THE CUTTING EDGE

DECEMBER 2025

College of Surgeons
Academy of Medicine of Malaysia

INTERNAL CIRCULATION ONLY

Merry Christmas & Happy New Year 2026

Environmental Sustainability for a Surgeon

Streamlining Surgical Trays: Boosting Operating Room Efficiency and Cutting Environmental Impact

Green Anaesthesia: Healing Patients, Sustaining Our Planet

Green Surgery: Towards a Sustainable Future

PAEDsOT: Green Beginnings in Paediatric Surgery

Little Guts, Big Skills: Reflections on Organising a Sustainable Paediatric Surgery Workshop

GREEN SURGERY

Image by freepik

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Dec 2025

From the Editor

SUSTAINABILITY IN SURGERY: ADVANCING A GREENER FUTURE

Surgery is essential to modern healthcare, yet it is undeniably resource-intensive. Operating rooms, sterilisation processes, single-use instruments, and disposable materials all contribute significantly to our environmental footprint.

As surgeons, we have both the opportunity and responsibility to champion sustainability within our field. It is entirely possible to maintain safe, high-quality care while wisely stewarding the planet's resources. Incremental but intentional changes in daily practice can meaningfully reduce waste, lower carbon emissions, and promote more efficient resource use without compromising clinical standards.

Practical measures include minimising energy and water consumption, choosing reusable instruments where appropriate, collaborating with environmentally responsible suppliers, and strengthening waste segregation and recycling practices within operating rooms.

The College of Surgeons can drive sustainability initiatives in surgery. I thank our President, Professor Dr Liew Ngoh Chin for prioritising sustainability. His leadership has turned ideas into real progress.

Equally important is the contribution of Senior Vice President, Professor Shireen Anne Nah, who has championed sustainability efforts from the outset of her leadership journey and continues to strengthen this agenda. Her commitment ensures that sustainability

remains central to our programmes, training activities, and long-term planning.

I also wish to thank her for her role as co-editor of Cutting Edge 2/2025, where her leadership further amplifies the message of responsible and forward-thinking surgical practice. Embedding sustainability into surgical training, research, and daily practice is essential.

By collaborating and innovating, we can make environmentally responsible healthcare a reality. Sustainability is an urgent, shared responsibility to safeguard patient care and our planet for future generations.

Professor Dr See Mee Hoong
Honorary Secretary

Co-Editor's Message

45 degrees Celsius – that was the highest temperature recorded in Malaysia this year in July, making 2025 the hottest year in our recorded history. Extreme weather events, flash floods, devastating typhoons and droughts are a direct result of the impact of human activity on the planet. Yet as we head anthropocenely into an ever-warming future, there is a glimmer of hope.

Now, more than ever, our surgical fraternity acknowledges the urgent action required to address the existential crisis of our generation. We recognise that surgeons as leaders, must do our part in advocating for environmental stewardship in our clinical decisions and practices.

In this edition of the Cutting Edge, we are proud to dedicate an entire issue to sustainability in surgery. From small institutional initiatives and trainee research projects, to regional ASEAN declarations and commitments, we cover the breadth and depth of what we can achieve when we unite in a common cause. We will not be here in 100 years. That plastic bottle (or that PVC catheter tubing) will. The time for action is now.

Professor Dr Shireen Anne Nah
Senior Vice President, CSAMM,
and Head of Sustainability at Universiti Malaya Medical Centre and the Faculty of Medicine, Universiti Malaya

The Intercollegiate Green Theatre Checklist

reproduced with permission from the Royal College of Surgeons of Edinburgh (https://www.rcsed.ac.uk/policy-guidelines/sustainability/environmental-sustainability-and-surgery/intercollegiate-green-theatre-checklist)

According to the World Health Organization, humanity faces its greatest ever threat: the climate and ecological crisis. Health care services globally have a large carbon footprint, accounting for 4-5% of total carbon emissions. Surgery is particularly carbon intensive, with a typical single operation estimated to generate between 150-170kgCO2e, equivalent to driving 450 miles in an average petrol car.

The UK and Ireland Surgical Colleges, the Association of Anaesthetists, the Royal College of Anaesthetists and the Association for Perioperative Practice have all recognised that it is imperative to act collectively and urgently to address this issue.

A compendium of peer-reviewed evidence, guidelines and policies that inform the interventions included in the Intercollegiate Green Theatre Checklist may be found on this link (https://www.rcsed.ac.uk/policy-guidelines/sustainability/environmental-sustainability-and-surgery/intercollegiate-green-theatre-checklist). This compendium should support members of the surgical team to introduce changes in their own operating departments. Our recommendations apply the principles of sustainable quality improvement in healthcare, which aim to achieve the "triple bottom line" of environmental, social and economic impacts. This is an emerging field, and therefore this is an iterative document that will evolve with new evidence.

HOW TO USE THE GREEN THEATRE CHECKLIST

The checklist is divided into four sections, the first dedicated to anaesthetic care, and the subsequent three looking at preparation for surgery, intra-operative practice and post-operative measures.

We suggest the checklist is initially used at the daily brief at the start of an operating list, as an aidememoire for the team of the modifications that could be applied there and then. Once these practices become embedded into practice, then the checklist may be used less frequently. At present, some theatres will lack the infrastructure required to enact all the suggested interventions and so the checklist can serve as a roadmap for discussion with management, or at departmental meetings, to guide required changes.

Finally, if completed regularly, the checklist could also be used as a scorecard to monitor progress. However you choose to use the checklist, we hope that it will be a valuable tool for staff to identify and understand interventions and considerations to decrease the environmental impact of their work.

We are grateful for feedback and any information on new research and developments, so please do contact us at sustainability@rcsed.ac.uk.

Intercollegiate Green Theatre Checklist v2.0

Below is a list of recommendations to reduce the environmental impact of operating theatres. Interventions in the **green** rows can be implemented on the day without prior preparation and can be used as part of a daily pre-operative checklist. Interventions in the **white** rows are those requiring wider stakeholder engagement and planning and may be suitable for monthly review or to help identify areas for quality improvement projects. Relevant guidance and academic literature supporting this checklist is included in the Compendium of Evidence, available at this link:

Anaesthesia

1	Limit Nitrous Oxide (N_2O) to specific cases where there is evidence of clinical benefit	☐
	Decommission manifolds and switch to N_2O cylinders at point of use (or repair pipe leaks if centralized delivery still used)	
2	Consider TIVA and ensure that all drug waste and giving sets are disposed of through the pharmaceutical waste stream	☐
3	If using inhalational anaesthesia: ▸ use low-flow anaesthesia (via end-tidal anaesthetic gas control, if available)	☐
	Remove desflurane from formulary	
4	Reduce waste: ▸ avoid unnecessary equipment and opt for reusables (e.g. laryngoscopes, body warmers, slide sheets, trays, soda lime canisters) ▸ transfer single-use objects with the patient if still needed (e.g. facemasks, suction)	☐ ☐
	Review and rationalise pre-prepared single-use equipment packs and PPE requirements for standard procedures	
5	Minimise drug waste ("*Don't open unless needed*", pre-empt propofol use, titrate O_2) and dispose in correct pharmaceutical waste stream	☐
	Use air instead of oxygen as the ventilator drive gas	

Preparing for Surgery

6	Evaluate PPE and sterile field requirements: ▸ rationalise use of non-sterile single-use gloves and PPE and opt for reusables when possible ▸ limit sterile field to necessary areas only	☐ ☐
	Ensure availability of reusable textiles, including theatre hats, sterile gowns, patient drapes, and trolley covers	
7	Reduce water and energy consumption: ▸ *'rub don't scrub'*: after first water scrub of day, you can use alcohol rub for subsequent cases	☐
	Install automatic or pedal-controlled water taps	
8	Avoid clinically unnecessary interventions (e.g. antibiotics, urinary catheterisation, histology examinations)	☐

Intraoperative Equipment

9	REVIEW AND RATIONALISE: ▸ clarify necessary kit for case and specify what should be available to open only if needed: "Just in time" ▸ take the opportunity to review instrument sets and identify any targets for overage reduction	☐ ☐
	- Review pre-prepared single-use surgical packs and engage with suppliers to remove surplus items and identify those that can be replaced with reusable options (to be included in instrument sets) *- Review reusable instrument sets, remove overage, integrate supplementary items into sets, consolidate sets only if it allows smaller/fewer sets (please see guidance)*	
10	REDUCE: unnecessary waste and single-use equipment, "*don't open it unless you need it*", limit CO_2 insufflation	☐
11	REUSE: opt for reusables, hybrid, or remanufactured equipment instead of single-use (e.g. gallipots, light handles, staplers, energy devices)	☐
	Consider sourcing reusable, hybrid or remanufactured alternatives for single-use equipment	
12	REPLACE: switch to low carbon alternatives (e.g. skin sutures vs. clips, "loose" antiseptic solutions in reusable gallipots)	☐

After the Operation

13	POWER OFF: Heating, Ventilation, Air conditioning (HVAC), AGSS, lights, computers and equipment out-of-hours	☐
	- Switch off AGSS when theatres are not in use or volatile anaesthesia is not being utilised *- Introduce "shut-down" and "power on" checklists* *- Install occupancy sensors and automatise "set-back" modes HVAC systems*	
14	RECYCLE/use lowest carbon appropriate waste streams: ▸ use recycling waste streams for packaging or, if not available, domestic waste stream (prior to patient entering the room) ▸ use non-infectious offensive waste streams (yellow/black tiger) unless clear risk of infection (orange) ▸ ensure only appropriate contents in sharps bins (sharps/drugs)	☐ ☐ ☐
	- Switch to low impact sharp bins e.g. reusable or cardboard boxes *- Arrange metals/battery collection where possible*	
15	REPAIR: ensure damaged reusable equipment is repaired, encourage active maintenance	☐

DISCLAIMER: These suggestions are based upon current evidence and broadly generisable, however, specific environmental impacts will depend upon local infrastructure and individual Trusts' implementation strategies.

Intercollegiate Green Theatre Checklist v2.0. November 2024.

"We should share our knowledge and contribute to raising the standards of health care in this regional community. We should prosper together and lead fulfilling lives. I believe many of us are doing just that by helping to conduct workshops, participating in conferences, and teaching the younger generation."

President's Message

GREEN SURGERY: Towards a Sustainable Future

Another year is drawing to a close, and it is at this time that we reflect on how we might improve, upgrade, or broaden our scope in the year ahead. Two things come readily to my mind, our environment and our neighbourhood.

With the recent devastating floods along the East Coast of Malaysia, as well as in Indonesia, southern Thailand, Sri Lanka, and India, it appears that the effects of Global Warming are well and truly coming home to roost.

There are many detractors, particularly among politicians who, for political or commercial gain, deny the existence of global climate change. They dispute the findings of environmental scientists worldwide that global temperatures have risen by approximately 1.45 degrees Celsius above the 19th-century pre-industrial average.

CSAMM has supported the Sustainable Surgery campaign.

Many of us may not realise that the healthcare sector is responsible for up to 5% of the global carbon footprint, thereby exacerbating environmental damage. This has been contributed to, particularly over the past 50 years, by certain anaesthetic gases such as Desflurane and Nitrous Oxide, as well as the use of single-use disposable items, which require enormous energy resources to incinerate, among other things.

I feel that many of us remain trapped in the belief that single-use disposable items are inherently convenient and beneficial for our patients. It is reassuring to peel away a plastic cover labelled "Sterile unless seal is broken", without considering how these complex plastic-alloy items are ultimately disposed of.

If we were to peek into the yellow 'biohazard bag' and weigh in on the plastic access ports, energy devices used to cut and seal vessels, and disposable suction tubes, all for a simple laparoscopic cholecystectomy, we might realise that such practices are far from sustainable - especially when hundreds of thousands of these procedures are performed every day around the world.

These sterile packages do not reduce the rate of surgical site infection compared with well-maintained, non-disposable surgical instruments. If we can address these issues within our own environment, that would be a good start. Better still, if we could influence our neighbours to follow suit, the impact would be even greater.

This leads me to the second issue: our neighbourhood.

ASEAN has emerged as a powerful economic and political entity, one that the world is increasingly taking note of. It is also a region rich in health ecology. Medical tourism is flourishing across ASEAN countries.

It is well known that patients who can afford it often flock to places where health care is of a high standard, with the availability of high-tech equipment and well-trained personnel. In the past, such destinations were largely in Europe and North America. As the saying goes, 'water finds its own level', indicating that, as economies improve, healthcare standards in the neighbouring countries will inevitably rise.

Many ASEAN countries have good hospitals with well-trained personnel and equipment. This negates the need for travel to Western countries. Within ASEAN, health tourism has become increasingly competitive, and people travel to countries where healthcare is perceived to be

> ***...if we were to peek into the yellow 'biohazard bag'...***

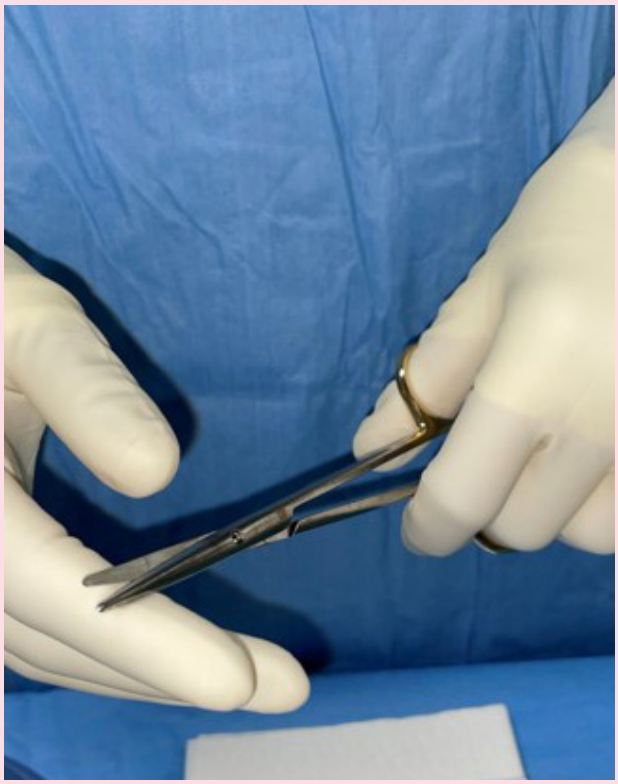
of high quality and affordable. For surgical professionals, fostering cooperation, communication and solidarity within the ASEAN is vital.

We should share our knowledge and contribute to raising the standards of health care in this regional community. We should prosper together and lead fulfilling lives. I believe many of us are doing just that by helping to conduct workshops, participating in conferences, and teaching the younger generation.

It is with this ASEAN spirit in mind that the sister colleges have adopted our Kuching Declaration on Sustainable Surgery and made this a common objective. They signed the pledge during the Annual Scientific Meeting held in Kuching in June 2025.

To this end, it is hoped that future surgical conferences held in ASEAN will dedicate sessions to educate, promote, and reinforce sustainable surgery. We hope this neighbourhood will grow and strengthen and, that together, we contribute more meaningfully to environmental protection.

Professor Dr Liew Ngoh Chin
President, CSAMM



LETTERS TO THE EDITOR

Share on advances in your field. Show us what you have done differently. Tell us your ideas on how we can better educate, train or inspire our trainees, and benefit the nation. Contribute to the next edition.

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incorporating the

Malaysian Breast & Endocrine Surgery Course

Science, Skills, Sustainability

12th to 14th June 2026

Shangri-La Kuala Lumpur, Malaysia

DEADLINE

Early Bird Registration
15th April 2026

Abstract Submission
15th March 2026

www.csamm.asm.org.my

STREAMLINING SURGICAL TRAYS:

Boosting Operating Room Efficiency and Cutting Environmental Impact

Professor Dr Shireen Anne Nah & Puan Salawati bt Sidek

Surgical instruments displayed — StockCake

FOCUS: SUSTAINABILITY

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At first glance, bakers and surgeons may seem worlds apart, but both require precision, timing, and attention to hygiene. Bakers create culinary delights, while surgeons navigate the complexities of the human body. Despite differences in setting, both professions depend on skillful, accurate tools and processes. Both bakers and surgeons rely on precision, time management, and hygiene. These shared qualities underscore the value of having only the essential tools at hand for maximum efficiency and safety.

Despite their different worlds, baking trays and surgical instrument trays share some surprising similarities. Surgical tray rationalisation means selecting and arranging only essential instruments on a tray for each procedure - like organising your baking utensils - to improve surgical efficiency and outcomes. This allows the surgical team to work more efficiently with lighter, easier-to-sterilise trays that take up less space. It also saves time, reduces costs, and lowers the risk of errors for safer, smoother surgeries.

In our hospital, we observed that about half the instruments in each tray were not used during procedures, even though they were regularly cleaned, packed, and resterilised. To address this, we piloted a project in which surgeons identified instruments from trays never used in our most common operations. As a result, we reduced the tray weight by 2 kg per tray, easing staff workload and reducing unnecessary sterilisation of unused instruments. This approach led to more efficient use of instruments and less physical strain for staff transporting trays between the operating theatre and the sterilisation unit.

And that's not all. Just like in baking, where fitting more trays in the oven helps you bake more cookies at once, surgical tray rationalisation saves both time and resources in the steriliser. By maximising space, you not only reduce the number of trays needed but also streamline the process, cutting the time it takes to clean and reorganise instruments. In the same way that an extra cookie on each tray means fewer batches and less energy consumed, a well-organised surgical tray means fewer trips to the steriliser and more efficient use of each sterilisation cycle.

During our project, tray rationalisation enabled us to fit two additional trays into the steriliser per cycle, reducing daily sterilisation cycles by 1. This change resulted in estimated savings of 15 kWh of electricity and 572 litres of water per cycle. These savings are equivalent to the energy used by one household a day, and the water used by 2 people a day.

Efficient tray use, whether in baking or surgery, improves outcomes, saves resources, and benefits both teams and the environment.

Puan Salawati bt Sidek is Matron for the Operating Theatre at Universiti Malaya Medical Centre. She has an MBA in Hospital Management and is an enthusiastic champion of greener OT practices.

Professor Dr Shireen Anne Nah is Senior Vice President, CSAMM, and Head of Sustainability at Universiti Malaya Medical Centre and the Faculty of Medicine, Universiti Malaya

GREEN ANAESTHESIA:
Healing Patients, Sustaining Our Planet

Professor Dr Ina Ismiarti Shariffuddin
Professor & Senior Consultant Anaesthesiologist, Universiti Malaya
Immediate Past President, College of Anaesthesiologists, AMM (2023-2025)
Past President, Malaysian Society of Anaesthesiologists (2021-2023)

Launching of "Green Anaesthesia Campaign; Now or Never" on 6th August 2023

When the lights come on in an operating theatre, our focus as clinicians is always on saving lives. Yet the very space that represents healing also quietly contributes to environmental harm. The gases we administer, the single-use consumables we discard, and the energy-intensive ventilation systems that maintain theatre safety all leave a significant carbon footprint. The irony is striking; while we treat disease, our processes contribute to global climate change. Recognising this paradox, Malaysia's anaesthesiologists decided it was time for transformation.

The journey towards "Green Anaesthesia" began with a growing awareness that healthcare cannot remain detached from environmental responsibility. In June 2023, the European Society of Anaesthesiology and Intensive Care signed the landmark "Glasgow Declaration on Sustainability in Anaesthesia." The World Federation Societies of Anaesthesiologists (WFSA) further reinforced this mission, noting that the global effort to reduce the environmental impact of anaesthesia must align with three fundamental principles:

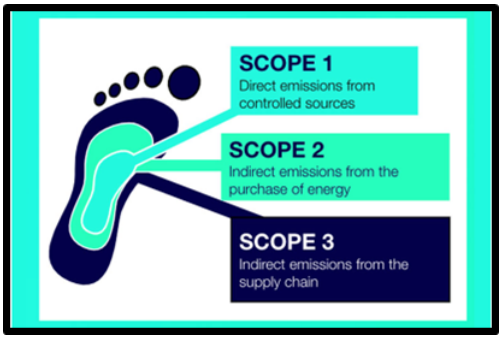
1. *Patient Safety: Sustainable practices must never compromise patient care.*
2. *Unity: The high, middle, and low-income countries must support one another in advancing green healthcare equitably.*
3. *Healthcare Responsibility: All health systems worldwide must be mandated to reduce their contribution to global warming.*

Inspired by these international efforts, the Malaysian Society of Anaesthesiologists (MSA) took decisive steps to align with the movement. We recognised that climate

change is not merely an environmental concern but a healthcare crisis. For example, rising temperatures, defined as the increasing average global and regional heat, deteriorating air quality, which refers to elevated pollution levels affecting respiratory health, and shifting disease patterns, meaning changes in the incidence, distribution, or severity of diseases due to climatic factors, are already affecting patient outcomes. As healers, we understood that we must also help heal the planet.

Building on this conviction, in August 2023, the MSA and the College of Anaesthesiologists (CoA), Academy of Medicine of Malaysia (AMM) launched the "Green Anaesthesia: Now or Never Campaign", the first national initiative of its kind.

This movement sought to raise awareness and to embed sustainability within the fabric of anaesthesia practice. The momentum grew during National Anaesthesia Day on 16 October 2023, when Malaysia's anaesthesiologists made a formal declaration and pledge to champion greener healthcare practices as one of the core components of safe, modern anaesthesia.



Scopes of Origin of Carbon Footprint in Healthcare

So, what exactly does "Green Anaesthesia" mean in practice? Fundamentally, it involves reducing emissions across three key scopes. The first scope, direct emissions, arises from the anaesthetic gases used every day. These gases are potent greenhouse contributors.

Across many centres, anaesthesiologists are adopting more efficient practices, such as low-flow techniques and guided anaesthesia monitoring with process EEG, to ensure patient safety while minimising waste and environmental impact.

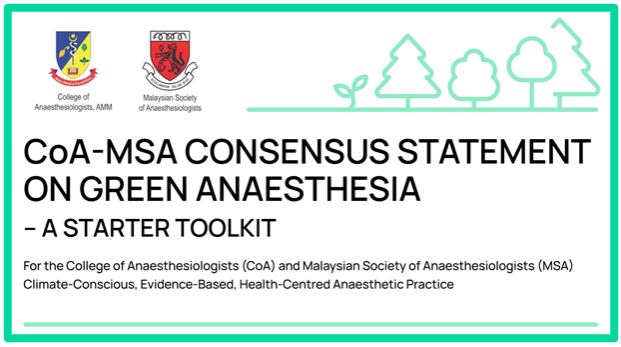
Anaesthesiologists are also encouraged to implement lower-impact alternatives, including total intravenous anaesthesia (TIVA) and regional anaesthesia techniques. The second scope focuses on energy use: operating theatres are some of the most energy-intensive areas in hospitals, consuming up to six times more electricity per square metre than other departments due to constant air-handling, lighting, and monitoring requirements.

The third scope covers indirect emissions from the manufacturing, transport, and disposal of single-use items. Ultimately, discarded items fill hospital landfills, underscoring that our waste does not simply disappear. Studies show that Scope 3 emissions constitute more than half of a hospital's total carbon footprint. Reducing this waste starts with mindful choices, so that every action in the operating theatre contributes to a cleaner, more sustainable future.

Scope 3 emissions can make up more than half of a hospital's total carbon footprint. Reducing this waste begins with mindful choices, so that every action we take in the operating theatre moves us closer to a cleaner, more sustainable future.

FOCUS: SUSTAINABILITY

In August 2025, we launched the "CoA-MSA Consensus Statement on Green Anaesthesia – A starter toolkit". The consensus provides our fraternity with simple, actionable steps, from reducing energy use in theatres to adopting greener procurement policies. It urges integrating sustainability into education, research, and quality improvement programmes; collaborating with hospitals to reduce waste and reuse safely; and partnering with industry to develop greener medical technologies.



The CoA-MSA Consensus Statements on Green Anaesthesia

These efforts support our members in understanding and practising green anaesthesia daily. The initiative marks a true shift in thinking in a sector often driven by market forces. Sustainability in anaesthesia cannot succeed alone. The perioperative journey is a shared responsibility that extends from the surgeon's incision to the anaesthesiologist's care and the nurse's attention in recovery.

Every decision along this path affects the environment. The way forward is clear. Our shared mission as healthcare professionals is to ensure that every operating theatre becomes a place that heals both patients and the planet. Let us actively lead this transformation - collaborate, advocate, and implement greener practices together. When surgeons and anaesthesiologists stand together in this effort, we not only deliver safer care but also protect the world that sustains us all.

"Together, we can make every act of healing a step toward a healthier planet."



Single use items that will land in the landfill - anaesthesia single use items, single use surgical scrubs. A typical landfill in a Malaysian hospital

Scope 3 Indirect Emissions from the supply chain. .

Green Anaesthesia

Scan here to read the full document

PAEDsOT

GREEN BEGINNINGS IN PAEDIATRIC SURGERY

Dr Mardiana Mardan, Professor Dr Shireen Anne Nah
Paediatric Surgery, MY | Green@UMHealth, Universiti Malaya

Sustainability is no longer an unfamiliar word in healthcare. Over the past decade, the call for greener, more responsible practice has been increasingly recognised in medical and surgical communities worldwide, in response to growing evidence that our planet is in crisis. Among the many branches of healthcare, surgery remains one of the most resource-intensive.

Major institutions around the world have taken up the cause, developing guidelines to reduce the environmental impact of clinical care. However, these frameworks focus on adult practice, thus leaving a noticeable gap in paediatric surgical care.

Hence, the PAEDsOT Green Toolkit was created as a systems-based sustainability framework designed specifically for paediatric surgery. It provides a structured yet flexible guide to help surgeons, anaesthetists and theatre teams embed greener, resource-aware practices across the surgical pathway without compromising safety or standards of care. The Toolkit consists of Ten Principles of Sustainable Paediatric Surgery and is operationalised through six domains under the acronym PAEDsOT: Perioperative care, Anaesthesia, Equipment, Disposables, Operations and Training.

Each domain outlines stepwise actions, from quick wins requiring no policy change to long-term goals such as national audits, curriculum integration and net-zero infrastructure planning. The Toolkit also acknowledges barriers such as funding limitations, cultural shifts, and infection-control concerns, while recognising key facilitators, including institutional support, awareness, and low-cost, practical interventions.

The PAEDsOT logo symbolises our commitment to both children and the environment. The circular design represents continuity and collaboration, while the surgeon and tiger symbolise the resilience and leadership of the Malaysian paediatric surgery community in driving change.

We circulated the first draft of the Toolkit to local and international members of paediatric surgery to gauge

UMHealth 2025

readiness and acceptance of sustainability in surgical practice. This pilot survey highlighted a strong consensus that the framework was clear, feasible and relevant. Many respondents viewed PAEDsOT as "ahead of the curve", with several suggesting extending it into advanced and robotic surgery.

These findings were presented at the UMHealth Academia Month and Research Carnival (14th - 16th October 2025), themed Research Innovation and Academic Excellence for Sustainable Health, marking the PAEDsOT Green Toolkit's debut and the first step toward sustainability in paediatric surgery.

The next chapter will focus on moving the Toolkit into practice. Our priorities include publishing the Toolkit, pilot implementation in one to two centres (beginning with our own division at Universiti Malaya) and broadening validation across institutions and multidisciplinary teams. We will also integrate the Toolkit into training, audits, and net-zero strategies, and move towards a more measurable, system-wide impact. Paediatric surgery faces two united responsibilities: healing children and protecting the planet.

The Green Toolkit advances by enabling cost savings, waste reduction, and improved care. Sustainability is not extra work - it is better, smarter care for a sustainable future.

LITTLE GUTS BIG SKILLS

Reflections on Organising a Sustainable Paediatric Surgery Workshop by the Malaysian Students' Surgical Society

In collaboration with Subang Jaya Medical Centre (SJMC) and with endorsement from the Malaysian Association of Paediatric Surgery (MAPS), the Malaysian Students' Surgical Society (MSSS) successfully launched the Paediatric Surgery Essentials Workshop: Little Guts, Big Skills on 6th September 2025. Throughout planning and execution, we deliberately incorporated sustainable practices at every stage.

Our goal was to set a new standard by demonstrating that surgical events can teach technical skills while actively promoting sustainability. We sought to show that meaningful environmental action is possible at every stage, and that small, intentional steps in event planning can have a significant impact.

One of our first decisions was to go paperless. Instead of printing thick booklets, we shifted everything online — digital infopacks with QR codes for easy access. Registration, certificates, and feedback forms were all managed electronically, showing how digital solutions can streamline operations while supporting sustainability. It was efficient and saved a huge amount of paper.

We also minimised single-use plastics. Instead of disposable bottles, participants were encouraged to bring their own for refilling at stations provided throughout the event. Seeing everyone with reusable bottles made me genuinely proud.

We implemented a comprehensive waste management plan, ensuring proper segregation of recyclables, clinical waste, biodegradable waste, and general waste. All attendees received briefings on waste control responsibilities, emphasising that sustainability begins with personal accountability. To further minimise food waste, meal portions were carefully planned and served buffet-style using sugarcane-based cutlery and packaging.

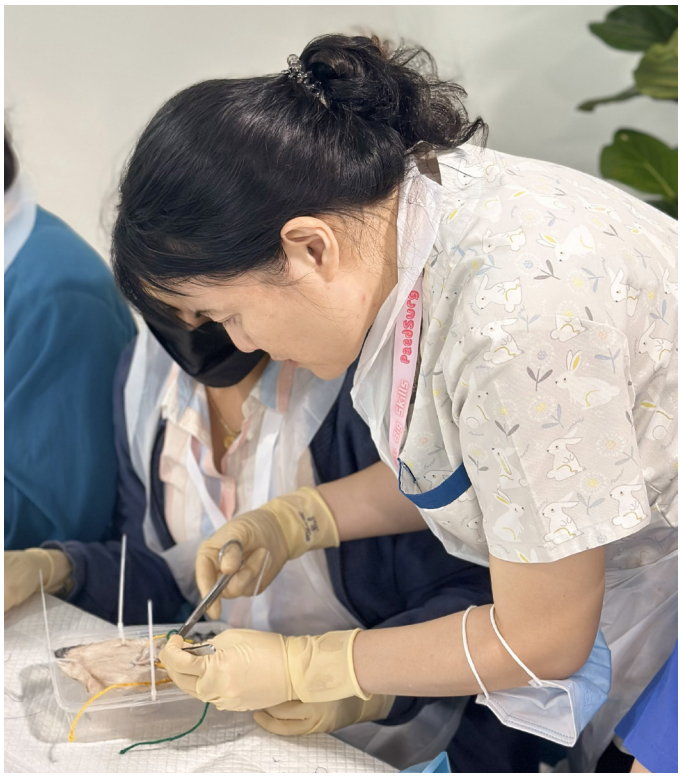
During the hands-on workshops, we prioritised resourcefulness and ethical considerations. For the basic surgical skills session, we used biodegradable bananas as skin simulators. In the stoma workshop, we developed a simulated model using goat skin and porcine intestine sourced from local markets. These specimens, which would otherwise have been discarded, were repurposed as creative educational tools that were both sustainable and highly realistic for practice.

Beyond environmental sustainability, we learned about social responsibility through the event. Our workshop brought together over 60 medical students from all across Malaysia - each with different backgrounds,

but the same shared passion. Seeing everyone learning, helping, and supporting each other reminded me that sustainability is also about community - about building something that lasts beyond a single event.

Organising 'Little Guts, Big Skills' demonstrated that sustainability can be straightforward and cost-effective. It begins with awareness and intentional, mindful choices.

As future doctors, we have the capacity to influence not only patient care but also the well-being of the planet and those around us. If a student-led workshop can implement sustainable practices, it demonstrates that anyone can take similar steps.



MSSS × Subang Jaya Medical Centre | Endorsed by MAPS | Sponsored by INTANIAGA, Yakult

> *"Sustainability" refers to the integration of environmental health, social equity, and economic resilience to create a thriving, healthy, diverse, and resilient community for current and future generations. Sustainable practices recognize how these issues are interconnected, requiring a systems approach and acknowledgment of complexity.*

To support a greener, more sustainable event, we kindly ask all participants to follow these guidelines:

1. **Bring Your Own Bottle** 💧
   - No single-use bottled mineral water will be provided; please bring your own reusable tumblers
   - Refill stations & Free-flow Tea / Coffee will be available throughout the venue.

2. **Avoid Single-Use Plastics** 🚫
   - Please bring your own reusable tumblers, utensils, and bags.
   - If single-use items are unavoidable, choose recyclable or biodegradable options.

3. **Waste Segregation & Control** 🗑️
   - Use the designated bins for recyclables, general, food, and clinical wastes.
   - Help us keep the venue clean and litter-free.

4. **Minimize Paper Use** 📱
   - Our programme, maps, and resources are available in this digital guidebook.
   - Please avoid unnecessary printing.

5. **Mindful Food Consumption** 🍽️
   - Meals will be served using 'Sugarcane fiber packaging', including bento boxes & cutlery which are eco-friendly.
   - Take only what you need during meals and breaks to reduce food waste.

6. **Energy Conservation** ⚡
   - Switch off lights, chargers, and devices when not in use.
   - Use natural lighting whenever possible.

7. **Support Sustainability** 🌱
   - Where possible, choose local, eco-friendly, or reusable products at the event.
   - Respect the event's eco-conscious setup.

💡 ***Every small action counts. By joining us in these practices, You're helping ensure our event creates lasting impact without lasting waste.***

PHILIPPINE COLLEGE OF SURGEONS VISION 2036:

ZERO NET CARBON FOOTPRINT

Dr Jose Rhoel C. De Leon, MD, FPCS, FACS,
President, Philippine College of Surgeons

Climate Change is no longer a concept - global warming and its effect is now a reality. Disaster after disaster, stronger typhoons, extremes of temperatures that have never been felt before, flooding etc. Indeed, at the current rate of planetary warming "climate change will be the defining narrative of human health" as stated by Romanello et.al. As healthcare professionals this must be a major concern for us. However, our concern cannot be limited to the deleterious effect it will bring to human health and mankind in general. We must look as well into how much of a carbon foot print we contribute. This is also a sad reality - we as surgeons contribute a lot!

Hospitals carbon footprint is generated by its energy use, transport of patients and hospital staff to the hospitals, the production and waste of hospital supplies, emissions and energy generated by medical devices, food that we consume and all the waste that goes with it. The health care's climate footprint is staggering - 4.4% of global net emission (2 gigaton of carbon dioxide equivalent. It is equivalent to the annual greenhouse gas emission from 514 coal-fired power plant! If our sector is a country we would be ranked 5th - largest emitter of the planet according to HCWH (Healthcare without Harm). How much of this tremendous amount of damage to our environment we surgeons contribute? Operating Rooms consume 3 - 6 times more energy per square foot than any hospital area, accounting for 40% - 60% of supply costs, and generate almost 30% of the facilities waste. We must be concerned and we must take action now slow down global warming.

The ASEAN Federation of Surgical College's leaders recognise this and understand the importance of sustainable surgery. We came up with the very first joint declaration of all the ASEAN surgical colleges that we call the SARAWAK DECLARATION OF 2025 FOR SUSTAINABLE SURGERY - formally signed in Sarawak during the College of Surgeons of Malaysia (CSAMM) annual congress. Together, we have collectively declared our commitment to addressing the increasing carbon footprint that we emit and promote strategies for sustainable surgery.

In the Philippine College of Surgeons, we launched our Vision 2036: Zero Net Carbon Footprint. This campaign that will culminate in our centennial as a College by 2036 will be coupled with other efforts to decrease our emission. However, whatever strategy we come up with will never bring a zero net emission - it has to be coupled with efforts to increase green gas emission. The best way of doing this is through a year long tree planting activity. Many years ago, we have already started the practice of planting trees and mangrove during our foundation week.

The different chapters in the country do their own tree planting as well and there were reports already of successful reforestation through the efforts of the different chapters as well as the different subspecialties and affiliates of the Philippine College of Surgeons. This gave us the idea of doing more! We sat down with the technical staff of the Department of Environment and Natural Resources - the prime agency concerned with environmental preservation in the country and look at the possibility of quantifying the green emission of the trees we planted against the projected carbon footprint that we put out.

We are currently working on the number needed to achieve this by 2036. It is a big dream, some are skeptical but even if we don't actually achieve that zero net, we felt that this is something worth pursuing. People look up to us and consider physicians in general as role models and if we can put out this programme to the public, the awareness that it will create can be multipliers for this effort.

But for this to be more achievable, we need to bring down our carbon emission - now! We need to proactively reduce our energy consumption. Reusable instruments, gowns, drapes might look like a step backward for surgical development but it can be improved and harnessed to decrease our waste. We can also minimise unnecessary supplies and use of energy specially in the operating room. Clear waste segregation can also help. Efforts to optimise energy consumption like LED lighting, well ventilated infrastructures, and use of natural light will also help. Going paperless, sustainable energy use, conscious turning off of machines and lights not being used, etc, there are many ways to decrease our carbon footprint… and if we do so, achieving the zero net by 2036 can be a reality.

If the rate of global warming continue, it would be bleak for the world in the years to come. The disasters and climate disturbances that we are facing will only get more often and devastating in its effect to our lives. It will also burden our healthcare system and push us to the limit of our capabilities.

But with a conscious, proactive and sustained effort - both in decreasing our carbon footprint and improving our green emission through environmental preservation we can change the course we are taking now.

As surgeons, we have the responsibility to act! We have the moral obligation to do something! Indeed, the future lies in our hands.

Council, regents and members of the Philippine College of Surgeons

A LEADERSHIP FORUM ON SUSTAINABILITY IN SURGERY

Professor Dr Liew Ngoh Chin
President, CSAMM

Leadership Forum on Sustainability in Surgery

A high-level Leadership Forum on Sustainability in Surgery was convened on 8th December 2025 at the Edsa Shangri-La, Manila, held in conjunction with the 81st Annual Clinical Congress of the Philippine College of Surgeons (PCS). The forum followed a keynote presentation by Professor Shireen Anne Nah, which explored the escalating impact of global warming on patient and planetary health, with a particular focus on the carbon footprint generated by the operating theatre. Her presentation highlighted the tangible harms to health systems and patients, and practical, scalable measures to mitigate emissions within surgical care.

The panel brought together Presidents of ASEAN Surgical Colleges, alongside counterparts from Taiwan and Australia, creating an influential platform for regional and international dialogue. The session was attended by distinguished surgical leaders from across the globe, including representatives from the United States and Europe, as well as members of the Philippine surgical community. A central question posed to the panel challenged leaders to reflect on what concrete actions their countries are currently undertaking to reduce hospital-related carbon emissions. The responses offered a valuable snapshot of national strategies, priorities and challenges across diverse health systems, and are summarised and paraphrased below for clarity.

PROFESSOR DR CHIEN-SUNG TSAI (TAIWAN)

The Taiwan Surgical Association (TSA) believes that reducing carbon emissions in healthcare facilities is beneficial for improving the quality of medical care. Therefore, TSA encourages all hospitals to follow the government's policy on carbon footprint reduction. Although the relevant policies have not yet been formally incorporated into legal requirements, all medical centers and large regional hospitals in Taiwan are currently cooperating with the hospital accreditation process organised by the Joint Commission of Taiwan (JCT) to progressively implement carbon emission quantification and reduction efforts. Taiwan will continue to collaborate with international partners in the future to jointly commit to reducing carbon emissions, improving healthcare quality, and achieving the goal of sustainability in surgery.

PROFESSOR DR LIEW NGOH CHIN (MALAYSIA)

Sustainable surgery is still a relatively new concept. Individually, leaders must set examples to encourage their team to follow suit. As an example, if we insist on not using mineral water bottles in the hospital, the 'consciousness' will eventually filter down to the rest of the team. The perceived norm would then be using non-recyclable water bottles and usage of water dispensing machines. If we insist on only opening items that we need

in surgery, such as specific reconfigured surgical sets and no suction device or diathermy devices unless specified, this will translate into a routine practice. And if we practice minimising usage of disposable ports, energy devices, and multiload disposable clips, to reduce surgical waste that contributes to high carbon content, that will be emulated by our trainees. I remembered in the past I lavishly used staplers for skin closure after elective laparotomies, not realising the carbon footprint generated compared to taking that extra time for meticulous closure using sutures. This could be misinterpreted by the juniors that this is my preference, and hence a norm they would follow.

PROFESSOR DR MATTHEW YEO (SINGAPORE)

Instead of following practices in rich countries, there are many lessons we could learn from people working in low-resource areas or countries. For instance, instead of using a dozen sutures to do an anastomosis or close a wound, people in low-resourced countries make do with minimal sutures. Similarly, they do not require sophisticated surgical equipment. Many lessons could be learned if we open our minds and learn from such resource poor centres or countries. Lavish surgical practices waste much-needed energy which is needed to incinerate the waste.

PROFESSOR DR THANYADEJ NIMMANWUDIPONG (THAILAND)

One way to reduce carbon footprint is to encourage day surgery. Projects carried out in Thailand has shown substantial reduction in carbon footprint. Imagine patient having to travel far to reach a hospital, then the family has to commute between home and hospital or find accommodation nearby.

Day surgery provides only a single trip for the patient and family and they can return to the comfort of the home that can cut down costs of travel, hospital stay and carbon footprint.

Presidents of ASEAN, Taiwan and Australian Colleges and Surgical Societies

PROFESSOR DR SHIREEN ANNE NAH (MALAYSIA)

A core tenet of the mission of our College of Surgeons in Malaysia is surgical education. We must increase awareness among our trainees and students on the principles of sustainable surgery. Many are unaware that healthcare contributes about 5-8% of the carbon footprint, and the proportion is even higher in affluent countries. Many carbon reducing measures in the OT, such as good waste management and improving process efficiency, can be quickly implemented without affecting patient safety.

PROFESSOR DR RHOEL C DE LEON (PHILIPPINES)

While we think of decreasing hospital waste and reducing carbon footprint, we can do something positive about carbon foot print by re-forestation and increasing oxygen. The PCS has been doing that for years by conducting tree planting projects. We have also participated in mangrove rejuvenation projects. If we add this to our hospital campaign of reducing waste, we can possibly achieve net zero carbon emissions by the year 2036.

PROFESSOR DR OWEN UNG (AUSTRALIA)

One important practice is to inculcate in our trainees and OR nurses to open what we really need during surgery. In some surgeries, we only use 10-20 % of the items that we require and imagine the amount of effort needed to clean and sterilise the items. It is time the college come out with guidelines on sustainable surgery.

Questions and comments from audience and responses from the panel:

1. **Question: Have we initiated a dialogue with the industry? They are the ones manufacturing the equipment and I am sure they will listen.**

Answer (SAN):
That is a great point. Sustainable procurement is key. Just as we embed technical specifications in calls for tenders and quotations, surgeons can and should integrate sustainability requirements in the process.

For example:
- *What is the plan for end-of-life management of a product?*
- *Is the product reusable? How many components are reusable or repurposed?*
- *How repairable is the product?*

In Malaysia we have held informal discussions with B Braun, which has a factory in Penang. They have a strong and genuine sustainability focus. I am sure some industry partners will listen if we engage them positively.

2. **Question: In the past, we have used staplers from companies that only have disposable cartridges but the main applicator piece is metal and is recyclable. These days it would appear that everything is disposable, including the applicator. What ever happened?**

Answer*:*
a. *That is a good observation. Unfortunately, the industry has been driven by profit and they have made many recyclable items disposable, not realising the ill-effects towards the environment.*

b. *One observation with surgeons is that they are driven by the illusion of 'sterility' and convenience. The label on disposables states that the package is 'sterile unless opened'. There is, however, no evidence that showed reusable items cause more surgical site infection than disposable items. The ability to remove an item from the shelf and using it as something brand new provides a sense of ease and convenience to the operating surgeon. In a universal health care system where health care is free, this convenience adds up to costs which might not be appreciated by the operator. In a private health care system, the surgeon will feel the pinch of these costs when the total bill escalates. Importantly, when we factor in the environmental harm, the effect is enormous.*

3. **Questions: One issue with the carbon foot print from inhalational anaesthetic gas is partly the fault of the surgeons. Surgeons want to do the surgery now and they become impatient when the anaesthetists offers alternatives such as regional blocks or spinal anaesthesia, which takes longer hours.**

Answer*:*
Yes, we must agree that regional anaesthesia with intravenous sedation certainly contributes to lesser carbon foot print. But these are individual cases that are difficult to judge because many patients prefer to be totally knocked off rather than remain awake. We take note that anaesthetist are also aware and they now prefer less environmentally detrimental agents, such as Sevoflurane in place of desflurane in general anaesthesia.

4. **Question: Is the use of disposable drapes and gowns better versus aged old cotton rewashable ones? Cotton drapes are often soaked through in bloody surgeries and could be a health hazard?**

Answer (SAN):
Yes, the green cotton gowns and drapes are more environmentally friendly, even though they need to be washed, dried, sterilised and packaged. The costs might be more or equivalent to disposable drapes and gowns, but we need to think of the long-term costs, both financial and environmental, of constantly buying and throwing away. In terms of biohazard risk, a strategy to mitigate this is to use disposable packs selectively, based on patient status (infectious, immunocompromised, etc). There are new products using waterproof impermeable fabrics in reusable gowns and these should help.

5. **Comment:**
In the USA, the carbon foot print contributed by surgery is still not widely acknowledged and accepted. This could be due to the 'controversy' of global warming as a reality. More importantly, the totality of energy costs from the process of manufacture to utilisation might contribute to equally high carbon footprints compared to using disposable ones. What could be done while we gather more robust evidence is to only use what we need. For instance, we do not need battery-operated suction devices while we can use conventional suction device connected to a suction pump. We don't need to open up many sets when we only require a few instruments. Engagement of the nurses and OT technicians on sustainability is paramount because they will be a constant reminder and help us manage better.

ENVIRONMENTAL SUSTAINABILITY FOR A SURGEON

Professor Dr Benita Tan
Senior Consultant, Singhealth Duke-NUS Breast Centre
Department of Surgery, Sengkang General Hospital
Department of Breast Surgery, Singapore General Hospital

The challenges of treating patients and saving the planet are very similar. Both focus on nurturing and well-being, preventive measures, promoting health and avoiding harm. Sustainability requires effective management, long-term planning, the right practices, and research and evidence-based practice.

Image by Vilius Kukanauskas from Pixabay

Firstly, awareness of 'why' the need to drive the culture change is key. Healthcare delivery produces waste and has a high carbon footprint, both of which impact the environment. Environmental damage in a vicious cycle affects many aspects of healthcare, from extreme weather events and impacts on facilities and the supply chain to evolving population health and human health. The primary aim of healthcare is to provide high-quality patient care, but ignoring its environmental burden is irresponsible and inconsistent with our ethos, especially when it harms human, community, and planetary health.

As a surgeon, I am aware that surgery is the most energy-intensive practice in medical care and contributes directly to climate change. Operating theatres (OTs) occupy a small area in the hospital but are more energy-intensive than clinical wards, with high utility use and many one-use products, generating 50 - 70% of total hospital clinical waste and resulting in a very high carbon footprint.

It is important to realise that many aspects of healthcare provision affect the environment, but there are things we can control and change. We need to recognise and acknowledge the efforts of everyone who contributes to and uses these opportunities to raise awareness and include fun activities like making presents with recycled materials and growing plants in recycled containers collected. We have frequent events that celebrate our efforts, big and small, such as our annual Clean and Green Day.

Secondly, the 'who', we need a team with a structure to manage sustainability practices across the institution, with leadership support. This needs a 2-pronged approach: a top-down system approach and a bottom-up approach from colleagues on the ground.

As institutions with infrastructure and facilities, system-wide applications on electricity, water and waste management can contribute significantly and are relatively easy to implement. Scheduled shutdown of lights, air conditioning and equipment, including TV screens in non-critical areas and unused OT in the after-office hours, control of water flow rates and good waste management facilities. One of our innovative initiatives, recirculating cooled air in the OT that complied with infection control standards, projected over a million dollars in electricity costs and planting 86,000 trees a year. Other policy changes include no routine provision of bottled water and the use of reusable utensils in catering, including in the OT.

The concept of value-based healthcare, which considers the appropriate use of resources to achieve good patient outcomes, becomes relevant. Good clinical practice, avoiding unnecessary treatment and complications that require more resources, results in poorer outcomes, increased costs for everyone, including the economy, and adds to the carbon footprint. Implementation of surgical pathways for best outcomes in an environmentally friendly way, using a multidisciplinary perspective including health professionals, patients, companies, health-care managers and the government.

We face challenges with buy-in from colleagues, and this requires continuous engagement to change usual practices and push them out of their comfort zone. This is where the importance of proactive leadership from senior management to foster a culture of change lies. This includes reviewing new technologies and services, considering cost-effectiveness based on patient outcomes rather than what is trendy.

We must adopt clinical, infection control and operational practices that balance patient safety with environmental stewardship. Communication and education to raise awareness that this is our social responsibility, and the belief that if we each do our part, no matter how small we think they are, it will all add up.

Thirdly, the 'how', as an individual or as an organisation, we can follow simple approaches to learn and apply good habits for environmental sustainability: Refuse, Reduce, Reuse, Repurpose, Recycle, Rethink and Re-educate. Refusing to waste any resources and avoiding one-use items, especially plastic, is a first step toward reducing waste. If use is inevitable, reuse and repurpose before recycling. Building awareness and learning the do's and don'ts needs effort, and I appeal to everyone to spare a thought and do their little bit.

In a clinical setting, remove unnecessary tests in preparation for surgery (e.g., CXR, ECG, or repeated scans), group and cross-match blood for minor operations, use oral rather than IV preparations, use appropriate antibiotic prophylaxis, and reduce the use of desflurane.

Other easy OT targets our teams worked on including use of alcohol hand rub for surgical hand hygiene, as this has clear literature, review and creating appropriate surgical sets with removal of excess instruments, avoid opening surgical instruments and consumables that are unused, use of appropriate volume of cleansing solutions, repurposing paper wraps and plastic containers for various use including decoration competition between groups during festive periods, recycling of one use metal instruments, though the ideal would be to reduce their use, recycling batteries from one-use instruments, paper, glass, other metals, plastic and even wires from diathermies.

Our OT nursing teams are our driving partners, and they need coordination with our waste management team to ensure accessible bins and clear signage on what can and cannot be recycled for success. Sustainability needs to be made easier and more fun. Many opportunities exist to address the impact of our care; we need to look around. Awareness and advocacy to adopt strategies at the institutional and individual levels are needed to revolutionise our environmental footprint and improve healthcare sustainability. Leadership direction is critical and must be matched by ground staff collaboration, equipped with the knowledge and willingness to drive change.

By leveraging evidence from ongoing trials and integrating sustainable practices, our healthcare system can remain resilient against both climate-driven challenges and evolving healthcare demands.

LAUNCH OF THE NEW RCSEd INTERNATIONAL OFFICE

The Royal College of Surgeons of Edinburgh (RCSEd), the world's oldest surgical college, has reinforced its commitment to Southeast Asia with the relocation of its International Office to Putrajaya.

The new office, housed at the Medical Academies of Malaysia building, was officially launched on 21 August 2025 by His Royal Highness Tuanku Muhriz Ibni Almarhum Tuanku Munawir, himself an Honorary Fellow of RCSEd. The opening ceremony gathered senior representatives from RCSEd, Malaysia's medical and dental communities including presidents of national colleges and specialty associations, and representatives from the British High Commission. Founded in 1505, RCSEd has a global membership of more than 33,000 across 100 countries.

For centuries, the College has advanced surgical and dental standards through training, education, and examinations. The relationship between the RCSEd and Malaysia spans over half a century, deeply rooted in professional collaboration, training, and shared commitment to advancing surgical standards.

This bond was strengthened in 2017 with the establishment of RCSEd's International Office in Kuala Lumpur, which created a direct hub to support Fellows, Members, and examination candidates in the region. This presence was instrumental in developing new partnerships with universities, healthcare institutions, Ministry of Health, while spearheading initiatives such as Tuanku Muhriz Travelling Fellowship in Rural Surgery. The latter continues to connect surgeons from the United Kingdom and Malaysia, enabling the exchange of knowledge in addressing global surgical challenges. The move from Kuala Lumpur to Putrajaya marks both a strategic and symbolic milestone, providing improved facilities for Fellows and Members while bringing RCSEd closer to key partners in Malaysia's healthcare landscape.

The Launch of RCSEd International Office

In particular, the College of Surgeons, Academy of Medicine of Malaysia (CSAMM), which has been a close collaborator since its inception, has its offices in the same building, facilitating future shared activities. CSAMM was one of the first international Colleges to deliver the Non-Technical Skills for Surgeons (NoTSS) courses, an RCSEd flagship course which has now been incorporated in the basic surgical training (BST) curriculum for general surgical trainees in Malaysia. The establishment of a locally contextualised training programme for cardiothoracic surgeons was also the fruit of collaboration between the two Colleges, the Malaysian Association for Thoracic and Cardiovascular Surgery (MATCVS), and the Ministry of Health of Malaysia.

During the launch, RCSEd President, Professor Rowan Parks said that Malaysia had become a destination not just for education, but also for celebration and achievement, in part through its status as a key venue for RCSEd Diploma Ceremonies. The relocation to Putrajaya marks a further step in the evolving relationship. By being co-located with CSAMM and other specialty associations, RCSEd's new base enhances opportunity for a deeper integration, collaboration and foster closer professional ties. The opening event also highlighted RCSEd's ongoing collaborations.

A Letter of Intent was signed with Universiti Teknologi Mara (UiTM), The Straumann Group announced sponsorship support for International Dental Skills Competition, and the Malaysia–United Kingdom Travelling Fellowship (MUTF) was awarded to Dr Lee Yu Wei of Universiti Malaya.

RCSEd will continue its investment in, and commitment to, education, professional development, and capacity building in Malaysia. With Malaysia facing a growing demand for medical specialists, projected to double by 2030, RCSEd's presence in Putrajaya strengthens its role as a partner to CSAMM and other stakeholders in professional development of the next generation of surgeons and dental professionals.

THE 9th MALAYSIAN BREAST AND ENDOCRINE SURGERY COURSE (MBESC) 2025

Dr Raflis Ruzairee bin Awang

Consultant Breast and Endocrine Surgeon (Hospital Kuala Lumpur), Organiser MBESC 2025

MOU Signing between the College of Surgeons and Breast Surgical International (BSI),13th June 2025, by Dr Siow Sze Li, Past President of CSAMM, and Professor Dr See Mee Hoong, Representative Council Member, Breast Surgical International

The 9th Malaysian Breast and Endocrine Surgery Course (MBESC) 2025 was successfully held at the Academy of Medicine, Putrajaya, from 6th to 7th November 2025.

Themed "Precision, Compassion, Collaboration," the course brought together surgeons, trainees, and allied health professionals from Malaysia and abroad to share the latest developments in breast and endocrine surgery. The annual courses have previously been supported by the International Association of Endocrine Surgeons (IAES) and Breast Surgical International (BSI), and are currently supported by BSI.

They have been successful in training and in bringing internationally renowned speakers to share their knowledge and experience with local surgeons. The last MOU was signed by CSAMM, BSI, and the Ministry of Health in 2025, kick-starting the 4 years of collaboration.

A total of 240 participants attended, comprising consultants, specialists, medical officers, nurses, and allied health personnel. The program fostered academic exchange and professional growth by facilitating strong collaboration between local and international faculty, as well as between private and government experts. As a result, participants reported enhanced knowledge, wider professional networks, and greater inter-institutional cooperation.

Day 1 (Breast Session) reflected the spirit of precision in breast surgery. International speakers - Professor Pooja Ramakant (India), Dr Ipshita Prakash (Canada), and Dr Sandra Krishnan (Australia) gave lectures on immunotherapy, financial toxicity, and surgical de-escalation.

The Opening Ceremony was officiated by Dato' Dr Mohd Azman bin Yacob, followed by welcoming remarks from Dr Nor Azham Hakim Darail. Sessions on breast reconstruction and minimally invasive breast surgery highlighted the balance between surgical precision and patient compassion. The day ended with a Faculty Dinner attended by Tan Sri Dr Noor Hisham Abdullah.

Day 2 (Endocrine Session) focused on thyroid, parathyroid, and adrenal surgery. The program showcased advances that improve surgical precision and patient outcomes.

COLLEGE ACTIVITIES

MOU Signing between the College of Surgeons and the Ministry of Health, 4th September 2025 by Professor Dr Liew Ngoh Chin, President of CSAMM, and Dato' Dr Mohd Azman Bin Yacob, Director of Medical Development Division, Ministry of Health, Malaysia

A debate on "Controversies in the Surgical Management of Early Differentiated Thyroid Cancer" and a guest lecture by Dr Xu ShuHang (China) on "Ultrasound-Guided Microwave Ablation" highlighted new technologies. The Allied Health Program ran concurrently and emphasised compassionate care. It featured sessions on nursing care, rehabilitation, and nutrition, as well as hands-on workshops in seroma aspiration, compression techniques, and bra fitting.

The course culminated in a Closing Ceremony and Best Poster Award, recognising Dr Anand Kumar A/L Balakrishna from Hospital Kuala Lumpur. MBESC 2025 exemplified its core values by advancing educational standards, fostering innovation and teamwork, and strengthening Malaysia's leadership in breast and endocrine surgery.

After MBESC 2025, Hospital Universiti Kebangsaan Malaysia (HUKM) hosted the exit examination for the Breast and Endocrine Fellowship Program under the leadership of Dato' Dr Imi Sairi bin Ab Hadi, welcoming six newly qualified breast and endocrine surgeons into the fraternity.

HKL Vascular Surgery Unit Shines a Light on Sustainable Vascular Health at the 3rd Vascular Awareness Week

Dr Kinagabran Sivananthan

The Vascular Team of Hospital Kuala Lumpur (HKL), together with the Hospital Director and Administrative Heads, officiating the launch of Vascular Awareness Week 2025.

The Vascular Unit of Hospital Kuala Lumpur's General Surgery Department turned the spotlight on vascular health in September 2025. The 3rd Vascular Awareness Week was held from 8th to 12th September at the Specialist Clinic and Ambulatory Care Centre (SCACC).

The event was officially launched by Dato' Dr Harikrishna K R Nair, Director of Hospital Kuala Lumpur. Datuk Dr Hanif Hussein, Head of General & Vascular Surgery Department, also officiated the event.

This year, the program saw a surge in participation, thanks to widespread media coverage by Astro Awani and Vaanavil, which brought the prevalence of vascular diseases to the forefront of public attention. The week-long initiative focused not only on raising awareness about vascular diseases but also on promoting sustainable, health-conscious lifestyles that benefit both individuals and the community.

Throughout the week, visitors engaged in interactive talks and hands-on activities. The aim was to demystify vascular diseases and highlight how small, everyday choices can have a big impact. Highlights included:

- *Insightful public talks on Aortic Aneurysm, Chronic Limb Threatening Ischaemia (CLTI), Chronic Venous Insufficiency, Carotid Artery Stenosis, and Arterio-venous Fistula Malfunction, underscoring the importance of early intervention.*

- *Free health screenings and diagnostic checks were offered at the event, allowing participants to detect vascular diseases early. The event aimed to empower individuals to make proactive choices for healthier living.*

- *Hands-on activities for healthcare providers, empowering healthcare staff with practical*

Datuk Dr Hanif, alongside two vascular consultants, is engaging with the media to raise public awareness on sustainable vascular health.

knowledge and skills required to provide optimum care for vascular patients.

- *Sustainability-driven lifestyle: From well-balanced diets and regular exercise to stress management and quitting smoking, the program emphasised lifestyle choices that protect both our health and the environment. Small actions, like walking or cycling, were framed as choices that benefit your health and the planet.*

The grand finale featured a high-energy Zumba session that drew both hospital staff and members of the public. This Zumba session highlighted how fun active lifestyles are not only essential for vascular health but also a sustainable way to prevent chronic diseases over time. The event combined health education with practical, eco-conscious lifestyle guidance. The 3rd Vascular Awareness Week reinforced the message that prevention and sustainable health go hand in hand.

The screening team informed patients and guided follow-up vascular assessments.

The Zumba session united staff and public participants, promoting health, community, and sustainability.


“...lung cancer is the second most common malignancy among males and the third among females in Malaysia. ...
Designed by Freepik

The First Clinical Practice Guidelines for Lung Cancer in Malaysia:

An Expert Surgical Consensus for Peri Operative Management of Early-Stage Resectable Non-Small Cell Lung Cancer

Professor Dr Anand Sachithanandan
Founding President, Lung Cancer Network Malaysia

Lung cancer is the second most common malignancy among males and the third among females in Malaysia. It represents about 10% of all cancers in the country. Non-small cell lung cancer (NSCLC) makes up the majority of these cases. Recently, advances have been made in early detection through screening, genomic molecular tumour profiling, minimally invasive surgery, and multidisciplinary care.

These include peri-operative immunotherapy and targeted therapies for oncogene-driven NSCLC, which have changed how early-stage resectable disease is treated. These developments have improved event-free survival, recurrence-free survival, and overall survival. However, rapid progress has made care pathways more complex, highlighting the need for clear, evidence-based clinical guidance.

Recognising this need, the national working group comprising lung cancer surgeons from both public and private institutions across Malaysia has been developed to develop comprehensive evidence-based surgical guidelines. The resulting recommendations address key domains of care, including screening, diagnosis, staging, treatment planning, surgical management, and follow-up for patients with early-stage (stages IA–IIIB-N2) resectable NSCLC.

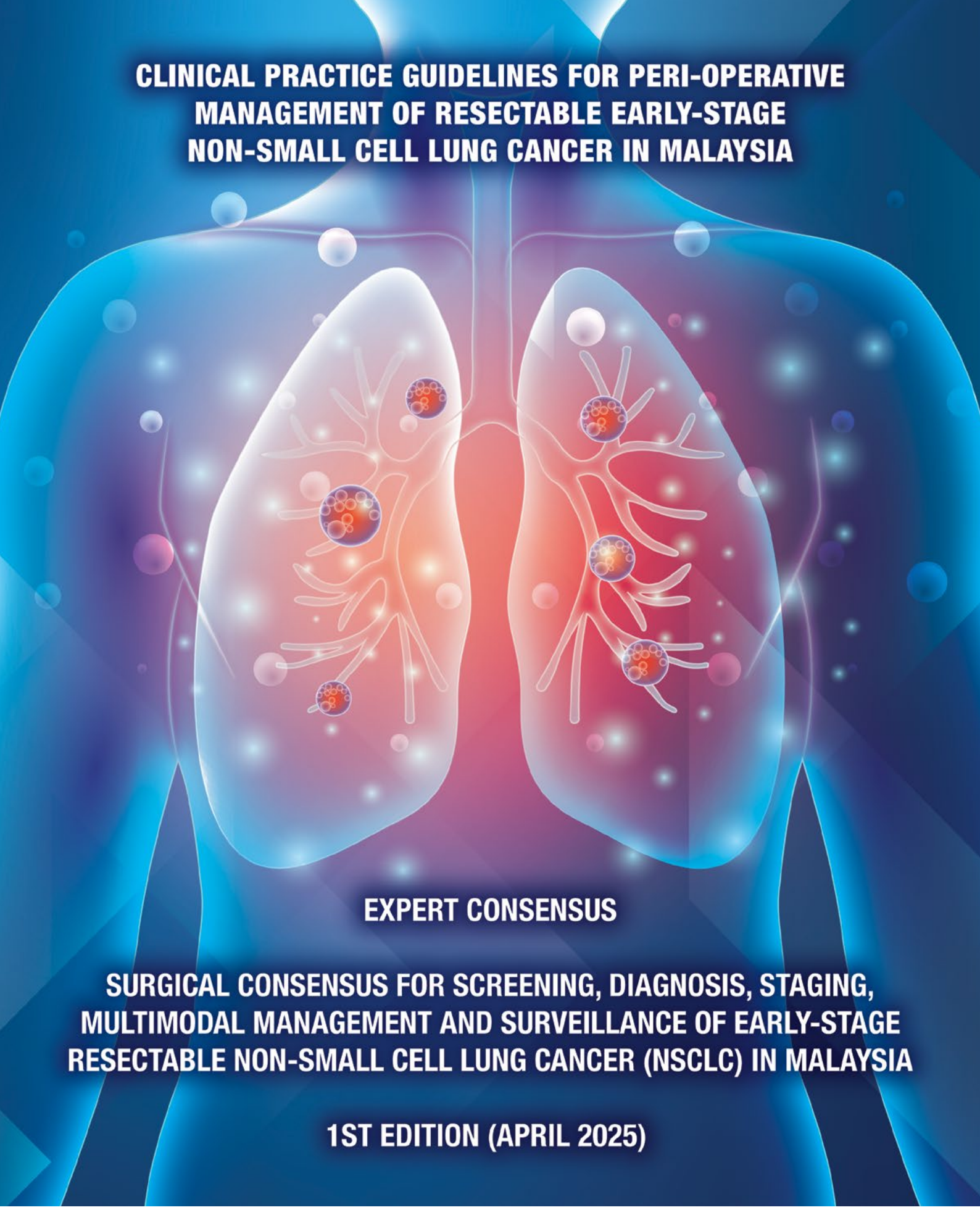
These guidelines have received endorsement from several major professional bodies: the Lung Cancer Network Malaysia, the Malaysian Oncological Society, the Malaysian Thoracic Society, the Malaysian Association of Thoracic & Cardiovascular Surgery, and the College of Surgeons of the Academy of Medicine of Malaysia. Their collective support underscores the guidelines' role in elevating and harmonising peri-operative thoracic oncology care nationwide.

The document is designed not only to establish consistent clinical standards but also to serve as a practical educational resource that encourages a comprehensive, multidisciplinary, and multimodal approach to improve survival outcomes and enhance patient quality of life through evidence-based practice.

The guidelines stress the importance of appropriate screening, timely staging, and early biomarker testing. They call for careful use of neoadjuvant and adjuvant therapies, a preference for minimally invasive surgery, and structured follow-up. These steps set a benchmark for high-quality thoracic oncology care in Malaysia. The guidelines are intended to be a dynamic, evolving reference for real-world practice. They support ongoing improvements in the healthcare system.

These Clinical Practice Guidelines were launched at the 3rd National Lung Cancer Symposium in Kuala Lumpur on 26 April 2025. The full guidelines are published in Translational Lung Cancer Research (Transl Lung Cancer Res 2025 | https://dx.doi.org/10.21037/tlcr-2025-296) and are available as a free download at www.lungcancer.net.my.

CLINICAL PRACTICE GUIDELINES FOR PERI-OPERATIVE MANAGEMENT OF RESECTABLE EARLY-STAGE NON-SMALL CELL LUNG CANCER IN MALAYSIA



EXPERT CONSENSUS

SURGICAL CONSENSUS FOR SCREENING, DIAGNOSIS, STAGING, MULTIMODAL MANAGEMENT AND SURVEILLANCE OF EARLY-STAGE RESECTABLE NON-SMALL CELL LUNG CANCER (NSCLC) IN MALAYSIA

1ST EDITION (APRIL 2025)

MALAYSIAN THORACIC SOCIETY

Malaysian Association for Thoracic and Cardiovascular Surgery

LUNG CANCER NETWORK MALAYSIA

Malaysian Oncological Society

COLLEGE OF SURGEONS ACADEMY OF MEDICINE OF MALAYSIA

AWARDEE SPOTLIGHT

Dato' Dr Tikfu Gee on winning top award at the 6th International Bariatric Club (IBC) Oxford University World Congress

"Unlocking the Secrets of Surgical Response: Metabolomic Phenotyping of the Surgical Response"

Dato' Dr Tikfu Gee's paper on metabolomics research won the top awards at the 6th International Bariatric Club (IBC) Oxford University World Congress organised by International Bariatric Club (IBC) and held on 8th - 10th September 2025 at Examination Schools, University of Oxford, Oxford, England, United Kingdom. The study has also earned an invitation for publication in the British Journal of Surgery.

This recognition highlights the innovative work of Dato' Dr Tikfu Gee and the collaborative efforts of his team and research partners in advancing metabolic and bariatric surgery in Malaysia.

The study addresses a significant challenge in bariatric surgery: predicting which patients will achieve optimal outcomes. Dato' Dr Tikfu Gee was motivated by the frustration of not being able to explain why some patients respond exceptionally well while others have modest results, often wrongly attributed solely to dietary non-compliance. A pivotal moment came when he observed two identical twins, sharing the same genetics, weight, and comorbidities, undergoing different bariatric procedures. The results demonstrated that surgical success depends on more than genetics or the type of operation.

Working closely with researchers from the Institute of Medical Research (IMR) and University Putra Malaysia (UPM), the team employed ^{1}H-NMR spectroscopy to analyse patients' pre-operative metabolomes. They identified four distinct physiological phenotypes: Super Responders, who achieved excellent diabetes remission rates, and Poor Responders, who had significantly lower remission rates regardless of the procedure. The study also revealed a post-operative increase in anserine levels, indicating enhanced antioxidant capacity and improved muscle metabolism.

Clinically, this phenotyping allows pre-operative risk stratification, helping clinicians set realistic expectations and implement targeted optimisation strategies for "Poor Responder" patients. The award underscores the impact of collaboration between clinicians and scientists in Malaysia and opens the way for translating metabolomic insights into personalised interventions, potentially transforming outcomes in metabolic and bariatric surgery.