AUSTRALIAN
Anaesthetist
THE MAGAZINE OF THE AUSTRALIAN SOCIETY OF ANAESTHETISTS • SEPTEMBER 2022

HEALTHCARE SUSTAINABILITY

KNOW NITROUS

TRA2SH ... ONE SMALL STEP FOR ANAESTHETISTS

ROOTS AND BRANCHES GROWING A GREEN NETWORK

ANAESTHETISTS LEAD 'GREENER THEATRES' CAMPAIGN

Australian Society of Anaesthetists®

CSC2022

COMBINED SCIENTIFIC CONGRESS

NZSA & ASA · WELLINGTON NZ

21-24 OCTOBER 2022

JOIN US IN PERSON OR VIRTUALLY

Keynote Speakers

Prof. Denny Levett

Prof. Kate Leslie

Prof. PJ Devereaux

Prof. Steven Shafer

International and Invited Speakers

Prof. Pamela Flood

Prof. Andrew Klein

Dr. Wayne Morriss

Dr. Leona Wilson

www.CSC2022.co.nz

2022 Combined Scientific Congress

Hybrid (F2F and online) conference jointly co-hosted by the NZSA and ASA

Tēnā koutou katoa,

We are now just a few months out from the premier Australasian anaesthesia conference of 2022! There are just a few more days to make the most of the early bird rate, closing Friday 12 August.

The programme is outstanding, what an opportunity to explore an engaging and thought-provoking range of topics from local and international speakers. Whether you can make it in person or are joining us virtually there is something for everyone. A few of our invited speakers are:

Dr Imran Ahmad

Sponsored by Fisher & Paykel

Imran Ahmad is a Consultant Anaesthetist at Guy's and St Thomas' NHS Foundation Trust, London, UK, where he is the Deputy Clinical Director for Theatres, Anaesthesia and Perioperative medicine. He has a specialist interest in difficult airway management and is the clinical lead for airway management at the Trust and was the education lead for the Guy's advanced airway fellowship for over 10 years.

Jehan Casinader

Sponsored by MAS

Jehan Casinader is a journalist, author and mental health advocate, named "Broadcast Reporter of the Year" at the Voyager Media Awards in 2020, and "Reporter of the Year" at the NZ Television Awards in 2018. Jehan has helped hundreds of Kiwis to share their vulnerable and deeply personal stories with the rest of the country. He is the author of This Is Not How It Ends: How rewriting your story can save your life (HarperCollins).

Dr Leona Wilson - Alan Merry Oration

Born in Timaru, NZ, Dr Wilson studied medicine at the University of Otago, graduating BMedSc (neurophysiology) in 1974, and MB ChB in 1975. A year later, she moved to Europe and undertook anaesthesia training and experience in London and Amsterdam. In 1981 she returned to NZ and completed her Fellowship. When ANZCA was founded in 1992, Leona was a Foundation Fellow then elected to Council in 2000. In 2008, she was elected ANZCA President, making her the first woman, and first New Zealander, to hold the position.

Dr Tony Fernando - Kester Brown Lecture

Dr Fernando is a psychiatrist and sleep specialist and is in the final stages of his PhD at the University of Auckland, studying compassion in medicine. He obtained his medical degree from the University of the Philippines and his psychiatry and sleep training at the University of Pennsylvania. In January of 2017, he received temporary ordination as a Buddhist monk in Myanmar.

If you haven't yet had the chance to do so we urge you to visit the CSC website to view the full programme and read more on the outstanding line-up of speakers (www.csc2022.co.nz) along with all the information you need to plan your trip to Wellington. Keep up to date with us on Twitter, facebook and LinkedIn with soon to be released podcasts with CSC speakers including Morgan Cavelle and Suzi Nou.

Having been unable to get together face to face for some time the CSC Organising Committee has put together an incredible social programme. Don't miss our signature gala dinner on the Saturday evening, with wonderful music from local band Superbad Jazz Band and delicious food, of course. The HealthCare Industry reception takes place on the Friday evening, and on Sunday evening we have a family movie night at The Embassy Theatre where Weta Workshop's skilled technicians will help us to create scrapes, scars and chainmaille before we settle in for a movie.

End 2022 on a high note of collegiality, conviviality, and connection – join us at the CSC to support this excellent educational and social event. See you in Te Whanganui-a-Tara, Wellington or virtually, on what will be an engaging and interactive online platform.

Ngā mihi nui

Drs Mark Featherston and Cathy Caldwell

CSC 2022 Co-Convenors

Dr Mark Featherston

Dr Cathy Caldwell

AUSTRALIAN
Anaesthetist
THE MAGAZINE OF THE AUSTRALIAN SOCIETY OF ANAESTHETISTS

The Australian Society of Anaesthetists (ASA) exists to promote and protect the status, independence and best interests of Australian anaesthetists.

LETTERS TO AUSTRALIAN ANAESTHETIST:
Letters are welcomed and will be considered for publication on individual merit. The Medical Editor reserves the right to change the style or to shorten any letter and to delete any material that is, in his or her opinion, discourteous or potentially defamatory. Any major revisions required will be referred back to the author for approval. Letters should be no more than 300 words and must contain your full name and address. Please email editor@asa.org.au to submit your letter or to contribute.

ADVERTISING ENQUIRIES:
To advertise in Australian Anaesthetist please contact the Advertising Team on 02 8556 9700 or email advertising@asa.org.au.

CONTACT US:

AUSTRALIAN SOCIETY OF ANAESTHETISTS,
PO Box 76 St Leonards NSW 1590, Australia
T: 02 8556 9700 E: asa@asa.org.au W: www.asa.org.au

PRINTED BY:
Ligare Book Printers Pty Ltd

This book has been printed on paper certified by the Programme for the Endorsement of Forest Certification (PEFC). PEFC is committed to sustainable forest management through third party forest certification of responsibly managed forests. For more info: www.pefc.org.au

Contents

Australian Society of Anaesthetists®

A MEMBER SOCIETY OF THE WFSA

Would you like to contribute to the next issue?

If you would like to contribute with a feature or a lifestyle piece all articles must be submitted to editor@asa.org.au

December issue:
All submissions are due October 20.

Image and manuscript specifications can be provided upon request.

Australian Society of Anaesthetists®

RVG 23RD EDITION

EXCLUSIVE TO ASA MEMBERS

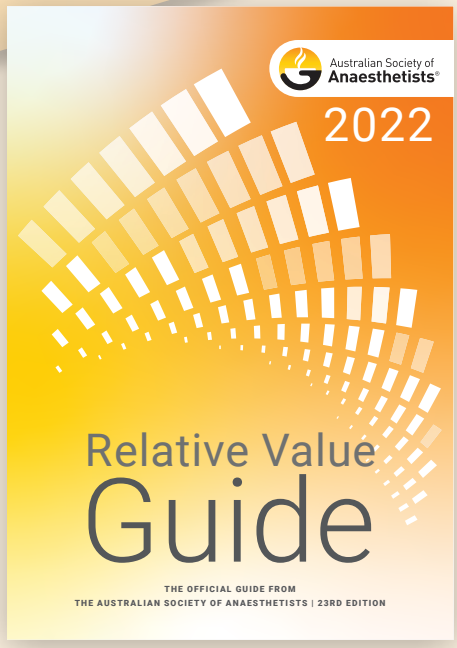
ANDROID APP ON Google play

Download on the App Store

Available for android and iOS.

To download the app search for 'ASA RVG' in your app store and look for the RVG icon. Log in to the app using your standard ASA member log in details.

RVG



HARD COPY OUT NOW

New improved RVG app now available

Download the new improved version of the ASA RVG app via App Store or Google Marketplace for all the latest updates to the Relative Value Guide, including current item numbers and new features such as synched favourites, live updates button and push notifications.

New features also include:

- Favourites synched across installations
- Favourites stored under relevant categories
- Dark mode support
- Push notifications; and
- Dynamic type support – customised font sizes.

FROM THE ASA PRESIDENT

ANDREW MILLER
PRESIDENT OF THE ASA

I remember the first time someone put the item 'sustainability' on the agenda at a meeting of Anaesthetists, more than a decade ago.

There were puzzled looks from some and a few comments about this being an issue that did not really concern us. Not our core business.

There was general antipathy and we moved on.

We are rightly proud of our focussed training and experience that gives us skills that nobody else has. We have honed our proprioception by putting in IVs, spinals, epidurals and vascular lines. There is an opportunity cost to that focus, which is that we can lose touch with other areas.

In our focussed work-life we are at risk of becoming like migrants who move to a new country and think that nothing has changed 'back home').

Meanwhile the real world has moved on and sustainability is at the core of business.

Stewardship of resources is a live issue that the AMA Ethics and Medicolegal Committee are currently considering in detail, again.

It is not sufficient for us to take pot shots at the government without also proposing constructive ideas on the sustainable use of healthcare resources. These days that means using a health economist and bringing some sophistication to the discussion.

Anaesthetists are natural leaders because we are highly integrated across healthcare systems and we have a good understanding of risk identification and mitigation. We are a specialty with a history of innovation.

The grass roots efforts we see in reducing waste are excellent, but it is system change that is needed to make a big difference. As we see with mask mandates, people usually do what they have to do, rather than what might be best for sustainability in every case.

The infection control edicts in relation to reuse of items drive us mad. It is an indictment that the incentive to reuse perfectly serviceable tourniquets or other low contamination items is removed, while patients share cutlery and chairs.

Of course, we have to prevent nosocomial infection, but infection control have not displayed sufficient intelligence in my opinion to be left alone to rule over us in this regard. If they were as keen on preventing COVID-19 transmission in a hospital setting as they are on compliance with hand hygiene modules then I might display more deference.

In this, as with so many other areas, we must be organised and data driven to inform our advocacy.

There is also the issue of drug usage, where we will find a sensible path through restrictions on volatiles and nitrous oxide. The conversation around their future use will be a tricky one for our profession, and must be had in context with data to back up the instinct to ban versus the preference for the familiar.

Finally, we must be mindful of the position of our specialty. The contribution of excellent anaesthesia standards to the overall system needs constant emphasis, lest the gains we have made are taken for granted and dismantled by those with a one sided economic or ideological agenda.

Thanks to all anaesthetists who contribute their time, expertise and passion to making all of this sustainable for the next generation of healthcare workers.

Dr Andrew Miller

MBBS LLB(Hons) FANZCA
FACLM FAICD FAMA

Contact

You can contact me at drajm@me.com or @drajm on twitter any time.

The monitoring platform of the future

Smart. Innovation.

HemoSphere advanced monitoring platform enables proactive, individualised patient management.

Full-range compatibility with noninvasive, minimally-invasive and invasive solutions

ClearSight finger cuff

FloTrac sensor

Acumen Hypotension Prediction Index software and Acumen IQ sensor

ForeSight Elite tissue oximetry sensor

Swan-Ganz pulmonary artery catheter

For professional use. For a listing of indications, contraindications, precautions, warnings, and potential adverse events, please refer to the Instructions for Use (consult eifu.edwards.com where applicable).

Edwards Lifesciences Pty Ltd • 2/40 Talavera Road, North Ryde NSW 2113 • 1800 222 601
Edwards Lifesciences New Zealand Ltd • PO BOX 28658 Remuera New Zealand • 0800 222 601

Edwards

MATTHEW FISHER
CHIEF EXECUTIVE OFFICER, ASA

FROM THE CEO

REFLECTIONS ON THE FIRST 100 DAYS

As I approach my first 100 days, I thought I would give some impressions of what it has been like. Why does 100 days get nominated as an arbitrary benchmark? From what I understand it was based on the achievements of Franklin D. Roosevelt's presidency in his first 100 days that began on March 4, 1933. In that time he passed 76 laws under very difficult circumstances, all with the intent of sustainable improvement. Business critiques of the 100-day theory come and go, however some fundamentals are important – get up to speed; understand the current business/profession/team/environment to focus aspiration and priorities; understand the culture and what can be influenced; ascertain if we have the right structure in place to achieve the Purpose of the ASA; understand the "mandate" and importantly, establish productive relationships. In the end it will be about impact and ensuring the ASA is in an even better place (a legacy approach). Much of this action revolves around communication, managing expectation, influencing others and progression.

In the past 100 days I have immersed myself with people, the business and the business environment, often in person but a majority on-line to get up to speed and this has been crucial to understand what works and what doesn't. This is being done to ensure that the Purpose of the ASA is a clear and compelling statement of why we exist and of the meaningful value we provide to members, employees, stakeholders, and society. We have engaged a public affairs firm to assist our framework development, have started using a health economics group to add another dimension to our work, and have undertaken an initial review of our IT platforms to see what we need to consider for the future. Some staffing roles have evolved and we have recruited two new people to our "mob", so a lot as been happening in the background.

In our primary member-facing flagship, The Australian Anaesthetist, our recent focus on inclusion has been well received. I had the serendipitous meeting on a plane with the wife of Dr Blair Munford but we only made the connection when disembarking. After a brief chat about the article, that led to another connection where there was also an interest in common which affirms the idiom, it is a small world. The highlighting in the magazine and subsequently by the ABC of the great work and story of Dr Dinesh Palipana OAM was inspiring.

In this issue, we are highlighting sustainability. The most often quoted definition of sustainability comes from the UN World Commission on Environment and Development: "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Sustainability presumes that resources are finite, and should be used conservatively and wisely with a view to long-term priorities and consequences of the ways in which resources are used. Sustainable practices support ecological, human, and economic health and vitality, yet in simplest terms, sustainability is about our children and our grandchildren, and the world we will leave them.

The latest State of the Environment (SOE) Report was released on Tuesday 19 July 2022 by the Minister for the Environment and Water. According to the CSIRO, the report is a comprehensive assessment of the state of Australia's environment produced every five years by the Australian Government. It is an independent and evidence-based review that is mandated by the Environment Protection and Biodiversity Conservation Act 1999. The State of the Environment Report has found that in a rapidly changing climate, with unsustainable development and use of resources, the general outlook for our environment is deteriorating. This is a result of increasing pressures from climate change, habitat loss, invasive species, pollution, and resource extraction.

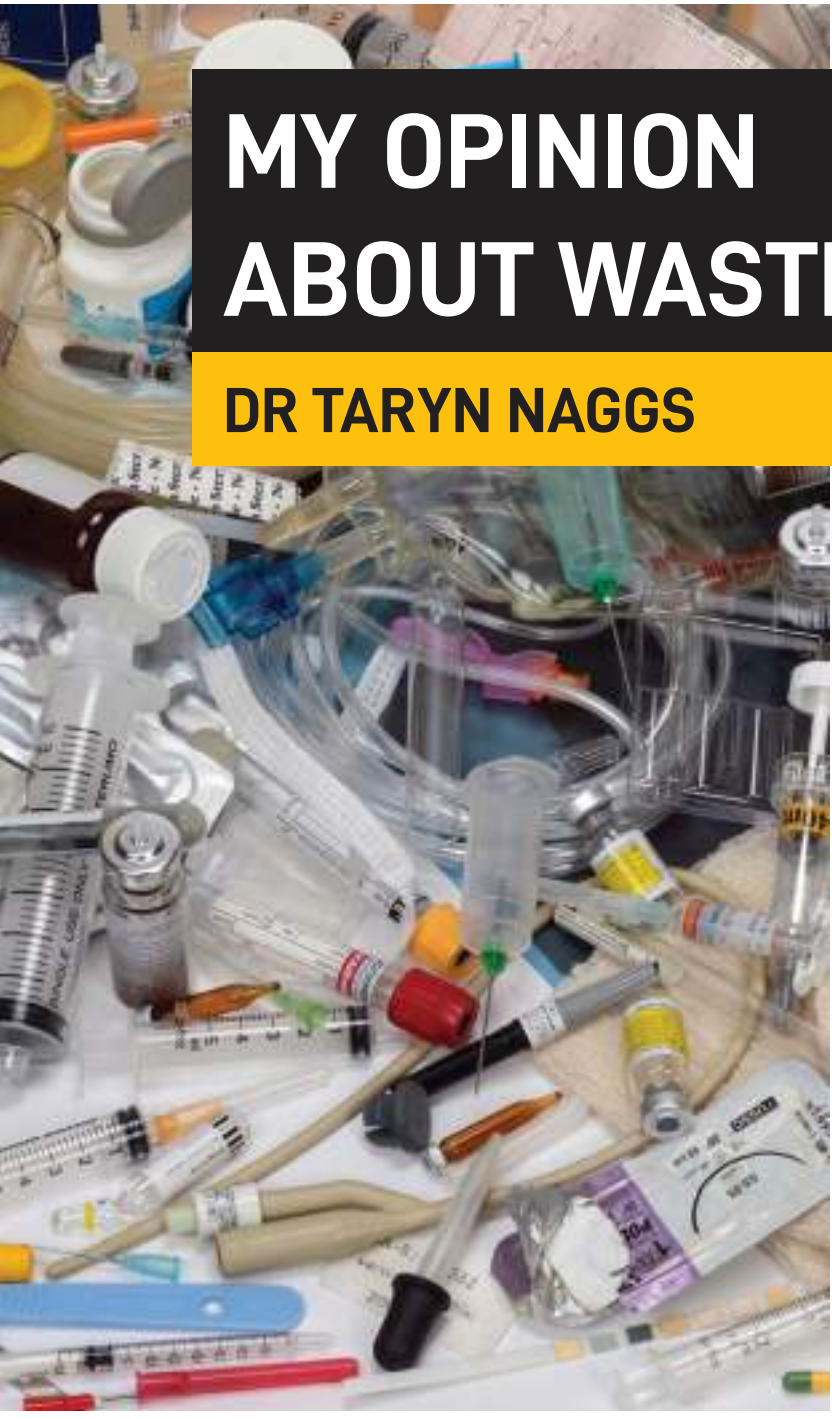
What does this mean for us? The ASA aspires to be an exemplar medical society for how it represents and supports anaesthetists and the engagement that we have with you and other stakeholders. This implies many attributes for the ASA including effective engagement strategies; services and support that matter and are delivered with excellence in a timely manner; that we are nimble, responsive and considered in our actions; we utilise internal and external expertise appropriately; we are solution oriented and collaborative; yet creative in thought with professionalism at all levels. Sustainability will be a challenge for all of us that we need to face and act on.

Matthew Fisher

PhD DHlthSt (honoris causa)

Contact

Please forward all enquiries or correspondence to Sue Donovan at: sdonovan@asa.org.au or call the ASA office on: 02 8556 9700



MY OPINION ABOUT WASTE

DR TARYN NAGGS

The main question I get asked by concerned people outside the public hospital I work in is … 'Which company does your recycling?' The answer is there is not a company that specialises in hospital recycling. Waste management as a whole is a complex business and often a web of companies and contracts. Many companies, big and small, multinational to local are involved in our rubbish. How we sort our rubbish depends on who wants what. It seems to be different for every location. The themes are the same but it's different enough to make it confusing, especially when you work in different hospitals.

Rubbish and waste is something we throw out bags of everyday, for every case. But what goes away doesn't stay away, it just goes somewhere else.

People get fixated on recycling, whilst minimising use is the biggest environmental win …. Using less means the production cost and future recycling costs are reduced.

Using less is the biggest win with rubbish, recycling, carbon and pollution. Count how many bluey's you use in a day? How many could you reuse during a case for the same patient?

Procurement lies within this idea of using less. Less product packaging reduces the environmental footprint and creates less waste and so less cost, (for a hospital) to dispose of.

People get fixated on recycling, whilst minimising use is the biggest environmental win. Recycling uses water, power and resources so has its own impact. Using less means the production cost and future recycling costs are reduced.

Calculations such as carbon costs can be location-specific. Australia still has to use energy as a significant high carbon count versus other parts of the globe. An example of this is CO_2 absorbers versus

O_2/gas flows. In the UK it is beneficial to increase gas flow to spare plastics and absorber costs. In Australia currently is it beneficial not to increase the flow.[1]

Reuse is another option. Single-use items are engrained in my hospital and proving difficult to culturally shift, despite a cost and resource benefit overall. Small unit-based budgeting means isolated cost savings win over large-scale costings.

No location is the same. Each state and council region differ. Resources in each area differ. Small business that support us are not available elsewhere. Collections can be by a different company to the manufacturer/recycler. This middle person adds another level of complexity to communication with the recycling company. Contracts and costings can differ between hospitals. All these variables make replicating one hospital's story to another impossible. We can however learn from each other about what is possible. Ideally, we would have a coordinated national program like many other overseas countries. Australia's recycling journey has begun but is challenged by distance, resources, climate and politics. This is not a reason to not pursue better environmental practices but to think of ways around our challenges.

The main question I get asked from within the hospital is … 'Can this be recycled?'

I have spent years learning about plastic types and now can guess a lot of the time, but the question is really, will a company want this to recycle? I often have to check and deliver a sample and wait for an answer.

Labelling on products is variable and usually absent which makes recycling difficult for us and recycling companies. Sometimes it is on the outside box only and not on each plastic item. Having a few key objects that can be recycled is easier to promote and limits confusion. Plastics are at the top of my list when it comes to recycling confusion. Best environmental practice can feel like a maze.

I started trying to implement what I learnt could already be done. Maximising collection systems already available but not actually happening in theatre. Progress over perfection is still the path we are on. Sorting waste is not glamorous and is poorly funded, but somehow the volumes kept out of landfill continue to increase.

Ideally every hospital has a Sustainability Officer. I do what I can in my own time, but I am also busy giving anaesthetics. I rarely get time to go and talk to people. I need to find out what needs to be done, explore more options and fine tune current pathways. Setting up a committee and having meetings also takes time so hasn't happened. Most of what I do is via quick corridor chats. I definitely don't find the time to fundraise for items that would make sorting rubbish easier in theatres. We make do with what we already have. We don't have fancy bins … yet.

Our system items based on what happens once it will leave the OT. It is based on how companies want items collected and sorted. I wanted to know where it went. I didn't want to waste my time sorting if it was pointless. Do I know if 100% of what gets sorted is recycled? The realist in me knows batches get rejected due to contamination. Contamination is my greatest battle. Not everything made of plastic can be recycled. Educating and motivating a large number of people across a large theatre complex is impossible for one person. I work in theatre with a small portion of staff regularly, others I never see. Our recycling lives off having a system and good word of mouth. People are more likely to take up a habit based on witnessing the practice and hearing about it from a close colleague.

Some staff are amazing at sorting waste. Not everyone chooses to participate and some days staff are more motivated than others. The timescale of shifting habits within theatre is slower than I anticipated but with persistence the culture does change. It has gathered momentum but over years rather than months. Sometimes I am amazed it happens at all. But finances and waste costs don't lie. Everything is weighed because of dollars so waste is audited monthly. I have it in excel black and white that it can happen. Even without fancy bins.

But remember, using less is the biggest win and available for everyone.

Dr Taryn Naggs

References

1. Seglenieks R, McAlister S, McGain F, Environmental impact of medical oxygen production in Australia. Comment on Br J Anaesth 2020; 125: 773-8, Br J Anaesth. 2021; Correspondence e104-105

PICK YOUR POISON

DR TARYN NAGGS

I go to work each day aiming to do no harm. I didn't expect, whilst training in anaesthesia, to learn that the tools I need to care for my patients would also harm the environment. Pollution associated with anaesthetic gases has attained broad media coverage, but the harm caused to the land and water associated with the rest of our anaesthetic agents has not perhaps received as much attention. We spend our days administering and disposing of many medications, so we're more hands-on than many of our colleagues who only prescribe.

Chemical pollution is an unspoken environmental disaster. Synthetic chemicals have not been included in most analyses of global change. Only 2% of scientific conferences, publications and funding grants cover this.[1]

Chemical pollution is an unspoken environmental disaster. Synthetic chemicals have not been included in most analyses of global change. Only 2% of scientific conferences, publications and funding grants cover this.

The path to reduce pollution is not always obvious. Correct disposal of drugs, residues and associated plastics proved to be more complicated than I had imagined. Plastic recycling has become commonplace, but it's not just the material that's the problem. Plastics are very good at binding chemicals, including pharmaceuticals and need to be considered when disposing of lines and syringes.

Studies usually use an environmental unit of measurement called carbon equivalents. What about pollution and harm from another measure, not just carbon?

Desflurane is the most discussed pollutant. Its downfall is largely because it exists in the atmosphere for 14 years versus sevoflurane for 1.1 years. I have a four-year-old nephew and so any desflurane dialed up today is still wafting around when he reaches 18 years of age. Desflurane is accumulating daily because it doesn't go away.[2]

Propofol is the logical answer but it is still a pharmaceutical. It too pollutes the land and waterways.

Propofol is a marine toxin and should be kept clear of sinks, waterways and potential runoff via landfill. Drug manufacturing safety sheets state that it should be prevented from seeping into the sewerage system. Hazard statements from safety data sheets include very toxic to aquatic life with long-lasting effects. Propofol is highly mobile in soils and may accumulate significantly on land. Aquatic accumulation is a potential risk due to the aquatic half-life being greater than one year. Manufacturers report the environmental risk as low based on predicted metabolism and therefore minimal amounts reaching water ways. However, there is the potential for bioaccumulation with both acute and chronic aquatic toxicity. Propofol is not readily biodegradable and is not expected to undergo significant biodegradation under aerobic or anaerobic conditions.

Debate stems from impact studies and from the differences between lethality and harm. Lethal concentrations (LC)

and effect concentrations (EC) may be studied but often is it predicted that actual environmental concentrations will be lower than LC or EC. Translating locations can be important. One review calculated 3.7kg propofol use in Vermont in a year[3]. The public hospital I work in uses 23kg annually within the main theatre complex and doesn't include outlying areas or intensive care units (ICUs).

One measure of chemicals, including pesticides and pharmaceuticals, is Persistence, Bioaccumulation and Toxicity (PBT) which ranks chemicals with a maximum harm score of 9. Depending on what country and which database you read regarding Propofol, the scale is from no harm to extreme harm and a PBT score of 9.[4]

So, what is the answer? Minimise our use and dispose of discards and residues correctly.

Sounds simple, doesn't it? Like everything in waste disposal, the details are important.

I have calculated how much I discard. In high turnover lists my minimum is 30% discard of residual propofol. I can reduce this in larger, complex cases. Studies show that residual propofol discard is between 30-50% of the volume available for use [5,6]. That's a lot of propofol in the bin. Although, which bin do you discard it in? It's supposed to be incinerated in my state[7] but sharps bins in my hospital are autoclaved, crushed and then buried in landfill. That doesn't destroy all drugs and especially not propofol. We now have special pharmaceutical sharps bins and drug bins for incineration. Why incinerate? Propofol needs extreme temperatures to be destroyed.

Studies on environmental impact are often examining exposure to a single drug but rarely include the impact of the metabolites of the parent drug. In the environment there is a mixture of drugs. A study noted multiple pharmaceuticals in national park streams in Victoria looking at impacts on platypus and spider food webs. [8] The impact of multiple drugs on marine organisms demonstrated increased or synergistic toxicity. [9]

Predicting impact can be difficult and may require reading around the numbers. Paracetamol is 99% removed by common waste water treatments. It is degraded in the environment in 15 days. That seems very reassuring. How much does the human population use? In 2008 a pharmaceutical finance article revealed that approximately 165,000 tones was produced globally. That number will have only increased since 2008 and is predicted to continue upward. In 2008, assuming all drug was taken and not discarded, 95% was metabolised and 99% was cleared in treatment plants, then 82.5 tones of paracetamol was in the environment. Paracetamol demonstrates the concept of pseudo-persistence. More enters the environment faster than it can be cleared.

Databases assessing environmental impact often quote a lack of studies and information. Sugammadex is an example of this. Impact 'watch lists' include groups of drugs such as hormones and endocrine binders, non-steroidals, antibiotics, benzodiazepines, antidepressants and antipsycotics. Sugammadex binds hormones such as these in the contraceptive pill and is excreted unchanged but the environmental effects it produces are not largely studied. It is logical that they should be studied.

What about patient excretion? Hospital effluents contain measurable concentrations of pharmaceuticals [10]. No one treatment eliminates all drugs. In fact, de-glucuronidation was found to reconstitute propofol metabolites back into propofol such that the concentration increased after waste water treatment [11]. Photolysis and sunlight can create marine toxic chemicals from non-toxic drugs [12].

We can't directly control what happens to our patients' urine, but we can select what goes into our patients, how much polypharmacy we use and how we discard what is left.

For me, this has been a journey of collating information and trying to find an answer. I definitely keep finding more questions than answers. I hope the discussion expands amongst the medical profession and the science community so we all can add to the answer about what is best for the environment whilst still caring for our patients each day.

The name of this article is an acknowledgement of the ground-breaking work of Dr Jodi Sherman and refers to an editorial in Anesthesia Analgesia titled *'Total Intravenous Anesthetic Versus Inhaled Anesthetic: Pick Your Poison'.*

Dr Taryn Naggs

References

1. Bernhardt ES, Rosi EJ & Gessner MO, Synthetic chemicals as agents of global change, Frontiers in Ecology & the Environment. 2017; 15:84-90
2. Vollmer MK et al, Modern Inhalation anesthetics: Potent greenhouse gases in the global atmosphere, Geophys. Res. Lett.; 42:1606-1611
3. Kostrubiak M et al, Water Pollution and Environmental Concerns in Anesthesiology, Journal of Medical Systems. 2020;44: 169
4. Van Norman GA & Jackson S, The Anesthesiologist and global climate change: an ethical obligation to act, Current Opinion Anesthesiol. 2020; 33:577-583
5. Mankes RF, Propofol wastage in anaesthesia, Anesth Analg. 2012;114: 1091-2
6. Gillerman RG & Browning RA, Drug use Inefficiency: A Hidden Sounce of Wasted Health Care Dollars, Aesth Analg. 2009; 91:921-4
7. Qld Gov - Clinical and related Waste, ESR/2015/1571 version 4.01 effective 01 July 2019.
8. Richmond EK et al, A diverse suite of pharmaceuticals contaminates stream and riparian food webs, Nature Communications. 2018; 9: 4491
9. Cleuvers M, Aquatic ecotoxicity of pharmaceuticals including the assessment of comination effects, Toxicology Letters. 2003; 142: 185-194
10. Mullot J et al, modelling pharmaceutical pollution in hospital wastewater, Water Science & Technology. 2010; 62.12: 2912-2919
11. Falas P et al, Occurrence and reduction of pharmaceuticals in the water phase at Swedish wastewater treatment plants, Water Science & Technology. 2012; 66.4: 783-791
12. Ali MM et al, Photolysis of pharmaceuticals and personal care products in the marine environment under simulated sunlight conditions: irradiation and identification, Environ Sci Pollut Res. 2017; 24: 14657-14668

DR TARYN NAGGS

Taryn is a staff specialist at the Princess Alexandra Hospital (PA) specialising in cardiac anaesthetisia and perfusion and also works in private practice.

Dr Naggs has been involved in recycling and sustainable pathways at the PA for the last six years and says, "there is something new to learn about the topic every week".

Australian Government
Australian Digital Health Agency

My Health Record

MY HEALTH RECORD

What is My Health Record?

My Health Record is a secure, efficient online summary of an individual's key health information. Healthcare providers who are authorised by their organisation can access the system to view patient history and add patient health information in a timely manner.

Information that can be accessed about patients may include shared health and discharge summaries, prescription and dispense records, and pathology and diagnostic imaging reports.

As of March 2022, almost 608 million clinical and medicine documents had been uploaded to My Health Record.

COVID-19 and vaccinations

Since the COVID-19 pandemic, vaccination information has become increasingly important. My Health Record has been enhanced to include a consolidated immunisation view that provides details of a patient's immunisation history, including the date administered, vaccine brand and dose as recorded in the Australian Immunisation Register (AIR) and in any other documents in their record. The ease of accessibility to this information has helped streamline workflows in clinical practice.

What are the benefits of using My Health Record?

The most important benefit is enhanced patient safety.

The system can improve the patient experience and the quality and value of Australia's healthcare system through a range of important benefits such as:

- avoided adverse drug events
- enhanced patient self-management
- improvements in patient outcomes
- reduced time gathering clinical information
- avoided duplication of services.

Use of My Health Record is expected to reduce avoidable hospital admissions and improve coordination of care for those with chronic and complex health conditions. It also helps to overcome the limitations that doctors experience when they cannot access the full range of health information available for their patients.

ASA and My Health Record

As a member organisation, the Australian Society of Anaesthetists (ASA) advocates on behalf of all our member anaesthetists, with a core focus on enhancing, supporting and encouraging patient safety. We strongly support My Health Record and are working with the Australian Digital Health Agency to encourage use of the system as a critical and beneficial platform for the future of digital health, that optimises the health and wellbeing of patients.

According to Lexie Harris, Business and Practice Manager of the Wesley Anaesthesia and Pain Management Group in Brisbane, the benefits of using My Health Record are many, including allowing anaesthetists to be informed of any issues about a patient well before pre-admission.

"Particularly when major surgery is involved, quicker and prior access to patient information can help identify any issues that could potentially affect the anaesthetic requirements" Lexie said.

For more information about My Health Record, visit the Agency's website at www.digitalhealth.gov.au.

Find educational resources at www.training.digitalhealth.gov.au and information relating to events and webinars at www.digitalhealth.gov.au/newsroom/events-and-webinars.

ROOTS AND BRANCHES – GROWING A GREEN NETWORK

Multidisciplinary teamwork to reduce the impact of healthcare on the environment

Dr Archana Shrivathsa FANZCA

Consultant anaesthetist at
Fiona Stanley Fremantle Hospitals Group
Executive Board member ANZCA
Environmental Sustainability Network
Executive Committee member, TRA2SH

Dr Adam Crossley FANZCA FRCA

Consultant anaesthetist at
Fiona Stanley Fremantle
Hospitals Group
Executive Board member ANZCA
Environmental Sustainability Network

The phrase 'primum non nocere' tells us that we should first seek to do no harm, yet the delivery of healthcare in Australia contributes 7% of the carbon footprint of the nation[1]. Around 20–30% of waste in hospitals comes from the operating theatres[2]. Targeting reductions in eCO2 and waste is a job for everyone in healthcare, as the Zero Waste Chef Anne Marie Bonneau said, "We don't need a handful of people doing zero waste perfectly. We need millions of people doing it imperfectly".

There are many simple things we can do to make our perioperative service more efficient and less wasteful. Actions should target all parts of the waste hierarchy i.e. reduction, reuse, recycling and recovery – these are addressed in other articles in this issue in more detail.

One of the consistent key methods to advocate for change has been to make connections and have conversations with as many people as possible. Anaesthetists are particularly well-placed clinicians to do this. Regular meetings and casting a wide net in communication helps to identify elements of processes that can easily be changed, who can help you and how it can be done. This includes garnering support from the Health Service Executive, partnering with the hospital's facilities management team and procurement officers and working closely with Infection Control when developing new policies and processes. It also includes talking to other departments, hospitals and services to learn from their past experiences. This will avoid duplication of work and encourage the rapid but efficient change that the climate needs.

With thoughts like this in mind, the Green Theatres Group at Fiona Stanley Fremantle Hospitals Group (FSFHG) was formed in 2015, shortly after the new hospital opened, through the leadership of anaesthetists Dr Adam Crossley and Dr Jennifer Liddell.

The GTG brought together an enthusiastic team of front-line staff from all disciplines in peri-operative care, sharing ideas and combining efforts to make a difference. In the years since, the group has expanded to support development of sustainability initiatives in other departments (such as Intensive Care and the Emergency Department) and in other hospitals.

Most importantly, the continued work of the FSFHG GTG has facilitated the development of state-wide collaboration and a network which we believe to the first of its kind in Australia. Collaboration with other hospitals to achieve decisive action was a theme that featured early in the GTG. FSFHG was the first hospital group in WA to stop purchasing desflurane and a big part of this achievement was down to data sourced by anaesthetist Dr Chris Mitchell at Sir Charles Gairdner Hospital. From this combined effort, the concept of an expanded network was born - the Green Theatres Network WA.

Dr Courtney Jones with FSFHG Operation Clean Up 2022 Recycling displays

Branching out

The GTN-WA is free to join and open to people from all areas, from both public and private sectors. The GTN aims to facilitate collaboration and learning between peri-operative services - for example when successful initiatives have been completed in other hospitals, barriers have been identified, or resources created. 'Green Theatres' and sustainability Groups at individual institutions feed into the GTN, which can then provide a state-wide advocacy to a variety of bodies. This includes the Health Department, executive boards of Health Service Providers, professional bodies and other related organisations.

In a state the size of WA, resources available to support sustainability initiatives can be highly variable – for example municipal recycling programs in regional and rural areas. GTN members have collaborated across the WA Country Health Service and innovated to prioritise waste reduction by rationalising procedure pack contents and consumable use and prevent waste entering landfill.

GTN-WA nursing and anaesthetist members have also reached out to clinicians working in the private sector via private anaesthetic groups, perioperative nursing networks and hospital management to share resources and opportunities and to help grow local sustainability groups.

Nursing staff have often taken the lead in championing sustainability initiatives and this is particularly relevant at private hospital sites. A great example of this is the work of Tracey Grantham, a Perioperative RN at privately-owned Peel Health Campus, who through engagement with anaesthetists and Executive has begun the process of phasing out desflurane at this busy outer suburban centre. Another success story comes from Lana Kelly, RN working

Green Theatres Network

FSH Recovery Nurse Kat Erkens demonstrates the PVC recycling program

Green Theatres Network events held around WA

'Mitigating Healthcare Impacts on Climate Change' slide - A GTN-WA workshop at the recent AMA (WA) MEDCON22 conference.

'Desflurane and Private Hospitals - success story' slide - RN Tracey Grantham presents at a recent GTN-WA event on phasing out desflurane at private hospitals.

in the Endoscopy Unit at Hollywood Private Hospital, who helped to set up a local environmental sustainability group and roll out a recycling program for the endoscopy suite, soon to be expanded into the main operating theatres.

Data speaks – loudly!

Data collection is as essential for audit and feedback in sustainability as it is in clinical work. It quickly and clearly demonstrates the co-benefits that almost always accompany sustainability measures. For example, ceasing the purchase of desflurane at FSFHG saved $10,000 per month along with the benefit of cutting approximately 434 tonnes of CO_2 equivalent emissions over a two-year period.

Reducing use of various consumable items and replacing them with re-usable items in many situations reduces both cost and environmental impact. A recent example is of a simple but highly effective practice change instituted by Erin Doust, RN at the Fiona Stanley Hospital PACU - replacing routine use of wrap-around disposable pulse oximeters with re-usable probes instead. This has led to a cost saving of over $70 000 in one year (preliminary data) without adverse patient outcomes or infection control concerns. Networks like GTN-WA have the capacity to rapidly propagate uptake of such initiatives and facilitate widespread policy change though the power of sharing information efficiently across the network.

Spreading the message

We continue to educate in a variety of ways – from newsletters, posters, department meetings and one-to-one discussions, to themed days, such as involvement in the annual 'Operation Clean Up' event, run by the anaesthetic trainee organisation TRA2SH (www.tra2sh.org). The SMHS Executive team are highly engaged and very supportive. GTN members (along with other clinicians) successfully advocated for the establishment of a SMHS Environmental Sustainability Steering Group and for funding a Sustainability Officer to really amplify the work and spread it across the service.

GTN-WA has held two in-person meetings which were well attended and filled with enthusiastic presentations and small-group work. We have an educational website (www.greentheatres.online) and a Twitter feed (@WAGreenTheatres) to generate discussion and highlight the great work here and across the world. Recently we joined forces with the WA Country Health Service (WACHS) to run an educational webinar, and were invited by the AMA (WA) to hold a workshop session at the recent multi-college conference MEDCON22. GTN-WA members have also been involved in the formation of the ANZCA Environmental Sustainability Network, including representation on the Executive Board, to help drive a top-down approach to integrating environmental sustainability into the work of the college.

Grow your own!

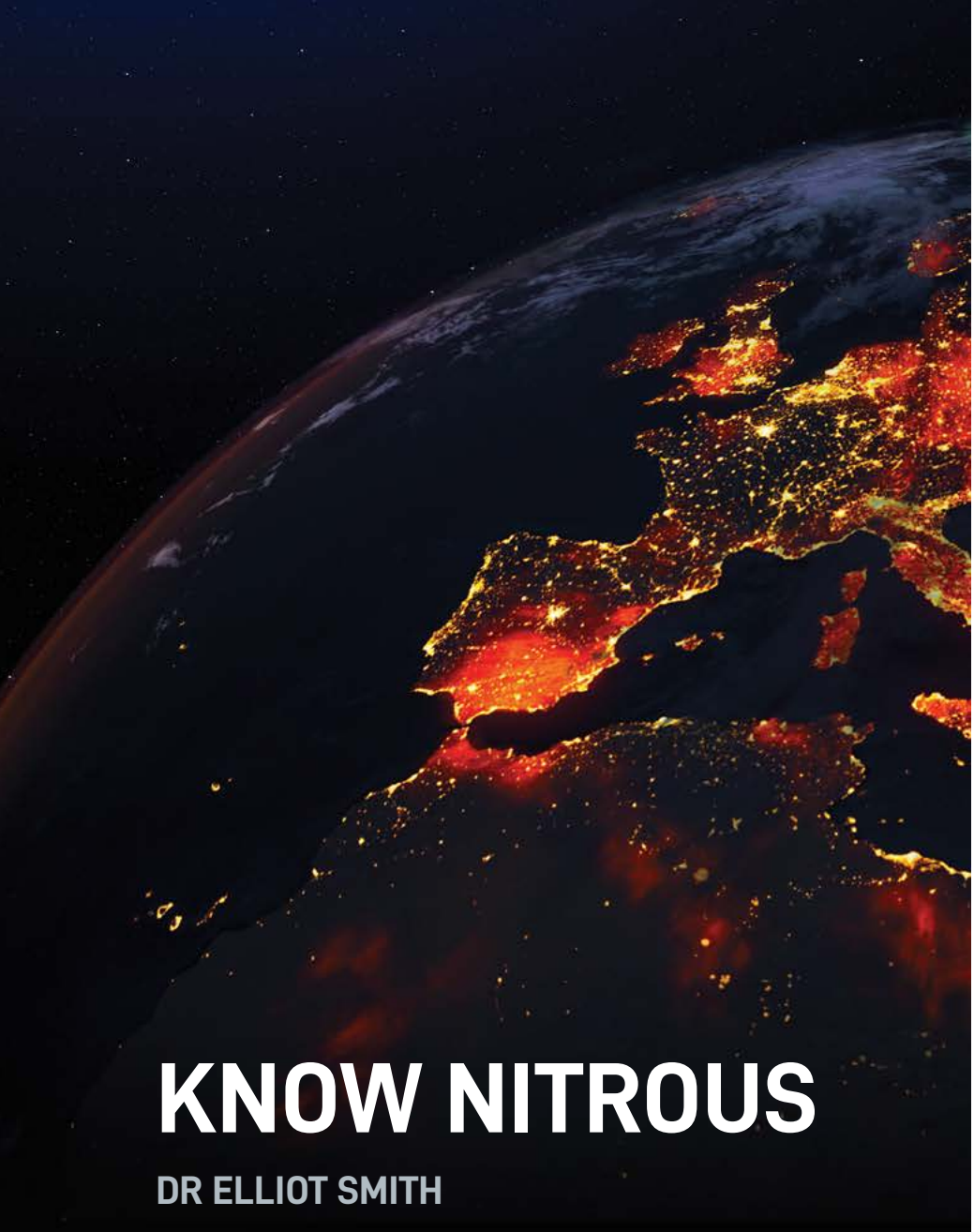
We continue to work hard to reduce the impact of healthcare on the environment, but we always need the help of enthusiastic people and fresh ideas! Our hope is to reach as many people as possible to show what positive action is possible and learn from each other.

Our aim is that this network will encourage the development of local Green Theatre Groups in every hospital in the state (or even nationwide!) and amplify their potential, working towards solutions which achieve the 'millions doing it imperfectly' that is necessary.

To connect with us please check out the WA Green Theatres website, Twitter feed, or email adam.crossley@health.wa.gov.au, archana.shrivathsa@health.wa.gov.au or james.anderson2@health.wa.gov.au.

References:

1. Malik A, Lenzen M, McAlister S, McGain F. The carbon footprint of Australian health care. *Lancet Planet Health* 2018; 2(1) E27-E35 DOI 10.1016/S2542-5196(17)30180-8
2. Kwakye G, Brat G, Makary M. Green Surgical Practices for Health Care. *Arch Surg* 2011; 146(2);131-136 DOI 10.1001/archsurg.2010.343



KNOW NITROUS

DR ELLIOT SMITH

DR CHRIS MITCHELL

Limiting our carbon emissions has never been more important. A recent Intergovernmental Panel on Climate Change report states that net zero CO_2 emissions are required by the early 2050s to limit global warming to a somewhat manageable 1.5 degrees.[4] The healthcare sector in Australia accounts for 7% of the total national carbon footprint

The discovery of nitrous oxide and its potential for clinical use marked the beginnings of anaesthesia. Developing from its initial use by dentist Horace Wells to assist with the extraction of his own molar, it quickly became a mainstay within anaesthetic practice.[1] New alternative anaesthetic drugs and modern developments in climate science have anaesthetists rethinking their relationship with this old anaesthetic gas. Nitrous oxide is now known as a potent greenhouse gas with a global warming potential 265 times greater than carbon dioxide.[2] It also has a prolonged halftime of 110 years allowing it to move into the stratosphere where it also has ozone depleting effects.[3]

Limiting our carbon emissions has never been more important. A recent Intergovernmental Panel on Climate Change report states that net zero CO_2 emissions are required by the early 2050s to limit global warming to a somewhat manageable 1.5 degrees.[4] The healthcare sector in Australia accounts for 7% of the total national carbon footprint.[5] The percentage contribution of medical nitrous oxide is yet to be assessed in Australia but it is estimated to be roughly 2-3% of National Health Service (NHS) carbon emissions in the UK.[6,7] This makes it an obvious target for healthcare systems to focus attention for emission reduction strategies.

In an audit by the authors, procurement data from medical gas provider BOC has shown that public hospitals in WA use over 14.5 tonnes of nitrous oxide per annum. This equates to 3890 tonnes of CO_2 equivalents each year . A similar amount of CO_2 would be produced by 4300 Perth hospital workers commuting to work by car for a year. Audits in the UK by the NHS-based Nitrous Oxide Project showed that up to 95% of nitrous oxide use at 16 hospitals was related to leaks.[9,10] Early Australian data suggests a we have a similar problem. A review of clinical use versus procurement at Footscray Hospital in Victoria showed estimated leak of 77% of their nitrous oxide. This leak was related to a single faulty O ring at a wall outlet.[11]

… over 93% of our purchased nitrous oxide was escaping directly into the atmosphere. A leak which had probably existed for more than 3 years was identified and corrected.

KN2OW NITROUS

At the authors' hospital in Perth, Sir Charles Gairdner Hospital (SCGH) we have encountered the same problem. An audit on procurement between 2017 and 2021 showed an average of 782kg of piped manifold nitrous oxide use per year. A further audit of clinical use of nitrous oxide in 2021 revealed a maximum piped use of 50kg per year. Therefore over 93% of our purchased nitrous oxide was escaping directly into the atmosphere. A leak which had probably existed for more than three years was identified and corrected.

Preliminary data from other major metropolitan sites suggests a similar story. Royal Perth Hospital which is similar in size and case mix to SCGH has used on average 752kg of nitrous oxide per annum. Given a lack of paediatric or maternity patients this is highly suggestive of a leak. Rockingham hospital which is a small peripheral metropolitan hospital in Perth had the greatest procurement of manifold nitrous oxide over the 2021 calendar year. Its use almost doubled from its baseline average and even exceeded the tertiary obstetric centre of WA King Edward Memorial Hospital. This sudden increase in procurement is also highly suggestive of a leak. At the time of writing those two sites are being investigated for the presence of system defects.

The anaesthetic-led journey to discover and resolve SCGH leaks has exposed some unsettling truths regarding the poor stewardship of nitrous oxide. It is likely that many other hospitals will be suffering some of the same problems. The hospital's map of the nitrous oxide pipeline was at least ten years out of date and contained many errors. When an up-to-date map was created it was found there was active piping going to many non -clinical buildings and there were active outlets in non-clinical locations which were also vulnerable to abuse. Inactive pipeline limbs and inactive outlets were decommissioned. Secondarily there was no service contract to have the nitrous oxide pipeline assessed for leaks, and it is unclear when this had last occurred. A contract has now been signed to ensure the system is regularly checked.

Undetected nitrous oxide leaks persisted at SCGH due to a lack of knowledge and monitoring. Anaesthetists were not monitoring their usage and were unaware of the amounts being purchased. The engineers assumed widespread use of nitrous, as outlined in the pipeline map, and simply ordered new bottles when one side of the manifold was empty. BOC supplied the F8 nitrous oxide cylinders and billed hospital finance. Finance paid a bill for which they had no records of clinical use or volume supplied. Despite it being an S4 drug,

Climate change is a problem for us all to tackle. As Anaesthetists, decreasing our use of harmful inhaled anaesthetic agents (Nitrous Oxide and Desflurane) is important. Less obvious is we need to tackle the issue of leaks in the hospital infrastructure.

pharmacy are not involved. Interestingly none of the groups were aware of the potential environmental harm of nitrous oxide. The issue surrounding who should manage the monitoring of nitrous oxide remains unresolved. However, at SCGH, with the decreasing use and no routine obstetrics or paediatrics, the issue will probably be resolved by decommissioning the piped nitrous oxide system. Nitrous oxide would still be available for the rare paediatric case by one anaesthetic machine having nitrous oxide cylinders. Mobile Entonox bottles will also be available. Decommissioning has been a common outcome from the Nitrous Project in the UK.

We believe the issues at SCGH are likely to be common amongst hospitals within Australia. This has lead us to start the KN_2OW Nitrous campaign to raise awareness and to reduce nitrous oxide emissions. Through a simple process of auditing clinical use and nitrous oxide procurement along with fixing leaks we could significantly reduce our health systems carbon emissions. We believe anaesthetists are in the best position to be drivers of this change. To help navigate the nitrous oxide minefield we have included some suggestions from our experience at SCGH for people interested in approaching these problems at their own institution.

ENGINEERING

1. Obtain an up to date map of the nitrous oxide piping infrastructure and review the clinical use of all outlets. Unused outlets and limbs should be disconnected to reduce potential leaks.
2. Determine when the pipeline was checked for leaks and confirm that your hospital has a service contract for the piped nitrous oxide infrastructure.
3. Ascertain the location and size of the nitrous oxide manifold. As clinical use of nitrous oxide declines it is appropriate to decrease the amount of nitrous oxide stored. This increases the frequency of cylinder exchange which improves the monitoring of new leaks, and minimises the volume which can be lost from a new leak.

FINANCE OR GAS PROVIDER

4. Determine the amount of nitrous oxide procured by your hospital.

ANAESTHETIC DEPARTMENT

5. Audit the clinical use of nitrous oxide within the department.
6. Educate the department on potential strategies to reduce nitrous oxide use. Ceasing use of a nitrous oxide as a maintenance drug in paediatric and adult anaesthesia is the easiest, most significant clinical step.
7. Consider decommissioning the piped nitrous oxide system in adult only hospitals.

Climate change is a problem for us all to tackle. As anaesthetists, decreasing our use of harmful inhaled anaesthetic agents (nitrous oxide and desflurane) is important. Less obvious is the need to tackle the issue of leaks in the hospital infrastructure. Hospitals that have investigated the issue have commonly found leaks contributing to over 90% of their purchased nitrous oxide. We hope the KN_2OW Nitrous campaign will make this process easier.

Dr Elliot Smith is an anaesthetic trainee from Western Australia with a keen interest in the environment and sustainable anaesthesia.

Dr Chris Mitchell is a specialist anaesthetist who has worked both in the public system and the private system. He has a passion for teaching, the environment and enjoys tinkering at some medical inventions.

References

1. Haridas. Horace Wells' demonstration of nitrous oxide in Boston. Anesthesiology. 2013; 119: 1014-1022.
2. Mcgain F et al. Environmental sustainability in anaesthesia and critical care. BJA. 2020; 125(5): 680-692.
3. Campbell M, Pierce T. Atmospheric science, anaesthesia and the environment. BJA Education. 2015; 15(4): 173-179.
4. Shukla P et al. Climate Change 2022: Mitigation of climate change. Contribution of working group III to the sixth assessment report of the Intergovernmental Panel on Climate Change [Internet]. New York: Cambridge University Press; 2022 [cited 2022 July 11th]. Available from https://www.ipcc.ch/report/sixth-assessment-report-working-group-3/
5. Malik et al. The carbon footprint of Australian health care. Lancet Planet Health. 2018; 2: 27-35.
6. Baddley J. Is green the new blue? 2019 [cited 11 July 2022]. Available from: https://www.youtube.com/watch?v1⁄4x5yl7nZsApQ.
7. Faculty of Public Health Special Interest Group: Sustainable Development. The NHS carbon footprint [internet] 2018 [cited 11 July 2022]. Available from: https://www.fph.org.uk/media/3126/k9-fph-sig-nhs-carbon-footprint-final.pdf
8. Spencer N et al. NHS Lothian nitrous mitigation project: assessing nitrous oxide usage at a district general hospital. Anaesthesia. 2021; 76(6): 24.
9. Wise J. Creating more sustainable practice: the NHS clinical teams innovating for a greener future. BMJ. 2021; 375: 1-3.
10. Seglenieks R et al. Discrepancy between procurement and clinical use of nitrous oxide: waste not, want not. BJA. 2022; 128(1): 32-34.

ONE SMALL STEP FOR ANAESTHETISTS ...

The world is changing, fast. Between the pandemic, disastrous fires and floods, increasing food insecurity, and inflation, anxiety about the future bubbles up inside me. I find myself asking everyday, what can I possibly do to make a difference?

After passing my primary exam, I found myself searching for a podcast to replace the scientific ones that I was listening to as I went to and from work. I stumbled onto a series called 'How to save a planet' (highly recommended), which gave me a deeper understanding of the climate crisis and made me think more critically about my daily habits.

The amount of waste that is generated each day in theatre made me cringe. A part of me would protest each time I threw packaging, needles, syringe after syringe into the bin. I felt I needed to do more to make my practice sustainable, so I started by Googling 'sustainability in anaesthesia'. Clicking through the links eventually brought me to the TRA2SH website www.tra2sh.org, the brain child of Dr Jess Davies and Dr Sophia Grobler. I was energised and motivated by what my peers had created – a trainee-led initiative to improve sustainability in healthcare and wanted to do my bit.

Inspired by this movement, I undertook an audit of sharps waste at my local hospital. This was a tangible activity I could participate in and this was exactly the type of initiative I was looking for. The audit was part of a larger, multi-centre audit that was set up by Dr Davies – the Sharps Bin Audit. I reached out to Dr Daniel Brookes-Reid, a provisional fellow in 2022 and co-investigator on the project, and he guided me through the process of executing the audit.

The project was undertaken over a month, with a resident medical officer Dr. Tom Neal-Williams helping to take birds-eye view pictures of sharps bins in our local theatre complex. The amount of non-sharps items were identified, counted and collated into a spreadsheet. We found more than 700 non-sharps items that were disposed of

> We work with many different consultants and nurses, day in and day out, and so our ability to talk about waste reduction and sustainable practices can reach a larger audience ... Talking about sustainability, challenging peoples' beliefs, and steering them towards more information, may just set them on the first step to becoming a champion of the cause.

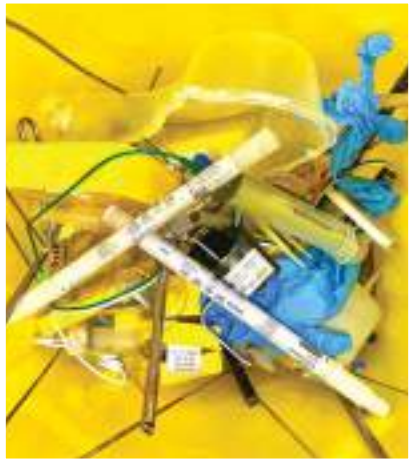
in sharps bins, with a third of them being plastic syringes, and another third made up of packaging and tempered glass vials. In September, we are due to present our result to the department, together with some education on appropriate use of sharps bins and other sustainable habits.

As anaesthetists, we generate a lot of sharps waste with the needles and cannulas that we use in the course of our jobs. Being wary of what **should not** go into sharps bins is the first step to reducing the volume of unnecessary contents. Sharps bins have a larger carbon footprint and are more expensive to dispose of than general waste. Before the audit, I did not know that there were alternative disposal options for tempered glass for example, and many consultants I would speak to in theatre also did not know. In this case, ignorance is not bliss, but misery for the planet.

I think anaesthetists should all make a concerted effort to become more sustainable. We owe it to our patients, our family, and ourselves. We should start by learning more about a problem, identify what we can do to change it, enact the action, assess the outcome, and then go on to educate others. I think the last part of the formula, if you can call it one, is crucial. Educating others begins their cycle of enlightenment.

We also have a unique opportunity as trainees in influencing anaesthetists and other healthcare workers to change their practice. We work with many different consultants and nurses, day-in and day-out, and so our ability to talk about waste reduction and sustainable practices can reach a larger audience. Also, our influence on junior doctors and our peers cannot be understated. We interact with them both in social and professional settings. Talking about sustainability, challenging peoples' beliefs, and steering them towards more information, may just set them on the first step to becoming a champion of the cause. And Earth knows we need more champions.

We need to make small changes. Doing too much at one time in one go increases the risk of making our practice of sustainability, frankly, unsustainable. Make positive small changes a habit, and add more of them over time. Use less 'blueys', avoid desflurane, segregate and recycle waste, bring your keep-cups, and walk, bike or take public transport to work. Making changes in your personal life can go a long way too; use cloth bags for grocery shopping, buy things with less packaging, upcycle products – the list of how to make your life more sustainable is endless.



We all know anaesthetists can be reticent to change. They've been doing things a certain way for years and years. However we also know that anaesthetists have the capacity to change given the right motivations. I think a benign way to start planting the seed of motivation is to frankly, have a conversation about the issue, in this case, anaesthesia's impact on the environment.

In the course of talking to consultants about climate change and sustainability, I was sometimes met with scepticism that individuals cannot enact enough change to actually make a difference; that actual changes happens at a policy level, a governmental level. But I think the little things are just as important to get us to that level. Grassroots movements **can** make a difference. One only needs to look to examples of Obama's rise to become the first African-American President of the USA, where much of his campaign capacity came from unpaid volunteers of local communities; or Malala risking her life to speak up for women's rights to an education; or Greta Thurnberg, who started a climate movement standing outside parliament. Whilst a rare few may not agree with the premise of these movements and values behind them, it shows that **people have power**. Like-minded people share ideas, they come together, and they start a movement. Shared initiatives can have a greater impact than an individual, but let us not forget, it starts with an individual, and comprises of individuals, but they function as a collective.

There are some people who have the vision, drive and resources to enact change on a larger scale, and Dr Jess Davies and the TRA2SH team are these people. Inspiring and intelligent, she and her team have created a movement that her peers can learn about and join easily. Initiatives, such as TRA2SH, that are rooted in evidence based research and audit activities, gives strength to the sustainability movement.

Participating in audits allows us to precisely evaluate our current state of affairs and find ways to improve on it. Evidence obtained through audit and research help to formulate interventions tailored to our local hospital and health service. The evidence can be used to petition hospitals to change policies. Policies can be audited and enforced. The habits of many more people are then changed, whether voluntarily (or by need to conform to said policies). If hospitals show improvements, state governments could then be petitioned to charge their policies in waste management or sustainable product procurement. And suddenly, you and I, have become part of that force of change that we need to see. So take heart in the little things, for **every one of us** is important on this journey.

Dr Dee Chung

GREEN LEADERSHIP BY EXAMPLE

TRA2SH

The brain child of Dr Jess Davies and Dr Sophia Grobler, TRA2SH is now a movement attracting almost 400 subscribers, the majority of them anaesthetic trainees across Australia and New Zealand, all determined to reduce the environmental impact of theatre waste, while maintaining the high standards of care delivered in both countries.

Formed in 2020, TRA2SH, which stands for Trainee-led Research and Audit in Anaesthesia for Sustainable Healthcare, has the distinct goal in mind to collaborate and innovate to find new solutions to waste production and management.

> "We saw a real need to address the glaringly obvious issues around the amount of waste being produced in our workplaces and it became clear there was a lot of interest in this area from other colleagues," said Dr Davies.

In Australia, each hospital bed produces 3.3kg of waste per day, and hospital CO_2 emissions account for 7 per cent of all national emissions.

> "Every single item you use has a carbon footprint. For anaesthetists, our main focus for reducing our carbon footprint centres around refusing Desflurane, reducing blueys, reusing drug trays and recycling paper, glass, plastic and metal."
>
> "Leading by example inspires others around you, and recruits' others into your challenge. Together, small changes can make a big difference," Dr Davies said.

Led by its Executive Council of seven Anaesthetists (including member and past Chair of the ASA's Trainee Committee Dr Richard Seglenieks) and a Steering Committee featuring eight trainees, TRA2SH has built up an enthusiastic following through its popular initiatives such as Operation Clean Up and TRA2SHCon.

Steering Committee Co-Chair Dr Emma Panigas said taking part in these initiatives helps to spread the word and encourage others to get involved.

> "It's about promoting green leadership through your team, across your department and even within your operating theatre," Dr Panigas said.
>
> "I myself was inspired to join TRA2SH after witnessing the amount of waste generated in the operating theatre and was motivated to explore ways in which I could work towards small scale changes that have a big impact, and to overcome interpersonal and institutional hurdles to encourage more sustainable practices in anaesthesia."

Dr Davies said targeting trainees to be involved in TRA2SH made sense as climate change and environmental sustainability issues and awareness of them are more ingrained in younger generations than they were traditionally.

> "It has been really exciting to see the interest in TRA2SH really start to take hold and flourish, particularly amongst trainee anaesthetists, both here and in New Zealand as evidenced by the interest and growing participation in our events such as TRA2SHCon and Operation Clean Up."

Operation Clean Up

The aim behind Operation Clean Up is to create green leaders or champions across all hospitals who can deliver education and lead others in improving their hospital environment in a sustainable way.

> "In our pilot Operation Clean Up we discovered that across 7 different hospitals some used up to 96,000 blueys a year and a couple of those hospitals were able to show that they could prevent waste by reducing their

bluey use by more than 10,000 a year. So, participating in Operation Clean Up leads to real tangible results," said Dr Davies.

"It produces data that can contribute to policy change to make our hospitals more sustainable and can create change in our health care systems – which is what TRA2SH is all about."

Now in its third year, Operation Clean Up 2022 has so far seen 53 individuals from 33 hospitals in Australia and New Zealand, including one from the United Kingdom, sign up and participate.

"We have had a range of participants - some consultants signing up on behalf of their junior doctors which is great, because it demonstrates a supportive environment within which that trainee can work on sustainability, and some junior staff like residents and registrars taking on operation clean up," Dr Davies said.

"There has been a mix of hospitals who have participated before, and a mix of new hospitals which is great to see and which demonstrates the growth of our group.

"While we suggest things to focus on (refuse desflurane, reduce blueys, reuse equipment and recycle), we want the targets to be locally appropriate so we noticed that many groups chose to address our targets and either added or swapped in other areas to focus on, according to their needs. For example, some focused on clinical waste and sharps bin usage, which aligned with our other audit campaign on sharps bin usage."

Dr Panigas emphasised how easy it is to either start your own project for Operation Clean Up or join up to one already in existence.

"There's plenty of information on the TRA2SH website and you can always reach out to any of the Steering Committee members or simply ask around in your workplace."

Anyone can participate in Operation Clean Up and upon signing up for the challenge you will receive an information pack from TRA2SH that includes journal articles, posters, presentations and infographics to help get you started.

TRA2SHCon22

In November 2021TRA2SH held its inaugural TRA2SHCon21 webinar event which featured 11 presentations on an array of sustainability projects and their findings conducted in that year. Some examples included; Soft Plastic Recycling in Operating Theatres, Inappropriate Disposal of Waste in Sharps Bins, and Bluey Use at the Sunshine Coast University Hospital.

"The event is to provide an opportunity for trainees who have worked hard on their sustainability projects and to share their findings with like-minded sustainability conscious colleagues," said Dr Davies.

This year's event, the date yet to be confirmed, will look to expand on that and TRA2SH will be sending out Expressions of Interest this month.

Theatre Hats

TRA2SH sells theatre hats through its Etsy shop online on its website, which can also be purchased through the ASA website. All proceeds go to running TRA2SH projects and any profit made will be spent on furthering the group. All fabrics are 100% cotton.

"We understand cotton has a relatively high carbon footprint however many theatre departments only allow cotton reusable hats to be worn. Our theatre hats are designed to be worn and washed regularly. They are handmade in Western Australia by a kind TRA2SH Volunteer. They are posted in a plant-based compostable postage bag via Australia Post," said Dr Davies.

The fabric used for the theatre hats come from Spoonflower which supports small scale designers to have their patterns available and earn a commission from each sale. Spoonflower fabrics are cut, printed and posted from Germany and shipped to Australia.

"We appreciate that this comes with a carbon footprint, however we choose this because the patterns are unique and help our members have a conversation about climate change, which may impact people's decisions at work."

If you would like to participate in any of the many initiatives run by TRA2SH and/or to join, please visit www.tra2sh.org for more information.

Richelle Pellegrini

Dr Jess Davies is a co-founder of TRA2SH and a staff anaesthetist at Austin Health, an honorary clinical fellow in the University of Melbourne's Department of Critical Care as well as a PhD candidate exploring how implementation science can improve the environmental sustainability of hospitals.

Dr Emma Panigas is Co-Chair of the TRA2SH Steering Committee and is an advanced anaesthetic trainee working in Adelaide.

TRA$_2$SH

Trainee-led Research And Audit in Anaesthesia for Sustainability in Healthcare

Small changes can make a big difference

Tackling theatre waste, together

Join Australian and New Zealand Anaesthetic Trainees to Reduce, Reuse and Recycle today!

TRA2SH welcomes any health professional who is passionate about environmental sustainability in healthcare. Join to share ideas, collaborate on projects and help us to build more projects.

Anyone can participate in our projects, but our projects are designed with Anaesthetic trainees in mind.

Join Our Steering Committee

Nominate yourself to our steering committee and help shape TRA2SH's future projects.

Become a TRA2SH Mentor

Passionate about the environment and want to support junior Doctors? Join as a Consultant and support your trainees to complete a sustainability audit in your department.

www.tra2sh.org/get-involved

Tra$_2$sh are selling theatrecaps

All proceeds support Tra2sh projects and website

100% cotton printed with unique designs promoting our cause.

Designed to wash and reuse

Handmade by Tra2sh volunteers and mailed in a compostable bag

www.tra2sh.org/online-shop

www.etsy.com TRA2SH

WEBAIRS

ANZTADC Case Report Writing Group

Biting through the stem of reinforced Laryngeal Masks (LMs)

Three incidents have been reported to webAIRS concerning patients biting through the stem of a flexible Laryngeal Mask (LM) at the time of emergence from anaesthesia while returning to consciousness. The reader will notice that we haven't referred to the device as an LMA, as that acronym is a trademark (TM) of the original manufacturer of the first LMA airway device. LM airway is a term used by other manufacturers of similar Supraglottic Airway Devices (SADs) to avoid TM infringements.

In the webAIRS database, one report describes a patient in the Postoperative Care Unit (PACU) biting through the stem of a Proact Flexible LM with a bite block in situ, completely transecting the device. The base of the airway and part of the stem remained in the patient's mouth, but it was not visible. The remaining distal part of the stem was out of the mouth, with the two ends connected with the wire. The wire had unravelled during attempted removal by PACU staff. After administration of propofol, the anaesthetist held on to the cuff inflation tubing and encouraged the patient to cough and spit out the LM airway, while applying jaw thrust and traction on the inflation tubing. A second report describes the patient biting completely through a reinforced LM airway after Ear, Nose and Throat surgery (Functional Endoscopic Sinus Surgery). The third report describes a patient biting through a Probreathe Armoured LM ™ with a cotton bite block in situ, piercing the outer layer of the device.

On emergence from anaesthesia, patients may become agitated and delirious with the risk of biting down on either an endotracheal tube (ETT), a SAD, or any other object between the teeth. This may cause partial occlusion [1-5] or complete transection of an airway device [6], leading to airway obstruction [1, 2, 5] and in some cases negative pressure pulmonary oedema [7]. The literature reports a greater number of such incidents with ETTs [1-7] than with SADs [8]. However, the serious complication of negative pressure pulmonary oedema after biting down on LMs is described as uncommon, potentially life-threatening, and under-reported [8-10].

The literature has publications supporting either awake or deep extubation, both for LMs and for ETTs. These strategies include the careful use of soft bite blocks together with awake extubation (especially for LMs). Alternatively, the deep removal of an airway device, especially for ETTs, or in paediatric cases both LMs and ETTS, to avoid laryngospasm, or biting down on the device. In cases where the airway device is removed when the patient is awake, every effort should be made to attenuate the excitation that may occur during emergence and to physically protect the patency and integrity of the airway device. A bite block needs to be both suitably constructed and properly placed. It should also be noted that the term "reinforced" or "armoured" should not be misunderstood as meaning the device cannot be occluded or damaged by biting. In view of the divergent opinion ANZTADC does not advocate any particular strategy, however, the reader is encouraged to review the list of references, and using that knowledge, devise a strategy tailored for each individual patient. The chosen strategy should be based upon individual patient characteristics, the type of procedure, the risk of pulmonary aspiration or loss of airway patency, and options to control emergence phenomena.

References

1. Jain R, Sethi N, Sood J. Loss of integrity of a reinforced endotracheal tube by patient bite. Indian J Anaesth. 2013;57(4):424.
2. Peck MJ, Needleman SM. Reinforced endotracheal tube obstruction. Anesthesia and Analgesia. 1994;79(1):193.
3. Hoffmann CO, Swanson GA. Oral reinforced endotracheal tube crushed and perforated from biting. Anesthesia and Analgesia. 1989;69(4):552–3.
4. McTaggart RA, Shustack A, Noseworthy T, Johnston R. Another Cause of Obstruction in an Armored Endotracheal Tube. Anesthesiology. 1983;59(2):164-.
5. Hull JM. Occlusion of armoured tubes. Anaesthesia. 1989;44(9):790.
6. Kong CS. A small child can bite through an armoured tracheal tube. Anaesthesia. 1995;50(3):263.
7. Liu EH, Yih PS. Negative pressure pulmonary oedema caused by biting and endotracheal tube occlusion - a case for oropharyngeal airways. Singapore Med J. 1999;40(3):174–5.
8. Vandse R, Kothari DS, Tripathi RS, Lopez L, Stawicki SPA, Papadimos TJ. Negative pressure pulmonary edema with laryngeal mask airway use: Recognition, pathophysiology and treatment modalities. Int J Crit Illn Inj Sci. 2012;2(2):98-103.
9. Ezri T, Priscu V, Szmuk P, Soroker D. Laryngeal Mask and Pulmonary Edema. Anesthesiology. 1993;78(1):219-.
10. Bhavani-Shankar K, Hart NS, Mushlin PS. Negative pressure induced airway and pulmonary injury. Can J Anaesth. 1997;44(1):78-81.
11. Wong TH, Weber G, Abramowicz AE. Smooth Extubation and Smooth Emergence Techniques: A Narrative Review. Anesthesiol Res Pract. 2021;8883257.
12. Sheta S, Abdelhalim A, Nada E. Evaluation of "no touch" extubation technique on airway-related complications during emergence from general anesthesia. Saudi Journal of Anaesthesia. 2011;5(2):125-31.
13. Patel B, Bingham R. Laryngeal mask airway and other supraglottic airway devices in paediatric practice. Continuing Education in Anaesthesia Critical Care & Pain. 2009;9(1):6-9.

OVERSEAS DEVELOPMENT AND EDUCATION COMMITTEE

DR HAYDN PERNDT AM

Sustainable Aid in the world Overseas Development Assistance (ODA) was the mantra of the 60s, 70s and 80s. If a project had failed to be self sufficient after three to five years of inputs, then the whole program was deemed to have failed. Capacity-building for tomorrow rather than dependency-development for today was the facile aphorism describing some woefully misdirected efforts to redress the global inequalities resulting from centuries of European plunder from the riches of the global South.

The 00s saw duelling debates between two ex world bankers, Jeffery Sachs *(End Poverty Now)* and William Easterly (*White Man's Burden*). Sachs argued that more aid was the only way to end poverty whilst Easterly claimed that "after 50 years and $2.3 trillion in aid from the West there was shockingly little to show for it".

Developing countries or the global South were not like the countries of Europe which had so quickly rebuilt with the massive Marshall Aid program after the Second World War.

Somehow things had to be done differently. The work of Nobel prize winners Duflo and Banerjee, two MIT economists over the course of the decade that followed, changed much of the Development Aid paradigm. They conducted trials to see which aid interventions worked best. To improve childhood learning, should a donor invest in more teachers, more classrooms or mass deworming programs? They ran a clinical trial in 3 separate states in Mexico, matched for population demographics. The somewhat surprising result was that mass deworming significantly improved schooling results over both the other interventions.

The shibboleth of Sustainable Aid had not yet quite disappeared. Governments were preoccupied with short-term geopolitical aims and changed funding priorities like toddlers' diapers. There now seemed to be institutional ADHD in aid organisations as they chased the latest grant or aid metric. Monitoring and Evaluation (M&E) had become the new rubric for assessment of aid programs. They measured and evaluated predefined project outputs rather than more difficult to measure project outcomes.

'Sustainability' is yet to become passé and has found new meaning. It is now better defined as the Aid and Development organisation's ability to sustain support and continue help until the recipients are able to continue that development themselves.

'Sustainability' is yet to become passé and has found new meaning. It is now better defined as the Aid and Development organisation's ability to sustain support and continue help until the recipients are able to continue that development themselves.

This has been the Australian Society of Anaesthetists' (ASA's) Overseas Development and Eduction Committee's (ODEC's) forte, long-term projects: 30 years in the Pacific, 15 years in Mongolia and Laos, five years in Bhutan and Namibia … the list goes on. It's a

reassuring and impressive catalogue of help and change from those with most to give, to the many most in need.

I was asked to share my reflections on the difficulty of providing medical aid in conflict situations. Anecdotal and long ago experience from missions with the Red Cross surgical teams (ICRC) and Mēdecins Sans Frontières (MSF) seemed neither relevant or sufficient. I want to turn to the current situation in Myanmar and sustainability provides a useful segue.

ODECs doctors MB and DP have been involved in Myanmar for a number of years now. They were the logical people for the task when a request for help training anaesthetists came from Professor ZWS (he had been invited to a Royal Australasian College of Surgeons Global Surgery meeting in the 2010s and was well known to the ASA and RACS through a long running Primary Trauma Care (PTC) project which started in the late 00s). The doctors involved started the slow process of developing friendships and relationships with the teachers and professors of Myanmar's anaesthetic fraternity. Much as they had done in Mongolia over many cold winter visits and entrail soups, they knew that trust and understanding underpinned all teaching (and development) activities. In Myanmar, as in Mongolia, they were helped by a team of Australian anaesthetists who all travelled to Myanmar to teach and learn from their local Burmese colleagues.

So what to do when a military coup overthrew the country in February last year? If ongoing support and help are what sustainable aid is all about, how then to continue this when a country is in the turmoil of civil war?

The ASA and the New Zealand Society of Anaesthetists (NZSA) were quick to join other national medical professional organisations with a joint statement of condemnation of the daily assaults and atrocities against the Burmese people and our professional colleagues and friends. The statement was an act of advocacy. It's so very important in a political and humanitarian tragedy of this proportion to have many voices speaking out. The Australasian College of Emergency Medicine (ACEM) was heavily involved both privately and publicly in the global medical profession response. A number of ACEM letters were published in the Lancet.

We sought to contact friends and colleagues in Yangon and Mandalay. There was initially a communication void and initially no replies were received from our anaesthetic colleagues. A trickle of information finally came out via brief emails and Facebook posts. Google translate makes the Burmese social media feeds accessible and the videos and stories were truly shocking.

Old friends from the PTC days reassured us that they were OK.

What was needed? seemed a ridiculous question. Where to start? Restoration of democracy? How to get friends released from jail who had been arrested for treating protestors in keeping with their Hippocratic oath? Should money be sent (for food or firearms), and to whom or how?

Advocacy and communication didn't seem to be nearly enough.

The drumbeat of the relentless news cycle quickly faded away. Australian Government action was grossly insufficient vapid politics. But what more could be done?

In the UK, emergency medicine physicians quickly produced a text book of short Burmese language voice over videos for emergency first aid, surgery (and anaesthesia) for the field hospitals which had sprung up to treat the daily wounded from the street confrontations with the military. Anaesthesia consisted of ketamine solutions for emergency responder problems.

That was last year.

This year, the civil war has settled into a state of grinding attrition with the Government fighting on many fronts against the many rebellious ethnic states who have never really ceded their sovereignty to the Burmese elites. Al Jazeera recently carried news of the battle now in the skies as the Burmese military junta tries to bomb and missile the rebels back into the stone age. Not so far to go for many people living subsistence lives in the border areas.

The National Unity Government (NUG), the Myanmar Government in exile, has established itself as the only legitimate and credible alternative to the Yangon based military junta. The civil war rages on around the border regions of Myanmar and the NUG is in the process of establishing domestic administrative processes and international recognition and relationships.

The NUG and the Health Minister Professor ZWS now want help re-establish medical education on the borders of Myanmar, now that the Universities and education of Yangon, Mandalay and Naypyidaw have been rendered inaccessible to an increasingly large proportion of the population in the contested border regions.

What can be done by the ASA, or any organisation for that matter in the perilous situation of civil war and conflict? Is this a job for the specialists in the field, ICRC, MSF and the other organisations whose mandate is to work in areas of conflict and disaster?

Surely however, isn't this a matter for the professionals who have been teaching and training anaesthetists for many, many years now, in Myanmar and many other Lower Middle Income Countries (LMICs)?

But maybe it's not so easy to do 'sustainable aid' after all?

Dr Haydn Perndt AM

ODEC Committee Member

Dr Haydn Perndt AM is a Tasmanian anaethestist and a humanitarian aid and development worker. He has worked in conflict zones and with the Red Cross for over 20 years. Alongside the work, he also teaches trauma and anaesthesia in developing countries. He has a long history with the Australian Society of Anaesthetists and ODEC.

HEALTHCARE SUSTAINABILITY

Australians are privileged to enjoy excellent healthcare. The system which has evolved to provide this care is complex. There are multiple sources of funding, regulation and policy direction. The most consistent feature of our system is its focus on the relationship between individual patients and doctors. This focus is intentional, enshrined and defended by successive Australian governments.
Recent developments have led to the rise of a campaign to disrupt this system for the purpose of corporate profitability.
Dr Peter Waterhouse explores the evolution of our world-leading healthcare system and examines the current threat to its fundamental characteristic: the doctor-patient relationship.

The Lucky Country

There is no superior healthcare system to Australia's.

By any measure, our system is consistently among a handful of top performers.[1]

The Commonwealth Fund is an American foundation devoted to the promotion of a high performing health system. It surveys the systems of eleven wealthy countries and compares their performance across several domains.

As figure 1 shows Australia's healthcare system provides high quality care for an affordable price, even compared to other advanced economies. America's system is the outlier, both in terms of outcome and cost.

In fact, healthcare in the United States has been becoming relatively more expensive since 1980, as shown in figure 2. American healthcare spending is approaching double that in Australia.

This divergence coincides with the adoption in the USA of an insurer-controlled healthcare system.

The essence of our system

The world-leading healthcare systems shown in the figures above are not identical. Each has evolved to suit the population it serves.

Australia's system starts with a general practitioner of the patient's choice. This doctor-patient team is supported by public and private hospital systems.

Public hospitals see the vast majority of emergency presentations, and about three-quarters of medical and obstetric admissions. Private hospitals perform the majority of all surgery, and two-thirds of elective surgery. [2]

Funding our system

In 2016-17, Australia spent nearly $181 billion on healthcare. This expenditure was borne by various parties, as demonstrated in figure 3.

Figure 1: Comparative Health Care System Performance Scores

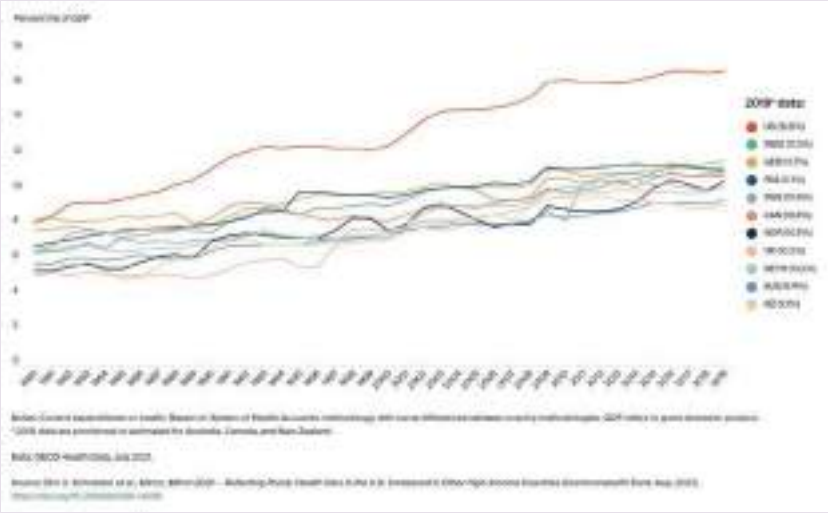


Figure 2: Health Care Spending as a percentage of GDP, 1980-2019

Source: https://www.commonwealthfund.org/publications/fund-reports/2021/aug/mirror-mirror-2021-reflecting-poorly

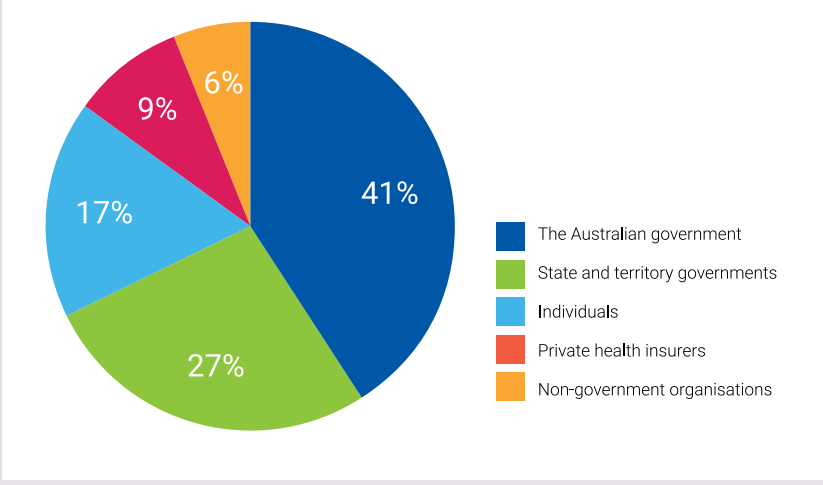


Figure 3: Contributions to total healthcare funding, 2016-17
Source: Australian Government, Department of Health and Aged Care website

What is private healthcare?

Given the complexity of Australia's healthcare funding, what is meant by 'private care'?

In private healthcare the patient's primary relationship is with a doctor, or other healthcare provider. By comparison, 'public care' is based on the relationship between the patient and a government-run health service, which undertakes to find providers and hospitals to facilitate treatment. Another alternative is 'managed care', which is based on the relationship between the patient and a health insurance company.

In a private care model, the patient-doctor team determine the treatment and the facility in which it is delivered. Payment for treatment is the patient's responsibility, but in our lucky country, generous rebates are available to offset this cost.

Private care is popular with Australian patients because it delivers choice and access to high-quality healthcare. A robust private system efficiently matches services to the needs of individual patients.

Medicare: The Australian way

The twentieth century witnessed the rise of social security. By the time of federation in 1901, the provision of aged and invalid pensions was already established as a federal government responsibility.

By mid-century, a global wave of socialist sentiment led our government to fund a much broader suite of services. Maternity allowances, unemployment benefits, widow's pensions and child endowment were introduced. The government also planned to provide sickness and hospital benefits, dental and medical services.

There was concern at the time that government control of healthcare might intrude upon the doctor-patient relationship. Sir Robert Menzies, who went on to be Australia's longest serving prime minister, captured the concern:

"I would hate to see, in my own country, any government scheme which lowered the importance of the doctor-patient relationship."

"I would hate to see, in my own country, any government scheme which lowered the importance of the doctor-patient relationship."

The compromise was to pass the constitutional amendment allowing government provision of medical services "but not so as to authorise any form of civil conscription". [3]

In the post-war years, a publicly subsidised voluntary private health insurance scheme offset medical expenses for those who took it up. However 17% of Australians remained uninsured by the 1970s, when the foundations of the modern Medicare system were laid.

In 1984, Medicare as we know it today was born. Medicare provides rebates to patients accessing eligible services. Patients may choose any accredited provider and receive the applicable rebate.

In this way, the Australian Government subsidises private healthcare without coming between patient and doctor.

Hospital treatment

Accommodation, medication and theatre fees in private hospitals do not attract Medicare rebates. [4]

Patients can purchase insurance to assist with the costs of private hospital treatment. Most 'hospital cover' also assists with the cost of medical consultations and procedures performed in hospital. Choice of doctor and hospital are key attractions to hospital cover, along with timely access to treatment.

Traditionally, health insurers did not enter into contracts with hospitals or doctors, simply providing rebates to patients. [5] In this way, the private hospital system can be seen to rest upon three independent pillars: providers (including doctors), hospitals and insurers.

Managed care in Australia

It is reasonable to wonder why insurer-centric healthcare has not become dominant in Australia.

By comparison, managed care with contracted providers and hospitals has been a feature of healthcare in the United States for nearly a century. [6]

The Australian preference for individual medical practice and patient choice go some way to explaining this difference. Australians are also fortunate to have free access to a high-quality public health service. Compared to public care, managed care offers few attractions, as both systems are based upon the relationship between patient and payer.

There are also legal considerations. The constitutional amendment of 1946 explicitly prohibits the nationalisation of medical services, but is silent on insurer control.

In 1995, enactment of the Health Legislation (Private Health Reform) Amendment Act 1995 (Cth), paved the way for contracts between health insurers, hospitals and doctors.[3]

This legislation is in conflict with the constitutional protection of the doctor-patient relationship.

Unfortunately for Australian patients, this legal ambiguity is being exploited by a modern generation of health insurers, determined to reproduce the American system in Australia.

Contracted care

The Hippocratic notion of healthcare between patient and doctor proscribes contracts with third parties. Managed care inserts insurers between patients and doctors by forming contracts with healthcare providers and hospitals.

In this model, patients are directed by their insurers to a network of preferred providers and hospitals, who in turn have a contractual relationship with the insurer. The payer has assumed the role of provider.

Control of healthcare passes from the patient-doctor team to a health insurance clerk.

More disturbingly, the priorities of the insurer conflict with those of the patient.

Big Health

In 1998, the Australian government introduced amendments to the National Health Act 1953 (Cth), specifically designed to remove obstacles to for-profit organisations applying for registration as health funds, as well as making it easier for existing not-for-profit funds to become for-profit funds. [3]

The result was transformation of an industry. Previously, Australian health

insurance was provided by member-based organisations and the government. Within a decade the industry became dominated by publicly listed companies, whose primary responsibility is to earn profits for shareholders.

The new generation of insurers look to the USA and its small group of big insurers. One Australian insurer, NIB, has even entered a joint venture with a major American fund, CIGNA.

Australia's new and muscular group of listed insurers have developed a sophisticated pitch to justify managed care. A healthcare crisis narrative and a distracting focus on (very inexpensive) health promotion over therapy seek to portray insurers as saviours of our system, even though it doesn't need to be saved.

A deceptive lexicon of insurer-coined terms seeks to distract us from the simplicity of the doctor patient relationship and fee-for service remuneration supported by universal rebates. This new vernacular includes terms such as 'value based care' where value is determined by the insurer. 'No-gap experiences' are promoted as ends in themselves. 'Data analytics' promise universal good health, but translate to onerous administrative demands on contracted providers.

Unfortunately for contracted providers, the titans of big health reward compliance with condescension. This year, health insurer Bupa and hospital operator Ramsay have failed to renew their payer-provider contract prior to its expiration. Bupa's offer of indexation at less than half the rate of inflation could be seen as an attempt to increase its profits by taking some of Ramsay's. More unsettling is the reality that smaller hospital operators lack the power to resist such one-sided contracts.

An unsustainable path

The new era of big health insurance in Australia sets the nation on a path to a US-style system characterised by lack of choice, administrative complexity and rising expense.

Unfortunately these are not the worse outcomes of insurer domination. Quality of healthcare is sacrificed for profit when insurers come between patients and healthcare providers.

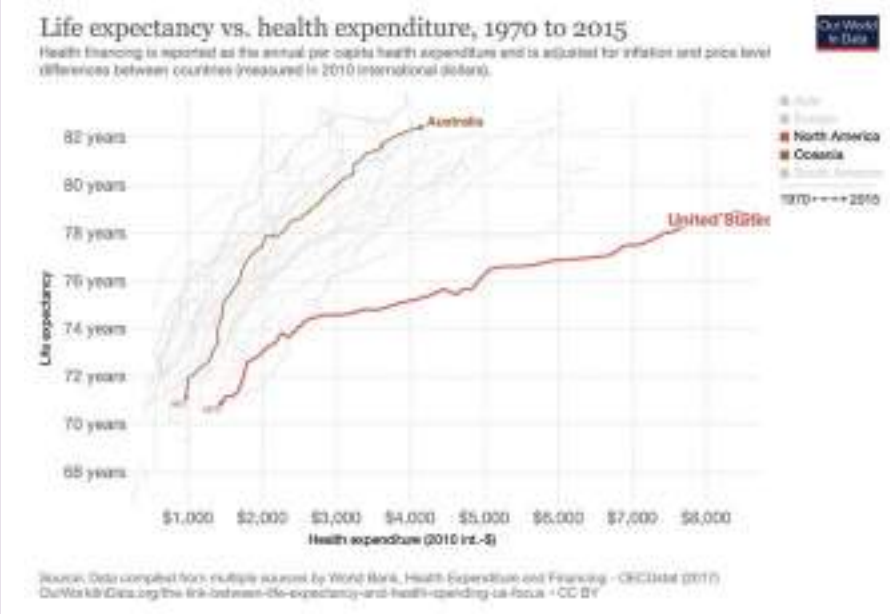


Figure 4: Life expectancy vs. health expenditure, 1970 to 2015

Figure 4 (above) plots life expectancy against health expenditure. The era of managed care in the United States appears not to have contributed to life expectancy.

Preserving our privilege

Could Australia's healthcare system follow America's into expensive under-performance?

It could. Managed care might be legal here. The listed health insurers certainly intend to take control of the system. Hospital operators are already under increasing pressure from cost-shifting insurers.

What can Australia do to preserve our enviable healthcare outcomes?

Contracted care is managed care

The lessons of history are clear. When insurers intrude into the doctor-patient relationship, cost escalates as quality declines. To ignore the mistakes of history will commit us to repeating them.

The only beneficial contract in healthcare is between an individual patient and a doctor of the patient's choice. Contracts between insurers and doctors or hospitals lead to second-rate care.

The private health reforms of the late 1990s are not too big to roll back. In fact, a simple resetting of legal parameters may help Australian patients avoid a dystopian future.

Dr Peter Waterhouse

References

1. Eric C. Schneider et al., Mirror, Mirror 2021 — Reflecting Poorly: Health Care in the U.S. Compared to Other High-Income Countries (Commonwealth Fund, Aug. 2021). https://doi.org/10.26099/01DV-H208
2. Australian Institute of Health and Welfare (2018) Admitted patient care 2016–17: Australian hospital statistics, AIHW, Australian Government.
3. Mendelson, Danuta. "Devaluation of a constitutional guarantee: The history of Section 51(xxiiiA) of the Commonwealth Constitution" [1999] MelbULawRw 14; (1999) 23(2) Melbourne University Law Review 308
4. https://www.servicesaustralia.gov.au/health-care-and-medicare?context=60092
5. Productivity Commission 1999, Private Hospitals in Australia, Commission Research Paper, AusInfo, Canberra.
6. Health Insurance and Managed Care: What they are and how they work. 5th edition. By Peter R Kongstvedt. Jones & Bartlett Learning; 5th edition (February 12, 2019)

ANAESTHETISTS LEAD 'GREENER THEATRES' CAMPAIGN

Anaesthetists are leading a 'greener theatres' campaign in Ramsay Health Care hospitals across the country.

At the centre of the campaign is a drive to switch to more environmentally friendly anaesthetic gases.

Already, four Ramsay sites have stopped using desflurane (which has a higher global warming potential compared to other gases) and 16 private hospitals are actively phasing it out.

Anaesthetists are also supporting sustainability initiatives such as recycling plastics and batteries as part of Ramsay's commitment to Net Zero greenhouse gas emissions by 2040.

Anaesthetist Chris Mitchell, from Hollywood Private Hospital in WA, is raising awareness and educating doctors across Australia about the benefits of ditching desflurane.

"Desflurane has global warming potential, due to its ability to retain heat and its longevity in the earth's atmosphere," Dr Mitchell said.

"Fortunately there are some excellent alternatives to desflurane.

"Sevoflurane is much less harmful to the environment."[1]

In the past 18 months, the use of desflurane has significantly reduced at Hollywood, which is the largest private hospital in Australia.

Other sustainability programs in theatres at Hollywood include:

- **PVC recycling** - masks, oxygen tubing and intravenous drip bags made of polyvinyl chloride (PVC) turned into a variety of products such as gumboots, garden hoses and playmats. In the past 18 months, about 275kg of plastic bags have been diverted from landfill.
- **Battery recycling** – batteries from medical equipment, with more than 80 per cent charge, are sold to staff for household use. Batteries with less than 80 per cent charge are sent to an industrial recycling company for disposal.
- **Medical plastics recycled** - items such as plastic bowls, kidney dishes, bottles, trays and plastic syringes are turned into a pellets to make irrigation, gardening and landscaping products.

Anaesthetist Dr David Williams, at The Avenue Hospital in Victoria, said clinicians initiated a plan to reduce the amount of desflurane used at the hospital.

"The process is gradual with the removal of desflurane from anaesthesia machines," Dr Williams said.

"It is still available for clinicians, upon request, who would like to use it for specific clinical situations."

Hollywood Private Hospital Anaesthetist Dr Chris Mitchell with anaesthetic gas vaporisers containing Desflurane, which have been removed from anaesthetic machines.

Dr Williams said The Avenue was making an excellent start towards greener theatres.

"At the moment we are recycling products such as plastic bowls, theatre drapes, Kimguard sterilisation wraps and PVC," he said.

"But there is still room for many more initiatives to help reduce our carbon footprint."

Anaesthetist Dr David Olive, from Masada Private Hospital in Victoria, is also pushing for desflurane to be discontinued at his hospital.

"Desflurane has been removed from the anaesthetic machines, so the anaesthetist must ask the nurse to get it," Dr Olive said.

"There are some perfectly good alternatives to desflurane that are less damaging to the environment.

"Major centres of excellence have abandoned desflurane without a problem."

Other sustainability initiatives at Masada include installing solar panels, switching to low voltage LED lights, PVC recycling, paper and glass recycling and using biodegradable chemicals whenever clinically appropriate.

"Aside from the choice of volatile agents, there are endless decisions we make at work every day that have an environmental impact," Dr Olive said.

"In every part of our practice, we should be trying to tread as lightly as we can on the planet."

Ramsay Health Care Australia CEO, Carmel Monaghan, said the company is committed to making its sites more sustainable to help protect the planet for generations to come.

"We have seen what a big difference some small changes can make to the environment and the future of our planet," Ms Monaghan said.

Globally, Ramsay has committed to science-based emission reduction targets which are consistent with the Paris Agreement on limiting global warming to 1.5 degrees above pre-industrial levels.

Ramsay Health Care's Managing Director and CEO, Craig McNally, said the group-wide Net Zero commitment was a key part of Ramsay's sustainability strategy.

"Caring for our planet and being environmentally sustainable is important to our people, our patients, our doctors and our business success," Mr McNally said.

"We know that a healthy planet is essential for healthy communities and moving towards Net Zero ensures that Ramsay remains true to our purpose of 'people caring for people'."

Ramsay's Net Zero strategies include switching to renewable energy sources and maximising energy efficiency, cutting waste, embedding sustainable design in new facilities and upgrades, as well as engaging with suppliers to reduce supply chain emissions.

Ramsay sites around Australia currently feature more than 2,660kw of solar panel systems, saving more 61,000 tonnes of carbon emissions over their lifespan. Additional carbon emissions

The Avenue Hospital Anaesthesia Nurse Nhlanhla Siyakatshana with a PVC recycling bin, and with a desflurane vaporiser, which are only available for clinician use upon request.

are being saved through the upgrade of more than 18,200 light fittings to energy efficient LED lights.

Ramsay has also set a target to remove 50 million single use plastic items from its facilities by the end of the year.

National Environment Manager, Sue Panuccio, said Caring for Our Planet is one of the three pillars of Ramsay's sustainability program.

"We acknowledge that climate change is a critical issue, so we are focused on minimising our greenhouse gas emissions," Ms Panuccio said.

"It is part of Ramsay Health Care's commitment to making a meaningful, positive difference for current and future generations."

References

1. Pierce T. Anaesthetic gases calculator. https://anaesthetists.org/ Home/Resources-publications/Environment/Guide-to-green- anaesthesia/Anaesthetic-gases-calculator (accessed 09/02/2022).
2. Gadani H, Vyas A. Anesthetic gases and global warming: Potentials, prevention and future of anesthesia. Anesth Essays Res. 2011 Jan-Jun;5(1):5-10. doi: 10.4103/0259-1162.84171. PMID: 25885293; PMCID: PMC4173371.

Masada Private Hospital Anaesthetist Dr David Olive.

Getting back to work can be a big challenge after a period away. 'CRASH' is a course designed to restore your confidence and support your return.

The ASA has 20 CRASH scholarships a year available for members

The Australian Society of Anaesthetists recognises the importance of ensuring that anaesthetists returning to work after a period away can do so with confidence. To this end, the ASA is offering scholarships to members who are returning to work after a period of leave to undertake the *"Critical Care, Resuscitation, Airway Skills: Helping You Return to Work* - CRASH Course."

What is CRASH?

1. CRASH has been designed by critical care specialists and educators to form part of a structured return to work process after a period of leave.
2. It is facilitated by a dedicated faculty, with a high faculty: participant ratio
3. CRASH meets the ANZCA requirements for two emergency responses plus additional Continuing Medical Education (CME)
4. CRASH is recommended by CICM as part of a return to work process, providing simulation (face-to-face), emergency scenarios, skills practice and clinical decision-making support to refresh knowledge, as well as practical tips on returning-to-work.

CRASH face-to-face (which may be half or full day) has two emergency responses.

CRASH virtual is accredited for one emergency response.

What is the ASA CRASH Scholarship?

The scholarship is a contribution designed to partially offset the registration costs of undertaking the CRASH Course. CRASH Virtual $200 CRASH face-to-face $400.

Who can apply for an ASA CRASH Course Scholarship?

Any ASA member returning to work after a period of leave be it parental (including maternity and paternity), overseas fellowship, cross-specialty training, research, or wanting to refresh their skills after a break in practice, may apply for a scholarship.

Applicants must have been a financial ASA member for a minimum of one year to be eligible for the scholarship.

How do I apply?

Book and pay for your CRASH Course online. Save your registration receipt.

Complete the online ASA CRASH Course Scholarship application and attach your receipt.

Should your application be successful, you will be informed by the ASA and scholarship funds will be paid into your nominated bank account. All successful applicants must use the scholarship within one year (12 months) of it being awarded.

Please note that the financial scholarships are dependent on applicants attending the CRASH Course. Therefore, if you are unable to attend the course for any reason, you'll be expected to refund any monies received from the ASA.

For course information, dates and scholarship application please log in to the members website and go to **www.asa.org.au/membership-crash**

www.thermh.org.au/health-professionals/continuing-education/anaesthesia-and-pain-management-courses/crash-course

"The CRASH course was invaluable for my confidence on returning to work after leave and I am grateful to the ASA for supporting me with a CRASH Course Scholarship. The best part was meeting other participants and realising that you're not alone in the 'return-to-work' transition.

Dr Georgie Cameron
ASA member

In partnership with psychiatrists at Hand-n-Hand, the Australian Society of Anaesthetists proudly present

Australian Society of Anaesthetists®

members for members

Peer Support Programme

Simply put, peer support is a way of providing emotional and wellbeing assistance where both the facilitator and participant are equals. Through this, people can connect through shared experience. It's not mentorship or career guidance - your facilitators are peers you can relate to.

When you sign up, you're linked in with a facilitator from the same profession and similar level of training. Our facilitators are trained and experienced in providing peer support.

Benefits of peer support

- 1-on-1 or group support available.
- Meet as often or as little as you like, at times that suit your schedule.
- Withdraw at any time, for any reason.
- Involves no clinical psychiatric treatment.
- Supported by evidence as a pre-clinical mental health intervention.

Are you looking for peer support?

Are you a peer support facilitator, or interested in becoming a trained facilitator?

By volunteering as a peer support facilitator, you can help others in your position navigate the ups and downs of the health profession.

Our triage method is guided by Hand-n-Hand to best suit you
Contact the ASA Wellbeing Advocates SubCommittee

ASApeersupport@asa.org.au

PROFESSIONAL ISSUES ADVISORY COMMITTEE REPORT

DR PETER WATERHOUSE
PIAC CHAIR

As we enter the second half of 2022, the ASA has come through a period of considerable upheaval. We have moved to new headquarters, still unvisited by the majority of members. Our new chief executive officer has hit the ground running and our secretariat are busy improving the content and accessibility of our website.

Behind these changes, the everyday work of member advocacy continues, with the main themes unchanged from last year.

Health Insurance and Managed Care

Australia's listed health insurance companies continue to work aggressively towards an insurer-centric system.

Contracts between payers and hospitals have been widespread since the 1990s. From time to time, hospital operators and insurers fail to reach agreement on the conditions of these contracts.

At the time of writing, Ramsay and Bupa have yet to reach agreement, with the current contract due to expire. This raises the possibility that Bupa customers will be left out of pocket for hospital treatment in Ramsay facilities. Ramsay have pointed out that they have current contracts with all other insurers, and that customers are free to change insurers without penalty.

Meanwhile, insurers are attempting to engage doctors in contracts. Most recently, Medibank and Cura have invited anaesthetists and proceduralists to sign a contract for no-gap endoscopy in Cura facilities.

Members may wonder at the purpose of such contracts, given that the great majority of endoscopy services are provided with no out-of-pocket expense to patients.

The purpose is simple: insurers seek contracts with doctors to create US style preferred provider networks, locking both patients and doctors into insurer-specific pathways. This must be resisted if Australia's excellent healthcare system is to be preserved.

Public in Private

Elective surgery waiting lists continue to grow, with state governments under pressure to expedite treatment.

This has lead governments across the nation to contemplate public-in-private lists in an effort to address long waits. There are several practical obstacles to this.

The staff shortages affecting public hospitals are also keenly felt in the private hospital sector, with several private hospitals implementing limits on elective admissions. Sick leave among staff and doctors has created disruption, including late cancellation of surgery. Such inefficiency compounds the problem as cancelled operations must be rescheduled.

Finally, models proposed by state governments to facilitate public in private work are somewhat unappealing to the very hospitals and doctors asked to carry out the task.

Rather than act as an insurer, providing rebates to hospitals and doctors per occasion of service, state governments favour a bundled model, obliging private hospitals to take a lump sum and distribute funds to doctors and other providers. This is unfamiliar and onerous for hospital operators.

Public in private surgery raises safety concerns too. Patient selection, access to notes and plans for escalation of therapy require careful consideration.

Anaesthetists asked to participate in public in private surgery are encouraged to visit the ASA website, which has resources devoted to this topic.

ANZCA Liaison

The ASA is well represented on ANZCA committees and document development groups for the college's professional documents.

Work on PG09, regarding sedation, continues with close collaboration between the many interested groups. A pilot version should be available in the coming months.

Member assistance

The ASA continues to support members both collectively and individually. Our secretariat is able to provide assistance with industrial negotiations, surveys and virtual meetings.

When privacy is required, members are directed to a senior office bearer who gives individual assistance.

ECONOMIC ISSUES ADVISORY COMMITTEE REPORT

DR MICHAEL LUMSDEN-STEEL
EAC CHAIR

Billing and Relative Value Guide

The ASA has endured multiple challenges throughout 2022, most of which remain ongoing as we pass the half-way mark. Medicare has been ramping-up compliance activities particularly relating to the co-claiming of anaesthesia items with other non-anaesthesia CMBS items within a single episode of care. Global events, including the war in Europe and seemingly never-ending pandemic continue to impact both our economy and particularly healthcare (the costs increasing with Medicare indexation of 1.6% not matching rising inflation - CPI running at 5.2%), continued staff and equipment shortages and impaired capacity of public hospitals to continue normal operations. Quite opportunistically, health funds - which have enjoyed bumper profits thanks to restrictions to elective surgery – have pushed for more no gap agreements and more control over fees in this volatile environment.

Despite this turbulence, the EAC has been making steady progress on a number of fronts such as engagement with other health organisations, including the Department of Health. I encourage members to ensure they are up to date with best billing practices and our Relative Value Guide (RVG). Please pitch your RVG unit value such that it factors in excellent patient care, including during the perioperative period. Your RVG app has recently been updated and additional resources including fund indexation rates are available on your member resources page (Member Resources - ASA).

The Government decided not to extend COVID-19 telehealth funding

Unfortunately, the Federal Government elected not to extend the Temporary Covid Pre-Anaesthetic Consultation Telehealth items for Anaesthetists. This decision was not announced until the 30 June 2022, leaving anaesthetists scrambling to re-arrange booked telehealth consultations from 01 July 2022. The only MBS Telehealth number that currently attracts a rebate is Telehealth number 92701which is restricted to video-consultation only.

The ASA successfully made a case to AMA resulting in telehealth item numbers (phone and video) to being added to the AMA's fees list. However, those item numbers do not have Medicare or Health Insurance equivalents, so any resulting charges will be fully borne by the patient.

Medicare Compliance

The recent Medicare Compliance auditing activities are a very timely reminder to all anaesthetists that just because the Health Funds and Medicare have paid a claim, it does not follow that the claim has been assessed by Medicare or the health fund as being a correct claim for the service provided. Anaesthetists should be aware that repayments are not infrequently required where a billing error has been identified by anaesthetists themselves,

Medicare or a health fund, perhaps as the result of a compliance audit. The ASA team have been working with its members who have been contacted by Medicare Compliance to resolve Medicare Compliance enquiries recently.

The trigger for the current time compliance activity occurred where an anaesthetist billed more than 12 hours for any 10 days in a 12-month period. This is notwithstanding the fact that 12-hour days are all too frequent for many of our members thanks to:

- the reduced public theatre activity (private hospital activity ramping after various State Government and Public Health Directives),
- Public in Private (PIP) outsourcing to clear public hospital surgery wait lists,
- the general lack of operating theatre capacity,
- the impact that sick leave is having in hospitals around the country.

A number of anaesthetists were directly contacted by Medicare's Compliance Department and were asked to review both their time units, as well as their in-hospital pre-anaesthesia consultation numbers for those days where more than 12 hours of total time had been claimed.

The ASA was contacted by several members as well as their Medical Defense Organisations (MDOs) for advice on how to proceed because the process initially advised by Medicare has not been clear. The basic steps requested of the members were to review episodes of care identified by Medicare, and confirm whether the correct numbers were claimed within a 28-day response deadline.

The process of accessing medical records, reviewing notes, charts, and billing details is generally not straightforward, but rather time-consuming and stressful especially given the short response time-frame. Not all hospitals make it easy to obtain copies of older anaesthetic records and it often isn't clear when and where, during the course of a busy all-day-list, the pre-anaesthetic consultation has taken place. The timing of a consultation is further constrained by staggered hospital admissions and often limited consultation real-estate. Finally, where billing services have been used, there will be administration costs involved for retrieving and working through the billing if new claims are required to be submitted.

Importance of correctly recording the anaesthesia time

Anaesthetists must ensure that they have separated the anaesthesia start and end times from any pre-anaesthesia consultation activities. Once the anaesthesia clock is started the attendance remains exclusive until the care has been handed over to the appropriately trained staff and the anaesthesia time clock is stopped. This is particularly true where item 17615 – with its 16-minute minimum duration – is being claimed.

To use any of the MBS consultation items numbers, members must comply with both the time and complexity requirements as detailed in the RVG. It is not acceptable to be claiming an exclusive episode of care whilst simultaneously claiming a pre-anaesthetic consultation for the same or another patient. Whilst the anaesthetic bay is not the preferred location for the pre-anaesthetic consultation, the ASA recognizes that circumstances sometimes conspire to make this the only available option.

Where a member identifies an error that has been claimed through Medicare, they should first seek advice from the ASA or Medical Defense Organisation (MDO). Depending on the advice the members should then notify Medicare and submit an amended invoice recognizing the error and repay the entire Medicare component of the erroneous claim. Please seek advice from the ASA or MDO in the first instance when in doubt.

Recently, Medicare has conducted a voluntary acknowledgement activity program. Unfortunately, the repayment or claiming back process has been shown to be complex. The ASA is continuing to assist members with the ongoing subsequent steps of the repayment process.

It is important that members remember the following points in relation to billing MBS items:

- only 1 patient can be billed for Medicare services at one time. Concurrent claims are not permitted.

- take note of, and ensure compliance with, all item requirements in relation to consultation items, in particular both the complexity and time requirements for item 17615.
- Be prepared to be able to provide evidence of services provided and billed through Medicare and Health Funds. This is particularly important if you work very long hours or have a high proportion of emergency after-hours work. Good record keeping is essential.
- If you receive a letter from Medicare compliance in the first instance you should contact the ASA for assistance.

Thanks to our engagement with the Department of Health and Health funds, lessons have been learned which should assist the ASA in dealing with the next round of voluntary acknowledgement activities.

Firstly, a separate division within Health Services Australia deals with repayment issues. Medicare requires repayment of the full amount for each incorrect claim, not the difference between the incorrect and correct item. These repayments cannot be performed as a batch process.

Secondly, the corrected claim must be re-submitted to Medicare, for each item number, for each patient, within 2 years of the original service. As things stand, Medicare even requires a patient signature on each new claim although the ASA is working to obviate this onerous requirement.

Finally, Medicare does not routinely communicate to the health funds that there has been an amendment or repayment for a service that has been paid. The repayment to the health funds is the next process that is required, followed by a new claim containing the correct claim information.

The ASA has been meeting with various health funds and Medicare (Health Services Australia) to work through these issues and seek a more streamlined process. The ASA is concerned that the current process is strictly pedantic and complicated which surely serves as a serious disincentive to voluntarily reporting inadvertent billing errors. Please contact the ASA policy team if you have any contact resulting from a Medicare Compliance activity before formally responding.

Co-Claiming MBS numbers outside of the RVG, in association with the Administration of Anaesthesia.

As previously advised, Medicare have recently made it clear that co-claiming of any item numbers outside of the Anaesthesia RVG with an initiation of anaesthesia number is not permitted. The ASA has made a submission to the Department of Health, for the inclusion of historical item numbers that the Department and our members identified being routinely co-claimed (55118, 55135, 40018, 13950, 12005, 22018 and other neurophysiological monitoring item numbers). These items have all had various levels of approval in the past from ASK Medicare and other informal Medicare enquiries. As anaesthetists are not permitted to co-claim: patients are not eligible for a rebate for co-claimed services. Anaesthetists will need to review their fees and Informed Financial Consent where they continue to provide such services.

Anaesthetists may continue to use ASA and AMA item numbers, noting that there is no Medicare rebate for the numbers and that the 100% of the fee will be the patient's responsibility, or alternatively can review their RVG unit value for the initiation of anaesthesia services. Further, it has become increasingly clear that there are several areas of ambiguity where it is unclear what correct initiation of anaesthesia item number should be used for procedures such as transperineal prostate biopsy and Interventional Thoracic Endovascular Aortic Repair (TEVAR). Where anaesthetists are unable to clearly identify a correct initiation of anaesthesia number for a procedure, ASA members are encouraged to contact the ASA Policy Unit for advice.

MSAC submissions update

The ASA's submissions regarding new items for cardiac services (Intraoperative Transesophageal Echocardiography – 5118 and 55135) and neuromonitoring services (40018, 13950, 12005, 22018

and others) have been sent to the Department of Health and are now undergoing consultation with external stakeholders. If successful, those items will then be replicated in Group T10 of the MBS and anaesthetists will be able to co-claim those item numbers alongside anaesthesia items.

The MBS Taskforce Review recommendations included consideration of an MBS item for the insertion of nerve catheter for post-operative analgesia. The ASA has formed a Regional Catheter MBS Working Group including anaesthetists on the Regional Anaesthesia SIG. The ASA has also engaged with Lucid Health Consulting that specializes in health economics and economic evaluation of medical procedures. We will be using their expertise to develop a robust and data driven submission for regional catheters.

Public in Private

Public in Private (PIP) remains popular with State and Territory Health Departments who seek to utilize the alleged spare capacity of the private healthcare system to address the current capacity constraints in the public health systems. The ASA remains concerned that widespread PIP arrangements tend to erode the value of private insurance. Furthermore, PIP work is invariably poorly remunerated, especially by comparison to the surgical specialties. In many cases, the rate is even below pre-pandemic pay rates. It is hard to imagine any other field of endeavor for which emergency pandemic labour is remunerated at less than the prevailing pre-pandemic rate.

PIP arrangements generally offer no reimbursement for perioperative support, any type of leave (professional development, parental, illness or even covid leave), indemnity, registrar support, or after-hours care. The disparity is highlighted by the existence of arrangements in which surgeons are paid up to AMA rates on a fee-for-service basis whilst the anaesthetists on the same list receives only a sessional fee of around $2000, or fee-for-service at no-gap rates (at around 38% of the AMA schedule fee). With PIP remuneration varying from hospital to hospital, it seems that individual surgeons and anaesthetists are being picked out and offered agreements which are not in the best interests of our member or our patients.

Medical Cost Finder

The ASA recently met with the representatives of the Private Health Industry Division of the Department of Health (DOH) to ascertain what role the ASA may have in providing information for Medical Cost Finder website (https://www.health.gov.au/resources/apps-and-tools/medical-costs-finder/medical-costs-finder#/choose-hospital-option) and to critically examine the initiative's value to both patients and our members. All the information displayed on the website is self-reported and provided voluntarily by medical practitioners. The DOH are looking to arrange a workshop with the ASA to start developing anaesthesia content for the website. We are seeking your feedback regarding the usefulness or otherwise of such information for your patients.

Michael Lumsden-Steel

ANAESTHESIA TRAINING TIPS

Dr Vida Viliunas OAM
ASA Education Officer
and EPIC boot-camp-during-Covid-again convenor.

Dr Kaylee Jordan
Deputy Chair, ASA
Education Committee

TRAINEE EVENT LIST
SEPT–NOV
asa.org.au/events

SIMG Final Exam Practice

Hosted by Dr Vida Viliunas and Dr Kaylee Jordan.

When: October 28
Time: 7:30-8.30pm AEDT via Zoom

Final Exam Practice Sessions

Hosted by Dr Vida Viliunas and Dr Kaylee Jordan.

When: August 19, October 07, November 4
Time: 7:30-8.30pm AEDT via Zoom

Primary Exam Practice Sessions

Hosted by Dr Vida Viliunas and Dr Kaylee Jordan.

When: July 25, August 29, September 26
Time: 7:30-8.30pm AEDT via Zoom

We have had to adapt so much in the past couple of diabolical years. The EPIC program has responded with a revised and improved format and content and went international.

For the third year, EPIC was entirely virtual in 2022. We were joined by trainee from all over Australia and New Zealand.

The ASAEd community

The on-line ASA exam preparation tutorials since 2020 have built an on-line community. It was a pleasure to greet the familiar faces of colleagues in a supportive environment. Past cohorts have remarked how reassuring it is for candidates (not just those isolated in remote areas) to see familiar faces at exam venues.

Exam Sections

Each exam section was scrutinised, and examiner panel advice sought.

Multiple-choice Examination (MCQ)

By the time candidates get to their final exams, they have done many types of multiple-choice question exams. For these exams, there are four or five options and no negative marking. Thus, answering every question, knowing that your first response is your best guess, strict timing (to complete and review the questions) and attention to 'grid-error' are good strategies. Now that the stems are published in the exam report, there is no substitute for knowledge of the content.

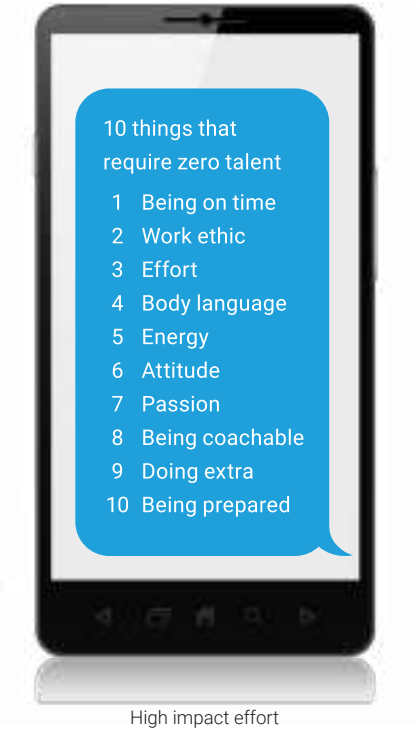
Self-assessment questionnaires (SAQ)

The markedly low pass rate for the SAQs in 2022. triggered a revised EPIC focus on that section. Candidates were encouraged to do their own exam analysis and reconciliation with final exam core material for the last several sittings. The exam reports are written to help candidates and should be carefully noted.

Every exam report stresses the importance of answering the question asked. In the latest exam report, the examination panel emphasised that

Write less, write legibly

Develop your own constructs



High impact effort

candidates should take care with writing and abbreviations.

SAQs require an organised, ranked approach to questions. Candidates were encouraged to develop their own constructs for questions – tables, mnemonics and anatomical systems were proposed. The value for everyone is not adopting someone else's structures but doing enough questions in preparation so that it becomes second nature to use them. The SAQ Zoom poll asked some hard questions about how big an investment candidates should make in that section of the exam.

A construct for the SAQ keyword questions of "evaluate, justify, illustrate, relate" ensures a complete response to the precise question asked in the precious ten minutes allocated per question.

The separate SAQ session identified approaches to various types of questions and how to formulate complete and well-organised answers.

Oral examinations (VIVAS)

The exam reports continue to provide valuable information for candidates.

As before, the fact that examiners are active clinicians was stressed. Operating theatres, preadmission clinics and pain rounds are where candidates learn about anaesthesia. That is where examiners develop questions to ask candidates to test their knowledge, judgement, and reasoning. It is where candidates can reflect on how to apply what they know to patients and where their teachers can guide them in their training.

Those environments are valuable preparation for the medical and anaesthesia vivas.

As for the SAQs, a simple structure or "start broad, then focus on this patient, in this scenario" approach was encouraged. Whether it's a table, the familiar pre/intra/post matrix or a simple anatomical-systems approach, some construct to organise responses is useful to capture a complete response to a viva question.

The value of rehearsal to eliminate filler words was stressed in a video shown in the breaks. Riaz Meghi https://riazmeghji.com/blog-content/avoidfillerwords is an excellent coach for the spoken word.

Such a simple feature should be incorporated into every single trial exam or spoken response to any question. It is an important part of the first impression a candidate makes and sends a strong signal of preparedness to the examiner.

There are only so many ways to write viva questions to drill down on knowledge and challenge the reasoning and judgement abilities of candidates. It is very important that candidates do not present to the exam without a thorough and systematic approach to investigations and the 'hypo' and 'hyper' questions – whether it be for blood pressure, oxygenation, electrolytes or urine output.

Thank you to our presenters and other supporters

A sincere and earnest thank you to the examination panel who gave their time and attention to the candidates for the Q+A that covered all exam sections.

Examiners present and past Drs Margaret Buckham, Steve Davies, Carmel McInerney, Nicola Meares, Sharon Tivey, and Charlotte Wilsey fielded candidate questions. Their valuable advice and commentary were aimed at improving candidate presentations at the exam.

Thank you also to Dr Kaylee Jordan, vice-chair of the Education committee. She is co-presenter of the ASA practise exam sessions for the primary and final exams.

Dr Rod Katz contributed administrative, transport and moral support.

Rhian Foster has been a constant point of contact for trainee members throughout the move to the ASA's broad and deep virtual support of all members.

Dr Vida Viliunas and Dr Kaylee Jordan
ASA Education Committee

Donation to Lifebox

As we did last year, all proceeds were donated to Lifebox.

I Ubered to the airport after the EPIC day and flew to work in Dakar, Senegal for several weeks. In my morgan trolley I found a Lifebox. These pulse oximeters have been invaluable during the pandemic to monitor patients convalescing at home. They have enabled the rapid identification and treatment of hypoxia associated with Covid and appropriate decision-making in the allocation of resources in dozens of low and middle income countries.

Dr Vida Viliunas

Opportunity to donate

Australian Society of Anaesthetists®

BENEVOLENT FUND

LIFEBOX CHARITY

HARRY DALY MUSEUM

RICHARD BAILEY LIBRARY

To make a tax deductible monetary donation
Find out more please visit asa.org.au/donations

BENEVOLENT FUND:
The purpose of the fund is to assist anaesthetists, their families and dependents or any other person the ASA feels is in dire necessitous circumstances during a time of serious personal hardship.

LIFEBOX CHARITY:
The Lifebox project aims to address the need for more robust safety measures by bringing low-cost, good quality pulse oximeters to ow-income countries.

HARRY DALY MUSEUM AND RICHARD BAILEY LIBRARY:
Help preserve our collection for future generations to enjoy

Australian Society of Anaesthetists®

ASAEd

Learning Resource Hub

GET INSPIRED | GET INFORMED | GET EDUCATED

About ASAEd

ASAEd is a place where ASA's Fellow and Trainee members can find professional resources for all facets of anaesthetic learning.

Here you have access to quality resources wherever and whenever you need it.

WEBINARS

Access our past webinars focusing on topical anaesthetic issues.

NEW FELLOW

Resources to support transition from trainee to specialist anaesthetic practice.

TRAINEE

Resources to support ASA Trainee Members in their anaesthetic training.

PODCAST

Find up-to-date educational podcasts recorded by Dr Suzi Nou.

www.asa.org.au/asaeducation

YOUR DESTINATION FOR YOUR EDUCATIONAL RESOURCES

POLICY MATTERS

Jason Alam
Policy Manager
Professional Affairs

Katya Sadetskaya
Policy Manager
Economic Affairs

Introduction

The Policy team has had a busy quarter from drafting submissions for the new item numbers to engaging with stakeholders across the health sector. The public in private conditions and remuneration agreements, VMO contracts in New South Wales, and Medical Benefits Schedule updates are some of the few issues that have been on top of mind this quarter. As we face a new wave of COVID-19, emerging threats of managed care, and the front of mind pressures of Public-in-Private Hospital Work, the policy team continues to advocate on your behalf and has been extremely busy creating opportunities to engage with health associations as well as producing outputs that will work to alleviate these pressures.

Advocacy and engagement

It has been a challenging quarter on a number of fronts – and public in private has been a sore point for our advocacy efforts. We have been assisting, among others, Dr Lan-Hoa Le and Dr Michael Lumsden-Steel in their engagement with AMA New South Wales and other health organisations and societies to ensure appropriate conditions and remuneration for public in private work. The conditions outlined in the public in private agreements between the hospitals and local health districts are less than optimal for anaesthetists to deliver safe and quality services to public patients. And that's what we have been communicating to NSW Health however there has not yet been a resolution. We will continue to support our state chairs and committees to help them advocate on our members' behalf.

We made progress on the submissions for the new item numbers. ASA's submission regarding new items for cardiac services and neuromonitoring services has been sent to the Department of Health and is now under consultation with external stakeholders. Please note that you should not claim services that are not in our Relative Value Guide (RVG) alongside initiation of anaesthesia. We have received this guidance from the Department of Health and any such co-claiming will be subject to compliance activity. If you are ever in doubt, please reach out to us in Policy.

We are also in the process of resubmitting another MSAC submission which dates back to 2015. The ASA engaged with Lucid Health Consulting that specialises in health economics and economic evaluation of medical procedures. We will be using their expertise to develop a robust and data driven submission for regional catheters.

In June this year, we represented the ASA in providing feedback to the Department of Health on two proposals. One in support of the recent submission by Australian Anaesthesia Allied Health Practitioners regarding the change in legislation to permit the administration and management of S4 and S8 classes of drugs in the healthcare setting. And the second submission was to raise our concerns regarding 1698 Chronic Pain MedChecks Trial to allow pharmacists provide pain consultations for chronic pain patients. Our submission was similar to those made by FPM ANZCA, AMA and the Australian Pain Society who all made similar submissions. We want to amplify our advocacy efforts and want to make sure that ASA's voices are heard.

Also in July, given the range of issues that are equally affecting all societies, associations and specialisations across our industry we are pushing forward with engaging multiple groups towards collaboration and ensuring we can work together on these pressing issues where required. We will continue to update you as we develop these relationships and hope that this direction will result in stronger outputs in advocacy and support on your behalf.

Updates to Policy resources and RVG App

The policy portal continues to be updated. In July 2022, the Policy Team has created and finalised a new Public-in-Private page with dedicated resources to ensure efficient plans are in place for both you and your patients. On this page you will find:

- ASA Contract Guidance
- ASA Guidance on Public in Private Surgery (PIP)
- Guidelines for Pre-Operative Medical Records
- Talking Medicine – Episode 7 Podcast (Caring for Public in Private Patients Safely)

We hope you find this extensive list of resources useful. The ASA will continue to develop this page to assist you as we move forward.

We have also updated the RVG APP with the latest indexations from the MBS and the Health Funds including MBS 2022 March changes. There have been a number of changes introduced by Medicare since July 2021. As you are aware Medicare has indexed their fees by 1.6%. However, this varies significantly by Health Funds. The percentage indexation for some health funds have been below that of MBS. We will ensure information about insurance fees and health fund premiums paid to medical professionals are updated on the resource page.

The Australian Safety Commission on Safety and Quality in Health Care are drafting a module on sustainable healthcare. It is envisaged that the module will consist of a number of environmentally sustainable actions that can be implemented in any health service organisation and will be assessed as part of organisation's routine accreditation. You can register your interest on the safety commission website and by also filling out the ONLINE FORM. The ASA will include those links on our member resource page for your convenience.

We are hoping to include library resources and useful academic articles to help you with your practice and stay up to date with the latest innovations. Watch this space and let us know if you want anything else to be included on the policy resource page – members' contribution is always welcomed.

Your queries and telehealth questions

We have been receiving a few queries regarding telehealth. To further re-iterate, the only telehealth item number that triggers the Medicare rebate is 92701 – video conference anaesthetic consultation for complex patients or procedures longer than 15 minutes. You will still be able to bill for telehealth consultations using the AMA fees list but there is no rebate for that and you must inform your patients that Medicare has removed the rebates for such service. The ASA will continue working with the Department of Health on a permanent solution for basic telehealth consultation item number (less than 15 mins). We will keep you posted as these progresses.

Across the Q2 of 2022, the ASA Policy Team has resolved over 30 member queries via email and phone. These queries have covered a range of subjects, such as notifying us and seeking assistance for Medicare audits and repayments, VMO contracts and public in private issues in New South Wales, assistance with telehealth item numbers and advice on how to navigate attempts at managed and bundled care. It's interesting that the number of EAC queries has grown significantly this quarter compared to the same quarter last year. We attribute that to the increased Medicare activity as well as public in private arrangements that will have a significant impact on our members. We are also grateful to have received some positive feedback for helping our members to resolve their queries. There were a couple of urgent queries that needed an immediate attention, the best way to get an immediate response is to email us first and then follow up with a phone call if it's urgent. The ASA Policy Team is ever open to feedback from you, the members, on how we can improve and target our advocacy efforts on the issues that most affect you.

"Thank you for all your help in addressing this billing issue for me, I really appreciated your advice."
- Member

WELCOME TO SPRING!

DR ALEX COURTNEY
ASA TMG CHAIR

Congratulations to all the trainees who successfully completed their Primary or Final examinations earlier this year. Good luck to all the trainees who are about to embark on the second sitting of 2022.

The theme of this edition of Australian Anaesthetist is Sustainability. I thought I would highlight some of the good work your fellow trainees (both past and current) are doing in this sphere.

Most of you would have heard or read about the TRA2SH team, a group of anaesthetic trainees with the mission to reduce the environmental impact of theatre waste while maintaining high standards of care. TRA2SH stands for Trainee-led Research and Audit in Anaesthesia for Sustainable Healthcare. Past TMG National Chair Dr Richard Seglenieks and current TMG committee member Dr Noni Harold are members of the executive and steering committee respectively. The TRA2SH website (www.tra2sh.org) has a number of resources about a range of projects that are underway, such as refusing desflurane or period paracetamol. It would be difficult to justify using desflurane after reading through the evidence presented here about its deleterious effects on the environment (50 times more CO_2 than equivalent sevoflurane)!

In November 2021, a global consensus statement on the principles of environmentally sustainable anaesthesia was published[1]. The consensus statement provides a range of guiding principals for anaesthetists globally for example:

- minimise the environmental impact of their clinical practice
- minimise overuse/waste of medications, equipment, energy and water

Like all good research papers, this consensus statement is well referenced and provides ample evidence to support their statements. As an individual you may think the difference you would make would be minimal, but considering that anaesthesia waste contributes 25% of operating theatre waste, which in itself is 25% of hospital waste, you can see how a change you make which may influence those around you could have a cumulatively large and beneficial effect. More broadly, the consensus statement discusses and promotes the integration of sustainable practice into anaesthesia research, education and training as well as encouraging anaesthetists to play leading roles within healthcare organisations in promoting sustainable practice.

Our sister society, the American Society of Anaesthesiologists has extensive guidance on 'Greening the Operating Room'[2], covering equipment, inhalation agents and how to minimise their consumption (e.g. low flow), differentiation of hospital waste among many other resources. The Society is also hosting the 'Inhaled Anaesthetic 2022 Challenge' where the goals is to reduce your facility's carbon footprint from anaesthetic gases by 50%.

Finally, ANZCA published a position statement on environmental sustainability in anaesthesia and pain medicine practice in 2019[3]. This document covers inhalation agents, equipment (including discussing disposable vs reusable) as well as minimising unnecessary testing and considering the need to travel (especially pertinent given the past few years of Zoom expertise!).

As trainees, there is so much knowledge on which to focus, learn, integrate and put into practice. Small things that are easily put to work in your daily practice are things such as switching to low flows as soon as practical, minimising plastic waste (trays/syringes/needles) and other waste (the cotton gauze is apparently terrible for the environment!). As we say often in life, small steps forward are still important. I believe if we all work towards the common good, we will get there.

Support

We hosted an event for pre-vocational members earlier this year, similar to the two run last year. Again, well over 80 budding future anaesthetic trainees attended. Dr Vida Viliunas presented the 'other side of the table' perspective and a panel of your fellow trainees provided advice on their own paths to anaesthetic training. A number of questions from the attendees drove discussion and more certainly followed the event.

Unfortunately, as I write this article, Covid seems to be coming back for another round. And monkey pox has been declared an international emergency! There seems no end to the external pressures on our lives. So, a timely

reminder that we are all in this together, you are not alone. Whether you are feeling the pressure from work or study, personal or global crisis, please do not suffer in silence. Locally, your department will have appointed welfare officers, your hospital will have EAP systems. More broadly, the ASA[4] and ANZCA[5] have support resources available on their respective websites. Most importantly, your friends and family as well as your GP (we should all have one!) will also be a source of strength and support when you need them.

Education

The finishing touches are going into the next (second) edition of the ASA Trainee Handbook, including a brand new section on pre-vocational medical education and training and the pathway to anaesthetic training. It has been a mammoth effort which I could not have done without the support of your trainee committee as well as countless authors and ASA staff.

Part 0 and Part 3 courses are being announced as I write this, so hopefully by the time you are reading this you have signed up. Your state based representatives work very hard behind the scenes to ensure these events run smoothly with excellent presentations and information for you to succeed!

As we are approaching another exam season, please do make use of the ASA Education page[6] and especially the Exam Viva sessions with Vida and Kaylee. They are invaluable resources for all ASA Trainee members.

Represent

- Just a reminder that your local ASA trainee representative is always happy to hear from you, send an email to trainees@asa.org.au with your state and contact information and it will be forwarded to your local representative.
- Are you keen to join the ASA TMG Committee and represent your fellow trainees on a state and national level? If you would like to express interest in being a state representative, please email trainees@asa.org.au with your resume and a cover letter outlining your objectives and experiences.

I hope when you read this article, spring has sprung and life is good!

All the best!

Dr Alex Courtney

References

1. White, S.M., Shelton, C.L., Gelb, A.W., Lawson, C., McGain, F., Muret, J., Sherman, J.D. and (2022), Principles of environmentally-sustainable anaesthesia: a global consensus statement from the World Federation of Societies of Anaesthesiologists. Anaesthesia, 77: 201-212. https://doi.org/10.1111/anae.15598
2. https://www.asahq.org/about-asa/governance-and-committees/asa-committees/environmental-sustainability/greening-the-operating-room
3. https://www.anzca.edu.au/getattachment/570003dc-0a18-4837-b8c6-b9c3d2ed5396/PS64(G)-Position-statement-on-environmental-sustainability-in-anaesthesia-and-pain-medicine-practice-(PS64)
4. https://asa.org.au/welfare-of-anaesthetists-2/
5. https://www.anzca.edu.au/fellowship/doctors-health-and-wellbeing-(1)
6. https://asa.org.au/asaeducation/

AROUND AUSTRALIA

New South Wales

Dr Lan-Hoa Lê

Chair of the New South Wales Committee of Management
NSWchair@asa.org.au

At the time of writing, the NSW AGM is coming, and I'd like to congratulate ahead to the next Chair and Vice-Chair. Also, a warm welcome to Dr. Victoria Ward and Dr. Christopher Stone for recently joined the NSW Committee. I wish the very best for our long-standing Committee member and past State Chair, Dr. Murray Selig who has retired from clinical anaesthesia. I'd like to personally thank each of you as members, President Dr. Andrew Miller, Immediate Past Presidents Dr. Suzi Nou and Dr. David M Scott, the Board and Council for your support over the past three years of my term as NSW Chair.

It has been characterised by the pandemic, private health insurers and private hospitals contracting specialists for managed care or public health services, and unusual terms and conditions from local health district hospitals that are not consistent with the AMA Determination and NSW Health.

We've been tested, and I appreciate your tolerance and collegiality. The ASA as a peak body is here to represent and support your wellbeing, professional and economic issues to stakeholders. Strengthen our representation and inform your peers to join ASA **(membership@asa.org.au)**

Are your hospitals or private health insurers approaching you with contracts? Have you the right negotiation skills? Have you reviewed the **ASA Public In Private (PIP) Checklist?** www.asa.org.au/policy-2/position-statements/

We'd like to build peer support, education, and a network for your local private hospital(s) anaesthetic representatives. Find who represents you locally and notify them to contact **NSWchair@asa.org.au**

The inaugural ASA Bariatric Journal Club in July was a perfect evening for anaesthetists and surgeons to share local experiences on ERAS and PONV control for weight loss surgery. From the event, the ASA Bariatric Journal Club has been invited to join further deliverance with the UK Society for Obesity and Bariatric Anaesthesia. Contact me if you'd like to review specific topics and join the ASA network.

Wellness on the fly - for busy people

The ASA Wellbeing Advocates SubCommittee welcomes you to join our series of self-care strategies. There'll be guided mindfulness practice to repel negative internal dialogue. This will be an effective, engaging and enjoyable time to focus on your own wellbeing.

7.30–8.30pm AEST
Tuesday 13 September 2022
Virtual Webinar

Registration closes 3pm Tuesday 13 Sept.

This event is complimentary for ASA members

PRESENTER

Dr Lan-Hoa Lê

ASA Wellbeing Advocates SubCommittee Chair

asa.org.au/wellness-on-the-fly-for-busy-people/

MUSEUM AND LIBRARY

Top Chloroform bottles from the Harry Daly Museum. Pentothal donation Dr Greg Deacon. A near complete bulk box of pentothal and water ampules and an instruction booklet.

Above and right: Little Anne complete kit. Donated by Dr Reg Cammack. Below: Little Anne – comparison of the original death mask, first Resusci Anne model and current, modern editions.

New to the museum

***'Little Anne'* manikin CPR-D by Laerdal**

An update from the previous CPR manikin in the museum's collection, Little Anne represents modern CPR training undertaken by anesthetists, first responders and many others. Donated by Dr Red Cammack, this complete kit includes silicone resuscitator, an extra Anne face mask and cleaning guide and instruction manual, and a carry case.

But do you know how Resusci Anne got her face?

In the 1880s a young woman drowned in the Seine River, Paris. She became known as 'L'Inconnue de la Seine (the Unknown Woman of the Seine).' Unable to identify her, the authorities commissioned a plaster 'death mask' – not an uncommon practice for solving mystery cases at the time. Reproductions of the death mask

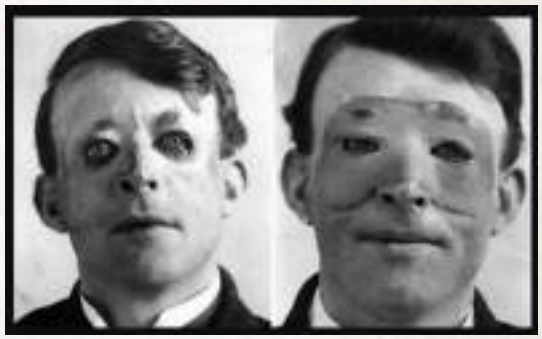
were made, shown in the hopes of finding out her identity … and sold to artists and others. Her serene half-smile proved popular with the artistic set.

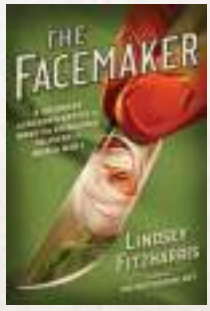
By the early 1960s Norwegian toymaker Åsmund Laerdal was working on a doll of soft plastic called Anne, with a collapsible chest and flexible lips to enable medical students to practice chest compressions and mouth to mouth resuscitation. Needing a reference to model the mouth of Anne, Laerdal turned to the 'L'Inconnue de la Seine', which had hung on a wall of his relative's house.

Chloroform

Chloroform, along with ether, is often one the first things the general public think about in connection with anesthesia. It conjures up images of a Victorian doctor carefully dripping a sweet-smelling fluid onto a cloth to hold over the patient's mouth to induce anesthesia. However, this particular bottle is not that.

It is a wholly modern bottle of chloroform, manufactured in Victoria, Australia, by Dentalife. The modern type and laser printed label strongly contrast with the other (much older) bottle of chloroform in the collection, with its paper and handwritten ink label. This newer item was donated by Dr Michael Cooper, after it was used by his dentist as a solvent for gutta percha and ZOE based sealers.





Pentothal

You will never know what is at the back of the medical office closet, as Dr Greg Deacon discovered several months ago, leading to a donation of a stunningly near complete box of Abbot's sterile pentothal ampules (and corresponding 'chemically pure water' ampules). Given the age of said medical office, Dr Deacon and I initially presumed the drugs dated from the 1970s, however, further reading and investigation of the enclosed instruction pamphlet suggest the shoe-box sized bulk case more likely dates to the early-1960s. Dr Reg Cammack is currently following this lead but we would welcome any further information from our members – perhaps you recognise the graphic design of the packet as dating from a particular era?

Pentothal Sodium was developed in 1936 as part of Abbot Laboratories new 'synthetic drugs', and released to the US and European markets before the outbreak of World War II. Thiopental was one of the first widely used as an intravenous anesthetic drugs in the USA, and quickly rose to be an induction agent of choice. It was used during the attack on Pearl Harbour to treat the wounded, and would gain the moniker as a 'truth serum' during the Cold War. Today it has largely been replaced by new intravenous drugs including propofol.

How to donate

The Harry Daly Museum seeks and accepts donations of artefacts and objects relating to the history of anaesthesia, its practice and development in Australia, the history the Society and our members, in accordance with the Collection Development Policy. Donations are accessed for the object's provenance, originality and/or rarity, research value, interpretation value and condition (including the museum's ability to display, store and conserve the item). Pharmaceutical items have additional assessment criteria to consider before a donation move forward. To find out more contact the curator via curator@asa.org.au.

New to the library

***The Facemaker: One Surgeon's Battle to Mend the Disfigured Soldiers of World War 1* by Dr Lindsey Fitzharris, Penguin UK, 2022**

Imagine performing plastic surgery without a textbook, on patients who are severely injured, in the aftermath of World War 1. The industrial scale and horror of the war – its modern machines and trench warfare – left scores of young soldiers with facial injuries. Enter Harold Gillies, a New-Zealand born Cambridge educated doctor, fresh from the war himself, who turned to the emerging field of plastic surgery to restore the faces, dignity and identities, of these wounded service men.

Gillies established the world's first unit dedicated to fascial reconstruction at the Queen's Hospital in Sidcup, south-east England. Assembling a skilled team with doctors (including anesthetists and dentists), nurses and artists to rebuild noses, make custom glass eyes, hand paint fascial masks to blend in with the patient's skin, smooth burn scares, replace jaws and explore elementary skin graft surgeries.

Following on from her previous work with early modern medicine, *The Butchering Art*, here Dr. Lindsey Fitzharris turns her historical analysis and strong storytelling to the struggle of the medical team and the solider patients. Her meticulous research and empathy balances the surgical innovations with the moving stories of the patients and the impact of their medical treatment.

Kate Pentecost
ASA curator, librarian and archivist

Top: Pages from *Plastic Surgery of the Face* by Harold Gillies Science Museum, London, under CC BY 4.0

Image of Walter Yeo, one of Gillies' patients, before and after reconstructive surgery.

Bookcover for *The Facemaker*

DR JEAN MARIE ALLISON 1927-2022

Jean Allison was born on 4th October 1927 and lived with her family on a sheep grazing property at Whittlesea, Victoria, moving to Drouin South then Berwick, completing her secondary education at Dandenong High School.

She graduated in Medicine at The University of Melbourne in 1951. She was an Anaesthetic Registrar at the Royal Melbourne Hospital from 1957 to 1959 and then a Senior Hospital Medical Officer in Anaesthetics at Glasgow Royal Infirmary from 1959 to 1962. She was awarded Fellowship of the Faculty of Anaesthetists of the Royal College of Surgeons in 1961.

Jean returned to Australia in the early 1962 and commenced work as an anaesthetist at the Queen Victoria Hospital in Melbourne and was awarded Fellowship of the Faculty of Anaesthetists of the Royal Australasian College of Surgeons in 1963. In 1964 Jean was appointed to Prince Henry's Hospital, St Kilda Road, Melbourne as Assistant Director of Anaesthesia. In 1966 Jean was appointed as a Junior Medical Officer at the Alice Ho Miu Ling Nethersole Hospital, a Christian mission hospital in Tai Po, New Territories, Hong Kong. The Hospital, established by the former London Missionary Society in 1887, was the first teaching hospital in Hong Kong to train Cantonese locals in Western medicine. Jean felt connected with this work due to a strong missionary history in her family

The professional situation Jean entered in Hong Kong was very different from that enjoyed by anaesthetists in Australia at the time. Although the pay was good, she was surprised, as a qualified and experienced specialist, by the lowly status of anaesthetists. There were very few fully qualified anaesthetists working in the government hospitals of Hong Kong. Anaesthetists were faced with a low status among the medical profession and found themselves providing clinical services with little time to supervise trainees or study. Despite these limitations Jean found time to be a very active contributor to the profession.

Her contributions to the development of professional life are recognised in a recent communication from Kristy Cheung, CEO of The Hong Kong College of Anaesthesiologists:

"We are deeply saddened to hear that Dr Allison passed away. Dr Allison was one of the founding fellows of the Hong Kong College of Anaesthesiologists which was founded in 1989 and was the President of The Society of Anaesthetists of Hong Kong during 1983 to 1987. Words cannot express our gratitude for all she has contributed to the anaesthetic community in Hong Kong. Without the cornerstone that was set by Dr Allison and other founding fellows, the College and the Society could not have been such a strong organisation and society."

Jean served as a council member of the Society of Anaesthetists of Hong Kong for 22 years including President for four years. She represented Hong Kong at the Asian Australasian Congress of Anaesthesiologists and assisted in the organisation of several major conferences. She was a member of the Organizing Committee for the 1983 G.S.M. of the Royal Australasian College of Surgeons held in Hong Kong, Chairman of organizing Committee for the Seventh Asian Australasian Congress of Anaesthesiologists in Hong Kong and elected president of the Congress from 1982 to 1986. She was a member of Asian Australasian Regional Committee of World Federation of Societies of Anaesthesiologists from 1986 to 1990

Jean retired from the Nethersole Hospital in 1990 after 25 years. She then served for a year as a Part time Medical Officer for Medicine San Frontieres for Vietnamese refugees in Hong Kong and as a part time Lecturer in Anaesthesia at Hong Kong University until 1993. Jean was admitted to Fellowship of the Australian and New Zealand College of anaesthetists in March 1992.

Her interests were broad, evidenced by membership of the advisory committee of the Hong Kong branch of International Social Service from 1980 to 1993, membership of the Hong Kong History Society from 1974 to 1988 and Vice President from 1988 to 1993. She was also a member of the Hong Kong Natural History Society from 1982 to 1993 and Honorary Vice President of Melbourne University Alumni Association Hong Kong Branch from 1991 to 1993.

In 1993 Jean retired, first to Berwick and later to a new home at 1 Cavendish Place, South Yarra, entering Melville Grange Aged Care Residence, Berwick in late 2020.

Not surprisingly Jean led an active life in retirement. She was a keen bushwalker and traveler and went on adventures both in Australia and countries throughout the world. She was a member of bushwalking clubs in Hong Kong, the University of Melbourne Bushwalking Club and the Pakenham Bushwalkers. Jean described an ideal bushwalk as one that includes some climbing, preferably before lunch, some descents, be on a good track that was kind to her feet, have flowers along the way and somewhere with a good view for an orange or tea break stop. She was an active conservationist and cared for the environment. She loved being an active member of the Friends of Herring Island on the Yarra River and didn't mind getting down and dirty and pulling weeds out. She also regularly visited and contributed to the botanic gardens at Cranbourne along with her sister Robin. Later in life she developed a hobby in painting watercolours. Her sister Robin has several of Jean's works hanging in her house. Jean was a member of Malvern Artists Society.

Jean was a practising Christian and took an active role with the Uniting Church of Australia and was an Elder for many years at the South Toorak Uniting Church. She also participated in a wide range of non-denominational Ecumenical activities.

Also, she had a strong interest in Antarctica, stemming from the historical association of her maternal grandfather Captain Thomas Robertson, a Dundee Scotland Whaler, who captained a scientific expedition on the ship Scotia to Antarctica in 1904. Jean and Robin attempted to visit Antarctica by ship in 2004 but unfortunately the ship ran aground near South Georgia Island and they had to return home. Jean finally visited Antarctica in 2005.

She maintained an active interest in Australian Society of Anaesthetists in Victoria and was particularly involved with the Retired Anaesthetists Group. She remained a committee member until very recently. Jean was a member of the ASA Committee of Management from 2006 until 2020 and represented the RAG.

In 2017, Jean now aged 90 suggested that the RAG should have a luncheon at the Royal Botanic gardens in Cranbourne. This included a talk by the senior conservation botanist Neville Walshe on the subject "How do botanic gardens contribute to plant science". It was followed by a walking tour of the extensive gardens. The Group celebrated Jean's 92nd birthday in 2019. She attended all the Group luncheons until the last meeting prior to the COVID lockdown in February 2020.

Dr David Crankshaw

FANZCA, PhD.

NEW AND PASSING MEMBERS

The ASA would like to welcome all new members from June 2022 to July 2022.

Advanced/Provisional Fellow Trainee	
Dr Jaroslaw Latanik	NSW
Dr Qiushuang Li	NSW
Dr Jonathan Tobin	NSW
Dr Robert Crowley	QLD
Dr Jasmin Ellenberger	QLD
Dr Michelle Wartski	QLD
Dr Benson J. Nardino	VIC
Dr Nicole Paterson	VIC
Dr Kasun Wickramarachchi	VIC
Dr Dorian Wenzel	WA
Associate	
Dr Justine Sian Heard	TAS
Dr Antoun Boulos	VIC
Associate International Medical Graduate	
Dr Mathilde Lunoee	NT
Continuing Retired Ordinary	
Dr Bruce Patrick Powell	WA
Introductory/Basic Trainee	
Dr Ankit Ahluwalia	NSW
Dr Tim Ellwood	NSW
Dr Lachlan Hunter McLennan	NSW
Dr Leah Meron	NSW
Dr Conor Moylan	NSW
Dr Charuni Dilukshi Seneviratne	NSW
Dr Milonee Shah	NSW
Dr Patrick Anthony Tully	NSW
Dr Graeme Wertheimer	NSW
Dr Qaasim Dollie	QLD
Dr Timothy Mason	QLD
Dr Susan Joanne Kelly	SA
Dr Al Anderson	VIC
Dr Melissa Lee	VIC
Dr Amelia Steel	VIC
Dr Rose Anna Stewart	VIC
Dr Sarah Liew	WA
Dr Kelly Lee Shepherd	WA
Ordinary Member	
Dr Sivapathasundaram Achuthan	NSW
Dr Danelle Dower	NSW
Dr Glen Campbell Hawkins	NSW
Dr Jane Li	NSW
Dr Jodi Murphy	NSW
Dr Nathan Peter Royan	NSW
Dr Ajit Sivasankaran	NSW
Dr Christine Velayuthen	NSW
Dr Margaret Blanco	QLD
Dr Jacob James Carter	QLD
Dr Reshma Pawar	SA
Dr Alexandra Reid	SA
Dr Emma Joanne Boden	VIC
Dr John Raymond Cormack	VIC
Dr Tzung Ding	VIC
Dr Jane Thu Doan	VIC
Dr Mohamed Elkashash	VIC
Associate Professor Julian John Hunt-Smith	VIC
Dr Shu Ying Lai	VIC
Dr Chuan-Whei Lee	VIC
Dr Sang Yee Lee	VIC
Dr Lachlan Miles	VIC
Dr Stephen Murphy	VIC
Dr David Brian Anthony Rawson	VIC
Dr Tarin Lorna Ward	VIC
Dr Luke William Willshire	VIC
Dr Elizabeth Anne Ferguson	WA
PMET	
Dr Ishmam Bari	NSW
Dr Hugh Carter	NSW
Dr Mithma Biseka Fernando	NSW
Dr Annabelle Frost	NSW
Dr Johnny Huang	NSW
Dr Thomas Andrew Hudson	NSW
Dr James Molloy	NSW
Dr Aakash Nanda	NSW
Dr Charlotte Rollo	NSW
Dr Tobin Steens	NSW
Dr Dennis Xu	NSW
Dr Alexander Bykersma	QLD
Dr Prem Dinesh Chouhan	QLD
Dr Ashley Masters	QLD
Dr Damian Masters	QLD
Dr Salih Ibn Mohamed	QLD
Dr Holly Owen	QLD
Dr Joseph Rossi	QLD
Dr Mahmoud Ugool	QLD
Dr Hrishikesh Harish	SA
Dr Donald Shivakkumar	SA
Dr Julia Angela Bombardieri	TAS
Dr Nathan Yongjie Chin	TAS
Dr Zuleika Devereaux-McLean	TAS
Dr Andrew Eckhardt	TAS
Dr Jennifer Haskell	TAS
Dr Kieva Hobbs	TAS
Dr Alexandra Kear	TAS
Dr Matthew Leong	TAS
Dr Elle Maulder	TAS
Dr Emily Kate Murray	TAS
Dr Thanuka Wijegunaratne	TAS
Dr Tim Austin Thomas Blakey	VIC
Dr Carla Borg Caruana	VIC
Dr Sally Chen	VIC
Dr Aquib Mahbub Chowdhury	VIC
Dr Tessa Clegg	VIC
Dr Stephanie Elizabeth Harris	VIC
Dr Andrew Stephen Hunter	VIC
Dr Cathy King	VIC
Dr Evan Kumarakurusingham	VIC
Dr Sarah Luu	VIC
Dr Daniel James Marie	VIC
Dr Cancho Ong	VIC
Dr Varun Peri	VIC
Dr Stefan Saggese	VIC
Dr Stephen Surace	VIC
Dr Owen Tomasek	VIC
Dr Jameson Trainor	VIC
Dr Athanasia Tsigaridis	VIC
Dr Ke Xu	VIC
Dr Anna Zeng	VIC
Dr Jacinta Zhu	VIC
Dr Chloe Batchelor	WA
Dr Jasmine Rose Begovich	WA
Dr Aaron Lee	WA
Dr Calvin Lo	WA
Dr Alexander Maouris	WA
Dr Nathaniel Christopher Owen	WA
Dr Shweta Patro	WA
Dr Michelle Sherwood	WA
Dr Timothy Boon Beng Yap	WA

IN MEMORIUM

Tha ASA regrets to announce the passing of the following members

Dr Graham Harold Murray	NSW
Dr Jean Marie Allison	VIC
Dr Keith William Barker	WA

If you know of a colleague who has passed away recently, please inform the Australian Society of Anaesthetists via asa@asa.org.au

Join now and connect with your community

Australian Society of Anaesthetists®

Dr Lan-Hoa Lê
ASA Member since 2016

- EDUCATION
- ADVOCACY
- SCHOLARSHIPS AND GRANTS*
- EVENTS
- PUBLICATIONS
- RESOURCES
- FORUMS

The ASA represents and advises Anaesthetists and is a peak body organisation that is respected and consulted by government, hospital management, local health districts and health insurers.

www.asa.org.au | 1800 806 654 | membership@asa.org.au

*Applicants require a minimum of 12 months ASA membership to be eligible.

$20,000 OF BONUS LIFE COVER OFFER**

with NobleOak Life Insurance

NOBLEOAK

- Plus receive a 10% lifetime discount on Life cover*
- Winner of *Money* Magazine's - Direct Life Insurance Cover of the Year Award 2022^
- Claims processed in 5 days on average

GET A QUOTE

Get an instant quote at:
www.nobleoak.com.au/anaesthetists
Or call NobleOak for a quote:
1300 108 490
and mention '**ASA - ANAESTHETISTS**' to switch.

Important information – The Target Market Determination for NobleOak's Premium Life Direct insurance is available on our website www.nobleoak.com.au/target-market-determination

*Discount Information - Anaesthetists are entitled to a 10% discount (which remains for the life of the cover) on NobleOak's Premium Life Direct standard premium rates on Life Insurance cover.

**The bonus $20,000 Life Cover offer applies for all applications with a minimum of $200,000 of Life Cover benefit received before 30 September 2022. This offer is available once only per new customer and may not be used in conjunction with any other offer. If you make an application before 30 September 2022, then you will receive a bonus $20,000 Life Cover on a minimum of $200,000 of Life Cover.

^ NobleOak awards information found at https://www.nobleoak.com.au/award-winning-life-insurance/

Legal statements. Premium Life Direct is issued by NobleOak Life Limited ABN 85 087 648 708 AFSL No. 247302. Address: 66 Clarence Street, Sydney NSW 2000. Phone: 1300 108 490. Email: sales@nobleoak.com.au. Cover is available to Australian residents and is subject to acceptance of the application and the terms and conditions set out in the Premium Life Direct Product Disclosure Statement (PDS). This information is of a general nature only and does not take into consideration your individual circumstances, objectives, financial situation or needs. Before you purchase an Insurance product, you should carefully consider the PDS to decide if it is right for you. The PDS is available by calling NobleOak on 1300 108 490 or from www.nobleoak.com.au. Clients should not cancel any existing Life Insurance policy until they have been informed in writing that their replacement cover is in place. NobleOak cannot provide you with personal advice, but our staff may provide general information about NobleOak Life Insurance. By supplying your contact details, you are consenting to be contacted by NobleOak, in accordance with NobleOak's Privacy Policy.