 2050. Humans have not been spared from the effects of global warming either. Transmissibility of vector-borne diseases are at an all-time high due to climate change, with the likelihood of dengue transmission rising by 12% compared to the 1950s. Natural disasters are also more severe than ever in many aspects; occurrences, lethality, and magnitude of impact from extreme weather events have nearly doubled over the last two decades. People from vulnerable age groups, namely children and the elderly, are now being exposed to 3.7 billion more heatwave days annually than in the early 21st century.

Interstellar, a film released in 2014, and a personal favourite of mine, portrays a bleak future of Earth ravaged by famine due to the loss of food crops from climate change-induced blight. In this Hollywood production, the heroes and heroines save the day (of course) and find a new planet for humanity to seek refuge and start anew. This doomsday scenario may become more fact than fiction as evidenced by data published

in a recent Lancet report showing a significant decrease in global duration for growth of crops including rice, maize, soybean and wheat, with an average of 29% more global land area affected by extreme drought compared to the 1950s. Malaysian data from 2021 similarly shows a depreciating pattern, with a 5% and 1% decrease in maize and rice growth duration respectively compared to the 1990s. Overall, the loss of food crops has led to 98 million more people suffering moderate to severe food insecurity worldwide compared to the early 21st century.

In the absence of climate policies, the Intergovernmental Panel on Climate Change (IPCC) projects a rise in global temperature of 2°C above pre-industrial levels by the year 2050, which would further increase the magnitude and impact of the abovementioned crises. The WHO has estimated that between 2030 and 2050 an additional 250,000 deaths per year will occur if global temperatures rise as predicted, mainly due to the impacts of extreme heat, lack of safe water, decrease in staple foods and increase in extreme weather and natural disasters. And unlike the plucky protagonists in the movie, we don't have an option of Plan(et) B for the foreseeable future.

A global response

In the spirit of the Montreal Protocol, the world gathered again to enact the Kyoto Protocol in 1997. It was signed by 192 parties with the primary goal of reducing emissions of GHGs. Unfortunately, the success of the Montreal Protocol could not be replicated; global CO₂ emissions continued to rise worldwide despite the Kyoto Protocol's inception (**Figure 4**). In retrospect, the Protocol was doomed to failure from the very beginning as it either excluded or was not ratified by many of the world's largest and fastest-growing economies, including the United States of America and the People's Republic of China, major producers of GHGs.

Driven by scientific evidence and lessons learnt from failures of the Kyoto Protocol, the Paris Agreement was signed by 195 parties on 22nd April 2016 (Earth Day). This represented an international last-ditch effort to alleviate global warming, with the primary aim of limiting a rise in mean global temperature to well below 2°C above pre-industrial levels and preferably limiting the rise to 1.5°C. This would require a reduction in global GHG emissions by approximately 50% by 2030, coupled with an ambitious goal of

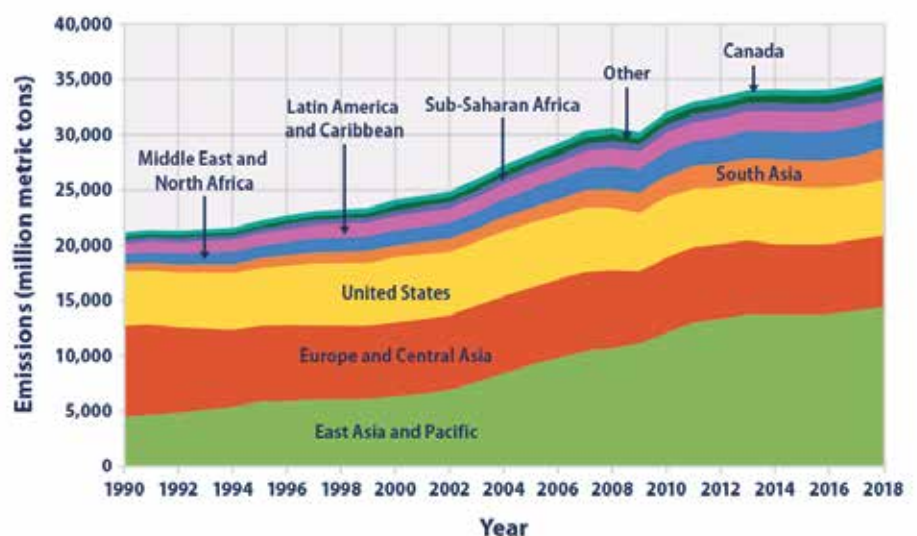


Figure 4: Global carbon dioxide emissions by region 1990-2018

net-zero global emissions by the middle of the 21st century. Malaysia, a party to the Paris Agreement, has committed to reduce its GHG emissions to 45% by 2030 and achieve net zero by 2050, a goal which requires a combined, coordinated, and dedicated effort from the government, NGOs, industry, and citizens alike.

The Carbon Footprint of Anaesthesia & Perioperative Care

Although industrial and agricultural GHG emissions have undergone extensive regulation as part of commitments to the Paris Agreement, emissions from the healthcare sector, accounting for 5-9% of all GHGs, have been mostly ignored, unregulated and excused as a necessary evil. This has led to a ubiquitous yet mistaken belief that little can be done to reduce the carbon footprint of our healthcare systems. The first step to remedy this would be to identify the carbon footprint of the various healthcare services, with anaesthesia and perioperative services often playing the role of the biggest culprit, regardless of the available specialities or size of the respective hospitals. MacNeill et al. (Lancet Planet Health, 2017) studied and compared the carbon footprint of operating theatres from three quaternary-care

hospitals in Canada, the USA, and the UK over one year (**Figure 5**). Anaesthetic gases, energy consumption supply chain and waste were identified as the largest sources of GHG emissions, though the relative contributions of each component differed based on the individual hospital.

Anaesthetic gases

Anaesthetic gases or inhalational anaesthetics remain a vital and significant component in the provision of general anaesthesia. In most healthcare settings, these gases are exhaled by patients under anaesthesia, collected by scavenging systems and vented directly to the atmosphere to reduce occupational exposure to operating theatre personnel. A similar fate befalls unscavenged waste anaesthetic gases exhaled into the operating theatre environment and eventually make their way outdoors.

All the anaesthetic gases commonly used in modern practice are potent GHGs with heat-trapping properties up to thousands of times greater than an equivalent mass of CO₂. A useful method to convey this effect would be the concept of GWP₁₀₀, a metric which assesses the global warming potential (GWP) of a kg of substance compared to a kg of CO₂ over a 100-year period

(**Table 1**). For example, a 1 kg emission of nitrous oxide (N₂O) would be equivalent to a 300 kg emission of CO₂. The negative environmental impact of anaesthetic gases is further magnified when using N₂O as a sole agent or a carrier gas, which ironically is no laughing matter as it is both an ozone-depleting substance and a potent GHG. A further concern is the prolonged duration of action of these agents, with sevoflurane, isoflurane, desflurane and N₂O exhibiting atmospheric lifetimes of 1, 3, 10 and 114 years, respectively.

Table 1: Anaesthetic gas 100-yr global warming potential

Compound	GWP ₁₀₀
Carbon dioxide	1
Nitrous oxide	300
Isoflurane	510
Sevoflurane	210
Desflurane	1620

While a common counterargument is that these gases represent a relatively small percentage of total human GHG production, they do in fact, represent over half of surgery-related carbon emissions and measures to limit their release into the atmosphere will most certainly have a significant impact on the perioperative carbon footprint.

Supply chain, waste disposal and life cycle analysis

Consumables, medical devices, and pharmaceuticals used for anaesthesia and perioperative services require synthesis from various compounds in often energy-intensive manufacturing processes which generate GHGs. Moreover, an increasing reliance on single-use operating theatre equipment, including disposable laryngoscopes, airway devices, tubings and plastic packaging ultimately contributes to mountains of medical waste, which in turn require disposal, often via incineration which further releases

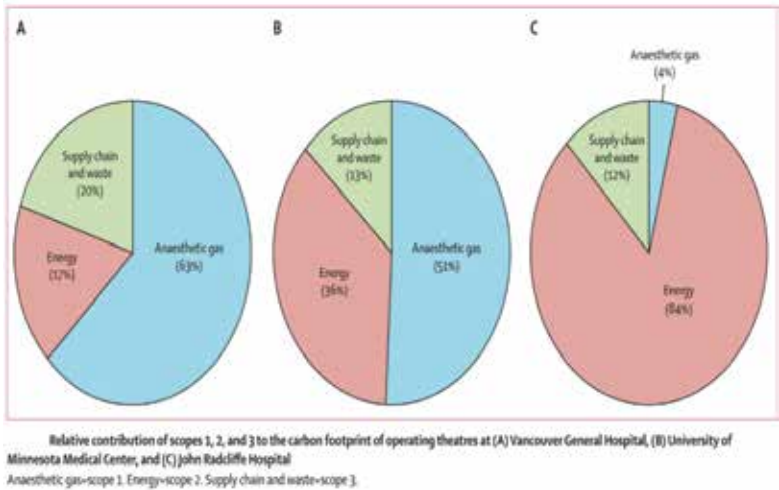


Figure 5: Relative contribution of anaesthetic gas, energy and supply chain and waste to carbon footprint of operating theatres at (A) Vancouver General Hospital, (B) University of Minnesota Medical Center and (C) John Radcliffe Hospital

pollutants and GHGs to the atmosphere. It is telling that operating theatres often produce more than half of an entire hospital's waste, despite only accounting for typically 5-10% of a hospital's workforce and this can be strongly attributed to the widespread use of single-use equipment and products.

As an example, reusable silicone supraglottic airway devices (SADs) have been found to have a more favourable carbon footprint than disposable PVC SADs (7.4 vs 11.3 kg CO₂e equivalents (CO₂e) respectively), while single-use plastic laryngoscope handles and blades generate up to 18 and 6 times more CO₂e respectively than reusable steel. The more significant negative impact of single-use devices remains even when consideration is made for the energy required to sterilise reusable equipment.

Life cycle analysis (LCA) allows for systematic evaluation of the environmental impact of medical devices, pharmaceuticals, and other products over their entire lifespan, i.e., a cradle-to-grave assessment of a product's carbon footprint from production to distribution and ultimately, disposal. Crucially, utilising LCA enables healthcare workers and decision-makers to compare products objectively, facilitating modification of practices based on these assessments. There are a growing number of studies based on LCA which have found that single-use equipment contributes to more significant carbon emissions than reusable alternatives without evidence of superiority. Nevertheless, more research is desirable to determine if this finding is valid for all equipment and products used in perioperative care.

Sherman et al. (*Anesth Analg*, 2012) performed LCA of several anaesthetic

drugs including sevoflurane, desflurane, isoflurane, N₂O and propofol, encompassing resource extraction, drug manufacturing, transport to healthcare facilities, drug delivery to the patient and disposal or emission to the environment. All the anaesthetic gases studied were found to have significant life cycle GHG impact, mainly due to uncontrolled emissions which increased substantially when N₂O was used in the

gas mixture (**Figure 6**). Desflurane had the most extensive life cycle GHG impact, 15 and 20 times that of isoflurane and sevoflurane respectively on a per MAC-hour basis in an oxygen/air mixture. In comparison, the GHG impact of propofol was found to be relatively small, close to a thousand times less than desflurane or N₂O, primarily attributed to electricity required to power syringe pumps.

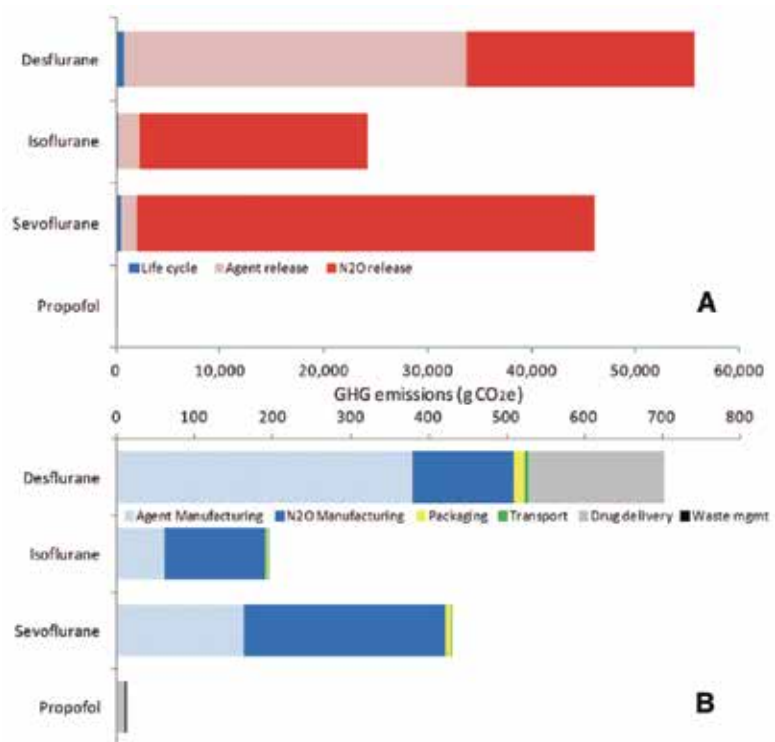


Figure 6: Life cycle GHG emissions of anaesthetics, (A) including waste anaesthetic gas emissions of halogenated drugs and nitrous oxide and (B) excluding waste anaesthetic gas emission

Energy: Facility heating, ventilation and air-conditioning (HVAC)

The energy required for HVAC systems represents the third major carbon footprint component for anaesthetic services and perioperative care. Operating theatres are energy-intensive environments which require controlled temperature, lighting and ventilation and consume 3-6 times more energy per square foot than anywhere else in a hospital, primarily due to HVAC systems. The problem is intensified with poorly maintained systems which are less

energy-efficient, requiring more power to achieve the same degree of temperature control. Furthermore, older HVAC systems may use refrigerants which themselves are potent GHGs. Extensive use of electronic medical equipment, such as computers, anaesthesia workstations, monitoring devices and surgical instruments, many of which are left running day and night, increases energy consumption.

The impact of energy consumption and wastage as a source of GHG emissions is

compounded in Malaysia as we still rely heavily on non-renewable sources of energy such as oil, gas, and coal which produce up to a thousand times more CO₂e compared to renewable 'clean' energy. Data from the Energy Institute indicate that only 19% of energy in Malaysia is generated from renewable sources, a fraction inferior to close neighbours such as the Philippines, Vietnam, and Australia and well below countries such as Norway, which almost exclusively use renewable energy sources.

Conclusion

To summarise the climate situation in a manner which best resonates with fellow anaesthesiology practitioners, we can

use capnography as an example, a core component of perioperative monitoring and arguably the single most useful piece of equipment in our practice. In a similar vein, the Mauna Loa Observatory in Hawaii keeps a close eye on the monthly atmospheric concentrations of CO₂ and much like a patient's capnograph, these CO₂ concentrations rise and fall over a year. What is striking however is when this trend is observed over a longer period, one will notice a pattern of steadily rising atmospheric CO₂. A correlation can be made that when a similar pattern of rise is seen in a patient's capnography, it points to an underlying illness, with diagnoses of sepsis and malignant hyperthermia coming to mind,

pathologies with a significant risk of mortality and morbidity without prompt treatment.

While anaesthesia and perioperative services remain an essential part of modern medicine, their environmental impact should no longer be ignored or excused. As leaders and decision-makers in the perioperative environment, we are best placed to take proactive steps to minimise our carbon footprint and contribute to a more sustainable future. Our Earth is ill, we are the cause and in keeping with our dictum of *primum non nocere*, it's time to do our part before we no longer have it all.

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Green Anaesthesia NOW OR NEVER

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The climate crisis is the biggest threat to global health in the 21st century. The global surface temperature is 1.1°C higher than pre-industrial levels and continues to rise at an unprecedented rate. No one is spared from this imminent climate crisis, as it affects human health, political stability, food and water security. The Inter-governmental Panel on Climate Change (IPCC) Special Report concluded we have less than ten years to dramatically reduce our greenhouse gas emissions to limit global warming to an increase of 1.5°C and limit climate change-related public health crises.

While the healthcare sector aims to address human health issues, we also contribute significantly to environmental pollution. Five percent of total global greenhouse gas emissions are attributed to the healthcare sector. Perioperative care is a material, energy and water-intensive process that has a measurable contribution to global carbon emission. Operating theatre contributes 25% of all hospital waste, of which 25% arises from anaesthetic care.

In an era marked by escalating environmental concerns and the urgent need for economic practices, the concept of sustainability emerges as a pivotal opportunity for the healthcare sector. World Health Organisation defines an environmentally sustainable health system as one which "would improve, maintain or restore health, while minimising negative impacts on the environment". With the environment at a critical juncture, adopting

environmentally conscious anaesthetic practices is not merely an option but imperative for the present and future of healthcare. The concept of "green anaesthesia" has gained traction as an approach to reduce the ecological footprint of anaesthesia while maintaining patient safety and care.

Anaesthetists are in the position of authority and responsibility to initiate the transition towards more sustainable anaesthetic practices. The practices of Green Anaesthesia have gained momentum worldwide, with various professional guidance statements developed to facilitate the implementation of sustainable anaesthetic practices.

The World Federation of Societies of Anaesthesiologists (WFSA) released a global consensus statement on principles of environmentally sustainable anaesthesia in Glasgow by the start of the 26th United Nations (UN) Climate Change Conference (COP26) in November 2021. The WFSA convened a working group of 45 anaesthesia providers with a recognised interest in sustainability to agree on principles of environmentally sustainable anaesthesia that are achievable worldwide.

Seven consensus principles were agreed upon, with three fundamental underlying directives, namely:

1) Patient safety should not be compromised by sustainable anaesthetic practices.

2) High, middle and low-income countries should support each other appropriately in delivering "green" healthcare (including anaesthesia).
3) Healthcare systems should be mandated to reduce their contribution to global warming.

The seven consensus principles of environmentally sustainable anaesthesia that anaesthesia providers should do are:

- 1) Minimise the environmental impact of their clinical practice.
- 2) Use environmentally preferable medications and equipment when clinically safe to do so.
- 3) Minimise the overuse/waste of medications, equipment, energy and water.
- 4) Incorporate environmental sustainability principles within formal anaesthesia education.
- 5) Embed environmental sustainability principles within anaesthesia research and quality improvement programmes.
- 6) Lead environmental sustainability activity within their healthcare organisations.
- 7) Collaborate with industry to improve environmental sustainability.

The European Society of Anaesthesiology and Intensive Care (ESAIC) has recently signed the Glasgow Declaration on Sustainability in Anaesthesiology and Intensive Care during the opening ceremony at Euroanaesthesia 2023. This declaration showed the EU's unwavering commitment to addressing climate change and taking proactive measures to achieve climate neutrality by 2050. It focuses on achieving greater environmental sustainability across anaesthesiology and intensive care in Europe and serves as a guide for European countries to build into their healthcare system. The declaration is the impetus that calls for and heralds a new age of environmentally friendly alternatives for medicines, devices, and equipment used in anaesthesiology and intensive care, as well as a change in culture and approach in how we view our hospital systems.

The ESAIC Glasgow Declaration focuses on key areas where tremendous gains may be made regarding environmental sustainability: medication use, energy use, and circularity in processes and waste.

Green anaesthesia efforts in Malaysia are still in their infancy. However, awareness of sustainable anaesthetic practice is gaining momentum in the nation with the recent launching of the "Green Anaesthesia: Now or Never" campaign during the MSA-CoA Annual Scientific Congress 2023. The Malaysian Society of Anaesthesiologists and the College of Anaesthesiologists recognise the urgency of addressing the global climate crisis and the importance of anaesthetists playing their role in reducing the ecological footprint of anaesthesia.

Following the officiation of the campaign, a series of events were launched nationwide to raise awareness and educate fellow anaesthetists on sustainable anaesthetic practices. A green anaesthesia booth was set up during the MSA-CoA Annual Scientific Congress to educate the crowd on the concept of the 6Rs (Rethink, Refuse, Reduce, Reuse, Reduce, Recycle, Research). The organising committee also collaborated with local environmental activists to promote a greener lifestyle outside work. This local NGO graciously supported the event by providing posters on plastic recycling and distributing free rice straws (as a substitute for plastic straws). On 26th August 2023, the "Moving Towards Green Anaesthesia: Now or Never" webinar was successfully organised, with more than 200 participants registered. International and local speakers were invited to discuss sustainable anaesthetic practice, addressing the critical issues of patient safety and environmental sustainability.

"Rome was not built in a day". Implementation of sustainability takes concerted efforts from all stakeholders. To be acceptable and feasible in practice, the transition towards environmental sustainability must consider the timelines for the development and availability of environmentally friendly alternatives for medicines, devices and equipment. Various initiatives that can be implemented include:

1. Reducing greenhouse gas emissions

Volatile agents with the lowest global warming potentials should be chosen if inhalational anaesthesia were used. Desflurane and nitrous oxide have the most significant global warming

potential and should be used judiciously in specific justified cases only.

The adoption of minimal flow during induction and maintenance of anaesthesia and the installation of a proper scavenging system in the OR are ways to reduce greenhouse gas emissions.

Although total intravenous anaesthesia is proposed as an alternative mode of anaesthesia, there are still uncertainties regarding its environmental impacts. The manufacturing and disposal of pharmaceutical products and syringes, water and land pollution, and marine life threats are issues that necessitate further investigation and research.

2. Energy efficiency

Anaesthesia and intensive care are energy-intensive. These include energy for heat, ventilation and air conditioning (HVAC), to operate machines and equipment, for cleansing and sterilisation of equipment, and lighting. The mean energy usage of the operating theatre by surface area is three to six times the mean in the remaining hospital. Mitigating emission intensity and inefficient hospital energy use is of paramount importance.

Sustainable infrastructure should be considered when designing the proposed building or renovation of the operating theatre, recognising that environmental, economic and social (triple bottom line) benefits are interdependent.

"Closing down theatre" protocols, including switching off machines and turning off lights, should be implemented to reduce unnecessary energy wastage.

3. Waste reduction

Waste reduction can be achieved via carefully designed and regularly audited 6Rs (Rethink, Refuse, Reduce, Reuse, Recycle, Research) approaches in respective institutions. Single-use plastic and disposable equipment should be reconsidered, considering their life cycle assessment (cradle-to-grave analysis) and the risk-benefit of a patient and the environment. Proper waste management, including waste segregation and recycling, can reduce the amount of waste sent to landfills. This requires systematic theatre waste streaming, appropriate recycling facilities and probably incentives. Rational use of diagnostic tests and prescriptions not only reduces wastage but also save cost. Preoperative blood investigations and X-rays should only be ordered or repeated if indicated and justified.

4. Education and Training

Principles and practices of sustainability should be incorporated into anaesthesia education and training, either via continuing professional development or formal anaesthesia curriculum. Grants and support for fellowship in the field of sustainability should be provided to green anaesthesia advocates. Regional, national or international conferences focusing on sustainability will provide platforms for knowledge exchange and experience sharing to facilitate the education and adoption of sustainable anaesthetic practices.

5. Leadership

Anaesthetists play a proactive role as leaders in advocating green practices. We should lead by example on 'green' issues, personally and professionally, by advocating sustainability in policy, operation, redesign, procurement and workplace culture. Inhalational anaesthetic agents are exempted from international regulations, e.g., the Kyoto Protocol and the Paris Agreement, due to the perceived medical necessity. This further emphasises the need for anaesthetists to take up the leadership role to evaluate the impact of anaesthetic practice in respective institutions.

6. Collaboration

Collaboration among multidisciplinary sustainability team stakeholders, including healthcare providers, manufacturers, pharmaceutical companies, policymakers, and environmentalists, should be implemented to ensure a broader view of these pressing issues and enable a holistic approach towards environmentally preferable choices.

The time for action is now. Green anaesthesia is not just a trend. It is a necessity for the healthcare sector to contribute meaningfully to global sustainability efforts. As environmental concerns intensify and society demands accountability, embracing green anaesthesia represents a decisive step towards a healthier planet and brighter future. It is a call that cannot wait, a challenge that must be accepted - Now or Never.

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Sustainability in Anaesthesia

6 Rs IN PRACTICE

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Sustainability

Sustainability! It's a word that needs no further introduction, a word that has been thrown around daily in almost every aspect of our society, be it economic, environmental or social. So, what does it really mean? When did it all begin? Sustainability goes back to the 1970s when society became more aware of environmental pollution. However, only in 1987 was the term '**Sustainable Development**' popularised in the 'Our Common Future' report by the UN Brundtland Commission. "Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

Fast forward to 1994, John Elkington introduced "Triple Bottom Line" as a novel business accounting framework comprising environmental, financial and social aspects to be part of the sustainability framework. To be deemed sustainable, an organisation must balance and manage its environmental impacts (e.g. air pollution, CO₂ emissions) and maintain its social obligations regarding the health and wellbeing of employees and clients. Traditionally, as an anaesthesiologist, our core goal is to find the perfect balance between immobility, analgesia and hypnosis, but we tend to neglect the impact it has on sustainability. Johnson et al. 2021 proposed incorporating the "Triple Bottom Line" into perioperative care, suggesting prioritising patient care does not have to result in financial and environmental tradeoffs.

Healthcare Paradox

The talk of climate change has been around for more than a decade now. The World Health Organization (WHO) declared climate change '**the biggest health threat facing humanity**'. Climate change can directly and indirectly impact health due to increased frequency of extreme weather events, worsening air quality and modifying the spread of infectious diseases. Countless articles have described catastrophic health consequences of extreme urban heat; this includes cardiorespiratory mortality, renal disease, mental illness and health system impacts. This has led to numerous researches, innovations, inventions and upgrades in medical technologies to keep on par with this global health crisis.

Paradoxically, the healthcare system has been a source of pollution by itself and causing harm to public health. Shocking but true, if global healthcare were considered a country, it would be the fifth largest carbon emitter globally. The healthcare sector is known for its carbon-intensive service, with acute care setting being the second most energy-intensive sector, just below food service facilities. The global healthcare industry alone accounts for almost 5% of the world's greenhouse gases (GHGs), higher in developed countries, as high as 8% in the United States and 7% in Australia. Often overlooked by an anaesthesiologist is the fact that an operating room (OR) is the epicentre of the hospital's carbon footprint. On average, OR consumes three to six times more energy per square foot, producing

20-30% of total hospital waste and 60% of the hospital's regulated medical waste. Inhaled anaesthetic agents (IAAs) gases, particularly desflurane and nitrous oxide, are potent GHGs with high global warming potential (GWP). Therefore, anaesthesia significantly contributes to climate change, not only by the drugs used but also by the waste produced at the workplace daily.

6 Rs in Anaesthesia

The 6 Rs of sustainability is a crucial framework that aims to guide us on reducing the environmental impact and improving sustainability in general. Most of us are familiar with the 3 Rs: reducing waste, reusing and recycling products to cut waste and maximise resources. With respect to this traditional model, a new concept known as the 6 Rs - rethink, refuse, reduce, reuse, recycle and research, were derived, offering a more thorough and complete framework. It incorporates the existing 3 Rs and adds on three new actions. Below is a brief description of the 6 Rs in sustainability that one can apply in daily anaesthesia practice.

Rethink

This is the first and most crucial step in achieving sustainability. The concept of rethinking applies not only in anaesthesia practice but also in our daily activities and its impact on the environment. A useful question to ask ourselves "Is there any greener alternative to what we are going to do"? More often than not, we make more environmentally friendly choices just by this simple first mental step, e.g.,

using fewer plastic syringes or choosing regional anaesthesia over general anaesthesia.

Refuse

The concept of rethink is followed by refuse, the second 'R' in sustainability. This word speaks for itself: **Say no** to things harmful to our environment. Wastage and overuse of equipment, resources and energy can be avoided simply by refusing to do things we don't need. A simple yet effective strategy is adopting the minimalistic approach, for example, to avoid unnecessary preoperative investigation, drug preparation and single-use devices.

Reduce

"The best waste is that which is not produced" is a perfect summation for the third 'R' in the sustainability framework. As is known, IAAs are potent GHGs and contribute 0.1% of the total global carbon dioxide equivalent. Therefore, it is rational to prioritise regional anaesthesia over general anaesthesia (GA) whenever possible avoiding the need for IAAs. In cases

where GA is chosen as the mode of anaesthesia, total intravenous anaesthesia (TIVA) should be employed. Multiple publications have reported that TIVA using propofol and remifentanyl generates less carbon footprint than IAAs even after accounting for the entire life cycle, from manufacturing to disposal of medical waste generated from propofol infusions like syringes and tubing. If IAAs were inevitable, avoid desflurane and nitrous oxide as both gases have high 100-year GWP and atmospheric lifetime. Low fresh gas flow (FGF) with a CO₂ absorbent during IAA administration will further reduce the gases vented into the atmosphere. Another common source of pollution is the use of syringes and drug wastage. The use of plastic syringes can be reduced effectively by drawing up drugs only when needed, especially the not-so-common "standby drugs" such as atropine. The ampules must be readily available and drawn up within seconds when needed unless in cases where anaesthetic or surgical complications are anticipated, in which prophylactic loading of resuscitation drugs is

warranted. Besides reducing solid waste production, minimising the energy expenditure in the OR is crucial. When the OR is not in use, the lights, air conditioning and electronic equipment such as anaesthetic machines should be switched off.

Reuse

If utilising equipment is unavoidable, the next prudent step would be to reuse the resources that can reduce waste production. Priority should be given to reusable equipment as far as possible, for example, using reusable laryngoscopy blades and reusable laryngeal mask airways instead of disposable ones. Disposable drug trays should be substituted with plastic ones that can be cleaned and sanitised. Operating room staff are encouraged to wear washable OR only caps and shoes instead of disposable caps and plastic shoes. In many science-based life cycle environmental studies, reusable surgical gowns and drapes demonstrated substantial sustainability benefits over the same disposable products.



Providing balanced anaesthesia goes hand-in-hand with "Triple bottom" of sustainability comprising of environment, economic and patient outcome

Recycle

This 'R' doesn't need further introduction. Recycling should be considered when "Reduce" and "Reuse" have been maximised. Close to 40% of total operating room wastes are potentially recyclable; despite this, Lausten G. in 2007 reported that up to 92% of perioperative solid waste was improperly segregated and sent for unneeded biohazardous processing. Therefore, it is essential to have effective OR waste management and screening for recycling opportunities. A large number of wastes are generated from the OR daily, for example from the packaging of drugs, intravenous fluids and syringes which can be easily collected and delivered to local plastics recycling firms.

Apart from that, an organisation can also integrate a recycling programme:

- Conducting a prospective waste audit involving internal and third-party auditors

- Working closely with recycling partners to evaluate what types of plastic materials are acceptable for recycling
- Providing adequate waste segregation training for staff
- Providing visual aids, such as waste wizards/charts illustrating what items go into each waste receptacle, which can be displayed in staff lounges and on the operating room walls
- Measuring programme performance through periodic audits to provide measurable results

Research

The last 'R' in the sustainability framework is research. Research is part and parcel of the ever-growing medical field. Unfortunately, evidence is still scarce on the environmental effects of the different healthcare systems and ORs organisations, new devices or

technologies. Future research on anaesthesia intervention and quality improvement projects should always consider the financial, social and environmental implications of achieving more sustainable anaesthesia.

With this, it is evident the practice of anaesthesia plays a significant role in environmental pollution and climate change in one way or another. As an anaesthesiologist, it is not an exaggeration to mention that we have an ethical obligation to lessen the detrimental impacts of our practice on the environment, both as individuals and as a speciality. Hence, 'Greening' the operating room should be a priority in every step of the modern anaesthesia practice. A small step goes a long way when it comes to climate change. I want to quote a French founder of modern conservatism, Edmund Burke: *"Nobody made a greater mistake than he who did nothing because he could do only a little."*



6 Rs of sustainability that all anaesthesiologists should adopt in practising modern anaesthesia

Malaysian Society of Anaesthesiologists & College of Anaesthesiologists Annual Scientific Congress 2023

MyAnaesthesia 2023 Leadership and Excellence in Anaesthesia Development (LEAD)

by **Hasmizy Muhammad**

Pusat Jantung Sarawak, Sarawak, Malaysia



Every year, the Malaysian Society of Anaesthesiologists (MSA) and the College of Anaesthesiologists, Academy of Medicine of Malaysia (CoA) organise the Annual Scientific Congress, their biggest convention based on the scientific programme, the number of participants, industry involvement, and the number of overseas speakers.

This year, the Annual Scientific Congress was held away from the Klang Valley, at the Borneo Convention Centre, Kuching, Sarawak from 4th to 6th August 2023. The congress was supported by Business Events Sarawak.

The theme for the Annual Scientific Congress MyAnaesthesia 2023 was Leadership and Excellence in

Anaesthesia Development **(LEAD)**. It highlights our dedication to exploring new boundaries, promoting and empowering leadership in the fraternity, and developing an excellent culture in patient care.

This year's congress was very special because, in addition to being the first totally in-person congress conducted

after the post-COVID-19 pandemic, it was the Malaysian Society of Anaesthesiologists' 60th Diamond Jubilee Anniversary. This event also coincided with the Sarawak 60th anniversary of independence.

The congress started with four pre-congress workshops on the 3rd November 2023. The "Total Intravenous Anaesthesia: An Introduction and Update" workshop was held at the Sarawak General Hospital, while other pre-congress workshops, such as "Point-of-Care Ultrasound (POCUS) for Anaesthesiologists", "Advanced Haemodynamic Monitoring", and "Leadership in Anaesthesia (WFSA AARS Module)" were held at the Pullman Hotel, Kuching. All these workshops received overwhelming responses from the participants.

A total of 705 delegates registered for the congress. The organising chairperson, Professor Dr Ina Ismiarti Shariffuddin, the local organizing chairperson, Dr Hasmizy Muhammad, and the committee members worked very hard to make sure the event was successfully conducted. The Scientific Committee, led by Associate Professor Dr Muhammad Maaya, ensured that the programme, delivered by 18 foreign speakers and 33 local speakers, was up-to-date and relevant. The congress





consisted of six plenary lectures delivered by distinguished speakers from all around the world, 17 symposia, two lunch symposia, one president's forum, four in-congress workshops, two problem-based learning sessions and three biomedical industry lectures.

The opening ceremony was held on the 4th August 2023. It was officiated by The Right Honourable Datuk Patinggi Tan Sri (Dr) Abang Haji Abdul Rahman Zohari Bin Tun Datuk Abang Haji Openg, The Premier of Sarawak. The other guests of honour were The Honourable Dato' Sri Professor Dr Sim Kui Hian, Deputy Premier of Sarawak and Minister of Public Health, Housing, and Local Government Sarawak, and Dr Azlee Ayub, Deputy Director (Medical) of Sarawak Health Department. During the ceremony, the 60th year of the MSA montage was played. Following that, the audience paid last respect to Associate Professor Datin Dr Norsidah Abdul Manap, Past President of the Malaysian Society of Anaesthesiologists and the College of Anaesthesiologists. Next, Dr Mohamed Namazie Ibrahim was conferred the MSA Honorary Membership in recognition of his enormous contributions to the anaesthesia fraternity. During this ceremony, the theme of the National Anaesthesia Day 2023 "Green Anaesthesia: Now or Never" was launched.

Both the Annual General Meetings (AGM) of the MSA and the CoA were held in conjunction with the congress on the 4th and 5th August 2023, respectively. The elections were held for the MSA Executive Committee and the CoA Council for 2023-2024. Before the CoA AGM, the Conferment Ceremony for Parallel Pathway Completion of Specialist Training was presented to Dr Jennifer Ong An Chi and Dr Kevin Yong Vai Ket by the Director of Medical Development Division, Ministry of Health of Malaysia (MOH), Dato' Dr Mohd



Azman Bin Yacob. Congratulations to all the recipients and their family members!

The e-poster and oral presentations were well-represented by participants from all over Malaysia. The high standard of scientific content of the papers presented, either research studies or case reports, impressed the esteemed international judges from South Korea and Thailand, as well as local judges. Dr Afifah Samsudin from Universiti Teknologi MARA, Dr Huzaifah A Wahab from Universiti Kebangsaan Malaysia Medical Centre, and Dr Ng Ka Ting from the Universiti Malaya won the first, second, and third prizes,

respectively, for the best e-poster in the research, study, or audit category. Dr Liow Ying Tian from the Penang General Hospital won the best e-poster case report or case series category. The MSA Young Investigator Award was awarded to Dr Jamie Tan Wen Yen and the MSA Award was won by Dr Maryam Budiman, both from Universiti Kebangsaan Malaysia Medical Centre.

In conjunction with the 60th Diamond Jubilee Anniversary, a gala dinner with the theme "Diamond in the Jungle" was organised on the 5th August 2023 at the Pullman Hotel. The guest of honour was Dato' Dr Mohd Azman Bin Yacob, the

Director of the Medical Development Division, MOH. The dinner setting was amazing, complete with a live band, medley dance performances, and jungle décor created by the local organising committee, while the dress code was either Indiana Jones or Gatsby. The dinner was attended by congress participants, the organising committee and faculty members, the winners of the free papers and posters, and the recipients of Dato's Dr S Radha Krishnan Sabapathy Best Master Student Award. The awards were given to Dr Ili Syazana Binti Jamal Azmi and Dr Tan Teck Wei, both from Universiti Malaya.



The congress also featured a total of 46 exhibition booths, including two hospitality suites from 36 pharmaceutical and biomedical industry partners. The physical booths were well patronised by delegates to collect the stamps for participation in the lucky draw.

Most of the delegates stayed to watch the lucky draw and the closing ceremony of the congress. It was a

thrilling and enjoyable way to wrap up the conference. The closing remarks were given by Professor Dr Ina Ismiarti Shariffuddin, followed by a speech by Dato' Dr Yong Chow Yen, the new president of MSA. MyAnaesthesia 2023 presented both opportunities and challenges in planning a physical congress in Kuching post-COVID-19. These included travel and accommodation for speakers, participants, and the organising

committee; the congress venue and technical support; healthcare industry players involvement; support from state agencies and the Premier office. Overall, the Annual Scientific Congress: MyAnaesthesia 2023 was well executed. We would like to express a heartfelt thank you to all for making this congress a success. We will see each other again in the Klang Valley in early August 2024 for next year's Annual Scientific Congress.



TOTAL INTRAVENOUS ANAESTHESIA

An Introduction & Update - Pre-congress Workshop of MyAnaesthesia 2023: LEAD

by Chan Weng Ken¹ & Teo Shu Ching²

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The practice of total intravenous anaesthesia (TIVA) has evolved significantly since its inception in the mid-19th century. The introduction of hollow needles and syringes, as well as the discovery of chemical compounds like chloral hydrate, facilitated the development of TIVA. However, due to a lack of understanding of pharmacokinetics and the challenges of titrating the anaesthetic, plasma levels often fall outside the drug's therapeutic window, resulting in underdosing or oversedation, which can lead to higher mortality rates.

An ideal anaesthetic agent is needed to address these shortcomings, providing smooth and rapid induction of anaesthesia, predictable plasma levels, non-organ-dependent metabolism, and rapid emergence upon drug termination. A sensitive, specific, user-friendly, and cost-effective end-organ target monitor should be available to overcome inter-patient variability and tailor the drug to the desired anaesthetic phase. Hence, in an ideal situation, the pharmacokinetics of the drug should achieve the desired pharmacodynamic effect on the patient, individualised to the patient's monitor, at the discretion of the anaesthetist, forming a closed-loop anaesthesia drug delivery system that delivers the anaesthetic within the therapeutic window.



MyAnaesthesia 2023: LEAD Pre-congress TIVA workshop flyer

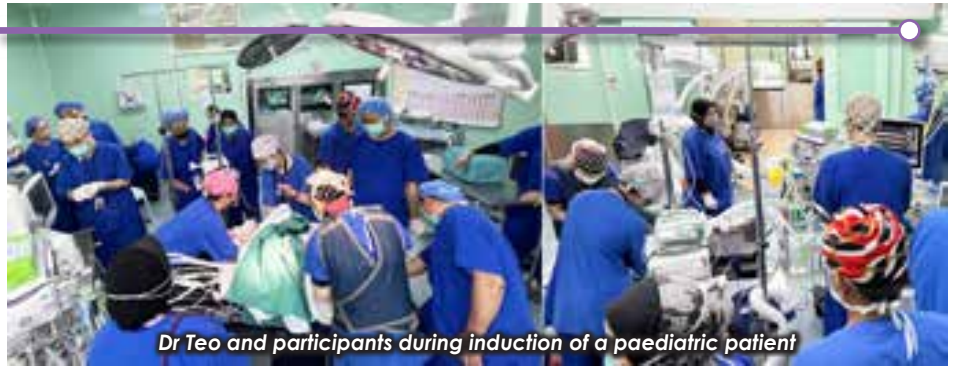
During this year's Malaysian Society of Anaesthesiologists (MSA) and College of Anesthesiologists (COA) Annual Scientific Congress 2023 with the theme MyAnaesthesia 2023: LEAD, we conducted a pre-congress workshop on 'TIVA: An Introduction and Update' on 3rd August 2023, at the Sarawak General Hospital, Kuching. It was a full-day workshop filled with lectures and hands-on sessions with the facilitators, including Dr Teo Shu Ching, Dr Sanah Mohtar, Dr Tan Wei Keang, and Dr Chan

Weng Ken. The workshop aimed to provide junior doctors with a brief overview of TIVA practice and updates on TIVA's advancements, such as newer modalities of processed electroencephalogram (pEEG) monitoring and TIVA's use in the neonatal population for advanced users. This is apt as about 37% of the participants claimed insufficient training on TIVA during the pre-workshop survey and to address some misconceptions about TIVA practices.

Twenty-seven participants from all over Malaysia, including two from Australia, registered for this workshop. They were subsequently divided into four smaller groups to maximise the interaction during hands-on sessions. The workshop started with the first lecture by Dr Chan Weng Ken on 'Introduction to TIVA - Basic Sciences & Clinical Applications'. Dr Sanah Mohtar delivered the second lecture on 'Neonatal, Paediatric & Adult TIVA: The Differences', in which she also shared her experience regarding TIVA usage in neonatal populations that was published in the Malaysian Journal of Anaesthesiology (MyJA) recently. Subsequently, Dr Tan Wei Keang



Dr Sanah and participants during an interactive session at the magnetic resonance imaging (MRI) suite. Pictures showing the beginning, during, and after MRI scan under TIVA



Dr Teo and participants during induction of a paediatric patient

dissected and simplified the latest modalities on pEEG in his lecture entitled 'Depth of Anaesthesia Monitoring: Numbers, Patterns & Waveforms'. The participants were divided into groups between each lecture to either the operating room or radiological suite to appreciate the interactive session with patients. The background coordination was essential to achieve uninterrupted clinical service and to maximise participants' exposure during the interactive sessions.

Dr Teo Shu Ching concluded the workshop with a few case-based discussions by sharing her experience, tips, and tricks from her previous cases. This workshop would not have been possible without the participation of relevant industry partners who worked hand-in-hand to bring state-of-the-art patient monitors and anaesthetic drug delivery pumps, and facilitated the event's smooth conduct. Our local

partners from Aspen, Fresenius Kabi, Masimo, and Medtronic played a vital role in this aspect. Although the one-day workshop was helpful, it was too brief to master the art of TIVA fully. Our post-workshop feedback also noted that a few participants requested a longer duration.

Since the 6th World Congress of TIVA-TCI 2018 held locally in Kuala Lumpur, there has been significant progress in the international practice of TIVA-TCI. Hence, a TIVA symposium that extends beyond borders has been curated for this region. The Department of Anaesthesiology and Intensive Care, Universiti Kebangsaan Malaysia, in collaboration with the MSA, the COA, and the Malaysian Society of Paediatric Anaesthesiologists (MSPA), will organise the TIVA-UKM Symposium on 10th December 2023. International and local experts will share various aspects of TIVA, from basic sciences to clinical



Dr Tan and Dr Ken with participants during the interactive session, while waiting for the arrival of patients



Participants and facilitators at the MyAnaesthesia 2023: LEAD pre-congress TIVA workshop

applications and anaesthesia monitoring. The hybrid symposium will take place at Komune Living & Wellness in Cheras, Kuala Lumpur, and virtually on the Zoom platform. Additional details can be found on the flyer, and we hope to see you there! You may scan the QR code to lead you to the registration page.



QR code for the symposium registration



The upcoming TIVA-UKM flyer



Facilitators and runners who managed all the background coordination

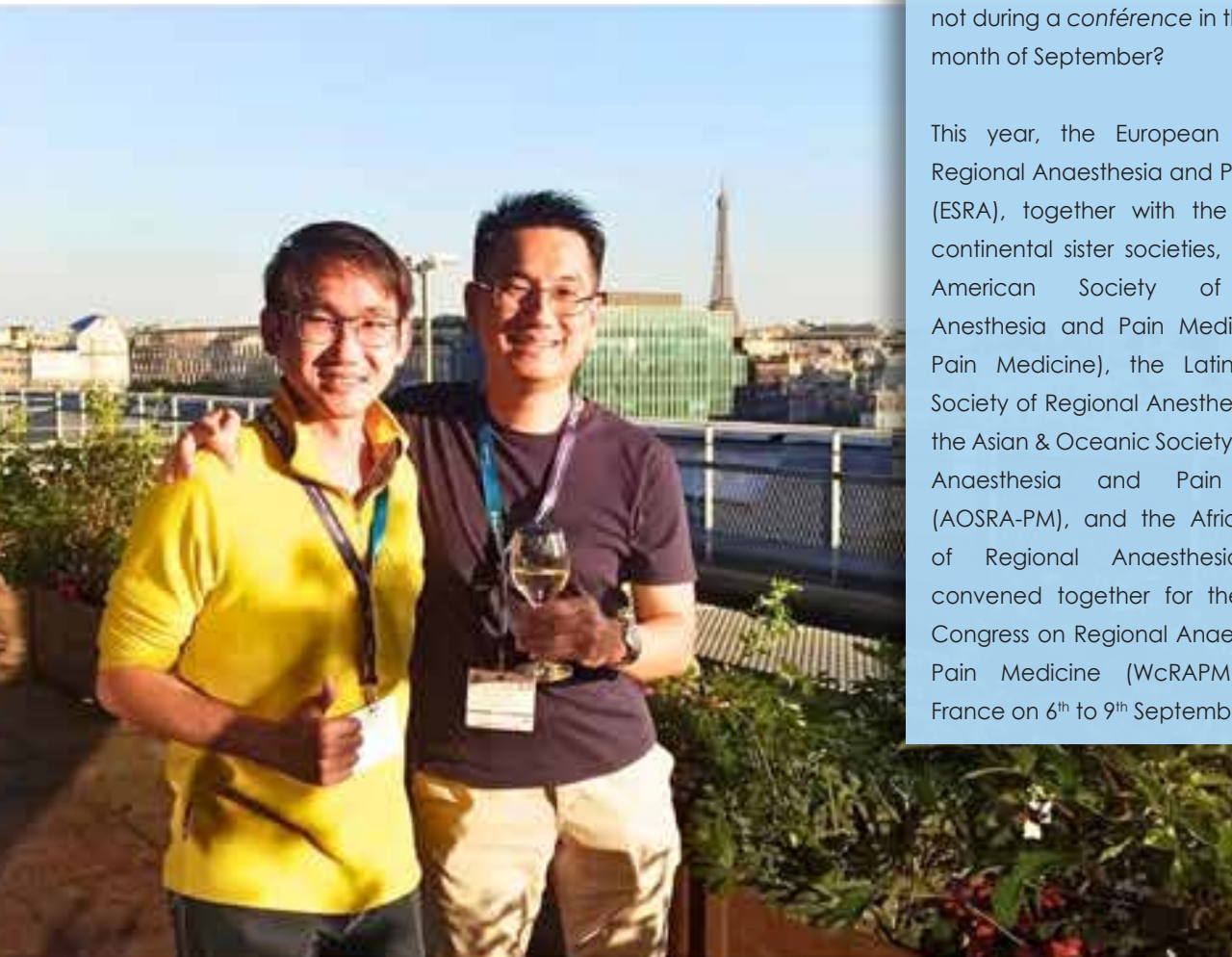
The 6th World Congress of Regional Anaesthesia and Pain Medicine (WcRAPM), Paris, France - The Regionalists' Rendezvous

by Chan Weng Ken¹, Siew Gee Ho², Shahridan Mohd Fathil^{1,3}

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³Glenagles Hospital Medini Johor, Johor, Malaysia



The city of Paris has long been considered the most romantic city in the world. Who does not want to travel with their loved ones to Paris? When to visit, if not during a *conférence* in the beautiful month of September?

This year, the European Society of Regional Anaesthesia and Pain Therapy (ESRA), together with the other four continental sister societies, namely the American Society of Regional Anesthesia and Pain Medicine (ASRA Pain Medicine), the Latin American Society of Regional Anesthesia (LASRA), the Asian & Oceanic Society of Regional Anaesthesia and Pain Medicine (AOSRA-PM), and the African Society of Regional Anaesthesia (AFSRA) convened together for the 6th World Congress on Regional Anaesthesia and Pain Medicine (WcRAPM) in Paris, France on 6th to 9th September, 2023.



This four-day congress, held with more than 15 parallel rooms/tracks and attended by more than 3000 participants from more than 100 countries, offered many opportunities to learn, network and explore the latest updates, advancements and state-of-the-art equipment in regional anaesthesia and pain medicine. As WcRAPM was also held together with the 40th ESRA Annual Congress, trainees from around the world congregated for the European Diploma in Regional Anaesthesia & Acute Pain Management (EDRA), which was held during that same week.

EDRA Exams

The congress was preceded by the EDRA exam. Dr Chan Weng Ken, Dr Lim Woon Lai and Dr Siew Gee Ho arrived much earlier on 3rd September 2023 to prepare for their EDRA part IIA exam. It was physically and mentally challenging as they juggled last-minute revision during the long-haul flight and managed the jet lag on arrival. This is no small feat for the faint-hearted, especially to sit for an international exam the next day after touchdown.

The EDRA examination was created in 2005, and with the recent revision, it now consists of Part I (written), Part IIA (viva) and Part IIB (viva and live demonstration). The EDRA examination usually takes place yearly during the

ESRA Annual meeting each September, and occasionally, the Part I exam may be held outside Europe to cater for international candidates.

The Congress

The WcRAPM officially kicked off on the 6th September, 2023. Dr Shahridan Fathil arrived as one of the esteemed speakers for WcRAPM. He delivered his talk on "Regional Anaesthesia for Clavicle Fractures and Clavicle Surgery", chaired by Dr Barry Nicholls, another giant of the fraternity. The whole congress was action-packed with plenaries, discussions, 'ask the experts' sessions, networking sessions, simulation sessions, live demonstrations, research presentations, and the most looked forward to, the pro-con debates between the giants of the regional anaesthesia and pain medicine fraternity.

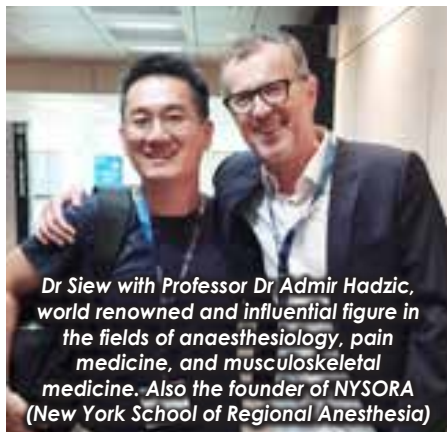
Aside from all these, the congress also hosted many concurrent hands-on workshops to cater for the EDRA trainees. This was evident as a booth at

the exhibition hall was dedicated to EDRA trainees. The widely recognised postgraduate diploma training also requires the candidates to attend EDRA-approved workshops of a specific duration. This is to ensure sufficient hands-on exposure under supervision by the experts in regional anaesthesia. After fulfilling all these, together with logbook proof of blocks done in the respective places of practice, the candidates will be allowed to sit for the EDRA exam. The arduous journey to becoming an EDRA diplomate is to ensure a minimum standard among the practitioners is met and trainees with only knowledge without sufficient clinical experience are screened.

More importantly, this international congress was a networking opportunity for internationally renowned experts to discuss and share ideas. It was also an opportunity for us to meet old and new friends from Malaysia who had migrated overseas. We all had our special dinner gathering among Malaysians during the



congress. We enjoyed getting to know each other, catching up and celebrating Dr Siew's birthday.



Dr Siew with Professor Dr Admir Hadzic, world renowned and influential figure in the fields of anaesthesiology, pain medicine, and musculoskeletal medicine. Also the founder of NYSORA (New York School of Regional Anesthesia)



The three exam goers: Dr Ken, Dr Lim and Dr Siew

State-of-the-art: Artificial Intelligence

A world congress would not live up to its name if it did not showcase the state-of-the-art armamentarium. Artificial intelligence in ultrasonography, regional anaesthesia, and point-of-care ultrasound was an eye-opener during the congress. A few tracks explicitly catered to artificial intelligence during the congress, namely "Intelligent Ultrasound AI in RA", "Artificial Intelligence - Networking Sessio", "Virtual Reality in RA: A promising tool for the future?", "Pro-Con Debate: Technology can replace current RA training", "How to use AI in practical terms for Anaesthesiologists - Live discussion", and "Technology in RA Education". Intelligent Ultrasound, the company behind NeedleTrainer, was at the forefront of all this work, together with experts in regional anaesthesia.

Our local fraternity was fortunate to experience all these state-of-the-art advancements during the Anatomy & Ultrasonography for Regional Anaesthesia (AURA) 2023: An Anaesthesia Competency Training in Immersive Virtual Environment (ACTIVE) held early this year in February. Keeping in line with worldwide progress, participants of the AURA 2023 were exposed to virtual and augmented reality in regional anaesthesia during the lecture, and they were also fortunate to have a hands-on session on the NeedleTrainer from Intelligent Ultrasound. More details on AURA 2023 are available in Berita Anestesiologi Vol. 35, Issue 2, Pages 12-14.



Dr Siew and Dr Ken with the respective posters



EDRA trainees' activities. From top left (clockwise): Dr Ken with the prizes from RA quiz competition; Trainees participating in the RA quiz competition; Dr Ken with the other winners; Dr Ken and Dr Siew at the EDRA trainees' cocktail reception





Dr Siew during one of the hands-on workshops. (Picture taken from: ESRA 2023 Photo Gallery at <https://maartenschuith.smugmug.com/ESRA-World-Congress-2023/>)

Conclusion

The 6th WcRAPM lived up to its hype as the long-awaited rendezvous for regionalists worldwide. The lectures, updates, discussions, networking sessions and workshops are at a level of their own. On a congratulatory note, Dr Chan Weng Ken, Dr Lim Woon Lai and Dr Siew Gee Ho passed the EDRA part IIA exam. The journey is not a short one, as the final part is only held once a year. Until then, all the best to them for the final part.

We were all fortunate to be a part of the WcRAPM 2023, despite a hectic schedule. Paris is truly a beautiful city with its architecture, and the sight of the Seine River, with its irresistible macaroons and Berthillon's gelato during summer, was absolutely a match *fait au paradis* with WcRAPM - the rendezvous of regionalists.



Dr Ken (left) and Dr Siew (right) with Professor Dr Manoj Karmakar (centre), a giant figure of the RA world

Unveiling Valuable Insights from Euroanaesthesia 2023

by **Mohammad Nizam Mokhtar**

Universiti Kebangsaan Malaysia

Kuala Lumpur, Malaysia



*Photograph in front of Eilean Donan Castle,
one of the top 3 castles in the Scottish Highlands*

I had the amazing chance to attend the Euroanaesthesia 2023 conference in June 2023, which was held in Glasgow, Scotland, a stunning city. Recognized as one of the most significant yearly meetings in the fields of anaesthesiology and critical care, Euroanaesthesia offers a global gathering for comprehensive networking, discussing new updates based on current research, and knowledge advancement. For me, being at Euroanaesthesia 2023 was a really motivating experience. I was able to expand my expertise more by listening to the brilliant keynote speakers and workshop facilitators through the contribution of their knowledge and experience. I was given the opportunity to build academic relationships and have thought-provoking discussions with all the anaesthetists across the world. With more than 5000 attendees from over 100 countries, the conference was an outstanding intellectual experience and a chance to broaden my expertise.

During this distinguished event, I was given the opportunity to present two posters, discussing two uncommon and rare cases in two different settings, intensive care and anaesthesiology. The first poster focused on infection in the intensive care setting and the second poster was related to paediatric airway

emergency. These presentations not only highlighted my dedication to advance in the field of anaesthesiology but also gave me the opportunity to discuss it further with renowned anaesthetists and intensivists across the world. As Elbert Hubbard once wrote: "The best preparation for good work tomorrow is to do good work today". My approach was to provide a comprehensive overview of the existing literature and to present new, evidence-based strategies for managing these conditions. As a result, I was able to provide valuable insights into these two topics, which generated a lot of interest in the conference.

Both these posters were met with great interest eventually leading to their publication in the esteemed European Journal of Anaesthesia. This was a great honour for me and marked an important milestone in my career. I was humbled by the response and thankful for the opportunity to share my knowledge with the scientific community. The recognition and validation of my work in such a reputable journal was incredibly gratifying, marking a significant milestone in my academic and professional journey. Furthermore, I was humbled and honoured by the journal's decision to republish my work, further

demonstrating the importance of my research. This achievement was not just a personal victory but also a testament to the high standards of education and research fostered at Universiti Kebangsaan Malaysia.

As an academician and clinical specialist working in Universiti Kebangsaan Malaysia, attending the Euroanaesthesia 2023 conference offered me invaluable benefits that profoundly impacted my career and academic pursuits. Firstly, the exposure and recognition gained through presenting my research on an international platform significantly enhanced my professional reputation. This newfound recognition extended beyond my personal accomplishments; it elevated the status of Universiti Kebangsaan Malaysia to the global level. Recognition of our institution's research capabilities opened doors for future collaborations and partnerships with international universities and research organisations.

Secondly, the conference facilitated extensive networking opportunities with renowned experts and researchers in anaesthesiology. Engaging in discussions with these esteemed professionals not only broadened my



Photograph with the Chairperson and all the presenters from Intensive Care team

knowledge but also paved the way for potential research collaborations in the future. The exchange of ideas and experiences with international peers enriched my perspective and inspired me to explore innovative avenues in my research.



Photograph with the Chairperson Paediatric Anaesthesiologist and my poster



Photograph with the Intensivist and chairperson from the UK and Spain with my poster in the background

Lastly, attending Euroanaesthesia 2023 allowed me to immerse myself in the vibrant culture of Scotland, further enhancing my overall experience. Exploring the enchanting Isle of Skye, with its rugged landscapes and picturesque scenery, provided a much-needed respite from the

academic rigour of the conference. Visiting historical landmarks such as Edinburgh Castle and the renowned Ben Nevis mountain not only added to my cultural enrichment but also offered a glimpse into Scotland's rich heritage. A particularly sentimental visit was to the University of Dundee, my alma mater,



Photograph of me and Dr Iskandar at the entrance to the exhibition hall



Photograph in front of the main entrance to Euroanaesthesia 2023



where I pursued my MBChB for my medical undergraduate studies. Revisiting the halls where my medical journey began brought forth a wave of nostalgia and pride. It was a poignant reminder of how far I had come since my days as a young medical student and served as a source of motivation to continue pushing the boundaries of medical knowledge.

Looking forward, my next path involves pursuing my career progression by undertaking a clinical PhD in the UK. This new endeavour aims to deepen my expertise, contribute further to the field of anaesthesiology, and open doors to even more extensive collaborations and research opportunities. My experiences at Euroanaesthesia 2023 have undoubtedly prepared me for this

exciting chapter, providing me with the knowledge, networks, and inspiration needed to excel in my academic and professional pursuits.

In retrospect, Euroanaesthesia 2023 was more than just a conference; it was a transformative experience that elevated my professional standing, expanded my horizons, and enriched my passion for anaesthesiology and intensive care. My heartfelt gratitude goes to Universiti Kebangsaan Malaysia for its generous support, which made this enriching experience possible. The knowledge gained, the friendships formed, and the inspiration received will continue to shape my career and fuel my dedication to advance the field of anaesthesiology and intensive care.





The 1st National Extracorporeal Membrane Oxygenation Conference (NECMO)

by Hasmizy Muhammad

Pusat Jantung Sarawak, Kuching, Sarawak, Malaysia



Recently, the Malaysian Cardiothoracic Anaesthesiology and Perfusion Society (MASCAP) organised the 1st National Extracorporeal Membrane Oxygenation Conference (NECMO) from 5th to 6th October 2023 and one full-day workshop on 7th October 2023 at Le Meridien Hotel, Putrajaya. The conference was endorsed by the Malaysian Society of Anaesthesiologists and the College of Anaesthesiologists, Academy of Medicine of Malaysia.

It was the first extracorporeal membrane oxygenation (ECMO) conference in Malaysia. The theme for the conference was "Challenges in the ECMO Waves". ECMO is increasingly available in Malaysia, especially in Ministry of Health cardiac centres. It is an extracorporeal life support for children and adults suffering from life-threatening cardiorespiratory failure and a highly complex treatment option where

patient outcomes depend on dedicated multidisciplinary teams who are knowledgeable and skilled.

Over 250 participants signed up for the conference, and they came as far as Singapore and Brunei, while 133 delegates attended the workshop. The organising chairperson, Dato' Dr Norly binti Ismail, and the local committee members worked very hard to ensure the event was well executed. I, as the Scientific Chairman, and my committee members made sure that the programme, which featured 20 local speakers in addition to 10 international speakers from Australia, Hong Kong, Indonesia, India, and Singapore, was current and pertinent.

The opening ceremony on 5th October 2023 was officiated by Dato Dr Jahizah binti Hassan, the President of MASCAP. During the ceremony, the MASCAP

launched the "Guidelines for Adult Extracorporeal Membrane Oxygenation" and the MASCAP website at www.mascap.org.my. The guidelines can be downloaded for free from the MASCAP website as a social contribution to the fraternity.

The conference featured six plenary talks by eminent international speakers, fifteen symposia and two lunch symposia. Numerous essential subjects related to Venovenous and Venovenous and Venovenous ECMO were covered in the scientific programme.

Twenty exhibition booths from partners in the pharmaceutical and biomedical industries were also on display during the conference. Delegates patronised the booths as they collected the stamp chops for participating in the lucky draw.

Malaysian and Singaporean participants made strong representations at the poster presentations. The judges were Associate Professor Dr Hergen Buscher from Australia and Dr Simon Sin Wai Ching from Hong Kong. Both are experts and committee members of the Extracorporeal Life Support Organization's (ELSO) Asia Pacific Chapter.

Before the closing ceremony of the conference on the evening of 6th October 2023, prizes were given to the winners of the poster presentations. The first winner for best case report was Dr C Y Ng from Hospital Sultan Idris Shah, Serdang while Dr Kho Shu Shan, also from Hospital Sultan Idris Shah, won second place. There were two winners for third place, who were Dr Gaithridevi V Singham from Hospital Pulau Pinang and Dr Wong Yieng Ling from Sarawak Heart Centre. This was followed by a lucky draw which attracted delegates



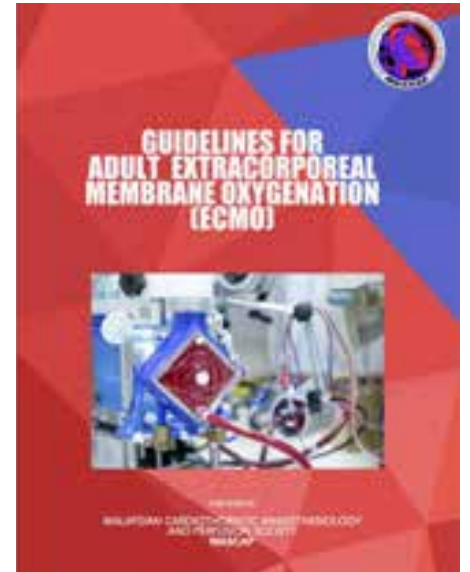


to stay until the end of the conference. The closing remarks were given by the President of MASCAP, Dato' Dr Jahizah Binti Hassan. She hoped the ECMO conference will be organised again after MASCAP's Cardiopulmonary Bypass Conference next year.

The conference workshop was held on the last day, 7th October 2023. The

objective was for delegates to receive the theory part at the plenaries and symposia before being exposed to the practical part at the workshop. The workshops were divided into three sections: doctors, perfusionists, and nurses. The doctors' workshop discussed ultrasound-guided ECMO cannulation, ECMO circuits, components, and modes; initiation, maintenance, and





weaning of ECMO; and Rotational Thromboelastometry applications in clinical settings. The perfusionists' workshop explained the steps of the ECMO circuit and troubleshooting in VA and VV ECMO. The nurses' workshop discussed circuit monitoring, ECMO patients on CRRT, and ECMO nursing care. All these workshops received overwhelming responses from the participants.

The challenges in organising the 1st NECMO conference were to look for relevant ECMO topics for Malaysian and overseas delegates since their knowledge and skills may be at a beginner or intermediate level, and finding suitable speakers was difficult because there were not many ECMO-practicing cardiac or intensive care units in Malaysia.

The conference was a success based on the smooth running of the programme and workshop, along with positive feedback from overseas speakers and delegates. In future, we hope Malaysia can become a member of the ELSO Asia-Pacific Chapter, where we can learn and share knowledge from other countries.

National Anaesthesia Day 2023 in The Land Below the Wind

by Shazharn Muhammad Zain

Hospital Queen Elizabeth,
Kota Kinabalu, Sabah, Malaysia



Dato' Mohd Azman bin Yaacob accompanied by the launching ceremony ushers in traditional Sabahan costumes

This year, Hospital Queen Elizabeth in Kota Kinabalu was entrusted with the honour of hosting the national level National Anaesthesia Day celebrations. The celebration kicked off by the unveiling of the National Anaesthesia Day 2023 banner at the peak of Mount Kinabalu on 8th October 2023 by the Head of Department of Anaesthesia & Intensive Care, Dr Shazharn Muhammad Zain. The harrowing journey to reach the peak accurately reflected the tough journey the entire organising committee endured in the months leading up to this year's National Anaesthesia Day. Thankfully, despite the many obstacles and challenges along the way, the team was able to deliver a truly memorable event this year.

This year's week long celebration saw various events organised in and out of the hospital from 14th to 20th October 2023. In keeping with the Green Anaesthesia theme, on the 14th October 2023, 30 staff members from the Department of Anaesthesia & Intensive Care participated in a beach clean-up effort at Pantai Gorongon, about 15 minutes' drive from Kota Kinabalu. This event was organised in collaboration with the Trash Hero Kota Kinabalu, a local chapter of the international Trash Hero organisation that is actively involved in clean-ups and sustainability education efforts around the world.



Dignitaries attending the launching ceremony of National Anaesthesia Day 2023



Unveiling of the National Anaesthesia Day 2023 banner at the peak of Mount Kinabalu on 8th October 2023

On the morning of the 15th October 2023, 68 participants in 17 teams participated in the inaugural Anaesthesia Amazing Race 2023. The race was flagged off at the Kota Kinabalu Sports Complex by the President of the Malaysian Society of Anaesthesiologists (MSA), Dato' Dr Yong Chow Yen, along with several MSA Exco members. This exhilarating race saw teams of four members driving around Kota Kinabalu solving clues to locate the next clue stations where they were then challenged to physical or mental tasks. A total cash prize of RM3500 for the top three teams motivated most of the teams to successfully complete the race much faster than anticipated.

Later that day, the official launching ceremony of National Anaesthesia Day 2023 was held at the auditorium in Hospital Queen Elizabeth. This prestigious event was inaugurated by Dato' Dr Mohd Azman bin Yaacob, the Ministry of Health Director of Medical Development Division. Also in attendance were the Chief Assistant Director (Medical) of the Sabah State

Health Department, Dr Shim Jyh Ye; the Deputy Director of Hospital Queen Elizabeth, Dr Yogendra A/L Panchalingam; the President of MSA, Dato' Dr Yong Chow Yen; the President of the College of Anaesthesiologists (CoA), Professor Dr Ina Ismiarti Shariffuddin; the Chairperson of MSA Dato Dr Jahizah Hassan; the Ministry of Health National Head of Anaesthesiology Services, Dr Zalina Abd Razak; State Heads of Anaesthesiology Services, Sabah Anaesthesia Heads of

Departments as well as staff from the host hospital's anaesthesia department.

During this ceremony, the Sustainability Pledge in Anaesthesia was launched by the MSA and the CoA. This pledge aims to encourage all anaesthesia personnel throughout Malaysia to adopt sustainable efforts in our daily clinical practices in order to minimise our negative impact on the environment. The winners of the Green Anaesthesia video competition were also announced at this ceremony while the top three winning teams of the Anaesthesia Amazing Race were presented with mock checks on stage.

After the end of the launching ceremony, the dignitaries were accompanied to tour a simulated Operation Theatre and ICU setting, which was set up to highlight to the public some of the specialised equipment used and what actually happens in OTs and ICUs. Next on the tour was the Sabah Anaesthesia Pop-Up Museum which showcased an array of historical anaesthesia equipment to give visitors a glimpse of the early days of



The Sabah Anaesthesia Museum



Launching ceremony of the National Anaesthesia Day 2023



Appreciation dinner & Sabah cultural performance at Nelayan Floating Seafood Restaurant

anaesthesia in Sabah. This temporary exhibit ran at the hospital for a total of five days. Later that evening, guests and committee members were treated to a seafood dinner and cultural performance show at the Nelayan Floating Seafood Restaurant in appreciation for all the hard work that went on in preparation for this year's national celebrations.

The following day and for the rest of the week, more exhibits and activities got underway at the hospital. A free public CPR training programme drew a total of 260 participants over five days. Participants were trained to perform basic resuscitation and to use an Automated External Defibrillator. A blood donation campaign was also held that week which drew a total of 102 registrations and 71 successful donors. At the organ donation awareness booth, 205 attendees were able to have their queries on organ donation answered and were encouraged to register as organ donors on the MySejahtera app. Other concurrent booths included a Green Anaesthesia interactive educational booth, Pain Services educational and consultation booth, medical vendor booths and food and beverages stalls. In the operating theatre that week, a two-day Regional Anaesthesia Workshop was also held. A total of 27 participants from around Sabah and from Labuan were trained in various ultrasound-guided regional



Beach clean up at Pantai Gorongan in Putatan with Trash Hero Kota Kinabalu



Beach clean up at Pantai Gorongan in Putatan with Trash Hero Kota Kinabalu



The toughest Anaesthesia Amazing Race challenge - eating a live sago worm, a delicacy in Borneo



Champions of the Anaesthesia Amazing Race 2023



Team challenge at Tg Aru beach during the Anaesthesia Amazing Race



Participants and crew of the Anaesthesia Amazing Race 2023



Green Anaesthesia booth

anaesthesia techniques by four experts in this field.

This year's National Anaesthesia Day celebrations at Hospital Queen Elizabeth would not have been possible without the support of various parties. We would like to take this opportunity to thank the Malaysian Society of Anaesthesiologists and the College of Anaesthesiologists for their trust, support and guidance throughout the months of preparation leading up to this year's event. A huge thank you also goes out to the State Director of Health, Datuk Dr Asits bin Sanna, and the Director of Hospital Queen Elizabeth, Dr William Gotulis, for their unwavering support. We would also like to thank GE Healthcare Sdn Bhd, Sapphire Healthcare Sdn Bhd, TA Healthcare Sdn Bhd, DK Solution Sdn Bhd, Medtronic Malaysia Sdn Bhd, Medik-Link (Sabah) Sdn Bhd, IDS Medical Systems Sdn Bhd and Persatuan Akademik Kakitangan Anestesiologi Sabah (PERAKAS), without whom this event would not have been possible.

Finally, thank you to the staff and committee members from the Departments of Anaesthesia of Hospital Queen Elizabeth II, Hospital Wanita & Kanak-Kanak Sabah and Universiti Malaysia Sabah who toiled for months and went far beyond their call of duty that week in order to make this a truly memorable celebration for all who participated.

Happy National Anaesthesia Day 2023!



The Sabah Anaesthesia Museum



Foods & beverages booths operated by department staff and their families



Free public CPR and AED training



ICU and OT simulation suite



Regional anaesthesia workshop



HQE Pain Services booth



Our Intensivist Dr Fong donating blood during the Anaesthesia Day blood donation drive

BEYOND BASIC

Mechanical Ventilation 2023 Workshop by the Intensive Care Unit, UMMC

by Shairil Rahayu Ruslan & Yap Mei Hoon

Universiti Malaya Medical Centre, Kuala Lumpur, Malaysia



Speakers and facilitators at the end of Day 1

The Department of Anaesthesiology, Universiti Malaya Medical Centre, successfully held the Beyond Basic: Mechanical Ventilation (BBMV) workshop on 9th and 10th August 2023. This was a much-anticipated workshop, as the last one was held the year before the coronavirus pandemic reared its ugly head and put a stop to most of the world for the last three years.

This workshop was organized by between the Malaysian Society of Intensive Care and the BASIC collaboration, to disseminate high quality knowledge and skills practice about mechanical ventilation of



Speakers and facilitators at the end of Day 2



From left-right : Dr Amelia, AP Dr Aliza, Dr Yap M H, Dr Premela, Dr Khoo T M, Dr Lee S P, Professor Dr Gavin and Dr Rai

critically ill patients. The target audience for this two-day workshop was intermediate-senior anaesthetic trainees and junior specialists who would also be involved in critical care management. A basic understanding of mechanical ventilation by the participants should be present before joining the workshop. The course format consisted of a manual, brief clinically based lectures, skill stations, e-learning and pre- and post-course tests. According to this format, the workshop was organized to involve (1) one full day of lectures and information sharing sessions, going into detailed cardiorespiratory physiology and mechanics to refresh the participants' knowledge and (2) a second full day of practical sessions involving simulations of various respiratory conditions, promoting application of theoretical knowledge as well as a bilateral exchange of feedback between facilitator and participant to encourage a meaningful learning experience. Prior to attending

the workshop, all participants were required to complete a pre-test online to evaluate their baseline knowledge.

To ensure success of this workshop, esteemed figures from the intensive care fraternity were invited, such as (in no particular order) Dr Vineya Rai Hakumat Rai, Dr Khoo Tien Ming, Dr Lee See Pheng, Dr Amelia Mohamed Ain, Dr Premela Naidu Sitaram, and Associate Professor Dr Aliza Mohamad Yusof. Dr Yap Mei Hoon headed the organising of this workshop (as well as facilitated the lectures and practical sessions), with the support and assistance from her band of merry doctors, Dr Edric, Dr Farah, Dr Fadhillah, Dr Ronny, Dr Shairil, Dr Jeremy, Dr Jasmine, Dr Siti Akmar and Dr Lee Pea Cheng. Indeed, the second day of the workshop saw many committee members pushing tables and chairs and rearranging the setup of the halls that were to become the venue for the practical session. The committee made do-it-yourself (DIY) projects for scenarios that needed a mannequin with a double-lumen endotracheal tube placed within its "trachea" to simulate differential lung ventilation, or a mannequin that was meant to simulate an acute respiratory distress (ARDS) situation.

Overseeing the whole workshop was Professor Dr Gavin Joynt, the chairman of the Department of Anaesthesia and Intensive Care at the Chinese University of Hong Kong. He was present in his capacity as a course supervisor affiliated with the BASIC collaboration. Professor Gavin also delivered several



Awesome DIY work by Dr Edric



lectures and co-facilitated one of the practical sessions, providing enrichment and insights into managing patients with respiratory diseases needing mechanical ventilation in different unique situations. The passion and interest that Professor Gavin has in the subject matter was reflected in the ease in which he delivered his teachings, and the participants found it very informative.

The practical sessions involved hands-on practice with ventilators and mannequins, using scenarios like an acute exacerbation of bronchial asthma, a patient with ARDS, and group discussions on liberation from ventilation, different ventilator waveforms, and differential lung ventilation.

At the end of the two-day workshop, a post-test was conducted to assess the participants' (improvement of) knowledge, which will act as a measuring scale to determine whether the participant would be eligible for a certificate of completion. With much trepidation, the participants all completed the post-test, and the workshop concluded on a positive note.

It is hoped that the BBMV will continue to be held yearly without fail, to train anaesthesia specialists in the intricacies of managing patients with respiratory diseases and appreciate the finer details of the mechanical ventilator. As always, the ICU team will strive to give it their best, and the workshop will be even better next time!



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Paediatric Perioperative Life Support Workshop 2023

by **Shariffah Raguan binti Syed Othman**

Hospital Pulau Pinang, Penang, Malaysia

The Department of Anaesthesiology and Critical Care of Penang General Hospital in conjunction with The Malaysian Society of Paediatric Anaesthesiologists (MSPA) has successfully organised the second Perioperative Paediatric Life Support (PPLS) workshop for the year 2023 on the 23rd September 2023 at Wawasan Open University. This was proudly the first-ever PPLS workshop that was held in Penang Island. As a part of providing continuous medical education for healthcare personnel to create a safer environment for children during the perioperative period, this workshop is organised twice a year in different states. This year's event was made even more memorable with the presence of our special guest, Dr Agnes Ng (ASPA PPLS founder). In addition, the unwavering guidance and support from Professor Dr Felicia Lim (Chairman of ASPA PPLS Workshop Malaysia), Dr Usha Nair (Assistant Chairman of ASPA PPLS Workshop Malaysia) and local faculties and facilitators made this educational event a success.

There were 13 paediatric anaesthesiologists as facilitators and 30 participants, consisting of a mixture of consultants, specialists and trainees involved with this workshop. Despite the long day, everyone was enthusiastic and involved deeply, particularly during the interactive sessions and the skill stations. Feedback obtained from the participants were mainly positive, and were important to improve future workshops.

The organising team would like to thank ASPA, MSPA, the facilitators and participants for the opportunity and support given to ensure the workshop is a fruitful one. Let's make anaesthesia safe for the young ones!



From left: Dr Agnes Ng, Professor Dr Felicia Lim and Dr Usha Nair



The team - Facilitators and participants

A (NOT SO) Typical Day in Life in an Anaesthesiology Department

by Ivy Sim Chui Geok

Universiti Teknologi MARA, Sungai Buloh Campus, Selangor, Malaysia

An anaesthetic MO sails into the OT - calls out to the team leader, "Patient called...?" before entering the room to check the general anaesthetic machine, equipment and prepare a neat concoction of drugs labelled in multi-colours arranged methodically on a tray. She and her other anaesthetic colleagues have a running wager on who can maintain the lowest number of syringes and needles, as well as medical disposables per case per week. She happily counts the number and enters it into the online tally.

She comes out again and checks the list. "Oo...there's been a last-minute cancellation" she sees, rubs her hands together and continues scanning down the rest of the list. Some highly complex mental statistics later (involving the number and complexity of cases, patient's risk stratification, surgeon's training, and an additional buffer for the unexpected), she comes to one of the following conclusions:

LIKELIHOOD OF FINISHING LIST ON TIME SCALE



1 - Most likely



2 - Maybe



3 - Fat chance



4 - Definitely no



5 - Are you kidding me??

She then introduces herself to the patient lying on a trolley waiting in the reception. The 85-year-old patient is bemusedly surrounded by medical students asking questions like, "So when you had your appendectomy when you were 5 years old... were there any problems?"

The OT reception staff collectively gaze at the clock intently as it strikes 8.00am and wonder, "Now where is the surgeon?". A sheepish medical officer from the operating team wanders into reception and says, "I'm afraid my boss is still 'on the way'", which is medical code for 'I haven't the foggiest idea if he's still in bed or on the verge of stepping into the OT'.

And so, the medical students were allowed to continue entertaining themselves with the patient.

The anaesthesiologist walks in and asks, "Why is the patient not 'under' yet?". After hearing the reason, gives the eyes a roll and says, "Well, don't blame me if we can't finish" and proceeds to plot a robust scheme of cancellation to prevent the OT's time from going ridiculously over the limit.

After several surreptitious inspections of the changing rooms later, someone announces, "He's here". An unremorseful surgeon arrives, and everyone (including the patient) heaves a sigh of relief. The patient escapes the clutches of the medical students, who, having

exhausted all family histories, were beginning to become interested in examining his lump. The reception staff snigger among themselves and conclude that although '*patience is a virtue*', so is *punctuality*'.

As the patient lies on the operating table with a bunch of monitoring attached to his body, he is asked to remove the sleeves of the hospital gown so that there is full access to his upper limbs. He thinks to himself, "That's easy for you to say", as he observes that all the staff seem clad in some sort of winter gear. He peels off the little cold protection that the thin hospital gown affords and resigns to being gingerly covered by what was once a piece of clothing. He gives an involuntary shiver.

Induction of anaesthesia proceeds without a hitch, and surgery is underway.

The anaesthetic doctor checks that the breathing tube and lines are secure, turns the fresh gas flow to low to conserve anaesthetic gases, fixes an eye on the monitor screen and proceeds to lean back in the chair, thinking about her next case.

Suddenly, the lights go out and the room is plunged into darkness. The anaesthetic doctor checks that the general anaesthetic machine is now on battery and then revise her '*Likelihood of finishing on time chart*' to 5.

A few minutes later, she emerges from behind the screen with the torchlight under her chin for dramatic effect and says to the surgeon, "You had better hurry up and close" before directing the torchlight to the surgical field. The surgeon snorts a laugh and decides to use staplers instead of sutures.

Meanwhile in the ICU, a doctor was just telling a patient huffing away on a non-rebreathing oxygen mask, "Bad news...we're in a power outage, let's hold off on the intubation first" while he glances at the row of patients already on a ventilator now switched onto battery backup. Thinking of the power-hungry equipment now facing a rationing situation and feeling a bead of sweat starts to form on his forehead due to the now silent air-conditioning, "Fingers crossed it doesn't drain as fast as the crappy phone battery".

The latest events do little to slow the simmer in the ICU. The nurses are already on edge because the unit has been at total capacity for several days while constantly teetering on the edge of boiling over and not having a bed for an ill patient. Several patients are terminally ill, and the staff observe that some doctors, unaccustomed to caring for the critically ill, exhibit the all too familiar 'Five Stages of Clinician Grief'.

First is denial that there's anything wrong with the patient: *this pneumonia is totally reversible...forget the terminal cancer.*

Next is anger... *No, I do not want to do or say anything to the family that will even sound like I'm giving up...you harbinger of death can all go to h***!*

Third is bargaining.... *let's try if we can reach this short term goal and then think about the big, scary decisions later.*

Fourth is sadness....

Fifth is acceptance. *Let's talk about end-of-life care.* This is after two weeks of keeping the patient alive on multiple pressors and continuous dialysis, futile surgeries, traumatising the family with the number of interventions and financial burden, and not allowing them to come to terms, prolonging their grief at the same time.

Only when these stages pass, the staff observe, and so can the patient and their families.

Meanwhile, in the emergency department, a head injured patient awaits a transfer to a neurosurgical unit for urgent decompressive surgery. The poor doctors frantically call around in random the order of hospitals for one with an ICU bed available. If there isn't an ICU bed, he won't get his surgery, and he will most certainly die or become a vegetable for life, the doctor confides in the family. Even in our modern healthcare system, there are facets of operative services with huge impacts on patient's mortality which are neither organised nor made accountable for.

The surgical doctor waits a few hours and makes the same aimless calls to the same long list of hospitals, feeling vaguely like a telemarketer and using his most convincing 'this patient will die if you don't help him' tone.

Back in the OT, the electricity has been restored, and the lists restart like an engine coming back to life. The patients file in on their trolleys and are pushed one by one into the euphemistic bright light of the operating rooms before it all goes dark again as they drift off under general anaesthesia.

At the end of the assembly line, the patient finally gets wheeled to the recovery area. The staff have recently been reminded to beef up their monitoring. Diligently, they ask for the patient's pain score every 5 minutes. "Mr. Y, what's your pain score?" they holler from the counter, having done this three times consecutively before by the bedside. The patient lifts up his head, shouts back "its a 2!", indicating a thumbs up before settling back down onto the pillow. The anaesthetic doctor circles back to see her patient, and upon seeing him awake and with pain well-controlled, she tells the patient that he did very well and secretly also congratulates herself on a job well done.

A quick call to the ward later, the much-awaited trolley ride soon arrives, and the patients return to the wards, glad to be rid of the icy cold.

Label it the Same Way - Standardisation of Anaesthetic Syringe Labelling Practice & Prefilled Syringe

by Kean Seng Cheah

Cambridge University Hospital, United Kingdom

Drugs preparation and administration to the patient is a fundamental task in the practice of anaesthesia. The process of drawing out medication from ampoule into syringe, checking, labelling and finally from syringe to the patient has potential error in various stages, to a degree that human factor in medication safety is always at the brink of jeopardy. However, human factor is not to be blamed entirely when it is inevitably affected by systemic failure. The systemic failure that will be discussed in this issue is the failure to standardise drugs preparation and syringe labelling. A systematic and standardised step-wise approach has been in practice decades ago in anaesthesia such as anaesthetic machine check (1990),¹ safe surgery saves lives checklist (2008)² and stop before you block (2011).³

Every anaesthetist has his own passion of arranging and labelling syringe in the work station. This habit is usually influenced by the 'standard' of practice in workplace. When the anaesthetist moves on to a new place, this 'standard' often clashes with difference and unfamiliarity with others. This unfamiliarity is always the ignition of medication error especially during the period of emergency.

The primary drive of ISO standard in 2008 (ISO 26825:2008) is to implement standardisation of the user applied label for syringe in anaesthesia including the colours, design and performance.⁴ This, by far, is the reference standard as international guidelines. The Association of Anaesthetists recently revised the drug label (BS ISO 26825:2020)⁵ again after the 2020 edition. Some changes

have been made to improve the colours and design coding of high-risk drugs (Suxamethonium, Adrenaline, Benzodiazepines) and introduction of tall man lettering label. It is a good initiative by the Association, but the systemic failure is an unresolved hindrance towards safety. Consistency and standardisation can minimise the chances of error occurrence. The same is applicable to preparation and labelling of syringe. Similar to the period of induction and intubation, drugs preparation in anaesthetic room should be taken seriously by theatre staff. The anaesthetist should not be disturbed when preparing the drugs. This should be made aware to everyone in theatre, including the surgeon in particular.

Drug preparation:

'Label before' or 'label after' filling?

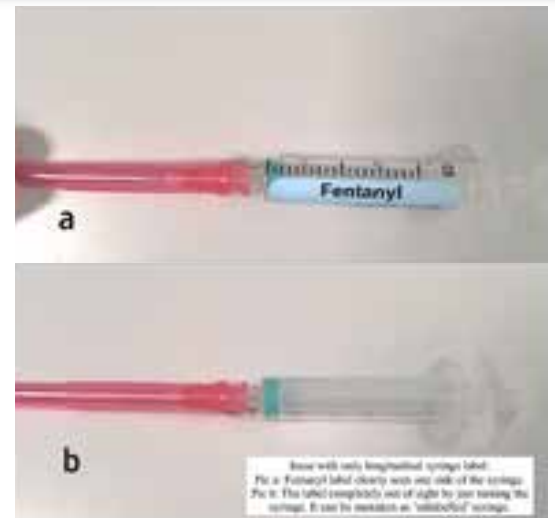
Some anaesthetists advocate to 'label before' filling the syringe. While unlabelled syringe is known to be problematic, labelling on an empty syringe beforehand is never correct and can be potentially more harmful. One example on how pre-label an empty syringe compromise on safety will be mentioned in the following section. The European Board of Anaesthesiology recommend that label should never be put on empty syringe. The syringe should be immediately label after filling, before leaving the operator's hand.⁶

Label horizontal, longitudinal or both?

Next on how should we stick the label on the syringe? The Association of Anaesthetists suggest to stick one label longitudinally (at least) so that the label can be read easily on work surface⁷ (Never horizontal or diagonal). Horizontal ONLY labelling has

disadvantage as the label is potentially obscure and potential for error during the critical period, especially if both drugs share the same Pantone matching system (PMS). For example, Atropine and Glycopyrrolate (Pic 1). Although both are in the same class in PMS, given either medication by mistake is an 'unintentional error'.

The entire label and name of the drug can be read more clearly with longitudinal label. Longitudinal ONLY labelling is the acceptable practice by the majority, but the following example is the suggestion of exception on why longitudinal ONLY label is not entirely safe and why 'label before' filling practice is not safe either. The longitudinal ONLY label is 'out of sight' just by turning the syringe and it can be mistaken as an 'empty' syringe (b). This argument was taken from an actual near event incident when two anaesthetists worked together at the work station. The first anaesthetist labelled the syringe 'Fentanyl' longitudinally on new syringe (a), but the second anaesthetist did not notice the label on the empty syringe as the syringe was labelled side down(b), so it was used and labelled horizontally with 'Dexamethasone' (c&d). This is the perfect example on how the lack of standardisation between two anaesthetists caused confusion. Fortunately, this error was noticed immediately before the actual syringe swap. In order to eliminate the slightest chance of error it might be sensible to propose the use of BOTH longitudinal and horizontal label on syringe, or alternatively, the use of longitudinal ONLY label with 'label after' filling approach.



The pre-printed label is 'out of stock', what's next?

It is now common to find ISO pre-printed label in a roll for dispenser in anaesthetic room, but effort is needed to ensure that the stock is available in all theatres and at all time. One problem commonly faced by the anaesthetist is when the particular drug label is 'out of stock', an alternative solution is sought for drug labelling, such as:

1. Handwritten the drug using a different class/colour label. (by striking off the original drug name)
2. Handwritten the drug on a 'sodium chloride/saline' aka the white label.

There is no recommendation from the associations or national guidelines to advise on what is the best practice if pre-printed label is not available but a safer practice would be using a blank (white) than colour label, and keep the drug in a separate tray to avoid error or given by mistake. The solution to this situation is still open for discussion and suggestions.

Prefilled syringe

Prefilled syringe offers numerous benefits and mitigates the risk of medication error. Prefilled syringe reduces the number of steps required to prepare medication by the anaesthetist, better

quality control in preparation (more accurate drugs concentration) and less chance of contamination.⁷ It saves the cost of unnecessarily drawing up emergency medications routinely, only to be discarded at the end of the day unused. During emergency, the prefilled syringe is readily available for administration, it reduces cognitive burden of the anaesthetist during critical period. Anaesthesia is at the top of list for the specialties that constantly deal with drugs preparation and administration. Unfortunately, only 4% of prefilled syringe is available in the acute sector (out of 10 billion injectable medications sold worldwide).⁷ Nevertheless, there have been reported case of near missed medication with prefilled syringe due to confusion from the packaging and colour⁸ (pic e: The high-risk drug Suxamethonium shares the same colour code with Fentanyl). The main challenge for safe use of prefilled syringe remains the standardisation with the ISO standard, although there is still no legal obligation for the manufacturer to do so; hopefully there will be positive changes in the future. In conclusion, standardisation of drugs preparation and syringe labelling has long been disregard. The syringe should be 'label after' filling and the label should be placed longitudinal the least, or both horizontal and longitudinal altogether.

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A UNIVERSITI MALAYA RESEARCH UNIT INITIATIVE: Introduction to Evidence-Based Medicine Workshop

by **Shairil Rahayu Ruslan, Chaw Sook Hui, Rafidah Atan**
Universiti Malaya, Kuala Lumpur, Malaysia

On 27th July 2023, the Department of Anaesthesiology at Universiti Malaya organised its first workshop on Evidence-Based Medicine, which the College of Anaesthesiologists, Academy of Medicine Malaysia also endorsed. The organising team comprised staff from the Department: Associate Professor Dr Chaw Sook Hui, Dr Ngoi Soo Tein, Professor Dr Rafidah Atan, Professor Dr Nor'azim Mohd Yunus, and Ms Carolyn.

The workshop's objectives were to guide the participants to understand the fundamental knowledge and skills to approach evidence-based medicine,

through appraising different types of medical research papers. Besides, this workshop also aimed to improve the participant's understanding of the reasonings behind these different types of studies. The target audience was medical officers within the Anaesthetic fraternity, trainees currently in the Masters of Anaesthesia programme, or any parallel Anaesthesia speciality training pathway. The endgame of this workshop was to produce trainees who would understand the approaches involved in evaluating any medical or clinical research paper, appraising its relevancy, strengths, and weaknesses. This knowledge would then enable the



participants to implement relevant evidence into clinical practice.

This was a one-day workshop held at the NOCERAL. The main speakers were Professor Dr Nor'azim, Professor Dr Rafidah, and Professor Dr Lai Nai Ming, the current Director of the Clinical Campus School of Medicine, Faculty of Health and Medical Sciences from Taylor's University. The workshop began with introductory lectures on the background of evidence-based medicine, understanding why clinical research is essential in evidence-based medicine, followed by basic statistical expressions in clinical research, formulating clinical questions and matching study designs to the questions, learning how to appraise the different types of research papers, and utilising the GRADE criteria when making recommendations.

The second half of the workshop was a practical small group discussion, in which the facilitators conducted hands-on sessions to appraise different types of papers. This was followed by two-way discussions that certainly encouraged a deep sense of learning.

The participants certainly found the workshop enlightening and eye-opening, as it taught them how to read clinical research papers critically. It is not just a reading skill but also understanding and knowing if applying the evidence would be a logical next step.

The research unit plans to organise this workshop as a regular event. The target audience would be Anaesthesia trainees preparing for their exit examination, as the skills for appraising clinical research papers will certainly be useful when they step out as junior specialists. If resources were not limited, we would welcome anyone to join, even the junior medical officers or

specialists interested in gaining more knowledge.

The participants were very glad they attended this workshop and would like to thank the Research Unit for embarking on the planning and organising of this workshop and Professor Dr Lai for gracing us with his presence and imparting his valuable knowledge to the trainees.

Here's to more EBM workshops in the future!



Pain Workshop & Pain Clinic Family Day 2023

by **Mohamad Aswad bin Abu**

Hospital Tuanku Ja'afar, Seremban, Negeri Sembilan, Malaysia



The Malaysian Association for the Study of Pain (MASP) together with Pain Society of Negeri Sembilan (PSoNS) and Department of Anaesthesiology & Intensive Care, Hospital Tuanku Ja'afar (HTJ), Seremban, has successfully organized a PAIN WORKSHOP on 26th May 2023 followed by PAIN CLINIC FAMILY DAY the next day. This two-day events were held in UCSI Hospital, Springhill Port Dickson, Negeri Sembilan.

FIRST DAY (PAIN WORKSHOP)

With the theme, 'Pain is everyone's business', this workshop comprised a series of lectures, emphasizing on the importance of EVERYONE's involvement to collaborate and work together towards our mission to improve pain management for our patients. Apart from lectures, there were also five 'hands-on' stations, namely

Physiotherapy, Occupational Therapy, Pharmacy, Acute Pain Services and Traditional & Complementary Medicine (TCM).

The workshop objectives are,

- 1) Update of Acute Pain Management for post operative and non post operative pain.
- 2) Challenges in Chronic Pain Management.
- 3) Non-Pharmacological methods in acute/chronic pain.
- 4) Multidisciplinary / Interdisciplinary approaches in Pain Management.
- 5) Traditional & Complementary Medicine ie., Acupuncture, Massage and Ayuverda in Pain Management.

The official opening ceremony was graced by Dr Mary Cardosa, President of MASP. She congratulated the





organizing committee of PAIN WORKSHOP 2023 led by Dr Mohamad Aswad Abu (President, PSOnS) for their tremendous effort in organizing this National Pain Workshop 2023 for the first time in Negeri Sembilan. Others present in the opening ceremony were Dr Saiful Aizar bin Kesut (Head of Department of Anaesthesiology & Intensive Care, HTJ Seremban) and Dr Peggy Cheang (Consultant Anaesthesiologist and Pain Management UCSI Hospital).

The Pain Workshop expert speakers comprised:

1. Dr Mohd Suhaimi bin Tajudin, Consultant Anaesthesiologist and Pain Management, Hospital Selayang.
2. Dr Lim Ern Ming, Consultant Anaesthesiologist and Pain Management, ParkCity Medical Centre.
3. Dr Mary Suma Cardosa, Consultant Anaesthesiologist and Pain Management.
4. Cik Umi Izzati Saedon, Clinical Psychologist, HTJ Seremban.
5. Pn Halifah Aqma Mohd Kher, Pharmacist, HTJ Seremban.
6. Pn Khadijah Mamat, Physiotherapist, HTJ Seremban
7. Mr Abdul Razak Ali, Occupational Therapist, HTJ Seremban.

Apart from the lectures on updates on pain management and non-pharmacological therapies, we

also had a panel discussion on a number of acute and chronic pain cases to make the event more interactive as far as choice of treatment, multimodal analgesia and multidisciplinary approach in nociceptive and neuropathic pain management are concerned.

During the 'hands-on' session, participants had an opportunity to experience live demonstration on how acupuncture, ayurveda and massage could be performed in chronic pain patients. On top of that, we also learned the role of physiotherapy and occupational therapy as non-pharmacological methods in acute and chronic pain management.



SECOND DAY (PAIN CLINIC FAMILY DAY)

I was honored when MASP chose Pain Clinic, Hospital Tuanku Ja'afar, Seremban to organize the National Pain Clinic Family Day 2023. It is a yearly event organized by MASP and for this year's event, we have collaborated with PsoNS. The attendees were among chronic pain patients, their families as well as healthcare workers such as pain specialists, medical officers, clinical psychologists, pharmacists, physiotherapists, occupational therapist, nurses and all supporting staff.



The continuation of this family day was officiated by Dr Mary Suma Cardosa (President of MASP) and Professor Dr Zubaidah Jamil @ Osman (Consultant Clinical Psychologist, MSU Medical Centre and Exco Member of MASP), who explained to the audience the importance of organizing Pain Clinic family day as a yearly routine activity. Others present in the opening ceremony were Professor Dr Marzida Mansor, Consultant Anaesthesiologist and Pain Management Universiti Malaya, and Dr Lim Ern Ming, Consultant Anaesthesiologist and Pain

Management, ParkCity Medical Centre. We started our day with an aerobic session conducted by the Physiotherapy Unit from HTJ, followed by many activities and games for adults and kids; not forgetting the surplus variety of sumptuous food spread that everyone enjoyed the whole day. At the same time, we had a T&CM booth for patients, families and staff to experience a live demonstration of acupuncture, massage and ayurveda treatments. This half day event was full of fun and excitement where we included karaoke and dancing sessions.





As a gratitude to the participants, lucky draws with various prizes were given to patients and also staff. Unfortunately, this half-day occasion was too short for us as time flew when we really enjoyed ourselves, especially patients who were really happy and excited seeing their own families, doctors and staffs together with them.

In summary, I would like to conclude that our Pain Workshop and Pain Clinic Family Day 2023 was a successful event. Sincerely, I give my highest gratitude to

all speakers and my amazing committee members for their tremendous effort and support.



UNIVERSITI MALAYA MEDICAL CENTRE ANAESTHESIA DAY

“Empowering Lives With Green Anaesthesia: Fighting Cancer, Easing Pain”

by **Vinod Laxmikanth Balasundra & Ina Ismiarti Shariffuddin**

Universiti Malaya Medical Centre, Kuala Lumpur, Malaysia

“Empowering Lives With Green Anaesthesia: Fighting Cancer, Easing Pain” was the theme of the National Anaesthesia Day celebrations held on 24th & 25th October 2023, organized by the Department of Anaesthesiology, Universiti Malaya Medical Centre (UMMC). The lively and colourful event was graced by the presence of the Director of UMMC, Professor Dr Nazirah Hasnan, who delivered an intimate and insightful speech highlighting the fundamental role anaesthesiology and critical care plays in the management of patients, whether perioperatively, peri-procedurally or in the setting of life-threatening illness in the Intensive Care Unit (ICU). She shared her personal experience, as well as that of her mother, concerning the anaesthetic

care they have received and are grateful for. We were privileged to also have an international four-person delegation from Universitas Sumatera Utara, who joined in the festivities. In attendance were also various Heads of Department, together with their Assistant Heads and other representative staff, not forgetting more than 100 registered participants from all areas of the hospital, including those from the nursing and allied healthcare departments, making it a very grand and lively event indeed!

The event was opened by none other than the beloved Head of Department of Anaesthesiology, Associate Professor Dr Loh Pui San, with her speech that gave an overview of the challenges and

way forward for the Anaesthesia community on a more environmentally aware and sensitive practice, focusing on the efforts globally to **Reduce, Reuse, Recycle, Rethink** and **Research** for the sake of ecological conservation and preservation. In her speech, she also raised awareness about the unfortunate circumstance of rising cancer cases which translates to an increased demand and need for pain management as well as other anaesthesia considerations related to cancer care and treatment. The speeches were followed by an appealing ‘electronic’ officiating ceremony by the Director of UMMC, Professor Dr Nazirah; Head of Department of Anaesthesiology, Associate Professor Dr Pui San and the





President of the College of Anaesthesiologists, Academy of Medicine of Malaysia, Professor Dr Ina Ismiarti Shariffuddin. Professor Dr Ina subsequently took some time to introduce the "Green Anaesthesia" video submission by the UMMC Department of Anaesthesiology for the competition held among the hospitals across Malaysia - a very eye-catching and contemporary depiction, a clear thrust and message, with an approach towards leaving a 'green legacy' for the future generations! The video won 3rd place amongst submissions from 17 different hospitals, including those from Peninsular Malaysia, Sabah and Sarawak. The video was followed by a heartwarming and nostalgic photo montage portraying the fabulous Anaesthesia Team hard at work, often behind the scenes, as well as having lots of fun, through various activities - a lot of "oohh"s, "ahhh"s, "awww"s and laughter from the crowd!

The delegation of honoured and invited guests was then escorted through the numerous booths and posters on display, all anaesthesia and critical care related, ranging from anaesthesia and airway equipment to organ donor and transplant awareness. Participants actively and excitedly participated in the quizzes organized throughout the event, eager to win the prizes offered! In true blue Malaysian fashion, the day's activities were closed with a hearty brunch for all invited guests and registered participants. Everyone was all smiles! The posters continued to be displayed until the middle of the following day, on 25th October 2023, for public awareness and consumption.

The event would not have been possible without the enduring dedication and commitment of the organizing committee overseen by Professor Dr Ina, headed by the department's very own specialists - Dr Vinod Laxmikanth,



assisted by Dr Ronny Ikmal bin Ahmad Kamil and Dr Lee Kwan Tuck, together with our multi-talented department clerk, Ms Noor Afikah binti Arbaain, as well as with the wondrous work of the medical officers - Dr Wong Wai Kay, Dr Sarah Aliah binti Mohd Azman, Dr Wan Ahmad Hafizi bin Wan Ahmad Junaidi, Dr Qairom binti Roslan, Dr Muhammad Syamel Aizad bin Mohd Amin, and of course our reliable house officers - Dr Adam Shearer bin Jihill, Dr Callista Aveena Arunan, Dr Charlene Chia Zhi Hui, and Dr Ng Xuan Xuan, just to name a few. The entire department gave its total support with many contributing and being involved in one way or another, and we are all looking forward to next year!





PRETTY IN PASTEL

UMMC Anaesthesia Family Day 2023

by Nabilah binti Abdul Ghani & Yap Mei Hoon
Universiti Malaya Medical Centre,
Kuala Lumpur, Malaysia

On 29th October 2023, a sunny and beautiful Sunday morning, fresh after a rainy night, the Department of Anaesthesiology of Universiti Malaya spent the day together as a family at Padang C, Taman Botani Perdana (Lake Gardens, Kuala Lumpur). Let me illustrate the journey of our wonderful family day for all of you reading this article.

To reach Padang C at Lake Gardens, we could either stroll or ride a hired buggy through the lush green rejuvenating park. Riding the buggy to the site was like riding a shuttle on an island resort. Even from afar, we could hear the melodious music playing in the background, and see the decorated canopies, food booths, and floating balloon arches of our Family Day site. It was amazing, and we could already feel the vibes of our Family Day. As the organising team lead, I felt proud when

a few passers-by took photos of our joyous event.

The theme this year was Carnival-Style Garden Party! We wish everyone reading this article was there to enjoy and witness the fabulous setup and party, it was over the top; it felt like being at a real carnival. It had a lovely ambience and picture-perfect scenery, with canopies lined with lavender and tiffany-coloured scallops, pastel-coloured swaying balloons, and well-placed ribbons against a background of beautiful greenery. Everyone looked stunning in their pastel-coloured attire according to the theme.

We started the day with a very energetic and amusing DancExercise by our very own Dr Vinod, an excellent dancer. We grooved and swayed to three upbeat songs, which brought everyone together. It was really fun!

Everyone was laughing, letting loose and in good spirits. This was followed by a speech from our beloved Dr Yap Mei Hoon (chairperson of the organising committee) and beloved Head of the Department, Associate Professor Dr Loh Pui San, who also officiated the event by cutting a ribbon that led to a bunch of balloons rising into the air. Then the very talented emcees took over and explained regarding the setup of the carnival and food section.

A carnival section was ongoing throughout the day for both children and adults to enjoy. The carnival booth was lined with hanging plush toys, and underneath was a table filled with redemption gifts based on the number of tokens (lollipops) collected. The tokens were earned by playing the well-thought-out games by the fantastic committee, which include ring toss, ball toss and football game. There was also





an area for making giant soap bubbles, which the children loved. It was heart-warming to see the children, including mine, giggling and having so much fun.

There was a food section with booths serving yummy and delicious food and drinks. There were the mouth-watering Grill Haven chicken burgers, and ebi rolls served warm with nachos, Mia's strawberry yoghurt and vanilla soft serve mania with sprinkles, Oh Mentega's croffle bites made on the spot and flavoured iced latte cafe, MLady free

flow cotton candy and popcorn craze, Cik Rosli's sweet and savoury traditional kuih-muih, with refreshing and thirst-quenching air balang (watermelon lychee, sirap selasih and ice Milo) that was much appreciated on a hot day. Not forgetting, the ICU nurses' pancake booth with toppings to die for. There was also a buffet line for all the delectable potluck and finger food brought by the staff.

While enjoying the variety of food, it was time for entertainment by Jojo the Clown. Everyone of all ages giggled

during his activities of chicken dance, mummy wrap, magic show and musical chairs for the children. The highlight was when the adults played musical chairs; it was hysterical!

The activities continued with team-building exercises conducted by the DW team (event planners). We had a series of games that tested our trust and communication with each other. It was a great joy to see everyone come together, from medical assistants, nurses, medical officers, specialists to consultants, participating with



excitement and seeing their competitive side.

We ended the day with the much-anticipated event of handing out lucky draw prizes, including speakers, earbuds, Ogawa handheld massagers and Nike merchandise. The best-dressed gentleman and lady (ahem me) chosen by the committee brought home a Hooga aromatic diffuser. After concluding the event, we cleaned up the site until it was spick and span - our clean, eco-friendly, and green practice.

When we planned this event, our first goal was to achieve an outdoor leisure escape from our everyday chaotic indoor work and spend quality time with our friends and family. Anaesthetists are really pale! Second, we wanted everyone to dress up for a change from our everyday scrubs and to feel more confident and powerful. Third, we wanted to promote emotional wellness and mental well-being by connecting

with one another and strengthening our bonds through activities, enjoying good company and scrumptious food, and being positive with good vibes. In conjunction with the National Anaesthesia Day theme, *"Green Anaesthesia, Now or Never"*; we encouraged everyone to bring their own plates, cutlery, and Tupperware containers. All the containers and utensils we provided were biodegradable.

I would like to personally thank my head of department, my organising committee (Dr Yap, Sarah Aliah, Hafizi, Fiona, Qaisha, Trevor), emcees (Alex, Qairom), photographer (Farhana), anaesthesiology housemen, and the whole anaesthesiology family for making our family day so enjoyable, wonderful and a great success. I am also indebted to the DW team, that made the event even more phenomenal.



National Anaesthesia Day KPJ Pahang Specialist Hospital

by Haslan Ghazali

KPJ Pahang Specialist Hospital, Kuantan, Pahang, Malaysia



This year, the National Anaesthesia Day theme is "Green Anaesthesia: Now or Never". The theme emphasized the practice of anaesthesia that is environmentally friendly. Hence promoting the practice of 6R: Rethink, Refuse, Reuse, Recycle, Research and Repair. This year too, KPJ Pahang Specialist Hospital celebrated it a little different than before. As a representative of the Malaysian Society of Anaesthesiologists for the state of Pahang, I was thinking organizing an event that would bring staffs from anaesthetic services in Kuantan together.

KPJ Pahang decided to host a Gala Dinner that would comprise all the doctors and paramedics from the Anaesthesia Department, Operation Theatre Unit and the Intensive Care Unit from all 7 hospitals here in Kuantan. The hospitals were (apart from KPJ Pahang) Hospital Tuanku Ampuan Afzan (HTAA), Hospital Sultan Ahmad Shah UIA (SASMEC), Kuantan Medical Centre (KMI), Darul Makmur Medical Centre (DMMC), Aurelius Hospital Pahang and

Kuantan Clinical Diagnostic Centre. The total number of guests was close to 220.

As the organizing chairperson, my committee members were among the staffs of these hospitals comprising doctors, matrons and sisters and other paramedics. The collaboration was a fruitful one and paved the way for future events that will involve these hospitals.

The idea of having this dinner event was for networking purposes. The staffs of these hospitals were in contact with each other but didn't know what each other looked like. I hope that this event would promote better work relations among staffs of these hospitals especially with regards to anaesthetic services. Since the theme for this year is environment friendly, we've decided to



decorate the events with greenery. There were even live parakeets in their cages hung at the entrance. We had QR codes on each table for the "green Anaesthesia" pledge launched by the MSA and I emphasized on the 6R of practice in my speech. It was unfortunate that the Pahang Health

EXCO couldn't attend the dinner due to another pressing engagement. The event was very lively with Azizi from AF 1 emceeing the event. He had the crowd going wild and excited. The joy seen in all their faces was priceless. The event was then livened with karaoke singing by staffs from all the hospitals including

yours truly. There were many lucky draw prizes and the best dressed winners really wowed the crowds with their unique and creative way of dressing that night. The event ended close to midnight but all-in-all everyone had a great time and hope to have it next year.





We ended our National Anaesthesia Day celebration with a bowling tournament held on the 29th October 2023. It was held at the Kuantan Mega Lanes in Megamall Kuantan. It was a collaboration between the Anaesthesia Department and Kelab Sukan dan Rekreasi (KSR) KPJ Pahang. We donated a league trophy for the tournament which will be vied for every year. There were 24 teams from KPJ Pahang and 5 teams from KPJ corporate partner companies. We played a total of 3 games and everyone had fun.



Hospital Seberang Jaya National Anesthesia Day Celebration 2023

by **Suhana binti Zainal Abidin**

Hospital Seberang Jaya, Pulau Pinang, Malaysia

World Anesthesia Day is celebrated worldwide annually to commemorate the first successful Anaesthesia application for surgery on 16th October 1846. Anaesthesia Day 2023 was celebrated at hospital level on 23rd October 2023, organized by the Department of Anesthesiology and Intensive Care in collaboration with Seberang Jaya Anaesthesiology Society (Persatuan Anestesia Seberang Jaya). The event started at 9.00am and lasted to 3.00pm with more than 130 visitors comprising of hospital staff and members of the public.

The lively event was initiated with prayers and followed by the national anthem 'Negaraku' and 'Lagu Pulau Pinang'. Dr Rusnah binti Ab Rahman, Head of the Department of Anaesthesiology and Intensive Care gave an informative speech regarding 'Green Anaesthesia' to increase the awareness of the process of anaesthesia and its influence on the environment. Due to global warming and its detrimental effects on everyone, the Anaesthesia fraternity has recognized the importance of tailoring anaesthesia services to minimize its contribution to global warming. The event was





officiated by Dr Siti Aisyah binti Salahudin, Deputy Director of Hospital Seberang Jaya, after a brief speech regarding the importance of minimizing pollution, by watering a plant (as a gimmick) and cutting the cake.

The celebration was filled with activities intended to convey correct information regarding Anaesthesia services. A medical check-up booth was available to the public. Basic vital signs checks and blood investigations were conducted for the visitors. A demonstration of how anaesthesia is conducted was also simulated using a mannequin. A brief demonstration of intubation and epidural anaesthesia

was made available to the public through simulation. Acute Pain Services (APS) and the 'Pain-Free Hospital' were introduced to the public as well as to staff. The most asked questions at the APS booth were related to labor epidurals.

An organ donation counter was also set up. Encouragement on organ donation and its contributions were emphasized to increase the number of organ pledgers. Interactive quizzes were conducted to attract the public as well as to here discussions regarding misunderstandings and stigma related to organ donation.

The Anaesthesia Day celebration ended with a prize-giving ceremony to the visitors who won several competitions and quizzes. The celebration for our department was closed at the weekend with 'Anaesthesia Fun Run 2023' which was conducted at Mengkuang Dam on Saturday morning of 28th October 2023. It was a greatly memorable week for the department as the celebration not only involved educating the public about anaesthesia but also involved activities outside the hospital that improve the relationship between staff. The 5km marathon at the nearby recreational lake with beautiful scenery also promotes a healthy lifestyle among staff.



Hospital Seberang Jaya National Anesthesia Day Celebration 2023

Green Anesthesia, Now or Never

National Anaesthesia Day Hospital Pakar Sultanah Fatimah, Muar “Green Anaesthesia, Now or Never 2023”

by **Wan Nur Aida binti Wan Azmi**

Sultanah Fatimah Specialist Hospital, Muar, Johor, Malaysia

Anaesthesia plays an important role not only in hospital setting but also towards contributing a safer and sustainable environment for us and our younger generation. In conjunction with this year's theme, the Anaesthesia team Hospital Pakar Sultanah Fatimah, Muar conducted a three-day event to celebrate World Anaesthesia Day 2023. This event was much anticipated since the last celebration was in 2019. The event was held from 16th to 18th October 2023. The task in organizing the event was spearheaded by Dr Suzaliatun binti Kasbolah and Dr Wan Nur Aida binti Wan Azmi.

We started our day with an aerobic and a two-hour Explorace activity involving 40 participants from the hospital itself. Various checkpoints in the Explorace revolving around anaesthesia and its equipment. The event was attended by Dr Nor Hafizah binti Yusop, Assistant Director HPSF, and was officiated by YB Nazri Abd Rahman, ADUN Simpang Jeram, Muar followed by a meaningful talk given by Dr Suzaliatun binti

Kasbolah, Consultant and Head of Department of Anaesthesiology and Intensive Care HPSF, emphasizing our daily work as anaesthesiologist and the importance of Green Anaesthesia to our environment.

The remaining days were filled with exhibition, again promoting and educating the public on anaesthesia, intubation, pain corner and organ donation booth. We had two companies which participated as well; Schimdt Medical and N.S Unggul. Thirty students majoring in science stream were invited to attend the exhibition in





order to promote Anaesthesia and to nurture their interest in medical field. In conjunction with the exhibition, we also had 30 food stalls selling various food.

At the end of the third day, it was an exhaustive yet exciting experience to us. The department showed great team work from the PPK, staff nurses, sisters, MAs and doctors. A big thank you to the Head of Department and the staff for the endless support. Definitely, we are looking forward to the next celebration.

P/s: A special shout out and big congratulations to my Medical Officers (Dr Muhammad Alimuhammad bin Mohd Azmi, Dr Muhamad Khairul Akmal bin Muhammmad Yusof and Dr Ahmad Muthiain bin Mohd Harizan) in participating and winning second place in the National Anaesthesia Day Video Competition 2023.



National Anaesthesia Day 2023 MELAKA STYLE!

by **Jamilah binti Abd Malek & Muhammad Amir bin Ayub**
Hospital Melaka, Melaka, Malaysia



Bersempena Hari Anestesia Sedunia yang disambut pada 16 Oktober setiap tahun, Jabatan Anestesiologi dan Unit Rawatan Rapi, Hospital Melaka telah mengadakan pameran Hari Anestesia pada 12 Oktober 2023 yang lalu dari pukul 8 pagi sehingga 1 petang di tempat menunggu bersebelahan Kompleks Klinik Pakar Perubatan, Hospital Melaka.

Objektif program yang diadakan adalah seperti berikut:

1. Memberikan kefahaman kepada masyarakat tentang peranan Jabatan Anesthesia dan Unit Rawatan Rapi.





2. Memberikan pendedahan dan kefahaman kepada masyarakat tentang topik pembiusan.

3. Memberikan penerangan tentang kepentingan "Basic Life Support", "CPR", dan rawatan kecemasan.

4. Memberikan pendedahan dan kefahaman tentang pendermaan organ.

5. Memberikan penerangan dan pendedahan tentang "Pain Free Hospital".



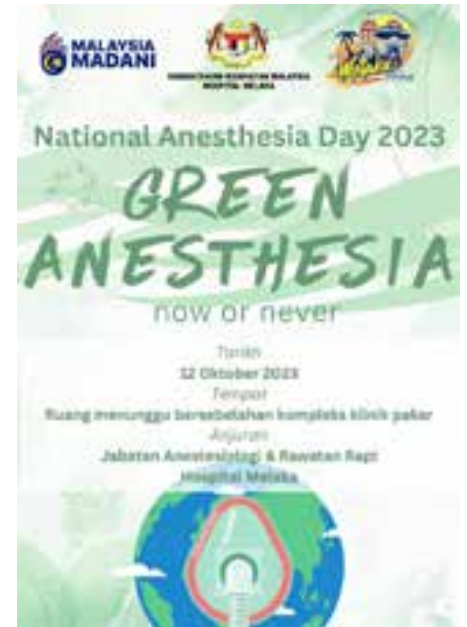
Pameran yang telah diadakan termasuk pameran pembiusan di dewan bedah, pameran mengenai unit rawatan rapi, pendermaan organ, "Basic Life Support", program bebas kesakitan, kuiz, permainan dan banyak lagi aktiviti telah diadakan. Kami juga telah mengadakan penampilan media dan temubual bersama Jabatan Kesihatan Negeri Melaka bertajuk 'Sambutan Hari Anestesia' pada 11 Oktober 2023 dan juga temu bual bersama MelakaFM bertajuk 'Anestesia Hijau' pada 17 Oktober 2023.

Seramai 522 peserta telah berkunjung ke pameran Hari Anestesia yang lalu, 466 peserta merupakan staf Hospital Melaka manakala 56 peserta merupakan orang awam yang berkunjung ke Hospital Melaka. Seramai



182 peserta dari kalangan staf Hospital Melaka dan juga orang awam telah menyertai dan telah mengunjungi kesemua pameran dan melaksanakan aktiviti-aktiviti di setiap 'booth' dengan mendapatkan cop.

Berikut merupakan gambar-gambar sepanjang program dijalankan.



World Anaesthesia Day 2023 in Kelantan

by **Nor Hidayah Zainool Abidin & Nur Zahira Mohktar**

Hospital Raja Perempuan Zainab II, Kota Bharu, Kelantan, Malaysia

The objectives of Anaesthesia Day are for anaesthesia providers to celebrate their profession and, at the same time, increase awareness in our society. We proudly provide general education for the public and emphasise essential issues based on different aspects of peri-anaesthesia care.

This year, we supported the MSA national theme on Green Anaesthesia: Now or Never, where we focused on the importance of reducing carbon footprint and aligning our daily anaesthesia practice towards sustainability. A Continuous Medical Education (CME) session about Sustainability and Green Anaesthesia based on the latest international guidelines was done to deliver the concept and essential measures on anaesthesia practices that could help to decrease CO₂ emission.

Due to logistic issues, we celebrated Anaesthesia Day on 23rd September 2023. Since our target was mainly the public with free participation, it was done at the Mydin Mall Kota Bharu Kelantan to get closer to the community.



Aerobic dance before the opening ceremony

The programme aimed to share healthcare professionals' experiences in the operating room and Intensive Care Unit (ICU), at the same time, to correct any misconception about anaesthesia and critical care, especially post-COVID-19 pandemic.

A pre-celebration contest titled "The Biggest Loser" encouraged our hospital staff to reduce their excess weight to a

healthy BMI. The participation was encouraging, with the highest weight reduction being 10kgs in 2 months. We also organised The Amazing Race, a day before the event, involving healthcare staff for fun and team building.

This event was supported by our state director, who was willing to spend his weekend supporting the community-friendly event with early morning exercises followed by booth visits. The opening was done with an aerobic dance to promote a healthy lifestyle by all the AJK and their children. This was followed by a traditional dance by our very own anaesthesia medical officers, who showcased their beautiful talent outside the clinical setting.

Various booths for exhibition and education were openly conducted,



Aerobic dance involving committee members since it was done early in the morning



Traditional dancers, shining our Anaesthesia Day 2023

including ICU, Cardiothoracic (CTC), Operation Theater (OT), Organ Donation, Kidz Corner, Pain Service and medical check-up booths. The booths comprised all our services in the Anaesthesiology and Critical Care Department HPRZ II, Kota Bharu, Kelantan. In each booth, we prepared posters, apparatus and quizzes for the public to help the community understand the work of the Department of Anesthesiology and Intensive Care and its role during peri-operative anaesthesia-related matters and critical

patients. We also have a booth for the kids to familiarise them with anaesthesia and make them interested in becoming doctors and paramedics. This may also reduce anxiety among children about hospitals.

We also provided Basic Life Support (BLS) education and demonstrations to show the importance of BLS and CPR for bystanders. Many presents and gifts were provided as a token of appreciation to encourage the visitors to visit all the booths during the day.



BLS demonstration on the stage

Example of critical care patient ventilation and monitoring during the ICU exhibition



Kidz booth was the busiest booth of the day





UPOH unit to promote Organ donation



CTC booth as the most attractive booth of the day

The most popular booth was the one for medical check-up, as we provided free blood pressure, glucometer, lung and heart examinations. This booth was setup to conduct essential health examinations and provide health information for the community.

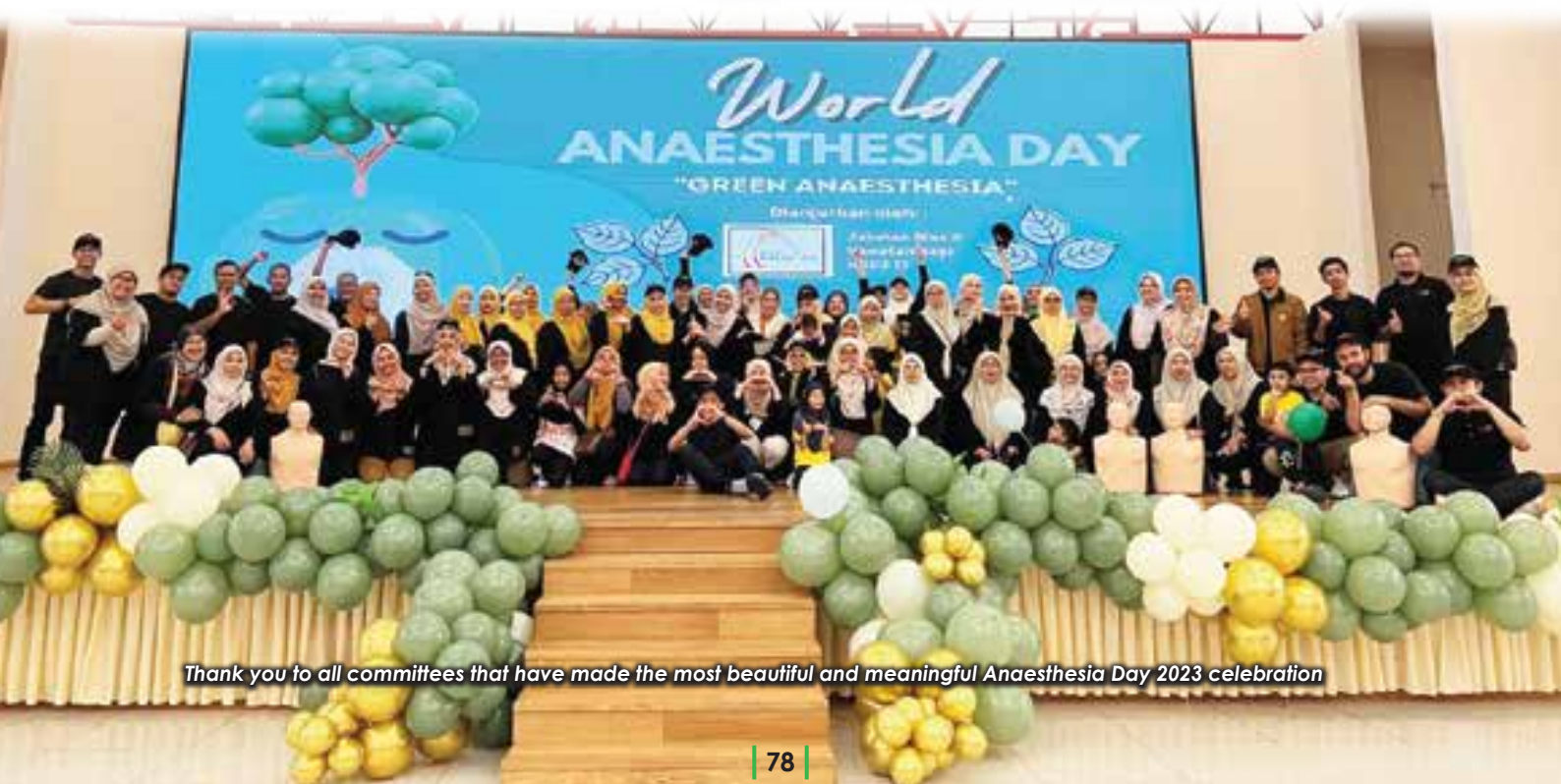
The ICU booth gave the community an accurate picture of ICU scenarios about sedation in the ICU and the management of critically ill patients. We addressed the issue of 'ditidurkan', which means helping the patient not to feel pain and be unaware during any procedure. We explained that this was

done by giving anaesthetic agents, which have a reversible effect. Thankfully, they appeared reassured.

Our organ donation programme would not be complete without the UPOH team. Almost 30 possible donors had pledged to organ donation on that day after being convinced that we could save lives with organ donation. It is now easier for organ donation pledges to be done via My Sejahtera App and can be traced at any time.

We were very grateful that the objective was achieved as we got positive

feedback from the crowd. This event was successful due to the inspiring and enthusiastic staff that had been preparing for two months before the event. We hope this year's World Anaesthesia Day celebration brought us together to have a more significant impact on sustainability and incorporate green anaesthesia during daily healthcare work and a healthy lifestyle. At the same time, it raised awareness and public education about the importance of anaesthesia in medical treatment.



Thank you to all committees that have made the most beautiful and meaningful Anaesthesia Day 2023 celebration

Hospital Pulau Pinang Anaesthesia Department Family Day **GREEN ANAESTHESIA, IT'S NOW OR NEVER**

by Nor Husna binti Mohd Zuki & Aslinah binti Velayit Hussein

Hospital Pulau Pinang, Penang, Malaysia



The enthusiastic team for Anaesthesia Day: Green Anaesthesia, It's now or never!!

The Hospital Pulau Pinang National Anaesthesia Day celebrations were held on the 29th October 2023. The theme for this year, "Green Anaesthesia. It's Now or Never" is a significant theme for the era of modernisation and technological advancement whereby we bear witness to the usage of many pollutants in our environment. Therefore, it becomes each and everyone's responsibility to minimise our carbon footprint and to go 'green' as much as possible for our own benefit as well as for our future generations to come.

Our committee this year is spearheaded by Dr Nor Husna binti Mohd Zuki and her amazing team of dedicated specialists, medical officers, nurses, assistant medical officers and support staff of our hospital. Detailed planning and immaculate preparations were made

well ahead of the event, including venue selection and lists of green activities to carry out the main idea of ensuring minimal wastage and maximal recycling of all the used items. Our main objective for this event is to raise awareness regarding the global environmental pollution caused by climate change and educate ourselves and our community on how to practically transform healthcare into a sustainable industry.

In anticipation of the big day, we decided to order T-shirts as a method of promotion for our event. Our colleague, Dr Muhammad Hafidz bin Hassan, did the T-shirt design. In addition to that, the T-shirt colour selection was by our very own specialist Dr Ooi Poh Ling. The colour of the T-shirt was a very bright apple green with white wording as a

way to promote and catch attention to the theme of the event which is "Green Anaesthesia. It's Now or Never" since we were having the event in a public space.



The Opening Address by our Beloved Head of Department, Datin Usha



Horse Riding and Grooming activities by the participants ft. the majestic great horses!

The National Anaesthesia Day celebration dawned on a beautiful sunny Sunday morning in the serene area of the Countryside Stables in Balik Pulau, Penang. Our event was attended by our department staff for example, our beloved Head of Department of Anaesthesia and Intensive Care, Datin Dr Usha S Rajah, our specialists, medical officers, staff nurses, medical assistants as well as their family members. Datin Usha S Rajah gave the opening address. We started our day with a team breakfast with homemade Malaysian 'kuihs' and mineral water. The bottles from the mineral water were recycled and used for our activities during the day.

Our event continued with the formation of three teams among the participants, and the first activity was Treasure Hunt. The clues obtained from the treasure

hunt helped the participants to complete a crossword puzzle based on the concept of green anaesthesia. Both the staff and their family members had a wonderful time completing the puzzles. Next up was the water conservation game whereby the teams needed to fill the targeted amount with recycled items such as mineral bottles from the morning breakfast. The winning team completed the mission within 10 minutes with multiple creative recyclables present around the area. This was indeed very impressive.

We continued our event with another exciting and highly anticipated activity by all our participants. This event was also the main reason for us to choose to hold our celebration at this venue, the Countryside Stables Balik Pulau. The activity was horse walking, horse riding, grooming and also feeding the great beauties in the stables, this was a way for us to connect to nature and to encourage the children to be more compassionate towards other beings occupying the same world as us. The children and adults definitely had a blast connecting with the majestic animals during this activity.



Water Conservation Activity with the adorable participants



Water Conservation Activity with the participants featuring a very cute observant!



Horse Feeding Activity: Look at the happy faces of our Specialists!

Besides that, we also had recycling activities and tree planting activities. The tree planting activity was carried out with much thought on reducing the carbon footprint and cultivating a green way of life at home. Thus we decided to plant sustainable plants such as okra which can be used at home for cooking, and at the same time we could teach our children to be compassionate and responsible for other beings such as the plant. Many of the participants enjoyed this activity and took the okras home for further care and cultivation. Our event would be incomplete without a children's colouring contest and prize-giving ceremony as an appreciation for the children's cooperation and fun teamwork. We ended the event during the afternoon with a much-enjoyed 'KFC' lunch, which we savoured using recyclable cutleries brought from our own homes.

The event was highly successful, and we thoroughly enjoyed the day. In addition to that, we are grateful for the opportunity to get to know each other and our families in a very enjoyable and calm natural environment. Besides that, we also managed to achieve our goals for this event which were to promote green anaesthesia and to try as much as we could to make our environment a better, safer, greener place for us and our future generations. Until next year, have a very Happy National Anaesthesia Day to everyone!



The Committees, participants and our very cooperative bunch of minis!



The Committees, participants and our very cooperative bunch of minis!



Our little okra plants!



Distributing our favourite lunch, the KFC!



A part of the hardworking event committee



The end of a very enjoyable day at the Countryside Stables!

▼▼ A DAY OF FUN AND TOGETHERNESS

Hospital Putrajaya (HPJ) / Institut Kanser Negara (IKN) / Institut Endokrin Putrajaya (IEP)
Anaesthesia and ICU Department Family Day:
“Overcome Your Fear”

by Tan Ru Yi

Hospital Putrajaya, Putrajaya, Malaysia

On 4th November 2023, we held our department family day at Tadam Hill Resorts Banting in conjunction with the World Anaesthesia Day celebrations. It had been a while since our last family day event which took place nearly five years ago, so both hospital staff and their families were eagerly anticipating it. This was a much-awaited break for everyone, away from the hospital's freezing operating rooms and busy intensive care unit.

Despite their hectic schedules, the doctors from all three anaesthesia departments came together to organise this event, which was headed by Dr Tan Ru Yi. Discussion and planning began as early as September, which included reconnaissance of



different venues, setting the budget, devising the programme, fee collection, advertisement, manpower, safety, logistics, etc. After considerable preparation and hard work, the much-awaited day finally arrived.

It was the perfect sunny day that we could hope for. The event kicked off with a bang as Dr Aminuddin (HOD HPJ/IEP) and Dr Halimatun (on behalf of Dr Azlin [HOD IKN]) officially unveiled the Family Day banner. Various exciting activities





that catered to all ages were lined up for the participants. First was a round of thrilling telematch games, igniting the spirit of friendly competition among colleagues and also allowing them to show off hidden skills such as hand-eye coordination, balance, strength, speed, endurance, and agility. The last telematch game of the day was a water balloon fight, which got everyone drenched but wanting more. It was also a good way to cool down from the hot sun. Laughter and cheers filled the air as everyone was having lots of fun while watching each other's funny antics. The next session of the day was less physical and mostly tested everyone's wits and critical thinking skills. Teams had to work

as one to solve interesting and engaging puzzles, trivia games, and tasks in order to win. The younger participants had their fill of fun as well, as they were mostly occupied with a colouring contest, which allowed their creative imagination to run free and showcase their artistic talents. This was followed by an entertaining clown show that had the children and their parents in stitches throughout.

After a short afternoon break and a hearty lunch, the day continued with a "Tug of War," which pitted two teams against each other. They were the 'All Stars' led by Dr Tan, which comprised mostly consultants and specialists with a



select handpicked crew, versus 'The Rest of the World' which included other hospital staff and their family members. It was definitely the highlight of the day, as supporters cheered their favourite team on with gusto. As soon as the whistle sounded, both teams pulled with all their might and were evenly matched at first; subsequently, 'The Rest of the World' had the upper hand, but when it seemed that they were on the brink of



▼ victory, the 'All Stars' tugged with new-found energy, bolstered by the boisterous cheers of the crowd. This last-ditch effort eventually paid off. In the end, 'All Stars' emerged triumphant. The electrifying atmosphere even attracted onlookers from other groups that were there; some even lent their support to us.

The slogan for this year's family day was "Overcome Your Fear," which aptly described the various water-based activities that participants could challenge themselves to; they included leaping from a 12-foot platform into the lake, zip-lining across the lake, bamboo kayaking, and going down steep water slides. It was an opportunity for one to conquer one's fear of water and heights. Some of the children were having such a great time swimming and playing in the water that they did not

even want to leave when it was time to do so.

The day finally culminated with a lucky draw that saw many participants win fabulous prizes, which included a 50-inch 4K UHD Google TV, a smart tablet, an air fryer, a cordless vacuum, hampers, vouchers, and lots more. All in all, very few went home empty-handed. It was great to see both young and old having an opportunity to unwind, connect, and celebrate the strength of their hospital family. On that day, new bonds were forged, laughter was enjoyed together, and wonderful memories were created that will be cherished for a lifetime.

"I don't have friends; I have family". - Dominic Toretto (Fast and Furious)



World Anaesthesia Day 2023

Hospital Raja Permaisuri Bainun Ipoh

by **Lee Soh Nam & Isma Syarina binti Ismail**

Hospital Raja Permaisuri Bainun, Ipoh, Perak, Malaysia



Ah, it's that time of year again. No, not Christmas or Hari Raya, but World Anaesthesia Day (which falls on 16th October annually); a day where we celebrate the effort and sacrifice of anaesthetists everywhere and have a bit of fun while doing so (hopefully). The theme for World Anaesthesia Day celebration this year given by the Malaysian Society of Anaesthesiologists was *Go green - It is now or never*. As we are all aware, climate change has been an increasingly pressing issue these past few years and hence as faculty of anaesthesia, we should lead the way in reducing our impact on the environment in our daily practices and what better way to do this than to incorporate it to our annual celebrations.

This year, the Department of Anaesthesia and Intensive Care of Hospital Raja Permaisuri Bainun, Ipoh has elected to have the hospital level celebrations in Aeon Station 18, Ipoh on the 15th October 2023. This historic

celebration was led by Dr Isma Syarina binti Ismail in conjunction with the Ipoh Anaesthesia Society and things were set in motion as early as July 2023. The whole department rose to the occasion with fantastic responses from our support staff (attendants, staff nurses and medical assistants) as well as doctors.

As Alexander Graham Bell once said, preparation is the key to success, thus this momentous celebration started with meticulous preparation. The event started by transportation of equipment and setting up decorations that lasted well into the night (2.00am) of 14th October and we were at the mall as early as 7.00am to ensure the event ran perfectly.

To commence the event, the pledge of sustainability in anaesthesia was recited lead by Head of Department, Datin Dr Najah binti Tan Sri Harussani. This was followed by a vigorous Zumba session led by professional Zumba instructor, Ms Nat Gomez, for an hour. Following





Datin Najah leading the pledge of sustainability in anaesthesia



APS team

this was a chance for the committee members to catch their breath while we were treated to three graceful and charming dances from the performers invited from the iDance academy. Up next was the popular event; the 1st lucky draw of the day in which 22 prizes were given out. This was followed by the adorable and fun mini games for children from ages of 5 to 14. They were divided into four groups and pitted against each other. With a twist of events, everyone was declared a winner and gifts were distributed throughout. Activities further continued with the go green talk done by Ipohrefill to battle plastic pollution. The second lucky draw was then conducted to great aplomb which featured immunity boxes from BP Healthcare and 22 other prizes followed by an event to conclude

the day: the 2nd Zumba session lead by Mr Amir, a professional Zumba instructor, which lasted for an hour.

There was a total of eight booths on display with two refreshment booths from McDonalds and Oligo Power Root. These included:

1. Operating theatre booth where explanation of general anaesthesia, regional anaesthesia, obstetric anaesthesia, paediatric anaesthesia and neuroanaesthesia with banners and a simulation of what happens to a patient in the operating theatre during anaesthesia were available for public viewing.
2. Intensive Care Unit booth where simulation of a patient admission to

ICU treated by teddy anaesthesiologist, Dr Bius with lucky draw prizes, and balloons. There were on site facilitators willing to enlighten public regarding what procedures occur to patients in ICU.

3. Pain Services booth where insight regarding management of pain and simulation for methods in pain management were on display. On-site facilitators were available to explain and demonstrate regarding usage of patient-controlled analgesia machines.
4. Basic life support booth where Cardiopulmonary Resuscitation (CPR) and Automated External defibrillator (AED) education with practical demonstration where the public can have a go at performing CPR and applying the AED to mannequins.
5. Tissue & Organ Procurement (TOP) booth. This booth was simple but crowded with passionate TOP team members seeking more organ and tissue pledgers.



CPR simulation

6. Health screening booth where general health status of the public was screened through a specific questionnaire and from that their blood pressure, pulse rate, capillary blood glucose and finally doctors' consultation were given on the spot. Following these regimes, appropriate referral letters were given out to clinics or hospitals as deemed necessary. The highlight of the booth was the invited dieticians from Hospital Raja Permaisuri Bainun, Ipoh dietary department who were there on-site to give fitting dietary advice to all.

7. Did you know there are seven types of plastic produced in Malaysia and only four of these types are recyclable? Well, folks at the Ipohrefill booth gladly lent their expertise in discriminating against which type of plastic is recyclable and thus which plastic usage should be discouraged due to being unrecyclable. This booth also has a mini game to sort the recyclable and non-recyclable plastics into boxes and organic dishwashing liquid were given to all participants as participation prizes.

8. Minigames & lucky draw booth housed 3 mini games which were offered to members of the public who have completed a visitation of a minimum four out of six booths as evidenced by the stamps on their lucky draw cards. This made them eligible for the lucky draw prizes as



New pledgers for TOP team



Lucky draw prizes given by Datin Najah



Minigame of throwing bottles into baskets in progress

well as a trial for one of the minigames in which all would be guaranteed a consolation prize at the minimum.

All things considered, with approximately 1000 members of the public attending the event to be educated on the role the anaesthesia department plays in the hospital; this celebration would be considered a success and one that our department of anaesthesia take pride in organizing. This event would not have been the success that it is without the enthusiastic support from all who participated and deserved a round of applause and heartfelt gratitude for the effort made, especially our medical assistants, staff nurses and attendants. Hopefully such zeal would be maintained till the organization of next year's celebration with the aspiration that it would be better. With that, I hope you will excuse me now, as I need to sleep off my two Zumba sessions.



Zumba session



Performers from iDance academy



Minigames for children

CELEBRATING THE HIDDEN HEROES

World Anaesthesia Day 2023 in Hospital Teluk Intan

by Kelly Ho & Idalina Hani

Hospital Teluk Intan, Perak, Malaysia

Across the globe, World Anaesthesia Day or also known as Ether Day, is celebrated on the 16th October to commemorate the world's first successful anaesthesia in the year 1846. Interestingly, the person who performed the anaesthesia was a dentist named William Morton, who used ether as an anaesthetic agent (hence the name Ether Day). With the evolution and progression of this discovery, the world of surgery has improved and advanced to where it is today. Hence, since the early 20th century, World Anaesthesia Day has been celebrated annually to remember this breakthrough in medicine. As anaesthetists' work is mostly unnoticed, World Anaesthesia Day allows us to celebrate the profession while creating and spreading awareness on anaesthesia.

Teluk Intan is a small town located in the south of Perak, famously known for its Leaning Tower. Its hospital was built in 1987 to serve the residents around the district of Hilir Perak, which covers an area of about 1,730km². As it is the third largest government hospital in the state of Perak, it is appointed as the head of southern Perak cluster hospitals. This year, Anaesthesia Day was celebrated on 25th October 2023. The event took place on the hospital grounds to attract many participants. Preparations and planning began months earlier with the theme of Green Anaesthesia in mind, in conjunction with the theme given for this year's celebration by our Ministry of Health.

It was bright and sunny in Teluk Intan on that day, perfect weather to kickstart



A couple of nurses in their traditional attire welcoming guests at the registration counter

the morning with a short Zumba session led by our ICU nurses. Busting some moves to upbeat music sure did help to awaken us, especially for some who just finished work throughout the night before. After the short workout, the event continued in the hall with the official ceremony. Our guests included secondary school students, police, and firemen, alongside hospital staff from other departments. A welcoming speech was given by our Head of Department, Dr Kumaran A/L K Sinniah, followed by officiation by the Deputy Director of Teluk Intan Hospital. Afterwards, the doctors as a group

made a pledge on sustainability and minimizing environmental impact in anaesthesiology. There was also a round of lucky draws for the participants, where 15 lucky winners brought home interesting prizes. Once the ceremony was done, everyone was treated to a hearty breakfast and with a filled stomach, they were then led to the exhibition booths in the foyer.

There was a total of nine exhibition booths. Each had their own person in charge, from nurses, pharmacists, medical officers to specialists of the Anaesthesiology Department who were

eager and ready to enlighten everyone on their respective materials. It was enthralling to see members of the public learning and practicing CPR on our Resus-Anne dolls, signing up to be organ donors and impressively, some even agreed to try out acupuncture at our Acute Pain Service booth. There was also a booth by the ICU pharmacist, educating people on their drugs and sharing her knowledge on medication safety.

Many were also interested in discovering how intubation and mechanical ventilation works in general anaesthesia

and were given a chance to attempt intubation (on a mannequin, of course). By the end of the day, the participants had a bag full of goodies collected from every booth along with a new-found awareness and a quick glimpse of what anaesthesia is about. The staff who were the driving force behind the event were all tired after working in a crowded place on a hot day, but nevertheless were satisfied with the outcome. The day may have ended but the spirit of Green Anaesthesia shall remain, for as long as anaesthesia is practiced here in Hospital Teluk Intan.



Most of the team members that ran the show at the exhibition booths at the hospital foyer



The Korean Society of Anesthesiologists (KSA) held the KoreAnesthesia 2023, its 100th Annual Scientific Meeting, on 9th to 11th November 2023 at the Grand Walkerhill in Seoul, South Korea. The meeting was led by Professor Dr Jun-Heum Yon as the President and Professor Dr Justin Sangwook Ko as the Director of Scientific Affairs of the KSA. The Organising Committee worked very hard to organize the meeting and to ensure that participants benefitted from good organization and smooth execution.

A total of 2903 delegates from 34 countries attended the conference in person which marked a significant milestone for the KSA. Notably, there was a significant representation from Malaysia, constituting 16% of the total international participants. The success was not only in term of attendance but

also in the quality of the academic content. Across the three days, 250 speakers worldwide presented 189 lectures of current and relevant content to the anaesthesia fraternity. The conference also included 371 submitted abstracts and 117 exhibition booths.

Since the signing of the Memorandum of Understanding (MOU) between the KSA and the Malaysian Society of Anaesthesiologists (MSA), our collaboration has flourished through numerous academic exchanges and networking initiatives between both the Societies. The Malaysian team was led by the MSA President, Dato' Dr Yong Chow Yen; President of College of Anaesthesiologists, Professor Dr Ina Ismiarti Shariffuddin; and the MSA President-Elect, Dr Hasmizy Muhammad, as session moderators while Dr Nur Hafizhoh Abd Hamid, Associate

Professor Dr Azarinah Izaham and Dr Mafeitzeral Mamat contributed as speakers in Paediatric Anaesthesia, Enhanced Recovery After Surgery (ERAS), and Ambulatory Anesthesia sessions respectively.

The first day of the Congress, 9th November 2023, consisted mainly of lectures in a variety of fields such as Neuroanesthesia, Paediatric Anaesthesia, ERAS, a special session for Asian Australasian Regional Section (AARS) and various refresher courses. The Gala Dinner was held in the evening, at Vista Hall of the Grand Walkerhill and was attended by the organizing committee, the faculty, the speakers and the invited attendees of the conference. The Pop Orchestra, a renowned South Korean orchestra, entertained the participants during the dinner.



The highlight of the second day, 10th November 2023, was the grand Opening Ceremony which was followed by a Keynote Lecture by the President of the World Federation of Societies of Anesthesiologists, Professor Dr Adrian Gelb, entitled "The global anesthesia workforce crisis" and a speech by Dr Christopher Bowden, the Chair of the AARS, entitled "Leading healthy teams in anaesthesia". This session was moderated by the President and the Director of Scientific Affairs of the KSA.



The conference then continued with scientific lectures, in-congress workshops and abstract presentations.

Day 3 of the Congress consisted mainly of lectures focusing on research and technology, as well as other areas in anaesthesia with multiple in-congress workshops. In the evening, the final social event of the Congress was the President's Dinner at Aston House which was attended by the Organising Committee, the Presidents of invited



Societies of Anaesthesiologists, the faculty and speakers. It was a fruitful event with many networking opportunities with our colleagues from all over the world exchanging expert opinions, research and establishing or renewing friendships.

The scientific content of the conference covered the important aspects of anaesthesia and critical care in the lecture and plenary tract sessions, research abstract presentations, in-congress workshops and refresher courses, which catered for all levels of attendees from in-training anaesthesiologists to the most senior consultants in anaesthesia. The feedback received by the KSA from the participants was very positive and appreciative, with many expressing their satisfaction and eagerness to join future congresses!



Anaesthesiologists

CREATES



AIR FRIED SALMON STEAK

Chef in Black

INGREDIENTS

Salmon Fillet

Marinate

- 4 tablespoons lemon juice
- 2 teaspoons olive oil
- 1 tablespoon soy sauce
- 2 teaspoon minced garlic
- 1/2 teaspoon salt
- 1/2 teaspoon pepper
- 1/2 teaspoon paprika
- Some dill leaves

METHOD

Marinate the salmon fillet in the sauce for at least 1 hour (the longer, the better). Preheat the air fryer to 200 degrees Celsius for about 5 minutes. Place the fillet skin down (if with skin) in the air fryer grill basket/pan. Sprinkle the salt, pepper and paprika on the fillet. Cook for 8 - 10 minutes for a lean fillet and 10 -12 minutes if the fillet is thicker. Sprinkle some dill leaves and serve it hot.

Similarly, you can replace the soy sauce with teriyaki sauce. Serve with fresh vegetables, salad and mashed potatoes or serve as a wrap with honey mustard dressing and ketchup. Healthy eating and so simple to make. Do enjoy...

Welcoming the Anaesthesiologists - APRIL / MAY 2023

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

Ong E Theen
Pok Xiang Yan

UNIVERSITI KEBANGSAAN MALAYSIA

Heah Choon Keat
Melissa Lau Su Yin
Mohd Iqbal bin Shaidan

Nur Athirah binti Sanusi
Pravesh Arjan
Previna Anatory

Thanalachumy Ragunathan
Thanalakshimi A/P Ravintiran
Yeoh Kean Seng

UNIVERSITI MALAYA

Atiqah binti Ali
Chong Huey Nee
Elis binti Mohd Yusoff
Muhammad Zayyid bin Mohd Mokhtar

Nur Ainina Zulkeplee
Nur Aisyah binti Kamalzaman
Ooi Min Ming
Irene Tan Ai Leng

Tan Teck Wei
Kenny Tiew Siew Ho
Yap Sher Theng
Ummu Yasmin binti H Hamid

UNIVERSITI PUTRA MALAYSIA

Fatin Hazirah binti Mohamed
Hamizah binti Abdul Rahman

Mohd Syafiq bin Shokery
Ooi Lian Hong

UNIVERSITI SAINS MALAYSIA

Aina binti Ahmad Zaki
Gan Shee Yin
Lim May Chin
Mohamad Azizuddin Fahmi bin Nordin

Ng Li En
Nurthaqifah Farhani binti Mujiman
Terence Siew Kung Yung
Siti Afifah binti Abd Manas

Tan Nee Ping
Tang Yi Chuan
Ung Xiu Ming
Wan Nur Aida binti Wan Azmi

Welcoming the Anaesthesiologists - OCTOBER / NOVEMBER 2023

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

Bee Shy Chin
Ng Hui Ping

Nurhidayah Abd Halim
Nurul Izzah Azmi

Phang Ti Ping

UNIVERSITI KEBANGSAAN MALAYSIA

Ajayan Nair G Prabhakaran
Aisyah binti Mohammad Nor
Au Yan Qian
Cheah Onn Kee
G Umavaathee A/P Gunasegaran

Jalwati Amirah binti Johari
Lau Wai Yen
Mohamed Zahir bin Anverdeen
Mohd Farhan bin Ibrahim
Nur Hafizuddin bin Jailani

Priscilla Manymuthu
Siti Fatimah Azzahra binti Lop Ahmad
V Vicnarajiswary A/P S Vijayaretnam
Wazir Ahmad bin Haja Sahabudeen

UNIVERSITI MALAYA

Assila binti Alfi
Beh Jun Hooi
Gary Leong Wei Kean
Loke Wei Xiang

Mohd Nazree bin Mohd Zaki
Muhammad Syafiq Fyze bin Md Rodzi
Nitya Vaisnavi A/P V Vijayakumaran
Nurul Izzah Che Jusoh

Pua Kai Siang
Tay Wei Lun
Yap Kok Heung Jason
Yeap Chun Hong

UNIVERSITI PUTRA MALAYSIA

Naifah Sheikh Omar

Teoh Chun Teng

UNIVERSITI SAINS MALAYSIA

Ili Syazana binti Saufian
Marwiza binti Abd Ghani
Muhamad Aizuddin bin Ismail
Mutamilarasi A/P Katari

Nadzirah binti Mohd Shah
Navkiran Singh Gill A/L Naranjan Singh
Nirmal Kaur Kapur Singh
Nor Suryati binti Mat Piah
Noor Azlin binti Abdullah

Nur Izyan Izzati binti Sathari
Pang Loon Wei
Priyaneka Baskaran
Tan Aik Keat

continued from back page

The CoA's primary goal is to unite all anaesthesiologists in Malaysia under its banner. We have 12 special interest groups formed under the CoA. The full list can be obtained from our website: <https://www.coanaes.com>. The CoA aims to truly represent our profession in all matters related to our specialty and its subspecialties. The CoA works closely with the Malaysian Society of Anaesthesiologists in organizing events for the benefit of the profession as a whole and has as its primary objective the advancement of the art and science of anaesthesia and related disciplines. The activities of the CoA include:

1. Credentialing and Accreditation.
2. Development of Consensus Statements, Clinical Practice Guidelines, and Standards of Care.
3. Quality Assurance and Clinical Audit
4. Organization of Subspecialty Scientific meetings.
5. Liaison with sister organizations overseas.
6. Assistance in the facilitation of postgraduate training by taking the responsibility to coordinate the training and exam, in collaboration with the MOH and the College of Anaesthetists of Ireland.
7. Research

As we embark on this journey of excellence, I would like to extend a warm invitation and earnest encouragement to all anaesthesiologists in Malaysia to register and become members of our prestigious College. As members of the CoA, we are automatically members of the AMM and here are some compelling reasons why you should consider becoming a

part of our vibrant CoA/AMM community:

1. Representation: The AMM and its Colleges stand as the representative bodies for all specialists across Malaysia. By joining the CoA, you become an integral part of a united voice that advocates for the interests and welfare of our profession.
2. Leading Role: The AMM and its Colleges are at the forefront of medical matters in our country, and our contributions are invaluable in shaping the landscape of healthcare in Malaysia.
3. Unity in Diversity: In unity, there is strength. The AMM and its Colleges enable different specialties to speak collectively and authoritatively, reinforcing our influence in the medical domain.
4. Collaboration and Networking: As a College of the AMM, the CoA enjoys the privilege of interacting with other Colleges and Chapters. This collaboration opens the doors for addressing common professional issues and creating synergies among different medical specialties.
5. Tax Benefits: We understand the financial commitments of our members. Rest assured that your annual subscription to the CoA and the AMM can be eligible for tax rebates, making your investment in your professional development even more rewarding.

"The best way to predict the future is to create it"

Where do we go from here? In the next two years during my Presidency, the CoA hopes to have more conversations with our sister Colleges, namely, ANZCA, College of Anaesthesia UK, College of

Anaesthesiologists of Ireland, College of Anaesthesiologists, Hong Kong, and College of Anaesthesiologists, Singapore, on how we can open up more collaborations with them to improve training and research in Malaysia. We envisioned to be the body that is the referral centre for training, research, and medico-legal advice for our highly esteemed members. This is a work in progress and we welcome ideas and volunteers from all of you with the relevant expertise to assist our council members to achieve this.

The CoA is witnessing an important development as our Special Interest Group (SIG) for Pain Medicine makes strides to apply for the recognition of Pain Medicine as a subspecialty under the National Specialist Register (NSR), aligning it with Anaesthesia and Intensive Care. Simultaneously, the SIG of Cardiothoracic Anaesthesia is progressing towards requesting for the same recognition. This forward momentum signifies the inevitable growth of subspecialisation across medical disciplines. The CoA encourages other subspecialties and their members to initiate internal dialogues and consider embracing this trajectory, as it promises a brighter future for medical expertise and patient care. It is indeed an opportune moment to embark on this transformative journey.

"If you want to go fast, go alone, if you want to go far, go together"

Lastly, I encourage you to take this opportunity to join us in our quest for excellence and unity. Let us work hand-in-hand to promote the highest standards of specialist practice, uphold ethical integrity, and contribute to the betterment of healthcare in our beloved Malaysia. Together, we can strengthen our voice, enhance our expertise, and collectively advance the field of anaesthesiology in Malaysia.

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

Professor Dr Ina Ismiarti Shariffuddin



Dear respected friends and colleagues,

It is a great privilege to address you as the President of the College of Anaesthesiologists (CoA), a distinguished College of the Academy of Medicine of Malaysia. As I step into the role of the President, I must express my deep gratitude to Professor Dr Marzida Mansor for her invaluable contributions as the Immediate Past President of the CoA. Her legacy sets a high standard, and I am honoured to follow in her footsteps as I take on this important role.

Since my presidency in August 2023, the CoA has taken meaningful steps towards enhancing our commitment to both our profession and the global community. The CoA, in collaboration with the Malaysian Society of Anaesthesiologists and Queen Elizabeth Hospital, Kota Kinabalu, Sabah, organised the World Anaesthesia Day 2023 national celebrations with the theme "Green Anaesthesia: Now or Never". This celebration, a remarkable event, was graced by the presence of Dato' Dr Mohd Azman bin Yacob, Director of Medical Development at the Ministry of Health Malaysia.

In recent times, our world has faced unprecedented environmental challenges. While anaesthesia has been a life-saving practice, it has been associated with a significant carbon footprint. The theme "Green Anaesthesia: Now or Never" represents a crucial movement within our fraternity to minimize this impact by embracing sustainable practices,

following the concept of the 6 R's: Rethink, Refuse, Reduce, Reuse, Recycle, and Research. Thus, CoA encourages all Anaesthesiologists to adopt eco-friendly technologies, reduce waste and recycle materials, wherever possible. This approach not only benefits our patients but also safeguards the health of our planet for future generations. I extend my appreciation to Dr Shazharn Muhammad Zain, Head of the Department of Anaesthesiology, Queen Elizabeth Hospital, Kota Kinabalu, Sabah, and his team for their outstanding efforts in organising and hosting this event. Let us all continue our pledge to protect our planet Earth and make it a core agenda of our fraternity for years to come.

In collaboration with the Simulation Special Interest Group and the Academy of Medicine of Malaysia (AMM), CoA aims to empower our members to become ACLS trainers in Malaysia, thus expanding the pool of providers for ACLS training in our medical community. Additionally, we have exciting prospects for our younger colleagues, as we are in discussions with the Hong Kong Hospital Authority, who are offering paid training positions for our specialty programmes, offering new avenues for specialist fellowship training.

On 30th October 2023, the CoA with other sisters Colleges in Malaysia joined hands with the AMM to issue a press statement urging the world authorities to prioritize the protection of civilians in the Israel-Gaza conflict. What is happening

in Gaza, right now, is ruthless and our collective voice seeks to highlight the importance of safeguarding innocent lives amid this ongoing crisis.

I have been approached by many friends and colleagues, on this very pertinent issue, of why should anaesthesiologists in Malaysia become a member of the COA. Let me begin by sharing a little bit of the history on the set-up of the COA. The College of Anaesthesiologists, Academy of Medicine of Malaysia, (CoA, AMM) was originally inaugurated as a Chapter of Anaesthesiologists on 16th December 1995. The College is the "academic arm" of anaesthesiologists in the country. It is one of the many Colleges that exists under the umbrella of the AMM. AMM is an unifying force in the field of Medicine, embracing all medical and dental specialties. It provides a unique platform where professionals from various medical disciplines can converge, fostering the exchange of knowledge at both intra and inter-disciplinary levels. AMM's mission is clear and resolute. They are:

1. To promote and advance the highest standards of specialist practice and ethical integrity through education and professional development.
2. To commit to disseminating knowledge and information on health-related matters.
3. To serve as an authority and resource to the government and public in matters related to specialist practice.

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