



ANZCA
FPM

Bulletin

Australian and New Zealand
College of Anaesthetists
& Faculty of Pain Medicine

SUMMER 2020

Exploring
the deep
with diving
and hyperbaric
medicine

Recognising ANZCA's
research successes
An update on what our fellows
have achieved

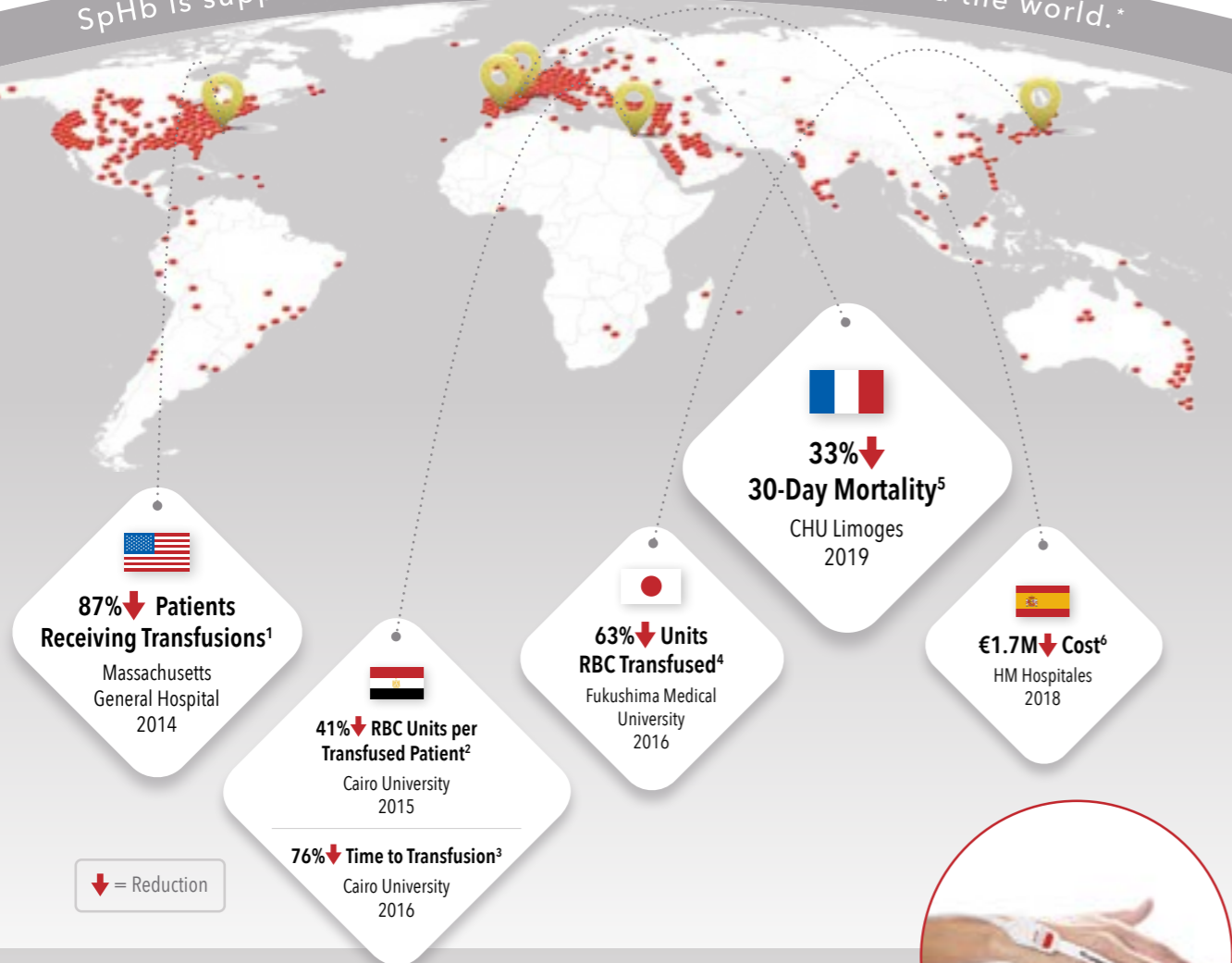
Managing exams in
a pandemic
How ANZCA dealt with
COVID-19 disruptions

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¹ Ehrenfeld et al. *J Blood Disorders Transf*. 2014; 5:9. ² Awada WN et al. *J Clin Monit Comput*. DOI 10.1007/s10877-015-9660-4. Study Protocol: In each group, if researchers noted SpHb trended downward below 10 g/dL, a red blood cell transfusion was started and continued until SpHb trended upward above 10 g/dL. The transfusion threshold of 10 g/dL was predetermined by the study protocol and may not be appropriate for all patients. Blood sampling was the same for the control and test group. Arterial blood was drawn from a 20 gauge radial artery cannula into 2 mL EDTA collection tubes, mixed and sent for analysis by a Coulter GEN-S Hematology Analyzer. ³ Kamal A, et al. *Open J of Anesth*. 2016 Mar; 6, 13-19. ⁴ Imaizumi et al. *Proceedings from the 16th World Congress of Anaesthesiologists*, Hong Kong. Abstract #PR607. ⁵ Cros et al. *J Clin Monit Comput*. Aug 2019; 1-9. Study utilized a goal-directed fluid therapy protocol with PVI* in conjunction with a blood transfusion protocol based on SpHb. ⁶ Ribed-Sánchez B, et al. *Sensors* (Basel). 2018 Apr 27;18(5). pii: E1367. Estimated national savings derived from hospital savings extrapolated nationwide. *Data on file.



Our research outcomes 2018-2020 are on page 44

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ANZCA Bulletin

The Australian and New Zealand College of Anaesthetists (ANZCA) is the professional medical body in Australia and New Zealand that conducts education, training and continuing professional development of anaesthetists and specialist pain medicine physicians. ANZCA comprises about 7500 fellows and 1700 trainees mainly in Australia and New Zealand. It serves the community by upholding the highest standards of patient safety.

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Cover: Provisional fellow Dr Emma Wilson plunges the depths on a recent dive. (supplied)

The ANZCA *Bulletin* has been printed on FSC certified paper using vegetable-based inks by Southern Impact under ISO 14001 environmental certification. It is fully recyclable.



Time to cast off 2020 and look ahead to the future



AT LAST 2020 limps towards its end. Reports of promising results from early vaccine trials raise our hopes that 2021 will be a year of progress against the coronavirus, but much uncertainty remains. If the pandemic tails off in Australia, New Zealand, and the small Pacific nations, it will be a year of trying to catch up with surgical care that has been delayed and displaced by the diversion of resources into COVID-19.

Everyone will have their own memories of when the doors closed on normality. On 9 March 2020, I was at the Royal Adelaide Hospital with Professor Guy Ludbrook for the perioperative summit. A sign saying "fever clinic" caught my eye as I walked to the meeting. It carried echoes of epidemics in a much earlier age. The day after I returned to New Zealand, self-isolation for returnees was a signal of the more serious measures to come.

From then on, the pressure on health workers was relentless. The new world was strange and fearful – strange because our understanding of the disease changed almost daily, and fearful, because of the risk of taking the disease home to the family. The wartime analogy was valid – a prolonged life-threatening situation, with no predictable finish date.

The planning, thinking and organising culture of anaesthetists showed in their approach to the pandemic. In my hospital, the fitting of masks and the training in donning and doffing safely, and other preparatory measures, were well in hand before the first COVID case came in.

In the meantime, clinical leaders and medical administrators were counting themselves lucky that Zoom was invented just in time for the pandemic.

The exams

For ANZCA, the registrars' exams turned into the greatest obstacle race imaginable. New COVID infections reduced the options day by day. In the end, by jumping

large logistical hurdles, the examination of all primary candidates for 2020 was completed. The penultimate hiccup in the part 2 exams involved shifting the venue for South Australian candidates from Adelaide to Sydney on 48 hours' notice. It happened. Now, only one component of part 2, 20.2, remains to be completed.

Beyond COVID

Outside our working lives in hospitals, the COVID restrictions gave us a glimpse of a slowed-down, cleaner world, as a consequence of much-reduced traffic noise and lower fossil fuel emissions. Everywhere, people reported similar observations during the lockdowns (rāhui):

- Birds came down from the trees, and showed no fear of humans.
- Neighbours looked after each other, without breaching their "bubbles".
- Clear days were amazingly clear.
- Strangers out for walks greeted each other, as did their dogs, usually from at least two metres away.
- People re-learned the value of face-to-face contact.
- Spirits lifted or sank on the basis of daily changes in COVID case numbers.
- Online shopping became a necessity, rather than an amusement.
- Takeaway food became a much-anticipated event.
- Working from home merged with living at the office.

2021

The possibility that the pandemic will be over by late next year allows us to resume thinking about interrupted projects, such as:

- The diploma of clinical perioperative medicine.
- Dual training for those who want to be both intensivists and anaesthetists.
- A Te Reo Māori name for the college.
- A "re-imagined" ANZCA Annual Scientific Meeting.

Thanks

Nothing is ever a complete disaster. Even COVID has taught us lessons and prompted innovations that will outlast the pandemic. It is now nine months since ANZCA's Melbourne staff last worked at the St Kilda Road office. Since the arrival of Zoom, no-one has had to endure the frustrations of an audio-only teleconference. Thanks to great efforts by our dedicated staff, the college has continued to serve its members and perform its functions almost seamlessly.

I thank you all – staff, officers and volunteers of ANZCA, for looking after our community and looking after each other.

My best wishes to you and your families for Christmas and the New Year. Meri Kirihimete, me ngā mihi o te Tau Hou. Tēnā tātou katoa.

Dr Vanessa Beavis
ANZCA President

Professor Kate Leslie appointed president of AMC

A former ANZCA President, Professor Kate Leslie, AO FAHMS is the new president of the Australian Medical Council (AMC).

PROFESSOR LESLIE, ANZCA

president from 2010-2012, was elected president and chair of the board of directors of the AMC at the council's annual general meeting in November 2020.

An internationally renowned anaesthesia researcher, and foundation member and past chair of the ANZCA Clinical Trials Network, Professor Leslie is a specialist anaesthetist and head of research in the Department of Anaesthesia and Pain Management at the Royal Melbourne Hospital. She was appointed to the AMC Council in 2011 and was elected as a director in 2013.

She was a member (2011-20) and chair (2015-2000) of the AMC Specialist Education Accreditation Committee, and was deputy president (2018-20). She is also a former chair of the Council of Presidents of Medical Colleges.

The AMC is the independent national standards body for medical education and training for Australia. It accredits primary medical programs, intern training accreditation bodies and specialist medical colleges, and assesses

international medical graduates. ANZCA is accredited by the AMC to provide vocational training and continuing professional development programs, and to assess specialist international medical graduates.

Professor Leslie acknowledged the experience she gained with AMC accreditation while on ANZCA Council, especially as chair of the Specialist International Medical Graduate Committee, as being vital to her role at the AMC.

She said she was looking forward to working with the AMC as it reflects on lessons learned from COVID-19 in 2020.

"In the next two years our challenge will be to recover from the COVID-19 pandemic and embed some of the fantastic innovations that have arisen from it. The AMC shares these challenges with universities, colleges and health services."

Professor Leslie has received many accolades and honours during her career, including the ANZCA Orton Medal, the Australian Medical Association Woman in Medicine Award and fellowship of



Professor Kate Leslie

the Australian Academy of Health and Medical Research. She was appointed an Officer in the Order of Australia in 2016 and was the first anaesthetist to be honoured with a Doctor of Medical Science (Honoris Causa) by the University of Melbourne in 2017.

Free ANZCA Doctors' Support Program



How to make an appointment:

To speak with a counsellor over the phone or make an appointment to see a consultant for a face-to-face session:

- Telephone 1300 687 327 in Australia or 0800 666 367 in New Zealand.
- Email eap@convergeintl.com.au.
- Identify yourself as an ANZCA fellow, trainee or SIMG (or a family member).
- Appointments are available from 8am to 6pm Monday-Friday (excluding public holiday).
- 24/7 emergency telephone counselling is available.



HELP IS ALSO AVAILABLE VIA THE

Doctors' Health Advisory Service:

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NT and SA	08 8366 0250
Queensland	07 3833 4352
Tasmania and Victoria	03 9495 6011
WA	08 9321 3098
New Zealand	0800 471 2654
Lifeline	13 11 14
beyondblue	1300 224 636

Reflections on a unique year for the college community



AS 2020 DRAWS to a close, there's no doubt to any of us that this has been a year like no other. The devastating impact that COVID-19 brought to so many people across the world has been unprecedented. Likewise, the effect on the college has been significant. It has not only affected the personal and professional lives of many of our fellows, trainees and specialist international medical graduates (SIMGs), but also our staff who have had to adjust to new ways of working.

Travel restrictions have hit hard and we have all had to come to terms with the rollout of virtual platforms across our professional and personal worlds to maintain contact with colleagues, friends and family. The use of Zoom across the college has been a huge benefit, although it can never replace the face-to-face discussions and collegiality that is fundamental to ANZCA and its culture. The tyranny of the trans-Tasman "ditch" has also placed a further burden on us as a bi-national college because of the inability to move freely between Australia and New Zealand.

What the pandemic has demonstrated though has been our ability to be agile and respond to the many challenges this has created. It has forced us to develop alternative approaches to a vast array of college activities so our role as a specialist medical college continues. It hasn't been easy.

As Australia and New Zealand emerge from the cloud of COVID a new approach will need to be established so life can return to some sense of normality. This will continue to be a work in progress for ANZCA well into 2021 when our St Kilda Road office re-opens so we can welcome back staff, trainees and fellows.

The international partnerships ANZCA fosters and actively participates in have been extremely beneficial in sharing learnings, alternate approaches and exploring what has or hasn't worked when trying out new methodologies – there is no rule book on the workarounds required to respond to COVID.

Despite the majority of our staff having to work from home for extended periods during 2020 there has been a lot of activity and project delivery. Highlights include:

- Launching the new ANZCA/FPM website with regular updates and changes based on the valuable feedback we have received.
- Re-imagining how we stage and offer events such as our 2021 ANZCA Annual Scientific Meeting in Melbourne with ENGAGE hubs across Australia and New Zealand (www.anzca.edu.au/events-courses/events/major-events/2021-anzca-asm) and our ongoing provision of continuing medical education (CME).
- Redesigning exam and viva formats to ensure the integrity of the ANZCA Training Program is maintained.
- Embracing Zoom as an online meeting and webinar platform that has allowed the important work of the college to continue.
- Progressing work on our perioperative medicine qualification with the development of a perioperative care framework and learning modules.
- Heightened media interest in anaesthesia and research projects because of the significant and important role played by our fellows and trainees in the pandemic response.
- A renewed focus on our safety and quality measures and principles and recognition of the expertise of many of our fellows on infection control guidelines and personal protective equipment.

We will continue to see a range of strategic projects being progressed in 2021 as we are able to redirect our efforts and staff resources away from the demands of our COVID-19 response.

I would like to sincerely thank fellows, trainees, SIMGs and staff for the support, advice, commitment and patience this year as the college responded to the implications and effects of COVID on so many college activities.

Here's to 2021 welcoming some form of a return to a "new norm".

I would like to wish everyone associated with the college a happy and safe festive period and best wishes for 2021.


Nigel Fidgeon
ANZCA Chief Executive Officer





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COVID-19 and chronic pain hot topics for media

ANZCA'S NATIONAL ANAESTHESIA Day (NAD) and fellows' expert comment on COVID-19 infections, chronic pain and ANZCA research were the highlights of the college's recent media coverage in Australia and New Zealand.

The #NAD20 #AlwaysReady "Matter of fact I've got it now" video created by the department of anaesthesia's provisional fellows at the Royal Brisbane and Women's Hospital featured on Nine News Brisbane's evening news on 15 October ahead of National Anaesthesia Day on 16 October. The "exclusive" broadcast of the video attracted more than 200,000 viewers (see pages 16-17).

ANZCA President Dr Vanessa Beavis was interviewed by New Zealand media on 16 November following a coroner's ruling about the death of Northland NZ anaesthetist Dr Richard Harding in 2017. Dr Beavis told stuff.co.nz that while there is no robust data on psychological distress among anaesthetists, it is an issue ANZCA has been aware of for more than two decades, establishing groups and resources to aid awareness and access to support.

In Adelaide, fellow Professor Guy Ludbrook was interviewed in an 11-minute segment by ABC Radio Adelaide's afternoon host Sonya Feldhoff on 11 November about an advanced recovery care trial jointly funded by the ANZCA Research Foundation and the subject of an ANZCA media release "Golden hours after surgery the key to new model of patient care." The program reached an audience of 50,000 people in Adelaide and regional SA ABC stations in Broken Hill, the Eyre Peninsula and Port Lincoln, ABC North and West SA (Port Pirie), ABC Riverland SA (Renmark) and ABC South East SA (Mt Gambier.)

The findings of another research study led by ANZCA's Safety and Quality Committee Chair Professor David Story into COVID-19 screening of hospital patients were reported by the *Herald Sun* on 24 September, reaching an audience of 300,000 people. The study was published in the *Australian Health Review* and highlighted in an ANZCA media release "Thorough documenting of COVID-19 patient screening in Australian hospitals is urgently needed, says new study".

Professor Story was also interviewed about the supply of N95 masks in Victorian hospitals for an article "Thousands of healthcare workers could be wearing ill-fitting masks" in *The Age* on 1 October and syndicated to *The Sydney Morning Herald*, *WA Today* and *Brisbane Times* online reaching an audience of more than 400,000 people.

Melbourne fellow Associate Professor Alicia Dennis was interviewed by ABC online for a 14 October article that examined Australian healthcare workers' responses to the pandemic and the consequences of COVID-19 in their hospitals. She told the ABC that it was more difficult to provide patient-centred and personalised care during a pandemic. The article reached an audience of nearly 400,000 people. Associate Professor Alicia Dennis was also interviewed for an article published in *The Saturday Paper* on 19 September about healthcare worker COVID-19 infections.

Adelaide anaesthetists Dr Christine Huxtable and Dr Gilberto Arenas featured in a Nine News Adelaide segment on 8 October about how a revolutionary new pain block treatment is being used at the Royal Adelaide Hospital to help people recover from broken ribs more effectively and safely.

FPM Dean Associate Professor Mick Vagg was a guest on ABC Radio National's evening program *Nightlife* on 19 October. Professor Vagg took questions from listeners on chronic pain, opioids and pain medicine during the 50 minute segment which reached an audience of 325,000 people.

In New Zealand, FPM NZ National Committee Chair Dr Tipu Aamir was interviewed by Radio New Zealand about the lack of specialist pain medicine physicians in New Zealand for a radio broadcast and online article on 21 October.

In Bendigo, Victoria, FPM fellow Dr Kim Hattingh was featured in an article in the *Bendigo Advertiser* on 15 October explaining why opioid management is so important for patients.

Carolyn Jones
Media Manager, ANZCA

Since the Spring 2020 edition of the *ANZCA Bulletin*, ANZCA and FPM fellows have featured in:

- 12 print reports.
- 10 radio reports.
- 30 online reports.
- 2 TV reports.

Module development work progresses

AN OUTSTANDING PERIOPERATIVE Medicine Special Interest Group meeting held online in October attracted about 300 delegates with 50 registering afterwards to access the presentations.

"All about the team" comprised a suite of excellent pre-recorded talks by national and internationally renowned speakers including Professor Solomon Aronson from Duke University in the US, Dr Vanessa Beavis from Auckland City Hospital in New Zealand, Dr Mike Margaron from St Richard's Hospital, Chichester and Dr David Selwyn from the Centre for Perioperative Care in the UK.

Presentations covered worldwide perspectives in perioperative medicine, research, and care in specific patient populations including elderly, obese and obstetric patients. Each talk was followed by a real-time live virtual panel who answered questions sent in by delegates.

The Perioperative Medicine Steering Committee met in early December, an important part of our collaborative process that involves other colleges and craft groups.

Diploma of perioperative medicine

Work continues on the development of a diploma in perioperative medicine, a year-long, flexible competency based qualification that must be completed within three years.

The Perioperative Curriculum Development Working Group, a sub-committee of the Perioperative Medicine Education Group, has been working on finalising learning objectives for four of the six modules.

The diploma will be made up of six modules that can be completed sequentially. Different learning and teaching approaches will be incorporated and be complimented with immersive clinical experiences. Assessment is yet to be finalised but will incorporate a range of methods appropriate to the qualification.

Discussion has also focused on how to recognise prior learning.

It is anticipated learning objectives for modules 1, 2 and 4 will be finalised by the end of the year with the potential for more detailed learning outcomes for module 3 completed following physician involvement.

- Module 1 - Perioperative impact of major disease
Focus on:
 - Comorbid disease.
 - Preoperative assessment.
 - Leader and manager.

- Module 2 – Planning for surgery
Focus on:
 - Patient factors.
 - Surgical and anaesthetic factors.
 - Risk stratification.
 - Perioperative management plans.
 - Communicator.
 - Collaborator.
 - Health advocate.
- Module 3 – Optimisation
- Module 4 – Intraoperative impacts on outcomes
Focus on:
 - Anaesthesia.
 - Surgery.
 - Recovery room.
 - Skills.
 - Communicator.
 - Collaborator.
 - Leader and manager.
- Module 5 – Safe recovery in hospital.
- Module 6 – Discharge planning and rehabilitation.

Framework

Significant progress has been made by the Perioperative Care Working Group on finalising the perioperative care framework. Underpinning the framework is a series of principles, recommendations, resources and references.

The framework outlines the patient's journey from first visiting their GP to eventually returning to the GP's care following surgery for a follow-up consultation.

This framework is being designed to be interactive and will soon be on the ANZCA website, including links through to the more detailed recommendations, resources and references sections.

Dr Sean McManus
Chair, Perioperative Steering Committee



Leaps - AND - Bounds



ANZCA
FPM

Your summer “to do” list for the ANZCA ASM

Brought to you by the Melbourne Regional
Organising Committee

- Visit the ASM website – the program is available now!
- Save the date – registration opens mid-January.
- If you are a prospective author or researcher submit your abstract now – call for abstracts closes 24 January.
- Learn the lyrics to Paul Kelly’s song Leaps and Bounds.

Virtual ANZCA ASM

27 April – 4 May 2021

#ASM21MEL

asm.anzca.edu.au





ANZCA and government

Australian health budget contains few surprises

Australia

2020 Budget

Treasurer Mr Josh Frydenberg delivered the 2020-21 federal budget on 6 October. Traditionally handed down in May, like many things in 2020, the budget was deferred until later in the year due to COVID-19.



Despite the obvious significant impact of the pandemic on the health system and the Australian economy more broadly, the health portfolio budget contained few surprises and many of the new initiatives flagged had been previously announced. Overall health portfolio spending over the forward estimates will increase from \$115.5 billion in 2020-21 to \$121.8 billion in 2023-24, which equates to about \$2.1 billion or 1.8 per cent per annum. Some relevant highlights include:

Medicines and medical devices

- \$7.7 million over the next three years to establish a unique device identification (UDI) system for medical devices designed to protect patient safety and allow for a quick response to any safety issues with implanted devices.
- An additional \$1.7 million over the next three years towards ongoing funding for the administration of the medicinal cannabis research, cultivation and manufacture regulation scheme.
- \$3.3 billion to supplement the National Medical Stockpile, including masks and other personal protective equipment (PPE), pharmaceuticals, medical supplies and equipment and \$9.2 million to increase onshore mask manufacturing capability.

Telehealth

- Extension of telehealth services for a further six months while the long term design is developed in conjunction with medical groups and the community.

Hospitals

- The 2020-25 National Health Reform Agreement provides public hospitals across the country with \$133.6 billion in funding over five years – an increase of \$33.6 billion compared with the previous five years.

Aboriginal and Torres Strait Islander health

- An additional \$90 million over three years for community controlled health organisations, with three year funding agreements and annual indexation, under the Indigenous Australians' Health Program.
- An additional \$33 million over three years from 2020-21 through the Indigenous Australians' Health Program to expand Aboriginal and Torres Strait Islander primary health care services by investing in regions of high need or high population growth, or where there are service gaps.

Private health insurance

- \$17.1 million from 2020-21 to 2023-24 to enhance the Medical Cost Finder (out-of-pocket costs) website and support specialists to use the tool and update fee information.

Rural health

- \$550 million "Stronger Rural Health Strategy" to give doctors more opportunities to train and practise in rural and remote Australia and give nurses and allied health professionals a greater role in the delivery of multidisciplinary, team-based primary care.
- \$50.3 million from 2020-21 to 2023-24 for infrastructure to strengthen and develop a critical element of the rural training pipeline, the Rural Health Multidisciplinary Training Program.
- \$125 million from 2020-21 to 2024-25 for the Rural, Regional and Remote Clinical Trial Enabling Infrastructure Program (funded under the Medical Research Future Fund) to improve the access of Australians in rural, remote and regional areas to innovative clinical trials.

New Zealand

New Zealand's new parliament turns red

Labour celebrated a landslide victory in the 17 October New Zealand general election winning 50 per cent of the vote once specials were counted. The new government was sworn in on 6 November with the most representative cabinet ever seen in New Zealand.

The numbers are a reversal of the 2017 results, when Labour polled 36.9 per cent, National had 44.4 per cent of the vote and New Zealand First leader Winston Peters became the kingmaker.

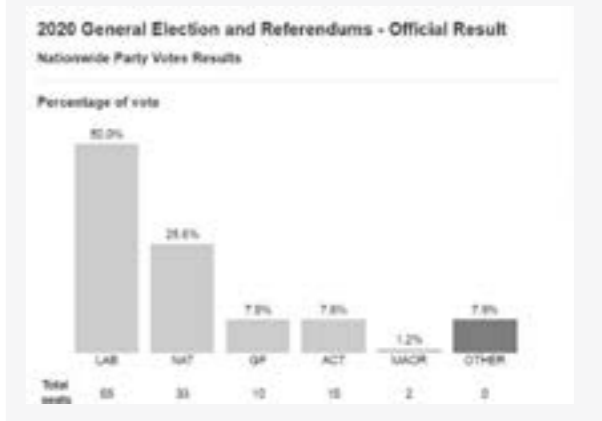


Figure one: Electoral commission results



The Conversation news site ran political commentators' analysis of the first outright majority win of the mixed-member proportional representation (MMP) era. Jack Vowles, Professor of Political Science at Victoria University of Wellington, said the historic MMP result could be put down to one thing: COVID-19.

"Labour and Ardern made the right calls. Comparative analysis of COVID responses internationally shows it's not just a matter of what you do, it's a matter of whether you do it soon enough. Labour did that and have been rewarded electorally."

With a record 1.9 million people casting an early vote, Bronwyn Hayward, Professor of Politics, University of Canterbury commented that this was always going to be an election with a difference with younger voters enrolling in historic numbers.

"A generation's hopes and aspirations now hang in the balance. With this in mind the new Labour government will have two overarching priorities: to drive our economic recovery from COVID-19, and to continue

our health response to keep New Zealanders safe from the virus."

In health the new politicians in charge are Chris Hipkins as the Minister for COVID-19 Response. This is a new role that will give the minister responsibility for all aspects of our ongoing response, including the running of managed isolation facilities, border defences as well as the health response including testing and contact tracing systems and managing any resurgence of the virus.

Experienced former Justice Minister Andrew Little is the new Minister of Health, driving overdue reforms of the system. He is to be supported by Peeni Henare and Dr Ayesha Verrall (infectious disease specialist) who will focus on Māori health and public health respectively.

There were also two referenda held during the New Zealand election. The End of Life Choice Act will come into force on 7 November 2021 after receiving 65.1 per cent of the vote.

A total of 50.7 per cent of votes cast were against the proposed Cannabis Legislation and Control Bill.

ANZCA and advocacy: 2020 in review

Naturally, the COVID-19 pandemic dominated much of the college's advocacy efforts in 2020. Access to personal protective equipment (PPE), guidelines for the appropriate fitting and using of PPE, preparing the hospital system in terms of medicines, equipment and workforce for a surge in critically ill patients which thankfully never came, the suspension of elective surgery and the health and well-being of frontline professionals were all issues on which the college worked to ensure the expert advice of anaesthetists and specialist pain medicine physicians was acted on by governments and health services.

In March the college established a COVID-19 Clinical Expert Advisory Group to inform the selection of clinical resources relevant to anaesthesia and pain medicine, respond to clinical queries and share information. One of the first tasks of the group was the development of the college's personal protective equipment statement which has subsequently been revised to reflect the latest evidence, particularly in relation to airborne transmission of the virus and the fit-testing of masks. In the first few months of the pandemic the group considered over 200 queries from fellows and trainees and the college organised numerous webinars including one with Australia's Deputy Chief Medical Officer Dr Nick Coatsworth and one with the New Zealand Ministry of Health Chief Medical Officer Dr Andrew Simpson.

The college continues to provide expert advice to government as the pandemic evolves through forums such as the Australian National COVID-19 Clinical Evidence Taskforce. ANZCA President Dr Vanessa Beavis is a member of this taskforce's national steering committee which meets weekly to provide cross-disciplinary consensus on the clinical care of patients with COVID-19. The president, chair and deputy chair of the New Zealand National Committee met with the

Director General of Health, Dr Ashley Bloomfield in August to reiterate concerns about PPE and medicine supply, open communications lines and equity in treatment of chronic pain across New Zealand.

Despite the focus on COVID-19, particularly in the first half of the year, the college nevertheless continued to engage with government and other stakeholders on other issues. Pain management services continued to be a focus for advocacy work following on from the release in 2019 of the Deloitte Access Economics report "The cost of pain in Australia" and the launch of the Australian government Department of Health's "National strategic action plan for pain management".

A meeting was held with the Queensland Minister for Health, Mr Steven Miles in February to encourage his state's support for the National Strategic Action Plan for Pain Management and Dr Vanessa Beavis and FPM Dean Associate Professor Michael Vagg wrote to the major political parties in Queensland and the Northern Territory in the lead-up to their elections to seek their position on a range of issues relating to pain services. Meetings with the health ministers in these jurisdictions are planned for 2021.

Pain medicine advocacy was also a central focus in New Zealand, with Canterbury District Health Board (CDHB) circulating a proposal to cut chronic pain services for the region as part of their ongoing financial crisis. Leaked reports showed that Burwood Pain Management Clinic would need to cut \$650,000 from their budget before March 2021. Burwood Pain Management Clinic sees more than 900 patients annually and is the only training unit of its kind on the South Island. Disruption of this service would see patients having to travel to Wellington or Auckland for treatment as well as unsettle the future pipeline of pain medicine specialists.



Deputy Chief Medical Officer Dr Nick Coatsworth hosted a webinar on personal protective equipment for anaesthetists on 6 April.

In response to the proposed widespread cuts the government has now provided the CDHB with a \$180 million bailout addressing the deficit for the coming year. Although this has staved off any impending cuts, the CDHB's annual plan for 2021-22 is already under development and it isn't known how the DHB will handle the future funding of pain services.

On 14 October the FPM New Zealand National Committee Chair, Tipu Aamir, met with the Ministry of Health's Chief Allied Health Professions Officer, Dr Martin Chadwick. The discussion about pain services as a whole included growing the specialist workforce, reducing inequity, protecting the specialist scope of practice and developing a National Pain Strategy. The Ministry of Health has invited FPM for a follow up discussion on these points as the *Bulletin* goes to print.

With requests in progress to meet with the new minister of health, the advocacy of pain medicine in New Zealand will continue to argue for support for delivery of services in the CDHB and across all district health boards.

The college continues to advocate on behalf of members through representation on steering committees and working groups with numerous government departments, agencies and non-government organisations. During the year ANZCA's Policy and Communications staff participated in more than 100 meetings with government and non-government stakeholders across Australia and New Zealand including:

- Australian Department of Health (Postgraduate Training Section, Health Workforce Reform Branch, Medicare).
- New Zealand Ministry of Health-Manatū Hauora.
- Therapeutic Goods Administration.
- Pharmac-Te Pātaka Whaioranga.
- Interplast Australia and New Zealand.
- Te Ohu Rata o Aotearoa.
- Australian Indigenous Doctors' Association.
- Medical Council of New Zealand-Te Kaunihera Rata o Aotearoa.

In 2020 the college also made more than 30 written submissions in response to a range of policy initiatives and inquiries. Some examples of the range of topics include:

- Medicare Benefits Schedule specialist services for possible expansion to phone or telehealth (Department of Health).
- Core performance standards for responsible authorities (Ministry of Health Manatū Hauora).
- Consultation on the draft ethical framework for resource allocation in times of scarcity (Ministry of Health Manatū Hauora).
- Review on the safety of low dose cannabidiol (Therapeutic Goods Administration).
- Proposed accreditation standards for providers of recertification programmes for vocationally-registered doctors in New Zealand (Medical Council of New Zealand-Te Kaunihera Rata o Aotearoa).
- Consultation on draft model scope of clinical practice for anaesthesia (New South Wales Health).

Submissions – Australia

- New South Wales Health: Consultation on draft model scope of clinical practice for anaesthesia.
- Australian Capital Territory Health: Healthcare facilities code of practice consultation.
- Department of Health: Consultation on the development of National Preventative Health Strategy.
- Royal Commission into violence, abuse, neglect and exploitation of people with disability: Statement on anaesthesia and pain management training programs.
- National Transport Commission: Assessing fitness to drive – commercial and private vehicle drivers.
- Australian Resuscitation Council: First draft guideline 9.3.5 Resuscitation and first aid for divers who have breather compressed gas.
- Queensland Law Reform Commission: Legal framework for voluntary assisted dying.

Submissions – New Zealand

- Council of Medical Colleges/Te Kaunihera o Ngā Kāreti Rata o Aotearoa: Te Ohu Rata o Aotearoa (Te ORA) survey of medical colleges.
- Medical Council of New Zealand/Te Kaunihera Rata o Aotearoa: Feedback on memorandum of understanding.
- Medical Council of New Zealand/Te Kaunihera Rata o Aotearoa: Proposed accreditation standards for providers of recertification programmes for vocationally-registered doctors in New Zealand
- Medical Council of New Zealand/Te Kaunihera Rata o Aotearoa: Ending a doctor-patient relationship.

Ray Hader Award 2020

Sydney fellow Dr Christopher Sparks is the recipient of the 2020 Ray Hader Award for Pastoral Care.

A VISITING MEDICAL officer (VMO) anaesthetist at Royal North Shore Hospital since 1996 Dr Sparks has been recognised for his commitment and passion to teaching, training, mentoring and welfare support of anaesthetists in Sydney and the Pacific region.

Trainees and consultants who have worked and been mentored by Dr Sparks in Sydney say they owe an enormous debt to him for his support and encouragement of training and welfare of anaesthetists. He has been described as the “go to” person for anaesthetists in Sydney, Vanuatu, Fiji and the Solomon Islands.

His selfless commitment to teaching and mentoring, which is valued by consultants and registrars, has often led to him volunteering to help, speaking at workshops on weekends, early mornings and on his days off. More importantly, he encourages registrars to talk openly with others if they are struggling with any aspect of their clinical work or training.

Dr Sparks’ mentorship extends internationally to the Pacific region where he has supported and encouraged training and welfare of anaesthesia trainees since 1988 in Fiji, the Solomon Islands and Vanuatu.

Dr Sparks spent two years in the Solomon Islands in 1991 and 1992, teaching and training Dr Kaeni Agiomea, a young doctor who had been directed into anaesthesia by the Solomon Islands Ministry of Health. Dr Agiomea was to become only the country’s second anaesthetist.

About the Ray Hader Award

Dr Ray Hader was a Victorian ANZCA trainee. He died in 1997 of an accidental drug overdose after a long struggle with drug addiction. To mark the 10 year anniversary of his death, a friend, Dr Brandon Carp, established an award for trainees that promotes a compassionate approach to the welfare of anaesthetists, other colleagues, patients and the community.

In 2012, Dr Carp agreed to continue his support in sponsoring the award and to a change in the scope of the award to also recognise the pastoral care elements of trainee supervision. The winner receives \$A2000 to be used for training or educational purposes and a certificate to acknowledge the award.

In 2014 the criteria for the award was changed to allow any accredited trainee or ANZCA fellow who has made a significant contribution to the welfare of one or more ANZCA trainees in the area of pastoral care, to be eligible for nomination.



Dr Christopher Sparks

According to Tasmanian fellow Dr Haydn Perndt, a former director of Royal Hobart Hospital’s Department of Anaesthesia who has worked alongside Dr Sparks in the Pacific region, Dr Sparks has maintained his support for Dr Agiomea, encouraging him to undertake a number of training years in New Zealand and making repeated short visits to Honiara to undertake further teaching.

Dr Agiomea was later diagnosed with a life-threatening malignancy that required him to travel to Sydney for extended treatment. Dr Sparks was the key support person for Dr Agiomea in Sydney, helping with accommodation and weekly visits over what was a very difficult time.

“Kaeni Agiomea is now the senior anaesthetist for the Solomon Islands and has in his turn been responsible for the training of seven Solomon Islands anaesthetists over the years. Chris’s mentoring and influence through his professional and personal relationship with Kaeni has seen this Pacific Island country become completely self-sufficient in anaesthesia providers in the space of twenty years,” Dr Perndt said.

“Chris has made an enormous contribution to anaesthesia development in the Pacific through his support of individuals and organisations and through his gentle leadership and vision. He has helped promote the idea of overseas anaesthesia work as an important role for Australian anaesthesia professionals.”

Dr Sparks has spent many years teaching and mentoring young Australian anaesthetists on a weeklong course designed to prepare anaesthetists from high income countries to work and teach in lower middle income and low income low resource settings. Now known as the Real World Anaesthesia Course it has inspired a generation of young anaesthetists to undertake the work that he himself had embarked on a decade before.

**Compiled with the assistance of provisional fellow Dr Nilru Vitharana, Children’s Hospital, Westmead, and fellow Dr Haydn Perndt.*

Top anaesthesia journal appoints ANZCA fellows as assistant editors



Dr Maryann Turner and Dr Lachlan Miles

ANZCA FELLOWS AND anaesthesia researchers Dr Maryann Turner and Dr Lachlan Miles have been appointed assistant editors of *Anaesthesia Reports*, the independent case report journal of the Association of Anaesthetists of Great Britain and Ireland.

Dr Turner is a paediatric anaesthetist at The Children’s Hospital at Westmead. Her international fellowship experience includes clinical roles at London’s Great Ormond Street Hospital, Auckland’s Starship Children’s Hospital, and Queensland Children’s Hospital. She

has been admitted as a lawyer to the Supreme Court of NSW and has a Masters in Health and Medical Law from the University of Melbourne. She is the ANZCA New Fellow Councillor.

Melbourne-based Dr Miles is a staff specialist in anaesthesia at Austin Health, an honorary consultant at Peter MacCallum Cancer Centre and an honorary senior fellow of the Centre for Integrated Critical Care at the University of Melbourne. His sub-specialty practice involves cardiothoracic anaesthesia, liver transplant anaesthesia and perioperative medicine. He is a PhD candidate at the University of Melbourne, and is examining the identification and management of iron deficiency in the perioperative setting. Dr Miles is also the scientific convener of the 2021 ANZCA Australian Scientific Meeting.


The Association of Anaesthetists launched the case report journal in January last year and it is now PubMed listed. The assistant editor role involves reviewing submitted manuscripts and multimedia items and editing them in preparation for publication.

Dr Turner said she was delighted to have been appointed to the role. The journal covers all aspects of clinical care including perioperative medicine and pain medicine and also includes reports on clinical or educational techniques, equipment and strategies.

“Being an assistant editor provides a valuable opportunity to learn from the diverse and novel reports submitted by the international anaesthetic community, as well as from the extensive editorial expertise of other anaesthetists on the team” she said.

Dr Miles said the journal highlights the important role that case reports still have in anaesthesia and perioperative medicine.

“While clinicians rightly place a lot of weight on higher levels of evidence to guide their practice, case reports still have an important role in educating us about rare or previously unknown phenomena. As the COVID-19 pandemic has shown, early notification through a case report allows rapid adaptation of practice before higher levels of evidence catch up,” he said.



College bursaries

Did you know each year ANZCA offers a number of bursaries to trainees who are experiencing financial hardship?

Eligible trainees can receive up to a 50 per cent reduction in their annual training fees. All applicants will also receive an extension to the annual training fee due date

Applications for 2021 will open in mid-November.

Please note: Applicants must be registered as a trainee with ANZCA.

Applications close 31 January 2021.

For further information, please contact the ANZCA Training and Assessments team via email at training@anzca.edu.au or call +61 3 9510 6299.

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National Anaesthesia Day 2020

NATIONAL ANAESTHESIA DAY, ANZCA's annual celebration of the specialty on 16 October, took on a very different form this year because of COVID-19. With many hospitals in Australia and New Zealand restricted in terms of the events and displays they could stage we launched a digital #NAD20 event featuring fellows, trainees and specialist international medical graduates.

Rather than just calling on champions to spearhead local celebrations at their hospitals or anaesthesia practices we called on you to submit short video "selfies" explaining why you're #AlwaysReady – a recognition of your response to the pandemic in your hospitals and practices. Our aim: To harness the increased interest in anaesthesia and build further on the profile of anaesthetists as frontline specialists in the response to the pandemic.

Our plan was to compile these into a #NAD20 "show reel" compilation that we would post on our website, our social media platforms of Twitter, Facebook and our new Instagram feed to highlight the breadth of the specialty including cardiac, paediatrics and obstetric anaesthesia. ANZCA councillor Dr Tanya Selak (@GongGasGirl) was the "go to" for many of our submissions with her informative "how to" guide for those still getting used to the idea of instant #NAD20 fame while ANZCA's committed Twitter army also helped spread the word.

Your response was heartening and more than 50 fellows, trainees and SIMGs contributed 35 videos which are now available on the college's YouTube channel. Not wanting to miss out ANZCA President Dr Vanessa Beavis, Vice-President Dr Chris Cokis and 11 college councillors also submitted their own videos.

As we were unable to send out posters and flyers we took NAD online on our website. A digital poster was created featuring many of your faces that was available for download and print from our website for display. The monthly ANZCA E-Newsletter was sent out earlier on the day and an ANZCA media release was distributed to media outlets the night before.

To see all our #NAD20 #AlwaysReady videos go to the ANZCA YouTube channel

We received some outstanding joint video efforts including those from the provisional fellows at Royal Brisbane and Women's Hospital (RBWH) who adapted the iconic Australian Victoria Bitter commercial tune and the Royal Melbourne Hospital's anaesthesia department who still managed to submit despite Melbourne's level 4 COVID-19 restrictions and hospital coronavirus cases.

The RBWH "Matter of fact I've got it now" video made the Channel Nine evening news on the eve of National Anaesthesia Day reaching an audience of nearly 230,000 people. The video was made with the approval of celebrated Australian composer Bruce Rowland who owns the copyright to the song. Mr Rowland waived the fee when provisional fellow Dr Joel Thomas contacted him seeking permission to adapt the tune for the NAD video.

Some hospitals continued to organise foyer displays or other NAD activities including Goulburn Valley Health, St Vincent's Hospital in Melbourne, Fiona Stanley Hospital in Perth, Tamworth Hospital and Sunshine Coast University Hospital which highlighted #NAD20 on their giant outdoor electronic screen.

In the lead-up and on 16 October, 91 Twitter participants tweeted 225 times using #NAD20. Twitter had a temporary global outage on the day but things were back on track by midday. On Facebook our NAD compilation video post reached 17,409 people and had 2384 engagements. The RBWH video reached 21,462 people and had 4672 engagements. We launched our new Instagram platform to coincide with NAD and it did well, with the RBWH video reaching 579 people with 46 likes.

Carolyn Jones
Media Manager, ANZCA

A screen image of Channel Nine Brisbane's exclusive news report on the Royal Brisbane and Women's Hospital NAD video.



Tamworth Hospital theatre nurse Robbie Hill with her NAD display on 16 October.

#AlwaysReady

COVID-19 continues to dominate

Running exams in a pandemic

Making exams work in 2020 was an incredibly complex process involving countless hours of meetings and hard work by examiners, college leaders and staff, not to mention our trainees of course, who managed to get through their exams in this very stressful, uncertain time. ANZCA's Chair of Examinations, Dr Michael Jones explains



ANZCA's Chair of Examinations Dr Michael Jones

WHEN SOUTH AUSTRALIAN

Premier Steven Marshall announced on 19 November that his state was moving into hard lockdown from midnight – the day before the 2020.1 final vivas – hearts sank collectively around ANZCA. And a sense of déjà vu settled in; COVID-19 had struck again.

This was a huge blow after the many, many hours of meticulous preparation to run both face-to-face and online final vivas for 178 candidates across Australia and New Zealand. Rather than the usual single Sydney venue, these exams had been booked to be held over two days at eight sites.

It brought back memories of the 17 August announcement the day before the primary written exams that Auckland was going into lockdown. Back then, after a number of late-evening calls, the Auckland candidates sat the exam in their hospital, just like their

Victorian counterparts, who were in the midst of a worrying second wave of the pandemic that limited movement around the state.

As with Auckland, the SA Premier's decision to lock his state down set in motion a flurry of activity. The college – through Immediate Past President Dr Rod Mitchell and Dr Robert O'Brien, ANZCA's Executive Director, Education and Research – tried hard to get an exemption to allow the candidates to sit the exam together as planned, but SA's chief health officer wouldn't budge. So we swung into plan B – to get the six affected candidates to Sydney, whose borders remained open to SA ("for now").

Dr O'Brien was able to ascertain that the candidates were allowed to leave SA and, after speaking to officials at Sydney Airport Disaster Control, that the candidates could enter NSW.

Flights and accommodation were booked for the six with the college covering costs, and we then set about rewriting the examiners' rosters to incorporate the additional candidates.

Just as we were starting to believe this plan might just work an area health service raised safety concerns about their consultants examining the SA candidates. Another burst of phone calls and this problem was finally resolved at 7.30pm on Thursday night as the candidates were preparing to fly out the next morning.

This is just a small taste of what it has been like to deliver exams in 2020.

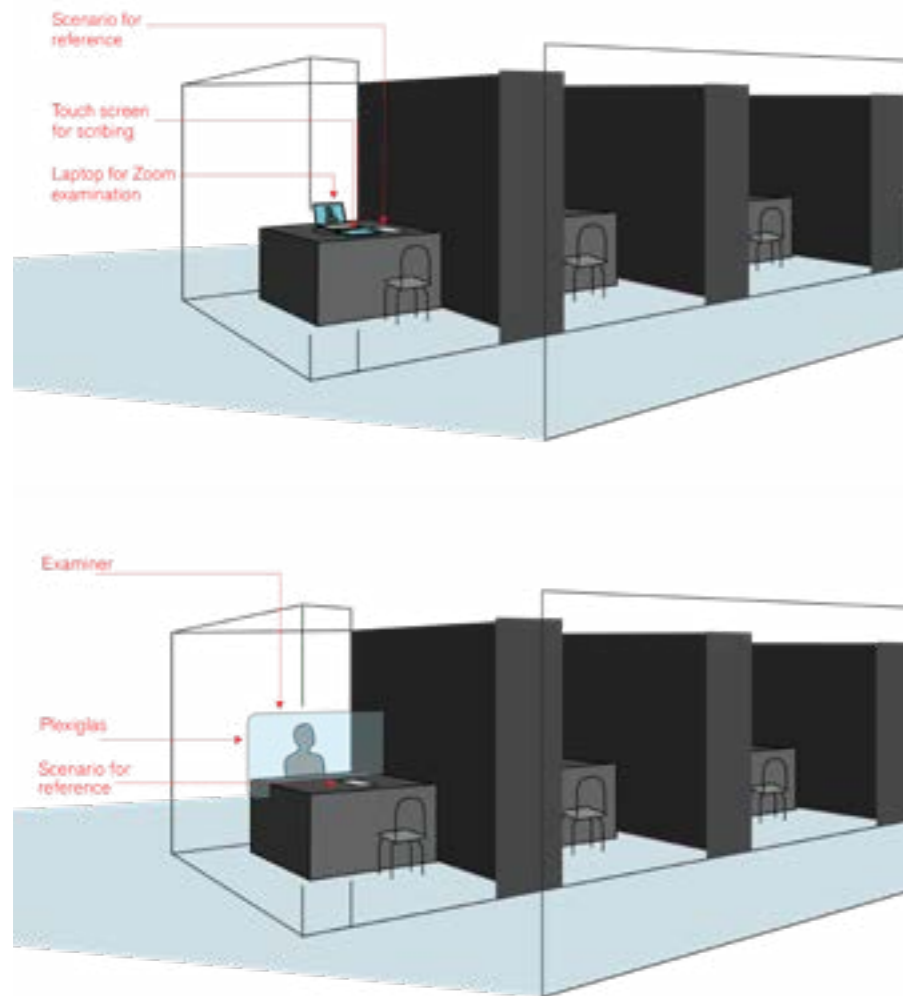
The fire alarm going off at ANZCA House in Melbourne during the primary vivas in November, teething issues with new technology in Hobart where we were doing combined face-to-face and online vivas, and an Auckland hotel cancelling our exam booking to become a quarantine hotel were also issues we dealt with.

But somehow we have managed to examine 331 primary and 310 final exam candidates.



Examiners Dr David Fahey and Dr Julia Colfrey prepare for the primary vivas in Sydney held in October.

Our new-look vivas



Normally held at one venue, this year the vivas were held in several. Some venues held face-to-face vivas, some online only while others had both.

The pandemic sets in

It was way back in March that then-ANZCA President Rod Mitchell and Final Examination Sub-Committee Chair, Sharon Tivey, cancelled the medical vivas that were to have been held later that month with the 2020.1 final written exams.

This decision was based on the worsening COVID-19 situation and the risks to “patients”, the knowledge that hospitals had other things to worry about, not to mention the personal and professional impact of the pandemic on trainees and examiners.

The college established an Examination Contingency Planning Group (ECPG), chaired by a past president, Dr Lindy Roberts, now ANZCA Director of Professional Affairs (Education), who also led the development of helpful web-based information for candidates whose training was being disrupted by the pandemic.

Other members of the ECPG, which met at least weekly for the first two months, were Dr Tivey and her deputy Dr Fiona Johnson, Dr Emma Giles, Chair of the Primary Examination Sub-Committee and her deputy Dr Julia Coldrey as well as Dr Kat Gough, Co-Chair of the ANZCA Trainee Committee, Dr O'Brien, Ms Helen

Maxwell-Wright, one of a college consumer representative, and myself.

At their first meeting, the EPCG determined that under no circumstances should standards lapse so that the integrity of the exams could be called into question and our community representative was particularly insistent – in other words, no one was to get a “leave pass”.

At this stage, any thoughts of holding exams using Zoom or other videoconferencing was deemed too risky, and well justified after seeing some of the exams disasters that occurred in Australia and overseas due to technical issues.

The EPCG also sought the views of trainees, sending out a survey in late April to gauge the appetite for exams. The response showed an overwhelming desire by both final and primary candidates to complete the 2020 exams.

Another incentive to go ahead was the issue of workforce progression. The Australian Medical Council expressed great concern that “blocking the pipeline” would have repercussions through to 2025 and strongly encouraged colleges to run exams.

May vivas cancelled, writtens on

With 2020.1 primary and final vivas approaching in late May and the pandemic showing no signs of easing, ANZCA Council made the decision to postpone until later in the year. The college had already made the decision to cancel the 2020 ANZCA Annual Scientific Meeting in Perth and ANZCA staff were working from home. Melbourne staff are still working remotely, making their management of the exams all the more remarkable.

All the while we tried to keep trainees, fellows and SIMGs as informed as possible through email updates from the president and others, as well as through web-based news and information.

On 8 August a new-look ANZCA Council with Vanessa Beavis as president held an extraordinary meeting via Zoom to discuss how to approach the exams for the remainder of the year. Victoria was well and truly in the midst of the pandemic’s second wave by then and in level 3 and 4 lockdown.

After hours of debate, council decided the remainder of the primary and final written exams – the second or 2020.2 sittings – would go ahead as planned. The Victorian candidates would sit their

written exams in their hospitals across the state while candidates throughout the rest of Australia and New Zealand would sit at the usual major city venues. Other than the Auckland hiccup, the 2020.2 primary and final written exams went ahead without major problems.

A number of other decisions were made at that extraordinary council meeting, including recognising training time for trainees whose progression had been interrupted by exam delays, not penalising those who withdrew from exams and allowing additional exam attempts for those who withdrew or failed.

New-look vivas

With the written exams completed in August, attention turned to the vivas.

Acknowledging the ever-moving goalposts, the EPCG came up with three options for how the vivas might go ahead. ANZCA Council eventually settled on holding them in Australia and New Zealand rather than the usual single venue in Melbourne for the primary exams and in Sydney for the final exams.

The primary vivas were scheduled to be held in five venues across Australia and New Zealand over eight weeks, with the 20.1 and 20.2 candidates examined together. Perspex screens and sanitisers at viva stations were a sign of the COVID-safe times.

The final vivas for the 2020.1 candidates were scheduled to be held over just two days in five time zones at eight different locations, although of course this became seven locations in four time zones when the SA candidates were forced to join the NSW cohort.

While it is possible to hold the primary vivas on more than one date, this is not possible for the final vivas. Closely aligning with the written component, the final vivas are designed to be held concurrently and to cover different parts of the curriculum.

Despite our best efforts, it was logistically not possible for the 2020.2 final candidates to sit with the 2020.1 candidates (as happened with the primary vivas) or even early in 2021 to allow unsuccessful candidates to join the 2021.1 cohort.

Vivas for the 2020.2 candidates will be held in May 2021, though the candidates have been given the option to withdraw based on information provided to them about their written results, and join the 2021.1 cohort.

Online solution for vivas

When the exams are held in a single venue over two days, there are plenty of examiners to make them run smoothly.

Pre-COVID, examiners would fly interstate to bolster numbers and to remove potential perceived bias in examiners examining candidates known to them.

With the pandemic still limiting travel, it became clear that a reliable online solution was needed so that candidates could sit their vivas either face-to-face,

“As many of us know only too well, sitting specialist exams is one of the most stressful experiences in life. To do it during a once-in-a-lifetime pandemic is truly a remarkable feat.”

online or both. The solution needed to enable drawings to be shared and discussed. The technology also needed to be reliable with glitches undesirable, crashes disastrous.

After some initial behind the scenes powerhouse brainstorming led by Professor David Story, in July we established the Tech-Assisted Examinations Working Group led by councillor and simulation guru Associate Professor Leonie Watterson working with the ANZCA IT and Education teams.

Eventually the college settled on Zoom to help deliver online viva exams and began the lengthy process of making this method as foolproof as possible.

The system was installed on 32 new laptops, originally purchased as part of an IT upgrade for staff, and we set about testing and retesting the computers in a lab and onsite, then organised training for candidates, trainees and invigilators.

With video vivas on 6 and 8 December in Perth (16 candidates), Tasmania (three), NSW (one), SA (one) and Queensland (one), the vivas are now over for 2020.

We got there

To our primary and final exam sub-committees led by Emma Giles and Sharon Tivey respectively, and of course our examiners who have given up five to 10 days of their time, this has been a remarkable achievement by volunteers who have examined our trainees under the shadow of COVID-19. Literally thousands of hours on Zoom and in phone calls have gone into making these exams happen.

Enormous credit must also go to Robert O'Brien and his exams team, the ANZCA IT team and the staff in our Australian regions and New Zealand. It's worth remembering that most staff were doing all this while working from home.

And finally, to the candidates. As many of us know only too well, sitting specialist exams is one of the most stressful experiences in life. To do it during a once-in-a-lifetime pandemic is truly a remarkable feat.

We are immensely proud of you all.

Dr Michael Jones
Chair of Examinations

NZ fellow plays key role in Cook Islands response

Auckland anaesthetist Dr Ted Hughes recently returned from Rarotonga in the Cook Islands where he was involved in that country's COVID-19 response planning. Here he explains how the pandemic has been managed there.



NZ anaesthetist Dr Ted Hughes with anaesthetic technician Nick Webster.

MY MUM IS from Atiu, near Rarotonga in the Cook Islands. Since 2008 I've visited Rarotonga Hospital many times to work with the New Zealand Society of Anaesthetists (NZSA) to set up intensive care unit (ICU) services and develop the hospital's anaesthesia practice.

Last year I made five visits – twice taking critically-injured patients back to New Zealand – and joined a hospital faculty on a five-day World Health Organization disaster course. My family connections helped embed me there. Mum's brother was head anaesthetist at Rarotonga Hospital, another brother is a former deputy prime minister while the past two health ministers and the Secretary of Health are relatives. All Cook Islanders are NZ citizens.

In mid-January I could see COVID-19 was coming. In my role as a voluntary advisor to the Te Marae Ora Cook Islands Ministry of Health (TMO) I was involved in discussions with them about the risks of the coronavirus and I was asked to help, arriving there in early March. Last year I had helped broker a memorandum of understanding (MOU) between the TMO and North Shore Hospital in Auckland. The MOU enabled the hospital to provide assistance to the Cook Islands – including in emergencies – so I was deployed to Rarotonga at the request of the Cook Islands Prime Minister Henry Puna.

My plan was to set up a rapid pipeline for supplies from New Zealand similar to the one I had organised to transport personal protective equipment during the Samoan tsunami in 2009 but COVID-19 required a different approach. The pandemic meant we had to enforce rapid changes similar to those that could only be activated on a war footing.

I became part of a small tight management group that planned the pandemic response for the Cook Islands and became the go-to man for many different projects. Anaesthesia training is really useful in an emergency – anaesthetists move across all specialties and all organ systems in all patients so we have an overview some other specialties lack.

Because of my previous work I helped convince "doubting Thomas" politicians and heads of ministries that drastic action was needed. We decided to choose where to fight COVID-19 by focusing on Rarotonga which has optimal staffing and facilities. We shut off all movement to the other 14 Pa Enua islands after first advising all older, high-risk Cook Islanders to leave Rarotonga and move to the Pa Enua. We also moved all older nurses and doctors there. The TMO coronavirus advice led to schools shutting two weeks before New Zealand. Border closures to the US, Europe and other countries were also introduced, the prime minister started weekly national "fireside chats" that were broadcast on television and we began to prepare the TMO to face the pandemic.

“The pandemic meant we had to enforce rapid changes similar to those that could only be activated on a war footing.”

There are about 10,000 residents in Rarotonga. Our main challenge was how to reconfigure a health system to be safe and effective in a pandemic. Keeping the coronavirus out of the hospital is essential as there is no back-up if staff get infected.

We reconfigured the hospital-based TMO into a “puna model” of community care to prevent the spread of the coronavirus. Historically Rarotonga has had 10 villages or “puna” which in modern times are clustered around the ring roads around the island. The puna form tightly knit groups of families. Each puna is united by a shared past including shared genetics, family history, tribal history and associations, schooling, religion and work and are all shared by neighbours – often for many generations. By putting a clinic in each puna with a nurse and healthcare worker we accomplished several goals. Residents find this model familiar and comforting and it is cheaper to run than a full hospital model.

We were well prepared for COVID-19 cases using the puna model. If a case was diagnosed, local puna members would quarantine and provide food and water to quarantined families. As part of our planning I ordered 100 oxygen concentrators and 350 pulse oximeters, and advised on the purchase of 900,000 masks, 18,000 N95 masks and respirator masks for key frontline staff. Each order consumed hours of time – days in the case of the concentrators. Auckland anaesthetic technician Nick Webster was invaluable during his two-month deployment to Rarotonga as he taught the local staff how to don and doff their personal protective equipment.

I played a key role in the COVID-19-driven infrastructure upgrade. The hospital has about 80 beds so we set up a 30-bed COVID ward in an isolated wing with its own entrance. We developed two air conditioned negative-pressure rooms of four and six beds with high flow oxygen supplies. A local builder, formerly an asbestos remover in Sydney, built the negative pressure set-ups in two weeks each for a cost-effective \$20,000. I was involved in the new oxygen concentrator and gas pipeline commissioning – which built on earlier work I had done installing air, suction and oxygen supplies and the first oxygen concentrator there. I also developed a plan for aeromedical transfer by organising the conversion of a SAAB340 into a flying ambulance able to carry up to 20 patients with oxygen supplies.

In two months I had one day off.

In mid-April Prime Minister Puna declared the country COVID-free and my transfer back to New Zealand began. But we had a huge problem with 350 stranded Cook Islanders keen to return to Rarotonga who were exerting considerable pressure on the prime minister. In monitored isolation in New Zealand I spent two weeks helping to organise 350 Cook Islanders scattered across New Zealand to be transported to a quarantine hotel with nurses, doctors and security staff. This group then had to be flown home on special charter flights and then placed in hotel quarantine in Rarotonga. Each day of my two-week isolation started with a Zoom meeting with Mr Puna and his cabinet!

I returned to my work in Auckland in June but Mr Puna asked if I could return to Rarotonga to help with COVID-19 preparations in early September. I spent another two months there including doing some acute ICU work.

A lot of my work involved surgical referrals for cancers that are untreatable in Rarotonga. We have had problems due to the border closures and the reduction of NZ flights from 30 a week to one a week.

Before the pandemic most Cook Islands patients with chronic complex medical or surgical conditions just hopped on a flight to Auckland and saw their GP who then referred them to a New Zealand hospital. They were treated quickly and efficiently.

In Rarotonga visiting NZ surgical teams funded by the NZ Ministry of Foreign Affairs and Trade would also see, assess and treat patients. Since the pandemic it has been 15 months since any visiting surgical or medical teams have been to Rarotonga. The result has been dozens of patients moving in and out of the hospital here with cancer-related problems that are untreatable in Rarotonga. What I have been able to do is to convince surgical services in New Zealand to accept these patients so they can be assessed and treated there.

I found myself working six or seven days a week including four nights in a row sleeping in the ICU caring for a dying patient. My monitored isolation time in New Zealand was filled with rewriting the acute COVID-19 treatment plan for the Cook Islands and regular Zoom meetings with Rarotonga Hospital.

My background in anaesthesia, intensive care and pain medicine has been very useful in Rarotonga. In the longer term I hope to encourage staff at Auckland's North Shore Hospital to visit Rarotonga Hospital when the pandemic ends to get a feel for working in the Pacific and to contribute to teaching local anaesthesia, surgical and nursing staff.

Dr Ted Hughes, FANZCA, FFPMANZCA
North Shore Hospital, Auckland

Dr Hughes is a member of ANZCA's Indigenous Health Committee

The view from Gibraltar

With Europe now experiencing a second deadly wave of COVID-19, Australian anaesthesia trainee Dr Arghya Gupta reflects on his experience working in the health service of the tiny territory of Gibraltar.



Dr Arghya Gupta

The Chief Minister of Gibraltar declared a state of emergency on 16 March, a day after Spain's declaration. There were just three cases in all of Gibraltar. All retailers were closed indefinitely (except pharmacies and supermarkets), and people were only allowed to leave their house for exercise. If you were over 70, you could only leave for an allotted hour between 11am and 12pm every morning. The border with Spain was closed and open only to essential workers from Spain who contributed nearly half of Gibraltar's hospital workforce.

The anaesthesia department where I worked included a team of eight European-trained consultants and six registrars at various levels of training. Based on the UK system, we would rotate between ICU and anaesthesia duties in normal times, but the onset of COVID-19 meant we were all appointed full time intensivists.

A "prepare for the worst, hope for the best" scenario saw elective surgery lists cancelled and a single operation theatre open for emergencies and caesareans. Every patient on admission to hospital (regardless of symptoms) was swabbed and put into a high-risk or low-risk ward based on their condition. The ICU was transitioned from a five-ventilator, 10-bed setup to a 20-ventilator, 30-bed setup with the use of transport ventilators, donated ventilators and unused anaesthetic machines.

About 100 people were infected in Gibraltar over the first month. Lockdown measures were then eased (exercising at the beach was allowed during the summer) and elective lists resumed. All emergency surgery patients received a rapid COVID-19 swab while all elective patients were made to isolate at home for 10 days prior to their operation and then undergo a drive-through swab 24 hours before surgery.

The supply of staff personal protective equipment (PPE) included 60 elastomeric face masks with P100 filters and a discussion with the manufacturer about appropriate donning and

doffing technique, as well as rewashing schedules to ensure no staff member would be unprotected. Hospital staff were also required to undergo three swabs each week regardless of symptoms so asymptomatic carriers could be detected. In early June, all 1200 employees of Gibraltar's health system underwent an immunoglobulins blood test with results showing about 2 per cent of staff had serum antibodies present.

The measures taken in Gibraltar resulted in very few cases of COVID-19 during my time there and no deaths. The border with Spain was opened in mid-June and I was able to travel around southern Europe in a very different world before returning to Australia.

With the second wave in Europe now causing an exponential rise in cases, Gibraltar has recorded nearly 800 cases. It is still yet to intubate a patient, and no one has died from it.

While the resources and population of Gibraltar may have allowed for a rapid and successful strategy to be implemented, some of the clinical techniques could be applied in Australia and New Zealand. Asking for all elective cases to voluntarily isolate before surgery could limit infection and not affect elective surgery lists and theatre needs. Elastomeric masks with appropriate disinfection could significantly decrease stress on PPE resources. Regular staff swabbing could detect asymptomatic cases and protect other staff members and vulnerable patients.

My time overseas was intended to be used as a learning experience in anaesthesia practice in an international context. While I could not have foreseen the pandemic, the impact of COVID-19 on clinical practice in Gibraltar enabled me to apply some of what I had learnt to my clinical practice here in Australia.

Dr Arghya Gupta is an advanced trainee based at Wollongong Hospital in NSW and a member of the NSW Regional Trainee Committee.



Dr Wilga Kottek
Anaesthetist
Victoria

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Library notes on the pandemic

ANZCA Library Manager John Prentice explains how he learnt to quickly adapt to the challenges of running an essential college resource from his kitchen table.

It was during a week-long cycling trip to Tasmania in mid-February that I first realised that the coronavirus wasn't going away and that if I wasn't careful I might find myself trapped in Tasmania if the borders were to suddenly close. Fortunately, that didn't happen, but just four short weeks later I remember finding a bag of rice during another cycling weekend away and being more than happy to cart it halfway across Victoria to store alongside my dwindling toilet paper supplies. Little did I know then that I would soon be carting around library books on my bike as well.

Just two days after my weekend scrounging trip, we were in lockdown working from home, discovering the joys of Zoom. For the library, it also meant discovering ways of continuing to circulate our print book collection.

With trainees accounting for more than 90 per cent of all library loans, it was critical that this service be kept up and running. This resulted in a modified service whereby I was one of the few staff allowed on site, as I lived nearby.

With an active library collection being composed of literally thousands of fomites, and with early studies showing that the virus could persist on the surface of a book for up to three to four days, infection control

“We had to ensure each returning book underwent its own strict COVID-related sanitisation and period of isolation before recirculating.”

became a major concern. We had to ensure each returning book underwent its own strict COVID-related sanitisation and period of isolation before recirculating. I'm sure there was more than one trainee who must have wondered why the covers of their books were slightly sticky!

A few weeks after the lockdown began, one of our fellows asked us to locate as much information as we could on COVID healthcare infection rates. I spent hours tracking down and pouring over national and international data sites. Few offered the data granularity required, however the Italian data proved both comprehensive – and alarming. I became acutely aware that the lack of any substantive community transmission of the virus within Australia at that point was mostly just pure luck. This was to be borne out in subsequent weeks.

An informal co-operative of health librarians quickly formed, many of whom were on the “frontline” in hospitals. A dizzying amount of information was soon circulated in a determined effort to keep colleagues abreast of the latest news, advice, guidelines, articles and search strategies.

Around this time, the library began work on a standing ANZCA COVID news item that quickly evolved into a fully-fledged library guide using a lot of the suggestions circulated. This formed part of an articulated, site-specific response with many such guides appearing in the space of a few weeks. I, like many others, began watching the live-streamed morning COVID briefings due to the rapidly evolving situation, and the incomplete reporting that often resulted in the media.

John Prentice has grown used to his COVID-19 office set-up.



Preparing COVID-safe ANZCA library items for postage.

I joined the college's expert working group and the library's nascent COVID library guide quickly evolved into the hub of the college's clinical response. I spent the next few months sifting through hundreds of incoming emails and articles for inclusion in the guide. For someone who had done university-level biology and worked in health-related libraries for more than 20 years, I often found my own ignorance frustrating. I spent an inordinate amount of time googling terms and reading background documents to get more up-to-speed. PPE, AGPs, PCR, N95, SARS2, nCOV, COVID-19 all became a sort of litany. What was interesting was how much of this terminology quickly entered the public vernacular as well, although often without any contextual understanding. I remember once taking a perverse pleasure in explaining to a friend via Facebook how many different ways he could potentially contaminate his facemask before stepping foot outside his front door in the morning.

Working off my tiny kitchen table, I began to discover a number of small but time-consuming limitations managing some of our services. Two of our e-journals are onsite use only, as they can't be passed through our authentication system. Even with the college's virtual private network (VPN), library staff were unable to access these titles, which resulted in many of my early library visits spent downloading articles. It was eventually discovered that the reason that they were inaccessible was because our web browsers weren't passing through the VPN. Cue hasty fix by ANZCA's information technology team.

At its peak the COVID clinical guide was getting more than 1000 hits per day, and turnaround time became a major challenge – with a 30-minute delay meaning that something like 20 people didn't see the latest PPE advice. The flood of information was often so overwhelming and the workload so intense that the rest of Australia's national lockdown is little more than a sleepless blur in my memory.

I managed one cycling trip between the national and the subsequent Victorian lockdowns. During the last stage of the trip, my tyre was spiked and I resorted to masking tape to fix the resultant hole. The tyre burst just as I reached civilisation. As metaphors go, it's an apt one, as one week later Victoria was back in lockdown.

If the first lockdown passed in a blur, the second lockdown became a mind-numbing marathon. Luckily I was still heading into the college a few days a week to post out books. However, even that became a challenge: bedecked in mask and gloves and coated in sanitiser, I discovered that the gloves had a wonderful habit of getting caught in the Express Post bags as I sealed them up. I'm afraid that at times it all rather resembled a Mr Bean episode, with me flapping about the office with a bag of books stuck to my hand.

One benefit of living so close to work, was that my manager and I were able to have walking “meetings” around Albert Park Lake. Our restricted one hour of exercise would be spent dodging maskless joggers, avoiding the breeding swans, discussing the latest COVID news and speculating about the US election. I'm still undecided as to which was the most dangerous, although I must admit I will never be able to look at a jogger again without thinking “great big running AGP”.

As the second lockdown finally wound down, I realised that I'd finally had enough. With little human contact over the preceding seven months, I began rotating library visits with the other library staff – much to their delight – packed my bags and moved out of the city. The sense of freedom I felt was intoxicating.

And so here I sit in my new home-based office, looking up details on viral shedding while I listen to the birds outside and the possum in the roof. Apparently, the latter isn't moving out till next week.

Nearly a year into coronavirus, things are finally starting to look up on the vaccine front, with both Pfizer and Moderna announcing successful vaccine trials in the last week. And believe it or not, you probably have Dolly Parton to partially thank for the latter. Strange times indeed.

Historical note: This article was written in the immediate aftermath of the second Victorian COVID lockdown (July-October 2020).

FRONTLINE ANAESTHETISTS REFLECT ON THE WHAKAARI TRAGEDY ONE YEAR ON

After the Whakaari/White Island volcano erupted at 2.11pm on Monday, 9 December 2019, more than 30 victims were taken to Whakatane Hospital with at least 27 suffering major burns ranging from 30 per cent to more than 90 per cent of their bodies. Out of the 47 tourists and guides caught in the eruption, 16 died either on the island or shortly after. Remarkably, only five more died during the coming weeks (and one more recently) making the final death toll 22.

Much of the credit for the survival of the others is given both to the first aid provided on the island and the boat that, along with helicopters, rescued survivors, and to the initial treatment provided at Whakatane Hospital, which has about 80 beds, three operating theatres, an acute care unit and a 17-bay emergency department (ED). Despite the overwhelming number of patients with horrendous injuries from the hydrothermal eruption and a horizontal explosion blasting scalding hot ash and acid compounds deep into the victims' skin, hospital staff managed to do "the impossible". This is what it was like to be there, as told by some of the hospital's six anaesthesia senior medical officers (SMOs).

Left: The power of the blast of the eruption can be seen by the impact on the sole helicopter on the island. It was shifted off the helipad and tossed by the force.

ANAESTHETIST DR FRANK DEUTSCH, rostered for a 24-hour on-call shift, was called to ED about 3pm and told the island had erupted. Despite not knowing what to expect, he arranged for theatre staff to finish their procedures and stand by, and asked colleagues at home to do the same.

"I also helped advise ED on preparation – medications, pain relief, cannulas, fluids, intubation equipment – whatever I thought we might need. Every minute was used to get ready. Hospital staff from the wards and elsewhere came to help. We started sorting teams so people knew who they would be working with.

"Then the first patient came through the door. And then the next one came, and the next one; one after another, after another.

"I was at resuscitation bay 1 ready to intubate if needed. A young guy was brought in. I remember the sulphur smell. He was completely white, covered in ash. His eyes were white. I could see he was in pain but with skin coming off, I could not put the cannula where I normally would."

Eventually it went in a foot. It was the same for monitoring – everything was burnt, making it impossible to do normal electrocardiogram or blood pressure readings. For most patients, central lines were put in the groin, the area that had been most protected by clothing. "Then we could give pain relief, fluids and antibiotics. Nothing was normal. It was incredibly challenging."

Dr Deutsch worked until 10am the next day, remaining on call for the rest of the hospital, and waiting to see the last burns patient transferred. "Then I went home, and I cried, and cried and cried," he said.

While distressing memories linger, Dr Deutsch takes comfort knowing that: "We could not have done anything more. And what we did seems almost impossible. Every single patient had been treated well."

Then lead anaesthetist at Whakatane Hospital, Dr Lutz Sauer, was finishing up in clinic when he was called to ED and learned about the eruption. "I thought: 'Oh, we might have a couple with broken bones, maybe a burnt arm; probably one patient might need to be transferred.' Then the first patient arrived covered in ash, grey as anything, and I realised a very serious situation was unfolding.

"And then they were bringing patients in, and bringing patients in, and bringing patients in... As soon as we intubated one patient, there was another. Each anaesthesia SMO was covering multiple ED bays but all somehow worked smoothly.

"We just went into auto mode and did our job. We didn't think about the time, or when we could eat or go home."

As patients were stabilised, a fleet of rescue helicopters and fixed wing aircraft transferred them to the New Zealand National Burns Centre at Middlemore Hospital in Auckland, and the regional burns units at Waikato Hospital in Hamilton, Hutt Hospital near Wellington, and Christchurch Hospital.





Above: San Francisco tourist Michael Schade, who was leaving the island by boat, posted these photos on twitter soon after the eruption.
Right: White Island Tour operators rescuing people from shore having turned back after the eruption occurred.

"We just went into auto mode and did our job. We didn't think about the time, or when we could eat or go home."



"Once the first patients had been transferred, we saw that others who had not initially needed intubation were deteriorating and, over the course of the evening most of them needed to be on a ventilator," Dr Sauer said.

An eight-time visitor to Whakaari White Island who never felt unsafe there, Dr Sauer says the eruption was an eye-opener. "I probably try to appreciate each day more now as I realise that could have been me or my loved ones, it could all be over in a minute. It was a life-changing event for all involved."

Anaesthetist and intensivist Dr Owen Callender divides his working time between Whakatane and Tauranga Hospitals, a one-hour drive apart. He was in Tauranga when he received the request to stand by. He headed for Whakatane and into a scene of frantic activity. There were countless critically unwell patients with a relatively small group of senior ED and anaesthesia clinicians overseeing their care, helped by many other allied health staff and local GPs.

Dr Callender assisted with some of the ED patients, then went through to the acute care unit, wards and theatres (which were all being used) to place central lines, and help with intubations, analgesia and fluid management.

"There were multiple patients requiring multiple procedures. Usually in Whakatane, even one critically unwell emergency admission will take clinicians off the wards and affect the hospital flow ... That evening, I think we had well over 20.

"I was struck by the immense scale of the suffering we were witnessing. As part of the resuscitation team,

I couldn't take as much time as I normally would to comfort and reassure patients, to explain what we were doing and what was going to happen. We just had to do our job ... supporting each other with the occasional hug and pep talk. It was like nothing I have been through before."

By 2am the frenzy was over, with all but one of the victims transferred. Staff were too stunned for any type of group debriefing. However the district health board held debriefing sessions later and has provided access to psychiatrists and psychologists for counselling. For Dr Callender, informal chats with colleagues have been helpful, with time being a big healer, he says.

"It affects different people differently. That kind of trauma is powerful. I am glad we are in such a supportive environment."

These three Whakatane anaesthetists all praised the "amazing teamwork" as all manner of hospital staff (theatre staff, cleaners, kitchen staff, nurses, therapists, volunteers and more) pitched in, often working well outside their area of expertise. "That was one of the best things. You could rely on anyone to help. Everyone was there doing the best they could," Dr Sauer said. The community also sprang into action, keeping staff supplied with pizzas, other food and drink.

NZ National Burns Centre (NBC) anaesthetist Dr Matt Taylor was on call when the first patients arrived at Middlemore. He believes that initial treatment at Whakatane (along with the rescue work) is responsible for an exceptional number of survivors, saying the usual survival rate for people caught in a volcanic eruption

Whakatane Hospital is just six years old. It is a small hospital. There is no staffing for long-term intensive care patients. The ED often has one senior and one junior doctor on duty. Anaesthesia SMOs work on call for 24 hour shifts covering acute theatres, emergency department (ED), wards and maternity.



is 0-5 per cent. In this instance, the survival rate was over 50 per cent – "something that, I believe, has never happened before" – and amazing given that no one in New Zealand, and few elsewhere, had any experience in dealing with volcanic eruption victims.

Volcanic burn trauma usually comes in one of three forms – thermal, chemical or ballistic, Dr Taylor explains. These injuries combined all three, were particularly deep and the wounds were behaving in unusual ways. Even for burns specialists, "it was very different from anything we'd seen before. We learned a lot as we went along – it compressed a decade's worth of experience into a few months," he says.

"I think what the Whakatane staff achieved was spectacularly impressive. For me, it was extending an area in which I was already specialising. That was not the case for them. What they did was pretty bloody heroic."

NZ NBC lead anaesthetist Dr Francois Stapelberg agrees. "For anyone to survive that severity of blast is quite unusual. It is the initial steps of securing the airways, dealing with breathing and circulation, and providing intravenous fluids that keeps the person alive. You can deal with the complexity of the actual burns later. Those clinicians at Whakatane doing that well made all the difference.

"They did exceptionally well. The victims who did die had unsurvivable injuries. It is a miracle anyone survived."

"They did exceptionally well. The victims who did die had unsurvivable injuries. It is a miracle anyone survived."

Dr Stapelberg also acknowledges the personal trauma involved. "Seeing and treating burns victims can be incredibly traumatic. It is hard to comprehend the personal trauma for those confronted by 30 such cases at once. They did an amazing job."

Most of those caught in the eruption were Australian and within 72 hours, 13 patients were repatriated to Australian hospitals, taking the strain off the New Zealand hospital system. Clinicians there have also praised the quality of that initial care, Dr Stapelberg says.

Other Whakatane Hospital anaesthetists working that night were Dr Denise White, Dr Wolf Kremer, Dr Nikolas Haus and Dr Heike Hundemer, who was also the hospital's medical leader. A few days after the eruption Dr Hundemer told media that while staff had held mass casualty training exercises, what they were faced with after the eruption was "beyond comprehension". Dr Hundemer said she had never seen so many critically injured patients coming into an emergency department in such a short space of time. Normally there would be about six nurses and two doctors in the Whakatane ED but that evening there were about 100 staff, and they used every resource and bed space to care for the victims.

Dr Pierre Botha, head of anaesthesia for the Bay of Plenty District Health Board at the time, covering both Tauranga and Whakatane Hospitals, was working in private practice when he heard about the eruption. He checked with his Whakatane staff during the evening to see whether additional help was required and visited the next day.

"I was surprised to find how calm people were, and they were talking about how incredibly well everyone had worked together." That Friday, at the regular monthly departmental meeting, Dr Botha invited the Whakatane anaesthetists, who joined by video, to share their experiences.

Susan Ewart
Communications Manager NZ, ANZCA (2010 – 2017)



Diving into the deep end with ANZCA

HYPERBARICS IN HOBART

Houston and Hobart may seem worlds apart but for Dr Alicia Tucker, now completing ANZCA's Diploma of Advanced Diving and Hyperbaric Medicine (Dip Adv DHM), they actually have a lot in common.

DR TUCKER IS an emergency physician who has spent the past 12 months completing her diploma as a fellow in the Royal Hobart Hospital's Department of Diving and Hyperbaric Medicine. Having completed a month-long sabbatical in space medicine with the NASA Johnson Space Centre in Houston the year before, she was keen to explore how she could apply what she had learnt in the US to her subspecialty in Tasmania.

Now, as a staff specialist in the new \$12 million Hobart hyperbaric unit, the diploma candidate hopes to be able to combine her training in diving and hyperbaric medicine with her knowledge of space medicine to enhance our understanding of physiology and future space exploration.

The Hobart facility is one of only a small number of units in the world that can simulate high altitude environments. The unit's dual capability gives it an edge over other hyperbaric treatment centres as it can both pressurise (hyperbaric) and depressurise (hypobaric).

The hypobaric chamber will enable space researchers to develop and test "intermediate atmospheres" so astronauts or space tourists can live and work safely without compromising their health. The unit's three interlocking hyperbaric chambers will allow doctors to test the impacts of extreme low-pressure environments on humans. It can not only pressurise to simulate undersea depths of 50 metres but can depressurise

"As clinicians we have to be aware of how our bodies respond to unusual environments and what can go wrong."

to simulate an altitude of 45,000 feet (13.71 km). (The altitude chamber is human rated to 45,000 feet but has the capability to be used experimentally for research up to 100,000 feet.)

Hyperbaric oxygen treatment is a well-established treatment for decompression illness that affects divers after they have been exposed to pressure while underwater. The hyperbaric chamber is also used to treat medical conditions such as diabetic problem wounds, tissue injury following radiation treatment for cancer and soft tissue infections such as necrotising fasciitis.

"Extreme environment medicine is fascinating because your body is being challenged by these unusual environments. As clinicians we have to be aware of how our bodies respond to those environments and what can go wrong," Dr Tucker, an aviation medical examiner for Australia's Civil Aviation Authority and a rescue diver with the Professional Association of Diving Instructors, explained.



Left: Provisional fellow Dr Emma Wilson is a passionate scuba diver.

Right: Dr Alicia Tucker and Professor David Smart inside Royal Hobart Hospital's diving and hyperbaric unit.

Photos: supplied



"In my private practice, I regularly do aviation medicals for pilots and air traffic controllers. We know that the space flight environment and microgravity has the potential to lead to long-term exposure to radiation and we know it can affect your balance because of the research and testing that has been done on astronauts," she said.

"But what we don't know is how space flight will affect normal people with underlying health conditions. We assess people for fitness to fly and for fitness to dive and one of the things that I'm now hoping to be able to contribute is fitness for space flight. Could Hobart be a place where you go for your altitude experience to get some pre-flight conditioning before travel? There's a lot of exciting potential here."

After her stint in Houston Dr Tucker began exploring diving and hyperbaric medicine opportunities and sought out Tasmanian emergency physician Dr Juan Carlos Ascencio-Lane who was the first candidate to complete the exam and be awarded the Dip Adv DHM in 2018. (The diploma replaced the former ANZCA Certificate in Diving and Hyperbaric Medicine in 2018. Award of the diploma requires completion of the diving and hyperbaric medicine training program and a specialist qualification acceptable to ANZCA Council, as well as current medical registration and declaration of fitness to practice.)

"That then led to a conversation with Professor David Smart (the co-director of the facility in Hobart) and I realised that there really was a natural marriage between hyperbaric diving medicine and space medicine. I could see there was an opportunity to participate in meaningful aerospace research out of Hobart alongside diving and hyperbaric medicine.



Dr Emma Wilson

"In terms of my experience with the fellowship program I have had exceptional support. My portfolio was quite robust and I sat the (advanced diploma) exam mid-year and was successful," Dr Tucker said.

"To have gone through the exam process makes me feel that I have earned my standing even though I've only had a two-year affiliation with the area. It's definitely something I would encourage as a subspecialty for an anaesthetist, intensive care physician or emergency physician."

"With diving and hyperbaric medicine you need someone to put up their hands and embrace it. Before I trained as an emergency physician I started out a surgical trainee. As a surgical registrar I had a lot to do with plastic surgery and burns so in a way I've come full circle as I'm now working alongside the surgical specialties I was working with back then."

"By doing the advanced diploma I'm not only part of the Australasian College for Emergency Medicine (ACEM) but also ANZCA. In Tasmania we're unusual in that the majority of our hyperbaric physicians have emergency backgrounds. There are at least eight of us in Tasmania – one has a background in anaesthesia and intensive care, one is an anaesthetist, one is a GP anaesthetist, and the rest of us are emergency physicians."

Like Dr Tucker who first started scuba diving 15 years ago, Dr Emma Wilson is also a convert to the underwater world.

A provisional ANZCA fellow at Geelong Hospital, Dr Wilson will move to Hobart in early 2021 to undertake a 12-month fellowship position at the Hobart hyperbaric unit under the supervision of Professor Smart.

She has taken an unusual path to hyperbarics. After growing up in Washington State in the US as a keen skier and winter enthusiast, a move to Australia for medical school soon led to adapting to the Australian tropics, and later a job as an anaesthesia registrar on the Northern Queensland rotation. However, it wasn't until a trip to the Gili Islands in Indonesia with her brother that Dr Wilson was introduced to scuba diving and she hasn't looked back. Diving trips to Central America, Asia and the outer reef in Australia soon followed, with her enthusiasm buoyed by keen northern Queensland colleagues and diving conferences.

"I had been in Townsville doing my anaesthesia training and a few of the consultants there had talked about diving and hyperbaric medicine, so I then started looking into it a bit more," she explained.

"I then applied for the fellowship through David and then the diploma through ANZCA. Anaesthetists are generally interested in pharmacology and physiology and seeing how that then translates to the real world. Diving and hyperbaric medicine is another area you can specialise into while still practicing anaesthesia, so I'm hoping to ultimately be able to practice a mix of both."

"Diving and hyperbaric medicine is another area you can specialise into while still practicing anaesthesia, so I'm hoping to ultimately be able to practice a mix of both."



Professor David Smart on site during construction of the new diving and hyperbaric medicine facility in Hobart.



Dr Alicia Tucker and Professor David Smart in the altitude doorway of Royal Hobart Hospital's diving and hyperbaric medicine centre.

Professor David Smart has been medical co-director of Royal Hobart Hospital's Department of Diving and Hyperbaric Medicine since 1998. As the immediate past president of the South Pacific Underwater Medicine Society (SPUMS) he's excited by the research opportunities that are now possible in diving and hyperbaric medicine.

"The chamber facility here in Hobart has at least a 30-year life and there are things the chamber will be used for in the future that I can't even imagine. We're growing the field to the best of our ability and part of this involves fostering the next generation of diving and hyperbaric medicine specialists coming through. There are a number of overlaps with acute medical specialties such as anaesthesia and ICU."

The unit recently participated in the HOLLT (hyperbaric oxygen lower limb trauma) randomised controlled trial which examined how hyperbaric oxygen can help reduce swelling, reduce infection and help tissue healing for compound fractures of the lower leg.

"When I first started as an intern in the 1980s there weren't too many medical treatments taking place, in those days we were mostly treating divers and people with carbon monoxide poisoning but none of the wound care issues or radiation injuries had been discovered at that point," Professor Smart explained.

"The field has really benefited from people who are working in it, understand the physiology of the field and who then apply it to specific disease states."

Professor Smart says Specialist Training Program (STP) funding from the Australian Department of Health has been invaluable for the unit's clinical skill training and retaining staff.

"The funding means we can have a fellow such as Dr Tucker each year. Having a fellow in the department really stimulates everyone's knowledge base. You're learning in the field and that flows on to our technical staff and our nursing staff and creates a higher level of operation. The other aspect is that STP also funds the supervisor of training position. We wouldn't have the program we have in Hobart without that funding as the baseline hospital funding we receive is just enough to do the clinical cover."



The unit's move to the hospital's new 10-storey building was delayed earlier this year due to COVID-19. (The installation of 100 new ICU monitors in the new building had to be postponed after the federal government initially corralled them for the national stockpile.)

But Professor Smart says it was worth the wait: "Our floor area has tripled and it has meant that we've had no problems with being COVID-safe. The medical treatment compartment of the main chamber has a floor space of 24 square metres which means we can have five patients at a time with a four square metre distancing rule, supervised by one specialist nurse. In addition we have an emergency treatment lock which is 12 square metres and allows up to two staff providing care to an acute patient. Each of the treatment compartments is adjacent to an entry lock of 12 square metres area.

"Our core business is as a clinical service for diving emergencies and to treat patients with conditions that respond to hyperbaric oxygen treatment. We also provide support to the diving industry and others in Tasmania who would need that routine treatment for occupational health and safety."

"We have a busy diving unit here especially with recreational divers and during the scallop season. Scallop divers have been coming to us as emergencies with the bends and ruptured lungs. We have a helipad

on the roof of the building so when they arrive we can assess them really quickly and then they go straight into the chamber for decompression. The first treatment takes about five hours and then it might be another two to three days before they can be discharged."

Professor Smart says the longer-term vision for the centre is to be able to operate as a multi-environment facility that can combine medical delivery of care with cutting-edge research and formal training programs for altitude simulations.

Anaesthetist Dr Lia Freestone, chair of ANZCA's Tasmanian Regional Committee and the Royal Hobart Hospital's Anaesthetics – Education and Training Clinical Lead said the success of the unit in attracting specialists with anaesthesia, emergency and ICU backgrounds was testament to the leadership of Professor Smart and his team.

"It is one of only six hyperbaric units in the world with a dual capability and which also has the potential to be used for aerospace research. The opportunities it provides for clinical practice and for those interested in pursuing research in diving and hyperbaric medicine are very impressive."

Carolyn Jones
Media Manager, ANZCA

Healing chambers

Hyperbaric oxygen treatment is an important treatment for decompression illness and is often used in the commercial and recreational diving industries.

It is increasingly used to treat other conditions, including tissue injury from radiation treatment for cancer, diabetic wounds and other serious tissue infections.

It helps wounds heal by:

- Stimulating collagen production as a framework for new cells to grow.
- Reducing swelling to allow greater blood flow to the wound.
- Using high oxygen levels to help white blood cells kill bacteria.
- Encouraging new growth in blood vessels.

Hypobaric chambers are used for aerospace, or altitude research and training to simulate the effects of high altitude on the body, with potential application to high altitude, space and extreme medicine research and testing, and airline defence training.



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Futile treatment and decision-making

IN MANY OF our recent morbidity and mortality meetings, the term “futility” and “futile surgery” has been over represented. The term futile has both an ethical and a medical definition.

Medically it can be defined according to the American Medical Association as a treatment or clinical intervention that is not likely to result in benefit to the patient or produce the expected outcome. Ethically it is not as easy to define. For a decision to be ethical and just, it should meet three criteria (Husted and Husted 1991):

1. It should be appropriate to the situation at hand.
2. It accomplishes the goal without causing undue harm.
3. The outcome is foreseeable by the agent or agents who have made the determination.

In more simple terms, there should be a clear relationship between the decision, action and outcome that can be explained in a rational manner to others by the person or people making those decisions.

Even after processing these terms on an intellectual and rational basis, the following questions remain. Taking it as a given that we all have our patient's best interest at heart, there seems to be a lack of consensus in how we process the concept of futile treatment.

What we define as futile treatment at times seems to be different between anaesthetists as a group and other medical and surgical specialities. This difference can also be seen within the anaesthetic cohort itself. Acknowledging that although we are in the same specialty and may have common values and personality traits, we all are individuals and thus think and feel differently. The difference lies at a deeper level. Namely, how we see our role within the medical process in both psychological and philosophical terms.

Pragmatically, futility and utility go hand in hand – that is, what is not seen as futile has utility.

How do we measure utility as anaesthetists? As anaesthetists we have some inherent factors which have a profound effect on our job utility. This includes being seen as facilitators rather than primary clinicians. After all, patients are booked for surgery,

not an anaesthetic – even though one is not often humanely possible without the other. Another seems to be the unwritten but well understood hierarchal structure that exists between both sides of the proverbial blood brain barrier. This perceived or actual power differential may go unexpressed or even unacknowledged by both the surgeon and the anaesthetist. It is often coupled with a lack of understanding of the intricacies, of what goes into providing a good, safe anaesthetic, particularly in the high-risk patient. This can be seen in both our colleagues as well as our patients. This aspect sometimes translates into a lack of appreciation, real or perceived.

Accepting that the above factors are common to all of us, surely it should affect our job utility in a similar or possibly even in the same way.

One of the factors that affect us all differently is how we see ourselves in the process and how we see the process itself.

Consider the benign action of crossing the road. It is a process that can be relatively simple and in fact it is done daily and safely and without much thought. However, if not done with due vigilance and care, it can result in severe injury and even death.

Philosophically, how we see ourselves in the process falls into four categories.

The first is the **unguarded crossing**. This crossing is inherently known to be dangerous. However, we justify it by saying that those who choose to cross here, know the risks, but cross anyway. Psychologically this correlates with nihilism or perhaps even fatalism. We do our best but what happens, happens. After all the outcome is out of our control, it was meant to be. This mind set also represents the path of least resistance.

The second category is the **zebra crossing**. It is sacrosanct. Everyone knows the rules. It's safe to cross even with oncoming cars. We all know that they will stop, as pedestrians always have right of way. Psychologically this equates to optimism or perhaps to the more cynical as naïveté. We all did our best and therefore the outcome was the best for the patient. This mindset also represents a diminishing or perhaps even an absolution of individual responsibility.

The third philosophical viewpoint is the **guarded crossing**. There is a warning sign that says “children crossing”. We inherently understand that those crossings are vulnerable. They are usually ignorant of the road rules, combined with drivers that are unpredictable and potentially distracted. We have only the authority that our lollipop signs and high-visibility vests give us. Most of all we are self-empowered by personal responsibility. We blow our whistles and hold our signs, and believe, or possibly only hope that the cars will stop. Psychologically this represents paternalism for if anything happens, we take full responsibility. It's our fault. They were in our care. This mindset can at times lead to an overburdening of personal responsibility even for variables that to the impartial observer are clearly out of our control.

The fourth and final perspective is that of the **traffic policeman**. We have a civic and legal duty to keep the crossings safe. We are aware of the risks, are well trained and most of all empowered. Psychologically this would be the closest match to authoritarianism.

If things go wrong, in most cases, we try and learn from the planning and execution. Knowing it was well planned and that we were able to do our best. We aim not to repeat mistakes in the future.

In my practice I wish I could say that I feel like the traffic policeman. In reality I am often left feeling like the lollipop man who guides vulnerable school children while being surrounded by inexperienced and impatient drivers.

I would be interested if any of my colleagues relate to these philosophical and theoretical view-points.

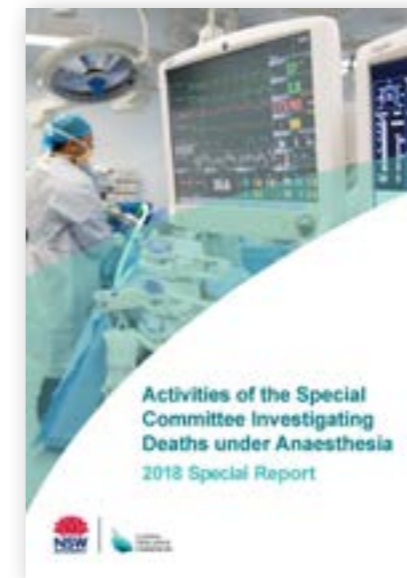
Where, if anywhere on this continuum do you sit? Where do your patients cross and more importantly where would you ideally like them or your loved ones to go, to get to the other side of the road?

Dr Jonathan Kapul, FANZCA
Specialist Anaesthetist, The Queen Elizabeth II Jubilee Hospital, Brisbane

The development of a new ANZCA professional document PS67 Guideline on end-of-life care for patients scheduled for surgery or interventional procedures is currently being undertaken. This will be a multidisciplinary document co-badged with The Royal Australasian College of Surgeons (RACS), Royal Australasian College of Physicians (RACP), Australian College of Rural and Remote Medicine (ACRRM), College of Intensive Care Medicine of Australia and New Zealand (CICM), Australian College of Emergency Medicine (ACEM), Palliative Care, and ANZCA.

Anaesthesia-related deaths – example case from SCIDUA's 2018 Special Report

The New South Wales Special Committee Investigating Deaths Under Anaesthesia (SCIDUA) has been reviewing deaths associated with anaesthesia and sedation since 1960. Example cases from the 2018 Special Report are being reproduced in the *ANZCA Bulletin* in an effort to enhance reporting back to the medical community.



Example case two – orthopaedic surgery

A 70-year-old female presented for a femoral nail after a fall.

Background history:

Severe chronic obstructive pulmonary disease with a recent exacerbation and moderate pulmonary hypertension, mitral valve replacement and atrial fibrillation.

Given her poor pre-morbid condition, discussion with the family ensued, deciding she was not for resuscitation in the event of a cardiac arrest.

Anaesthetic details:

A fascia iliac block was performed under Ketamine sedation (10mg + 10mg). The patient was then turned lateral for a spinal block with 1.5mls Heavy Marcain and Fentanyl 25mcg. She was then transferred to the operating table and positioned.

The patient developed profound bradycardia and hypotension. She was resistant to Atropine, Metaraminol and Ephedrine and then suffered a cardiac arrest. Given her advanced care directive no CPR was initiated.

Learning points:

- High-risk patients having high-risk surgery feature predominantly in SCIDUA reports.
- It is essential to appreciate the magnitude and severity of the patient's co-morbidities (especially cardiorespiratory) prior to undertaking an anaesthetic.
- This will guide not just the type of anaesthetic given but also the level of monitoring required for the procedure. While having an arterial line in this patient might not have altered the outcome, perhaps having one would have led to earlier recognition of a deteriorating patient.

Source:

Clinical Excellence Commission, 2019. Activities of the Special Committee Investigating Deaths Under Anaesthesia, 2018 Special Report. Sydney, Australia.
SHPN: (CEC) 190448; ISBN: 2201-5116 (Print)

Assessment and documentation incidents reported to webAIRS

ANZTADC reached an important milestone in May 2020 with 8000 reports submitted.

Among the first 8000 reports, 4.7 per cent were categorised by the reporter as involving assessment or documentation. A breakdown is shown in the table below.

Assessment and Documentation	Percent
Clinical Assessment (inadequate/incorrect)	27.0%
Risk Assessment (inadequate/incorrect)	15.3%
Documentation (missing, illegible or delay in availability)	10.3%
Incorrect Patient	1.1%
Operation list changed	0.7%
Operating List Incorrect	1.0%
Tests performed inadequate	3.2%
Test results not available	1.1%
Other or no subcategory specified	40.3%
Total	100.0%

Interim results of the subcategories of the cardiovascular reports among the first 8000 reports shown as a percentage. Please note that the figures above are approximate and might change slightly because of data cleansing during the detailed analysis that will be performed by ANZTADC before final publication.

Assessment and documentation form an important part of perioperative care, which includes preoperative, intraoperative, and postoperative care. A selection of cases to illustrate examples of the above categories have been added to the "ANA-Alerts" on the webAIRS website. To view the latest ANA-Alerts go to the webAIRS website and login or register at www.anztadc.net.

A formal systematic analysis of the incidents listed above is being planned. This will include a narrative search using key words and an automated database search to return additional reports that may be relevant. The narrative search will augment the original coding by the reporters that is shown in the table above.

At present we have a small number of teams analysing the incidents and ANZTADC is looking for more analysers and teams to assist with this analysis. Although the number of reports in each main category is high, each individual subcategory associated with the main categories has a smaller number events, usually numbering between 100 and 300 reports. The reports are already codified according to the following parameters, which assists in the analysis. To view the full dataset collected visit www.anztadc.net/demo/IncidentTabbed.aspx and view the tabs on the page.

The ANZTADC publications group is looking for volunteers to analyse the data. The volunteers will be formed into teams to analyse the various subcategories. Please contact anztadc@anzca.edu.au to register your interest and indicate the main category that you are interested in analysing.

The ANZTADC case report writing group

This advertisement is for medical professionals only and has been removed for this edition.

What would you do?

Dr Peter Roessler explains ANZCA's professional documents using practical examples. In this edition, he addresses standards.



Standard? What standard?

Scenario:

You have just commenced a new position as a locum in a regional hospital. On your first day you enter theatre to find that the machine has been checked, tray set out along with airway equipment and so on. However, you notice that additional equipment is required for your preferred technique of total intravenous anaesthesia for the scheduled procedures and patients listed. You discuss your plan with your assistant at which point you are curtly informed: "That is not how we do things here. It's not standard practice in this hospital".

What would you do?

Many will be familiar with the story of Goldilocks. The contemporary version of this story is that one fine day during lockdown, Goldilocks left her temporary accommodation at the Quarant-Inn to go for a walk in the forest, whereupon she was apprehended and taken to the Three-Bears Inn. There she was offered a choice of three bowls of porridge, the first being too hot, the second being too cold, and the third being just right, so she ate that one. While there she became tired and wanted to rest so she was offered a choice of three beds. She promptly tested them all until she found the one that was just right for her. Ever wondered on what she based her decisions?

The lesson from this story is that if you have standards you know what you are looking for, and consequently, know when they have been satisfied.

In the theatre scenario above, it is interesting to ponder the reasons behind the assistant's response. Most facilities, either intentionally or inadvertently develop their own local "culture" from which any deviation is met with suspicion and concern or fear. The desire to maintain a status quo is fulfilled by standardising techniques or steps so that outcomes continue to be

predictable and consistent, the result of which is the generation of a comfort zone.

Standardisation involves creating standards focussed on outcome/quality that can then guide development of processes, which if followed closely will meet those standards. The concept of standardisation arose in the industrial setting of manufacturing where it was recognised that variability in quality of products was intricately linked to variability in processes and procedures.

The solution to variability was to identify processes that resulted in quality and then implement those steps rigidly each time.

The benefits of standardisation are such that the concept can be applied to virtually any circumstances where consistency and predictability of outcome are demanded.

Standardisation in the setting of manufacturing is reasonably straightforward as the "ingredients" that go into making a product are known and fixed. Therefore, starting with fixed ingredients and applying a set or standardised process the quality of any product will be predictable and consistent. In the human setting, however, "ingredients" with which practitioners are presented are not constant and consequently, applying any rigid process will not necessarily produce the desired result. Genetic differences and epigenetic influences are unknown for any given individual.

It has been said that there is only 1 per cent difference between the genetic makeup of humans compared with warthogs, but that 1 per cent clearly makes a huge difference (come to think of it I vaguely recall my early childhood days when I was once referred to in porcine terms).

Given the multiplicity of genotypic and phenotypic variations, development of processes able to extract the same outcome in all individuals is problematic. That being said, there are aspects that lend themselves to standardisation with demonstrable improvements in outcomes.

Nonetheless, standardisation as applied to anaesthesia needs to ensure a degree of built-in flexibility to allow deviations in technique/process whose outcomes can then be compared to a benchmark.

The establishment of standards against which outcomes/performance can be compared is essential. From correspondence received at the college it is evident that there is some confusion when it comes to understanding what a standard is and what purpose it serves.

A standard defines a level of quality or achievement against which activities or behaviours can be measured. Standards serve as benchmarks, which can then be used to evaluate outcomes of processes or the processes themselves. It is important to appreciate that standards have no legal status and no requirement for compliance. However, a standard may be cited in legislation¹.

Standards may define a minimum level below which an activity/outcome is regarded as unacceptable. Minimum standards are designed to address issues of safety. Some standards are set to identify a range of acceptable performance, which are related to quality (control). Finally, there are standards identifying levels of excellence, which are regarded as aspirational. These aim to drive quality improvement.

Standards may be articulated in various ways including:

- Statement of defined outcome – such as a demonstration of cultural safety when engaging with the community.
- Statement of specifications or process – for example, for continuing professional development, activities are to be documented.
- Quality statement – for example the National Safety and Quality Health Service Standard on medication safety states that the aim of the standard is to ensure that "... clinicians safely prescribe, dispense and administer appropriate medicines, and monitor medicine use."

There are many examples of standards that have been set by standard setting organisations including the Australian Council on Healthcare Standards (ACHS), Standards

Australia (SA), and National Health and Medical Research Council (NHMRC). Some colleges have also set standards including the Faculty of Pain Medicine, the Royal College of Anaesthetists, and the Royal Australian and New Zealand College of Radiologists.

ANZCA's professional documents do not explicitly state standards in the true sense of standards, although they are implied within the documents. It is important to appreciate that the college's guidelines and position statements are not, of themselves, standards.

The implication of standards and their application to clinical and professional performance in anaesthesia, perioperative medicine, and pain medicine are paramount, as standards are what we are judged against and what drives both safety and quality.

ANZCA professional documents are essential advisory tools that provide recommendations and/or expectations intended to inform and support clinicians in attaining levels of performance whether they be minimum levels of performance or levels of excellence.

So, when the topic of standards is raised, as in the above scenario, we should ensure that we are aptly positioned to continue to advocate for our patients based on our understanding and application of standards.

We are all standard bearers for our craft when it comes to our commitment to excellence in caring for our patients.

Reference

¹Standards Australia (2019) Standardisation Guide 003 p.4

Professional documents – update

The ANZCA and FPM professional documents are available via the ANZCA website.

Recent updates

- Review of *PS49 Guideline on the Health of Specialists, Specialist International Medical Graduates and Trainees* has commenced. The first document development group (DDG) meeting was held in October 2020 to consider the purpose and scope of the guideline as well as the development of an accompanying background paper.
- Work has commenced on the development of a new professional document *PS67 Professional document on end-of-life care for patients scheduled for surgery*. This will be a multidisciplinary document co-badged with RACS, RACP, ACCRM, CICM, ACEM, Palliative Care, and ANZCA. The DDG responsible for its development met in October 2020 to discuss the professional document development process as well as the broad principles that should be included.
- Feedback received during the pilot phase is informing the final versions of *PS26 Guideline on consent for anaesthesia or sedation*, *PS66 Guideline on the role of the anaesthetist in commissioning medical gas pipelines* and *PS51 Guideline for the safe management and use of medications in anaesthesia*.
- Document development groups have been approved for the review of *PS41 Guideline on acute pain management* and *PS45 Statement on patients' rights to pain management and associated responsibilities*.

- An expert group has been established to develop a guideline on breastfeeding after anaesthesia/sedation. The document will be incorporated as an appendix to an existing professional document.

In pilot

- *PS55 Position statement on minimum facilities for safe administration of anaesthesia in operating suites and other anaesthetising locations* (until May 2021).
- *PS56 Guideline on equipment to manage a difficult airway during anaesthesia* (until May 2021).

Recent releases

- *PS43 Guideline on fatigue risk management in anaesthesia practice*.
- *PS06 Guideline on the anaesthesia record*.
- *PS29 Guideline for the provision of anaesthesia care to children*.

Feedback is welcomed during the pilot phase for all professional documents. All comments and queries regarding professional documents can be sent to profdocs@anzca.edu.au.

ANZCA Research Foundation



ANZCA research outcomes 2018-2020

Each year, the college supports new research studies in anaesthesia, pain and perioperative medicine through the ANZCA Research Committee and the ANZCA Research Foundation.

THE OUTCOMES OF ANZCA-supported research help to advance scientific understanding and the evidence base available to guide decisions made in clinical practice by ANZCA fellows and other perioperative specialists, supporting continuous improvement in clinical practice and outcomes experienced by patients.

This contribution is important in a range of ways. Examples include reducing perioperative adverse events, mortality and morbidity, improving patient-centred outcomes, identifying high potential novel therapies, beneficial repurposing of existing medicines, and empowering advancements in professional practice.

To review the benefits of the investments in research made by ANZCA, and ANZCA Research Foundation donors, the ANZCA Research Committee and the foundation track the outcomes of all funded studies through the formal progress and final reports required from each grant recipient (principal investigators).

These reports address how the original problems or questions targeted by funded studies have been answered, what results were delivered against the aims or “outcomes” identified in the grant application and protocol, and what direct or indirect implications these might have for translation to clinical practice, further scientific or clinical investigation, or both.

ANZCA-supported research has been extensively recognised internationally, frequently published in world-leading peer-reviewed medical journals, and widely reported at international conferences, contributing to global advancement in the specialties over almost three decades. The exploratory studies funded by ANZCA through the foundation fill gaps in and build upon medical understandings, and in many cases provide important pilot data that eventually lead to large multicentre clinical trials through the ANZCA Clinical Trials Network, providing gold-standard evidence for wide-reaching changes in clinical practice.

I am very pleased to be able to provide this report which summarises some of the more recent contributions made by ANZCA-funded research studies conducted by teams of anaesthesiologists and pain medicine physicians, supported by enthusiastic research coordinators, touching on findings and implications for the benefit of future patients and healthcare overall. Further outcomes will be reported in the future.

Professor David A Scott
Chair, ANZCA Research Committee



Professor Jason Roberts, Dr Suzanne Parker, Associate Professor Victoria Eley, Professor André van Zundert and Dr Matthew Smith



Associate Professor Victoria Eley, Dr Rebecca Christensen, Dr Rochelle Ryan, Dr Dwane Jackson, Dr Matthew Smith, Professor André van Zundert, Professor Jeffrey Lipman, Royal Brisbane and Women's Hospital, Dr Suzanne Parker, Dr Steven Wallis, Professor Jason Roberts, University of Queensland Centre for Clinical Research, Queensland.

January 2017 – December 2019

Project grant: \$34,059

Obese pregnant women are at a higher risk of surgical site infection than non-obese pregnant women. At the time of our study, the Australian Therapeutic Guidelines did not recommend weight-based dose adjustment of the standard 2 grams of cefazolin administered prior to caesarean section.

Our research team identified that there was inadequate pharmacokinetic data available to be sure that current dosing regimens achieved therapeutic cefazolin levels in the tissue of obese pregnant women. In 2017, we were awarded an ANZCA Project Grant to describe the plasma and interstitial fluid pharmacokinetics of cefazolin in obese women undergoing elective caesarean section. We aimed to use dosing simulations to predict optimal dosing regimens.

We studied women with a body mass index $> 35 \text{ kg.m}^{-2}$ and scheduled for elective caesarean delivery at term. Our results suggested that a repeat dose of cefazolin should be administered if the wound is not closed by two hours after the initial dose was given. This indicates

Does cephazolin prophylaxis during elective bariatric caesarean section achieve therapeutic concentration in plasma and interstitial fluid?

that even the updated Therapeutic Guidelines (2018) recommendations are inadequate for obese pregnant women. Our results need to be confirmed in a large, fully powered study, evaluating the outcome of surgical site infection. Our study was published in *Anesthesia and Analgesia* in July 2020¹.

This publication represents the work of a multidisciplinary collaboration, including the departments of Anaesthesia and Perioperative Medicine and Obstetrics and Gynaecology of the Royal Brisbane and Women's Hospital, together with laboratory and pharmacokinetic experts from the University of Queensland Centre for Clinical Research.

Reference

1. Eley VA, Christensen R, Ryan R et al. Prophylactic Cefazolin Dosing in Women With Body Mass Index $>35 \text{ kg.m}^{-2}$ Undergoing Cesarean Delivery: A Pharmacokinetic Study of Plasma and Interstitial Fluid. *Anesth Analg.* 2020;131:199-207.

Professor Guy Ludbrook



Extended post-anaesthesia care – a feasibility study

Professor Guy Ludbrook, University of Adelaide, Professor Guy Maddern, The Queen Elizabeth Hospital, South Australia.

May 2018 – September 2019

Project grant: \$69,994

Elaine Lillian Kliver ANZCA Research Award (2018)

In a population with increasing age and comorbidities, without changes in practice there will be either an increase in postoperative morbidity, mortality, and costs, or an increase in untreated surgical conditions in the population – or both.

The primary aim of this study was to determine the feasibility of conducting a large, multi-centre randomised controlled trial, and the required sample size, to establish the impact of using an extended post-anaesthesia care model to improve health outcomes for medium-risk surgical patients, and to reduce health costs. Feasibility studies are critical for securing the funding grants needed to deliver such large clinical trials, which are required to provide evidence to support improvements in clinical practice.

The research team's secondary aims included testing the actual impacts of extended post-anaesthesia care in recovery rooms on in-hospital and post-discharge outcomes, and on overall health costs, for "medium risk" patients for whom general ward care is standard practice.

Recent studies of patient postoperative outcomes have revealed a high incidence of adverse events in postoperative general wards. While many involve "high-risk" patients with serious co-morbidities, early adverse events in the recovery room and general wards are a common, yet frequently unrecognised, problem among "medium-risk" patients.

These events are to a degree predictable from preoperative risk assessment and recovery room adverse events patterns. Using ICU and high dependency facilities for these patients presents cost and logistics challenges. While Rapid Response Systems may reduce some unanticipated adverse events, effectiveness depends on system activation (surveillance), and are reactive, not proactive. Recent UK data suggest that early specialist care intervention in "medium risk" cases (defined as predicted 30-day mortality of 1-4 per cent based on surgery type and co-morbidities) may sustainably reduce postoperative

complications, unscheduled intensive care unit admissions, length of stay, and overall costs. Longer term benefits such as 30- and 90-day mortality and early return to active functioning are also plausible.

However, upscaling intensive care and high dependency facilities is challenging for hospitals. If expanding the use of existing recovery room infrastructure and staff resources could be shown to provide a viable alternative, this model could represent an immediate, scalable and flexible way to reduce the number of medium-risk patients potentially under-managed through ward admission, or over-managed through admission to high-dependency units.

This study was conducted at the Royal Adelaide, Peter MacCallum and Lismore Base hospitals and completed in September 2019, and showed that it is feasible to conduct a large multi-centre study at major centres.

It also found that in medium-risk patients, early postoperative complications were much more common, more serious, and lasted longer than the research team had anticipated. It also found that the use of Advanced Recovery Room Care (ARRC) allowed early detection and treatment of these problems, which appeared to mean that patients needed rescue from the ward by Medical Emergency Teams or ICU less often, and were re-admitted to hospitals after discharge less frequently and for shorter periods of time. These results were published in *Anaesthesia* in 2020.

Markov cost-effectiveness modelling suggests ARRC improves the number of days patient spend at home after surgery (days-at-home), with positive benefits to consumers, and substantial cost savings to hospitals, providing an example of genuine high-value care.

Grant funding has been received to now commence a powered clinical trial of ARRC, starting at Royal Adelaide Hospital and, subject to funding being available, expanded to a multi-centre trial. Formal cost-effectiveness analysis is a key endpoint to this trial, allowing hospitals to accurately evaluate the value of such an approach to its health service.

Dr Neil Paterson



Evaluation of an enhanced pulse oximeter auditory display: A simulator study

Dr Neil Paterson, Queensland Children's Hospital Brisbane and The University of Queensland, Professor Penelope Sanderson, Dr Estrella Paterson, The University of Queensland, Professor Robert Loeb, University of Florida, US.

December 2017 – October 2019

Project grant: \$30,657

When engaged in visually demanding tasks or when the visual display of the pulse oximeter is obscured in the operating room, anaesthetists must rely on its auditory display to monitor patients' oxygen saturation (SpO₂) levels. However, in the demanding clinical setting, standard auditory displays may be difficult to perceive and interpret, which may have implications for patient safety.

This project used a simulator-based experiment to investigate anaesthetists' ability to detect changes in SpO₂ parameters using two auditory displays. The experimental display comprised varying pitch enhanced with tremolo and brightness to distinguish SpO₂ ranges. The standard auditory display comprised varying pitch plus an alarm set at a clinically relevant threshold. Participants also monitored other patient parameters including heart rate, blood pressure and end tidal CO₂.

Results supported the hypothesis that anaesthetists will be more accurate at identifying SpO₂ parameters when using the enhanced compared to when using the standard auditory display, while performing other tasks, and in the presence of background noise.

Anaesthetists were more accurate and faster at identifying SpO₂ transitions, and more accurate at identifying the SpO₂ range once a transition had occurred when using the enhanced display than when using the standard display. Subjective responses indicated that they found it easier and were more confident

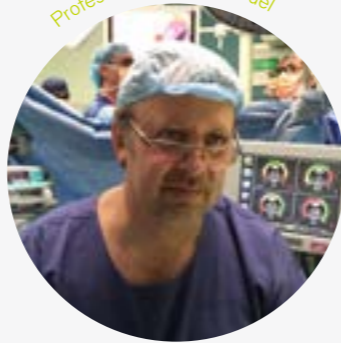
of their judgements about SpO₂ parameters with the enhanced display than with the standard display. They believed the enhanced display would lead to less harmful or injurious patient outcomes and that it was more reliable, trustworthy and helpful for patient monitoring than the standard display.

The enhanced display may allow anaesthetists to monitor patient SpO₂ parameters more effectively and to allocate attention more efficiently across the numerous and cognitively engaging tasks of anaesthesia. Such an intervention has the potential to improve performance, outcomes and patient safety.

The research has been published and will be presented at the next ANZCA meeting.

Paterson E, Sanderson PM, Salisbury I S, Burgmann FP, Mohamed I, Loeb RG, Paterson NAB. (2020). Evaluation of an enhanced pulse oximeter auditory display: a simulator study. *British Journal of Anaesthesia*, 125(5), 826-834. <https://doi.org/https://doi.org/10.1016/j.bja.2020.05.038>

Professor Bernhard Riedel



Volatile anaesthesia and perioperative outcomes related to cancer: The VAPOR-C Trial (Feasibility Study)

Professor Bernhard Riedel, Peter MacCallum Cancer Centre and The University of Melbourne, Dr Julia Dubowitz, Dr Jonathan Hiller and Associate Professor Erica Sloan, Monash University, Melbourne.

January 2018 – December 2019

Project grant: year one \$70,000; year two \$68,875

More than 60 per cent of patients with cancer require surgery and more than 80 per cent require anaesthesia as part of their care. Several preclinical and retrospective clinical studies have suggested that physiological perturbation in the perioperative period may impact cancer recurrence; likely due to surgery initiating an inflammatory and immunosuppressive stress response in patients. Anaesthetic agents also have immunosuppressive effects that may be cancer promoting by activating pro-angiogenic and anti-apoptotic pathways within tumours or undiagnosed micro-metastatic disease.

Clinically, retrospective studies suggest poorer survival after cancer surgery under volatile-based anaesthesia rather than under total intravenous anaesthesia with propofol. Nevertheless, the increasing body of retrospective clinical studies and registries provides conflicting data on cancer outcomes after surgery conducted with different anaesthetic agents. This research team conducted a meta-analysis of available

studies and reported that the studies to date favour improved overall survival if patients receive propofol-based TIVA, largely weighted by studies in patients having major surgical resection.

Therefore, an international, multi-centre, prospective randomised control trial is urgently required to definitively investigate the impact of anaesthetic technique on cancer-free survival and overall survival. This two-year feasibility study, funded by ANZCA, recruited 146 participants across Peter MacCallum Cancer Centre, The Alfred hospital, The Royal Melbourne Hospital and internationally at The University of Texas MD Anderson Cancer Centre (US) and proved the viability of recruiting for and delivering on a definitive multicentre trial. The study has been published in the international journal *Anaesthesia* (2020) and forms an integral component of Dr Dubowitz's PhD work. The ANZCA funding for the feasibility study played a critical role in securing \$4.9 million in National Health and Medical Research Council funding to conduct a definitive study--The Volatile Anaesthesia and Perioperative Outcomes Related to Cancer (VAPOR-C) trial. VAPOR-C is an event-driven study, with a 2x2 factorial design and it will test volatile versus propofol-TIVA with/without intravenous lidocaine infusion in patients requiring surgical resection for colon rectal or lung cancer. This study is also supported with substantial infrastructure funding for clinical trial support from the Victoria Comprehensive Cancer Centre (VCCC).

Importantly, there are currently no evidence-based practice guidelines for onco-anaesthesia. The results of VAPOR-C will inform guidelines for the perioperative anaesthetic care of cancer patients, with rapid translation into clinical practice to ultimately improve long-term cancer outcomes globally.

Understanding the impact of anaesthetic technique and neural-inflammatory signalling on cancer recurrence and metastasis

Dr Julia Dubowitz



Dr Julia Dubowitz, Associate Professor Erica Sloan, Monash University; Professor Bernhard Riedel, Peter MacCallum Cancer Centre and The University of Melbourne.

January 2017 – October 2019

Project grant: \$70,000

Scholarship: \$20,000

Surgery is essential for treatment of most solid tumours, with more than 60 per cent of cancer patients requiring surgical resection. A further 20 per cent will be anaesthetised for diagnosis, supportive care or other cancer therapy, exposing up to 80 per cent to anaesthetic agents. Alarming, recent clinical analyses suggest that type of anaesthetic agent may have long-term effects on cancer outcome. These retrospective studies found that resection under volatile anaesthesia was associated with reduced overall survival compared to total intravenous anaesthesia (TIVA) with propofol. This is concerning, as use of volatile anaesthesia during cancer surgery is prevalent. Despite the retrospective analyses, change in clinical practice has met resistance due to low quality of mechanistic support.

This proposal was developed to understand how different anaesthetic agents impact cancer progression, using mouse models of breast cancer that would then allow us to address mechanisms of action. The primary aim of this study was to assess the impact of anaesthetic agents on cancer recurrence and metastasis in mouse models of breast cancer. The secondary aim was to assess the impact of different anaesthetic techniques on perioperative markers of stress and inflammation.

This study evaluated the impact of volatile and total intravenous anaesthesia on breast cancer recurrence in three mouse models. Primary recurrence and distant relapse of cancer was then measured using serial non-invasive imaging technologies. There was no evidence that either anaesthetic technique had an effect on cancer progression, with

no difference in frequency of primary tumour recurrence after surgery or onset or magnitude of metastasis. To determine whether choice of anaesthetic agent may contribute to worse cancer outcomes after surgery, the effect on vascular integrity and immune response was investigated. Volatile anaesthesia and propofol-TIVA had no effect difference in blood vessel permeability, immune cells in the spleen or lungs (metastatic target organ), or in systemic levels of inflammatory cytokines in the blood.

The study did not find support for the differences between volatile anaesthesia and TIVA that have been suggested by retrospective analyses of patient databases. It is plausible that the preclinical models of breast cancer used might not be sufficiently sensitive. Breast cancer was the chosen target because clinical evaluation had found an effect in this cancer type, and the selected models were gold-standard for surgical research.

However, other tumour types may be more suited to detection of an effect of anaesthetic agent on cancer outcomes after surgery, and future research may consider looking at colorectal cancer as analyses of retrospective data suggest a differential effect of anaesthetic agent in gastrointestinal cancers, which are also accompanied by a greater magnitude of surgical stress.

Identifying strategies to improve outcomes after surgery will have significant global economic and social impact. Furthermore, if this can be achieved by choice of anaesthetic agent, it can be done for relatively little cost. While many of the new oncological therapies are costed in thousands of dollars per patient, a change in anaesthetic agent is costed in single dollar figures per patient. Therefore, it remains important to definitively identify if anaesthetic agents impact outcome with a large prospective randomised study. This underpins the importance of the ongoing international multicentre VAPOR-C prospective clinical study.



Does MRGPRX2 activation produce life-threatening anaphylaxis during anaesthesia, and can it be predicted and avoided?

Associate Professor Paul Soeding, Dr Jeremy McCormish, The Royal Melbourne Hospital, Melbourne, Dr Graham Mackay, Department of Pharmacology and Therapeutics, The University of Melbourne.

January 2018 – October 2019

Project grant: \$69,211

In most individuals, muscle relaxant drugs used to facilitate effective anaesthesia, such as rocuronium, are effective and safe. However, in rare cases they can produce a severe life-threatening allergic-like drug reaction which can cause circulation failure during surgery and have potentially fatal consequences.

This severe reaction has similarities to an anaphylactic allergic response, in which the body generates the IgE antibody that interacts with the allergic substance to stimulate the immune system's mast cells, which then release chemicals such as histamine to produce the severe symptoms of anaphylaxis. While this IgE mechanism is important to some drug allergy it does not explain all cases. Despite discovery of a new mast cell receptor mechanism called MRGPRX2 whereby certain drugs such as rocuronium can directly activate mast cells, we still do not know why only some people are affected, and whether by understanding this new mechanism we could identify individuals likely to suffer these devastating reactions.

This project aimed to answer these questions, and in so doing provide a more individualised and safer approach to the use of muscle relaxant drugs during surgery.

The results showed that changes in the MRGPRX2 gene sequence are not strongly predictive of individuals' responses to muscle relaxants. However, in one severe anaphylaxis patient, a gene change was identified that the team intends to analyse further for contribution to increased MRGPRX2 activity.

It was also shown that having more MRGPRX2 is not the cause of sensitivity to muscle relaxants, and that individuals sensitive to muscle relaxants are not likely to have a blood factor that makes their mast cells more active.

This research has provided important new insight into the causes of muscle relaxant drug sensitivity. Within the limitations of a relatively small patient group, it indicated that a change in the MRGPRX2 gene sequence or having more MRGPRX2 is not the major causal factor. Although a genetic test would therefore not seem merited in predicting susceptible patients, these results have provided new information on natural changes in MRGPRX2 that can be expanded upon in further research.

Our analysis of the way different muscle relaxants activate mast cells has identified pathways within the mast cell that we can further examine. Changes in these pathways, rather than MRGPRX2 itself, might be the cause of patient sensitivity to muscle relaxants.

Support for this project has generated a bank of biological samples that will be a very useful resource for much further research. Simple and definitive answers to the questions asked were not identified during this project. This likely suggests that a number of factors are important which will vary from patient to patient. The patient samples we have obtained and the knowledge gained during the project has helped direct our future project aims with the ultimate goal to make anaesthesia, and in particular the use of muscle relaxants, safer for all.



Does transfusion-related immune modulation occur following intraoperative cell salvage? A pilot study

Dr Michelle Roets^{1,2}, Dr Melinda Dean³, Dr John-Paul Tung³, Professor Robert Flower³, Associate Professor Kerstin Wyssusek^{1,2}, Professor Andre van Zundert^{1,2}, Associate Professor David Sturgess^{2,4}.

1) Royal Brisbane and Women's Hospital, Brisbane, Queensland, 2) University of Queensland, Brisbane, Queensland, 3) Australian Red Cross Blood Service, Brisbane, Queensland, 4) Department of Anaesthesia, Princess Alexandra Hospital, Woolloongabba, Queensland.

October 2018 - April 2020

Project grant: \$70,000

Scholarship: \$20,000

Allogeneic blood transfusions (ABT) are often essential to save lives following major trauma and surgery. Alternatives such as intraoperative cell salvage (ICS), where autologous blood lost by patients during surgery is collected, processed and reinfused, are increasingly accepted as safe practice.

The safety of ABT has continuously improved, but significant risks remain. A considerable body of research confirmed the association between intraoperative ABT and an increased risk of poorer postoperative patient outcomes, including cancer recurrence and bacterial infections. ABT is associated with a 29 per cent increased risk of major infection. Transfusion related immune modulation or suppression (TRIM) describes this delayed immune suppressive response following ABT.

These potentially devastating effects may be avoidable by using intraoperative cell salvage. Although the exact mechanism of TRIM is still unknown, laboratory research suggests it may result from transfusion of foreign proteins within donated blood. Transfusing autologous patient blood may therefore be a solution, and this study aimed to confirm that use of ICS instead of ABT will reduce immune modulation in surgical patients.

The specific objectives were to assess *in vitro* immune response following ICS compared to ABT, and to reduce TRIM associated risks such as infection and tumour recurrence by using ICS instead of ABT.

The study provided evidence of a different immune profile and improved immune competence following ICS compared to ABT. Despite the clinical evidence that transfusion is associated with immune modulation, the precise mechanism/s remain largely undefined. TRIM is likely multi-factorial, and the adverse outcomes

identified may be a consequence of other confounding factors such as complex surgery and/or patient comorbidities. The definition and importance of TRIM are subjects of ongoing debate; therefore the *in vitro* evidence from this study is valuable to link the immune consequences seen in clinical studies to an ability to assess these outcomes *in vitro*.

This novel project provides evidence to inform a gap within basic scientific knowledge, and the results support the study hypothesis that adverse outcomes may be reduced by using ICS instead of ABT, due to improved immune competence following ICS (manuscript published Cell Transplantation Journal)¹.

In addition to the evidence gained confirming improved immune competence following ICS, this study also provided a model of *in vitro* testing that combines the assessment of changes to specific immune cell subsets and overall leukocyte function.

The assessment of immune competence through the study of intracellular cytokine production and co-stimulatory and adhesion molecules expressed on dendritic cells and monocytes, and the modulation of the overall leukocyte response, may predict adverse outcomes – particularly infection-related outcomes – following transfusion. The research team proposes that immune modulation, reduced by ICS, is important in determining patient outcomes following transfusion across numerous surgical specialities in Australia and internationally.

Considering more than 800,000 red blood cell units are transfused in Australia annually, the benefits of ICS as an alternative to ABT, to improve immune competence during surgery, may be substantial.

Reference

¹Michelle Roets, David John Sturgess, Maheshi Prabodani Obeysekera, Thu Vinh Tran, Kerstin Hildegard Wyssusek, Jaisil Eldo Jos Punnasseril, Diana da Silva, Andre van Zundert, Alexis Jacqueline Perros, John Paul Tung, Robert Lewis Powell Flower, Melinda Margaret Dean. Intraoperative Cell Salvage as an Alternative to Allogeneic (Donated) Blood Transfusion: A Prospective Observational Evaluation of the Immune Response Profile. Cell Transplantation 2020, 29: 1–15. DOI: 10.1177/0963689720966265

The authors wish to acknowledge the work of the intraoperative cell salvage group and the department of anaesthesia research nurses at the RBWH in this study and the Australian Red Cross Lifeblood for their support.

Can free nicotine replacement therapy (NRT) increase smoking cessation before scheduled surgery? A randomised trial

Dr Ashley Webb, Peninsula Health.

January 2017 – September 2019

Project grant: \$70,000

Smoking causes a range of respiratory and vascular diseases and significantly increases complications during and after surgery, including more risk of death, wound infection and breathing complications. Tobacco cessation is important for improving health before surgery, and significantly lowers respiratory and wound complication risks after quitting for four or more weeks. Statements and guidelines from many anaesthesia organisations recommend healthcare providers advise smokers of the benefits of preoperative quitting, and offer some form of quitting assistance.

Despite this, there is considerable variation in health services' delivery of preoperative tobacco help. The majority of smokers in many health services do not receive all three major components of tobacco brief intervention: asking about tobacco use, advice to quit, and arranging or offering quit assistance such as tobacco quit-lines or stop-smoking medication. The offer of assistance is the most frequently omitted, yet data shows this is the component most associated with increasing rates of subsequent unplanned quit attempts.

Nicotine replacement therapy (NRT), an effective and safe nicotine addiction treatment, could be offered to smokers when placed on the elective surgical wait-list, potentially using wait-list time to improve preoperative health. Further, upcoming surgery is a "teachable moment" where behaviour change is more likely, so a systematic offer of quit help at that time may be particularly effective in triggering preoperative quitting.

This pilot study assessed the feasibility and effectiveness of an offer of five weeks of free mailed NRT patches to nicotine dependant smokers at patient surgical wait-list placement, to determine if four-week abstinence was increased before non-urgent elective surgery. Offer uptake, use of patches and quitting before surgery among patients randomised to the offer were compared to a control group who did not get the offer. Data on ability to implement and manage the program informed a future randomised controlled trial on how best to provide systematic preoperative smoking cessation support.

The offer stimulated more quit attempts before surgery, particularly among heavier, more nicotine dependent smokers, with many more in the intervention group either quitting or making serious attempts. As expected, offers led to significantly more people using stop-smoking medication before surgery and those actually using medication were much more likely to quit before surgery.

Approximately 30 per cent of the offer group received and used NRT who would not otherwise have done so, resulting in a 3.2 per cent increase in sustained cessation before surgery. This pilot study was not large enough to show if this improvement was statistically significant, and more research is needed. Based on the data, offering NRT patches to 31 nicotine dependent smokers would produce an episode of clinically important quitting (that is, more than four weeks before surgery, enough to reduce wound infection risk) that would not otherwise occur. The modest program cost involved contact calls and, for the 39 percent who accepted the offer, \$A65 for NRT and postage.

Based on the data, a future study involving around 1500 smokers was needed. With additional funding from the Heart Foundation, this larger study incorporating a more powerful intervention of NRT patches, a fast-acting NRT product to manage cravings and automatic "Quitline" via e-referral recently concluded. The outcomes of this appear much stronger than the ANZCA funded pilot-study, and a manuscript is under preparation. A new study on financial incentives for smoking cessation before elective surgery is planned to commence in 2021.

More than 60 million smokers have surgery annually worldwide, each having increased but modifiable surgical risk-factors. The ANZCA Project Grant was pivotal in developing studies on novel approaches to deliver systematic cessation assistance to elective surgery patients. The grant was also key to Peninsula Health's Department of Anaesthesia developing its research infrastructure, with appointment of a permanent research nurse that has allowed its participation in ANZCA CTN multi-centre trials.



Dr Ashley Webb



Dr Megan Allen

Post-discharge opioid use following acute surgical care: A multicentre study

Dr Megan Allen, Dr Charles Kim, The Royal Melbourne Hospital, Melbourne; Dr Tim Hucker, Peter MacCallum Hospital, Melbourne.

January 2017 – September 2019

Project grant: \$34, 459

Opioids are commonly used for postoperative analgesia, but as opioid prescriptions have increased, so too have international concerns about diversion, overdose, dependence and unintentional poisoning. Oxycodone related deaths in Australia, both unintentional (the majority) and otherwise, have increased along with prescription levels. Therefore, control of excess-opioid supply to the community, whilst meeting post-surgical analgesia requirements, is an important harm reduction technique.

The contribution to the community opioid pool by opioids prescribed at hospital discharge following surgery in Australia was unknown. This study aimed to better describe Australian practice, and was specifically designed to inform the situation regarding different patient populations across four Melbourne hospitals (The Royal Melbourne, The Royal Women's, Peter MacCallum Cancer Centre and The Western Hospital – Footscray campus). This local knowledge of opioid medication prescribing and patient management of these medications in our community is important to guide practice improvements relevant to Australia.

Our study found that 60 per cent of the surgical patients were prescribed opioids on discharge from hospital after surgery. Immediate release oxycodone was by far the most commonly prescribed discharge opioid medication. Of those that were prescribed opioids on hospital discharge, for 70 per cent of patients the quantity supplied was excess to analgesia requirements by report of ceasing opioid therapy with left over opioid medications at follow up. At follow up 27 per cent were still taking opioids, and 25 per cent reported requiring further prescription opioid supply after hospital discharge.

These findings provided useful information on current prescription opioid use handling after surgery in Australia. The findings have been published in the medical literature. More broadly, presentation and publication of this work allows other clinicians in anaesthesia and pain medicine to develop a local perspective on opioid prescribing and management after surgery to inform their practice.

The outcomes allowed our research group to design and pilot a post-surgery opioid stewardship intervention bundle. With further ANZCA grant funding support, the impact of this intervention bundle is being assessed in a separate post-intervention study. We hope that our work in this area will improve patient care by better targeted opioid prescribing after surgery.

The role of intestinal microbes in sepsis

Professor Matthew Chan, The Chinese University of Hong Kong.

January 2018 - May 2019

Project grant: \$70,000

Sepsis is a life-threatening condition, characterized by the presence of harmful microbes or their toxic products in the blood. These lead to systemic inflammation and are associated with disruption of the intestinal epithelium; the single-cell layer separating our gut luminal microbes from the bloodstream.

In this study, Dr Chan and his team of basic science researchers conducted work in animal experiments to understand the role of resident gut microbes in sepsis. The intestinal epithelium compartmentalises the sterile bloodstream and the contaminated gut lumen, and accumulating evidence suggests that this barrier is impaired in sepsis, aggravating systemic inflammation.

Previous studies reported that cathelicidin is differentially expressed in various tissues in sepsis. However, its role in sepsis-induced intestinal barrier dysfunction has not been investigated. This study aimed to investigate the role of murine cathelicidin-related antimicrobial peptide (mCRAMP), a rodent antimicrobial peptide analogous to human cathelicidin LL-37, in maintaining gut barrier function in sepsis, and to explore the relationship between misoprostol (prostaglandin E1 analogue) and cathelicidin production in a cecal-ligation and puncture (CLP) mice model.

Misoprostol was administered to induce intestinal expression of cathelicidin. Mice pre-treated with misoprostol had decreased seven-day mortality and significantly less severe symptoms, and lower levels of fluorescein dextran entering the bloodstream.

Using transgenic models, the research team discovered that cathelicidin plays a protective role in preventing translocation of bacteria in sepsis, and that cathelicidin preserves intestinal barrier function in polymicrobial sepsis by preventing exaggerated inflammatory response.

The team has also demonstrated that the therapeutic efficacy of misoprostol has provided additional protective effect in sepsis. These findings provide new insights on the use of the non-antibiotic drug misoprostol, in preserving the gut barrier function to reduce the morbidity and mortality of sepsis.



Professor Matthew Chan



Predicting disability-free survival after surgery in the elderly

Dr Mark Shulman, Professor Paul Myles, Ms Sophie Wallace, Alfred Hospital and Monash University.

January 2017 – present

Project grant: \$209,241 over three years

This study seeks to address concerning high six- and 12-month postoperative mortality and morbidity among elderly patients with existing co-morbidities. Although not yet complete, it has now delivered a registry database of elderly surgery patients to allow the identification of risk factors for poor long-term recovery, to support better patient and clinician decisions about having surgery and assist with better level of care planning before and after surgery.

The database is able to capture data relating to disability, comorbidities, surgery and anaesthesia, blood test results, in-hospital complications and mortality.

The project is notable for having already changed practice at The Alfred, gaining hospital approval to include the World Health Organization Disability Assessment Schedule (WHODAS) for direct entry as routine clinical data into the electronic medical record, and to be used in the preoperative surgical checklist for this cohort.

The study builds upon previous research from this group that demonstrated that the 12-item World Health Organization Disability Assessment Schedule 2.0 (WHODAS) is a valid, reliable and responsive instrument for measuring postoperative disability in a surgical population. That work was described by the Chief Editor of *Anesthesiology*, Jim Eisenach, as the most important paper he had published in the previous 10 years¹.

The group's previous research also found that 13 per cent of patients, or almost one in seven, had a new postoperative disability persisting 12 months after surgery, experiencing poorer health than they were preoperatively. Only 70 per cent of patients aged 70 or older were alive and without clinically significant disability six months after surgery, compared to 83 per cent for patients aged under 70. However, the sample size of the initial validation study was too small to characterise the perioperative predictors or epidemiology of postoperative disability; one of the aims of this subsequent study.

In this study of surgery patients aged 70 or more the team's aims were to develop a large prospective patient registry to create a validated scoring system to predict postoperative disability-free survival, to characterise the epidemiology of postoperative disability and confirm the operational definitions of WHODAS for this cohort, and to examine the health economic consequences of disability-free survival.

Recruitment is continuing towards a target of 500 cases of patients reporting significant disability at six-months postoperative follow-up, to provide adequate power for analysis.

Reference

¹ The Rovenstine Lecture, 2015



Evaluating a national quality improvement initiative: multidisciplinary operating room team simulation for safer surgery

Professor Jenny Weller, University of Auckland.

January 2017 – April 2020

Douglas Joseph Professorship: \$70,000

The global burden of disease due to unsafe medical care is significant and unacceptable, and communication errors are estimated to contribute to 45 per cent of surgical errors. (Gawande, Zinner, Studdert, and Brennan, 2003). Operating room team-based simulation has the potential to improve the safety of patients undergoing surgery. This evaluation of New Zealand's national "NetworkZ" intervention aims to provide evidence to support sustainable implementation of simulation-based training and safety interventions, and will be relevant to other acute care settings. Its findings are expected to be of national and international significance.

A stepped national rollout of the NetworkZ project, the first simulation-based team training and patient safety intervention funded for implementation across New Zealand, is providing new knowledge and understanding in three areas: implementation processes for quality improvement initiatives such as NetworkZ; teamwork and communication process change measurement; and the use of large databases for patient outcomes measurement.

The NetworkZ program may improve aspects of clinical practice, but the likelihood that it continues to be funded and generate patient safety outcomes depends on providing good evidence of its benefits. The results of the evaluation will help to inform decision makers and funders about the value of investing in NetworkZ and other simulation-based programs.

The team's primary hypothesis was that surgical patient outcomes will improve following NetworkZ, with the secondary hypotheses that teamwork processes will improve, and treatment injury claims will decline. Factors influencing implementation and sustainability and organisational changes following its introduction have also been explored.

The research team has identified several factors facilitating or limiting uptake of interventions such as NetworkZ in clinical practice. This has led to specific quality improvement programs to refine NetworkZ implementation, including refining local course delivery, a learning for instructors program, and contextualised recommendations to local district health boards (DHBs) for program success and sustainability.

The qualitative findings have also elucidated tensions and considerations in implementing team-based training in local operating rooms.

The work complements existing patient safety research on implementation of the World Health Organization Surgical Safety Checklist, enhancing understandings of enablers and barriers and the impact of the checklist on teamwork.

Several simulation team training programs have been piloted, but few if any have been sustained. This study will improve understanding of factors influencing implementation and sustainability, to support the sustainability of NetworkZ, and provide recommendations for programs.

This ANZCA grant was supplemented with funding from the New Zealand Accident Compensation Corporation through the first two years of the five-year NetworkZ evaluation program, with outcomes to be assessed in 2021 on completion of NetworkZ course rollout to all 20 district health boards in New Zealand. To date, program uptake tracking and qualitative assessment of implementation and long term sustainability factors have been assessed. This grant has also enabled quantitative data collection for Cohorts 1 and 2 of the NetworkZ rollout.

The effect of dexmedetomidine given as a premedication or intraoperatively on post-hospitalisation behaviour change in children: A randomised controlled trial

Dr Paul Lee-Archer, Queensland Children's Hospital and the Paediatric Critical Care Research Group, Centre for Children's Health Research, University of Queensland.

January 2017 – October 2020

Project grant: \$28,792

Various studies have reported that postoperative negative behaviours occur in more than 50 per cent of children undergoing general anaesthetic, including sleep and eating disorders, defiance of authority, nightmares, enuresis and temper tantrums. The effects are usually short-lived (two to four weeks), however in five to 10 per cent of children, they can last up to 12 months. The exact cause of these behaviour changes is unknown, but may be related to the stressful experience of hospital, anaesthetic drugs, surgical stress, inflammation and pain.

These behaviours represent a significant problem, and may have long term effects on the child's future compliance with medical therapy. It has been suggested that distress surrounding medical procedures in children leads to an increase in pain and anxiety surrounding medical events as adults. If the six million children undergoing general anaesthesia every year in the US (including 1.5 million preschool age children) are indicative, this issue may have significant public health implications in terms of adverse effects on the future health of children, and the additional burdens on parents and families.

The risk factors for developing negative behaviours include underlying anxiety in the child or parent, a previous bad hospital experience, emergence delirium and pre-school age. A recent meta-analysis of alpha-2 agonists (including dexmedetomidine) found that they effectively reduce the incidence of emergence delirium, but none of the studies looked at longer term outcomes, such as negative behaviours after discharge from hospital.

Dexmedetomidine is a drug that is a promising therapy for the prevention of behaviour changes. It reduces anxiety, pain and inflammation and may protect the brain from other insults. This study aimed to discover whether dexmedetomidine could also reduce the incidence of negative behaviour change in children after day case surgery and anaesthetic, whether dexmedetomidine should be given as a premedication or whether the same effect can be produced with an intraoperative dose, and to examine the concurrent validity of the Post Hospitalisation Behaviour Questionnaire for Ambulatory Surgery (PHBQ-AS).



Dr Paul Lee-Archer

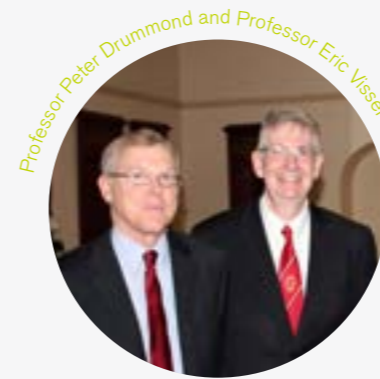
The investigators measured the incidence of behaviour changes for one month after surgery using the validated (PHBQ-AS) and Strength and Difficulties Questionnaire (SDQ) tools, in 249 two- to seven-year-old children having day-case surgery who were otherwise fit and well. Children were randomised into three groups, with researchers, parents and children blinded to group allocation. Group 1 children were pre-medicated with a nasal spray of dexmedetomidine, reducing anxiety before having their anaesthetic. Group 2 were given a dose of intravenous dexmedetomidine during the surgery, and Group 3 were given a placebo. Baseline anxiety levels of the parent and the anxiety of the child were recorded during induction of anaesthesia using the validated tools.

The study outcomes demonstrated very little difference in the incidence of behaviour change on day three and day 14 postoperatively between the groups, but by day 28, the children who had received intravenous dexmedetomidine demonstrated significantly less negative behaviours. The children who received dexmedetomidine had less pain and less emergence delirium, but also stayed slightly longer in the recovery unit after surgery. There was no difference in adverse events between the groups.

The researchers found that in healthy preschool-age children having day-case surgery there is little benefit in adding dexmedetomidine to prevent negative behaviour changes in the first two weeks after surgery, however there appears to be some benefit one month afterwards. It is possible that there may be greater benefit in selecting patients at higher risk of anxiety, however confirmation will require further research.

One of the major implications of the study is the need to develop a new tool to measure post-hospitalisation behaviour changes. The currently available metrics are either outdated or poorly validated. An international collaboration is now working on a new instrument which the study team plans to commence testing soon.

An additional study related to this work, an observational study of hypoactive delirium, found that nearly a quarter of cases of emergence delirium at the Queensland Children's Hospital were hypoactive in nature. This new finding has implications for the diagnosis and management of children recovering from anaesthesia. Tools designed to detect this subtype of delirium are required in recovery units and children with delirium should be followed-up to determine if they have demonstrated behaviour change or adaptive disorders.



Professor Peter Drummond and Professor Eric Visser

Sympathetically maintained pain in complex regional pain syndrome

the ANZCA Foundation and the late Dr Elaine Lillian Kliver and her family, for this vital support."

The specific aims of the project supported by this AEG, "Sympathetically maintained pain in complex regional pain syndrome", was to clarify involvement of the sympathetic nervous system in complex regional pain syndrome (CRPS) through the use of several complementary approaches: (i) looking for "pain targets" in tissue samples taken from the site of chronic pain; (ii) clarifying the role of these "pain targets" under tightly controlled cell culture conditions in terms of inflammatory processes that might contribute to pain; and (iii) determining whether similar processes can be identified in healthy human participants in cutaneous microdialysis experiments.

One of the possible pain targets investigated was mast cells and their interaction with cutaneous nerve fibres. Normally, these immune cells are positioned close to nerve fibres in the skin, and secrete substances that make the skin red, itchy and painful during allergic reactions. In some skin conditions, such as dermatitis, these cells are in closer proximity to nerve fibres, which may lead to more pain.

To explore this, the team investigated the density of dermal nerve fibres, and the density and proximity of mast cells to nerve fibres, in skin biopsies obtained from the affected and unaffected limbs of 57 patients with CRPS and 28 site-matched healthy controls. Nerves and mast cells were visualised using immunohistochemistry techniques and confocal microscopy.

It was determined that the percentage of the dermis stained by the pan-neuronal marker protein gene-product 9.5 was lower in the affected limb of patients than in controls, indicating a reduction in nerve fibre density in the skin of the CRPS patients. Unexpectedly, however, although dermal mast cell numbers were similar in patients and controls, mast cells were further away from the nerves of the CRPS patients than they were in the controls, with the percentage of mast cells less than 5 µm from nerve fibres significantly lower in the affected and unaffected limbs of patients.

Professor Eric Visser, The University of Notre Dame Australia, Fremantle, Professor Peter Drummond, Associate Professor Philip Finch, Murdoch University, Western Australia.

May 2017 – August 2018

Academic Enhancement Grant: \$99,800

Elaine Lillian Kliver ANZCA Research Award (2017)

The academic enhancement grant (AEG) aims to foster the advancement of the academic disciplines of anaesthesia and pain medicine. Support is provided for proposals encompassing broad areas of research, and the grant aims to enhance foci of research activity. An important selection criterion is the potential long-term benefits of the research program to the academic endeavour of a research group and the specialty, including its ability to promote fellows and trainees pursuing higher degrees.

The general aim of the research funded by this AEG was to foster collaboration in pain research between staff at the Notre Dame and Murdoch Universities in Perth, by establishing a "flagship" post-doctoral research position known as The Churack Post-Doctoral Pain Research Fellowship. In May 2017, Dr Natalie Morellini was employed in this position and her role was to coordinate and conduct experimental procedures.

Professor Eric Visser, the inaugural Churack Chair of Chronic Pain Education and Research at UNDA and recipient of the AEG in 2017, said:

"the goal of fostering basic science pain research in a new academic unit (The Churack Chair) in association with Murdoch University was well and truly achieved because of the ANZCA Foundation Academic Enhancement Grant, which in turn encouraged supplemental funding of Dr Morellini's research position by the UNDA School of Medicine for several more months, and considerable public and media profiling of our research. We are extremely grateful to

Loss of dermal nerve fibres in CRPS might result in loss of chemotactic signals, thus halting mast cell migration towards surviving nerve fibres. This could be important because failure of normal nerve fibre-mast cell interactions might delay tissue repair and contribute to chronic inflammation in CRPS. If so, correcting this communication failure could represent a new treatment strategy for this debilitating condition. This study was recently published in the authoritative peer reviewed journal "Pain".

Another possible "pain target" investigated was the beta-2 adrenergic receptor, which is expressed in cutaneous tissue and is upregulated following nerve injury in animal models. To achieve this the investigators used immunofluorescence triple labelling techniques and confocal microscopy to examine changes in expression of beta-2 adrenergic receptors in keratinocytes, nerve fibres (labelled with protein gene product 9.5) and blood vessels (labelled with alpha smooth muscle actin antibody) in the archive of tissue samples from CRPS patients. The findings did not support a major role of cutaneous beta-2 adrenergic receptors in CRPS, but nevertheless suggested that activation of these receptors on neurons may contribute to heat-pain in a subgroup of patients. These results were published in the international journal *Pain Medicine*.

Adrenergic influences on neuro-inflammatory responses in normal human skin were also investigated, and the team was able to develop human models of nerve and tissue repair that allow *in vivo* investigation of adrenergic components of inflammation. This involved exposing skin to capsaicin or UVB irradiation, followed by dermal perfusion of adrenergic agonists and antagonists through semi-permeable cannulae (microdialysis tubes). Inflammatory mediator concentrations in the fluid after its perfusion through the skin were measured using multiplex ELISA, and the distributions of adrenergic receptors on nerves and other skin cells were examined on skin biopsies using immunohistochemistry. The findings suggested that excitation of a further "pain target" (the alpha-1 adrenoceptor) increased the release of an inflammatory molecule in the skin, a possible mechanism of inflammation in CRPS. These results were reported in Dr Linda Wijaya's PhD thesis.

In addition to the papers in *Pain* and *Pain Medicine*, the findings of this research were presented at the International Pain Congress and CRPS symposium in September, 2018.



Do bolus intravenous fluids cause lung Injury: Role of TRPV4 channels

Dr Thomas Painter, Royal Adelaide Hospital, Professor Paul Myles, The Alfred hospital and Monash University, Professor Andrew Bersten, Dr Shailesh Bihari, Flinders Medical Centre, Associate Professor Dani Dixon, Flinders University, South Australia.

January 2017 – October 2019

Project grant: \$65,869

Resuscitation with intravenous fluid boluses is a common intervention for critically ill patients dehydrated due to illness, or after surgery. However, recent evidence has associated liberal fluids with worsening oxygenation, possibly increasing patient mortality, especially in children with severe infection.

Acute Respiratory Distress Syndrome (ARDS) remains a common problem in intensive care units, with a 30 per cent worldwide mortality rate, largely due to the absence of treatment other than careful supportive care. Identifying the mechanism by which liberal intravenous fluid doses may contribute to ARDS would provide clinicians with evidence for a conservative approach when administering intravenous fluid, and a potential target for therapeutic intervention which would allow fluids to be administered more safely when necessary.

Water and cells entering and accumulating in the lung leads to ARDS, and the existing evidence indicated an association with damaged blood vessels and high dose intravenous fluids. The hypothesis for this study was that the liberal administration of IV fluids during major abdominal surgery would lead to increased shear forces across the pulmonary endothelium, leading to increased permeability of the endothelial and epithelial layers of the alveolocapillary barrier, and hence lung injury.

The research team aimed to examine health outcomes and blood of hospital patients to further investigate this hypothesis and the mechanisms by which such effects may occur.

The project was a sub-study of the NHMRC-funded "REstrictive versus LIBeral Fluid Therapy in Major Abdominal Surgery" (RELIEF) multicentre clinical trial, supported by the ANZCA Research Foundation and endorsed by the ANZCA Clinical Trials Network. Trial samples were utilised to measure a series of biomarkers to assess whether evidence of lung blood vessel injury was greater in patients in the liberal or restrictive arms, and investigate the effects of each fluid regime on factors on the blood markers of lung injury.

The results of the study found no difference in biomarker levels between the liberal and restrictive arms of the RELIEF study, meaning there was no difference in injury to lung blood vessels between the arms. However, it showed that receiving more fluid in total leads to more injury of blood vessels generally within the body.

The outcome is important, because it indicates that the harm signal from the RELIEF study showing that restricting fluids during abdominal surgery leads to more kidney complications and wound infections, is likely to be related not to blood vessel injury, but to some other mechanism, requiring an alternative explanation for its results. Further, the association between a liberal fluid regimen in patients undergoing major abdominal surgery and blood vessel injury generally is an important consideration in the liberal administration intravenous fluid.

Novice investigator grants

A major goal of the college and the foundation is to encourage and foster novice investigators. The ANZCA Research Committee therefore invites ANZCA Novice Investigator Grant applicants to make early applications for the mentoring scheme, which is available during the application process. Applications for mentoring support must be received by 14 January each year.

A mentor, who is an experienced investigator, will be appointed by the Research Committee. The mentor will assess the application and provide prompt feedback. The applicant must then resubmit his or her application to the college by the usual deadline on 1 April. Late applications for either deadline will not be accepted. All mentoring provided to the applicant will be confidential, and not available to the committee.

For the purposes of this process, a Novice Investigator Grant application is for a novice investigator who: 1) may have been awarded previous grant funding as a principle investigator provided no single grant has exceeded \$10,000, 2) has not published more than five research papers in the five years prior to the year of application, 3) does not have an experienced investigator as a co-investigator on the proposed grant.

Below are some of the important outcomes from recently-completed novice investigator grants.



Comparison of ultrasound guided quadratus lumborum (TQL) block catheter to surgically placed pre-peritoneal catheter (PPC) for postoperative analgesia in abdominal surgery – a prospective randomised study

Associate Professor Vasanth Rao Kadam, The Central Adelaide local health network (CALHN).

January 2018 – April 2019

Novice Investigator Grant: \$14,199

Both continuous local anaesthetic infusion through pre-peritoneal catheter (PPC) and trans-muscular quadratus lumborum (TQL) block have been described for postoperative analgesia after abdominal surgery. This study compared the efficacy of continuous TQL block versus PPC for post-operative analgesia after laparotomy.

The principal investigator and research team hypothesised that ultrasound-guided TQL block would provide superior analgesia, as reflected by the improved Verbal Numerical Rating Score (VNRS) for pain on movement, and reduced opioid requirement in comparison with surgically guided continuous pre-peritoneal block.

Eighty-two patients between 18 and 85 years of age undergoing elective surgery were randomised to receive either PPC or TQL block. In the PPC group, after 20mls bolus of 0.375 per cent ropivacaine infiltration at subcutaneous, sub-fascial and pre-peritoneal plane catheters were placed bilaterally. In the TQL group, under ultrasound guidance, an 18-gauge Tuohy's needle was passed through QL muscle to reach its anterior aspect. A 20ml bolus of 0.375 per cent ropivacaine was administered, and catheters placed bilaterally. Both groups received an infusion of 0.2 per cent ropivacaine at 5ml/h continued up to 48 hours along with a multimodal regime including regular paracetamol and patient controlled analgesia with fentanyl. The primary end point was post-operative pain score on the VNRS, (VNRS, 0-10) on coughing. Other outcomes measured were VNRS at rest, fentanyl usage until 48 hours, satisfaction scores and costs.

The outcomes showed there was no difference in VNRS at cough ($p=0.24$). In the TQL group there was a reduction in VNRS at rest ($p=0.036$) and satisfaction scores on days 1 and 30 ($p=0.004$ $p=0.006$). Nonetheless, fentanyl usage was similar. The TQL technique incurred \$A574.64 per procedure more than the PPC.

While the TQL group achieved reduced pain scores at rest, there was no difference at cough. The positioning time required for TQL is more than PPC, potentially affecting theatre time per patient.

The results showed that the two techniques were comparable in terms of pain scores during cough, and rescue opioid requirement. Though rest pain scores were significantly less for the TQL group, cough pain scores may be more important during the postoperative period. Considering the invasiveness and expertise required for the TQL block, the PPC technique may be a cost effective viable alternative for postoperative pain management after abdominal surgery.

This study was accepted as an e-poster and for oral presentation at the ANZCA ASM 2019 meeting in Kuala Lumpur and also published in *Anaesthesia* 2019, 74, 1381–1388.

Dr Matthew Doane



The efficacy of an anaesthetic record in transferring information across hospital settings

Dr Matthew Doane, Department of Anaesthesia and Pain Management, Royal North Shore Hospital.

August 2017 – January 2020

Novice Investigator Grant: \$20,000

Provisional/New Fellow ANZCA Research Award

This study sought to investigate whether anaesthetic records are regularly reviewed by other medical personnel and, if so, whether those personnel are able to identify clinically pertinent information. The investigators' hypothesis was that critical information relevant to the continuing care of a patient, documented in a standardised anaesthetic record, is neither reviewed nor interpretable to staff, other than anaesthetic personnel.

The study sought to examine five specific objectives:

1. Whether anaesthetic charts are routinely accessed on review of the medical record by other medical staff.
2. Whether clinically pertinent information is identified when the anaesthetic record is viewed.
3. What sections of the anaesthetic record best communicate medically pertinent information.
4. Whether results vary by participant profession, years of employment, or years of experience.
5. To elucidate any methods that could be employed to improve communication deficiencies.

In overall terms, the results indicated a concerningly low rate of accessing and/or interpreting clinically relevant data present in the anaesthetic record, pertaining to ongoing patient care in the perioperative period. This is in comparison to rates of identifying pertinent and similar information present in other areas of the medical record.

The results demonstrated that for patients transferred from the Post-Anaesthesia Care Unit (PACU) to the ward, anaesthetic charts are not routinely reviewed.

Pertinent information was present in three categories within the anaesthetic record: patient history, medication administration, and procedural interventions. Little to none of this information was retrieved as part of the patient's chart review.

Due to the very low identification of relevant information in the anaesthetic record, a comparison between sections (history, medications, and interventions) could not be conducted.

For the same reason, a comparison between participant demographics (years of service, years at the institution, profession and background) could not be conducted, nor could the ability to target specific interventions be commented upon, aside from a global need to highlight the availability and importance of information contained within the anaesthetic record.

The investigators concluded that their results show that a disturbingly high percentage of perioperative staff are either not accessing, or not able to interpret, relevant information contained within the anaesthetic record. The customised format and nomenclature used within the anaesthetic record may both play a role in its utilisation by staff across the perioperative journey. As a component of a contemporaneous record, documenting detailed and important aspects of a patient's care and progress, the anaesthetic record's utility is not limited to the intraoperative period nor to anaesthetic personnel alone.

This study objectively demonstrates a limitation in the accessibility or utility of the anaesthetic record which may carry significant clinical consequences and merits further investigation.

A tailored electronic anaesthetic information management system would allow for local engagement in addressing how information is captured and presented through a patient's perioperative journey, likely providing an effective means of addressing the issues presented from this study.

Economically, adoption of these systems is expensive, and this combined with a general lack of understanding of the importance the anaesthetic record can play outside of direct intraoperative care can often result in adoption of a digital anaesthetic record being one of the last components to transition in a hospital's record keeping system. The lack of overall understanding regarding the importance of the anaesthetic record also plays into the common adoption of systems without adequate consultation or consideration of anaesthetic workflow, quality assurance, and clinical decision support factors.

Dr Raymond Hu



Influence of anaesthetic choice on prospective outcomes after creation of arteriovenous fistula (POCAF)

Dr Raymond Hu, Austin Hospital.

September 2015 – September 2018

Novice Investigator Grant: \$17,404

End stage kidney disease (ESKD) represents a considerable health burden in Australia and New Zealand. The incidence of patients requiring treatment is projected to increase with our ageing population, and around half of all patients diagnosed with ESKD will require vascular access for renal replacement therapy by haemodialysis.

Regional anaesthesia for creation of an arteriovenous fistula (AVF) may be beneficial in patients with ESKD by avoiding hypotension and providing optimal surgical conditions through superior venodilation and vasodilation. This may be important in preserving AVF function, however regional anaesthesia may be associated with an increased risk of peripheral neural dysfunction.

To date, only small retrospective studies have investigated the impact of anaesthesia on medium-term postoperative outcomes after AVF. This pilot multicentre prospective observational study investigated regional versus general anaesthesia for initial AVF patients, using outcomes at six weeks as the clinically important time frame during which a decision to reintervene or abandon the fistula is typically made.

The primary aims were to assess the feasibility of a data management system to enter and store data at participating hospitals, and to determine the recruitment rate of eligible patients at each hospital. The secondary aims were to establish the incidence of arteriovenous fistula failure (six-week primary patency rates) and peripheral neural symptoms; and to determine the magnitude and direction of benefit of anaesthesia technique on outcomes.

Eight sites were activated, with 168 completed eligible patients over two years, and a recruitment rate of between two to 27 patients per year across the sites. The data collection tool was completed appropriately in over 90 per cent of cases.

Against its secondary aims, the investigators found six-week primary patency rates of 84 per cent, peripheral neural symptoms in 7 per cent, and confirmed that a brachial plexus block was associated with improvement in AVF primary patency rate of 89 percent (95 per cent CI 83-95 per cent) versus 75 percent (95 per cent CI 65-85 per cent) with a p-value of 0.035.

The pilot study has provided important foundations for developing a multi-centre randomised controlled trial investigating regional versus general anaesthesia impact on medium-term morbidity after an AVF, with potential to significantly alter anaesthetic practice. Any demonstration of improved outcome and reduction of complications based on choice of anaesthetic technique will benefit a large cohort of patients with ESKD who may require haemodialysis.

A definitive interventional multicentre clinical trial has the potential to alter anaesthetic practice significantly, and to reduce healthcare costs associated with numerous interventions to repair or replace a non-working arteriovenous fistula.

Findings were presented at the ANZCA Annual Scientific Meeting in Sydney on 10 May 2018, and as an abstract at the World Congress of Nephrology in Melbourne in April 2019.



Does the addition of LIA to a multimodal systemic analgesic regimen improve recovery after anterior THR?

Dr Niki Tan, Epworth HealthCare.

April 2016 – June 2019

Novice grant: \$19,370

The number of total hip replacements (THR) performed each year is projected to increase from 1.8 million in 2015 to 2.8 million in 2050, yet there is no agreement on the ideal pain relief for this frequently performed operation. Local infiltration analgesia (LIA) – injection of high volume, dilute local anaesthetic into the area around the hip joint – is widely used, being simple to perform and associated with few side-effects. However evidence for its efficacy in providing good pain relief is unconvincing.

Almost all prior studies had been in the setting of a lateral or posterior surgical approach to THR. While an anterior approach in which muscles are separated rather than cut and reattached is increasingly being used for its potential advantages in postoperative pain, only one trial had investigated the effect of LIA in anterior THR, finding no difference in pain scores four hours after surgery. However, that study did not fully consider other important measures of recovery, and had a small number of participants.

This study was therefore conducted to determine whether LIA would improve patient-reported quality of recovery (including pain, independence and physical comfort) one day after anterior THR. The hypothesis was that LIA with 0.2 per cent ropivacaine when compared with injection of placebo (0.9 per cent saline) would improve quality of patient recovery on postoperative day (POD) 1, as measured by Quality-of-Recovery (QoR-15) score.

160 patients having an anterior THR were randomly assigned to LIA or saline placebo, and the intention-to-treat analysis included 152 patients. All other care, including the anaesthetic technique, was standardised. The study found that LIA was no better than placebo at improving quality of recovery one day after surgery. There was no difference in opioid consumption or mobilisation one day after surgery, duration of hospital stay, or pain score after 3 months, between patients randomised to receive LIA with 2.5 mL/kg of 0.2 per cent ropivacaine, compared with 0.9 per cent saline as placebo.

Therefore, we have strong evidence that LIA should no longer be used as an analgesic technique for anterior THR. This will reduce the potential for unnecessary complications and healthcare costs of a commonly performed operation.

This trial been completed and was published ahead of print on June 3, 2019 in *Anesthesia & Analgesia* under the title "Impact of local infiltration analgesia on the quality of recovery after anterior total hip arthroplasty: a randomized, triple-blind, placebo-controlled trial".

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Research grants for 2022

ANZCA and ANZCA Research Foundation Grants Program

Applications are invited from fellows and registered trainees of ANZCA and the Faculty of Pain Medicine for research grants and awards for projects related to anaesthesia, resuscitation, perioperative medicine, intensive care medicine or pain medicine. In general, the work must be carried out in Australia, New Zealand, Hong Kong, Malaysia or Singapore; however ANZCA fellows or trainees who are temporarily working in other countries for research experience may be considered for research support under special conditions, as per the grant guidelines.

The ANZCA research policy, and the full details of the ANZCA grants program, are available on the college website, and should be considered in detail by all applicants. In 2018 the research committee approved changes to the grant eligibility rules, including limiting multi-year funding grants to two years, and a maximum of \$A120,000. These changes are designed to increase funds for new projects, and improve access to funding for as many applicants as possible. All changes are highlighted on the research pages on the website and are included in the prescribed forms.

Applicants should note that an application should only be made in one of the three main grant categories. Should a submission of the same application be made in two grant categories, the applicant may be contacted and requested to identify which one of the submissions they want to be considered.

The application forms and guides for applicants are available on the college website. **The closing date for all grant applications is 5pm AEDT 1 April 2021.**

For further information contact:

Ms Susan Collins
Research and Administration Coordinator
ANZCA Research Foundation
+61 3 9510 6299
research@anzca.edu.au

ANZCA Research Foundation grants

Research project grants

Projects that will be considered may be in the fields of basic scientific research, clinical investigation or epidemiological research. The maximum amount available for a one-year project grant is \$A70,000 with grants being awarded for projects to be completed within two calendar years following the year of the grant decision. Grant funding is usually for one year, however, consideration may be given to the provision of second year funding for up to \$A50,000, for a highly ranked grant.

Research scholarships

Scholarship grants are made within the project grant scheme and are awarded to fellows or registered trainees enrolled as research higher degree students to support full-time or part-time research in a recognised university or research institute in Australia, New Zealand, Hong Kong, Malaysia or Singapore. They are available for one or two years, subject to category of award made and subject to satisfactory reports. The stipend and allowances are similar to those provided by the NHMRC. Half-time research may be negotiated on a pro-rata basis upon application.

Novice Investigator Grant

A major goal of the college and the foundation is to encourage and foster novice investigators. The ANZCA Research Committee invites early application by novice investigators to apply for mentoring during the application process. Applications must be received by **January 14** each year.

A mentor, who is an experienced investigator, will be appointed by the committee. The mentor will assess the application and provide prompt feedback. The applicant must then resubmit his or her application to the college by the usual deadline. Late applications for either deadline will not be accepted. All mentoring provided to the applicant will be confidential and not available to the committee.

For the purposes of this process, a novice investigator grant application is for a novice investigator who: may have been awarded previous grant funding as a principle investigator provided no single grant has exceeded \$A10K; has not published more than five research papers in the five years prior to the year of application; does not have an experienced investigator as a co-investigator on the proposed grant. The maximum amount available for a novice investigator grant is \$A20,000.

Other ANZCA grants

Douglas Joseph Professorship

The Douglas Joseph Professorship was established by the board of the Faculty of Anaesthetists following a most generous bequest from the late Douglas Joseph to endow a fellowship or grant in aid for research in human anaesthesia.

Applications are invited from fellows making an outstanding contribution to the advancement of the specialty to pursue research in human anaesthesia in Australia, New Zealand, Hong Kong, Malaysia and Singapore.

The fellowship of \$A70,000 has tenure of approximately one year but variations may be made at the discretion of the research committee. The appointee will deliver the Australasian Visitor's Lecture at the appropriate annual scientific meeting. During the time of the appointment, the appointee will hold the courtesy title of Douglas Joseph Professor of Anaesthesia.

Academic enhancement grant

ANZCA provides an academic enhancement grant which aims to foster the advancement of the academic disciplines of anaesthesia and/or pain medicine.

Support is provided for proposals encompassing broad areas of research; details of initial area(s) of investigation need to be outlined. The grant aims to enhance foci of research activity.

Applicants must have university status at the level of professor/clinical professor or associate professor/clinical associate professor, but are not required to have administrative responsibility for a clinical department.

Research foci eligible for support include: a new chair; an existing chair with new incumbent; an existing chair pursuing a new research direction; a second chair in an existing department; a professor/associate professor (or clinical professor/associate professor) who heads a research group. Reapplication by a previously successful applicant within five years will receive a lower priority unless exceptional circumstances exist for the reapplication.

The maximum amount available for an academic enhancement grant is \$A100,000.

Simulation/education grant

Applications are invited from fellows and registered trainees for the 2022 simulation/education grant, for projects in the field of medical simulation and education of relevance to anaesthesia and/or pain medicine. Applications should be made using the project grant application form with simulation/education grant selected in the appropriate box. These applications will be considered as project grants and therefore several projects may be supported; however, the highest ranked fundable simulation/education grant will be designated the simulation/education grant for 2022. The maximum amount available for a grant is \$A70,000.

Importance of sharing research results

Important outcomes delivered by recent foundation-funded research

Many foundation supporters donate with their annual subscriptions, so it is very timely to report on some of the many positive results that result from those generous gifts.

In this issue of the *ANZCA Bulletin*, the important findings, and significant implications for clinical practice, of many ANZCA Research Foundation-funded research studies in anaesthesia, pain and perioperative medicine are reported in a feature article that starts on page 44.

Foundation donors, friends and supporters are encouraged to refer to the article. The report showcases many of the research outcomes resulting from the generous support of donors, which has allowed ANZCA fellows and trainees to conduct studies covering important questions in ANZCA specialties and across perioperative medicine.

The reported studies were completed between 2017 and 2019 and represent just a selection of the projects completed in recent years. In the future, the foundation will report on significant outcomes from other previously-funded studies, as well as on newly-funded projects.

2021-22 research grants round

After the deferral of the 2020-2021 ANZCA grants due to the impact of COVID-19, the 2021-22 grants round officially opened on 1 December 2020. This will be a significant round. All interested researchers are invited to apply, including all those who had intended to apply before the 2020-2021 deferral, as well as novice and emerging investigators. Application forms and guidelines are on the ANZCA website.

Contacting the foundation

To donate online, search "GiftOptions – ANZCA" in your browser.

For general queries on supporting the foundation:

- Rob Packer, General Manager, ANZCA Research Foundation, +61 409 481 295, rpacker@anzca.edu.au.
- Anna Smeele, Fundraising Administration Officer, asmeele@anzca.edu.au.

ANZCA research grant program enquiries:

- Susan Collins, Research and Administration Co-ordinator, scollins@anzca.edu.au

Fellows or trainees interested in becoming involved in ANZCA Clinical Trials Network-led clinical studies should contact:

- Karen Goulding, CTN Manager, for further information.

Publications generated from ANZCA-funded research grants are discoverable on both Google and Trove through AIRR (ANZCA Institutional Research Repository).

Encouraging diversity

The foundation and research committees continue to promote increased diversity in research, among grant applicants and successful recipients. Emerging investigators are again encouraged to apply for ANZCA Novice Investigator Grants, and to apply for the one-on-one applicant mentoring assistance that is available to those who do so by 14 January.

Women are encouraged. The ratios of female applicants and successful recipients of ANZCA research grants are consistently higher than the overall ratios of female to male fellows and trainees, and the foundation is committed to promoting further growth in this encouraging trend.

Investigators from regional and rural centres as well applicants from all regions in New Zealand and Australia are similarly encouraged to apply.

COVID-19 studies

The foundation-brokered the "COVID Screen" study led by Professor David Story, looking at rates of perioperative COVID-19 screening and testing in two Melbourne hospitals, was completed and published in the *Australian Health Review*, and featured in the health section of Melbourne's *Herald Sun*.

The "COVID Prevalence" study led by Professor Paul Myles and Professor Story, looking at intraoperative COVID-19 testing in six Melbourne hospitals near hotspot areas during the peak of the COVID-19 crisis, was also completed and is pending publication. These quality improvement studies both provide important information for hospitals and specialists as they plan the recommencement of elective surgery, while seeking to optimise the safety of both patients and clinical health workers delivering healthcare in the midst of the pandemic.

COVID Screen was funded by the Medibank Better Health Foundation (MBHF), while COVID Prevalence was co-funded by MBHF and Safer Care Victoria through the Victorian Perioperative Consultative Council.

Forthcoming grants

The research committee met on 19 November to assign reviewers to assess applications for the 2021 Russell Cole Memorial ANZCA Research Award for pain medicine research, and the 2021 Darcy Price ANZCA Regional Research Award supporting emerging investigators and research in regional anaesthesia and education.

Global development

The first grant from the foundation's "Global Safer Surgery Fund" (GSSF), generously donated by Dr Genevieve Goulding, was made in 2019 to the African Surgical OutcomeS-2 (ASOS-2) Trial Maternal Mortality Sub-Study, through the University of Cape Town and the African Perioperative Outcomes Research Group.

This mixed-methods sub-study aimed to describe factors contributing to caesarean delivery-related maternal mortality in Africa, which is 50 times higher than in high income countries. It was conducted within the context of ASOS-2, an international African, multicentre randomised trial with a primary outcome of in-hospital mortality.

The completed sub-study will provide vital information for planning future interventions aiming to improve outcomes after caesarean delivery, helping meet this significant health need across the African continent. There is an option to donate to the GSSF on the foundation's donation page on the ANZCA website.

Donations with subscriptions

Adding a tax-effective donation to your subscription is one of the easiest ways to support the work supported by your foundation.

General gifts can be added to subscription payments, however to direct your donation to a specific program please select an option on the donation page of the ANZCA website (search "GiftOptions – ANZCA" in your browser).

Thank you again for your kind support! Whether as a patron, through donations with your annual subscription payment, or other gifts, you are making a significant difference.

Thank you again for your support.

ANZCA Research Foundation team

Reference

1. Bishop D, Dyer RA, Maswime S, Rodseth RN, van Dyk D, Kluyts H-L, et al. Maternal and neonatal outcomes after caesarean delivery in the African Surgical Outcomes Study: a 7-day prospective observational cohort study. *Lancet Glob Heal* [Internet]. 2019 Apr 1 [cited 2019 Mar 16];7(4):e513–22. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S2214109X19300361>

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- Dr Peter Harvey
- Dr Susan Humphreys
- Dr Christopher Jackson
- Dr Kavindri Jayatileka
- Dr Craig Johnston
- Dr Rebecca Kamp
- Dr Bipphy Kath
- Dr Laura Khodaverdi
- Dr Anthony Lentz
- Dr Kristian Lundqvist
- Dr Donald Mackie
- Dr Manesh Madhavan
- Dr Mazhar Mahmood
- Dr Graham Mapp
- Dr Frans Mare
- Dr James McLean
- Dr Ashlea Meehan
- Dr Shahir Hamid Mohamed Akbar
- Dr Jacob Paul
- Dr Edward Pilling
- Dr Christopher Richardson
- Dr Rebecca Ruberry
- Dr Konara Samarakoon
- Dr Olaf Sander
- Dr Brett Segal
- Dr Julia Slykerman
- Dr Jeneen Thatcher
- Dr James Troup
- Dr Ramesh Vasoya
- Dr Frances Ware
- Dr Peter Waterhouse
- Dr Yasmin Whately
- Dr Gamini Wijerathne
- Dr Leigh Winston
- Dr Leslie Wright
- Dr Mark Young
- Dr Josko Zaja

South Australia

- Dr Mervyn Atkinson
- Dr Philip Cornish
- Associate Professor Meredith Craigie
- Dr John Crowhurst
- Dr Peter Devonish
- Dr Douglas Fahlbusch
- Dr Irina Hollington
- Dr Dimitrios Konidaris
- Dr Grace Koo
- Dr Paul Lambert
- Dr Cornelis Matthijssen
- Dr Robert Murray
- Dr Thomas Painter
- Dr Anu Raju
- Dr Lea Thin Seow
- Dr Tuan Van Vo

Tasmania

- Dr Gregory Austin
- Dr Arthur Doughty
- Dr Andrew Messmer
- Mr Joel Seinfeld
- Clinical Associate Professor Marcus Skinner
- Associate Professor Nicolaas Terblanche
- Dr Richard Waldron
- Associate Professor Deborah Wilson

Victoria

- Dr Anne-Maree Aders
- Dr Hussein Ahmed
- Dr Megan Allen

- Dr Vanessa Andean
- Dr Mark Anderson
- Dr Christopher Bain
- Dr Amanda Baric
- Dr Kirsty Belfrage
- Dr Michael Boykett
- Dr Guy Buchanan
- Dr Paul Buncle
- Dr Winifred Burnett
- Dr Alan Burton
- Dr Sesto Cairo
- Dr Graham Cannon
- Dr Eoin Casey
- Dr Harold Cole
- Mrs Ann Cole
- Dr Glen Cook
- Professor Andrew Davidson
- Dr Debra Devonshire
- Dr Roger Browning
- Dr Yvette D'Oliveiro
- Associate Professor Lisbeth Evered
- Dr Marissa Ferguson
- Dr Thumme Fernando
- Dr Duncan Forbes
- Dr Alistair Ford
- Dr James Gledden
- Dr James Griffiths
- Dr Grace Gunasegaram
- Dr Douglas Hacking
- Dr Auday Hasan
- Dr Mark Hurley
- Dr Andrew Jeffreys
- Dr Daniel Joyce
- Dr Helen Kolawole
- Dr Elizabeth Leslie
- Professor Katherine Leslie
- Dr Gail Littlejohn
- Dr Guoming Liu
- Dr Peter Lowe
- Dr Jennifer Lucas
- Dr Michael Lukins
- Dr Andrew MacCormick
- Dr Libia Machado Munoz
- Dr Diwakara Madina
- Dr Holly Manley
- Dr Gordon Mar
- Dr Candida Marane
- Dr Stuart Marshall
- Dr Dugald McAdam
- Dr Andrew McLaughlin
- Mrs Marie Morton
- Dr Cameron Osborne
- Dr Lionel Paxton
- Dr Beverley Peers
- Dr Arthur Penberthy
- Professor Philip Peyton
- Dr Tuong Phan
- Dr Jayakumar Rangaswami
- Dr Pathmanathan Ranjan
- Dr Marilyn Rees
- Dr Rachel Shanks
- Associate Professor Scott Simmons
- Dr Reuben Slater
- Dr Robert Smith
- Dr Paul Soeding
- Dr Ponniah Sri Ragavan
- Professor David Story
- Dr Alan Strunin
- Dr Andrew Struthers
- Dr Christina Stuke
- Dr Jacqueline Sushames
- Dr Nicole Tan
- Dr Murray Taverner

- Dr Emily Traer
- Dr Jennifer Trinca
- Dr Gabrielle Van Essen
- Dr Melissa Viney
- Dr Grazyna Wajszel
- Dr Lekha Walallawita
- Dr Alison Walker
- Dr Julie Walker
- Dr Tarin Ward
- Dr David Ware
- Dr Ashley Webb
- Dr Laurence Weinberg
- Dr Michael Whitehead
- Dr Maggie Wong
- Dr Poranee Wongprasartsuk

Western Australia

- Dr David Borshoff
- Dr Roger Browning
- Dr Paris Dove
- Dr Alan Duncan
- Dr Sai Fong
- Dr Joo Goh
- Associate Professor Charles Goucke
- Dr Nigel Hamilton
- Dr John Harriott
- Dr Dennis Hayward
- Dr Brien Hennessy
- Dr Stephen Hilmi
- Dr Sarojini Jagadish
- Dr Graeme Johnson
- Dr Sidney Lau
- Dr Emelyn Lee
- Dr Simon Maclaurin
- Dr Mahsa Mirkazemi
- Dr Brian Morrow
- Dr Nitin Nair
- Professor Britta Regli-von Ungern-Sternberg
- Associate Professor John Rigg
- Dr Lindy Roberts
- Dr Craig Schwab
- Dr Malcolm Thompson
- Dr Eng Tiong
- Dr Simon Towler
- Professor Eric Visser
- Dr Lars Wang
- Dr Moira Westmore
- Dr Mei Mei Suet Mei Westwood
- Dr Sam Wong

NEW ZEALAND

- Dr Vanessa Beavis
- Dr Doug Campbell
- Dr Christopher Chambers
- Dr Chrysanthus De Silva
- Dr Clare Fisher
- Dr Carolyn Fowler
- Dr Robert Gray
- Dr Kim Jamieson
- Dr Andrew Love
- Dr Martin Minehan
- Dr Andrew Pitcher
- Dr Vera Spika
- Dr Francois Stapelberg
- Dr Victoria Volkova
- Waitemata District Health Board
- Dr Mark Robertson
- Dr Dana Hirsch
- Dr Hamish Gray
- Dr Christopher Harrison
- Dr Sharon King

- Dr Vaughan Laurenson
- Dr Agnieszka Lettink
- Dr Graham Roper
- Dr Emily Rowbotham
- Dr Jennifer Woods
- Dr Sheila Barnett
- Dr Lisa Horrell
- Dr Markus Renner
- Dr Germanicus Malmberg
- Dr Corinne Law
- Dr Martin Schuitemaker
- Dr Clare Smith
- Dr Helena Stone
- Dr Forbes Bennett
- Dr Fungai Chikosi
- Dr David Sapsford
- Dr Ronald Neal
- Dr Jonathan Albrett
- Dr Joseph Taylor
- Dr Everhardus Strauss
- Dr Terasa Bulger
- Dr Kaye Ottaway
- Dr Stephanie Keel
- Dr Trevor Shum
- Dr Nitin Gadgil
- Dr Mohua Jain
- Dr Graham Sharpe
- Dr Alexandru Stefan
- Dr Joanna Coates
- Dr Sven Karmann

CANADA

- Dr Patrick Limoges

DENMARK

- Associate Professor Daniel Rubens

HONG KONG

- Dr Albert Chan
- Dr Ming Chi Chu
- Dr Wing-Hong Kwok
- Dr Monica Lee
- Dr Kit-Hung Leung
- Dr Carina Li
- Dr Cheuk-Yin Li
- Dr Kai Li
- Dr John Low
- Dr Frances Lui
- Dr Sui-Cheung Yu

MALAYSIA

- Dr Rafidah Atan
- Professor Gracie Ong
- Dr Boon Wong
- Dr Choong-Howe Wong

NETHERLANDS

- Dr Volker Gerling

SAUDI ARABIA

- Dr Abdullah Alharbi

SINGAPORE

- Dr Paul Drakeford
- Dr Kwee Lian Woon

SOUTH AFRICA

- Dr Daniel Roux

UNITED STATES

- Dr Peter Wilson

Onwards and upwards with our clinical trials

DESPITE THE CHALLENGES that 2020 has thrown at us, the ANZCA Clinical Trials Network has responded with courage, unity, resilience and innovation. Our network has led the charge in adapting to a rapidly transforming clinical trials landscape. We've changed the way we run trials to continue to deliver world leading clinical research and many sites have stepped into COVID-19 research. We've also continued to provide vital learning, networking and mentoring opportunities for our network. This year we conducted a series of three free virtual workshops: Anaesthesia Research Co-ordinators Network; Emerging Investigators; and New Proposals, in lieu of our annual Strategic Research Workshop held in August each year. All workshops were successfully executed using the Zoom platform with hundreds attending from across the network.

This year has been particularly challenging for our 160 research co-ordinators facilitating anaesthesia research and clinical trials in Australia and New Zealand. Research co-ordinators are the heartbeat of the network and are at the coal face of trial activities, facilitating the consent and recruitment of participants. Many research co-ordinators have found their roles affected by the suspension or slowdown of clinical trials and a reduction in working hours. Some have also faced redeployment to clinical work to support the national pandemic response.

Our network has celebrated many trial milestones with The Royal Adelaide Hospital recruiting their 150th POISE-3 patient, the Women and Children's Hospital in SA recruiting 100 HAMSTER patients, the Chewy study topping 100 randomised patients (out of 375 enrolled), and ITACS reaching their halfway recruitment milestone of 500 patients. ROCKit also reached a third of its recruitment target with more than 1500 patients now enrolled.

Our trial teams across many sites have also been busy getting our new VAPOR-C and TRIGS trials up and running. We have also welcomed brand new sites to the network with the Queen Elizabeth II Jubilee Hospital now onboard and Logan Hospital getting ready to recruit to TRIGS in the new year. One of our regional sites, Goulburn Valley Health in Victoria, has also featured in a local news story encouraging patients to get involved in trials. We look forward to working with many more regional sites to get them involved in trials, a strategic aim of our network.

We eagerly await the results of the landmark PADDI trial with 55 participating sites cross Australia, New Zealand, Hong Kong and South Africa. In the new year we look forward to our newly funded trials, LOLIPOP and Canadian-led TRICS-IV getting underway. We thank all trial teams for their perseverance this year and ongoing dedication to the network.

Allison Kearney
ARCN Sub-Committee Chair

Gillian Ormond
ARCN Sub-Committee member

Karen Goulding
CTN Manager

New trials under way in 2021

Our network continued to build on its brilliant track record by securing multi-million dollar Medical Research Future Fund (MRFF) grants to run ANZCA Clinical Trials Network-endorsed trials, LOLIPOP and the Australian arm of the TRICS-IV trial. Both trials will get underway in the new year and we look forward to your involvement.

Transfusion Requirements in Cardiac Surgery trial: TRICS IV

The Transfusion Requirements in Cardiac Surgery trial (TRICS III) was published in 2017 and along with a subsequent meta-analysis, established non-inferiority of a restrictive red blood cell transfusion strategy in high-risk cardiac surgery patients (trigger Hb < 75 g/L) versus a liberal strategy (Hb < 95 g/L intraoperatively and ICU, and < 85 g/L on a non-ICU ward). The primary outcome was a composite outcome including death, myocardial infarction, stroke, or new renal failure. An unexpected finding in the planned subgroup analysis was that the liberal strategy appeared to be superior to the restrictive strategy in patients ≤ 75 years of age [odds ratio 1.32 (95% confidence interval (1.07–1.64) $P=0.001$)]. The interaction was robust in a series of sensitivity analyses according to decades of age ($P = 0.004$), with age as a continuous variable with restricted cubic splines ($P = 0.006$), and after adjustment for all the variables used to define subgroups ($P = 0.002$), with an inflection point at which the differences became manifest was found at around age 65 years.

The TRICS IV study is designed to determine whether a liberal transfusion strategy is superior to a restrictive strategy in cardiac patients < 65 years. TRICS IV will incorporate an innovative pragmatic Bayesian design to include patients recruited to TRICS III in its sample size estimation and analysis. It will also include the option of physiologic triggers for transfusion, in addition to the above Hb based thresholds. As for TRICS III, this study is being led by Professor David Mazer's group from Canada with Canadian Institutes of Health Research (CIHR) funding and will involve an international collaboration. We have secured National Health and Medical Research Council MRFF International Collaborative Trials funding of \$A870k for the Australian arm of this study, which will include a local iron availability sub-study. We plan to recruit 500 adult cardiac surgical patients (Euroscore ≥ 6) through multiple Australian sites over three years. Those involved with TRICS III will find the trial conduct and management very familiar.

Professor David A Scott
Research Committee Chair

Please email david.scott@svha.org.au if you are interested in being involved, with your contact details and any questions.

The Long-term Outcomes of Lidocaine Infusions for persistent PostOperative Pain in patients undergoing breast cancer surgery (LOLIPOP) Trial

In a landmark achievement, a team led by Deputy Chair of the ANZCA Clinical Trials Network, Professor Tomás Corcoran, secured a \$A4.3 million grant from the Medical Research Future Fund to perform the LOLIPOP trial. The five year LOLIPOP trial is a large (n=4400) pragmatic, multicentre, randomised, stratified, controlled, superiority trial evaluating the effect of lidocaine infusions in the intra- and postoperative periods on the incidence of moderate or severe chronic post-surgical pain (CPSP) at one year in patients undergoing elective breast cancer surgery. Secondary outcomes will include analgesic efficacy (pain scores), psychological and quality of life outcomes, the influence of pharmacogenomic profile on efficacy, and cost-effectiveness.

Women undergoing breast surgery and cancer treatment are a high-risk group for development of chronic postsurgical pain (CPSP), where it is estimated that nearly half of breast cancer surgery patients may develop this outcome. A systematic review and meta-analysis by the study team observed a 71 per cent reduction of the odds of CPSP (odds ratio [OR], 0.29; 95% CI, 0.18 to 0.48) with a number-needed-to-treat (NNT) of approximately 5 for lidocaine infusions – a finding that remained consistent in a planned sub-

group analysis limited to breast surgery. The primary purpose of a meta-analysis where there is insufficient evidence is in hypothesis generation and to identify equipoise. Hence, this very substantial reduction in the odds of CPSP must be tested in a properly conducted large trial. The team has completed and is preparing the results of the LOLIPOP pilot trial. This trial enrolled 150 patients and examined feasibility and safety outcomes in addition to pharmacokinetic data, in preparation for the large international multicentre trial.

In our recent survey of ANZCA fellows, 52 per cent of respondents reported the incorporation of perioperative lidocaine into their practice, with the principal aim to reduce acute surgical pain and opioid use. These findings, in addition to the results of the meta-analysis, confirm that there is equipoise regarding lidocaine as a perioperative intervention. This trial will inform clinical practise globally.

Study hypothesis: The administration of a lidocaine infusion intraoperatively and up to 24 hours postoperatively reduces the incidence of moderate or severe CPSP following breast cancer surgery compared with placebo.

Professor Tomás Corcoran
ANZCA Clinical Trials Network Deputy Chair

Please email Tomas.corcoran@health.wa.gov.au if you are interested in being involved, with your contact details and any questions.

Trainee research networks New South Wales

FOR THOSE OF you that have not yet heard of us, we are "Anaesthesia Trainee Research and Audit Initiatives NSW" also known as A-TRAIN! We are the relatively newly developed Trainee Research Network (TRN) for NSW. Our primary aim is to facilitate collaborative research and quality improvement activities across our vast state. We recognise that while many trainees have an interest in this area, barriers such as rotational training, examination preparation and life in general make participation challenging. This is where we believe that we can help!

Since our inception in mid-2019, we have been developing our inaugural project. Like many others, we have faced a COVID induced productivity hit. However, we are now regaining momentum and ready to roll into 2021 with our inaugural project, "QUIT Talking" ready for release.

By developing and coordinating this, A-TRAIN will assist you in each stage of

the project and alleviate the common barriers to research participation.

QUIT Talking is a simple survey-based project designed to assess and optimise the way in which anaesthetists and anaesthetic trainees talk to patients about smoking and smoking cessation. With the perioperative period being a recognised teachable moment, and given that smoking is the leading preventable comorbidity, this could have real health benefits for your patient population. While the patients of your region may benefit, you will also benefit!

We expect that this project will enable you to complete your scholar role audit, work with a friend, learn the principles of quality assurance and potentially contribute to a peer reviewed publication. Better yet, A-TRAIN have already developed the project protocol, and the survey, and can help guide you in obtaining the appropriate ethical or quality assurance approval to participate. It really is very simple to be involved.

We have an enormous pool of talented and motivated anaesthesia trainees across our state. Working together, we have the ability to make a positive difference to our hospital services and your personal and professional development.

If you would like to know more about the project, we would be very happy to talk to you. Please send us an email to get the wheels in motion. There is no better time than now. Please consider jumping on board the A-TRAIN.

nsw.atrain@gmail.com

Dr Nathan Hewitt
Provisional Fellow in Anaesthesia, The Wollongong Hospital
Member of the A-TRAIN Team

If anyone is interested in joining our trainee research network in Victoria then please get in touch through our website at avatarnetwork.wordpress.com.



Faculty of Pain Medicine

DEAN'S MESSAGE

Diversity of fellowship helps lift community profile



As well as training specialists, FPM needs to set standards in areas related to clinical pain medicine. Our Choosing Wisely recommendations, as well as our professional documents, are the public facing aspect of this work. The recent decision by the FPM Board to fast track the development of plain language versions of our position statements to enable them to be used more widely in public advocacy is a reflection of this. Our Procedures Endorsement Program over time will become influential in setting and maintaining standards for those in our fellowship who perform them, and may also attract interest from other craft groups who perform these procedures. We will continue to be meticulous in applying the expectations of the Australian Medical Council and Medical Council of New Zealand to ensure that our stewardship of the specialty is never questioned.

The most extraordinary asset of the faculty is its fellowship. Within our ranks we have a diversity of skills, experience and opinions which means that over the years we have been able to deliver thought leadership with an impact that far exceeds our numbers. As this year draws to a close, I encourage all of our fellows and trainees to reflect on the contribution they are making to our community.

As with many organisations where much of the work is done pro bono, there is an ever present risk that the heavy lifting will be done by an irreplaceable few rather than the sustainable many. In my military days, when an officer was posted to a new unit, they were routinely assigned secondary duties in addition to their main job. Secondary duties included looking after garden areas of the base, property of the officers' mess, deciding when to replace sporting equipment, and dozens of similar seemingly menial tasks. The wisdom of this practice is that it builds community and promotes a sense of service and interdependence. Fellowship of our faculty is just the entry point to the kaleidoscope of relationships that exist in the pain management community. The more diverse our interactions, the stronger our community and the more satisfying our achievements. For me, the most resonant lesson of 2020 has been about the importance of cultivating all our relationships, be they recreational, work or family. As our social worlds shrank during lockdown, the quality of those relationships became paramount and this lesson should not be forgotten.

I wish all of our fellows and trainees a restful and enjoyable holiday season. I very much look forward to renewing so many relationships in person. I would like to thank our faculty staff for their extraordinary contributions in these very demanding circumstances and recognise the level of professionalism that they bring to all their interactions with fellows and trainees.

Whatever 2021 may hold for us, I am confident that the pain medicine community will be as innovative, resilient and compassionate as it has always been.

Associate Professor Michael Vagg
Dean, Faculty of Pain Medicine

WHERE TO START with summing up 2020?

There seems little that has not been said or written already about the impact of the pandemic, so I will not add to that noise. What I would really like to focus on is the opportunities we have over the next couple of years. As a specialty, we are uniquely placed to lead a critical effort at tackling the silent pandemic of persistent pain, which continues to be the largest cause of disability in adults of working age in both Australia and New Zealand.

Those who need us most may know very little about what we do and what we stand for.

Only FPM can train more specialist pain medicine physicians (SPMPs). We have a responsibility not just to grow our own workforce of doctors, but to use our leadership position in the health bureaucracy to help our colleagues in nursing and allied health professions grow their specialist workforce in pain as well. The strategic leadership of the faculty in this area has been recognised by the federal government in awarding us the grant to produce the National Health Practitioner Education Strategy, but there is arguably more that we could do to raise the profile of SPMPs within our own profession as well as in the public consciousness.

“Within our ranks we have a diversity of skills, experience and opinions which means that over the years we have been able to deliver thought leadership with an impact that far exceeds our numbers.”

FPM wins Department of Health grant

PAIN IS RECOGNISED as one of the leading causes of disability and disease burden globally, with the number of people living with chronic pain increasing year on year¹. Best practice in chronic pain management encompasses care by an inter- and multi-disciplinary team using a sociopsychobiomedical approach. Despite the need for skilled health practitioners to address the growing burden of chronic pain, we know that pain management content continues to be lacking in health professional education at all levels worldwide. This has resulted in limited translation of pain management research and clinical evidence into practice².

In 2010, Australia was one of the first countries in the world to develop a National Pain Strategy, with the National Strategic Action Plan for Pain Management following in 2019. This year, the Department of Health awarded grants for projects to achieve the goals of the plan. In March, the faculty won a \$A500,000 grant for a project to “develop an overarching education strategy to promote evidence-based pain management education across health practitioner disciplines, through undergraduate, postgraduate and continuing education”. The project supports goal three of the action plan, which aims to “ensure health practitioners are well-informed and skilled on best practice evidence based [pain management] care”³.

The International Association for the Study of Pain (IASP) highlighted the importance of health professionals receiving adequate pain education at with its 2018 Global Year for Excellence in Pain Education⁴. Our strategy will be underpinned by the principles promoted by the IASP on an international level, including: interprofessional education; multi-disciplinary pain management; and evidence-based care. The strategy will be centred around the needs of health practitioners as learners and the needs of people requiring pain care, as well as promote a sociopsychobiomedical approach to pain management.

Development of the strategy is underpinned by the vision of improving the care experience and associated outcomes for people living with pain. Educated and skilled pain management health practitioners are key to achieving this vision, as Helen Maxwell-Wright, our consumer representative says,

“Today (and tomorrow’s) consumer will always judge our success by the knowledge, attitudes and interpersonal skills of the clinician and other members of the pain team, along with the improvement in individual pain management. As a faculty we have confidence that the model of pain management in Australia will be grounded in lifelong learning and evidence based clinical practice as well as the communication skills that make a difference to the patient experience.”

Producing a national pain management education strategy for Australian health practitioners puts the faculty in a world-leading position once again. We have a unique opportunity to define the future of pain management education in Australia by creating a nationally consistent and comprehensive set of principles and goals to inform its development and implementation across a broad range of health practitioner disciplines. We are also aware that colleagues across the globe have been watching the implementation of Australia’s National Pain Strategy.

Implementation of the education strategy will no doubt be affected by the COVID pandemic, not least because of already-emerging reports of COVID survivors experiencing chronic pain. From an economic perspective, many of our implementation recommendations will require further funding and with a tighter fiscal environment as a result of the recession, such funding may have to come from sources outside of government. However, the COVID-recession also provides an opportunity to really highlight the benefits and cost savings which ultimately come from ensuring all people living with pain have access to timely high-quality and evidence-based care. Furthermore, the swift pivot to remote learning during the pandemic may also impact the methods by which pain management education is delivered and as a result, the use of innovative technologies for education is a key factor for consideration.

To date, the project is progressing well. A small team began work in July 2020, with the aim of establishing a multidisciplinary governance advisory group to oversee the project and implementing a scoping phase by the end of 2020. At the time of print, the governance advisory group has met twice via Zoom and a search of the



grey and published literature has yielded findings which provide a comprehensive picture of the environment. Scoping phase findings have also informed the development of a strategy framework, which will be tested and further refined through a series of stakeholder consultation forums in 2021. Planning for these forums is well under way – with COVID-restrictions permitting, we aim to use both face to face and virtual forums.

Associate Professor Meredith Craigie
Clinical Lead – Pain Management Health Practitioner Education Strategy

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⁴ Watt-Watson J. Prospectus to promote professional pain education [Internet]. Washington D.C., International Association for the Study of Pain; 2018 [updated 2018; cited 2020 Nov 12]. Available from: <http://s3.amazonaws.com/rdcms-iasp/files/production/public/globalyear/IASP%20Prospectus%20to%20Promote%20Professional%20Pain%20Education.pdf>

New fellows

We congratulate the following doctors on their admission to FPM fellowship through completion of the training program:

- **Dr Eliza Beasley**, FANZCA, FFPMANZCA (Vic).
- **Dr Surabhi Gupta**, DNB Anaesthesia, FFPMANZCA (ACT).
- **Dr Jigna Hapani**, FANZCA, FFPMANZCA (Vic).
- **Dr Brian Hue**, FANZCA, FFPMANZCA (WA).
- **Dr Ksenia Katyk**, FRANZCOG, FFPMANZCA (NSW).

We also congratulate the following doctor on her admission to FPM fellowship through the completion of the pain medicine SIMG process:

- **Dr Louise Lynch**, FRCA, FFPMANZCA (New Zealand).

Election to fellowship pathway

In July the FPM Board made the decision to retire the election to fellowship pathway (By-law 3.2). Further to this decision, the Board have agreed to incorporate a transition period until 30 June 2021. The board will consider applications for election to fellowship from eligible individuals during this transition period.

Updates to the FPM curriculum

The Learning and Development Committee has continued the review of the curriculum in 2020 with respect to the relevance, redundancy and assessability of learning outcomes. Following the review of sections one, two and parts of essential topic area 3.1 in 2019, the following essential topic areas were reviewed in 2020:

- 3.1: Mechanisms in the biomedical dimension of pain.
- 3.3: Spinal pain.
- 3.4: Problematic substance use.
- 3.9: Chronic widespread pain.

An updated version of the curriculum has been placed on the website. During 2021 the curriculum review will continue in addition a review of the online support resources for trainees.

Committed to supporting safer opioid prescribing and decision-making



We need you! Start the conversation in your workplace and engage your colleagues with the Better Pain Management free online education program.

Designed by specialist clinicians, the program comprises six e-learning modules that will assist your healthcare team to better manage all types and levels of pain for those in their care.

Course modules include:

- Making an effective pain diagnosis: A whole person approach.
- The impact of management of psychological pain factors.
- A whole person approach to chronic pain.
- Opioids in pain management.
- Pharmacology of pain medicine.
- High-dose, problematic opioid use.



This Better Pain Management e-learning course is free for Australian residents. To enroll, simply scan this QR code, email fpm@betterpainmanagement.com.au or call +61 3 9093 4930.

FPM
ANZCA

Pain Medicine:
THE MYSTERIOUS ART

FPM ANZCA

Registrations opening in January!

We will celebrate the evolving art which is pain medicine and the nexus between overlapping specialities. We will aim to showcase different concepts in pain and what we can learn from other specialties who approach their patients in a similar, holistic manner.

For more information on the program and when to register, please visit the website.

2021 FPM Virtual Symposium
Friday 30 April
asm.anzca.edu.au
#FPM21MEL



Keep on practising with confidence

MDA National's priority will always be to support our Members in the moments that matter.

Our unwavering care and support was demonstrated during the on-set of COVID-19. We provided the advice and guidance our Members urgently needed to navigate the evolving uncertainties, so they could keep on delivering safe patient care.

We are committed to being by the side of our Members by offering:

- In-house medico-legal support and expertise – on call to help with any queries that may arise
- Support in Practice expertise and tailored risk management services
- One case manager until your matter is resolved
- Complimentary education and resources designed for your specialty
- 80% premium discount in your first year of private practice, with ongoing discounts for up to four years in private practice

As a specialist Anaesthetist, if you join MDA National from 1 January 2021, you are eligible to receive a 15% discount on your Membership and Professional Indemnity until 30 June 2022*

► **Request a quote**
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MDA National
Support Protect Promote

FPM ANZCA

Save the date

The 2021 Combined Spring Meeting of the Faculty of Pain Medicine and the Hong Kong College of Anaesthesiologists

Moving with pain

15-17 October 2021
Millennium hotel
Queenstown, New Zealand

#painCSM21

*This offer is only open to eligible applicants, being those who satisfy the eligibility criteria. The offer applies over two policy periods – the first policy period being 1 January 2021 to 30 June 2021 and the second policy period being 1 July 2021 to 30 June 2022. The availability of the offer to eligible applicants over each policy period is subject to the terms and conditions of the MDA National Insurance Professional Indemnity Insurance Policy and underwriting approval, with the availability of the offer to eligible applicants over the second policy period also being subject to renewal being offered and accepted for that period. Subject to the conditions referred to above being satisfied, a 15% reduction will be applied to the Insurance Premium and Membership Subscription otherwise payable by the eligible applicant for each policy period. The premium reduction may be subject to minor variations due to rounding and cannot be claimed in conjunction with, or in addition to, any other premium reductions, offers or discounts. The offer is not available to existing members. Insurance products are underwritten by MDA National Insurance Pty Ltd (MDA National Insurance) ABN 56 058 271 417 AFS Licence No. 238073, a wholly owned subsidiary of MDA National Limited ABN 67 055 801 771. Before making a decision to buy or hold any products issued by MDA National Insurance, please consider your personal circumstances, and read the Product Disclosure Statement and Policy Wording and the Supplementary PDS and Endorsement to the Policy Wording available at mdanational.com.au. AD373

2020 CPD timeline and road to 2021

THIS YEAR HAS brought about many changes to the way in which participants maintain their continuing professional development (CPD). From cancelled conferences to new emergency response activities, our usual quality improvement excelled to meet the demands of the pandemic's restrictions.

This timeline was developed for CPD participants to reflect, re-group and refresh on 2020 college operations and consider plans for 2021.

January – new update for 2020

We started the year with four updates to the CPD program including:

- Amendment to the cultural competency activity, relocating to the practice evaluation (PE) category at two credits per hour. This activity has been claimed more than 500 times in participants' CPD portfolios during 2020.
- New emergency response (ER) activity on cardiac arrest for special pain medicine physicians (SPMP).
- New CPD plan question regarding activities supporting health and wellbeing.
- New PE activity for examiners.

February – submissions to MBA/MCNZ

In February, we provide our submission to the Medical Board of Australia's (MBA) public consultation on the draft revised *Registration standard: Continuing professional development*. Our response provided consideration for allowing our program to continue with weighted credits as opposed to purely moving to a time based approach. The MBA will finalise the registration standard in 2021 and submit to the ministerial council for approval.

Discussions began regarding the Medical Council of New Zealand's (MCNZ) official strengthened recertification requirements for vocationally registered doctors in New Zealand, with the college expected to work towards new requirements with implementation by 1 July 2022.

March – pandemic announced

The World Health Organization (WHO) confirms COVID-19 as a pandemic. College staff including the CPD team start working from home in response to the announcement. CPD participants are affected by added demands in the workplace and their CPD impacted by cancelled events, including our annual scientific meeting (ASM) and travel restrictions.

April – new COVID-19 ER activity

To support members the CPD committee and team develop:

- New COVID-19 airway management ER standard/activity. This has been extremely well received with more than 3000 fellows claiming participation in their CPD portfolios.
- New webpage "COVID-19 – Information for CPD participants" including a list of key resources and frequently asked questions (FAQs). This webpage has so far had more than 3500 page views.

May – adjusting to the new normal

College operations continue with finalising the 2017-2019 triennium, with more than 3000 participants, resulting in 99.9 per cent successful completion. Furthermore, our annual (2019) verification of CPD activities with 450 participants (7 per cent of fellows) also resulted in a high success rate of 99.5 per cent. This continues to be seen as an amazing achievement and highlights the dedication our members have to their professional development.

June – audit ethical consideration

A statement on ethical consideration is included in the CPD handbook, appendix 10 Clinical audit guidelines reflecting the importance of ethical considerations for quality improvement. This aligns with trainees for their scholar role activity audit and ensures that everyone respects the rights of patients and their data during quality improvement activities.

July – library and CPD webinar

The college conducted its webinar "Staying current: Library and CPD" based on the workshop originally designed for the 2020 ASM. Bridging off enquiries it was remodelled to give special attention to online resources in consideration of the COVID-19 pandemic. Members can log into Networks to access a recording of the webinar or directly at networks.anzca.edu.au/d2l/home/7635.

August – no 2020 verification

The college agreed not to undertake the 2020 verification (audit) of CPD activities process. This decision acknowledged the challenges in accessing evidence to support completion of CPD activities in new areas brought on by the COVID-19 pandemic.

Annual and triennial CPD requirements remain the same; rather no evidence of CPD activities will be verified (checked) by the college for this year. Support continued to focus on members meeting their CPD requirements and sharing available resources. Full details were made available on the website news item – www.anzca.edu.au/news/cpd-news/no-2020-cpd-verification-update.

September – supporting 2018-2020 triennium

Tailored support emails started being sent to the 2018-2020 triennium participants confirming their submission date remained unchanged for 31 December 2020. These emails provide clarification on outstanding CPD requirements and resources on how to meet them. Participants are encouraged to connect with the CPD team at cpd@anzca.edu.au for additional support.

October – flexibility with ER hands-on objectives

The college agreed to accept virtual and online education sessions (workshops/courses) as an alternative delivery method. This is specifically for the hands-on learning objectives under the Can't Intubate Can't Oxygenate (CICO), Cardiac arrest, and Cardiac arrest SPMP ER standards. Education sessions may be recognised for up to 12 months (up to 30 September 2021). Full details were made available on the website news item – www.anzca.edu.au/news/cpd-news/updates-to-cpd-emergency-response-standards.

November – PE unmasked webinar

This second webinar with CPD Committee Chair Dr Debra Devonshire unmasked and demystified the PE resources available and offered practical advice on completing PE activities. Members can log into Networks to access the recording "Practice evaluation unmasked: CPD and library webinar" or directly at networks.anzca.edu.au/d2l/home/7635.

December – preparing for 2021

From 2021, participants will no longer be able to add or confirm any new activities in your CPD portfolio until your CPD plan has been fully completed. Taking a small amount of time to plan CPD for the next three years will assist in assuring that activities undertaken are meaningful and relevant to members needs. Participants can amend their CPD plan at any time during the triennium. This measure is to avoid the common occurrence encountered when CPD plans are overlooked, and stopping some members from transitioning into their new triennium.

In addition, from next year participants will also notice a change in their annual CPD statements of participation and certificate of compliance. This is to align with the college's rebranding and all details on statements and certificates will remain the same.

What is 2021 CPD looking like?

Learnings for 2020 will support the 2021-2023 CPD review project group. This review aligns with the program's cyclic schedule (every five years) and aims to accommodate new regulatory requirements from the MCNZ strengthened recertification requirements for implementation by 1 July 2022 and MBA professional performance framework and revised CPD registration standard (implementation date not yet confirmed).

2018-2020 end-of-triennium update

THE ANZCA AND FPM CPD Program is approaching its final submission date for the 2018-2020 triennium. With just under 1800 participants the submission date remains unchanged at 31 December 2020. As advised in August, the college will not be conducting its annual verification (audit) this year and CPD evidence will not be requested for 2020 activities.

The CPD team are sending regular reminder emails to help with ensuring our participants successfully complete their CPD requirements and gain access to their certificate of compliance.

We hope these targeted emails are helpful with outlining any outstanding activities. If you have any questions or concerns about the end of your triennium, or feel you should not be receiving these reminders, please contact the CPD team at cpd@anzca.edu.au.

Support at hand for culture shock

Self matters

This edition's column addresses the critical topic of supporting our colleagues who join our specialties through the specialist international medical graduate (SIMG) pathway. They are important contributors to the medical workforce, and our college — an inspiring example is our president Dr Vanessa Beavis.

My thanks to Dr Scott Ma and Associate Professor Jill Benson for illuminating the challenges SIMGs face and highlighting supports for their wellbeing, experiences and progress through what can be a bewilderingly complex system. More information about ANZCA's SIMG assessment process for overseas trained specialist anaesthetist (anaesthesiologist) and specialist pain medicine physicians is at www.anzca.edu.au/education-training/certification-of-overseas-qualifications.

Ideas for future topics and contributors are welcomed to lroberts@anzca.edu.au.

Dr Lindy Roberts AM
ANZCA Director of Professional Affairs (Education)

Specialist international medical graduates: Supporting the culture shock

Specialist international medical graduates (SIMGs) are substantial contributors to the medical workforce, particularly in areas of community need in both Australia and New Zealand. In Australia, it has been estimated that almost four in 10 of the medical workforce and one half of doctors in rural and remote communities are international medical graduates (IMGs)¹. In New Zealand, approximately four in 10 registered doctors are IMGs, with greater proportions in rural hospital medicine, psychiatry, and obstetrics and gynaecology².

Doctors migrate with hopes of new opportunities, both professional and personal, but may meet many challenges such as regulation of their ability to practice, cultural differences and expectations, along with social isolation and limited access to healthcare services for themselves and their families. These may be exacerbated by uncertainties such as the COVID-19 pandemic.

Regulatory challenges

Along with navigating the bureaucracy of immigration and employment, SIMGs face processes mandated by the Australian Health Practitioner Regulation Agency (AHPRA), the Medical Board of Australia (MBA) and the Medical Council of New Zealand (MCNZ) if they wish to be recognised as a specialist/vocationally-registered doctor. The college's role in this process is to provide an assessment for comparability against Australian and New Zealand trained anaesthetists or pain medicine physicians. This may require SIMGs to undertake a workplace-based assessment, the SIMG exam and other activities (for example, Effective Management of Anaesthetic Crises (EMAC) to demonstrate comparability). SIMGs also need to negotiate the Australian or New Zealand health system which may have profound differences. Examples include the gatekeeper role of general practitioners (GPs), the Pharmaceutical Benefits Scheme, public versus private billing, Accident Compensation Commission funding, a flatter hierarchical structure, and teaching and research expectations.



Dr Scott Ma and Associate Professor Jill Benson

Socio-cultural challenges

When SIMGs migrate to what to them is a new health system, they must adapt to a different culture and community expectations. This adaptation can be more pronounced for individuals from cultural and linguistically diverse (CALD) groups. Communication for instance extends beyond a command of the English language as information can be "lost in translation" by how words are used (jargon, dialect, slang), and non-verbal signals.

They will usually be separated from social networks (family, friends) and find challenges in re-establishing networks in a community that may not meet their cultural, dietary or religious needs. This may be even more pronounced in rural areas, although isolation may also be experienced in large communities.

The need for rapid acculturation to what are sometimes highly emotional and challenging contexts in healthcare may lead to:

- Communication difficulties, potentially experienced by patients and colleagues as lack of empathy.
- Perceived loss of professional status due to more equitable workplace relationships.
- Reluctance to engage in teaching and learning due to the unfamiliarity of less-didactic, facilitated learning models and concern about attracting negative criticism.

Supporting SIMGs

Orientation

The 2012 report on the inquiry into Australian registration processes and support for overseas-trained doctors *Lost in the Labyrinth* details strategies to support IMGs in their orientation to their role, their new work environment and the cultural context in which they are practising¹. Organisations that welcome SIMGs should establish ways to promote and develop cultural competence, not only for SIMGs caring for patients, but also for staff working with new SIMGs. The college's *PS62 Statement on Cultural Competence* can be used as a guide to develop these tools³.

Peer support

To address the risks of professional isolation and possible changes in professional identity, peer support programs provide a mechanism for SIMGs engagement with others who have navigated the journey before them. As Dr Jenkins and Dr Roberts described in the Spring *ANZCA Bulletin*, peer support is a way for supporters to "bear witness" to the other clinician's experience, promoting connection and collaboration⁴.

Access to healthcare

Along with being distanced from social networks, SIMGs may also move away from the healthcare services they have been using for themselves and their families. For some, accessing healthcare for themselves may not have been the norm, and seeking medical or personal help may be considered a sign of failure. In particular, admitting to feelings of anxiety or depression may be considered taboo in the SIMG's culture of origin. Additionally, doctors may not want to seek help locally, particularly in rural areas, because of the (perceived) risk of confidentiality breaches. Access to telehealth consultations can facilitate improved care in the face of geographic isolation.

Dr Scott Ma
ANZCA Councillor

Associate Professor Jill Benson AM
Director, Health in Human Diversity Unit, Discipline of General Practice, University of Adelaide
General Practitioner, Doctors Health SA
Senior Medical Officer, Migrant Health Service
Medical Director, Kakarrara Wilurarra Health Alliance

References:

1. House of Representatives Standing Committee on Health Ageing, *Lost in the Labyrinth: Report on the inquiry into registration processes and support for overseas trained doctors*. At https://www.aph.gov.au/parliamentary_business/committees/house_of_representatives_committees?url=haa/overseasdoctors/report.htm. Accessed 19 Nov 2020.
2. *The New Zealand medical workforce in 2019*. Medical Council of New Zealand. At <https://www.mcnz.org.nz/about-us/publications/workforce-survey/>. Accessed 18 Nov 2020.
3. ANZCA PS62 (2017) *Statement on Cultural Competence*. At <https://www.anzca.edu.au/safety-advocacy/standards-of-practice/policies-statements-and-guidelines>. Accessed 19 Nov 2020.
4. Roberts L, Jenkins K. *Peer support: practical approaches*. ANZCA Bulletin Spring 2020: 34-35.

Wellbeing resources and emergency contacts

In Australia, the Doctors' Health Advisory Services provide confidential 24/7 help over the phone or face-to-face. These services are staffed by senior GPs and experienced counsellors trained in doctors' health. For more information, including how you can access support or learn more about supporting doctors' health, you can go to the Drs4Drs website (drs4drs.com.au).

In New Zealand, there is the 24-hour New Zealand Doctors' Health Advisory Service helpline.

ANZCA has confidential and free health and wellbeing resources for SIMGs, fellows, trainees and immediate family members including the 24-hour ANZCA Doctors' Support Program. Go to www.anzca.edu.au/about-us/doctors-health-and-wellbeing.

This is an independent counselling and coaching service available via the helpline, online live chat, the app and face-to-face meetings. It provides support for a variety of work-related and personal problems which may be affecting work or home life. The Aboriginal and Torres Strait Islander Peoples Helpline is also available on **1300 287 432**.

New Zealand: **0800 666 367**

Australia: **1300 687 327**

Other emergency contacts: **Your GP**

Lifeline: **13 11 14**

Helping anaesthetists to reduce waste

ANZCA Councillor and Chair, Environmental Sustainability Working Group, Dr Scott Ma invited hospital sustainability officers from Australia and New Zealand to share their reflections on how they can assist anaesthetists in promoting sustainable clinical practice in their workplace.

Here, Debbie Wilson, Principal Sustainability Advisor, Health Infrastructure Unit, NZ Ministry of Health explains how anaesthetists can work with their hospital's sustainability officer to tackle healthcare waste and reduce our carbon footprint.

AS A SUSTAINABILITY officer, your work program reaches across all areas. You work with clinicians, administrators, orderlies, cleaners, allied health professionals, facilities managers and importantly, decision makers governing procurement and supply chain practices. The sustainability officer works across all levels of the health system from policy and strategy down to waste minimisation and recycling interventions and waste audits.

A successful sustainability officer co-leads a sustainability program across a healthcare system and challenges everyday practices when the benefits do not meet the requirements of the quadruple bottom line (people, planet, profit, purpose).

In order to live in a way that conserves precious resources, restores balance, and leaves the planet and environment in a state that supports and sustains life (to live sustainably) we need to change the way we live and work. To achieve a desirable and long-lasting behaviour change a deeper shift in attitudes is required. From my experience, and from my research¹, I have learned that people can change their attitudes, which in turn leads to long lasting pro-environment behaviour change. I found that one way an attitudinal shift is initiated is by triggering an emotional response. Quite simply, tapping into a person's emotions gains you access into an important connection between thoughts and behaviour. To illustrate, using personal storytelling when you engage with people helps set you on this path to being more connected to one another other and to your surrounding environment. Listening, sharing, and working collaboratively really does help identify problems, helps find ways to resolve the issues and forms the basis for ongoing work in the world of sustainable healthcare practice.

¹Wilson, DK, Larmer, P, Ingley, C and Van Dal, A. (2020) 'Recycling and Environmental Sustainability in the New Zealand Healthcare Setting: A Practice-led Case Study Research-Project' Unpublished Doctoral Research.

Working in acute areas such as operating departments or intensive care units is often where you experience the most frustration with the business as usual operating model. This is because these areas use a lot of equipment, a significant volume of consumables, generate up to 30 per cent of the entire waste from a hospital campus and use many specialised pharmaceuticals often with very damaging global warming potential (GWP).

Anaesthetists are among the greenest of all when it comes to being active in the emerging field of sustainable healthcare practice. They are at the cutting edge in terms of leading research from capturing the minute details such as life cycle impacts of medical devices and anaesthetic gases, through to the broader and often national focus of carbon footprints of health care systems. In doing so, anaesthetists are shining the light on some very important issues around non-sustainable practice and even better, often showing us the way by offering more sustainable alternatives which generate quadruple line benefits.

Sustainability officers and anaesthetists can work very well together. The sustainability officer links anaesthetists to people that may otherwise remain siloed such as general or non-clinical support services managers, procurement agents, or likeminded sustainability advocates from across the hospital campus.

Examples of shared interests and focus areas

- Waste reduction: recycling, reusable versus single use instrumentation, reusable gowns, third party reprocessing.
- Protocols: questioning practice around linen use, stock levels, office paper use.
- Safer pharmaceutical practice: examining and measuring the environmental impact of clinical decisions around volatile agents and anaesthetic gases, sedatives, and analgesics.
- Work environment: number of air changes, set temperatures, lighting controls and lighting levels.

Sustainability officers have the time to assist in gathering the data required and to write the necessary reports and business cases, making the case for change. This level of support makes it easier for anaesthetists (and others) to work in a more environmentally conducive way.

By working closely with anaesthetists, sustainability officers gain access to teams, departments and a whole range of environmental issues that would otherwise be less accessible. Sustainability officers working in the setting of health need to be accessible and responsive to the dynamic complex adaptive health system to reap the rewards available and to optimise the value of working in a unique and challenging environment with some of the most incredible and highly skilled leaders in the healthcare workforce.

Debbie Wilson
Principal Sustainability Advisor, Health Infrastructure Unit, NZ Ministry of Health
Sustainability Officer (2012-June 2020) Counties Manukau Health

If you have any ideas for future articles, or want to share your story, please email us at enviro-sustainability@anzca.edu.au

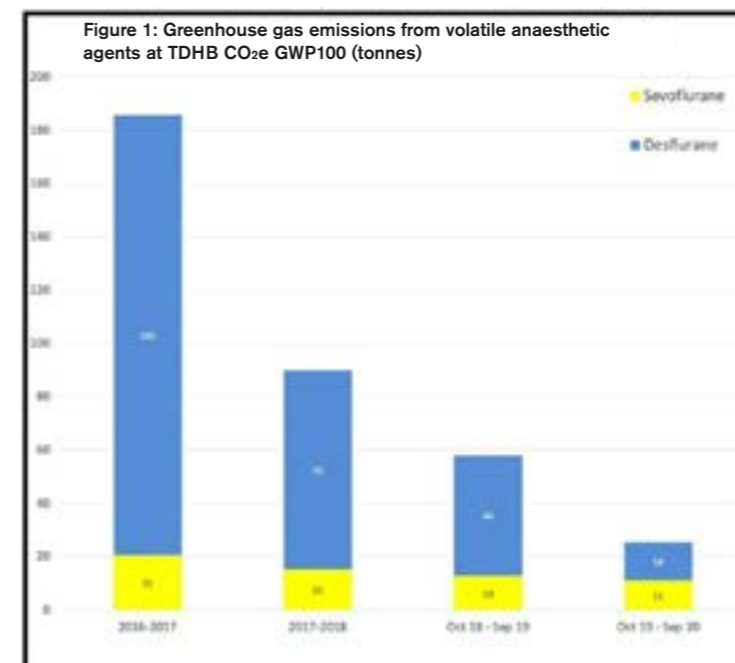


Debbie Wilson

Taranaki DHB reduces its anaesthesia-related carbon footprint

Taranaki District Health Board's anaesthesia department has been committed to reducing emissions of volatile anaesthetic agents, particularly desflurane since 2017 due to their significant greenhouse effect. Volatile usage is audited on a monthly basis and they have reported a reduction in emissions of 161 tonnes CO2e over the four-year period to date (see figure 1).

This is the equivalent of 15 transatlantic flights for each of the 21 anaesthetic consultants per year. This has been achieved following a number of educational interventions to both consultants and registrars and the purchase of improved computerised pump programs and small-bore infusion tubing to facilitate widespread use of total intravenous anaesthesia with propofol.



The Taranaki DHB sustainability team with (from left) Dr Michael Booth, Dr Andrew Holder (middle back), Maria Cashmore Sustainability Lead (middle front) and Dr Duncan Brown.

WA anaesthetists champion green action

Dr Jennifer Liddell, Adrienne Wehr and Dr Adam Crossley



DESPITE THE CHALLENGES

facing every health service in 2020, this has been a year of progression and commitment to environmental sustainability in the South Metropolitan Health Service (SMHS) in Western Australia.

Led by anaesthetists, the multidisciplinary "Green Theatres Group" (established in 2015) at Fiona Stanley and Fremantle hospitals has helped to shape the path of this critical area of healthcare.

In 2019 passionate clinicians joined a highly engaged senior executive group to form an environmental sustainability steering committee (SMHS). A sustainability framework for SMHS was borne out of this, providing a structure to progress at a site-specific level and an expectation that this is now core business within SMHS hospitals. SMHS also became a member of the Global Green and Healthy Hospital Network, aligning with international best practice approaches and ensuring the health service regularly joins state, national and international conversations.

Environmental sustainability has been identified as a key priority in the SMHS Strategic Plan and 2020 has seen our health service fund and employ a dedicated sustainability officer on a permanent basis – the first position of its kind for a public health service provider in WA.

Fellows Dr Adam Crossley and Dr Jennifer Liddell said: "It was clear

to us that as clinicians needing to prioritise patient care, even with our enthusiasm and hard work, we could only progress sustainability initiatives so far. Having executive support to employ a sustainability officer is a huge positive step forward. It means we can use our knowledge and experience to help others across the service and affect change at a much greater speed."

Within the first four months of commencing in her post, SMHS Sustainability Officer Adrienne Wehr has already achieved a great deal. There has been a focus on stakeholder engagement at all levels across the health service and with other state government entities.

There has been strong collaboration with hospital facilities management staff and the hospital's waste management provider to further minimise waste. The establishment of site-specific special interest groups at each hospital site within SMHS has harnessed the enthusiasm and commitment of a broad range of staff to improve communication, share knowledge and support the implementation of new initiatives which support the framework.

"There is a real feeling of culture change, with environmental issues moving to the forefront of people's minds," said Dr Crossley.

Anaesthetists continue to drive environmental change within operating theatres and support changes in other departments. Notable perioperative achievements have been the removal of

1300 single use plastic anaesthetic drug trays per month and commencement of syringe and PVC recycling.

Successful uptake and expansion of PVC recycling to all theatres, has seen volumes increase three-fold in recent months. In a landmark decision, the Fiona Stanley Fremantle Hospitals Group (FSFHG) anaesthesia department recently voted to remove desflurane from all theatres, which is expected to be achieved in the first quarter of 2021. Desflurane has the worst greenhouse gas impact of all current volatiles and does not offer clinical advantages that adequately outweigh this. With this decision FSFHG anaesthetists are leading the way as a teaching hospital and clearly demonstrating that they recognise the need to take action against climate change. The example set by anaesthetists is being used to encourage clinicians in other specialties.

SMHS Chief Executive Paul Forden said there was a real commitment across the organisation to drive opportunities to reduce its environmental impact.

"As management, our responsibility is to make change at a broader level and ensure we are supporting our staff in their efforts. Employing a sustainability officer has enhanced our ability to provide direction and help build a culture which prioritises the environment."

SMHS will continue to build a coordinated approach between facilities management, executive and clinical staff to broaden the reach of initiatives, to embed sustainability as core business and to support keen staff with new innovations.

Achieving the goal of employing a sustainability officer will undoubtedly prove to be the key to ongoing successes and we believe that establishing this role should be a priority for every health service nationwide.

Dr Adam Crossley FRCA, FANZCA
Consultant Anaesthetist, SMHS

Dr Jennifer Liddell FANZCA
Consultant Anaesthetist, SMHS

Adrienne Wehr
Sustainability Officer, SMHS

Moving towards a net zero emissions target

IN 2016-17, VICTORIAN public health services generated approximately 0.81 megatonnes of greenhouse gas emissions from stationary energy. This is about 10 times the carbon footprint from the stationary energy used by all Victorian government offices¹.

With the net zero emissions (NZE) target set for 2050, it's evident that improving the healthcare sector's performance is a must and some organisations have already started work on achieving the proposed target. Although a power purchase agreement (PPA) to procure clean energy has the potential to offset a significant portion of emissions, it would be insufficient to offset the overall emissions within the health sector. For example, emissions related to procurement, transportation and distribution of goods require a thorough assessment of suppliers and reporting them is optional in Victoria. The reality is that very few health services report on them due to lack of resources to deliver such analysis.

Therefore, if we are to achieve the Victorian government's NZE target, we will require a monumental effort to improve performance and rethink strategies. That's where the sustainability officer's role comes in. It will be a requirement for every health service to allocate resources, engage sustainability officers and create sustainability committees. One of the most important elements will be to create multi-disciplinary teams to bridge gaps and align departments towards achieving common sustainable goals. These teams should focus on the effective design of NZE and climate change strategies, setting specific targets to be delivered.

"With the net zero emissions (NZE) target set for 2050, it's evident that improving the healthcare sector's performance is a must and some organisations have already started work on achieving the proposed target."

With the support of the sustainability officer, teams will need to embed NZE into their strategic plans and adequately distribute resources between operational improvements, project implementation, data analysis, reporting, and so on. Health services will need to work together to go above and beyond the implementation of the Department of Health and Human Services (DHHS) sustainability guidelines in capital works.

In co-operation with DHHS best practice guidelines will be developed to support planning and implementing strategies. Many services continue to achieve great outcomes despite the absence of a sustainability officer. However, engaging a full time professional would provide further opportunities to capture and report reliable data, improve operational and financial performance and reduce environmental impact. In regional areas services that don't have a sustainability officer could team up to share the benefits.

Anaesthetists, other specialists and doctors, and hospital staff can contribute to sustainability in health care by:

- Writing to the CEO requesting a sustainability officer and sustainability committee.
- Developing research in an area of expertise in the context of sustainability (for example, waste increase in theatres due to COVID-19, influence of theatre gases on environment.)
- Requesting, initiating and supporting the implementation of sustainable practices in the workplace including theatres and wards. Be innovative and take action. Check out www.greenhospitals.net

Carlos Machado
Sustainability Co-Ordinator
Western Health

Reference

1. Victoria State Government, Hospital and Health Services, Energy use in Victorian public healthcare services. Available at: <https://www2.health.vic.gov.au/hospitals-and-health-services/planning-infrastructure/sustainability/energy/energy-use>

What's new in the library?

Environmental Sustainability Library Guide

A new guide on environmental sustainability is now available via the library.

The guide highlights a number of resources, including those created by the college and its environmental sustainability working group.

This includes the environmental sustainability audit tool, ANZCA Council statement on climate change, and the professional document PS64 – *Statement on environmental sustainability in anaesthesia and pain medicine practice*.

The guide also includes relevant articles from clinical journals, articles from the ANZCA Bulletin, apps, e-books, and links to legislation and policy regarding climate change, waste, and clinical waste.

- Access: libguides.anzca.edu.au/enviro

Updated library orientation page

The ANZCA Library offers a wide variety of resources, with access to over 900 e-journals, 12,000 e-books and 3000 print books. In addition, the library subscribes to a number of special medical databases including Ovid Medline, Trip Pro, AccessAnesthesiology and Therapeutic Guidelines. It also offers document delivery and literature search request services – all free-of-cost to the user.

If you're not sure where to start, then the Library Orientation page offers a good overview of the available resources and how to access them.

Recommendations for users are based on your member type, status and location, and includes the following sections:

- Resources for all users.
- Anaesthesia trainees.
- Pain medicine trainees.
- DHM trainees and diplomats.
- Supervisors of training and medical educators.
- College fellows and CPD participants.

Who can use the library?

Full library services and resources are available to all active college fellows and trainees; diving and hyperbaric medicine (DHM) trainees and diploma holders; non-fellow continuing professional development (CPD) program participants; specialist international medical graduate (SIMGs) members; and retired fellows.

ANZCA | FPM applicants have online-only access to library resources with full access to all services once they are registered as a trainee.

You can access the Orientation Guide via the Library home page, or at: www.anzca.edu.au/library/library-orientation-guide

AIRR | ANZCA Institutional Research Repository

ANZCA Bulletin update:

Work on adding past issues of the *Bulletin* to AIRR continues apace. Currently the full-text for 2002 onwards is available in PDF format. A dedicated search box for *ANZCA Bulletin* content can be found on the Library Journals page: libguides.anzca.edu.au/journals.

Recent contributions to AIRR:

- Speldewinde GC. *Thoracic Zygapophysial Joint Thermal Neurotomy: A Cohort Revealing Additional Outcomes by Specific Joint Groupings* [epub ahead of print, 2020 Oct 12]. *Pain Med*.
- Endlich Y, Beckmann LA, Choi SW, Culwick MD. *A prospective six-month audit of airway incidents during anaesthesia in twelve tertiary level hospitals across Australia and New Zealand*. *Anaesth Intensive Care*. 2020;48(5):389-398.
- Hodsdon A, Smith NA, Story DA. *Preoperative communication between anaesthetists and patients with obesity regarding perioperative risks and weight management: a structured narrative review*. *Perioper Med (Lond)*. 2020;9:24. Published 2020 Aug 13.

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1. Dr Peng (Paul) Wen, *Australasian Physical & Engineering Sciences in Medicine* 2012; 35, 389–392

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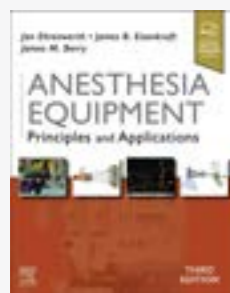
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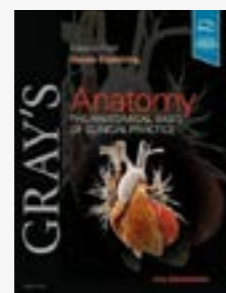
New titles in the library



Anesthesia equipment, 3e
Ehrenwerth J, Eisenkraft B, Berry J [eds].
St. Louis: Elsevier, 2021.



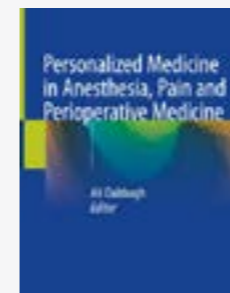
Emergencies in anaesthesia, 3e
Martin A, Allman K, McIndoe A [eds].
Oxford: Oxford University Press, 2020.



Gray's anatomy, 42e
Standring S [ed.]. London:
Elsevier, 2021.



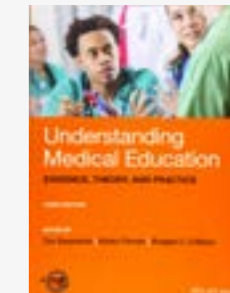
Principles of physiology for the anaesthetist, 4e
Kam P, Power I. Boca Raton: CRC Press, 2020.



Personalized medicine in anesthesia, pain and perioperative medicine
Dabbagh A [ed]. Cham, Switzerland: Springer Nature, [2021].



Anesthesia for otolaryngologic surgery
Abdelmalak B, Doyle J [eds.]. Cambridge: Cambridge University Press, 2012.



Understanding medical education: evidence, theory, and practice, 3e
Swanwick T, Forrest K, O'Brien Bridget C [eds.]. London: Wiley, 2019.

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DATE & TIME

Friday, 12th March, 2021
from 1.30pm

VENUE

Jim Stynes Room
Melbourne Cricket Ground

After a dramatic 2020 we are excited to confirm that our Annual March Meeting and Workshops will be back in 2021, and we are very excited about the opportunity to do some in-person CPD.

Our meeting location is a spacious suite of rooms at the MCG which will allow for physical distancing and other safety precautions. In the event that the situation changes between now and March 2021, we will run this as an online event. Please register early as we will have a cap on registration numbers.

Our theme for 2021 is **Where Sports and Fitness Meets Anaesthesia**. Our meeting and workshop will be held for the first time at the MCG, on March 12 2021. There are a variety of registration options, including the option to stay on for dinner and drinks in the celebrated Lindsay Hassett room.

Associate Professor Andre La Gerche will speak on **Extreme physiology, the endurance athlete and implications for anaesthesia**. Dr Greg Emery will present **A practical guide for anaesthesia for the elite bodybuilder and sportsperson**. Dr Andrew Jowett will speak on **Head injury, concussion and surgery**. There will be a talk on **Pre-operative functional assessment and the METS study** by Dr Mark Shulman.

As always there will be the opportunity to complete an ANZCA-accredited Emergency Response Workshop (Cardiac Arrest or CICO). There will also be the opportunity to participate in an interactive lecture session and do a guided MCC tour. Our dinner, with a special guest speaker, will also be at the MCG, from 7pm onwards.

Please visit www.anaesthesia.org.au for additional information and updates.

This advertisement is for medical professionals only and has been removed for this edition.

New Zealand



Mirror on society – is health even close?

A LEGAL CHALLENGE to the University of Otago Medical School's admission scheme has led to a flurry of media attention and commentary over the last couple of months throwing up big discussions about why we need the policy named by Otago as the "Mirror on society".

It has also prompted ANZCA and many other medical colleges, to lend their support to the policy.

In September 2020, a father, who has name suppression, took the university to court over the *Mirror on Society* policy, which is designed to boost Māori, Pasifika, refugee and low socio-economic medical student numbers.

The man filed a civil case against the university after his child, who did not fit a special category, was denied entry to its medical program, despite the student's results translating into an average of more than 92 per cent.

It's been reported that for the 2020 intake, 120 of the 202 places available to first year health sciences students went to those entering under special categories. Of those, 79 (59 per cent) were Māori and Pasifika.

But the court case brought up a dispute that murmurs along annually. Despite the challenge being settled out of court with no compensation and no commitment from the university to change the admission process, the university has acknowledged the case highlights the "desirability of increased clarity and transparency" in its admissions process.

It could be argued that the reason that we need the policy might be best summed up by the Medical Council of New Zealand chair, Dr Curtis Walker who quotes the latest *Medical Workforce Survey* (2019) which shows, "...Māori at 3.8 per cent of the workforce just 642 doctors and 1.8 per cent for Pasifika. Much mahi to continue". To put survey into perspective, Māori and Pasifika are noticeably under-represented compared to their proportion of the population. Māori make up 16.5 percent of the population, but only 3.8 per cent of doctors. More than 8.1 per cent of New Zealanders identify as Pasifika compared to less than 2 per cent of doctors.

Controversially in September, a selection policy-change document, presented to the University of Otago's Medical Admissions Committee, suggested capping the number of Māori special entry spaces to 56 students and Pasifika to 20. The university has since said the discussion document was not a "proposal for change".

The ongoing debate and the court case have also left medical colleges nervous as the Otago Medical School has been remarkably successfully in growing the number of Māori doctors. At times the graduation numbers have exceeded the 16.5 per cent proportion of the population. And while colleges have been working on ways of capturing those graduates into their specialities, the spectre of a cut in numbers has not been welcomed.

The MCNZ has recently published the Allen & Clarke report *Baseline Data Capture: Cultural Safety, Partnership and Health Equity Initiatives (2020)*¹ which clearly established the case for greater investment in cultural safety and health equity training during prevocational, vocational training and recertification processes.

Normalising culturally safe practice and a commitment to health equity into the health sector will require a three pronged approach:

- A fit for purpose medical education for cultural safety.
- A commitment by medical colleges and regulators to embed these practices in our pre-vocational and vocational training and accreditation processes.
- A growing number of Māori and Pasifika doctors.

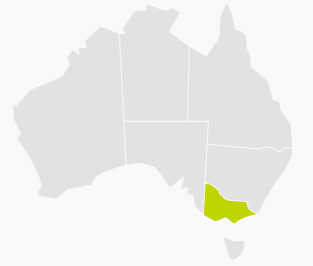
ANCZA argues that medical schools and medical colleges are uniquely placed to help grow the numbers of Māori and Pasifika doctors through policies such as the mirror on society policy and other affirmative action practices.

Adele Broadbent
Communications Manager NZ, ANZCA

Reference

¹ <https://www.mcnz.org.nz/assets/Publications/Reports/31ebfdad2f/Cultural-Safety-Baseline-Data-Report-FINAL-September-2020.pdf> accessed 29 September 2020

Victoria



Recent courses

Primary and final trial orals

The Victorian Regional Committee hosted 16 hospital viva nights in October and November that were delivered via Zoom. Usually we offer four viva nights for each of the primary and final trial oral courses but there was a larger cohort of trainees registered due to the first sitting vivas being cancelled, and more hospital sessions needed to be organised to have enough places for everyone. Many thanks to all those involved from the hospitals, the organisers and all the examiners that helped to make these nights happen. There was a lot of positive feedback received from many of the trainees expressing their gratitude to all involved.

Primary refresher course

A course that is traditionally held face-to-face at the college was another that needed to be held online via Zoom. There was a huge attendance of 129 trainees from across all the states and NZ logged on for sessions each day over the two-week period in November. Presentations were also recorded and are accessible to those that are registered to watch at their leisure which has proven a valuable resource.

Many thanks to all the presenters that delivered their talks in what was already an extremely busy time. All received positive feedback from those who registered.

Upcoming events in early 2021

Victorian Registrars' Scientific Meeting – Friday 22 January from 1-6pm

Once again we are offering a prize for best presentation on the day in each of the following two categories: scientific research project or audit research project. To participate please send in an abstract of 250 words in either category, and/or register your attendance contact vic@anzca.edu.au.

Final Refresher Course – Monday 8 to Friday 12 February

Scheduled to be held at the college but dependant on restrictions this may move to an online delivery. The program consists of 22 lectures that cover many of the core curriculum topics that are potentially included in the final exam. It is specifically designed to assist candidates in their preparation for both the written and oral examinations. The trainees are also given some updates from library/resources and exam ANZCA staff members during the program.

Final Anatomy Course – Monday 15 February

There will be four anatomy-based lectures in: Lower and upper limb; anatomy of the spine and its attachment; head and neck, and anatomy of the heart and lungs. This course complements the Final Refresher Course to assist candidates in their preparation for both the written and oral examinations.

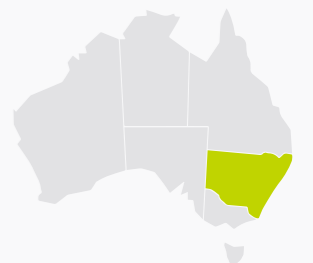
Introduction to Anaesthesia – Friday 26 February

A course for our Victorian introductory trainees and resident medical officers aspiring to be trainees and anaesthetists. Presentations will cover: welfare of anaesthetists, introduction of TPS/WBAs, curriculum, updates on college resources, Victorian Trainee Committee, ASA, and survival guides – hearing stories from other trainees. A significant part of the course is run by trainees for trainees, and is an opportunity for trainees to network and forge friendships.

Save the date

Melbourne Winter Anaesthetic Meeting – Saturday 31 July and Sunday 1 August
Keeping with tradition, our annual ANZCA/ASA combined CME meeting will be held on the last weekend in July at the Sofitel on Collins, Melbourne.

Please contact us via email vic@anzca.edu.au or call +61 3 8517 5313 with any questions.



New South Wales

Save the dates

- NSW Winter Meeting, Hilton 19 June 2021
- NSW Spring Meeting, Leura 20-21 November 2021
- NSW Anatomy Workshop 27 November 2021

South Australia and Northern Territory



Doctors for Doctors workshop

Wellbeing remains as important as ever. Beyond Blue's 2015 survey found emotional exhaustion and cynicism in 47.5 per cent of medical professionals and this was before the COVID-19 pandemic. Knowing how to recognise and manage wellbeing issues remains a challenge, particularly in high risk specialties such as anaesthesia.

The Doctors for Doctors (D4D) workshop is an initiative set up by Doctors Health SA. It is a fabulous resource developed in South Australia for GPs and other clinicians involved in the care of doctors and medical students. Together with ANZCA councillor Dr Scott Ma and Wellbeing SIG executive member Dr Sophie Bermingham, we were fortunate to be invited to attend a half-day workshop in November.

The workshop was co-ordinated by Dr Roger Sexton, Medical Director of Doctors Health SA and guest speakers included Dr Maura Kenny and Dr Anne Sved-Williams, two prominent psychiatrists with a wealth of experience in doctor's health. Key topics included burnout, medicolegal considerations and suicidal doctors with specialist panel discussions looking at the challenges facing doctors. It was an interesting and insightful session and generated many ideas for us to bring back to our hospital and ANZCA. There is still a long way to go to improve the management of doctor's health but with support programs like this we are heading in the right direction.

For more information on the D4D workshop or for access to some excellent wellbeing resources please visit drs4drs.com.au.

Dr Jenny Bird and Dr Julia Cox
ANZCA Provisional Fellows
Flinders Medical Centre Wellbeing Fellows



Dr Jill Benson AM, Dr Scott Ma FANZCA, Dr Julia Cox (PF trainee), Dr Jenny Bird (PF trainee), Dr Sophia Bermingham FANZCA and Dr Roger Sexton.

SANTRATS interviews

The SA/NT Regional Office would like to thank all SA/NT consultants who were involved in the selection process for the 2021 South Australia and Northern Territory Rotational Scheme (SANTRATS) trainees during September 2020.

Due to the COVID-19 crisis, an unprecedented number of vacancies and large number of applicants required a plethora of volunteer SA/NT consultants to assist with many rounds of resume and reference checking, scoring, shortlisting and interviews.

Of the 137 applications received, two selection panels met at the college on Monday 21 September to interview 32 shortlisted applicants in a challenging combination of face-to-face and Zoom interviews.

The selected SANTRATS trainees will commence in February 2021 and rotate through hospitals in South Australia and Northern Territory as part of the rotational training scheme.

SA FPM Presentation – Real Time Prescription Monitoring

A presentation via Zoom was delivered to the FPM Specialist Pain Medicine Physicians on Real Time Prescription Monitoring (RTPM) on 14 September 2020 by Kerin Montgomerie (RTPM Project Manager and Manager, Drugs of Dependence Unit). It was an opportunity for fellows to gain an understanding of SA's RTPM system (ScriptCheckSA) which is expected to be released across SA in March 2021, and to provide feedback on the ScriptCheckSA training and education with regard to when prescribers should consider patient referral to specialist pain services.

Viva practice sessions

We would like to thank all the coordinators and volunteers who have generously given their time in delivering primary and final exam practice viva sessions at the hospitals, private anaesthetic groups and college.

SA Burnell-Jose conference

Management of perioperative pain: Opioid-sparing analgesia, the Holy Grail?

Saturday 4 September 2021

For further information, please contact sa@anzca.edu.au.



Western Australia



RIAACT Course 2021

We're excited to be putting together the Readiness for the Initial Assessment of Anaesthetic Competency Training (RIAACT) for the incoming ANZCA introductory trainees in 2021, in collaboration with the RPH, SCGH and FSH Departments of Anaesthesia. Based on the successful UK model, this hands-on course will cover the basics of skills, competencies and crisis management for novice anaesthetists and will be held over three days in the first six weeks of the training year. We will keep departments updated with dates for the course and further developments.

For further information or if you have questions, please contact Mike Robbins Michael.Robbins@health.wa.gov.au or Archana Shrivathsa Archana.Shrivathsa@health.wa.gov.au.

CME Events in 2021

Planning for our two WA CME events in 2021 is now well under way. The ACE Autumn Scientific Meeting will be held at the University Club, The University of Western Australia (UWA) on Saturday 27 March 2021. The meeting will be convened by Dr Archie Shrivathsa and Dr Charlie Ho, and the program and online registration will be available soon. Also please "save the date" for our annual country conference at Bunker Bay, to be held 22-24 October 2021.

We look forward to seeing you at both events.

Dr Wally Thompson Prize

The Dr Wally Thompson Prize in Anaesthetics 2020 has been awarded to Vincenzo Figliomeni, congratulations to Vincenzo. The Postgraduate Prize in Pain Medicine 2020 has been awarded to Tessa Clifton, congratulations to Tessa.

Australian Capital Territory



2021 Scan and Ski Workshop

After the unfortunate postponement of this year's event, we are excited to announce that the Scan and Ski workshop will take place in Thredbo from Thursday 22 July to Saturday 24 July 2021. The workshop will feature world-renowned ultrasound specialists Dr Ross Peake, Dr Alwin Chuan, Associate Professor David M Scott, Dr Peter Hebbard, Dr Andrew Lansdown, Dr Brad Lawther, Dr Bojan Bozic and Dr Chris Mitchell. Hands-on ultrasound scanning and instruction will be held during the morning and evening sessions, leaving the middle of each day free for skiing or sightseeing in the beautiful NSW Snowy Mountains. The workshop will cover upper-limb blocks, lower-limb blocks, trunk, and spinal blocks, among other topics. We are also pleased to announce the inclusion of a CICO (can't intubate can't oxygenate) workshop into the 2021 program, to be run by Dr Freya Aaskov.

2021 Art of Anaesthesia CME

Save the date for the 2021 Art of Anaesthesia CME – September 11 and 12 at the Hotel Realm, Barton ACT. The working title of next year's meeting is "The Occasional Anaesthetist" and the focus for much of the lectures will be refreshers in the main anaesthetic disciplines. Pop the date in your diary now and we look forward to seeing you in Canberra next spring.

Tasmania



COVID-19

Tasmania remains COVID-free since control of the outbreak in north-west Tasmania. This is largely due to closed borders, strong public health measures and good initial compliance from the Tasmanian community while cases were still occurring. The Tasmanian Health Services (THS) has taken the opportunity to develop procedures and processes to deal with any future outbreaks but at this stage these have not been tested and healthcare in Tasmania continues essentially as normal including surgical services in all sectors. There remains some inconsistency in the processes and access to PPE in different regions. The Tasmanian Regional Committee (TRC) hopes the measures are adequate and will work with the THS and the anaesthetic community to focus on staff and patient safety, and the best response to COVID-19.

The TRC welcomes the recent announcement from the THS regarding negotiation of a successful tender for external fit testing in southern Tasmania. This is intended to be rolled out soon and will prioritise staff in high risk areas including anaesthetists.

The report from the independent inquiry into the NW COVID-19 outbreak has been released. The conclusions and recommendations (including fit testing) are still being worked through and implemented.

Exams and trainees

The dates and formats for final exam viva 2020.1 and primary exam vivas 2020.1 and 2020.2 were finalised and completed. There were a mixture of face-to-face exams and video-conference exams. Mock viva examinations were held in both Hobart and Launceston with thanks to all who have volunteered their time to support the trainees at the end of a difficult year. The TRC welcomes these developments and wishes all exam candidates success. The TRC also recognises the strength, resilience and collegiality of the Tasmanian trainees heading into 2021.

The Tasmanian Anaesthetic Training Program (TATP) selection process has been successfully completed with all positions filled including seven Basic Training Year 1 (BTY1) positions for new trainees entering the program. As always it was deeply competitive with a very high standard of applicants. Congratulations to all ongoing and new trainees and provisional fellows for 2021.

TRC advocacy

The TRC continues to have an active role in advocacy for our profession including the upcoming STP review and ongoing efforts for support the development on pain medicine in Tasmania.

The next Tasmanian events

Plans are well under way for the upcoming Tasmanian Annual Scientific Meeting as well as the preceding Tasmanian Trainee Day for 2021.

Friday 27 February and Saturday 28 February 2021 will see another great meeting being held at the Medical Science Precinct in Hobart, which explores the “new world” we are working in. The convenor of the meeting, Dr Shirin Jamshidi is thrilled with the program and the quality of speakers and explained that in these challenging times it's important to review where we are going as a profession and examine what lies ahead.

Interstate guest speakers include Professor Guy Ludbrook from Royal Adelaide Hospital who will speak about the hidden pandemic of post-operative morbidity and mortality and how advanced recovery room care is a step forward in perioperative medicine. Dr Jennifer Long, pain fellow from Sydney will explore how to manage the difficult clinical interactions in the acute pain setting and there will also be an array of knowledgeable Tasmanian speakers. The meeting will include a panel discussion addressing what implications the current and possible future pandemics has for our profession.



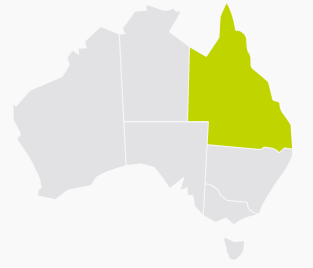
For the first time, the meeting will be split into two lecture theatres and thanks to our speakers presenting twice, the same program will be staggered throughout the day in order to meet physical distancing requirements. Delegates will attend the same lecture theatre with registrations, meal breaks and closing times varied. This allows the maximum number of people to attend while still maintaining safe physical distancing.

More information on the program including social events and workshops can be viewed on the event website.

Due to physical distancing, registrations numbers will be restricted to 90 so you are encouraged to book in early.

Friday 27 February 2021 will see the tradition of the Tasmanian Annual Trainee Day continuing at Hadley's Orient Hotel.

Queensland



Courses

The primary lecture program has concluded for 2020, with five Saturday sessions held from July with the last session held on Saturday 14 November. Attendance has continued to increase, with sessions reaching as many as 61 participants. Feedback was very positive and the attendees found it very beneficial to their exam preparation, and are keen to join the upcoming primary lecture program series in 2021.

The Queensland primary and final practice viva nights were held face-to-face with social distancing measures in place. All viva nights were well-received with a good number of mock examiners and candidates. Thank you to all fellows, provisional fellows and trainees who have put in extra time and resources into supporting college activities over the last few months.

Mock examiners and candidates masked up for Queensland's final practice viva night two, ran by Dr Jesse Gilson.



QARTS

The Queensland Anaesthetic Rotational Training Scheme (QARTS) process for recommending trainees to the 2021 hospital rotations occurred between July and October. The shortlisting and assessment process was a busy time, with 166 new applications. Thank you to the QARTS Co-ordinating Committee for contributing their time in making this process a success.

Interviews were held over four days, with 96 candidates interviewed. All interviews were held via Zoom. Thank you to Dr Mark Young for leading the interviews, and to all the interviewers who assisted with this process.

The process concluded with the QARTS Selection Meeting held on Friday 16 October.

Evening webinars

The FPM Queensland Regional Committee and the ACE Queensland Committee have continued to deliver their respective evening lecture series in 2020, with several informative and engaging presentations being held via Zoom webinar in lieu of the face-to-face events.

The ACE September evening webinar “COVID epidemiology and preparedness Q&A”, was held on 2 September. Dr Geoffrey Playford, Infectious Disease Specialist at the Princess Alexandra Hospital, and Dr Francesca Rawlins, Deputy Director of Anaesthesia at the Princess Alexandra Hospital presented on the epidemiology and management of COVID-19 and the anaesthesia response so far. The evening closed with an interactive Q&A session.

On 19 October we were delighted to be joined by Liz Crowe, intensive care specialist social worker, who gave a very insightful presentation at the FPM October evening webinar on “Compassion fatigue and wellbeing”.

The ACE November evening was held on 25 November, and we were fortunate to be joined by Dr Phil Lee, staff specialist anaesthetist who presented recent research on spontaneous ventilation and apnoea with high flow nasal oxygen (HFNO).

Thank you to all the speakers for their very insightful and informative presentations, and for dedicating their valuable time and embracing the webinar format to make these evening meetings a success.

We're excited to announce these upcoming events

For further information on the meetings, please contact events@anzca.edu.au.

ACE
ANZCA | ASA | NZSA

INTERACTIVE WEBINAR
Obstetric anaesthesia you won't learn from a text book

Tuesday 9 February 2021 | 1-2.30pm (AEDT)

ANZCA | ASA | NZSA

Looking Over the Bridge

Joint Airway Management, Obstetric Anaesthesia and Perioperative Medicine SIG virtual meeting
Thursday 29 April, 2021 | asm.anzca.edu.au

ACE

ANZCA NZNC Cultural Safety & Leadership Hui

26-28 February 2021
Waitangi Treaty Grounds, Bay of Islands, New Zealand

Haumi ē-i Hui ē-i Tāiki ē-i
To draw together as one, progress our common purpose

Ngātikimāwhiriua (ceremonial war canoe)
Waitangi Treaty Grounds

ANZCA

ANZCA | ASA | NZSA

Rural SIG meeting in association with the Mackay Anaesthetic Community (MAC)

Connecting the Islands

11-13 June 2021
Coral Sea Marina Resort, Airlie Beach, Queensland

ACE

ANZAAG
Australian & New Zealand Anaesthetists' Society

2021 ANZAAG Symposium
"Challenging anaphylaxis"

12-14 March 2021
Sydney Clinical Skills and Simulation Centre and ICC Sydney

ANZCA | ASA | NZSA

Combined Communication, Education, Wellbeing, Leadership and Management SIG meeting

"Failing to succeed"

9-11 July 2021
Riley Crystalbrook, Cairns, Queensland

ACE

Peter MacCallum Cancer Centre and Austin Health Perioperative Medicine Symposium

"Exploring new heights of excellence in perioperative medicine"

26-29 March 2021 | Peter MacCallum Cancer Centre and Austin Health, Melbourne
One day symposium plus optional workshops

Platinum sponsor
Edwards

www.pshaustralia.com.au

Peter Mac
Perioperative Surgical Home
Austin Health
The University of Melbourne

ANZCA | ASA | NZSA

PERIOPERATIVE MEDICINE SIG MEETING

"Perioperative Care: Collaborating against complications"

12-14 August 2021
Sofitel Gold Coast, Broadbeach, Queensland

The 9th Australian and New Zealand Symposium of Perioperative Medicine

ACE

Dr Alan John McLintic

1958-2020

DR ALAN JOHN (AJ) MCLINTIC died suddenly and unexpectedly of heart disease on 22 September 2020 aged 62. He was a consultant anaesthetist at Middlemore Hospital in Auckland and an honorary senior lecturer at the University of Auckland.

An old friend and colleague Leyla Sanai summed AJ up as “a consultant anaesthetist, academic teacher, medical ethicist, philosopher, talented artist, musician, bon viveur, iron man, marathon runner, swimmer, mountaineer, skier, rugby player, proud Scot, dry wit, sparkling friend, the cleverest person I knew”.

Alan was born of Scottish parents in Dar es-Salaam, Tanzania. His family returned to Scotland when he was a young boy, and he was raised in Dollar, a small town where he and his sister Anne attended the local school, the Dollar Academy. He was a very good scholar and went on to Glasgow University where he studied medicine. He was an allrounder who lived a full student life, enjoying the academic, sporting and social activities on offer. He was an active member of the rugby club and played the guitar in a rock band.

After university Alan remained in Glasgow where he worked as a junior doctor, a cardiology registrar, and then joined the west of Scotland training scheme. During this time he was a member of the “shock team” a medical retrieval team.

He continued to play rugby during his training, and after moving to New Zealand in 1994. He was described by the president of his rugby club as “...a talented rugby player and great team mate on the pitch and an enormously engaging and entertaining presence off it. AJ stayed loyal to the club contributing enthusiastically and easily earning two of the most prized of club accolades – a great tourist and a ‘coper’.”

AJ was extraordinarily talented in many spheres of his life. He embraced whatever he was doing with incredible energy and dedication. He was not driven by the need to impress others or any particular reward. Rather, the pleasure for him was in the journey that included learning and persisting until the job was done. And the standard was rarely short of excellent.

He started public speaking at university, and this continued through his career. His talks were keenly anticipated and did not disappoint. He would research the subject extensively and then deliver a talk which was as memorable for the delivery, as it was for the content. His dry wit, self-deprecating nature and ability to hold a broad audience meant that the listeners left feeling enriched and entertained. Alan was particularly good at exposing long-held beliefs as myths and explaining how these misconceptions are perpetuated.



Dr Alan McLintic

“We are so fortunate to have known him as a friend and a colleague. He enriched our lives and made the world we live in a better place.”

of his colleagues and friends have on their walls. In recent years demand for his work increased and it was exhibited and sold in local galleries. No doubt he could have gone on to make this his sole profession, such was his skill.

He started playing the guitar at school and played in a band in his high school and university years. The band stuck together in spite of living on different continents, and the most recent gig was at one of the member’s 60th birthday. AJ would fly back to the UK for these reunions. At home in Auckland he loved playing music with friends. He organised many memorable musical evenings which involved printing songbooks and encouraging everyone to join in, including those of us with lesser musical ability.

Alan was an accomplished endurance multisport athlete, competing in events for many years, (including the iconic Coast to Coast twice!) and until just months before he died.

His most recent sporting passion was for golf. His unbridled enthusiasm for playing and practicing was infectious and inspired a group of us to play regularly. The golf epitomised his pursuit of excellence, but he played primarily for the fun of it, and for the joy of forging a deeper connection with friends.

Despite his myriad talents, Alan was understated and modest. He could bring humour to the most mundane of topics. He loved relaxing with friends and discussing issues over a beer. He listened intently, and after due consideration he would respond with a worthy and insightful reply.

Alan was an extraordinarily talented man in so many ways. He was also a kind, generous and thoughtful human being. We are so fortunate to have known him as a friend and a colleague. He enriched our lives and made the world we live in a better place.

Dr Craig Birch, FANZCA
Middlemore Hospital, Auckland

One of the joys of his life included attending scientific conferences and sceptics meetings. He would return home fizzing with ideas which he would enthusiastically share.

Alan was a superb and respected clinician, but his most impressive legacy at work was his teaching. He would have had an influence on almost all the anaesthesia registrars training in the Auckland area over the past 25 years, having tutored the part 1 registrars at Middlemore every Thursday morning.

He taught the “gnarliest” subjects: physics, measurement and statistics. What was really impressive was that even after 25 years, he continued to tweak these tutorials, keeping them relevant and interesting. His recent sabbatical was dedicated to writing a textbook which covered this syllabus.

Alan started painting in the early 2000s, and in more recent years reduced his time at Middlemore Hospital to develop his career as an artist. He painted, among other styles, beautiful oil landscapes, which many



One of Alan McLintic's celebrated landscapes.

Dr Hubert Desmond O'Brien

1927-2020

DES O'BRIEN, AS he was universally known to his colleagues and friends, was an anaesthetist of great stature. His early publications in the *British Medical Journal* on fluothane a new (in 1956) non-flammable, volatile anaesthetic agent had a profound impact on the practice of anaesthesia. For the first time, the anaesthetist had a liquid agent which was non-combustible, relatively non-toxic and allowed rapid and clear headed recovery. It changed the practice of anaesthesia at the time and enabled significant advances in neurosurgery and much other surgery particularly where diathermy was required.

Des also was at the forefront in anaesthesia for cardiac surgery, first at St Vincent's in Melbourne and later at Prince Henry in Sydney and St. George hospital. He was a fine teacher. He held leadership positions in the Australian Society of Anaesthetists (ASA) and Faculty of Anaesthetists of the Royal Australasian College of Surgeons. He served with the Royal Australian Air Force and rose to the rank of Wing Commander.

Des was born in St Kilda in Melbourne in 1927, the eldest of five children. He entered medicine at Melbourne University in 1945 and graduated MBBS in 1950. He then became a resident medical officer at Launceston General Hospital in Tasmania in 1951 and 1952.

He started his anaesthesia training as a registrar in 1953 at the Royal Women's Hospital in Melbourne and then went on to work as a registrar at the Royal Melbourne Hospital in 1954-1955. The director of anaesthesia there was Dr Norman James. Norman James was a major figure in Australian anaesthesia, an excellent teacher and a pioneer of high quality anaesthesia. He had worked in England as an anaesthetist through World War II and was a good friend of Professor Sir Robert Macintosh, the first professor of anaesthetics in Oxford at the Nuffield Department of Anaesthetics, the foremost department in England and world famous.

While at Royal Melbourne Hospital Des obtained his diploma of anaesthetics (DA) in 1955. (He was later awarded his FFARACS in 1955 when the Faculty of Anaesthetists of the Royal Australasian College of Surgeons was established). At the end of his training at Royal Melbourne, prompted by Norman James, he successfully applied to become a Nuffield Dominion Scholar at the Nuffield Department of Anaesthetics, University of Oxford. He travelled to England where he joined the Oxford department from 1956-57. In 1957 he became first assistant to Professor Sir Robert McIntosh.

This was a game changer. Many of the world's leading anaesthetists and heads of departments had gained experience and training at the Nuffield Department in Oxford.

In his role as first assistant to Professor Macintosh, Des gained valuable research experience. He, along with Roger Bryce-Smith investigated the new non-flammable liquid fluothane which had been developed by the British company, Imperial Chemical Industries (ICI) in



Manchester. They first experimented with it on dogs to learn its behaviour and then used it on themselves to determine effective concentrations and safety. Their paper in 1956, together with parallel work by Michael Johnstone¹ in Manchester changed anaesthesia at the time.

Des prospered in Oxford and gained valuable experience in a wide range of anaesthetic areas. He and his wife Esma enjoyed the Oxford experience but it was not always easy. While a Nuffield Dominion Scholarship was prestigious it was not overly generous. The O'Briens had married in Australia in 1954 and arrived in England in 1956 with an infant daughter and soon had a second to care for. They did however enjoy life and made many friends.

Des returned to Australia in 1958 and joined the staff of St Vincent's Hospital in Melbourne as assistant director of anaesthesia. The director was Dr Ralph Clark who had himself been trained in Oxford so Des was right at home. Des remained at St Vincent's until 1966. He became a lecturer in anaesthesia at Melbourne University and was also able to practice some private anaesthesia.

At St Vincent's Des participated in the development of cardiac surgery at the hospital. Des also began a busy private practice during these years and joined the "Albert Street Anaesthetic Group". He practiced successfully in Melbourne for eight years.

However, in 1966 there was a complete change of direction. Des's wife Esma, originally from Sydney, was desperately homesick so the decision was made to move back to Sydney where they took up residence in Manly and made a new life.

The move was made easier because Des had established a reputation not only in Melbourne but in the Australian anaesthesia community. He had, while in Melbourne, been active in his profession societies. He had become Victorian chairman of the ASA and had joined the state committee of the Faculty of Anaesthetists of the Royal Australasian College of Surgeons. He was popular and Sydney anaesthetists were happy to assist his move.

He was invited to join the prestigious General Anaesthetic Services (GAS) group and became a visiting anaesthetist to St Vincent's Hospital, Sydney and later the Prince Henry and Prince of Wales Hospitals and to St George Hospital. He remained an anaesthetist to the cardiac surgery unit at Prince Henry Hospital from 1966 to 1992. His practice in Sydney soon prospered and he continued until he retired in 1998 – a total of 32 years. As in Melbourne he became heavily involved in teaching and the ASA and was at different times chairman of both the Victorian and NSW sections of the

ASA. He was a member of the many working groups of the ASA and in retirement founded the Retired Anaesthetist Group and was its first chairman.

In recognition of his many contributions in 2005 Des O'Brien was awarded the ASA Presidents' Medal.

Sadly, his marriage to Esma did not survive and they separated and divorced in the 1970s. They had five children together, Louise, Christine, Stephen, Annette and Luke.

In later years Des met and married Victoria Gilsean, whom he met as a theatre nurse at St Vincent's Private Hospital. They had a long and loving relationship over 37 years and they travelled widely together, often to Oxford but also to Europe, North America and the East. She cared for him to the end when he died peacefully aged 93.

Dr Donald C Maxwell, FANZCA
Past President Australian Society of Anaesthetists

References

¹Bryce-Smith R, O'Brien HD. Fluothane; A non-explosive volatile anaesthetic agent. Br Med J 1956; 50:15.

²Johnstone M. The cardiovascular effects of Fluothane. Br J Anaesth 1956; 28:392.

“His early publications in the *British Medical Journal* on fluothane...had a profound impact on the practice of anaesthesia.”

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Dr Geraldine Hill

1945 – 2020



GERALDINE HILL WAS born at King George V Hospital in Sydney on 30 August 1945 to Geoffrey and Thelma “Tommy” Hill.

She attended Ravenswood School at Gordon from kindergarten to being a prefect in final year and completing her leaving certificate in 1961.

She entered medical school at Sydney University in 1962 and for her residency years Geraldine chose Perth. After JRMO and SRMO years she returned to Sydney for a year at Royal Alexander Children’s Hospital. After several years away (including travelling from Nepal to Belgium) and with a diploma in child health, Geraldine changed to anaesthetics and did her specialist training at Winchester and Cardiff. After five years in the UK, Geraldine then returned to Sydney where she accepted a staff specialist anaesthetist position at Sydney Children’s Hospital, Randwick where she worked for 29 years until her retirement in 2006.

During her professional life she joined the Nepal Plastic Team of volunteers to operate on patients with cleft lips and palates and for two weeks each year worked under suboptimal circumstances to improve the lives of children overseas.

Outside of medicine, Geraldine had many interests, including reading, embroidery, craft, theatre and travelling.

Geraldine was a dedicated, skilful and caring doctor. Her work involved anaesthetising newborn babies for heart surgery, premature babies and children in critical conditions. She treated the sickest children in the state with unwavering dedication and compassion. She is well remembered for knitting booties for pre-term babies in intensive care. Her reputation was excellent, she exuded humanity, kindness, gentleness, generosity, respect, humanity, charm, passion and insight.

Geraldine will be greatly missed and will always remain held in high esteem by her friends, colleagues, and the countless patients for whom she has cared.

Dr Roslyn Ridgway and Dr Robert Turner

“Her reputation was excellent, she exuded humanity, kindness, gentleness, generosity, respect, humanity, charm, passion and insight.”

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¹ Forget P et al. *Anesth Analg*. 2010; 111(4):910-4. ² Thiele RH et al. *J Am Coll Surg*. 2015 May; 220(5):986.

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