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Anaesthesia

THE MAGAZINE OF THE NEW ZEALAND SOCIETY OF ANAESTHETISTS • DECEMBER 2022

New NZSA President

Dr Morgan Edwards



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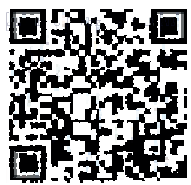
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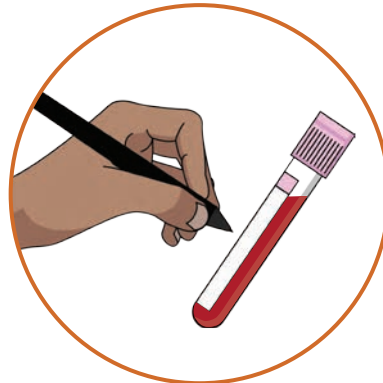
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new President,
Dr Morgan Edwards



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Contributions and feedback

We welcome your comments on the magazine. If you would like to contribute ideas and/or an article please contact editor: comms@anaesthesia.nz

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President's Column



Kia Ora Koutou. It is my immense pleasure to introduce myself as the new President of the NZSA in this, my first magazine article.

My last introduction piece in the magazine was in 2020, where I shared my passion for advocacy for our anaesthetic workforce, our patients, and the community that we serve. I talked of the importance of communication and

compassion especially during the pandemic and then personally on finding joy in precious moments outdoors with my young family. Fast-forward two years and these priorities haven't changed, a thought I reflected on when listening to Dr Tony Fernando's talk on compassion in medicine at our recent CSC in Wellington, and which we share more on later in this magazine.

What has changed since that 2020 article is how the world connects, how we define community, and how we look out for those around us. During the last few months, the Executive Committee have been completing the final touches on a new Strategic Plan for the NZSA looking towards the next four years (2023-2027). This new plan includes the continuation of much of what you know and value from the NZSA alongside some exciting new projects. This is available to read on the NZSA website.

It is heartening to see our community continue to grow with membership numbers increasing. A growing membership strengthens our voice and allows us to further develop all that we can offer to you. Being our final magazine for the year I would like to share some of what we have achieved over the last 12 months across our three pillars, advocacy, community and education. However, word counts do not allow me to fit it all and I encourage you to keep up to date throughout the year via the monthly e-zine and these magazines.

Advocacy

Together we are a strong collective voice, representing our specialty in a considered and evidence first approach. Key advocacy over the past year has focused on the Health and Disability Review, healthcare wellbeing, climate change and sustainable healthcare and Pharmac medical devices procurement.

In December last year NZSA provided comprehensive feedback to the Government on the *Pae Ora (Healthy Futures) Bill* seeking clarity on some of its key areas. The health reforms have been one of the most significant changes affecting us all in 2022 and the NZSA remains connected through the regular updates from Te Whatu Ora.

Over the course of the year, we have submitted on ANZCA's *Perioperative anaphylaxis management guideline*, *Choosing wisely recommendation to avoid routine prescription of slow-release opioids in the management of acute pain* and *Standards for anaesthesia*. In addition to submitting our support on the *Smokefree Environments and Regulated Products (Smoked Tobacco) Amendment Bill* to the Parliament Select Committee and a submission to ACC on behalf of our Specialist Pain Medicine Physician members on the *ACC Clinical Services Injection Code Review Update*.

As reported over the course of the year the executive committee heard from PHARMAC in relation to medical devices procurement and discussed the background to CPD changes and review with ANZCA. FAQs for the latter can be found on the NZSA website. We also spoke with Dr Andrew Connelly from the Planned Care Taskforce ahead of the release of their plan. Since its release we have written to the Minister, Te Whatu Ora and Te Aka Whai Ora with our feedback.

Our Private Practice Network continues to grow. We look forward to gathering the results of the recent private practice survey as we look for ways the NZSA can best provide a collective voice for matters of their greatest concern.

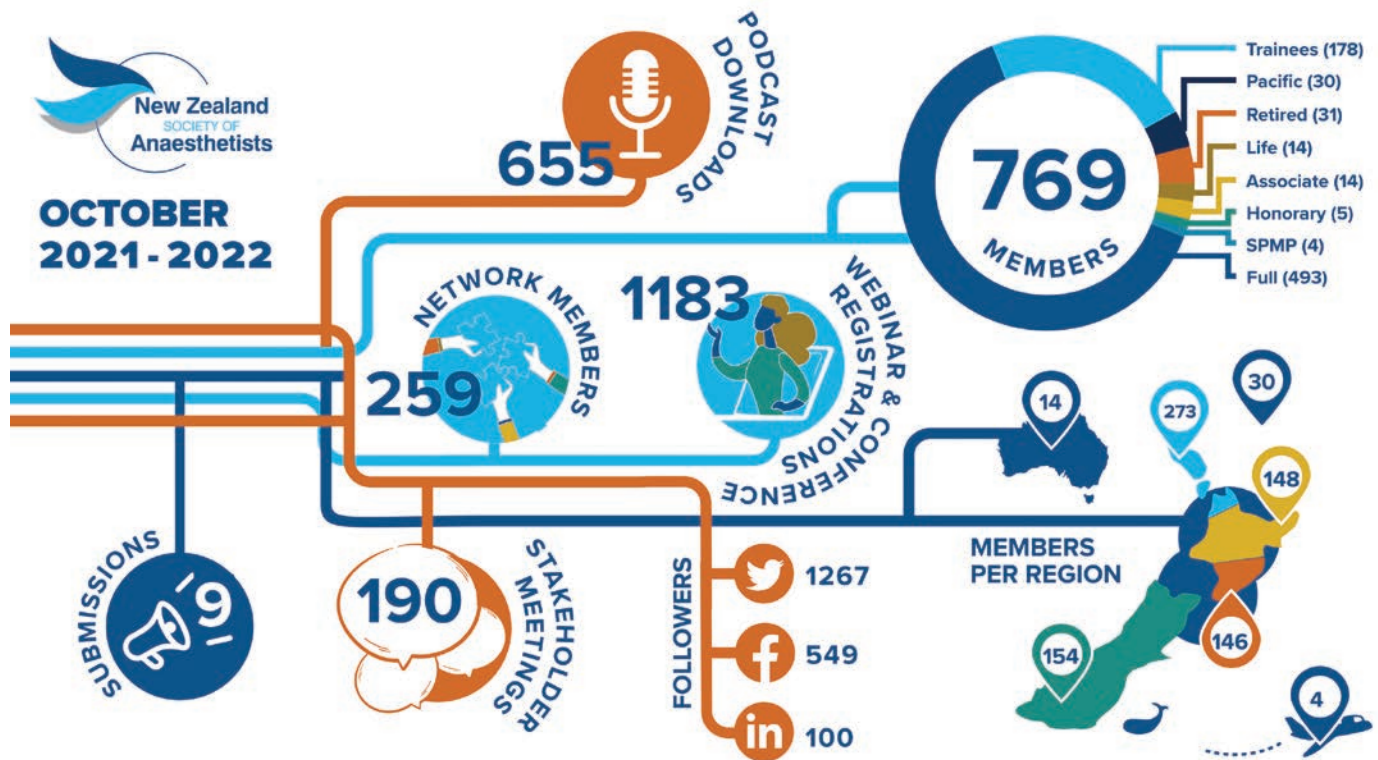
Community

This year the NZSA extended our membership to include Specialist Pain Medicine Physicians and I welcome these newest members to our community.

I would like to say thank you to our many networks for their tireless work that benefits our community and improves outcomes for our patients. The PANNZ (paediatrics), NOA (obstetrics), airway leads, in patient pain, private practice, and the Environmental and Sustainability Network continue to meet regularly throughout the year and the use of Basecamp has positively facilitated discussion and support across the motu, no matter your workplace, background or experience.



NZSA Presidency handover at the AGM. Dr Morgan Edwards & Dr Sheila Hart.



NZSA October 2021 - October 2022 at a glance.

In September the Global Health Committee (GHC) were able to support local and regional Anaesthesia SMOs and trainees in the Pacific to attend the Pacific Society of Anaesthetists (PSA) meeting through the organisation of locum cover from 15 volunteers travelling from NZ and Australia. NZSA Past President Sheila Hart and CEO Michele Thomas were able to attend the PSA meeting and discuss how more support can be given to the PSA through our ongoing partnership.

From an international perspective our partnership with the WFSA strengthens further with NZSA member, Associate Professor Wayne Morriss taking on their Presidency role earlier in 2022. We have been fortunate to hear from Wayne specifically on the work of WFSA.

Education

The recently held Combined Scientific Congress was a great success. I am grateful to the organising committee for pulling together such a wonderful event. It strengthens our partnership with our sister organisation, the Australian Society of Anaesthetists, and was a valuable opportunity not only to learn and develop our knowledge but to reconnect. It was a well-attended event and I enjoyed the opportunity to meet with many of you over the four days. I would also like to recognise Past President Sheila Hart who was part of the original organising committee and represented the NZSA as our President throughout the congress.

To compliment our educational events the NZSA have launched a podcast and webinar series. These have been well received to date and we hope to make more available to our members on a regular basis covering a range of topics with a variety of speakers that will appeal to the various specialties and career stages of our members.

Our first two webinars for 2022 discussed overseas fellowships and the second, a career in anaesthesia, offering insight into the profession. My thanks to our trainee representatives Dr Aidan Ward and Dr Mikaela Garland and the panel of speakers on the evening. Alongside these the ANZAEC held their annual visiting lectureship offering two outstanding talks from Dr Karen Pedersen on Anaphylaxis and End of Life in NZ from Dr Sheila Hart.

I have enjoyed hosting our first NZSA Podcast and the opportunity it presents to interview many interesting and inspirational members of our community. Over the first few episodes we have heard from Dr Sheila Hart, Dr Leona Wilson, Associate Professor Wayne Morris, Dr Dan Frei, Professor Andrew Klein and Dr Vanessa Beavis. We are already working on further guests for the new year. If you know of a colleague with an interesting story to share please do get in touch.

There is much to look forward to for 2023. From prioritising Te Tiriti o Waitangi, to our commitment to developing comprehensive patient education resources aimed at improving perioperative outcomes for all of our patients – there is work to be done, and we are ready to do it.

But first – the holiday season. Whilst many in our community enjoy prolonged summer days at the beach, we are often at our busiest. Thank you to all our anaesthetic community for your hard work over the break. I hope there are moments of joy and sunshine to look forward to. From my whānau to yours - Meri Kirihimete me te Hape Nū Ia!

Morgan Edwards, NZSA President

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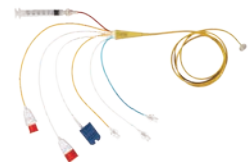
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Edwards

New NZSA Executive Committee Members

At the 2023 AGM in October the NZSA welcomed Dr Indu Kapoor and Dr Nathan Kershaw to our Executive Committee.



Dr Indu Kapoor is a specialist Paediatric Anaesthetist in Wellington. Indu brings to the executive committee experience and understanding of global health challenges and opportunities. Her special interests include paediatric anaesthesia, global health collaboration and equity. Evident through her representation

and contribution to Anaesthesia as the founder and inaugural chair of PANNZ, the previous chair and current member of the GHC and as a member of the WFSA paediatric anaesthesia committee. Indu is also the founder and convenor of the PACMaC (paediatric anaesthesia crisis management course). Outside of her clinical introduction Indu is a naturalised kiwi of Indian descent who is passionate about the environment. Her current endeavours are to build a green wall, to see a gorilla in the wild and one day retire in the Himalayas. As a member of the executive Indu hopes to contribute further to the anaesthesia speciality and community during the currently evolving health landscape.



Dr Nathan Kershaw is a specialist anaesthetist based in Dunedin, working across the public and private sectors. In 2009, he was the inaugural trainee representative of the NZSA, and is delighted that trainees and young consultants continue to be actively woven into the structure of the Society. Nathan also identifies as a clinical

informatician, having an interest in digital health within anaesthesia and across the wider healthcare ecosystem. He runs an online community called the eHealth Forum and is a board member of Health Informatics New Zealand, Nathan looks forward to opportunities to contribute to the Society in this area.

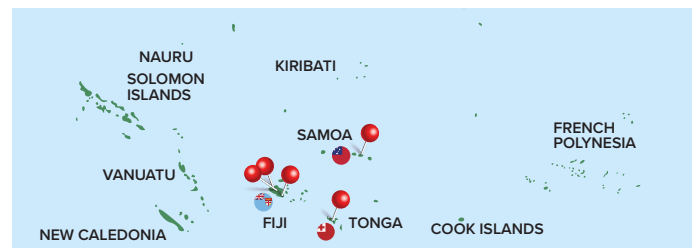
Support for our Pacific Colleagues

The NZSA through the Global Health Committee (GHC) was able to support Pacific-based Anaesthetists and Trainees to attend the first Pacific Society of Anaesthetists meeting since the COVID pandemic.

Fifteen NZSA members offered their services as volunteer locums to cover Pacific colleagues attending the meeting and worked in several locations across the Pacific (see map). The welcome all locums received at their places of work was outstanding as was the administrative support offered by key local personnel prior to starting work. Special thanks must go

to Suva based Doctors, Dr Elenoa and Dr Meg Walmsley for their work in making this possible. If you are interested in this type of role, please contact GHC Chair jamesdalbyball@cdhb.health.nz.

The PSA Conference itself with its theme of 'Resilience and Recovery' was well attended by NZSA members including then President Dr Shelia Hart. This was our opportunity to catch up with the MMed trainees who are being supported by the NZSA PACT Scheme and donate a copy of the new Oxford Handbook to all Diploma and Masters students currently studying at Fiji National University. New Zealand-based trainees, Drs Charlotte Legge and Aidan McGrinder were the recipients of the NZ Trainee Travel Grant award and present an in-depth PSA 2022 conference report on page 19.



NZSA Past President Dr Sheila Hart, GHC Chair Dr James Dalby-Ball and the PSA trainees with new Oxford Handbooks.

Health Reforms

At the time of writing NZSA has written to the Minister of Health, Te Whatu Ora and Te Aka Whai Ora outlining our specific areas of feedback on the Planned Care Taskforce's plan. In this we expressed our disappointment that there was no Anaesthesia and Perioperative Medicine representation in the taskforce group and believe this has led to gaps and omissions within the review. We look forward to opportunities to provide constructive input going forward. A copy of the letter can be read on the NZSA website.

NZSA President Dr Morgan Edwards and CEO Michele Thomas attended the Health Workforce Dialogue hosted at Parliament on Saturday 12 November. During the day Michele had a short time to talk with the Minister and further reiterate the need for engagement with the sector - and particularly anaesthesia.

Convenors Wrap Up



The 2022 Combined Scientific Congress took a very different shape to its original concept when planning began in 2016. A positive outcome of the Covid-19 pandemic was the hybrid format of the meeting enabling both face to face and virtual attendance. While disappointing to have to postpone the meeting in 2020, it was well worth the wait when you saw how excited people were to see each other and the obvious joy in reconnecting with long lost friends.

Wellington Kaumatua, Peter Jackson, set the tone perfectly in his Whakataua. Recognising that whilst we are enduring tough times in Australasia and across the world, “one thing that isn’t unsettled, that the average Jo can count on, is the skill that you have, the ability and experience that you bring when we have to undergo a procedure in hospital.” Recognising the important role these meetings have in allowing us to continue along our learning pathway and in bringing us together. For this CSC that was 760 delegates and 130 exhibitors in person in Te Whanganui-a-Tara, Wellington, and an additional 130 virtual attendees.

Over the four days the scientific programme offered a fantastic breadth of talks, not just scientific in topic but also presentations covering how we deal with people, how we look after the rest of the world, and how important all of these are to us as Anaesthetists and just as humans. We received an enormous number of compliments on the high calibre of the speakers and would like to thank the scientific committee for the fantastic job they did here.

Attendees were treated to some highly entertaining talks from experts both locally and further afield. We are grateful to our keynote speakers, Professor PJ Devereaux, Professor Kate Leslie, Professor Denny Levett and Professor Steven Shafer. The debate that concluded the congress, on the Monday was both entertaining and thought provoking, as we look towards the future how do we best allocate resources for the greatest outcomes in our field? All four speakers put forward very compelling arguments.

We have heard from many delegates who were grateful to be able to engage with all speakers, and workshop and case-based discussion facilitators over the four days. We were very fortunate in that all speakers were able to re-commit to the meeting after the postponement of the 2020 event. It was very generous of them to rearrange their lives, to re-do everything again.

The congress was a heady mix of learning and enjoying each other’s company. It is our hope everyone enjoyed it as much as we did, at a professional and academic level, as well as socially. Takeaways for us both from the weekend included the Kester Brown Lecture from Dr Tony Fernando on compassion. It was both entertaining and surprising. To understand that it is in-fact something you can think about, learn about, and enhance. That in times when you feel uncompassionate there may be a way to bring yourself back to kindness.

We also greatly valued delving into the research that underpins people’s approach to perioperative care, how effective this has been in driving change and the need for more research and big multi-centred trials. It has been encouraging to further understand the role artificial intelligence could have in this area to provide the same level of monitoring as we deliver in theatre and to allow timely intervention to maintain patients’ recovery in a safe way. It was also reassuring to hear from Professor Shafer that AI and robotics are not going to steal our jobs!

There are so many individuals to thank in making this event a success. In particular, we would like to mention the organising committee who pulled together so many moving pieces and for overcoming unexpected hurdles along the way. Claire, Brooke, Rachel and the team from Conference Innovators were superb in their organisation and seamlessly overcame so many changes thrown their way since we first engaged with them. They were as much a secret to the success of this congress as the delegates and speakers.

Thanks must go to our two hosting Societies, the Australian Society of Anaesthetists and the New Zealand Society of Anaesthetists. Their important role in providing education to our members and the support of their membership bodies makes meetings and events like this possible.

Whilst it has held many moments of stress and uncertainty this has been an enormously rewarding experience for us both and we hope other Anaesthetists attend a meeting like this and think ‘I can do this, and I could do it better’. We believe we all have a professional obligation to get involved in education at whatever level you are comfortable with and encourage others not to run away when the message comes around for the organisation of future events, but to take on the challenge.

Now it is time for us to take some much-needed rest and recovery.

Mā te wā
Ngā mihi nui,

**Dr Catherine Caldwell & Dr Mark Featherston
Convenors, CSC 2022**



Left to right from top: Keynote speakers and final plenary discussion panel Professors PJ Devereaux, Denny Levett, Kate Leslie & Steven Shafer. Lung love session, speakers Professors Andrew Klein, Kate Leslie & Denny Levett. Dr Imran Ahmad during the airways session. The CSC 2022 Organising Committee at the Gala Dinner. Anaesthesia and Intensive Care journal award winners. Invited Presenter Ass Prof Wayne Morriss - Global Health Plenary - Global anaesthesia - Why it matters. Invited speaker Dr Rob McDougall Global Health Plenary - Global anaesthesia - Why it matters. Combined ASA/NZSA Best Poster Prize Runner up Dr Catherine Wood with Prof Steven Shafer.

Congratulations

Our congratulations to the following poster and survey prize winners from the Combined Scientific Congress Trainee poster prize session. All were recognised at the CSC Gala Dinner.

Combined ASA/NZSA Best Poster Prize

Winner: Dr Xianglin Yeaw. *The Standardisation of the regional anaesthesia trolleys in the anaesthetic rooms of the Royal Victorian eye and ear hospital.*

Runner up: Dr Christine Wood. *Epidural analgesia, is less really more.*

Combined ASA/NZSA Trainee Member Audit/Survey Prize

Winner: Dr Robyn Scott. *A survey of wellbeing in the New Zealand anaesthetic workforce as measured by the physician wellbeing index.*

Commendation: Dr Alexandra Frankpitt. *An audit of postoperative blood pressure management following carotid endarterectomy at Christchurch Hospital.*

Visit the NZSA website for a summary of these winning presentations:
www.anaesthesia.nz/news/csc-poster-prize-winner

Towards Equity

Dr Leona Wilson



The Alan Merry Oration is the opening presentation at all New Zealand based ASMs. Launched in 2019, these talks focus on patient safety and quality, in honour of Professor Alan Merry's towering contributions in this area. With no Aotearoa ASM this year it was a touching inclusion for the 2022 Combined Scientific Congress to open with the Alan Merry Oration from Dr Leona Wilson.

Both Alan and Leona have made considerable contributions in advancing patient safety and were both involved in the New Zealand Health Quality and Safety Commission's (NZHQSC) Perioperative Mortality Review Committee (POMRC). Introducing the theme of her talk 'towards equity' Leona spoke of choosing the topic "in recognition of the focus of the NZHQSC whilst under Alan's leadership".

Throughout her talk Leona shared data from within our population that demonstrate the inequities of health outcomes based solely on non-clinical factors: ethnicity, socioeconomic status, and domicile. One such example, from during the recent pandemic, was "Māori who contract covid are 2x more likely to die, or Pacific 2.8x more likely to die than European or 'other ethnicity'. If we focus on socioeconomic status alone, the most deprived in our population are 3.6x more likely to die than our least deprived. Covid exacerbated these non-clinical differences in outcomes, but these differences can be seen across all healthcare and is the background against which we deliver perioperative care."

Why should we look at this information? Leona shares a quote from the Perioperative Mortality Review Committee's (POMRC) sixth report, "*The POMRC believes a patient's socioeconomic status should not influence their outcome after surgery... Additionally the POMRC recommends people should have equitable access to high-quality healthcare so that conditions that require surgery are identified promptly*".

"We can improve the care for our disadvantaged across multiple points of the perioperative pathway. Some of the causes will be systemic such as medical treatments being based on dominant middle class cultural world views. Some may be due to intergenerational factors such as poverty and the ongoing effects of colonisation. Our aim should be to understand these differences and work out how to make our care more equitable so as not to exacerbate them."

"Some care decisions in New Zealand are influenced by calculations or algorithms based on outcomes from similar patients in the past". Leona cautioned us that whilst "this is helpful and provides realistic information we also need to ask ourselves, is the population this is based on relevant to our patient? Does that population have inequities? Then knowing there are inequities, how can I minimise perpetuating those

inequities and how can I use this information to improve care for those disadvantaged."

"Equity is to treat according to need. To be prepared to work differently to help achieve the same outcome. This is another way to term patient centred care – centering the care we deliver based on the person in front of us not on a general rule."

Actions Leona suggests that will minimise the effects of these non-clinical differing factors and start improving equity across our populations are:

1. To include ethnicity, socioeconomic and domicile in the data to best understand it.
2. Learn about working with other cultures. Utilising local programmes will often offer the best outcomes for your location as well.
3. Review standard care pathways. Ensure screening pathways account for differences, plan clinical pathways that take the patient and their community into account and ensure calculated, and algorithm based clinical decisions are not perpetrating inequity.

"Ultimately what we want is the outcome to be determined by clinical factors alone, such as how sick and how old a patient is".



Alan Merry Oration speaker Dr Leona Wilson (virtual), Prof Alan Merry & Dr Sheila Hart.

Dr Leona Wilson is a clinical Anaesthetist in Wellington. When ANZCA was founded in 1992, Leona was a Foundation Fellow and elected as President in 2008. She is currently ANZCA's Executive Director of Professional Affairs. Leona has been instrumental in her work towards professional standards and accreditation. She was the co-founder of the New Zealand Medical Law Reform Group, which led to changes in the medical manslaughter provisions of the Crimes Act and advocated for the re-introduction of Anaesthesia Perioperative Mortality Reporting in New Zealand.

Professor Alan Merry is the Deputy Dean of the Faculty of Medical and Health Sciences at the University of Auckland. He has been the Anaesthesia lead on the WHO surgical checklist, one of the founders of Lifebox, the inaugural chair of NZ Health Quality and Safety Commission and led the Medical Manslaughter Campaign.

Disruptive Technology in Anaesthesia

Professor Steven Shafer



Are robots going to replace us? According to Professor Steven Shafer, we have nothing to worry about.

A Professor of Anesthesiology, Perioperative and Pain Medicine at the Stanford University Medical Centre Professor Steven Shafer set the tone for discovery and empowerment as one of the first keynote speakers at the Combined Scientific Congress,

offering reassurance to embrace the opportunities for the future of technology in anaesthetics and care for our patients.

“We, humans, were born pre-programmed, our brains process information in a fraction of milliseconds. We evolved in response to evolutionary pressures, which is why we can respond quickly to a snake, but cannot solve a maths equation as quickly.”

Steven took us through the evolution of mankind, how we discovered the benefits of co-operation “co-operation led to language and language led to cognitive revolution, that led to civilisation and civilisation led to technology. Today technology has evolved to develop the world we live in.” And to create this technology? We needed maths. “We had to discover so much within maths create technology. And we had to invent computing equipment to help us with maths.”

IBM, as an example, following their success with Watson on Jeopardy, turned their focus to healthcare to apply their developments in cognitive computing. “IBM Watson healthcare was introduced in 2015, but it failed. Why? At present AI systems don’t understand.”

“We are constantly learning from day one as humans. Our capacity for learning is pre-programmed. IBM improved Watson with built in learning, machine learning. However, while machine learning sees, interprets, and adjusts based on the data, it does not understand. For example, we fundamentally understand the concept as to why Egypt cannot cross the Golden Gate Bridge. A computer does not.”

But in no way is it over for technology in healthcare. Many of our keynote speakers shared opportunities to utilise technology to address current problems in healthcare, and Steven agrees. “Computers can make a huge impact on healthcare. They impact perioperative care because decision support systems built on machine learning do have a role. These systems are in use. They capture vital signs, drug administration, and we get alerts in real time in the operating room for example.”

He demonstrated how we could consider technology in the perioperative journey alike how we use Google Maps. “Consider that once surgical diagnosis is made, like typing my destination into Google Maps. Upon learning the diagnosis, the data centre will be informed of the need for surgery. The data centre will immediately access medical records, will parse the unstructured data, and will create a procedure plan. Then, the data centre will make contact, direct me to the clinics and laboratories in preparation for surgery. It will verify readiness for the procedure. This can all be automated with decision support tools. Even after I reach the hospital the data centre will monitor my vital signs before surgery, after surgery, and into the recovery room. Eventually the data centre monitors me as I return home, and continues to follow my progress during recovery. This is not asking too much from the computing technology.”

“However, we cannot stop there. The data centre needs to learn from the process and to share, because the goal is to help the next patient who comes in for surgery.”

All of this is nothing to fear. Artificial intelligence is not being developed to take our jobs. But is continuing to assist in improving the care we can provide. As Steven reassured us all, “life has existed for more than two billion years and thrives because biology endlessly renews. No technology can replace us because no technology is self-renewing. It is because we reproduce, we renew generation after generation, that the future belongs to biology.”



Compassion

Dr Tony Fernando



In honour of Paediatric Anaesthetist, Dr Kester Brown, the focus of the Kester Brown Lecture is to hear from a local medical specialist outside of anaesthetics, giving insight into their area of medicine. At the Combined Scientific Congress this lecture was delivered by Auckland based psychiatrist and sleep specialist Dr Tony Fernando.

Having recently completed his PhD with the University of Auckland studying compassion in medicine he took us deeper into understanding compassion.

During his PhD, Dr Fernando wanted to understand if specific techniques in the east could enhance techniques in the west and to best understand this received temporary ordination as a Buddhist Monk in Myanmar in 2017 at a Monastery that specialises in compassion meditation.

Tony first warned “compassion is not that easy. There are many variables that will prevent us from being compassionate. Compassion is that extra step from empathy. It’s being aware a patient is suffering and wanting to alleviate their pain.”

But there is hope, you can enhance your compassion and in doing so Tony shared, “when you’re in a compassionate state of mind, parts of the brain involved in positive emotions will fire up and you will feel good. It can improve clinical outcomes and patient satisfaction and reduce your risk of burnout.”

To begin to unpack how to be more compassionate Tony demonstrated we need to understand when we are likely to lose compassion. There are many environmental and internal factors that can influence compassion. “As doctors our barriers to compassion are increased. We are surrounded in suffering, fatigue, depression from burnout or dealing with a difficult family or patient.”



Stress being another inhibitor, Tony shared an interesting Princeton study by Daniel Batson that demonstrated the impact stress has on your ability to exhibit compassion through the behaviour of seminarian students under differing levels of pressure when tasked to write a sermon on the Good Samaritan, a parable of unconditional kindness.

“These are all factors to be conscious of, to be able to enhance your ability to be compassionate. This all requires a lot of skill.” But once we are mindful of what can impact compassion, how can we be compassionate? Tony offered his recommendations on how to enhance compassion:

- Consider your speech “the Buddha in his wisdom listed 10 unskillful things humans do that cause suffering and four involve speech. Is what we say true? Is it kind? Is it the right time and place? What’s your motivation for saying this? Being aware of this we learn to be more compassionate in our speech.”
- Address burnout, depression and anxiety. Our chances of helping if we have little personal resources are slim.
- Mindfulness meditation also known as kindness, has been proven to enhance compassion. If we are more open to all of our experiences, positive or negative, compassion will flow.
- Utilise available compassion training protocols that are focussed on enhancing compassion.
- Learn to identify and manage your inner self-critic.
- Remain calm amongst the chaos.
- Ask yourself, how can I be of benefit to others?
- Learn to deal with difficult people. “We all have our stories and dramas and I remind myself the reason they’re difficult is that they’re suffering. Once I can recognise this, I change from wanting to be defensive to wanting to care.”

“One thing that supports me in my desire to be compassionate is compassion satisfaction. The practice of reflection and savouring times we have helped our patients. Personally, when a patient gives me a good comment, I write it down and put it in a compassion satisfaction folder to revisit when I am questioning my worth as a clinician. I use these to remind myself that I have purpose, a boost of self-worth based on compassion towards others.”

As we consider how we can become more compassionate Tony allows us to consider the technique of Lama Zopa, a Tibetan Buddhist monk known for his countless compassion projects all over the world. “To know suffering. If we can see suffering happening all the time not just in me but in everyone else, then compassion flows.”

IMPACT

Aotearoa NZ Anaesthesia
ASM 2023

November 9 - 11
The Dunedin Centre, Ōtepoti



Prof Emery Brown
MIT AND MASSACHUSETTS
GENERAL HOSPITAL, USA



Prof Frances Chung
UNIVERSITY OF TORONTO,
CANADA

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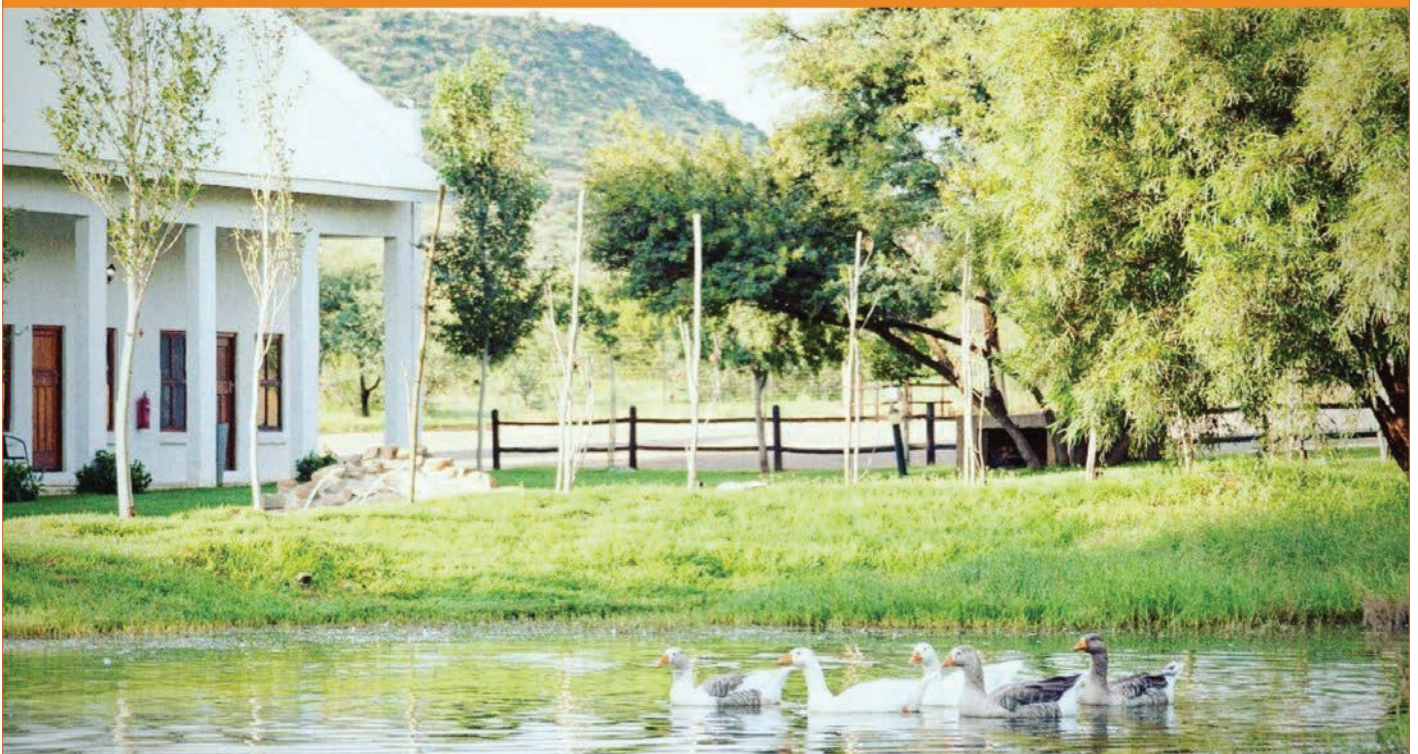
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Dr Malcolm Stuart



We were sad to have recently farewelled Dr Malcolm Stuart from the Executive Committee. We are grateful for Malcolm's eight years of service including six of which as the treasurer. Before he joined NZSA executive committee he had completed 12 years on the NZNC of ANZCA and thus brought with him a knowledge of the relevant issues affecting the anaesthetic community. In this issue of NZ Anaesthesia we catch up with Malcolm and hear a little more on what led him to Anaesthesia and New Zealand, and some of the projects he has been proud to be a part of.

What led you to Anaesthetics?

I had initially considered becoming an Obstetrics Registrar when I finished my medical training and working in Africa. But it was an Anaesthetist, who suggested during a case that I should become an Anaesthetist, claiming it was much easier to find work in Africa. I was completing a year's general practice in Scarborough and while doing that realised I did quite like Anaesthesia for its combination of practical skills, caring for people when they are very vulnerable alongside a lot of pharmacology and a complete knowledge of drugs and medicine.

How did you come to work in New Zealand and on the West Coast?

Whilst in Australia I had visited New Zealand for a skiing holiday. After completing 15 months of anaesthetic training and achieving a part 1 pass and a DA in the UK, I recalled I had enjoyed my time in New Zealand and there were no snakes or spiders so decided to return. Palmerston North were the first to respond so that's where I found myself. At the time the UK didn't have anything like the five-year training scheme in New Zealand and Australia. I finished this to become a consultant anaesthetist in 1998, about the same time as my friends in the UK as the system there changed.

Having spent more time in the UK and Australia than the South Island I decided to do my provisional fellowship in Christchurch.

A head of department asked if I would be interested in visiting Greymouth to help an Anaesthetist well into his 70s working too many hours, so I did and enjoyed it. After ten years I made the move to Wellington to join the family up here.

For most of my time on the West Coast I was the only NZ trained Anaesthetist. I was accompanied by rotating Anaesthetists from Durbin and South Africa and it was great to attend the World Congress in Cape Town and to travel South Africa and see many of them again.

You do a lot of volunteer work. In previous magazine's you've shared some of your experiences, what else have you been involved in?

I loved working on the NZ Resuscitation Council and was honoured to receive a lovely citation from them for 12 years as a Councillor. This has been a real area of interest for me as I had to do a lot of resuscitation work on the West Coast and have been involved in teaching the resuscitation courses for many years. I really enjoyed being involved in developing these courses and trying to standardise them across New Zealand.

When Covid came along I wanted to help and working only in private meant my lists were much quieter. So, I completed some Covid and Pfizer vaccine courses online. I also went to Wellington Free Ambulance in Porirua because I needed a basic CPR certificate, my CPR certificate from Simulation Centre was too advanced.

Eventually I joined the team at the Kilbirnie Hub twice a week over a 12 week period. We would administer 600 vaccines a day there. It was well put together and I enjoyed working alongside the team. They were also grateful to have someone there with experience of the process of anaphylaxis and myocarditis. There were some lovely moments while working there, including bumping into a neighbour who speaks no English who was very grateful to see a familiar face, and vaccinating some of my anaesthesia colleagues' children.

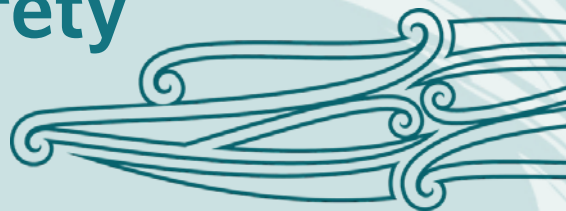
Any particularly proud moments from your time on the NZSA Executive?

Many, the work with the Resuscitation Council and Covid Vaccines but also being able to support the Anaesthesia family in New Zealand and working with NZATS. Alongside Dr Andrew Warmington, Karen Bennett and Michele Peck we were able to see Anaesthetic Technicians become a regulated and registered health profession. I have continued to work with NZATS and their registration exams since 2002, although this may be my last year with the change to a degree.

Another moment I am proud of with NZSA was being able to pull off a conference in Wellington for our members in 2020. We were incredibly lucky with the window Covid gave us. It was great to reconnect, Drs David Kibblewhite and Renee Franklin put a lot into organising that event. As the former treasurer I am also incredibly proud to see the Society in a stable financial situation too.

It is now time for me to pass on the Baton, and let the next generation of NZ Anaesthetists advocate for our members and patients, who are the New Zealand public and are a family.

An update from the Health Quality & Safety Commission



The following is an update on some of the latest Health Quality & Safety Commission activities that you may be interested in. More information is also available on their website. www.hqsc.govt.nz

Development of new quality and safety governance framework

As we continue to navigate our way through the reformed health system, the Health Quality & Safety Commission has begun developing a new framework for quality and safety governance.

The current framework, *Governing for quality*, was published in 2016 when the health landscape of Aotearoa New Zealand looked quite different.

In July, the Commission engaged Synergia Ltd to develop a new, robust and fit-for-purpose framework. Synergia has partnered with the Whānau Ora Commissioning Agency to ensure Te Tiriti o Waitangi and mātauranga Māori values and principles are incorporated. The new framework will be practical to implement, equitable and will undoubtedly be relevant to anaesthetists and the organisations in which you practice.

Stocktake of sepsis management in Aotearoa New Zealand

The Commission recently released its findings of a nationwide stocktake about the management of sepsis in Aotearoa New Zealand which highlighted the need for a coordinated national response to sepsis.

The stocktake was designed to build a foundation for understanding sepsis management in Aotearoa New Zealand. It looked at the current clinical practices, guidance and protocols used at public hospitals, private surgical hospitals, ambulance services and a selection of emergency and urgent care clinics.

As anaesthetists, many of you will be closely involved in providing care for patients with sepsis and the report makes several recommendations for action, which focus on keeping patients at the centre of sepsis planning, from prevention to post-discharge support.

The Commission is reviewing the findings and will be engaging with key stakeholders to determine next steps and identify

quality improvement opportunities to support the progression of the National Sepsis Action Plan.

Safe use of anticoagulants

The Commission is in the testing phase of a two-year quality improvement project looking at the safe use of anticoagulants. Eight hospitals across Aotearoa New Zealand are participating and are each establishing a local project team to look at issues associated with the adverse effects of anticoagulant use in their district. Most of you will be aware of the risks and challenges associated with managing anticoagulants in the peri-operative period.

The collaborative is being led by a team of specialists from across the health sector. An expert advisory group has also been established, with wide representation, including anaesthetists as well as consumers with lived experience of anticoagulant use.

The testing phase is anticipated to be completed by mid-2023. For more information or to get in touch, please email: anticoagproject@hqsc.govt.nz

A window on quality 2022: COVID-19 and impacts on our broader health system (Part 2)

The Commission has released Part 2 of its investigation into the effects of the COVID-19 pandemic on healthcare services.

A window on quality 2022: COVID-19 and impacts on our broader health system (Part 2) follows a previous report (Part 1) published in December 2021 and examines the pandemic's effects on Aotearoa New Zealand's health system, our population's mental health, health care workforce, and experience of care for disabled people are examined in the report. While a partial and curated view of the impact on the health system, the report identifies both positive findings and challenges.

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Preventing Unrecognised Oesophageal Intubation

Dr Paul A. Baker
 Department of Anaesthesiology, University of Auckland

Introduction

Every year, patients die from unrecognised oesophageal intubation. This rare, lethal complication of airway management can occur to any patient of any age undergoing tracheal intubation. It can also involve any airway practitioner of any seniority or previous experience. This complication is usually an avoidable occurrence resulting from human error. Recent deaths internationally from unrecognised oesophageal intubation have heightened concern about this problem and resulted in a new consensus guideline from the Project for Universal Management of Airways (PUMA) and international airway societies, which has been endorsed by the New Zealand Society of Anaesthetists. In this article, the key recommendations from the PUMA document will be presented and discussed (Fig 1).¹

Key recommendations

These key recommendations arise after reading many cases of unrecognised oesophageal intubation. Certain important issues and recurrent themes occur which will be discussed in this article.

Preventing unrecognised oesophageal intubation:
 A consensus guideline from the Project for Universal Management of Airways and international Airway Societies

- Always monitor exhaled CO₂ & SpO₂ during airway management
- Routinely use a videolaryngoscope whenever feasible
- The airway operator should verbalise the view at laryngoscopy
- Following intubation, the airway operator & assistant should each verbalise whether sustained exhaled CO₂ & adequate SpO₂ are present
- NO TRACE WRONG PLACE** Inability to detect sustained exhaled CO₂ requires oesophageal intubation to be actively excluded
- The default response to failure to satisfy the criteria for sustained exhaled CO₂ should be to remove the tube and attempt ventilation using a facemask or supraglottic airway
- If tube is not immediately removed, repeat laryngoscopy, flexible bronchoscopy, ultrasound or an oesophageal detector device are all valid alternative techniques for excluding oesophageal intubation
- Clinical examination should not be used to exclude oesophageal intubation
- The tube should be removed if oesophageal placement can't be excluded, sustained exhaled CO₂ can't be restored or SpO₂ deteriorates before sustained exhaled CO₂ is restored
- Actions should be taken to standardise & improve the distinctiveness of variables on monitor displays
- Interprofessional education programmes addressing technical & team aspects of task performance should be undertaken to implement these guidelines

Fig 1.

Monitoring

Waveform capnography is the “gold standard” technique to detect and monitor expired CO₂ and therefore identify the absence of expired CO₂ after oesophageal intubation.² It is the most reliable method to confirm and monitor tracheal tube placement even in low perfusion states, including cardiac arrest, with sensitivity and specificity rates of 100%.³

Various problems occur with capnography, including lack of availability in all areas where airway management takes place, failure to check the capnograph after tracheal intubation, misinterpretation of an absent waveform, lack of knowledge about the significance of variations of waveforms and confusion between capnography and other waveforms on a monitor (Fig 2). Each of these issues should be addressed with education and reflected in our ANZCA practice guidelines. There is also the need for willingness by practitioners to modify their own practices and adopt relatively simple measures outlined in the key recommendations described earlier (see Fig 1).

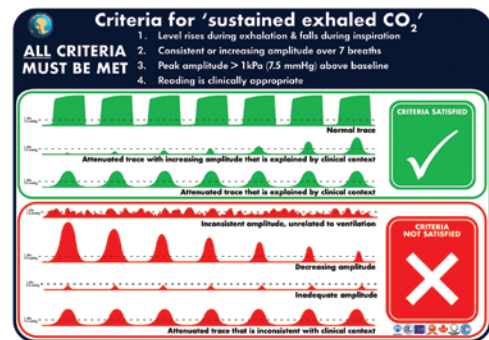


Fig 2. Criteria for ‘sustained exhaled carbon dioxide’. This graphic has been designed to be used as both a foundation tool to be reviewed in advance of clinical use and an implementation tool to be referred to in real time during clinical practice [93]. A high-resolution version of this graphic is available for download at <https://www.UniversalAirway.org/downloads>. Printing and laminating this at A3 size is recommended.

Early identification of an oesophageal intubation with capnography is essential to avoid severe patient morbidity or mortality. Using clinical signs of tracheal intubation including tube misting, chest movement and breath sounds on auscultation to exclude oesophageal intubation is unreliable and can result in delays in correct patient management. While clinical examination may be used to encourage removal of a tube, it should never be used to discourage it.

Pulse oximetry is not a replacement for capnography, but it is a useful adjunct for early diagnosis and monitoring the likelihood of an oesophageal intubation. Comparison of oxygen saturation before and after tracheal intubation in conjunction with capnography findings may accelerate correct diagnosis of oesophageal intubation. Conversely, reliability of sustained normal oxygen saturations can lead to false confidence, particularly after preoxygenation and other apneic oxygenation techniques, leading to delays in the management of an oesophageal intubation.

Flexible bronchoscopy is a helpful technique to confirm correct tracheal tube placement, particularly when there is concern about safe extubation in the face of a possible oesophageal intubation. Ultrasound has also been shown to be reliable for oesophageal intubation diagnosis, but these techniques can take time to implement and do not function for ongoing monitoring. In the absence of other more reliable monitoring, the oesophageal bulb will help identify tracheal versus oesophageal intubation using negative pressure from the deflated bulb to inflate in the trachea and not in the oesophagus (Fig 3).

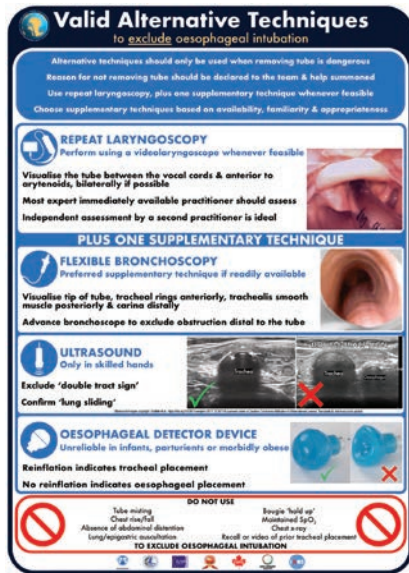


Fig 3. Algorithm for approaching failure to satisfy the criteria for 'sustained exhaled carbon dioxide' following passage of a tracheal tube. This algorithm has been designed to be used as an implementation tool [93], to be referred to in real time during clinical practice. Optimal use during clinical practice requires prior familiarity with the algorithm and guideline text. A high resolution version of the algorithm is available for download at <https://www.UniversalAirway.org/downloads>. Printing and laminating this at A3 size is recommended.

Tracheal intubation

The goal of tracheal intubation is to safely deliver an endotracheal tube into the trachea without causing hypoxia or trauma. The ideal technique involves slow sequential exposure of anatomy using an intubation device and oxygen. This technique is designed to correctly identify the glottis and avoid bypassing the airway on the way to the oesophagus, thereby mistaking the oesophagus for the glottis (glottic impersonation). (Fig 4). A range of intubation devices can be used to achieve this goal, but evidence suggests a videolaryngoscope reduces the risk of oesophageal intubation, improves the view of the glottis compared to direct laryngoscopy, and facilitates a shared view of the glottis which, combined with a verbal description of the laryngeal view, adds to the safety of the procedure.⁴ The latest practice guideline recommends routine use of a videolaryngoscope whenever feasible. Where not currently feasible this recommendation should be considered aspirational.¹

Not all intubations take place under ideal conditions, and multiple factors can contribute to a poor view of the glottis leading to an oesophageal intubation, particularly after a repeat laryngoscopy attempt. These factors can include poor preparation, inexperience, poor equipment, adverse patient anatomy and physiology, stressful conditions and distractions. Many of these factors can be improved if time is taken to optimise the intubation attempt.

Identification of correct tracheal intubation is a critical step, worthy of a few dedicated seconds, to confirm correct placement, with a witness, and to identify a sequence of

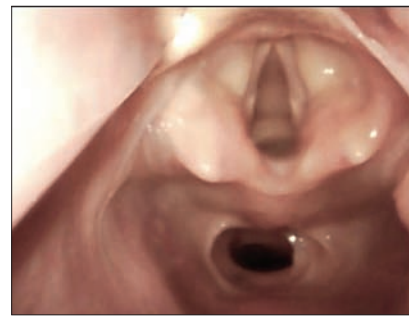


Fig 4. This image taken from a cadaver shows a view of a larynx with the oesophagus below. The oesophagus has a blanched lateral border appearing like an aryepiglottic fold and arytenoid plus an anterior border appearing like an epiglottis. Deep positioning of a laryngoscope blade could lead to an oesophageal intubation. (Image courtesy of Professor George Kovacs)

capnography waveforms which meet the criteria for 'sustained exhaled carbon dioxide'. (see Fig 2)

Human factors

When reviewing unrecognised oesophageal intubation reports, numerous examples appear involving errors of judgement, including confirmation bias of alternative diagnoses such as bronchospasm.¹ Other problems include fixation error, overconfidence by airway practitioners, or denial of oesophageal intubation.⁵ These problems may be aggravated by a range of other adverse human factor behaviours, including poor team communication and hierarchy issues and making bystanders reluctant to speak up.⁶ Refusal to check the tracheal tube by the primary practitioner has been reported, leading to critical delays in correct diagnosis and fatal consequences.⁵

To avoid distraction or denial of oesophageal intubation during this critical phase of airway management, a safety step involving a mini 'timeout' is recommended (see Fig 2). This pause should only take a few seconds, drawing attention to the capnograph immediately after every tracheal intubation, and take precedence over other activities that can be distracting.⁹ After that, if the criteria for 'sustained exhaled carbon dioxide' are not met, remove the tube, and rely on oxygenation via a supraglottic device or face mask. If removing the tube is considered potentially dangerous and capnography is equivocal, the position of the tube can be confirmed by witnessed repeat (ideally video) laryngoscopy, in combination with flexible bronchoscopy, ultrasonography or use of an oesophageal detector device whenever feasible. (see Fig 3)¹

Conclusion

With the benefit of education, monitoring and a willingness to modify clinical practice, "oesophageal intubation" can be recognised and managed safely. Adoption of the recommendations outlined in this guideline has the potential to save lives.

Acknowledgement

I thank and acknowledge Dr Nick Chrimes who reviewed this paper and Professor George Kovacs who provided the image seen in Figure 4 from the Dalhousie University's Human Body Donation Program. Used with permission.

Please see Page 18 for references.

Burnout



Dr Mikaela Garland
NZSA Trainee
Representative

Burnout is a well-known issue in the medical profession and has been brought to centre-stage since the COVID19 pandemic. A recent author has described it as a ‘wicked problem’; one without a clear definition, a solution, nor an endpoint – is it discrete or on a continuum, can zero burnout even be an endpoint?¹ This makes burnout difficult to discuss and even more difficult to resolve. What are the aims of discussing burnout, once we realise it is a wicked problem?

The aim here is to continue on from our recent discussion of fatigue, to raise awareness and to cultivate hope. There is a shift in our view of ‘well-being’ and ‘health’. The Māori model of health (te whare tapa whā) involving our four walls seems more important than ever before, as we become more aware of the impact of Hinengaro, wairua and whānau on our physical health (tinana).

There are many contributing factors to the development of burnout. There is a shift from placing the onus solely on the person/doctor/colleague/friend to examining the person in the context of their environment and how the two interact. From a personal and well-being point of view; we do need a GP, we do need to look after ourselves and find our de-stressors. We also need to acknowledge that only focusing on these ‘fixes’ ignores the wider environment and may in fact make a burnt-out person more burnt out.

1 The Wicked Problem of Physician Well-Being. Sinsky JL, Margolis RD, Vinson AE. *Anesthesiology Clin* 40 (2022) 213-223.

Our speciality is at the forefront of sustainability in medicine. I believe we will also be at the forefront of creating sustainable cultures within the work environment where we have lower rates of burnout and improved work-life satisfaction. Over the course of my training there has been a rise in welfare advocates and representatives (and a huge increase in welfare resources). A sustainable work culture is not about removing struggles, pain, or difficult work-life decisions. It is for work to add to our positive life experiences. This could be showing real empathy to our colleagues and acknowledging their struggles. It may mean standing up and supporting those who speak up when the status quo needs to be challenged. Lastly, it could just be showing kindness to ourselves and accepting that the ups and downs of life and our job can intertwine in ways we could not have imagined.

The initial thoughts for this column included an assessment of burnout and what you can do about it. (There is an assessment of burnout if you are curious, Maslach Burnout Inventory™ (MBI)). However, the intricacies of burnout deserve a deeper conversation than a simple quick fix. I hope by continuing the conversation, we can improve our wellbeing and that of the health workforce.

And a Webinar!

Fellow trainee representative Dr Aidan Ward and I would like to extend our gratitude to the SMO and Trainee Anaesthetists who presented in our recent *A Career in Anaesthesia* Webinar. Their discussion of the day-to-day life of the Anaesthetist, the training programme, career pros and cons and availability to answer questions from attendees is so valuable in building awareness of our profession. If you know of any junior doctors or medical students that would be interested in watching this please direct them to the NZSA website to watch the recording.

References for Preventing Unrecognised Oesophageal Intubation on Page 16.

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Pacific Society of Anaesthetists Conference

Dr James Dalby-Ball
Chair, Global Health Committee

One of the NZSA's key roles is to support the wider anaesthesia community across our local pacific region. This year we valued the opportunity to support colleagues during the first Pacific Society of Anaesthetists conference since the COVID pandemic. Drs Charlotte Legge and Aidan McGrinder were the recipients of the NZ Trainee Travel Grant award and present this report on the PSA 2022 conference.

Pacific Society of Anaesthetists Annual Conference 2022 - Resilience and Recovery

The 31st Pacific Society of Anaesthetists (PSA) annual conference brought together friends and colleagues from across the pacific anaesthesia community for the first time in two years. With the theme of 'Resilience and recovery' this meeting focussed on current issues and possible solutions for the challenges facing Anaesthesia across the region.

Promoting the role of the Anaesthetist in facing these challenges was the theme of the opening address given by Dr Seriem Bale. Dr Bale is an anaesthesia icon in the pacific, having played an instrumental role in establishing the postgraduate anaesthesia training programme at Fiji National University which significantly bolstered the anaesthesia workforce capacity in the pacific. Her contribution to Anaesthesia was acknowledged internationally in 2020 when she was awarded the World Federation of Societies of Anaesthesiologists (WFSA) Distinguished Service Award, finally presented to her in-person at the PSA conference dinner.

WFSA President, Associate Professor Wayne Morriss, (from Christchurch) highlighted how the surgical backlogs created by the pandemic worldwide now form a significant threat to health, particularly in low-middle income countries (LMICs). This issue and how to provide safe anaesthesia in the face of increasing demand and limited resource was a key focus at this meeting. Dr Alan Goodey (Waikato) led the discussion on the role of the trained Anaesthesia Assistant (a very limited resource in the pacific), how this role forms an integral part of safe anaesthesia and how the pacific could develop capacity in this area.

Clinicians from Kiribati, Solomons, Tuvalu, Cook Islands, Samoa, Timor Leste and Vanuatu presented updates on the local anaesthesia capacity and shared interesting cases unique to their individual environments such as how to manage airway injuries caused by crocodile attacks. COVID-19 and the local response to the pandemic was an obvious subject for discussion and we were struck by just how instrumental local anaesthesia trainees were in the planning and response in these pacific countries.

The different challenges faced by the pacific environment compared to the NZ environment were highlighted by Professor Dianne Stephens presentation on 'PPE and Heat stress'. Her research into the impact of heat stress amongst PPE-clad quarantine facility workers in the Northern Territories was fascinating and outlined many strategies for risk mitigation of use to the pacific anaesthesia community in particular.

At the meeting we were struck by our colleagues' sense of community, professionalism, and dedication to their work. However, the overwhelming message was the effect that a lack of resource is having on creating a resilient and stable anaesthesia workforce. Many regions still fall short of the five anaesthetists per 100,000 people suggested by the Lancet Commission in 2015 as one of the targets needed to provide a safe and sustainable anaesthesia workforce. Burnout is a real threat to both individual health and national workforce resilience. Dr Christian Leepo (Vanuatu) aptly stated that it is people, and not 'stuff' that the pacific anaesthesia workforce needs. To address this, locally based training initiatives are looking to expand numbers of anaesthesia trainees, introduce Intensive Care Medicine subspecialty training and continue to support the wider community with activities such as simulation training at future PSA events.

Four NZ anaesthesia trainees attended the PSA Conference this year and we hope this number will continue to grow in years to come. We would like to extend our sincere thanks to the NZSA and GHC for supporting us to attend.

See the news in brief (page 6) for a map of locations locums visited to support local attendance at the PSA.



Delegates of the PSA Conference 2022 (the largest ever PSA).



Pacific Delegates including Dr Cecilia Vaai-Bartley from Samoa (second from left) - current PACT scholarship recipient.

Decarbonising Healthcare in Aotearoa #2: Travel

By Dr Rob Burrell
Chair of the NZSA Environmental and Sustainability Network



There has been a column here from your Environmental and Sustainability Network for some time now, most recently on how we might reduce the carbon footprint of healthcare, specifically with respect to energy. We discussed some of the drivers (and the obstacles) to decarbonising our hospitals. And we concluded that electrification was key, that it wasn't complicated, and that it will happen.

This time we should look at the travel undertaken by patients getting to and from their healthcare, and that undertaken by healthcare staff commuting to and from their work. Together, they make up about 17% of the carbon footprint of healthcare. That's over 1% of the carbon footprint of the entire country.

If we lived in Monaco, none of this would matter. With 40,000 people on 2km², (and an average income of \$US200,000 each!) Monégasques do not have to worry much about the carbon footprint of people traveling to its hospitals. They are basically within walking distance, and even in your Bugatti, it's not far to drive. Contrast that with Aotearoa, spreading its 5 million inhabitants across 268,000 km². Our population density is about 1000x less, on average, than that of Monaco. It's high in our cities of course, where staff and patient travel journeys are shorter, much less in our rural areas, such as Northland, with only 14 kiwis/km². With low population density (and a lot less cash), minimising the carbon footprint of our patient/work travel will not be as easy as it is for the Monégasques.

Before focusing purely on the carbon cost of patients and staff commuting, it is worth considering the other costs of commuting for healthcare workers. For most of us, it's a waste of time. For many a city dweller, limiting commuting to one hour per day might be considered pretty good. In my department of about 100 doctors, that's the equivalent of sending one highly trained person into a metal box, there to achieve little, other than becoming grumpy and hypertensive, for all the hours in 10 days. It's insane! Rarely does the commute make us fitter, smarter, happier, or wealthier. There is so much wrong with the way we currently commute, that we often can't imagine it changing. Sure, you can listen to a podcast, or sing along with the Breeze. With other responsibilities in our lives, the commute can sometimes look like the easy bit.

For the majority of healthcare workers, the majority of their commuting is wasted time, health, money, and carbon. Getting up even earlier won't fix it, either.

Similar issues come to mind for patients. Most of their travel is to and from elective events: clinics, scans, tests, appointments of all kinds, which are often neither close in time nor space. If the patients live in the boondocks, they can expend a great deal of their by-definition shorter than average and less than ideal lives travelling, expending carbon, costs, and time (which may be more precious than money).

How do we reduce these problems? What can be done to reduce the carbon costs of commuting for staff, and the healthcare rat race for patients?

If the first answer that comes to mind is converting the national fleet to EV's, we have a spectacular failure of imagination. We can't save the planet by buying ourselves a new car. Not that your next car purchase shouldn't be an electric one- it should – but the car you already have is a vast investment in physical resources and embodied energy (carbon). Getting people in another country to build us yet another car is not the solution.

Better answers lie in the realm of big things, and little things. Big things like public transport, cities doing their part to reduce transport emissions with more compact living, congestion management, and delivering walkable journeys, and being bold with regards to urban sprawl and rewarding people who don't occupy car parks. We are talking about changing the drivers to drive, re-engineering our built environment to reflect the way humans best move about, not the ways dictated by the culture of cars. Our current cities look like a conspiracy amongst car manufacturers, oil companies, and road constructors. There is a massive, vested interest in the status quo, and most of the time it is impossible to imagine anything else.

Whilst anaesthetists have no more say in city council chambers than anyone else, we do have a voice in healthcare and the small things that can lead to big reductions in staff and patient travel. Virtual appointments, particularly with video, save patients time and money, as well as two car journeys. Is there any reason why the clinic staff need to be at the workplace for a virtual clinic? Just how much interpreting work can be done with good virtual presence? From our experiences in Covid times, we know we can do some things virtually. How much is a question we can only answer by being ambitious.

Te Whatu Ora may have a part to play. As our new umbrella organisation, it could create means by which patients can communicate with services remotely and privately. Others have done it. See www.tend.nz, could such an app help to coordinate times for appointments, tests, and investigations? Improving lives, saving money, time and carbon?

With a judicious dose of technology what about a ride sharing app for all the people who work in your hospital? Like Uber, but without (or even with) Uber. If there are people nearby commuting at similar times to you, you can take your car some other day. Scooters at bus stops and train stations are great

“For the majority of healthcare workers, the majority of their commuting is wasted time, health, money, and carbon. Getting up even earlier won’t fix it, either.”

for the first and last kilometre of your journey. Where are they, and why aren’t they built into public transport systems?

Even smaller and easier changes are those nudges we need from time to time. Paying people not to park sends a powerful message and makes public, shared or self-powered transport even more affordable. Install the bike racks and scooter parks and chargers in desirable locations, not beyond the car park.

Anaesthetists are tech-savvy and often early adopters. We have the knowledge and experience to make some of the workplace changes that other services can later duplicate. Then we can all measure and manage down the enormous burden in carbon (and time and money) that is the dreadful commute suffered by patients and staff.

*Photo credit: Photo by Anna Tukhfatullina Food Photographer/Stylist:
<https://www.pexels.com/photo/parked-bicycles-2573992/>*



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National Blood Update

Dr Katia Hayes

Cardiothoracic Anaesthetist in Auckland and Chair of the Transfusion Committee

National Major Haemorrhage Pathway (MHP)

A group of blood and transfusion representatives from regional and tertiary hospitals throughout Aotearoa, in conjunction with New Zealand Blood Service (NZBS) have created a new national MHP. The aim of the project is to simplify and standardise all three MHPs for all healthcare workers no matter where in NZ they work. As well as to improve communication between the blood bank and the location of the transfusion, and reduce wastage of blood products.

The MHP incorporates all three types of massive transfusions that can be activated in adults:

- a) Standard MHP
- b) Code crimson/trauma MHP
- c) Obstetric MHP

The major changes within this project include:

1. The introduction of a “Stat Pack” for all three pathways. This gives clinicians immediate access to blood products with the opportunity to transfuse, then stop and reassess the patient. If there is ongoing bleeding and signs of shock, then formal activation of the MHP needs to occur with a second phone call. However, if the patient has stabilised or bleeding has ceased, there has been no further thawing of blood products and therefore no wastage.

From international statistics we know that 65% of major trauma does not require more than one unit of RBCs. These statistics are similar amongst other NZ hospitals, and is why we have instituted these changes. In rare instances, if the treating clinician believes this is a major haemorrhage that requires immediate full activation of the MHP, this can be done ensuring you clearly communicate this in the standard way within your hospital (ie, calling blood bank or operator). The stat pack will be issued and thawing of box one will be immediate.

2. The introduction of a Transfusion Co-ordinator. This is a new role for most hospitals, and a separate role to the team leader. The transfusion coordinator is the liaison between the point of the resuscitation and blood bank. Their list of tasks is on the back page of the MHP pathway. Most importantly they are there to improve communication with the blood bank, to update them when formal activation of the pathway is required, if the patient’s location changes, and if ceasing or pausing the MHP and moving to targeted transfusion.
3. Simplification of packs 1/2/3, where packs 2/3 become the alternating products until the MHP is stopped and movement to targeted transfusion.
4. Stat dose of 2g tranexamic acid in code crimson/trauma.






Successful trauma management is not just about the fine detail of blood product ratios of an MHP but is rather a


coordinated approach to the rapid assessment and definitive damage control surgery. While this is occurring there should be resuscitation with blood products that represent the reconstitution of whole blood, with minimal crystalloid administration.










The new National MHP is being introduced throughout NZ hospitals during the later half of 2022 and early 2023. An MHP educational video is also available on Youtube and an eLearning package will be available on all eLearning platforms throughout NZ. Contact your transfusion committee reps or transfusion nurse specialists for further information.



Blood handling rules lanyard

We have designed a simple lanyard nationally for all healthcare workers as a reference tool for the rules around all the different blood components and their handling rules. These are based off NZBS rules (which most non-NZBS blood banks follow, not all NZ blood banks are run by NZBS). The front includes all the liquid products we commonly use, and the back the rarer ones. Remember all liquid products (eg, RBC, FFP, platelets, cryoprecipitate) must be returned to the blood bank within 30 minutes of blood bank issue time, otherwise it is wasted and cannot be reissued to another patient.

	Availability	Blood Fridge	Admin within
Red Cells	Immediate		4 hours of issue
FFP	20mins or immediate if prethawed available		4 hours of issue
Platelets	Immediate		1 hour of issue
Cryoprecipitate	20mins		4 hours of issue

 Sign tracking tag if putting in approved fridge
RETURN ALL TO BLOOD BANK WITHIN 30 MINS IF NOT REQUIRED

	Availability	Blood Fridge	Admin within
Prothrombinex	Immediate 		3 hours of reconstitution
Anti D	Immediate 		20-30mins allow to reach room temp
IVIg & Albumin	Immediate 		4 hours from spiking
Other	Immediate 		Phone BB stability varies

 Sign tracking tag if putting in approved fridge  May need TMS approval
RETURN ALL TO BLOOD BANK WITHIN 30 MINS IF NOT REQUIRED

Blood handling rules lanyard.

Top tips for saving blood products

Red Blood Cells (RBCs)

- Ensure the “swing tag” is signed in/out of the blood fridge when storing them in your operating room or ICU environment. If there is no documentation of cold chain continuation, these will be discarded.
- Ensure they are never out of the fridge for more than 30 minutes.

Fresh Frozen Plasma (FFP)

- If you are unsure whether your complex case requires FFP, but you want to be prepared for it (and can't wait the 20 minutes it takes to thaw and issue) there is the option to “thaw and hold” FFP in your blood bank. This is especially helpful in cardiac surgery, liver surgery or trauma when moving onto targeted transfusions. If FFP is not needed, then it can stay in the blood bank and be moved to “extended life plasma” (ELP) where it has five days fridge life and can be reissued to another patient. Most blood banks in NZ now have ELP. If you do need it, you can call, and it is an immediate delivery.
- Return to blood bank within 30 mins of issue time if no longer needed.

Cryoprecipitate

- Only thaw cryoprecipitate if it's going to be needed. It is expensive and only has four hours to be reissued if not used. This is unlikely and it will therefore be wasted.

Future blood product changes

Prothrombin complex concentrates (PCCs) eg, Prothrombinex

With the upgrade of the CSL Behring Plant in Melbourne, we will have Beriplex NZ, a four factor PCC containing factors II, VII, IX, X and the important balance of the anticoagulants protein S and C. This will finally bring us into alignment with the rest of the world with four factor PCC. It will enable us to apply international data and research on PCC use in areas such as cardiac surgery and massive bleeding. This will likely occur at the end of 2024, once we have used up our current stock.

Albumin










We will be changing from Albumex 4% to Alburex NZ 5% with Albumex 20% remaining the current concentration, but with a name change to Alburex NZ 20%.

Prices 2022

The following image shares the cost of each unit of blood product supplied from NZBS to our hospitals. This does not include consumables, nursing or administration time.




Life Giving Blood

Blood is a gift, please use it wisely

 Platelets Apheresis Adult Dose \$1,000.65	 Red cells Adult Unit \$372.50	 Fresh Frozen Plasma Adult Unit \$259.64
 Intragam P 200mL/12g \$1,576.20	 Cryoprecipitate \$487.49	 Albumex 4% 500mL \$131.69 20% 100mL \$131.69
 Bioslate (Factor VIII) 500IU \$740.28	 Rh(D) Ig 625IU \$202.48	 Prothrombinex-VF 500IU \$484.95

Please note: Blood is donated as a gift in New Zealand. These prices represent collection, manufacturing, testing and processing costs. Prices valid as at 1st July 2022. Prices and products subject to change without notice.

To donate, contact us today to book your appointment

Download our app now
  **0800 448 325**
 nzblood.co.nz

111829516 07/22

Group and screen labelling errors

From November 1st, this year, NZBS blood banks stopped accepting minor and moderate errors on the group and screen tube or form. This is to reduce the rate of wrong blood in tube events (WBITE) and ensure the patient and their blood group is correctly identified. A WBITE event can lead to the wrong blood group being transfused to the patient and death. This has occurred once in NZ over the past five years.


The mandatory information that must be on the pink group and screen tube is:

- Family name
- First name
- DOB (DD/MM/YY)
- NHI number
- Date and time
- Initial

Check Twice

Label Once



Mislabelled samples will not be accepted.



Mandatory:
 - Family Name - NHI Number
 - Given Name - Date & Time
 - DOB (DD/MM/YY) - Signed

Have you confirmed your patient's ID?

LABEL IT CORRECT
OR RE-COLLECT

NZATS Column



We have seen many changes come and go through yet another year, challenged by life really. Our thoughts tend to drift to what next year will bring, what will we see and do. Will we get something we desire or will we just assume the original design that has kept us going.

It's been yet another busy year for the profession; we welcomed new members to the executive, including myself and had new members welcomed into the profession. I would like to thank you all for your hard work and dedication to this profession.

We also had a significant vote and outcome of a name change from NZATS Chair to President, this encompassing what every other profession has in place. It was voted on at our AGM in November and passed.

We still face many uphill battles, some say for survival. Climate change is a constant in our lives these days and as professionals we have been working alongside many to reduce our carbon footprint. There has been, and will continue to be a lot of work needed to reach something that could help with this cause, so once again I would like to thank those working tirelessly in this area.

A lot goes on behind the scenes, from running the exam on behalf of the Medical Sciences Council, organising study days that educate us and of course our flagship that is conference. So as a profession we do have some really good things going on and exciting times ahead.

This year we have seen the introduction of a new website, a new CPD platform and a reinvigorated newsletter. We have run a few study days, from the POCUS to the airway days. Regional meetings also took place, we held our Leaders meeting and had a mighty time of it at conference in the Hawke's Bay. We also held our first webinar and have many more to come. I would like to thank all who helped in the preparation and running of these courses and to those that attended.



New Zealand
Anaesthetic Technicians'
Society

Throughout the year I managed to have some robust discussions with my counterparts in the UK and Australia, having open lines of communication with them has meant we have made many forward steps for the profession and of course I enjoyed the banter that also came with these talks.

Following a few years in the making our new degree programme finally had lift off this year and we now wait as we move this forward. It is changing our history and, in some cases, how we perceive ourselves, but as always, we must look ahead and imagine our direction and the path we must take to achieve greatness.

Next year we have some exciting things planned, including another Waiheke Island Symposium, it's always fun to get out of the cities to somewhere where one can relax alongside the educational component and our ASM conference in Dunedin, always a great place to venture to. We will of course be running our stable courses throughout the year too.

I would like to thank all of our supporting companies. It's been a tough few years with equipment and consumables lost overseas, discontinued and so on, but we have managed to keep the doors open with your help. So thank you for your support and unwaiving advice on all things anaesthesia and so much more.

I would also like to congratulate those trainees who have passed their registration exam this year.

Overall, it was another challenging year for most of us, we have seen some colleagues come and go, we have a new employer and the workings that this brings. We have interesting times ahead, so let's take some time this Christmas to look ahead, let's think positively and as they say, time will tell.

Merry Christmas everyone and happy new year.

Matthew Lawrence
President NZATS



JOIN US AT ASURA 2023
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Associate Professor
Enrique A. Goytizolo



Dr Rosie Hogg



Dr Adam Spencer



Associate Professor
Alwin Chuan

- Hear international speakers
- Take part in plenary talks, masterclasses, small group discussions, workshops and hands-on teaching
- Earn CPD points
- Our symposium coincides with the Adelaide Fringe Festival, take advantage of events occurring walking distance of the conference site.

WWW.ASURA.ORG.AU

Retained Throat Packs reported to webAIRS

WebAIRS has received numerous reports of anaesthetic incidents involving throat packs which are commonly used in Australia during dental, maxillofacial, nasal, or upper airway surgery to reduce the risk of airway complications. They are made of woven gauze or similar soft fabric such as polyurethane foam and used under general anaesthesia to:

- absorb blood and other bodily fluids/material created by surgery and prevent ingress via the back of the throat to the oesophagus or airway;
- prevent amalgam and similar foreign material from lodging near the glottic entrance or oesophagus;
- seal the area around the endotracheal tube to prevent leaks;
- stabilise endotracheal tubes or supraglottic airway devices.¹

A recognised complication of the use of throat packs is unintended retention. Despite taking precautions, throat packs may be inadvertently left in situ after the procedure, with the risk of obstructing the airway.¹ Whilst the packs might be inserted either by anaesthetists or by surgeons, they are commonly inserted by the anaesthetist and removed by the surgeon. This shared role might contribute to the risk of inadvertent retention especially if the pack is not included in the swab count. The question of legal responsibility or shared responsibility might not be obvious, but usually remains with a person that performs a procedure, unless a formal handover of the responsibility for ongoing care takes place. However, the anaesthetist is responsible for airway management during emergence from anaesthesia and that includes ensuring that the airway is clear of any foreign material, which might include, for instance, fluids, blood or in this case a throat pack.

A recent evidence-based consensus statement by the Difficult Airway Society (DAS), the British Association of Oral and Maxillofacial Surgery (BAOMS) and the British Association of Otorhinolaryngology, Head and Neck Surgery (ENT-UK) stated that they no longer recommend the routine insertion of throat packs by anaesthetists². If a throat pack is regarded as clinically necessary, prevention strategies to reduce risk of inadvertent retention include both documented evidence and visual cues¹.

- **Documented evidence**
 - The reasons that a throat pack is clinically indicated and justified.
 - Record the two persons check of both the insertion and the removal of the pack.
 - Add the pack to the swab count.
- **Visual cues**
 - Place a label or mark on the patient, for example, a sticker on the patient's forehead.
 - Attach a label to the airway device or part of the anaesthetic circuit where it will be seen during removal of the airway device.
 - Attach the pack to the airway device.
 - Leave a portion of the pack protruding from the patient's mouth.
- **In addition to the previous strategies:**
 - Insist those responsible for the insertion are responsible for the removal of the pack.
 - Announce loudly in the OR that a throat pack has been inserted and follow this with the announcement that the pack has been removed.
 - All airway suction is to be performed under vision, particularly at the end of the operation.

The throat pack should have a Raytec strip so that if the above strategies fail the location of a retained throat pack can be determined by X-ray.

ANZTADC is currently systematically analysing the webAIRS reports that involve throat packs with a view to publication in the peer reviewed journal, *Anaesthesia and Intensive Care*.

ANZTADC Case Report Writing Group

Dr Chris Acott, AM

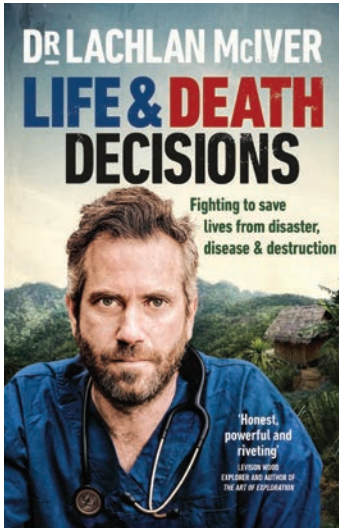
**Dr Peter Roessler, ANZCA Director of Professional Affairs
(Professional Documents)**

¹ Curran J, Ward M, Knevil GJ. Reducing the risk of retained throat packs after surgery 2009. Available from: <https://www.medis-medical.com/content-files/NPSA-Report-Reducing-Risk-Retained-Throat-Packs-Surgery.pdf>.

² Athanassoglou V, Patel A, McGuire B, Higgs A, Dover MS, Brennan PA, et al. Systematic review of benefits or harms of routine anaesthetist-inserted throat packs in adults: practice recommendations for inserting and counting throat packs. *Anaesthesia*. 2018;73(5):612-8.

Life and Death Decisions: Fighting to save lives from disaster, disease and destruction

Lachlan McIver (Octopus Publishing Group)



A couple of years ago I was introduced to 'type two fun' – “it really sucked at the time but makes for a good, and often entertaining, story when recalled”. Whilst my experience of this is mild in comparison our author, Lachie, has lived a life of them. His intrepid, adrenaline fuelled journey so far has been one of many ups and downs. Built on an undercurrent for the plight of medicine in rural and remote locations and the severe impact on public

health due to global warming.

The sudden and tragic loss of his father as a teenager and a medical school talk from a rural 'jack-of-all-trades' doctor heavily influence Lachie's ambitions in health. As a rural and remote medicine specialist Lachie finds himself practicing in some of the most remote locations across the globe. His roles with the WHO and Médecins Sans Frontières see him travel to places I admit took me to a map at times. Throughout his life Lachie has been torn between his love for in-the-field clinical practice, equipped with little more than a 'handy head torch' and his interest in public health, grappling complex health challenges such as the rising cases of tropical diseases due to climate change and the increase in antibiotic resistant bacteria.

However intrepid and adrenaline fuelled his adventures are Lachie doesn't only share the good stuff. This lifestyle takes a toll financially and mentally and he is quite open on the raw mental health challenges he has faced over the years.

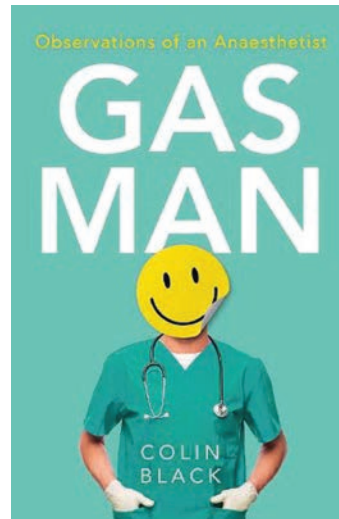
Living in a pacific lying country this is a story we should all hear to further understand the struggles of these small island nations.

This is not a heavy read, at times you could almost be sitting across the bar from Lachie, cold beer in hand, as he regales his moments of type two fun from some of the most remote parts of our globe.

*Review by Rebecca Burton,
NZSA Communications & Marketing Advisor*

Gas Man

Colin Black (Harper Collins Ireland)



Gas Man follows the journey of an Irish paediatric anaesthetist from medical student, to becoming an anaesthetist or in his words, “a shit cool bastard,” and onto disjointed diary entries spread across a year in his life as a consultant anaesthetist at Our Lady's Children's Hospital Crumlin (Ireland).

While not aimed at those looking to further their anaesthetic knowledge the book's audience is perhaps better suited as

a recommendation for those doctors unable to answer the age-old question of what exactly does an anaesthetist do?

The anecdotes presented out of chronological order may infuriate those A-type personalities at first but serve to highlight the range of ages captured by paediatrics, from neonates to 120kg seventeen-year-olds, and the complex range of surgeries and procedures they require anaesthesia for. The muddling also provides the opportunity to space out the highs (laugh out loud moments) and the lows (nail-biting procedures ending in heart break). Peppered throughout are entertaining snippets from endearing habits of autistic children, training the cafeteria staff, reflections on teaching strategies to trainees and an overwhelming sense of camaraderie amongst health professionals who, at the end of the day, just want the best outcome for their patients.

Colin presents medical jargon as much as possible in layman's terms for the reader. Likely a trait gained from a career working with children and stressed-out parents, something this reader thoroughly appreciated. Gas Man was an entertaining and easily accessible read, and as every day goes by working for NZSA, made this reader further appreciate the immense and expansive work that our members do every day!

*Review by Becs Nodwell,
NZSA Executive and Network Support Administrator*

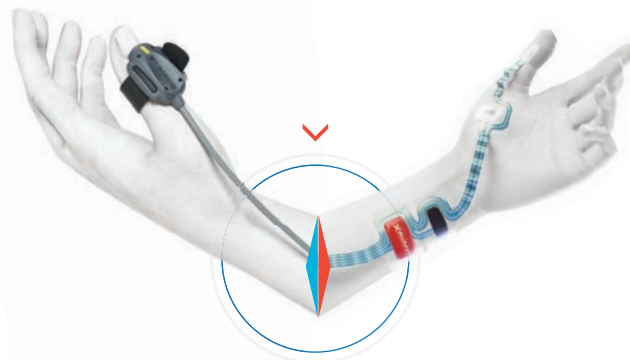


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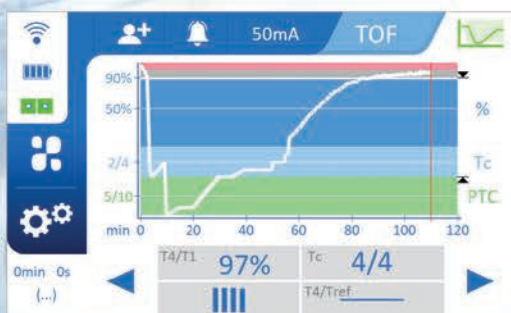


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