

SurgicalNews

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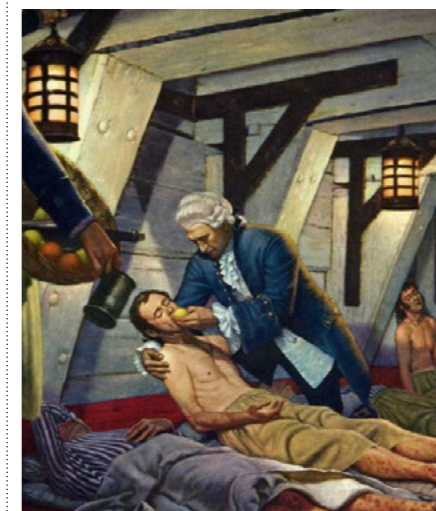
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President's perspective

When the pandemic hit us, our initial priority was the health and safety of our Fellows, Trainees, International Medical Graduates (IMGs) and staff. We worked quickly to adapt to the rapidly changing situation and implemented daily communication updates. It was important that our stakeholders heard from us and knew that we were being transparent about what was going on and that we were advocating on their behalf.

We have been in regular and close contact with the Chief Medical Officers (CMOs) and the other Colleges. Australia's CMO, Professor Brendan Murphy, has publicly thanked RACS and our specialist

associations for our cooperation and advice in these difficult times.

From the outset, we followed a set of overarching principles to guide our decision making. We agreed that we would act in the best interests of patient care and the community, and in consultation with our stakeholders and the healthcare systems in which we work. We wanted to make sure that we acted consistently, transparently and fairly across all our training and educational programs.

I empathise with our Trainees who, while having to cope with disruptions to their training, have remained committed to

providing the necessary and essential service for our communities. I understand their concerns about training and their anxiety about their ability to progress to achieve the requirements of the Surgical Education Training (SET) program.

I would like to again reassure them that no Trainees will be penalised and we have allowed for extensions of training where necessary for mandatory requirements to be met. Should an extension of training be necessary, the maximum time to complete SET will also be extended.

There is additional uncertainty for many Trainees whose next rotations require that they cross national, state and

territory borders for their changeover at the start of August. We have made a submission to the Australian CMO requesting an exemption from travel restrictions for the purpose of commencing their new training term and from post-travel quarantining on the basis of being essential health workers providing frontline surgical care to the public. We have also sought an exemption for Trainees' immediate family members and partners who would ordinarily accompany them.

Following the cancellation of all our training and educational programs, we are now in a phase where we can innovate by focusing on internal operational excellence and innovation.

We will hold the Fellowship Exam in a modified format in 2020. The Fellowship written examinations will be held in Australia and New Zealand on 8 September. The Fellowship examination viva/clinicals will be held in Auckland, New Zealand on 9-10 October and 16-18 October in Melbourne, Australia. We also committed to holding the General Surgical Sciences Examination (GSSE) before the end of 2020. Where specialty societies require them, Specialty Specific Examinations (SSEs) will be held before the end of 2020. However, no further Clinical Examinations will be held in 2020.

The College prides itself on its advocacy work for members and the wider community. This was more important than ever as we advocated for issues and causes that affected our Fellows, Trainees and IMGs.

The possibility of elective surgery being stopped arose in mid-March, when we advised our Fellows, Trainees and IMGs to prepare themselves for this. The College was part of the collective voice that called for an urgent freeze to all non-critical elective surgery. Continuing non-emergency elective surgery was unnecessarily putting patients and staff at risk of infection with COVID-19, while using personal protective equipment (PPE), which was then in short supply. The reduction also allowed health staff to be retrained and free up intensive care units and hospital beds.

As expected, the suspension of elective surgery had a serious implication for many surgeons' livelihoods and delayed surgery for many patients who were

suffering and understandably upset by the uncertainty over when they may have their surgery. The vast majority of surgeons acted with total professionalism adhering to the restrictions and setting an excellent example for our community.

We advocated for the resumption of elective surgery in Australia in a considered way, with strict observance of guidelines to prevent an outbreak of COVID-19. We continue to work collaboratively with the Australian and New Zealand governments on the staged resumption of elective surgery, and across various fronts. We thank our specialty societies, the RACS New Zealand and Australian states and territory offices and committees for their support and partnership.

We also advocated for the Australian Federal Department of Health to expand telehealth services to minimise the risk of spreading the virus. Along with improved access to specialist services for all patients on the Medicare Benefits Schedule, we highlighted the importance of sustaining a viable surgical private practice by allowing specialists to privately bill. Specialists need flexibility to exercise their usual billing practice while also providing care to vulnerable patients through bulk billing. We were pleased that in late April, our recommendation was taken up, no longer requiring specialist and allied health service providers to bulk bill telehealth items. We are continuing to advocate in the area of telehealth expansion and will request a review specifically in the context of rural and regional access to services for patients.

This year, our Annual General Meeting (AGM) was conducted by postal ballot, instead of a face-to-face meeting during the RACS Annual Scientific Congress (ASC). Given the cancellation of the RACS ASC earlier this year, we had a few alternatives to consider. We could either run a virtual AGM by video conference or conduct a postal ballot. While technology has lent its benefits during this pandemic, we faced limitations when considering having more than 7000 members dialling in to the same video conference. The RACS Council agreed that a postal ballot was the most efficient platform.

I was pleased to see the high level of engagement from Fellows participating in the AGM. Thank you for submitting your

questions as part of the 2020 AGM postal ballot. You can access our responses in the member section of the website.

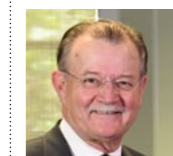
We should be proud of our research teams who provided evidence to the international health leaders and I know the CMOs have appreciated our input. Our Research and Evaluation incorporating ASERNIP-S team provided evidence for surgical practice during COVID-19 with rapid reviews on guidelines for safe surgery, surgery triage and the use of PPE. The Clinical Trials Network of Australia and New Zealand, which is part of an international collaboration, also provided valuable information on how COVID-19 affected surgery.

We are committed to keeping our Fellows, Trainees and IMGs informed about COVID-19 and its impact on surgical education and beyond. I encourage you to visit our website and register for the webinars we are holding.

Looking back at how the pandemic changed College operations, I see the speed at which events unfolded, and how diligently our staff, committees and specialty leaders worked to keep up with changing circumstances. There are numerous lessons we can and must take away from this experience. We learned the importance of being flexible and adaptable, responding to the changing circumstances and evidence and above all being patient and kind to each other as we saw our lives change.

I want to thank College employees, specialty societies, Fellows, Trainees and IMGs, Council and committee members, for your resilience and flexibility during uncertain circumstances.

I am cautiously optimistic that we will soon see the other side of COVID-19. Our lives, personal and professional, may never return to "normal", but let's recalibrate ourselves to live as best as we can in our new normal, instead of looking to the past. ■



Mr Tony Sparnon
President

Nine years of great work for outgoing vice president

Surgical News talks to outgoing vice president Mr Richard Perry



Outgoing Vice President Richard Perry has retired after nine years as a councillor on the Royal Australasian College of Surgeons (RACS) Council.

Mr Perry graduated from Otago University Medical School in 1978, with an MBChB and a DipObs. After completing his General Surgery training in Christchurch, he completed two colorectal Fellowships – at Creighton University in Nebraska and the Mayo Clinic in Minnesota. He has been a RACS Fellow since 1986.

Mr Perry is the founder and director of Intus Digestive and Colorectal Care, where he leads a multidisciplinary team of colorectal surgeons, gastroenterologists, specialised nurses and dietitians who offer services in three locations across the South Island. He has also been a consultant surgeon at St Georges Hospital in Christchurch for 30 years, and was a pioneer in laparoscopic colorectal surgery in New Zealand. His lifelong interest in IT and health informatics led him to establish a practice management software development company.

Mr Perry was one of the founding directors of the Oxford Clinic Day Hospital

in 2004, and knows the importance of good administrative skills. “Governance is quite a sophisticated science,” he said. “You can practise with your head in the clouds as a clinician, and think you don’t have to worry about the money and resources that you use, but the reality is that you need to put some structure around it.” His on-the-job training, study and a series of courses have resulted in him becoming a Chartered Member of the Institute of Directors in New Zealand, and a Fellow of the Australian Institute of Company Directors.

“You’re a more effective contributor to a committee if you understand the process, how it works and what your role is,” Mr Perry said. Your job on a committee is to “collate opinions and come up with the best solution. Leadership needs open-mindedness and the willingness to work alongside people with other skill sets. I think it is about objective, constructive collaboration.”

“Being on Council is a privilege because you’re working with people who are putting the interests of surgery and the surgical community ahead of their own,” Mr Perry said. Of his time in office as vice president, he is particularly proud of the governance review and the One College Transformation. It’s a multi-year project, he said. “We had an in-depth look at how the College is run and how its processes and relationships work to achieve its objectives. We aim to have a College that is more agile and responsive, with less cumbersome decision-making and better communication both internally and externally. We’re making good progress engaging the states, territories and New Zealand committees and boards into a more decentralised structure with broader engagement.”

Another important project was the initiation of a review and refocus of the international activities of RACS. The goal was the creation of a platform with a consistent and visible footprint to improve engagement with international colleges as well other organisations, such as the World Health Organization, the Lancet Commission and the G4 Alliance. The new International Engagement Committee will take this forward. “There is still a lot to do,” Mr Perry said, “but it’s in good hands.”

While looking forward to more time with friends and family, Mr Perry said he will miss and has “appreciation and respect for the enormous commitment of so many surgeons doing things for the College with the various committees”. The amount of time these surgeons give to their profession, supporting their colleagues, and producing resources for Fellows and Trainees is often not appreciated, or even noticed by a number of our colleagues, he said. “They do it because they’re passionate, and that’s pretty special.” RACS Fellows also make an enormous contribution to surgical education and training in low and middle income countries in the Pacific and Asia, Mr Perry said, and he has enjoyed the privilege of helping Myanmar surgeons introduce surgical skills training courses.

Dr Julie Mundy has succeeded Mr Perry as vice president. “I was delighted that Julie was elected to the role. I have enormous respect for her governance and leadership skills, which will be of great benefit to the College as it rises to the challenges coming out of COVID-19.” ■

Welcome to our new vice president

Surgical News talks to new vice president, Dr Julie Mundy



In mid-May, Dr Julie Mundy quietly stepped into the role of vice president at the Royal Australasian College of Surgeons (RACS). This is the first time in the College’s 93-year history that an Australian female surgeon has been elected Vice President of RACS. New Zealand surgeon Dr Catherine Ferguson was vice president from 2017–19, and Mrs Anne Kolbe, also from New Zealand, was vice president from 2001–03 and president from 2003–05.

Dr Mundy is a pre-eminent Cardiothoracic surgeon at the Princess Alexandra Hospital (PAH) in Brisbane, and an Associate Professor in Surgery at the University of Queensland. She completed a Fellowship in General Surgery at the PAH, followed by a Fellowship in Cardiothoracic surgery at St Vincent’s Hospital in Sydney.

In 1998, when Dr Mundy was working in Sydney as a Cardiothoracic and heart–lung transplant surgeon, an opportunity arose that would see her return to Brisbane and head up a new Cardiothoracic surgery unit at the PAH.

“We started off small, but within four to five years we were the second largest in Australia,” she said. In 1998, as founding director of the Cardiothoracic Surgery Unit at the PAH, Dr Mundy was working full-time, with one visiting medical officer and one operating theatre. By 2013, the unit was treating 1050 patients a year, had two operating theatres and six surgeons, and had reached the remarkable achievement of 10,000 operations over 15 years.

In 2018, after 20 years as director, Dr Mundy stepped aside. “I think 20 years as director is long enough,” she said. “I’ve always been a strong believer in succession planning – that you build a team and prepare them to step up to the next level.” Dr Mundy is particularly proud of creating a unit that is sought after by Trainees. “Our Trainees get to preference where they’d like to work, and we seem to be a popular place for them to want to come and train,” she said. “To have taken the unit from nothing to a good supportive training environment is something I’m proud of.”

Another quiet achievement for Dr Mundy was writing the chapter “Aortic valve, aortic root, left ventricular outflow tract and pulmonary valve” in the first edition of *Gray’s Surgical Anatomy*.¹ Published in December 2019, Elsevier describes its authorship as “expert surgeons in collaboration with a world-renowned anatomist”.

Over the past four years Dr Mundy has acted as treasurer of RACS, a role she has loved. “It’s an advantage to have some understanding of accounting to do it,” she explained. With an MBA (Master of Business Administration) majoring in health services administration and accounting under her belt, as well as

her surgical knowledge, Dr Mundy’s contribution to the administration of the College has been significant.

Regarding her new role as vice president, Dr Mundy said COVID-19 is going to have “quite a significant impact” on Fellows, International Medical Graduates (IMGs) and Trainees, and plans the College had for the coming year will likely need to be modified. “There are obvious impacts for Trainees, especially around exams and courses we’ve had to cancel, which we hope to re-establish later in the year,” she said. There’s also going to be a major impact for “the younger Fellows who generally go overseas at the end of their training. They’re probably not going to do that next year, or won’t want to,” she added.

Dr Mundy expects the next 12 months will be dedicated to supporting Trainees, IMGs and Fellows. “Fellowship time is growing-up time – post-training where you’re starting to find your feet,” she said. “We’re going to have to make sure we provide support within Australia for those people.” Also, some of the restrictions on private operating mean a lot of Fellows are suffering some disadvantage, she added. “So rather than embarking on too many new pursuits, I think our next 12 months will need to be supporting our people to get through this difficult time.” ■

REFERENCES

1. Brennan P, Standing S, Wiseman S (eds). *Gray’s Surgical Anatomy* 1st ed. Amsterdam: Elsevier; 2019. Available [here](#).

COVID-19: the College's response

Surgical News interviewed the Royal Australasian College of Surgeons leadership team on the organisation's response to COVID-19. Read more about their perspectives and learnings on dealing with the impact of the pandemic.

Chief Executive Officer

Royal Australasian College of Surgeons (RACS) Chief Executive Officer John Biviano says the organisation, like many others, was hit hard.

"Unprecedented times call for unprecedented measures. We had to take actions that we would never have thought possible. We went fast and early carrying out our safety measures. We started by cancelling all College events and activities. This was to reduce the risk of unnecessary infection to our members, something that would place pressure on our health system.

"The decision to stop our education and training activities not only impacted on the education journey of our Trainees and International Medical Graduates (IMGs), it also meant that our staff had to work from home. From an operational perspective, working remotely was necessary to reduce the chance of infection spreading within our workforce."

The Executive Leadership Team communicated clearly and promptly to both College staff and members, letting them know what actions the College would take before we carried them out.

"We hoped to lead and promote connection in a time where fear and anxiety was rampant. The pandemic has shown how RACS can respond swiftly and purposefully on behalf of its members and wider community to influence and

advise government. It was pleasing to see RACS' leadership being noticed and valued."

John added that he was impressed with how quickly everyone adapted to the new world and new ways of doing things.

"It was pleasing to see how everyone – our members, specialty societies, Council, management and staff – worked so collaboratively together to get things functioning as smoothly as possible in unusual and challenging circumstances. I thank you all for your commitment and great effort. Together we have made RACS a more dynamic organisation today and into the future."

Operations

The reality of working from home presented the College with the challenge of ensuring staff would be able to support our members as productively as we would while working in the office.

"Cancelling all our events meant there was a large volume of refunds to process. This was new to us, and we were not set up from a banking or manpower perspective. I want to thank our Fellows, Trainees and IMGs for their patience and understanding," said Emily Wooden, Chief Operating Officer and Deputy Chief Executive Officer.

"We did not carry over to our members any of the additional fees and charges applied to us, but the refund process took much longer than it normally would have. For that, I sincerely thank and appreciate our members for their support."

By late March the entire workforce was working remotely across New Zealand and Australia. "It was of utmost importance that we had strong cyber security measures in place, recognising that keeping our member information confidential was critical," said Emily.

"We provided early information on video

conferencing to medical practitioners who needed to use telehealth for consultations. Security was imperative.

"We also had to manage a level of worry and anxiety that College staff harboured about continuing to travel to their offices. Conversely, there was concern about the loss of personal connection by working remotely."

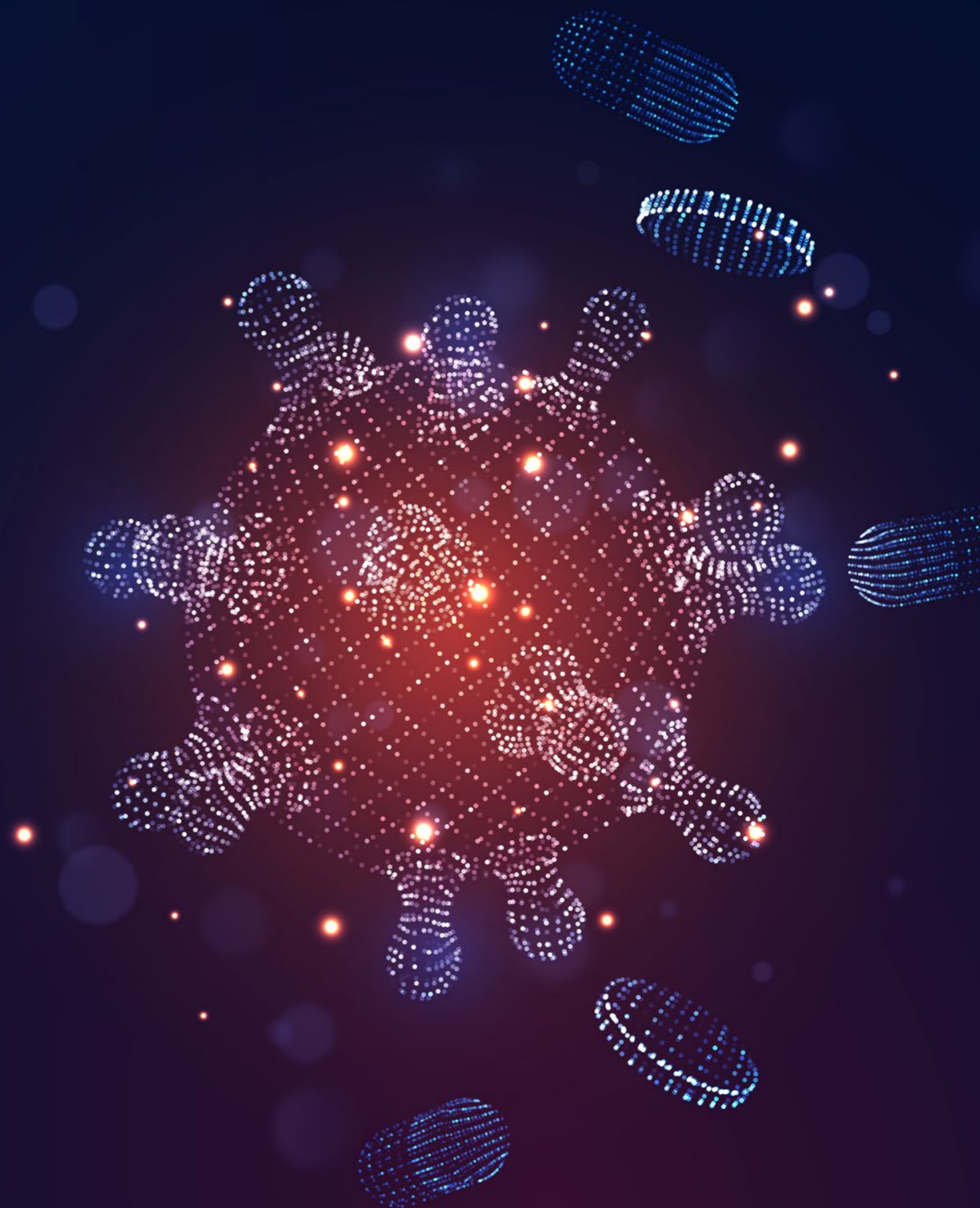
The pandemic brought a period of sustained economic crisis that will have a lasting effect on the economy, communities and the way we work. "The College is not immune to these changes and we worked hard to avoid these outcomes. Both Australian and New Zealand governments enabled workplaces to take decisive steps to protect jobs and organisational viability.

"We explored the options provided by government, and managed our expenditure and cash flow diligently with initiatives such as rental relief," said Emily.

"We have a team of honorary advisers with specialist financial investment expertise who meet during the year to monitor our \$70 million capital corpus funds scholarships, among other expenditures, through the Foundation of Surgery.

"These honorary advisers have been able to support Council and the Executive Leadership Team in navigating a fluctuating stock market. We appreciate their expert advice, which is provided pro bono because they value the important work our Fellows and the College do for the community.

"Our portfolio has tracked better than the benchmarks, which only highlights the value of our team of advisors from the community, who assist our surgeons in managing technical areas outside of health. ►



“We appreciate the support and patience that our Fellows, Trainees and IMGs have offered us during these challenging times. Looking to the future, we have learned many lessons that we will bring with us into the new normal.”

People, Communication and Technology

The COVID-19 pandemic brought a new set of challenges to the employees of RACS, including those staff who work in People and Culture, Communication and Information Technology. “These groups are the key ‘enablers’ for the College as they provide the essential support to those staff that work directly with our members. By supporting our staff we are supporting our members,” said Sophie Lukeis, Executive General Manager, People & Culture.

Communications

The need for responsive, empathetic and frequent communication was paramount for both staff and the broader membership. In a rapidly changing situation like COVID-19, communication was key as both our members and staff looked to the College for leadership, information and reassurance. “We started daily communication, with updates on the situation as we got them,” said Sophie. “We wanted to make sure we were transparent by sharing all the information we had and communicating decisions as soon as we made them.”

People

As we responded to the direction provided



by governments in both New Zealand and Australia our main priority was to quickly provide our staff with the tools and resources they needed to stay connected and productive in their roles during what was for many a very overwhelming period. “I was and continue to be impressed with the resilience and open-mindedness of our staff,” said Sophie. “We are fortunate to have a passionate group of employees who take their responsibility to support our members incredibly seriously and this became even more apparent during this pandemic.”

New ways of working

It was certainly a challenge to transition an entire workforce over two countries

to remote working but we achieved it in a short timeframe with amazing success. Fortunately, our One College Transformation Program had already begun paving the way for digital collaboration through the Microsoft suite of products. The IT teams responded swiftly and pushed through adoption and innovation in a very short space of time.

Microsoft Teams has been a huge success in providing the College with the best communication and collaboration tools in the market. “I’m really proud of the way all of our teams have adapted and responded. I have no doubt we will carry this energy and flexibility into the ‘new normal.’”

COVID-19 webinars

RACS is keeping our Fellows, Trainees and International Medical Graduates up-to-date with the latest development and information pertaining to COVID-19, surgical education and beyond.

Future session registration links as well as links to previous session recordings (when available) can be found [here](#). You can view recordings of the following sessions:

Course
COVID-19 webinar focusing on Personal Protective Equipment featuring Australian Deputy Chief Medical Officer, Dr Nick Coatsworth
Impact of COVID-19 on Specialist Pathway: Your Questions Answered
COVID-19 and Surgical Trainees: Your Questions Answered
COVID-19 and the Fellowship Exam
COVID-19: Pre-SET and Early Exams
Impact of COVID-19 on Surgical Education & Training: Your Questions Answered

This page will be updated with any new COVID-19 sessions as they occur.

COVID-19 information hub

RACS has been monitoring the outbreak of COVID-19 and complying with advice and instruction from our governments. We set up a COVID-19 information hub on our website to provide a place for our Fellows, Trainees, International Medical Graduates and staff to find out the latest updates.

You can access the hub via the banner on our homepage or [here](#).

It is important for the College to integrate the lessons learned during this period as we have gained great insight into new ways of working in a very short period of time. “We had an opportunity to focus on what’s important and prioritise our work more effectively,” said Sophie. “Looking at new ways of flexible working not only offers our staff an opportunity to be productive across a broader range of hours, it also means we can engage with our members in a more flexible way.

“This experience has certainly given us the ability to innovate and adapt much more quickly than we may have otherwise. I look forward to working with our staff to redefine the ways we work to better look after ourselves and our members.”

Fellowship Engagement

In the area of Fellowship Engagement, the College’s actions and activities have been guided by improving outcomes for the public, supporting the practice of surgery and the profession of surgery. “Our main priorities have been to support our staff and to ensure that they are safely able to continue working, while also remaining focused on delivering and adding value to our members,” said Etienne Scheepers, Executive General Manager, Fellowship Engagement.

We explored ways to provide greater recognition of the activities surgeons undertake to ensure these are reflected in Continuing Professional Development (CPD) requirements. “We also wanted to support Fellows who were having difficulty meeting their CPD requirements,” said Etienne.

“We focused on evidence-based advocacy and provided guidance for surgeons based on rapid reviews that were conducted by our Research, Audit and Academic Surgery (RAAS) team and published on our website,” continued Etienne. “Our library resources were also maintained and available through the website, which was important given how well used they were.”

Close collaboration with the states, territories, and New Zealand has been vital, particularly with the various committee chairs and the New Zealand board chair. Much of the COVID-19 policy response has been led at a local level, and we have done our best to ensure that our state and territory committees, and the New Zealand board, are well placed

to influence health policies and decision making, as well as support Fellows internally within their jurisdiction.

“At a national level we also provided support and advice to the President on matters requiring engagement with the Minister of Health and Chief Medical Officer,” said Etienne.

While much of our efforts have focused on navigating our way through COVID-19, the College has also kept sight of other advocacy priorities. “In June two new working groups will meet for the first time, to support the College’s engagement on Environmental Sustainability in Surgical Practice and Sustainability in Healthcare,” said Etienne (see page 53 for more details).

“The Environmental Sustainability Working Group made a comprehensive submission to the Bushfire Royal Commission, which was another excellent example of collaboration and coordination between Fellows, and our research and advocacy areas.”

The inability to conduct business face-to-face has been a challenge and we learned that a one-size fits all approach does not always work. We have been conducting teleconferences and other forms of virtual meetings for some time now, but previously this type of communication was mainly used as a voice transfer.

COVID-19 has effectively forced these meetings to become much more decision-oriented, and we worked hard to ensure that these types of meetings ran as effectively as possible. “Examples include our continuation of the annual business meetings, which would normally take place during the Annual Scientific Congress,” said Etienne. “We also held the inaugural state, territory and New Zealand forum, where we brought together state and territory chairs and the New Zealand board chair in a virtual format focused on engagement and decision-making.”

While the enhanced use of virtual meetings has been a significant innovation, their limitations have also become increasingly apparent. “Clearly, they will have an increased role post-pandemic, but I think we will also have a whole new appreciation for the value of face-to-face communication,” said Etienne.

As restrictions continue to ease, a key focus will be to establish a hybrid model that effectively integrates the best of both face-to-face and virtual meetings and maximises outcomes. “We have seen that teams do not necessarily need to be geographically co-located to work productively together,” said Etienne.

“While this has been the case for certain teams for some time now, it has proven that it can also be done for other teams where we had previously not given much consideration to this approach.”

Another key lesson is that individuals and work groups are often far more flexible than we tend to give them credit for. Across our portfolio many of our staff have had their roles significantly altered and been asked to perform tasks well outside their usual teams or scope of work. “I anticipate that we will continue to move further towards a more decentralised business model, so it is essential that we continue to provide the capacity for this to occur,” shared Etienne.

“I have been very impressed at how well they have adapted. This could potentially reshape our attitude towards recruitment by challenging us to think a little bit more creatively about how we can best use our existing resources and capabilities before looking externally.”

Education

The College’s Education portfolio adopted a four phased approach: stop, respond, innovate and emerge, in our response to the COVID-19 pandemic.

Phase one occurred in line with the rest of the College when it was announced that all RACS events would be suspended. “This had a big impact in terms of all the courses, events, exams and selection interviews that the College runs,” said Julian Archer, Executive General Manager, Education.

Phase two saw the Education Board form a set of overarching principles that would guide our response, working closely with the specialty societies and training boards.

“Our priority was to play our part in ensuring the safety of patients and the community, while also developing an understanding of what impact any decisions would have on our Trainees and IMGs,” said Julian. “We did not want to disadvantage anyone, but we had to ►



acknowledge that exams and courses and selection would need to be suspended.”

The innovation phase, which we are still in, centres around how we can find new solutions. Initially it involved mapping what could no longer be done, and what we could and should do differently. “We are trying to do this intelligently because, there is no doubt, we are skills-based and a lot of our face-to-face training is irreplaceable,” said Julian. “Where possible we are trying to augment this with different ways of learning.”

Another important principle has been open communication and transparency. RACS has been running a series of COVID-19 webinars with Trainees, supervisors and IMGs which has given us a new communication channel with these important groups.

“The pandemic has really brought into focus questions about how we can truly support great patient care while training the next generation,” said Julian. “We have tried to balance these considerations while maintaining the RACS Education principles.”

“For example, we have been supportive of Trainee and IMG redeployment, which

has understandably been of concern to our Trainees and IMGs but may still be a priority to deliver patient services in any significant COVID-19 outbreak. Ultimately it has been these types of decisions that we have had to make in the best interests of patients and communities.”

The College’s Education portfolio is currently at the tipping point between the innovate and emerge phases, and things are slowly getting back to some sense of normality. We are relaunching examinations including the Fellowship Exam between mid-September and end-November and starting courses again around the same time.

“While we are all hopeful that we will be able to emerge quickly, and any steps backwards will be minor, we really do not know, which makes emerging tricky. We have been assessing the ever-changing conditions so that we try to ‘change ahead of change’,” shared Julian.

Education has been almost entirely dependent on face-to-face interactions, with models that often required being able to fly anybody to anywhere. Moving forward we are looking at how we can reduce our dependence on travel and

begin to deliver education services more effectively at the regional level.

We are moving a further two of our courses online and technology will play a major role in connecting people and informing how we develop and modify our programs. The next phase will involve continued collaborating across Australia and New Zealand, and even across the globe, about how we can develop hybrid models that are better adapted to the needs of all participants.

“Our specialist assessment interviews for IMGs have all been moved to online platforms, which is very exciting given that previously IMGs had to travel to Australia for the interview, with no guarantees that they would be successful,” said Julian. “All our induction support for IMGs is also moving online, and workshops for supervisors will be done remotely.

“I have been impressed by the collegiate working between Fellows and Education staff and our ability to be resilient in the face of such change,” concluded Julian. ■

Study finds COVID-19 disruption will lead to 28 million surgeries being cancelled worldwide

In May 2020, the COVIDSurg Collaborative, an international collaborating group of surgeons and anaesthetists, projected that, based on a 12-week period of peak disruption to hospital services due to COVID-19, 28.4 million elective surgeries worldwide would be cancelled or postponed in 2020.

The modelling study, published in the *British Journal of Surgery*, indicated that each additional week of disruption to hospital services would be associated with a further 2.4 million cancellations.

The researchers collected detailed information from surgeons across 359 hospitals and 71 countries on plans for the cancellation of elective surgery. This data was then statistically modelled to estimate totals for cancelled surgery across 190 countries. Royal Australasian College of Surgeons (RACS) Fellows and Trainees have contributed significantly to the study.

The researchers projected that worldwide 72.3 per cent of planned operations would be cancelled through the peak period of COVID-19 related disruption.

In Australia, there were eight weeks of significant cancellations of most non-urgent elective surgery, from mid-March to mid-May. However, elective surgery has resumed, with varying but often still significant restrictions on numbers of cases. In total, this period of restricted workload has created a backlog of almost 400,000 cases that will need to be cleared after the COVID-19 disruption ends.

Professor David Watson, Clinical Director of the RACS Clinical Trials Network Australia and New Zealand (CTANZ) noted, “This worldwide collaborative project to understand the consequences of COVID-19 on surgery, including outcomes, service delivery and methods

to reduce risk for patients and clinicians, has brought surgeons and their teams together to collect high quality data from across Australia and New Zealand. It is extending the work done in the past three years to establish collaborative research in surgery, involving all grades of surgeons from medical students to consultants, and in all the states, provinces and territories served by Fellows and Trainees in our College.”

Dr Peter Pockney, a consultant surgeon in Newcastle, NSW, and a member of the organising committee for the COVIDSurg project, said, “COVIDSurg is believed to be the biggest collaborative study ever conducted in surgery. The contribution of RACS Trainees and Fellows in Australia and New Zealand has been vital in ensuring that the data produced and conclusions from it are valid and robust. The lessons learned will help health services plan, adapt and deliver high quality safe

services as the pandemic progresses.”

The study was led by COVIDSurg Collaborative members based in the United Kingdom, Benin, Ghana, India, Italy, Mexico, Nigeria, Rwanda, Spain, South Africa, and the United States, with contributions to the data collection from Australia and New Zealand.

The COVIDSurg Collaborative is a research network focussed on the impact of COVID-19 on surgical care. More than 5000 surgeons from across 120 countries participated in the COVIDSurg program. In Australia and New Zealand participation in the COVIDSurg Collaborative was supported by RACS CTANZ.

Full details of the study in the [British Journal of Surgery](#).

For more information about CTANZ, please contact CTANZ@surgeons.org





COVID-19 in New Zealand

We have been fortunate that Aotearoa/New Zealand, like Australia, has been spared the terrifying and heartbreaking scenes that we first witnessed in Italy, then other parts of the world. We are hugely relieved and grateful to live in a country whose government heeded the advice from its health experts and went “hard and early”. Our sympathies are with those families who have lost loved ones.

From the start of this crisis, and as New Zealand went into lockdown, one of our key concerns as surgeons was the need for national guidelines around issues such as the allocation of personal protective equipment. This would have saved time and effort of staff at every hospital who needed to devise their own protocols. RACS’ good working relationship with senior staff at New Zealand’s Ministry of Health ensured our voices were heard, particularly around the need for strong central guidance for District Health Boards (DHBs) as they moved to recovery and business continuity plans after lockdown.

Like Australia, elective surgeries in New Zealand came to a halt for about seven or eight weeks and this will take probably the best part of a year (or more) to catch up. Although DHBs have been given a significant amount of extra

funding to meet outstanding need, the challenge will be finding the time, staff and infrastructure to carry out the extra surgery. I am sure both the public and private sectors will rise to the challenge.

Inevitably delays will have some very serious outcomes for many patients and we are in no doubt that the impact of this pandemic will ultimately have greater adverse outcomes for those who are already disadvantaged. In Aotearoa/New Zealand, Māori and Pacific Island peoples already experience significant health inequities in non-pandemic times. Not only will these groups potentially experience inequities in terms of the virus itself, but also due to the secondary impact on non COVID-19 illnesses and disease, as well as disproportionate socioeconomic impacts. Te Tiriti o Waitangi (the Treaty of Waitangi) is critical to any framework developed around clinical care affected by resource constraints.

In Aotearoa/New Zealand, the surgical response to COVID-19 has resulted in some very positive changes. Within my own DHB, for example, there is now access to all-day acute operating and some skin lesion procedures have been relocated to community practices. The response has meant we have moved to patient-centred,

rather than budget-centred, practice for these areas. We are trying to ensure that such changes remain part of the “new normal”.

Many of us are now far more comfortable with virtual clinics and Zoom meetings and we are enjoying the benefits of less travel both in terms of our time and the impact on the environment.

As outgoing Chair of RACS New Zealand National Board, it was a privilege to play a leadership role during the pandemic and an unforgettable way to come to the end of my term. I would like to thank the Board for their support, and warmly welcome the incoming Chair, Philippa Mercer.

Kia kaha. ■



Dr Nicola Hill
Chair
New Zealand
National Board

Images:
Wood carvings from Counties Manukau Health.



Remaining vigilant

“We’ve been very fortunate that Australian and New Zealand Indigenous communities have not been significantly impacted by COVID-19,” Indigenous Health Committee Chair Dr Maxine Ronald said. Yet Dr Ronald and her colleagues remain vigilant, aware that in places like the Navajo Nation in the United States COVID-19 has surpassed New York and New Jersey in recording the highest infection rate in the US.

The virus’s disproportionate impact on the Native American tribe is one of several instances of minority communities across the US that suffer disproportionate harm. Black Americans in St Louis are being infected at a rate of 64 per cent, yet they only make up 45 per cent of the city’s population. In Michigan, African-Americans constitute 40 per cent of the death toll but only 14 per cent of the population.

The common denominator, according to Professor Lisa Cooper from Johns Hopkins University, is the environments in which minorities exist and the policies “we put in place that shape people’s opportunities” and “choices they have to make”.

Business as usual “is designed to create inequity because it’s not focused on those communities and groups of people who have the worst outcomes,” Dr Ronald said. “When you have resource constraints and reduced capacity, those resources are naturally going to be redirected away from those high-need groups because they’re already ignored.”

The Spanish Flu arrived in Australia in 1919 and the overall death toll of Indigenous Australians was not formally recorded. In New Zealand, Māori suffered heavily. Almost 50 per thousand died –

more than seven times the death rate of Europeans.

Dr Ronald stressed the importance of keeping good data about what’s happening with COVID-19 in Indigenous groups. “If we don’t, it means we won’t know what’s happening and won’t be able to direct services appropriately and act in ‘real time’,” she said, noting that it also keeps governments accountable.

The [Australian health sector emergency response plan for novel coronavirus \(COVID-19\)](#), published in March 2020, comprehensively outlines three stages. The plan’s “Principles” include shared decision-making between government and Indigenous people, community control, cultural safety and data and evidence. ■



I am writing to you with an urgent appeal.

I am following up with you today because I am worried about the direct impact of COVID-19 on Indigenous communities. I am also concerned about the increased barriers to critical Aboriginal and Torres Strait Islander health projects, like the ones that you and I have been working towards.

As a result, I have reached out to our friends at the Kimberley Foundation about this urgent need.

The Kimberley Foundation has boldly stepped forward and pledged to match every dollar you give to help us reach our \$60,000 goal.

This means every dollar of every donation will be doubled. Your gift will have double the impact to improve Indigenous health.

As you know, Aboriginal and Torres Strait Islander communities already experience significant health inequities and have poorer health and social outcomes compared to other Australians. We are gravely concerned that in these times of resource constraint and reprioritisation due to the COVID-19 pandemic, inequities can become exacerbated. This will have devastating long term effects. Not only will Indigenous groups experience inequities in terms of the virus itself, but also due to the secondary impact on illnesses and disease and the project outcomes we have been working towards.

I cannot stress enough how urgently we need your help.

I ask you to show your support and make a tax deductible donation today, before 30 June 2020.

Thanks to you, we have been supporting outstanding Indigenous young people, like Dr Lisa Waia, to consider a career in surgery. Lisa is passionate about using surgery as a tool for change in her community. She is also the first Torres Strait Islander doctor to receive a RACS Scholarship.

“I have found incredible role models and mentors to facilitate my journey through surgical training. I have come away with so much more drive and determination, which is something you need to get onto a training program.”

Please don't let determination like this go unsupported. There is so much potential in it – and it would be disappointing if it went unrealised because of COVID-19.

Now, more than ever, it is time to show our support for Indigenous health.

As you know, unlike other charities, the Foundation for Surgery does not deduct any administration costs from donations. One hundred per cent of your donation will be dedicated to Indigenous health, and today will achieve double the impact.

At no other time has health equality been so important.

But we cannot do it without you.

Donate to double your impact today. Let's actively shape a shared positive future.

Kind regards,

Mr John Batten
Chair, Foundation for Surgery

P.S.: As I write this, I am incredibly concerned about the devastating impact of COVID-19 on our Indigenous communities and projects. [Donate today to actively support urgent Aboriginal and Torres Strait Islander health projects and double your impact.](#)

Acting for equity in COVID-19

Tena koutou katoa

Restrictions on surgical practice, put in place by both the New Zealand and Australian governments, are necessary to gain control of the spread of COVID-19, but there will be inevitable adverse consequences to society. Although the virus is not selective about whom it infects, the impact of this pandemic will ultimately have greater adverse outcomes for those who are already disadvantaged.

In times of resource constraint, inequities will develop as services are prioritised and redirected. Māori and Aboriginal and Torres Strait Islander peoples already experience significant health inequities in non-pandemic times. In a rapidly developing crisis these inequities will be exacerbated. Not only will Indigenous groups experience inequities in terms of the virus itself, but also due to the secondary impact on non-COVID-19 illnesses and disease.

Māori and Aboriginal and Torres Strait Islander peoples have experiences of inequitable treatment with pandemic conditions. The Spanish Flu pandemic of 1918 resulted in a mortality rate for Māori at least seven times that of non-Māori, while the number of Aboriginal and Torres Strait Islander peoples lost to the pandemic will never be known as their deaths were not recorded by Australian health authorities. In some communities there were not enough people to remove the dead. Health care delivery was denied to Indigenous communities and Indigenous people were routinely turned away from hospitals

In the context of the COVID-19 pandemic Māori and Aboriginal and Torres Strait Islander peoples have an acute sense of the threat of devastation of their communities, language, customs and particularly their elders as holders of Indigenous knowledge. They have lived experiences of current and historical impacts of colonisation and resultant social, economic and health disparities.

In response, Indigenous leaders and

communities in both countries have taken action to combat the impact of COVID-19 and protect Māori and Aboriginal and Torres Strait Islander peoples' right to health and wellbeing as guaranteed under the United Nations' Declaration of the Rights of Indigenous People (2007) and Te Tiriti o Waitangi.

It is imperative that we learn from the lessons of the past and take into account best practices and evidence to avoid widening already significant health inequities for Indigenous people. Some ways we can do this include:

- ensuring equity is centred in all COVID-19 responses from the beginning and not retrofitted or added on at a later date
- demanding the collection of high quality ethnicity based data. Monitoring data collection and tailoring responses against best practice is an essential part of this pandemic response
- considering accelerated diagnostic and treatment pathways specifically for Indigenous cancer patients
- advocating for cancer screening programs, when they resume, to have an equity focus, e.g. reduced age of bowel and breast screening for Māori and Aboriginal and Torres Strait Islander peoples
- considering the long term, intergenerational and social impact of not treating certain surgical conditions, e.g. grommets in children, and set in place infrastructure to accelerate surgical services as soon as appropriate.

RACS has precedents in prioritising Indigenous health equity (Strategic Plan 2019-2021, Māori and Aboriginal and Torres Strait Islander Peoples Action plans, Reconciliation Action Plan 2019). We can and must act now to continue the aspirations of RACS to ensure that the pandemic response achieves equitable outcomes for Indigenous people in both our countries. As surgical leaders we have a responsibility and the ability to advocate for a response which guarantees surgical conditions and procedures are delivered to

Indigenous people equitably.

If we can do that, we will contribute to ensuring that all communities emerge from this global humanitarian and health crisis side by side.

He waka eke noa

We are all in this together ■

Dr Maxine Ronald, FRACS

This is an edited version of a statement released by the Indigenous Health Committee. The full statement can be found [here](#).



The development of the Māori motif, designed by Mr Mark Kopua (Te Aitanga a Hauiti, Ngāti Ira, Ngāti Porou), brings together several key elements to represent RACS' Māori health initiatives. Find out more [here](#).



This motif symbolises the Royal Australasian College of Surgeons commitment to help Close the Gap in Indigenous disadvantage across Australia. Find out more [here](#).



RACS Global Health supporting our Pacific neighbours

RACS Global Health continues to support our Pacific neighbours in the challenging times of COVID-19

RACS Global Health has held strong relationships with the Pacific Island nations for many years. The Department of Foreign Affairs and Trade (DFAT) funded Pacific Island Program (PIP) began in 1995, with the objective of working closely with Pacific hospitals and health clinicians to support clinical services development and health workforce capacity through visiting medical teams,



one-on-one mentorship, and regional training activities.

The development of COVID-19 has left most of the world scrambling to strengthen their health services so they are able to withstand the potential ramifications of the pandemic. During this turbulent time RACS Global Health is continuing our efforts in providing support to the Pacific by transitioning and adapting our programs to new ways of working. These will support the Pacific in their response to the current situation but also into the future.

With a number of the Pacific countries still in recovery from the measles outbreak that occurred in late 2019, the learning from this experience has seen many countries quick to respond, and as a result much of the Pacific still remains COVID-19-free.

However, requests for specialist clinical support from RACS have seen PIP, in collaboration with Pacific Community, Fiji National University and both the Pacific Associations and Australian colleges, come together to provide a series of online support forums. These have initially been targeted at COVID-19 but will expand into fortnightly sessions with topics that will capture many

aspects of clinical practice and patient management for nurses and surgeons.

The first two online training sessions took place at the beginning of May. RACS collaborated with the Pacific Island Surgical Association (PISA) to provide a surgical forum, which included a panel made up of RACS fellows as well as leading Pacific surgeons. There were 25 dial-ins from seven countries (Vanuatu, the Federated States of Micronesia, Solomon Islands, Samoa, East Timor, Fiji, Tonga), with between one and seven participants on each line. The discussions were fruitful, providing insights and opportunities for participants from each country to outline their experience and response since COVID-19 and the challenges that have been faced or may be faced during clinical procedures. In the same week RACS co-hosted a session for Pacific nurses in collaboration with Australian College of Operating Room Nurses (ACORN) and Pacific communities. The level of engagement with the online format from nurses from seven countries (Fiji, Kiribati, Samoa, Solomon Islands, Tonga, Tuvalu, the Federated States of Micronesia) was overall very positive.

“I am thankful for this opportunity to learn and upgrade my knowledge while I am taking care of patients, especially for COVID-19 patients” – Participant in Nursing Support Forum

Further sessions are planned on a two weekly basis and will include topics such as personal protective equipment, airway management, patient flow, environmental cleaning and self care and emotional support.

It is hoped that these sessions will support the Pacific health clinicians to be able to safely respond to COVID-19 positive patients while protecting themselves and the community. RACS Global Health will continue to be led by our Pacific counterparts in terms of what is needed at this time, and where we can best direct our support, with the hope of continuing to incorporate these new models of online learning and mentorship beyond this current pandemic.

RACS Global Health supports Timor-Leste’s emergency response to the COVID-19 pandemic

RACS has been supporting the development of health workforce capacity and clinical services in Timor-Leste since 2001. With the COVID-19 pandemic sparing few nations, RACS is maintaining its commitment to supporting the Timorese people by pivoting our existing programs and resources towards the country’s COVID-19 emergency response.

RACS’ existing program in Timor-Leste of postgraduate medical education and training was paused when a national state of emergency was declared in March, and then extended in April and May. Trainers and trainees were swiftly re-oriented to contribute to frontline response activities.

With Australian Government support and in collaboration with local NGO partner Maluk Timor, RACS Global Health is supporting the procurement of essential medical supplies and the training of Timorese doctors and nurses, first responders and logistics personnel in essential COVID-19 response skills to better protect patients, colleagues, the community and themselves. These new initiatives aim to minimise the transmission of COVID-19 and the impact of the disease on the community by supporting the Timor-Leste health sector to respond safely and effectively to the pandemic.

With funding support through DFAT’s Australian NGO Cooperation Program and the Foundation for Surgery, RACS procured vital medical equipment for infection prevention and the isolation, diagnosis and treatment of COVID-19 patients in Timor-Leste.

A total of 20 vital signs monitors were supplied to assist frontline health workers in the national hospital’s emergency department and the government isolation and treatment facility to diagnose and treat COVID-19 patients more effectively. In addition, 40 quality patient bed screens were fabricated locally for infection prevention and control.

The equipment has been installed in the national hospital’s emergency department, triage tent and the government isolation and treatment facility.

RACS Global Health is also supporting Maluk Timor to design and provide innovative COVID-19 training for the primary care sector, in collaboration with Timor-Leste’s National Institute of Health. The training has prepared 42 postgraduate family medicine doctors (in training or recently graduated from the RACS-delivered diploma course through the National University of Timor-Leste) to train other health staff and

health managers in a range of topics, including infection control, triage, case management, facility preparedness, waste management and handling the deceased.

The project successfully achieved its aim to train health workers in all five referral hospitals and all 70 community health centres throughout the country.

This ambitious project was designed and implemented by RACS’ partner Maluk Timor with funding from the Australian Government (through the Partnership for Human Development) and support from RACS, through the Australia Timor-Leste Program of Assistance for Secondary Services - Phase II (ATLASS II).

The project also supports a team of educators to deliver training in Psychological First Aid to groups of frontline health and ambulance staff, logistics personnel and funeral car drivers. The course equips people with basic tools to deal with people in distress or crisis, de-escalate conflict and debrief effectively after difficult experiences.

RACS extends its gratitude to the Australian Government for its support of these vital activities and congratulates the National Institute of Health, Maluk Timor trainers and the Family Medicine trainees on their hard work and enthusiasm at the front line of Timor-Leste’s emergency response. ■



Dr Annette Holian
Chair
Global Health Committee

Images:

Over page, top: Dr Sara, a trainee enrolled in the RACS-delivered Postgraduate Diploma of Family Medicine, practicing social distancing; bottom: Timorese doctors and WHO Timor-Leste staff practice hand washing for infection prevention control.



Speaking up: more important now than ever

All of us have been personally affected by the COVID-19 pandemic, but the effect across our profession has been variable. Some of us have been busier than ever. For others, elective surgery cancellations have had a significant and direct impact, including on our surgical Trainees. Some registrars and indeed consultants have been upskilling to enable them to assist in the management of COVID-19 patients. Due to collaboration between governments, health departments and the public, we have not as yet had to respond to the unprecedented healthcare demands made on many of our colleagues overseas.

Uncertainty, including about the future course and impact of the pandemic, is our new normal. We don't know what will change in health care delivery in the long term. We don't know how severe or long-lasting the economic impacts will be. We don't know if or how the practice of surgery will need to change, perhaps as a result of a lasting increase in the use of telehealth or as a result of patients' reluctance to see their doctors when physical distancing is required.

At stressful times, it's important to regulate our behaviour to safeguard patient safety. When we have less control over our environment, there is an even greater need to reflect on our practice and pay attention to the way we manage ourselves. In addition, if under stress, we can reach out for support or help with the RACS Support Program, provided by Converge International. We can take steps to protect our wellbeing.

Well before the COVID-19 pandemic, in response to publicity of surgeon bullying and harassment, the College led the way in cultural change, education and reporting. This included developing and delivering courses such as the e-learning module, Foundation Skills for Surgical Educators, Surgeons as Leaders and the Operating With Respect face-to-face course.

Many senior Fellows have now participated in RACS' Operating With Respect face-to-face course. It gives surgeons the skills they need to have peer-to-peer conversations that support patient safety, by encouraging self-reflection. If you've done the course, think

about downloading the app to freshen up your skills, re-hear suggestions for self-care and self-regulation, and be reminded of tips for initiating peer-to-peer conversations.

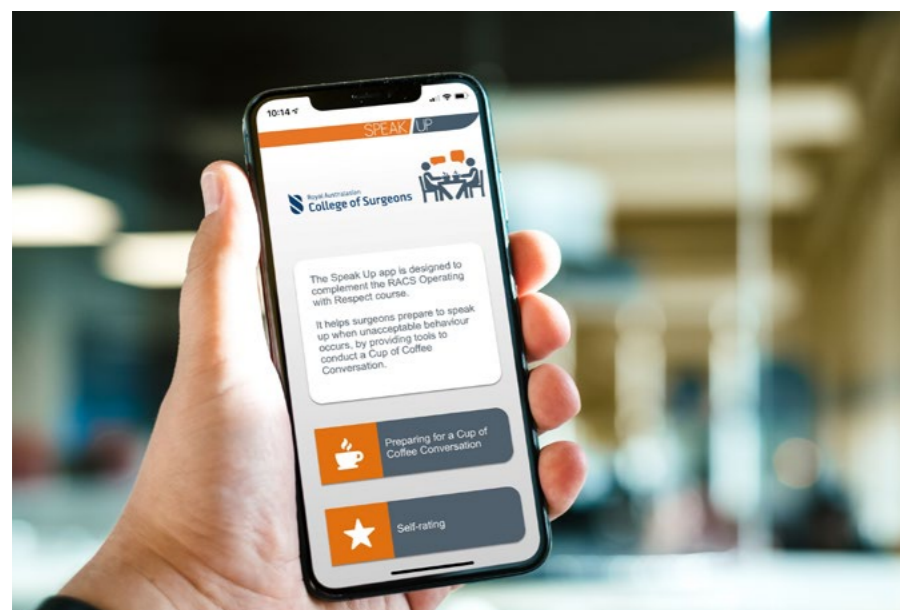
Now, more than ever, is the time to apply what we have learned. We need to speak up when we see behaviour we find concerning and be open to hearing from our colleagues when our own behaviour has slipped. As a profession, we rely on constructive collegiate feedback.

If you are a surgical director, there is additional responsibility. Poor surgeon (or other staff) behaviour, in terms of lack of respect, is demonstrably linked to adverse patient outcomes. As a representative of your employer, you are accountable for and the only person in a position to influence individual surgeon behaviour, as well as enhance a departmental culture of respect and collaboration. If politely (initially) calling out poor behaviour is the norm, a more cohesive department will be the result. The additional advantage is that it also role models good behaviour for the next generation, our surgical Trainees. ■

Download the RACS Speak Up app via [Apple iTunes](#) or [Google Play](#).



Professor David Fletcher
Chair
Surgical Directors Section
Past Chair
Professional Development



The United Kingdom (UK) has been one of many countries severely affected by the COVID-19 pandemic. As many Australian surgeons feel a strong attachment to the UK, either through having lived and worked here or having friends and family here, I thought I would describe what it is like to work in a surgical unit in the UK during these times.

I am working in a 900-bed hospital in the South West Thames region – about a 50-minute train ride from central London – for a year of my general surgical training (SET3). I arrived in late January, when concerns over coronavirus were only just starting to emerge. My first few weeks were spent on the busy Upper Gastrointestinal Unit with the usual elective surgical lists, clinics and on-calls. Like most people, I had no idea that the virus would reach this scale, or that, not long after arriving in the UK, I would find myself in a country in lockdown.

We had all watched the disasters in China, Iran and Italy unfold on the news, but it soon became apparent that the UK would also be hit hard, so the hospital prepared for the oncoming challenge. Almost all elective surgery was cancelled; the Colorectal, Upper GI and Vascular teams were all amalgamated. Most of our junior staff went to Medicine, Intensive Care (ICU) or Accident and Emergency (A&E). We discharged patients, and the management of many common surgical conditions was altered to avoid admission wherever possible. Our ICU

rapidly quadrupled and has now taken over the Recovery and Day Surgery Units. Most staff, including myself, underwent training on how to manage ventilators, just in case. Many subspecialty surgical registrars have been redeployed throughout the hospital. Some are helping to prone patients in ICU, which is a full-time job now.

The pandemic has brought many other changes to our practice. Any trauma call in a patient who has had symptoms of or exposure to COVID-19 requires the trauma team to put on full PPE before they can attend (a "COVID Trauma Call"). Due to the potential risk of aerosolisation, the decision was made to restrict laparoscopic surgery, meaning we are doing a lot of open appendicectomies in particular. Many trainees are doing their first open appendicectomy and many consultants are doing their first (in adults) for many years. We also operate in full PPE, which is hot and uncomfortable, but at least we have access to this equipment at present.

There has been a steady trickle of patients coming into A&E with common general surgical emergencies, but we are also being referred patients with COVID-19 who present with abdominal pain, which appears very common. We have also had patients with coronavirus on top of surgical pathology, and some have passed away from this.

Another challenge is maintaining a surgical service in the wake of staff

shortages, as many registrars and consultants have been off sick with coronavirus. Often, they are still too ill to work after their seven-day isolation period has finished. The newspapers here show the mounting death toll among National Health Service (NHS) frontline staff, and tragically we have lost people from our own hospital trust.

While we have had an average of 150–160 inpatients with COVID-19 at our hospital for most of April, we still have ICU capacity and haven't seen the same overwhelming volume of critically ill patients as other hospitals in nearby London (where the death toll in the worst four weeks was as bad as the worst four weeks of the Blitz). Thankfully, the numbers have started to decrease and we are making tentative moves to return to elective work, although there are still concerns about a second peak.

People have really rallied behind the NHS and other key workers, clapping every Thursday night and writing supportive messages in chalk on the pavement and the sides of buildings. While it has been a worrying and challenging period for us, as it is right across the world, it has been a real privilege to work here at this time. ■



Dr Charlie Coventry
General Surgery SET 3
Trainee

A revolutionary method to regenerate articular cartilage

Recipient of the Royal Australasian College of Surgeons Senior Lecturer Fellowship, Associate Professor Claudia Di Bella, and her team at BioFab3D, have trademarked a revolutionary new method of stem cell transplantation.

Founded in 1088, the University of Bologna is the oldest university in Europe. Fifteenth-century mathematician and astronomer Nicolaus Copernicus studied there. So did the 17th-century physician, Marcello Malpighi, for whom Malpighian corpuscles and Malpighian pyramids of the kidneys were named.

Associate Professor Claudia Di Bella, who was born in Sicily, set her sights



on studying Orthopaedic surgery at the world-famous Rizzoli Orthopaedic Institute. The Rizzoli, which is also a hospital, is associated with the University of Bologna and, after graduating with her MBBS in 2002 from the university, Associate Professor Di Bella set about gaining admission to the Rizzoli. She was successful and spent the next five years as a surgeon in training, and two years as a specialist Orthopaedic oncology surgeon. Gaining admission was a long shot, she said, but it was a rare opportunity to work in a prestigious hospital that focused solely on Orthopaedics.

Afterwards, in 2009, Associate Professor Di Bella commenced her PhD at the University of Bologna then, midway through, moved to Australia as an International Medical Graduate. By 2010 she was working as an Orthopaedic surgeon at St Vincent's Hospital in Melbourne, where she continues to work today. By 2012, she had completed her PhD in oncology and experimental pathology, and then became a Royal Australasian College of Surgeons (RACS) Fellow and a Senior Lecturer in the Department of Surgery at the University of Melbourne.

Along the way, Associate Professor Di Bella became an Australian citizen. "One of the things I love about Australia is that people really appreciate the knowledge and culture you bring," she said. It is in this spirit that she applied for, and was awarded, the RACS Senior Lecturer Fellowship. Associate Professor Di Bella leads a cartilage regeneration program of research at the University of Melbourne, and the RACS Fellowship funds allowed her to advance her research in

regenerating articular cartilage further. "It's a big clinical need," she said.

Senior Lecturer Fellowship leads to NHMRC Investigator Grant

In May this year, Associate Professor Di Bella was also awarded an Australian Government National Health and Medical Research (NHMRC) Medical Research Future Fund Emerging Leadership (EL) 1 Investigator Grant.

Investigator Grants combine separate fellowship and research support into one grant scheme, and the EL category supports the research program of the highest-performing early- to mid-career clinical researchers.

The overall success rate for Investigator Grant applications across all fields of medical research is about 14 per cent. This emphasises the difficulty academic surgeons face when trying to obtain funding for their research. It also demonstrates the groundbreaking level of expertise demonstrated by Associate Professor Di Bella to achieve this level of funding for her important work. "Academic surgeons are a little niche in the big world of research," she said.

Associate Professor Di Bella credits her RACS Senior Lecturer Fellowship for enabling her to set a good track record that demonstrated her excellence in the field. "This is what helps you be successful in winning nationally recognised grants for research," she said.

The BioFab3D

Associate Professor Di Bella's team is now working out of the BioFab3D, which is located within St Vincent's Hospital. The hospital has partnered with four universities – the University of



Melbourne, RMIT University, Swinburne University of Technology and University of Wollongong – to create a unique hub for innovation and translation.

As Australia's first hospital-based biofabrication lab, it is endeavouring to build biological structures such as bone, cartilage, muscles, nerves and organs. Associate Professor Di Bella's team is regenerating articular cartilage by using advanced biofabrication techniques and technology with the use of stem cells that are printed within a gelatinous scaffold and then cultured in 3D. The cartilage project is the largest program at BioFab3D.

"The great thing about the facility is that you have clinical input straight away," she said. "Everything that's researched starts with a clinical, surgical or medical question. It's not research for research, but a translational approach from the word go."

The researchers are part of multidisciplinary research groups that include clinicians; biochemical or biomedical engineers; experts in biofabrication and material sciences; and biologists, who look at the cell from the inside. This integrated approach means the team is able to look at the problem from different perspectives that enable researchers to "start creating a path to solve the problem," Associate Professor Di Bella said.

A different approach

The typical pathway for a stem cell transplant procedure involves taking cells from the patient, then printing and growing them in the lab while the patient waits at home for the cells to do their work and create tissue. The third and final stage is reimplantation into the patient.

The BioFab3D team is hoping to eliminate the second stage of this process because it's a big obstacle to Therapeutic Goods Administration approval, or to any process that involves tissue engineering. "Every time you take cells out of the body and somehow change them or do something, even waiting for them to grow in a lab, you encounter risks," Associate Professor Di Bella said. These include viral, bacterial and fungi infections as well as other worrying changes that "you need to prove are not there when you reimplant the stem cells back into the body," she explained.

The revolutionary new procedure that the team hopes to implement will require one simple step. It will take the patient's own stem cells, then mix them with a scaffold so they have somewhere to grow before putting them back into the same patient to regenerate their own cartilage.

"These cells would do the job we do in the lab – except this happens directly in the body of the patient," Associate Professor Di Bella said. "In the lab we use bioreactors to drive the cells towards the

direction needed. With this approach we let the human body be the bioreactor."

Success and the road to clinical trials

The results of the BioFab team's work have been remarkable, Associate Professor Di Bella said.

"If you look at the international literature, we're considered to be at the forefront of this kind of research and one of the groups leading the way."

The product has been trademarked and registered and, currently, talks are taking place with a patent lawyer about a pathway towards commercialisation. A clinical trial will commence shortly, she said.

Regarding her work, Associate Professor Di Bella said, "The work of an academic is absolutely never finished. Every answer you get out of a clinical or research question offers up 10 more open questions." The desire to understand "the depths and reasons why things happen" is significant, but it's also important to be circumspect about opening too many doors. On the other hand, she said, it's prudent to seek answers because they might open up other ways of doing things.

"You must never stop," Associate Professor Di Bella explained. "So many things have been achieved by people who just wanted to know more."

The question that brought the Australian medical community together

In April, the BioFab3D team set about creating a 3D face shield prototype that would address the worrying shortage of personal protective equipment in Australian hospitals and medical facilities.

The idea took off when Associate Professor Di Bella saw a photo of a 3D face shield in a Twitter group of European medical colleagues she belongs to. "I have a lot of contacts in Europe and Italy and I knew doctors, nurses and administrators were contracting COVID-19 because they were not prepared," she said.

Associate Professor Di Bella retweeted the photo to the BioFab3D centre manager, Cathal O'Connell, and asked him, "Can we do anything like that?" The following day they had a prototype and, after a few days of work, they had something to share with their community.

"Within a week, the whole bioprinting world in Australia came together to create designs that we shared," Associate

Professor Di Bella said. There was no interest in intellectual property, the engineers came to help the medical workforce, and "to chip in as much as they could", she added.

Within two weeks they had a prototype that was agreed on by all the medical specialties, universities and different groups affected. Groups around Australia started printing the face shields to distribute to the medical workforce. The RMIT lab alone printed hundreds, Associate Professor Di Bella said. "Maybe 500 were created for the St Vincent's community, and many were printed and distributed in Wollongong, Sydney and Queensland – it would have been a total of thousands. Thankfully, they are cheap to create, so they were able to give them to the medical community as a gift."

Associate Professor Di Bella said that hearing about her European colleagues' experiences with COVID-19, plus the benefit of having time to prepare, enabled



Designed by Freepik

the BioFab3D team to help. "It all started with a tweet that asked 'Can we do something?'" she said. ■

Educator and Special Educator Studio Sessions – Webinars

Each month, the Academy of Surgical Educators presents a comprehensive schedule of education events curated to support surgical educators. They provide insight, a platform for discussions and an opportunity to learn from experts.

Register for webinars [here](#).

Course	Start Date	Speaker
Number 8 wire approach to surgical education	Wednesday 24 June 2020	Mr David Bartle
Conflict without casualties - compassion skills for improved outcomes and wellbeing	Wednesday 8 July 2020	Mr Paul Larkin
Paradigm shift in surgical education	Tuesday 21 July 2020	Professor Jeff Hamdorf

The cost of accreditation

Across Australia and New Zealand, patients and their families expect the highest level of surgical care. The Royal Australasian College of Surgeons (RACS) is socially accountable for delivering surgical training programs accredited by the Australian Medical Council (AMC) and Medical Council of New Zealand (MCNZ).

The process begins with RACS being asked to provide a detailed report to the AMC demonstrating how the College believes it is reaching all the accreditation standards. This work draws on the expertise and time of a large number of Committees and RACS staff from across the organisation.

Following submission of a full report, the AMC undertakes a formal visit with at least two weeks of meetings in clinical settings and the College offices. During this time, the AMC panel interviews a wide range of RACS Fellows and staff involved in the development, governance and delivery of the training programs, International

Medical Graduate program and continuing professional development (CPD). The College is charged a fee by the AMC for this process which covers the AMC costs relating to the visits, including those of the AMC panel and AMC staff.

The main output of the process is a report from the AMC stating the outcome of the accreditation. This report in 2017 contained a series of commendations and recommendations and, importantly, 35 conditions which needed to be met in order for the College to maintain accreditation.

The accreditation process is therefore cyclical in nature and ongoing. Between major accreditation visits, usually every five years, the College is required to continue to innovate to fulfil the conditions and report annually on them. The annual report is a significant undertaking.

The process of (re)accreditation with the AMC is a significant and ongoing cost to the College.

Aside from the fees charged to the College, key costs include all the work College committees undertake each year when specifically addressing AMC conditions. RACS staff, especially in Education and CPD, spend a significant amount of time daily undertaking AMC accreditation activities. RACS Committees – especially but not exclusively the Education Board and Board of Surgical Education and Training – spend the majority of their time on AMC governance issues. The pro bono contribution of RACS Fellows (representing College committees) to the work of accreditation is a very significant resource, which if paid would be a substantial cost.

While it is currently difficult to calculate the exact costs related to retaining accreditation, we estimate that overall indicative costs over a five-year period are at least \$4.2 million. This does not include Fellows' pro bono time. ■

CONGRATULATIONS

RACS wishes to congratulate all the surgeons recognised in the 2020 Queen's Birthday Honours list.

For a list of recipients please visit our [website here](#)

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The defeat of scurvy

James Lind, Gilbert Blane and the British Admiralty, 1753–1795

In 1753, Dr James Lind published his canonical book, *A Treatise on the Scurvy*. Conventional wisdom suggests that with its publication, scurvy was cured. What the historical record actually shows is that the British Admiralty failed to act for a further four decades, during which time thousands of sailors in the navy and the merchant marine continued to die from “the scurvy”. What is the explanation for this apparently egregious negligence by the Admiralty and its Sick and Hurt Board (the Board) during the period 1753–1795, and what changed?

Lind was born in Edinburgh in 1721, at the age of 15 was apprenticed to an Edinburgh surgeon, and subsequently joining the British navy as a surgeon’s mate. In 1747, he was promoted to Naval Surgeon and in the same year he undertook the prospective randomised trial (outlined below) that has enhanced his reputation.

In 1748, Lind left the navy and established an Edinburgh practice, obtaining his MD and FRCP Edinburgh. During this period he

wrote his renowned book. In his treatise Lind outlined the magnitude of the impact of scurvy and reviewed the literature, of which there was a vast quantity, attempting to explain a maritime disease that had only appeared in the 15th century as seafarers ventured on long off-shore voyages. In 1758, Lind was appointed Chief Physician at the Royal Naval Hospital, Portsmouth, where he served for the rest of his life.

His prospective, randomised, clinical trial has achieved fame for its originality, as it was the first such trial reported in the medical literature. Lind began it on HMS *Salisbury* on 20 May 1747 with the results assessed after 14 days. He selected 12 scorbutic sailors who were nursed in the same quarters and received the same diet except each pair of sailors received one of the following treatments for their scurvy each day for the duration of the study:

Pair 1: a quart of cider

Pair 2: 25 drops of “elixir of vitriol” (sulphuric acid, ethanol, sugar, cinnamon and ginger)

Pair 3: two spoonfuls of vinegar

Pair 4: half pint of seawater

Pair 5: a paste of garlic, mustard seed, horse radish, balsam, myrrh applied to the gums

Pair 6: two oranges and one lemon

At 14 days only the pair on citrus fruits had recovered, the others being little altered.

Lind selected these treatments because his literature review showed proponents for each, including for citrus juice. While eventually Lind’s trial achieved fame, at the time nothing came of it and individual naval surgeons continued to practise as they always had – by personal inclination. There are a number of reasons for this: born in modest circumstances, Lind lacked patronage; he was in Edinburgh, 670 kilometres from Admiralty House in London; the book itself contained numerous other recommendations that obscured the seminal message of the trial.

The relative sparing of officers from

scurvy compared with ordinary seamen confounded naval surgeons. Lind describes numerous predisposing factors requiring intervention: damp bedding, moist sea air, stagnant air below decks, want of vegetables and greens, and hard dry naval food. He believed that for prevention, these factors had to be corrected. The truth was that while officers had better quarters, they also furnished themselves with additional food, at their own cost, even to the extent of shipping their own livestock. James Cook’s goat twice circumnavigated the globe with Cook before being retired to pasture at Greenwich.

Cook is noteworthy because of the infrequent occurrence of scurvy on his ships. Cook took a personal interest in the health of his crews, always shipping sauerkraut and vegetables before embarkation and purchasing and collecting fresh greens throughout his voyages. His fellow captains did not do likewise and their crews suffered the ravages of scurvy. The Admiralty asked Cook to study the effectiveness of a number of anti-scorbutics, including malt extract. Cook passed responsibility for these dietary investigations to his naval surgeons, who were not of the same inquiring mindset as James Lind and they achieved little. Of course, Cook’s was perhaps the wrong ship for such studies as the incidence of scurvy was low.

As a naval surgeon, Lind realised that ships at sea could not carry large cargoes of citrus fruit. His treatise recommended “rob” or inspissated citrus juice, made by simmering the juice for long periods. Although expensive, rob was tried by naval surgeons who reported that it lacked benefit – a black mark against Lind and his recommendations. We now know that simmering destroyed the vitamin C. The second problem arising from Lind’s citrus recommendation was that not all citrus is equal: the West Indies lime contains relatively little scorbutic acid. Ships re-victualled with West Indies limes still suffered from scurvy on long expeditions.

The Admiralty were under great political and social pressure to solve the problem. Dr Richard Mead, physician to King George II, had penned an authoritative book, *Discourse on the Scurvy*, in 1749, in which he stated that the principal causes were putrid air below decks and the malignant

effect of sea air. Another erstwhile naval physician with the Admiralty’s ear, Dr William Cockburn, wrote the highly regarded book *Sea Diseases*, which suggested a paste of traditional remedies spread on the gums – also featured in Lind’s trial. And there were many other physicians all pushing their nostrums as anti-scorbutics; others recommended sea water or cider. The College of Physicians reported that wine vinegar would be superior to “acid fruits”. (Thus vinegar was in Lind’s trial.)

The final breakthrough with the Board was achieved by two influential naval personal: Dr (later Sir) Gilbert Blane and Admiral Peter Rainier. Fascinated by statistics, Blane’s stern demeanour earned him the sobriquet “Chill”.

Appointed personal physician to the valetudinarian Admiral Lord Rodney, when Rodney took charge of the West Indies station in 1780, the dynamic and insightful Blane was soon appointed Fleet Physician. In that role he became familiar with scurvy and he realised it was due to a defect of nourishment and not the physical conditions of the seamen, contradicting Lind’s viewpoint. As Blane noted in a letter to a friend “malt and rob were useless but citrus juice works like what is vulgarly called a ‘charm’.” His memorandum to the Board in 1781 was ignored but with his appointment to the Board in 1795, Blane’s opinions held sway. His advice was reinforced by the incredible voyage of Rear Admiral Peter Rainier.

In 1795, Rainier was appointed admiral-in-charge of the East India station. Blane prevailed upon Rainier to ship an adequate supply of citrus juice to be administered daily to all hands. After a voyage of 19 weeks without landfall, Rainier reported to the Admiralty that he had reached India without a single case of scurvy – an unheard occurrence. Finally Blane (and Lind) stood vindicated.

The Admiralty relented in the face of this overwhelming evidence and citrus juice became routine. By 1804, the Admiralty was issuing 227,000 litres of citrus juice to seamen per year.

While it took 42 years before scurvy was conquered, perhaps the Admiralty can be excused for their belated response – Lind’s own work obscured the truth; ignorance and incompetence did the



rest. It required the extraordinary clear thinking of Gilbert Blane to put the matter beyond doubt and Blane should share the limelight with Lind for the defeat of scurvy.

When the First Lord of the Admiralty visited Portsmouth Naval Hospital in 1805, he asked to see a patient with scurvy – there was no such patient. Scurvy had been conquered! ■

This paper is based upon a presentation in the Surgical History program at the 2019 ASC. The RACS library now holds a copy of A Treatise on the Scurvy (3rd edit.), purchased with funds provided by the RACS Museum Acquisition Fund to which Fellows may make tax deductible donations. A list of references is available from the author.



Mr Campbell Miles
Chairman of the Heritage
and Archives Committee

Images:
Over page: From the series A History of Medicine in Pictures, produced by pharmaceutical company Parke-Davis in 1959 US National Library of Medicine/Pfizer

Top: James Lind, engraving by I. Wright after a portrait by Sir George Chalmers, 1783

Bottom: Sir Gilbert Blane (1747–1834) Martin Archer Shee (1769–1850) Royal College of Physicians, London

Fellowship Services Committee: connecting and supporting surgeons

Chair of the Fellowship Services Committee, Ms Ruth Bollard, talks about the role of the committee.

The role and reach of the Fellowship Services Committee may surprise some people. With 16 committees and interest groups reporting into Fellowship Services Committee, its scope is wide and multifaceted. The committees and interest groups include Medico-Legal, Pain Medicine and Surgery, Rural Surgery, Transplant, Trauma, Women in Surgery, Military and more.

Ms Ruth Bollard has just commenced her fourth term as Chair of the committee. A General Surgeon with interests in breast, endocrine and surgical oncology, she graduated from Liverpool University Medical School in the UK in 1988, and has lived and worked in Ballarat, in country Victoria, since 2006.

The role of Fellowship Services is “to connect, support and promote surgeons in their life and on their surgical journey,” Ms Bollard said. The services are not restricted to Fellows, but also extend to medical students, Trainees and International Medical Graduates. “We may pick up a surgeon who becomes a Fellow, but with most surgical sections, there is a sub-section group and there will be a special interest group that includes

medical students and Trainees,” Ms Bollard explained.

Biennially, Fellowship Services conducts a Surgical Workforce Census. We collect valuable data on work hours, public/private mix and wellbeing, including the pressure surgeons are under. Over the past four years surgeons have identified administrative regulations as the most extreme work-related stress. “Twenty-four per cent feel extreme pressure from that,” Ms Bollard said. “There’s also a high fear of litigation, and 9.6 per cent rated bullying and harassment as an extreme pressure.” If colleagues are showing signs of stress, Ms Bollard suggested that “having a quiet moment with them and asking ‘Are you okay?’” is an appropriate way to show support, as well as directing them to support networks they may not be aware of (read more from Ms Bollard on Surgeon wellbeing on page 32).

International Medical Graduates, in particular, “can have a lot of strain in their supervision and training pathways,” Ms Bollard explained. “They often have families with them and have moved countries.” They also tend to be in more isolated regions with remote supervision and, because they’re from a different culture, they may not be accustomed to asking for help.

The RACS census in 2018 revealed that the majority of surgeons were working 50 hours

a week. “We do know that in more rural and regional areas the workload is harder, so they’re in danger of working longer hours,” Ms Bollard said. Trainees have indicated that the optimised length of work in a week is about 65 hours. “So, it’s about the continuous work periods of more than 14 hours, and we have a lot of evidence to say it’s not good for patient outcomes or surgeons’ wellbeing,” she explained.

The RACS Visitor Grant Program, which is operated by the committee, provides funding to support the cost of travel, accommodation and registration for speakers and presenters attending functions for recognised societies and associations. However, COVID-19 has seriously affected their capacity to assist this year, Ms Bollard said. “We’ve had two meetings go ahead, but everyone else has had to cancel their meetings.” It’s been difficult for each society and association that had speakers lined up, she added, but “the College has increased the funding pool for 2021 and, hopefully, we’ll have bigger and better meetings next year.”

Despite a challenging 2020, the accomplishments of the committee are impressive. “It’s hard to nominate one when there’s so many,” Ms Bollard said. “The Rural Section has been particularly active looking at surgical generalism and workforce. We’ve seen the Indigenous Committee profile Indigenous health, and the Oncology Section has been rebooted with 10 societies involved in cancer surgery. Then there’s Women in Surgery whose call to arms ‘Don’t waste a crisis’ movement provided an opportunity for women to have a stronger voice within the overarching membership.”

At RACS October Council, the Wellbeing Working Group will submit a final report that represents a collegiate approach among four different specialist medical colleges. “We’re working to present a unified voice creating a defined framework of integrated data,” Ms Bollard explained of her impressive effort in getting inter-collegiate support from high-level people across the colleges. ■



Ms Ruth Bollard,
Chair of the
Fellowship Services
Committee.

Trauma training during a pandemic

The effects of COVID-19 on the healthcare system, elective surgery and our own surgical education and training is indisputable. The full impact on the national and global economy is yet to be seen and recovery is likely to take years. We, as Trainees who have never lived through a world war or great depression, are unlikely to bear witness to such upheaval again.



Necessity is the mother of invention and nowhere is this more apparent than in surgery during a time of crisis. New Zealanders Sir Harold Gillies (pictured above) and Sir Archibald McIndoe greatly improved the outcomes of pilots with burns across both world wars. Michael DeBakey helped develop the Mobile Army Surgical Hospital (MASH) units that reduced mortality in World War II and the Korean War. Franz Wietlaner lacked surgical assistants in the Dolomites, prompting him to invent the Wietlaner self-retaining retractor that is still used today. Robotic surgery systems are a more contemporary example, driven by the US military and NASA in an effort to preserve service personnel during military conflicts. In this article, the Royal Australasian College of Surgeons Trainees’ Association (RACSTA) would like to highlight innovations for our training that



was born out of the COVID-19 era and that we believe will be enduring.

Overcoming physical boundaries

Accessibility to teaching during COVID-19 has proved a challenge that institutions have passed with flying colours. The necessity of delivering teaching via electronic means has had the added benefit of overcoming longstanding issues with disproportionate access from rural and satellite hospitals. Pre-recorded sessions and video conferencing may change the face of surgical teaching forever. The Westmead Hospital Trauma Department rises to the challenge (pictured above and above right). In May, RACS also announced that 2020 will see a Fellowship Examination and that SET program selection would proceed in an altered format.

Learning new skills

As surgeons, we spend our life honing our skills to become masters of our craft. As Trainees, much of our time and focus is spent developing our technical skills. College Censor-in-Chief Associate Professor Phillip Carson said this has been a great opportunity to learn new and different skills. The Society of Critical Care Medicine in the United States of America now runs a complimentary online critical care training course for non-intensive care unit clinicians. EdX courses runs an online “Mechanical Ventilation for COVID-19” course from Harvard University. Our own immediate past Chair, Dr Imogen Ibbett FRACS, undertook a refresher course in arterial blood gas and venepuncture in preparation for COVID-19.



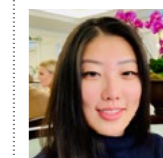
Meetings

Our RACSTA meetings are now held via videoconferencing. We work through our agenda items, intermittently muting the person who is on call that day. Videoconferencing has increased our ability to discuss, debrief and make decisions on items pertinent to Trainees more contemporaneously. Multidisciplinary team (MDT) meetings are not immune to this makeover as pathologists and radiologists share their screens with a click. Some may never attend MDTs in person again!

For those who have been affected, we hope that the innovation that was born out of this crisis will help you along the way, perhaps long after this pandemic is over. ■

Images:

Left to right: Sir Harold Gillies (1882-1960), Source: Royal College of Surgeons England, Wallace collection; Westmead Hospital Trauma Teaching with Associate Professor Jeremy Hsu.



Dr Linda Tang
Training Representative,
RACSTA

Recent developments in academic publishing

Copyright, open access, sharing and predatory publications

Academic publishing is an important tool for disseminating research outputs, one on which readers can rely because the manuscripts have gone through a rigorous peer-review process. There are several key aspects to this publishing process, which are important for prospective authors to understand, such as copyright, open access and predatory journal publishing.

Copyright is important as it protects an author's work. Publishers of journals advise the types of copyright for publication and if a signed licence is needed to publish. Authors can choose to publish "gold" open access: articles are freely available online to read, download and share for non-commercial use, but this requires an Article Processing Charge (APC). With gold open access, authors retain the copyright and the article is published under a Creative Commons licence. An alternative is "green" open access archiving, which allows posting of the submitted or accepted manuscript (pre-final version) on a personal webpage or, after a period of embargo (e.g. 6–24 months), on an Institutional Repository. This is typically compatible with non-gold open access or hybrid journals.

The College's journal, the *ANZ Journal of Surgery*, published by Wiley Inc. currently operates under a "hybrid" arrangement¹: the journal continues to publish primarily under a subscription

model that is compatible with green open access practices, while also offering authors the option of publishing under gold open access terms via Wiley's "Online Open" program. Authors electing to publish in this way, or those who are mandated to do so by the requirements of their funders, can pay an APC, retain their copyright by publishing under a Creative Commons licence, and ensure that their article will be freely accessible online. Notably, the decision to publish under these terms, and any payment details, are not known to the editors or reviewers of the journal, ensuring that no bias is incurred during the review and acceptance of articles. While gold open access does involve a payment, it is not a "pay to publish" system.

With users' needs in mind, some tools have been developed by publishers (e.g. Wiley Content Sharing, Cambridge Core Share) that enable authors to easily generate a link to an online, read-only journal article. This link can then be freely shared on social media sites and scholarly collaboration networks (e.g. Mendeley, Academia.edu and ResearchGate) to enhance the impact and discoverability of the research.

However, funders and other organisations are increasingly requiring research articles funded by them to be made freely available online. Across Europe an initiative of cOAlition S, Plan S, began



Cover for the 2020 Australia and New Zealand Journal of Surgery

in late 2018 to start making research publications open access. Some principles of Plan S include: authors/institutions retaining their copyright; funders or research institutes covering publishing fees; and funders developing robust criteria for high-quality open access journals/platforms/repositories and supporting their development if required. The target is for all peer-reviewed publications resulting from research funded cOAlition S members being published in fully open access journals by 1 January 2021.

In Germany, a €25 million deal was made with the publisher Wiley for around 700 libraries and research institutes to have access to journal content but also for their researcher publications to be made open access for no additional cost.²

In the USA in 2013, the Obama Administration produced a policy memorandum that directed Federal agencies with research and development expenditure greater than USD \$100 million to plan to make results of federally funded research freely available to the public, usually within one year of publication.³

There have been several moves to greater open access in New Zealand. In 2010 a statement was produced by the Council of New Zealand University Librarians to increase access to information by staff and students. A further statement has been published recently.⁴ The New Zealand Government approved an open access and Licensing framework (NZGOAL) in the same year to provide government guidance for agencies to follow when releasing copyright works and non-copyright material for re-use by others.⁵

The Australian Research Council mandated open access publication of funded research in 2013 and was then updated with consultation in 2017. In 2018, the National Health and Medical Research Council (NHMRC) stipulated that any peer-reviewed publication from NHMRC supported research be openly accessible (e.g. institutional repository or publisher website, subject repositories) within 12 months from the date of publication.⁶

It is clear that there is a strong global move towards open access. It is appropriate that the public should have access to research paid for with public dollars, hence the move by some governments and funders to require this. It is imperative for researchers to publish and for their outputs to be seen. There is a drive to publish in the highest-quality journals and publishing as open access improves the dissemination of the work, which can lead to higher numbers of citations. However, there is a cost to publishing which must be borne, if not by subscriptions, funders or through other arrangements then by the researchers themselves.

High-quality journals have relatively low

acceptance rates so it can be difficult for researchers to get their work published. In recent years there has been a large increase in the number of open access predatory journals.⁷

At times it is difficult to differentiate between genuine and predatory journals. The primary objective of predatory journals is to make money. Research quality, and dissemination of science, are secondary. In most instances the identification of predatory journals appears obvious. In more subtle cases, it can be helpful to refer to lists of reference journals that are considered, or suspected to be, predatory in nature. However, the exponential growth of this industry means these lists are fluid, and therefore difficult to maintain and manage (not dissimilar to computer viruses and malware). An alternative, more manageable approach is to create a list of known reputable journals for easy reference when suspicions arise.⁸

Predatory publishers and journals take advantage of this pressure on researchers to publish for career advancement or to meet expected published research output from their academic employers. Emailed submission invitations that promise rapid publication under the guise of being a respected journal can be very tempting in these circumstances. To a lesser degree, invitations that appeal to a researcher's sense of self-worth may also provide inducement for manuscript submission. There is frequent utilisation of tactics to deceive unwitting researchers into submitting work to predatory journals. These may include using journal names or websites that appear similar to bona fide journals, non-permitted use of names of well-known academics on editorial boards to proffer credibility, as well as the use of bogus indexing and impact factor metrics. Apart from frequent email harassment to submit articles, often outside one's field of expertise, a common feature of predatory journals is the lack of transparency regarding publishing costs.

The *ANZ Journal of Surgery* prides itself on having an Editorial Board of distinguished experts in multiple surgical and related disciplines and on employing robust, clearly defined processes of peer review. The *Journal* is listed within reputable medical indices and has a legitimate impact factor, as calculated by Clarivate. The impact factor is a widely-used

measure of the quality of a journal, as influenced by the articles it publishes, calculated by dividing citations by the number of citable articles. The *Journal* is published by Wiley Inc., a highly reputable publisher based in Hoboken, New Jersey, United States of America. Submitting authors and readers can be confident that our journal has the highest degree of academic integrity within the domain of surgical publishing.

See the *ANZ Journal of Surgery's* top ten most downloaded articles (from January 2018–December 2019) on page 33.



Associate Professor Wendy Babidge
General Manager
Research, Audit and
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Professor Julian A Smith
Editor-in-Chief
ANZ Journal of Surgery



Professor Henry Woo
Professor of Surgery
Surgery, Sydney Adventist
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Surgeon wellbeing: looking after ourselves and others

As we begin to emerge from the COVID-19 pandemic, rapid change and uncertainty has challenged us, and continues to challenge us, in ways we have not encountered before. We know that there will be long-term effects on the wellbeing of the medical workforce beyond the peak of this crisis and, now more than ever, it is important to take care of ourselves and our colleagues.

Compassion is one of the College's core values. Being compassionate to ourselves and to those around us is essential to our wellbeing. The concept of self-care and the actions we take to sustain or improve our wellbeing will be different for everyone. Listening with intent to others, showing empathy and being willing to support each other creates connectiveness. Research shows that this sense of connectiveness can be a powerful protective factor to the stressors we face as surgeons.

There are a range of resources and support services available to help you and your team make wellbeing a priority.

The RACS Support Program delivered by Converge International provides confidential counselling and support to all Fellows, Trainees, International Medical

Graduates, Global Health volunteers and our immediate families. You can access up to four free sessions a year with counsellors experienced in supporting medical practitioners for any personal or professional concerns.

In addition to a 24/7 telephone line, RACS members can make contact via live chat, an online booking form or the EAP Connect App. Sessions can be over the phone, in person or via videoconference. Extended business hours are available for appointments during the week and on the weekends during this peak period. Converge International's Coronavirus Hub contains resources and tips on topics including catastrophic thinking, mindfulness, parenting in a pandemic and maintaining emotional fitness.

We encourage all surgeons to have a GP for regular check-ups. Other support services outside the College include the Doctors Health Advisory Services across Australia and New Zealand and Drs4Drs.

A free micro activity called [5 to Thrive](#) is available on the College's Surgeons Wellbeing [webpage](#). The module encourages us to consider how the hours we work can impact our overall

wellbeing and to reflect on how we can carve out an extra five hours a week for self-care activities. The activity is eligible for Continuing Professional Development (CPD) Program credit points.

A new online resource called the [Pandemic Kindness Movement](#) was launched in April 2020 by the New South Wales Agency for Clinical Innovation. The website is curated by clinicians who are leading doctors' wellbeing experts and presents support options in the domains of Maslow's hierarchy of needs. It features online courses and toolkits covering self-care, managing anxiety, talking tips on COVID-19, the importance of sleep, and leadership resources.

As a profession, there is much more we can do to make doctors' health and wellbeing a priority. Let's look after ourselves, support each other and ensure that wellbeing is part of the culture of our workplaces. ■

The RACS Support Program, provided by Converge International, offers confidential counselling and support to Fellows, Trainees, International Medical Graduates, RACS volunteers and their immediate families. Support is free and available 24/7 in Australia and New Zealand.

Ms Ruth Bollard
Chair, Fellowship Services Committee

Wellbeing listening and reading

[Pandemic Kindness Movement](#)

[AHPRA's Taking Care podcast](#): Health Practitioner Wellbeing in the Pandemic Era and Beyond, May 2020

[Pandemic](#). JAMA. April 2020.

Shanafelt T, Ripp J, Trockel M.

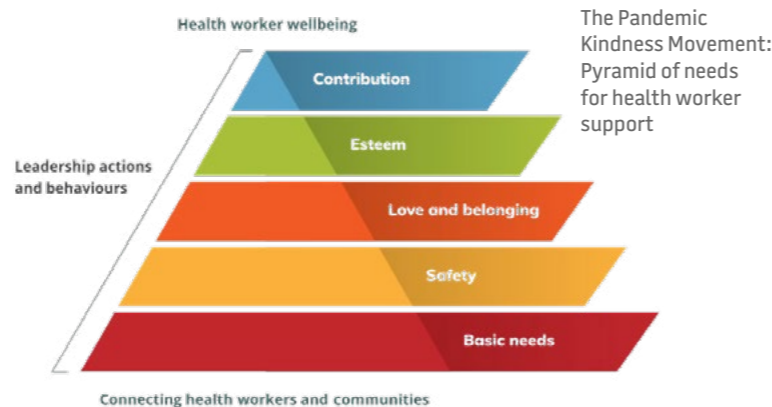
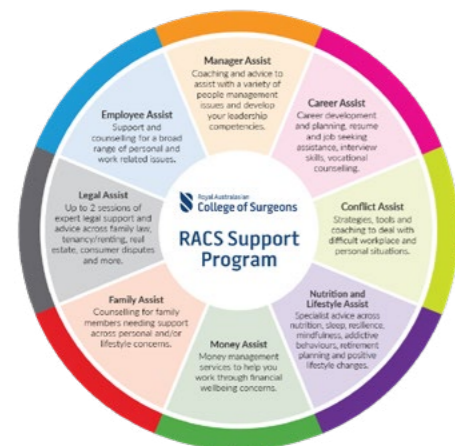
[Understanding and Addressing Sources of Anxiety Among Health Care Professionals During the COVID-19](#)

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Member of the NHS COVID-19 National Taskforce for Staff Support and Wellbeing

[Queensland Doctors Health Program resources](#)

Kidd M, and Rowe L. [Every Doctor: Healthier Doctors = Healthier Patients](#), CRC Press, 2018

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ANZ Journal of Surgery's top ten most downloaded articles (published between January 2018 and December 2019)

Article DOI	Article title
10.1111/ans.14757	'To a man with a hammer, everything looks like a nail' (Abraham Maslow)
10.1111/ans.14352	'Watch and wait' after chemoradiotherapy for rectal cancer
10.1111/ans.14479	A tale of two cities: prehospital intubation with or without paralyzing agents for traumatic brain injury
10.1111/ans.14714	Accuracy of administrative coding data in colorectal cancer resections and short-term outcomes
10.1111/ans.14754	Accuracy of multiparametric magnetic resonance imaging to detect significant prostate cancer and index lesion location
10.1111/ans.14817	Acknowledging and addressing surgeon burnout
10.1111/ans.15104	Addressing the ethical grey zone in surgery: a framework for identification and safe introduction of novel surgical techniques and procedures
10.1111/ans.14376	All 'complex' abdominal incisional hernia repairs using mesh must be drained: it's the law
10.1111/ans.14919	American Thyroid Association guidelines for the management of well-differentiated thyroid carcinoma
10.1111/ans.14892	Aviation-based teamwork skills work for surgeons: time for an 'aviation bundle'?

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Above: left to right: Alan Newton, Wood Jones, Charles Kellaway, Prof Huggett, Sir Cecil Wakeley, Hugh Devine, HG Wheeler, 1934. Over page: Standing: Prof HS Summers, Wood Jones, Alan Newton, Prof WA Osborne, seated: Prof William Wright, Newland, A Buckmaster, 1931.

Examinations at RACS – a brief overview of the early history

When RACS was formed in 1927 there were 40 Founders and 165 Foundation Fellows. The College adopted the practice of the American College, meaning that candidates for final Fellowship were elected following five years of postgraduate training and practice. By 1934, the criteria for Fellowship were extended. Candidates were also required to have a senior surgical qualification such as Fellowship of another college e.g. the Royal College of Surgeons of Edinburgh (RCSE) or a Master of Surgery, and pass a short oral examination or viva voce.

Primary Fellowship was a different matter and, as early as 1928, there was a Council resolution regarding examinations. It was decided that these would be conducted by the English College. Therefore, from

1931 to 1949 (1932 in New Zealand), primary examinations for Fellowship were administered by the RCSE. Fellowships by examination were awarded first in general surgery and, by 1934, in ophthalmology and laryngo-otology.

The early examiners were an auspicious group of individuals and some made the arduous sea journey from England to serve as an examiner. Sir Cecil Wakeley, who was an examiner in 1934, was a senior surgeon at King's College Hospital in London. Fifteen years later, he became President of the RCSE (1949-1954).

William Wright was Professor of Anatomy and Dean of the medical school attached to the London Hospital. He was also respected as an archaeologist and in the 1930s, worked in the round barrows of

East Yorkshire and on archaeological 'digs' in Gloucestershire.

The charismatic Frederic Wood Jones, appointed Professor of Anatomy at the University of Melbourne in 1930, was already in Australia and served as an examiner for the College from 1931, before returning to England in 1937.

There were a few local examiners such as William Osborne, Superintendent of the 1931 examination and Professor of Physiology and Histology at the University of Melbourne. Another physiologist was Dr Charles Kellaway, a student of Osborne's and Director of the Walter and Eliza Hall Institute of Medical Research.

In the 1930s, FRACS had been complementary to FRSCCE but by the

1940s, when the College moved towards its own examination system, it became a competing qualification. A report from Bill Hailes, Censor-in-Chief, to the Executive Committee of Council (April 1944) detailed a scheme for FRACS examinations. The following year, it was decided there would be a single Court of Examiners for the Final Examination (Australia) and two Courts of Examiners (Australia and New Zealand) for the primary examination.

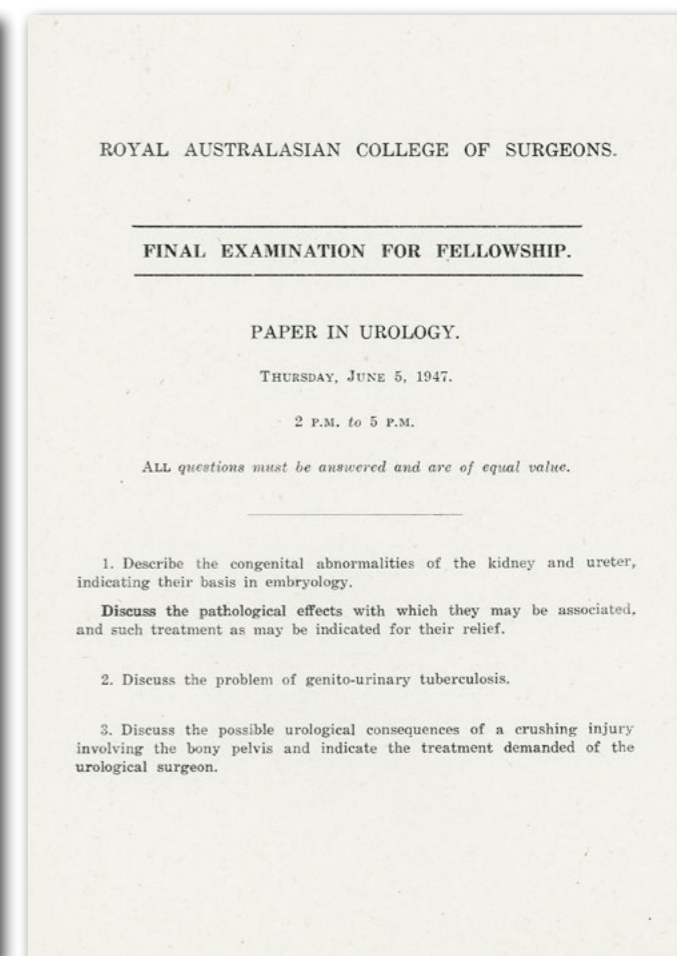
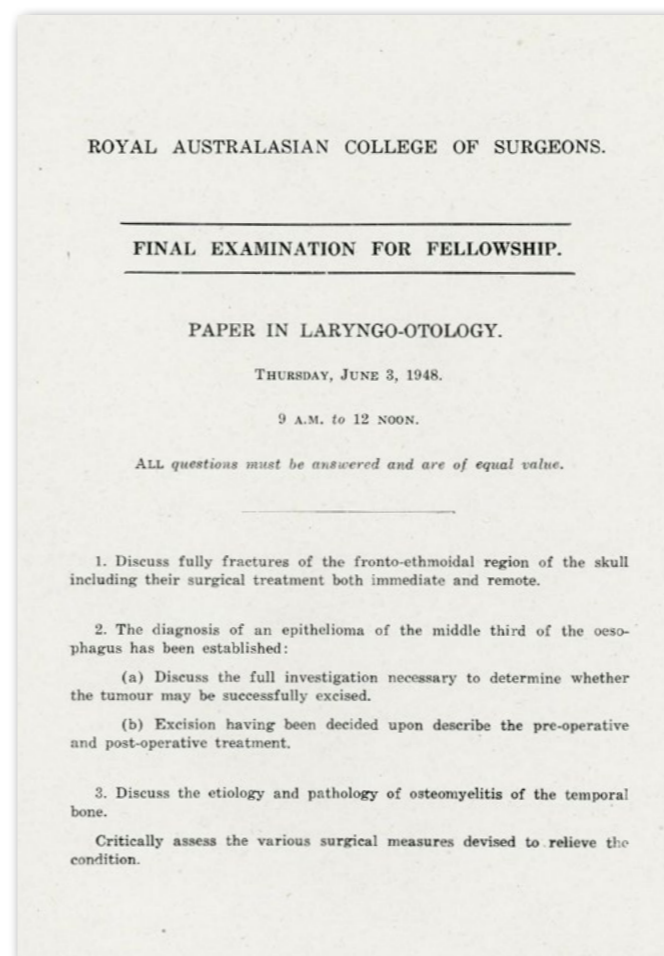
In June and December 1946, RACS held its first Final Examination for Fellowship in Melbourne. New Zealand candidates were reluctant to attend so in January 1948, the College established a New Zealand Court of Examiners and held an examination in Dunedin. By 1950 RACS had established its own primary examination. Examinations took the form of a written paper and a viva voce in anatomy, physiology and pathology. Candidates were also required to examine patients and demonstrate operative techniques.

The first Final Examination papers in the College Archive date from 1947 and include General Surgery, Obstetrics and Gynaecology, Urology, Orthopaedics and

Ophthalmology. Other specialties such as Plastic and Reconstructive Surgery, Neurosurgery and Paediatrics were added in the mid-1950s. Obstetrics and Gynaecology and Ophthalmology were removed from RACS' examination process when their respective colleges were formed in 1975 and 1995. Vascular surgery joined the list of examinable specialties in 1995.

As demonstrated by its early history, examinations at the RACS were an evolving system. In the technological age of the twenty-first century, the system continues to develop according to the changing requirements of the modern world. ■

Elizabeth Milford
RACS archivist



Celebrating the Art of Surgery in a Time of Disruption

RACS ASC 2021

RACS 89TH ANNUAL SCIENTIFIC CONGRESS

Monday 10 May to Friday 14 May 2021

Melbourne Convention and Exhibition Centre
Melbourne, Australia

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Relaunching the Annual Scientific Congress

Celebrating the Art of Surgery – in a time of disruption

Who could have predicted how 2020 has turned out? We are only six months into the year, and so much has already changed. All because of a virus.

Our community response to the threat of uncontrolled infections due to COVID-19 has been unprecedented. At the time of writing, we have successfully “turned the curve around” in both Australia and New Zealand. While there have been deaths, we have not seen the scale of suffering that has been seen overseas. We all hope it stays that way.

The changes that have been implemented to contain the spread of the virus have caused the greatest disruption our communities have seen this century. We have seen rapid and large-scale changes to the way we work, educate and socialise. In health care, we have seen changes to the way we deliver care, the way we prioritise care, and the resources we are able to utilise.

Our RACS Annual Scientific Congress for 2020 was cancelled as a result of COVID-19. We had planned a creative and energetic program and it was a difficult decision to cancel, but it proved to be the correct one.


The Melbourne team has now been given the opportunity to recreate this meeting in 2021. We are excited for the opportunity and we are planning an even more engaging program that will build on the original theme and also consider how creative and adaptive we can be when faced with a crisis.

“Celebrating the Art of Surgery – in a time of disruption” is the theme of the 2021 ASC. We will celebrate being together as a Fellowship for the first time in two years. We will celebrate our friendships, as well as the creative nature of our craft. We will celebrate the changes that we have embraced during this time of disruption and acknowledge the lessons learned.

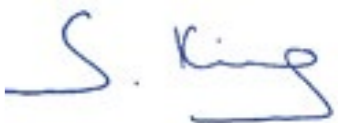
There is undoubtedly an art to what we do, as well as a science. It is that juxtaposition that also enables us to adapt in a time of disruption. We think this is worth exploring and celebrating – we look forward to celebrating with you.

We look forward to seeing you in Melbourne in 2021.




Professor Wendy Brown
ASC Convenor




Associate Professor Sebastian King
ASC Scientific Convenor

The story of *Gray's Anatomy*



Gray's Anatomy is one of the most famous textbooks in the English language, and one of a few widely known in popular culture. A copy in the bookshelf or briefcase was the *sine qua non* of medical students for more than a century after its first publication in 1858. It is still published, has been translated into more than a dozen languages and remains an authoritative text and reference for anatomists, surgeons and medical students.

Tragically, Henry Gray died from smallpox only three years after publication of the first edition, but the anatomy book he created has survived for 160 years and has never been out of print.

Henry Gray

Much of what is known of Gray's life is the result of the painstaking research of two independent biographers, British historian Dr Ruth Richardson and American author Bill Hayes. Gray was born in Belgravia, London in 1827 but little is known of his early life.

Henry Gray's father worked as a private messenger to Buckingham Palace, a position of significant social standing, so it is likely that Henry would have had a comfortable childhood. In 1845 he entered St George's Hospital as a medical student and quickly earned a reputation as a painstaking and methodical worker, one who learned his anatomy by making

dissections for himself. His fanatical work ethic and diligence caught the eye of the hospital's chief surgeon, Sir Benjamin Brodie. Gray won the triennial prize of the Royal College of Surgeons for an essay on the nerve supply to the human eye and in 1852, at the age of only 25, supported by Brodie, he was elected Fellow of the Royal Society for his work on the anatomy and functions of the eye and the spleen.

Gray's Anatomy

Gray finished his medical studies and qualified as a member of the Royal College of Surgeons, serving a year as house surgeon at St George's Hospital. He dressed and behaved like a gentleman and wanted to be a top surgeon in London.

In 1852, he was appointed as a demonstrator of anatomy at St George's Hospital. He was a lucid teacher and realised that the favoured anatomical text, Quain's *Elements of Anatomy*, was cumbersome (three volumes) and lacked accurate illustrations.

Gray conceived the idea of producing a well-illustrated textbook, in a single volume, and (importantly) affordable to the medical students at whom it was primarily aimed.

In 1855 he approached Henry Vandyke Carter, a younger colleague at St George's whom he knew to be skilled at anatomical drawings, to take a paid position assisting with and recording his dissections. Carter, already heavily committed, had doubts about the project but agreed because he needed the money.

The dissections

Gray decided to study the organs afresh. The Anatomy Act of 1832 allowed doctors, teachers of anatomy and medical students to dissect donated bodies and those unclaimed from the workhouse and hospital mortuaries.

In 1858, after 18 months of painstaking dissections, and evidently with the authors working day and night, the

book was completed with text by Gray, and Carter's superb woodcut illustrations. London publisher John William Parker produced the first edition of *Gray's Anatomy: Descriptive and Surgical*, comprising 750 pages and 363 illustrations. It was dedicated to Benjamin Brodie and sold for 28 shillings.

There is little doubt that Gray sourced some text from previous anatomy books, and that Carter copied some of his illustrations from Quain. Nevertheless they produced a unique, affordable and incredibly valuable text book.

Popularity

Gray's Anatomy quickly became popular with students and surgeons for its lucid language, logical arrangement of topics and Carter's annotated anatomical diagrams. These were originally in black and white.

The use of chloroform anaesthesia was allowing surgeons to take more time over their procedures and to delve deeper into the body. Knowledge of surgical anatomy was increasing in importance and the book was a godsend.

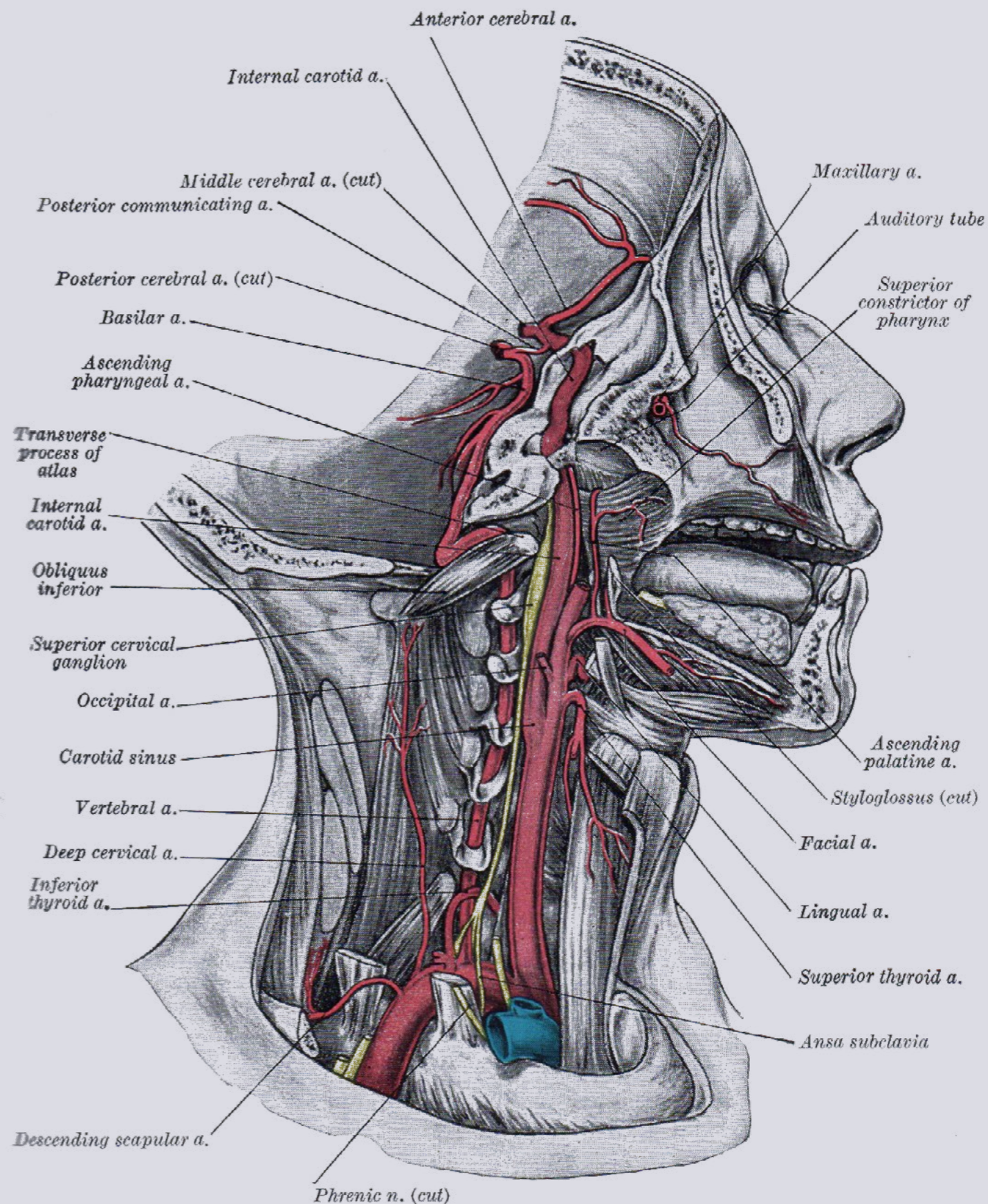
JW Parker quickly sold the rights to American publishers and the first US edition was published in 1859. A second British edition was revised by Gray and published in 1860, the first edition having sold out.

Gray held successively the posts of demonstrator of Anatomy, Curator of the Museum, and Lecturer of Anatomy at St George's Hospital. He now planned to practice as a surgeon in London but fate was to intervene.

Death from smallpox

In the early 19th century smallpox carried a 30 per cent mortality rate and accounted for 1 in 10 deaths in Britain. Gray contracted smallpox while treating his nephew Charles, the son of a deceased brother.

Gray's devotion to his nephew might seem heroic but Edward Jenner's cowpox vaccine had been available since the early 1900s and Gray had been vaccinated at





birth, and likely believed himself to be immune. Nevertheless he contracted confluent smallpox and died in London in June 1861 at the age of 34, one week after onset of the disease. Ironically, Charles survived.

Gray was being considered for the post of assistant surgeon at St. George's Hospital, but died on the day he was to appear before the interview board. Benjamin Brodie, now aged 78 and frail was greatly distressed, asking "Who is there to take his place?"

It is likely that Gray's personal possessions were burned, standard procedure in smallpox cases designed to limit contagion. Valuable personal materials, diaries and other manuscripts were lost forever.

Henry Gray is buried in Highgate Cemetery, East London. His residence in Wilton St, Belgravia is marked by a Blue Plaque, placed by the London County Council in 1947.

Henry Vandyke Carter

It is unlikely that the book would have achieved its fame without Carter's

meticulous drawings. His annotations allowed them to be studied without needing to constantly refer back to the main text.

Born in 1831, Carter was brought up in the Yorkshire town of Scarborough and learned drawing from his father, a talented watercolour artist. His mother gave him the (misspelled) second name after the renowned Flemish portrait painter, Anthony van Dyck.

Shy and devoutly religious, Carter came to London to study medicine and eventually collaborated with Gray, producing his celebrated anatomical illustrations by the exacting process of woodcut printing.

Carter's diaries (preserved in the Wellcome Library, London) have allowed many gaps to be filled in. Both Carter and Gray were brilliant students and won many of the medical school awards. Carter found Gray to be a stern taskmaster, describing him in his diary as a "slavedriver".

By the time the book was published Carter was already on his way to India to work in the British Army Medical Service. He travelled extensively, becoming an expert

in tropical diseases, particularly leprosy. He was appointed honorary surgeon to Queen Victoria before succumbing to pulmonary tuberculosis in 1896 just before his 66th birthday. He is buried in Scarborough.

Later editions

Timothy Holmes, Gray's colleague at St George's, had helped edit the first versions of the book and continued to produce new editions up to 1880 (the 9th edition). He was succeeded by another surgeon, T. Pickering Pick, and it was not until 1901 that a professional anatomist was appointed editor. Histology and embryology sections were early additions.

The book continued to be published, revised and edited by distinguished professors of anatomy and had to keep up with changes in anatomical nomenclature, and advances in all areas of medicine.

The Centenary (32nd) edition in 1958 ran to 1600 pages and the challenge editors faced was keeping the book to a reasonable length.

The newest, 41st edition of *Gray's Anatomy* was published in 2015 by Elsevier in both print and online versions, and is the first edition to include anatomical videos and commentaries on advances in diagnosis and medical imaging.

Legacy

Human anatomy remains the basis of medical practice despite a regrettable trend in some medical schools to downgrade its importance. Gray and Carter made an enormous and enduring contribution, as have many distinguished editors of their book.

Gray and Carter could not have had any concept of the revolutionary medical advances of the 20th century, but unwittingly they produced the ultimate work in the only part of medical practice which has not substantially changed - human anatomy. ■



Dr Randal Williams
FRACS, FRCS (Eng)

Images:

Previous pages: Henry Gray; internal image from *Gray's Anatomy*.
Above: View of the dissecting room of St. George's Hospital, 27 March 1860 (Henry Gray is seated second from the left in the front row).



A trilogy of world pandemics

“We live in a rainbow of chaos.” –Paul Cézanne



OPUS LVIV

After my last paper in *Surgical News* I received a response from Tony Holmes featuring an article from the *New Yorker's* Elizabeth Kolbert on 6 April 2020 titled, “*The Spread*”, for which I am grateful. It was a summary of the world recurrence of pandemics since the time before the Romans. It was a revelation and became the basis of this sequel. It offers some historical perspectives on how organisms encircle the world and we humans are no more than palings on the fence.

Unbeknownst to me, the early pandemics occurred from the time of the Egyptians. As recounted by the historian Procopius, many people were affected even extending to northern city of Port Said, now Alexandria. The same symptoms of Bubonic Plague are recorded with lumps, buboes and pneumonic changes, with fever spreading far and wide, as discussed in the Covert-20 article. It caused widespread devastation and great losses among the Egyptians.

The disease next surfaced in Constantinople, with the boats and rats playing their part. It even affected the Emperor Justinian who was the first to codify Roman Law and was without any parallel in Roman history. He is reputed to have overhauled the Eastern Roman Empire and built the Hagia Sophia, which is depicted now in any modern-day tourist's image of Istanbul. The Emperor, managed to survive, yet he never fully recovered.

A parallel can be seen in present-day examples of COVID-19 pandemic, which can cause cerebral catastrophes. In the media Associate Professor Thomas Oxley, from Mount Sinai Hospital New York, a neurologist from Australia, can be seen live performing a catheterized removal of a cerebral thrombus attributed to COVID-19. It was dramatic to see the patient moving her arms and legs on the table and feeling quite normal after the successful removal.

We are all waiting for the second round of infection to occur in the present COVID-19

epidemic, a characteristic of pandemics. No one is exempt, as revealed and recorded in history recurring century after century from Rome to Constantinople and beyond.

Thanks to Kolbert article I now know the derivation of the word “quarantine”, which we are using repetitively in the present crisis. We all know the Latin numerology of *unus, duo, très, quattuor*. The Italian word for the number 40 is *quaranta*. Historically, 40 has an important bearing in religious history. I seem to recall the Jewish people in the Sinai desert, as recorded in the book of Genesis, wandering for 40 years, and during that time Moses waited for 40 days on Mount Sinai to receive the ten commandments. On the Christian calendar Lent goes for 40 days, the Ascension Day is 40 days after Easter. This number keeps recurring. Thus, it is little wonder that the Doge at Venice in the Middle Ages decided to “quarantine” sailing ships outside the city of Venice on designated outlying islands they called “lazarettos”.

No doubt the 40-day duration ensured the rats died of starvation and the dead were relegated to the depths of the sea, the universal steriliser.

Hence epidemics can become self-limiting because of ongoing deaths and reduced contact exposure, as we are now policing, and this goes back to the Justinian Plague.

It is interesting to note the present isolation in ICU wards has clinical significance regarding the pneumonitis. There are stories in the media of the patients wandering into intensive care, apparently normal, but with sequential CAT scans the ominous clinical state of pathology becomes evident. We have all been brought up on the philosophy that “you treat the patient not the x-ray”, but that rule is now being questioned. I saw recently the three changes in CT scans where phase one might show the whitish oedema outlining the bronchial tree, phase two is when the outline of the lobules creates pavementation, and phase three is

a total white out when death is imminent, yet the patient is almost asymptomatic – we are treating x-rays. There is no possibility of oxygen interchange through the pneumonitis filling the alveoli. This explains the monitoring experienced by the UK Prime Minister, Boris Johnson, when his oxygen levels gave a reading of 60 per cent concentration and this warranted ventilator support to increase the level of oxygen flow.

As part of this trilogy on pandemics the story of smallpox has some relevance. Periodic cycles of this disease occurred throughout the ages and marked populations with its hideous scarring deformities and no person, even regal, was exempt. In the 1970s the World Health Organisation (WHO) declared that the vaccination program would eliminate all known cases but things slip through the net. This was recorded in the Cowlshaw presentation some years back. Professor John Royle's daughter, Jenny, an immunologist at the Children's Hospital. She gave a presentation on Jenner, smallpox, and a recent case in the National Health in UK. It transpired, as John refreshed my memory, that an exhaust flue from a viral experimental lab in the floor below was inadvertently leaking into the administration office above. Needless to say, the secretary caught the smallpox disease and passed it on to her relatives.

The Kolbert article quotes that Ramses V of 1100BC died of smallpox, evidenced presumably from the appearance of the Egyptian mummy. She writes that diseases become endemic, or constantly present, following the pandemic stage. It is interesting to note the presumption that this new COVID-19 epidemic may be contained within months. Historically the world experience is different.

We all know the story of Edward Jenner of the 1790s milkmaids and the Cowpox aetiology. He observed milkmaids performing their tasks became immune



to the ravages of smallpox. He attempted to replicate this immunity in the form of vaccination (this word comes from the Latin word “vacca” meaning a cow). It is when the animal link transfers to the human strain that we have the present solution to the smallpox saga. But we cannot forget the Hendra virus in Brisbane, where a horse became infected from bat contamination, which then transferred to the human who subsequently died. A similar story recently with viral contamination is supposed to be centred at the wet markets of Wuhan in China. This may be part of this ecological spread of COVID-19.

I would like to recap some of my experiences at St Georges Hospital in London regarding Jenner's cowhide. I spent three years rotating between the Westminster, Marsden and St George's Hospital (Rodney Smith's tramping ground). Jenner's observation that the disease of cowpox gave immunity to smallpox was the basis of future eradication. The Jenner cow hide featured in the Library at St George's Hospital on Hyde Park Corner. Let's not forget that simple observation is the basis of successful clinical management. It reflects the wisdom of the Canadian physician Sir William Osler, when Regis Professor of Medicine at Oxford in the late 19th century, who famously said, “the whole art of medicine is in observation.”

Then the Venetians come onto the scene with quarantine after the recurrent Black Death between 1347 and 1351. With the resurfacing of the plague yet again, they

cleverly erected the aforementioned port isolation, the first quarantine station at the lazaretto islands where the ships were held at anchor, the fleas died, and the rats had nowhere to go. This isolation helped to minimise the dissemination of the Black Death, which is quoted in the Kolbert article as killing a third of Europe. This was followed by another episode at Marseille in 1700s, which yielded the image of the Plague by Michel Serre that illustrated my previous “Covert-20” article.

Now, having done with plague and smallpox, let us have a touch of the third item in the trilogy causing clinical pandemics: cholera. It was sometimes called the Blue Death because of the emaciation and dehydration caused by the associated diarrhoea. In the late 19th Century it caused riots amongst the world's poor from Glasgow to Dublin to the Ukraine. Yes, the poor always suffer and usually become the primary victims.

The multiple cholera epidemics resulted in the discovery in 1883 that this disease was caused by bacteria called *Vibrio cholerae*. The riots following the fifth pandemic episode in areas of the Ukraine resulted in civil unrest. Some say this re-emerging devastation ultimately precipitated the development of the Bolshevik Revolution – yes, organisms control our welfare from time immemorial.

Now let me touch on the historic significance of Laureate Professor Peter Doherty's book, *Pandemics*, written in 2013. It is a wealth of information and he has chapters covering topics

from Creutzfeldt-Jakob disease to bioterrorism. Doherty continues to discuss aspects of viral investigations. It reveals how research groups who attempted to adapt the virulent H5N1 avian virus for possible human transmission and, I quote, “the scientists in the field declared a moratorium and shut down the research” before anything untoward developed. The possibility of open publication to enable access of this information to terrorists is mentioned. This statement is almost prescient, when one considers the aetiology of our present controversy. I phoned Peter about his thoughts of the laboratory origin of COVID-19, he responded by saying he thought “it was unlikely” to have been a laboratory sourced virus. Still the controversy persists.

One might say, and it is worth repeating from Kolbert's piece, that the epidemic phase creates the endemic phase. We are not to know when it is going to resurface. In other words, microbes create history for the humans to experience and record. As noted by Professor Wayne Morrison, quoting Professor Thomas Gibson of Canniesburn, Scotland, the eminent Plastic Surgeon, who once said, “The virus will get us in the end.” ■



Associate Professor
Felix Behan

Image:
Saint Roch attending the plague-victims in a lazaretto.
Oil painting after Jacopo Robusti, il Tintoretto.
Credit: Wellcome Collection. CC BY 4.0

The role of surgeons in the opioid epidemic

Recent data reveals that 3.1 million Australians are prescribed opioids annually for pain relief, contributing to the current “opioid epidemic”.¹ Surgeons are frequently asked to manage patients with pain and perform surgery causing nociception, both of which often require the use of opioids. Unfortunately, a proportion of these patients will develop long-term opioid dependency, even if they have never used opioids before. The perioperative period is a critical time when inappropriate opioid prescribing, including introduction of long-acting opioids, can have serious lifelong implications.

Given these risks it behoves surgeons to understand both the side effects and judicious use of opioids for effective pain management in the preoperative, perioperative and postoperative periods.

Reach for the Facts is a community awareness campaign in South Australia funded by Return to Work SA, and supported by several notable organisations including the Royal Australasian College of Surgeons. Its aim is to “raise awareness of the dangers of long-term use and misuse of prescription opioids,” and to “encourage enquiry into alternatives to opioids for safe and effective pain management.”

Dr Andrew Zacest has been at the forefront of pain management for more than 10 years. Consultant Neurosurgeon and Specialist Pain Physician at the Royal Adelaide Hospital, Clinical Associate Professor at The University of Adelaide and Chair of the RACS Pain Medicine & Surgery Section, he is concerned about the “opioid epidemic”, as it’s commonly referred to now, and what can be done by surgeons to reduce its impact. It’s

a complex problem, he said, because “the aim of pain management is not complete suppression or the abolition of pain.” Instead, he explained, good pain management “is communicating to the patient that some pain will be an expected part of the patient journey in surgery.” He encourages a range of available treatments including non-opioid medication, enhanced recovery strategies, physiotherapy and even appropriate psychological strategies to facilitate patients’ active recovery and rehabilitation following surgery.

But unhelpful expectations still exist and require reframing, Professor Zacest said. For example, the name “pain killer” suggests that any pain is unacceptable. This can lead to unrealistic expectations on behalf of the patient and their care providers, and to inappropriate or dangerous prescribing. He advocates that surgeons, anaesthetists and nurses have discussions with patients before surgery and explain to them: “You will have some pain and we cannot get rid of all of it for you. It will get better over time; it will be manageable and the goal of pain relief is all about facilitating your recovery following surgery.”

Patients and the pain experience

Pain is a uniquely subjective experience with biopsychosocial dimensions and there are many variables that go into a patient’s pain experience beyond a physical abnormality, including anxiety and a past history of chronic pain, Professor Zacest said. “Some patients may have catastrophic thinking – if they have a sensation including pain, they think the worst is happening to them.” This makes the patient anxious and then those around them become concerned because it’s natural to feel uncomfortable

if somebody is distressed about their pain.

“The solution to the complex problem of pain is not a short-acting opioid every two or three hours to treat anxiety or catastrophising with an increased risk of developing chronic opioid dependency – which can easily happen. We clearly need a different approach, which is multidisciplinary, to address all aspects of the pain experience,” he explained.

Identifying risk factors for opioid dependency in surgical patients

Numerous studies have identified risk factors for the development of opioid dependency following surgery, Professor Zacest said. These include pain itself, which may be acute or chronic, a patient’s current and past use of opioid medication and the presence of psychiatric disorders including anxiety and depression. Also, he said, ask patients about past pain experiences, including previous work injuries, and how they managed with these. A number of validated screening checklists are available for doctors to quantitate these risk factors.

A case study of a patient with opioid dependency and acute pain requiring surgery

A 45-year-old man is admitted through the Emergency Department to a private hospital with a two-week history of severe back and leg pain because he cannot manage at home. A CT scan has been performed that shows a modest L4/5 disc

protrusion, which would cause leg pain, and this is confirmed on further MRI.

The patient is reviewed on the ward and has severe back pain, cannot move with severe back muscle spasm and is requesting 2–3 hourly short-acting opioid analgesia, which just “touches the sides”. The neurological exam reveals no significant motor deficit, but some sensory change in the L5 dermatome.

The patient is managed non-operatively initially with physiotherapy, analgesics with little benefit and a steroid injection with brief, but minimal, benefit to his leg pain. The patient remains bed-bound except to get into a wheelchair to go out to smoke. Nursing staff are phoning regularly about his medication being inadequate to control his pain.

Microdiscectomy surgery is contemplated, but the surgeon is concerned about the high level of pain, profound disability and postoperative recovery including persistent pain and opioid dependence.

Following a long discussion with the patient and his family, further history comes out that the patient has a prior work-related back injury with chronic back pain. He was on tapentadol 100 mg bd until three weeks ago when he stopped it acutely.

Following discussion with the perioperative physician and anaesthetist, the patient is recommenced back on tapentadol 100 mg bd to treat his chronic pain and he undergoes microdiscectomy with multimodal anaesthesia.

The patient makes a good postoperative recovery utilising substantially less short-acting opioids, and is mobilising with minimal assistance around the ward within 48 hours. He is discharged home on day 5 with good pain control and off all short-acting opioids.

A phone consultation four weeks later reveals the patient is continuing to improve, participating in rehabilitation and on a stable previous dose of tapentadol – but off other medications. He will follow up with his pain specialist for management of his chronic pain and potential weaning off his long-acting opioid.

This patient had pre-existing chronic pain, was opioid dependent and probably withdrawing. He required surgery, opioid rationalisation and a multidisciplinary

approach to address his complex situation.

Management of chronic pain and opioids

Doctors can feel helpless when they’re not able to resolve a patient’s chronic pain, which is a natural response, Professor Zacest said. “We’ve been trained to ‘fix’ problems within a narrow biomedical framework, particularly surgeons.”

For some patients, we need to sit down and be frank with them, he explained. “We can say ‘You have chronic pain, we don’t have a simple (biomedical) solution, but there are some things that you can do to improve your pain management, and that is the most productive way forward for you.’”

Numerous studies show that opioids don’t work well for chronic pain, depression or other social problems, Professor Zacest added, but opioids are commonly prescribed for such conditions. However, taking responsibility for the problem and saying “I have a problem and I’m going to be part of the solution,” is “quite a big frame shift” for patients, especially if they feel “helpless and hopeless”.

Professor Zacest said it’s a matter of finding a middle ground that the patient is comfortable with, and using strategies they feel are helpful. Many patients who live with chronic pain, he added, eventually come to the realisation that they’d rather live with some amount of pain than “be drugged up on medication that doesn’t really make a difference ... and has all sorts of side effects”. It’s a “very enlightened realisation to get to”, but “those patients who get there by using a proactive multidisciplinary approach are usually the ones who manage their pain best of all”.

Finally, Professor Zacest said that care after discharge is an important time when surgeons can reduce the potential for development of chronic pain and opioid dependency following surgery. All patients should be encouraged to make appointments with their general practitioners (GPs) within a short time after leaving hospital following their surgery. Discharge medications should avoid opioid medication if possible, or if opioids are prescribed, they should be limited to 48 hours until they can see their GP for a review. “A scheduled GP visit is



an excellent investment in perioperative care,” he added, and “All patients should have a discharge summary in their hands.” In the fight against chronic pain and opioid dependency after surgery, prevention is always better than a cure. ■

The [Reach for the Facts website](#) has been developed to provide access to pain related patient information and tools for clinicians.

Free access for RACS Fellows and Trainees to eLearning course: “Better Pain Prescribing: Clarity and confidence in opioid management”

A grant from the Therapeutic Goods Administration has allowed complimentary access to a CME-approved, eLearning course produced by the Faculty of Pain Medicine (FPM).

For further information and a simple, one-step enrolment, just visit [FPM here](#).

Use Voucher code: bpm_racs2020 (don’t forget the underscore)



Dr Andrew Zacest
FRACS

The surgeons of *Vanity Fair* magazine: Sir James Paget

This article continues from the introduction in *Surgical News*, Volume 21, Issue 02, where Leslie Ward, “Spy”, noted in his autobiography regarding the Victorian era that, “the most faithful record of representative men... will be found in *Vanity Fair*”.

Let us now review how Sir James Paget fared as “Man of the Day CXXI” in the 12 February 1876 issue, taking the form of a caricature by Leslie Ward, Spy, with the simple caption, “Surgery”, accompanied by a pen-portrait composed by Thomas Gibson Bowles, owner-editor of the magazine, under the nom-de-plume, Jehu Junior.

The Spy caricature

It is most interesting to read Paget’s comments to his family on 13 February 1876:

I hope you have seen *Vanity Fair*. The face seems to be fairly like, the figure



absurdly unlike. The account of me is a good instance of the value of what “people” say. This is, probably, about as much as “people”, generally, know of one another. There is nothing offensive in it: I am sure no one has laughed so much at it as I have.

Now, contrast Paget’s comments with those of his biographer, in Plarr’s *Lives of the Fellows of the RCS England*, who noted: “an admirable caricature by ‘Spy’ appeared in *Vanity Fair*: the likeness is poor, but attitude is characteristic and perfect. In person he was slightly built and a little above medium height, his face rather long, his cheeks somewhat flushed, and his eyes bright.”

The *Vanity Fair* biography vs reality.

Born at Great Yarmouth, the eighth of seventeen children of Samuel Paget, brewer and shipowner, James attended a day school in Yarmouth, and at the age of 16 was apprenticed to a GP-surgeon Mr Charles Costerton. The term of apprenticeship required by the Society of Apothecaries was five years but after four-and-a-half years Paget was permitted to study in London, entering St. Bartholomew’s Hospital in 1834: “I had never been much more than 20 miles from home, everything was new to me”.

He had observed operations performed by Mr Costerton and different surgeons in the town; he read widely including the lectures of Astley Cooper and *The Lancet* from which probably “I learned little more than the art of reading quickly”.

In November 1834 James partnered his brother Charles to publish *A sketch of the natural history of Yarmouth and its neighbourhood, containing catalogues of the species of animals, birds, reptiles, fish, insects, and plants, at present known*. James wrote the 32-page introduction and the scholarly 88 pages provided names of 766 insects, 729 flowering plants and 456 non-flowering plants, *inter alia*.

Paget later wrote, “I am amused in thinking that of the mere knowledge gained in the study – the knowledge of the appearances and names and botanical arrangement of plants – none had in my after-life any measure of what is called practical utility. The knowledge was useless: the discipline of acquiring it was beyond all price. I was to begin my hospital work with an unusual disposition for scientific pursuits and an unusually educated power of observing.”

He taught himself to read texts in French and German: as Paget put it, “I began to acquire that priceless power. I cannot overstate the advantage I thus gained, not only in knowledge but in reputation”. His abilities were called upon by the medical officers and teachers at the medical school. In 1835-1836 Paget acted as clinical clerk because he could not afford the “dressing fee” payable to the hospital surgeons and so never became a house surgeon.

While dissecting in January 1835 he noticed numerous gritty specks in the muscles of a subject: he took the tissue to the British Museum and his original sketches are held at the RCS London. The preparation was then examined by Richard Owen, who determined the nematoid nature of the worm, named it *Trichinella spiralis*, and took the credit.

Paget wrote: “It mattered little: the repute of the discovery would have been of no great use to me: I should have gained less happiness by disputing for it: I have enjoyed the personal friendship of Owen ever since.”

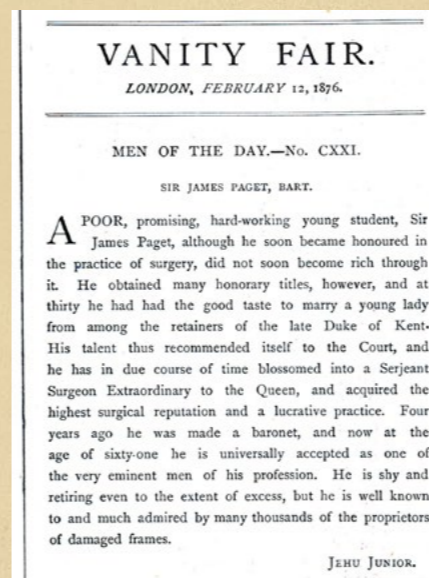
At St Bartholomew’s, examinations were held for the second time in 1835: Paget “went-in” for medicine, surgery, chemistry, botany, and coming first in all four. In May 1836 he passed the MRCS as he had satisfied the requirement of 18 months study at a London Hospital; in his words, “the examination was very simple”. Questioned about the anatomy of the trigeminal (V) nerve, Paget answered correctly, before proceeding to “an account of the otic ganglion, that



ganglion was then known to few”, greatly impressing Sir Astley Cooper.

The next eleven years 1836–1847, termed by Paget, “Waiting-Time”, seemed interminable: his father urged him to return to Yarmouth but Paget, seeking an appointment at Bart’s remained in London, writing in 1836, “I have chosen a heavy and uncertain life”.

He made only 15 pounds a year by practice, supplemented by writing for medical journals earning annually £50-70; he prepared the catalogues of the Bart’s Hospital Museum “from 9 to 4 on every day but Saturday”. His “Lectures on Surgical Pathology” (1863) confirmed him as one of the founders of modern pathology.



After an engagement of almost eight years, he married Lydia North, the daughter of the Duke of Kent’s domestic chaplain in 1844: she died in 1895 having given birth to four sons and two daughters.

In February 1847 he was elected Assistant Surgeon to St Bartholomew’s Hospital, at the age of 33: in July 1847 he performed his first operation in private practice: “a trivial affair, but it may do for a beginning”. In 1843 Fellowship of the Royal College of Surgeons was instituted with 300 Original Fellows, of which Paget was one.

From this point his career was unstoppable: in 1851 he was elected a Fellow of the Royal Society and in 1858 Surgeon Extraordinary to Queen Victoria. In 1858 he was approached by the Vice-Chancellor of the University of Melbourne for advice in establishing the Melbourne Medical School: the University gratefully acknowledged Paget’s “highly valued communication”.

In 1871 a Baronetcy was conferred upon him which he accepted with pleasure and as “duty to my profession, which is the better for honours of this kind.”

In 1875 he became President of the RCS, delivering the Hunterian Oration in 1877. W. E. Gladstone, Prime Minister of England, attended, and he divided people into two classes, those who had, and those who had not, heard Paget speaking publicly, such was his eloquence.

At age 64 Paget gave up operating, except for minor surgery. However, his consulting practice was busier than ever and by 1878 he had the largest private practice in London, seldom working less than 16 hours per day, and earning £10,000 a year. Aged 75 he resigned his seat on the RCS Council in 1889, which he had served for 24 years.

He died peacefully of old age and is remembered eponymously, *inter alia*, with Paget’s Disease of the Nipple (1874) and osteitis deformans (1877).

The family motto, “*labor ipse voluptas*”, “work itself is a pleasure”, was personified by the life’s work of James Paget and, appropriately, is incorporated into his coat of arms. ■

Mr Peter F. Burke, FRACS

Images:

Over page: Autographed portrait of Paget, drawn by George Richmond RA, engraved by Charles Hall. Stipple engraving 1873.

Above: St. Bartholomew’s Hospital, drawn by Thomas Shepherd, 1831.

Below: left: original text in *Vanity Fair* by Jehu Junior; right: Paget’s caricature *Vanity Fair*, 1876.



Putting the NZ in CTANZ

Registrar-led collaborative research takes off in New Zealand

With support from the Royal Australasian College of Surgeons (RACS) endorsed Clinical Trials Network Australia and New Zealand (CTANZ), Surgical Trainee Research, Audit & Trials Aotearoa (STRATA) is looking to put New Zealand on the international research map. We are following in the footsteps of successful United Kingdom and Australian research collaboratives with STRATA, the first New Zealand-based, trainee-led collaborative network (Figure 1).

We are a group of future surgeons who wish to develop a culture of research through collaboration in high-quality multicentre trials. Previous experience has made it clear that the enthusiasm and drive of our junior doctors are vital for the sustainable success of our projects. Reflecting this, our membership maintains a broad view on the term “surgical trainee” to include any doctor or medical student who is working toward a career in surgery.

Our first locally organised project, the RURAL Study (Rural & Urban Risks of Appendicitis complications) has gone truly national. Our team comprises 70 collaborators across 20 New Zealand hospitals (Figure 1). This represents the catchment of more than 99 per cent of national paediatric appendicitis, making it the largest registrar-led surgical study ever run in New Zealand.

RURAL is a prospective cohort study investigating the severity and outcomes of paediatric appendicitis in the context of prehospital patient barriers, access and socioeconomic deprivation. The distribution of complicated appendicitis

is not a random phenomenon as prehospital factors such as a family’s ease of accessing healthcare are thought to explain a large proportion of outcome inequities.

The journey toward running the largest registrar-led study in New Zealand hasn’t been entirely smooth sailing. Our team worked hard for the eight-month process of obtaining 18 District Health Board-specific research committee approvals. Now with more experience and maturing of the STRATA “brand”, our goal is to streamline this process and minimise the administrative burden for our trainees, and in doing so make available resources for trainees in future collaborative studies.

The New Zealand trainee community is a small, tight-knit group that lends itself to collaboration. However, the geography and smaller population meant that we have had to adapt the UK model to fit our circumstances. Cognisant of avoiding inherent bias towards larger centres, our steering committee meets monthly via video conferencing. We have secured representation from across the nation – Dr Brodie Elliott in Whangarei, Dr Jamie Crichton in Palmerston North, Dr Tracey Barnes in Dunedin and Dr Paul Fagan in Auckland.

As we build on our momentum, there is much to look forward to in the New Zealand research scene. We will continue to focus on a symbiotic relationship with international projects to provide our trainees with exposure to high impact studies and make a significant contribution to these projects via our uniquely antipodean representation.



Figure 1: National coverage of RURAL study involving 20 hospitals across 18 District Health Boards

We are always on the lookout for supportive consultants as our Surgical Specialty Leads to provide advice and guidance for the development, funding and start-up of multicentre studies. ■

Dr Brodie Elliott

To learn more about STRATA or to become a member, please email strata.collaborative@gmail.com or CTANZ@surgeons.org or follow us on Twitter @Strata_Collab



Meet Patrick Alley

When I was a fourth year medical student I was summoned to the office of Stanley Wilson. Some may recall this gentle doyen of Dunedin surgery who, among his many other milestones, chaired our College. While fearful that I had transgressed at some point, he put me immediately at ease by asking if I had considered a career in surgery. Later I found he had had similar conversations with a dozen or more of our class and it was apparently a regular feature of his relationship with students in their early clinical years.

Fast forward to Masterton Hospital in 1969. I was the recipient of a Health Department Bursary and as payback I was sent there as a second-year house surgeon. The superintendent was Richard Skelley, another multitasking surgeon, who immediately put me in harness to do the low risk acutes that presented. I was also taught basic anaesthesia and over that year managed over 500 general anaesthetics. The following year I was a rural GP in the Buller District. There was nobody to do the basic surgery so I stepped up. By the end of that year I had made the decision to follow the surgical path and in 1971 took up a position as anatomy demonstrator in Auckland to prepare for the Primary exam for Fellowship. Serendipity played a major part in my career choice.

I stopped clinical surgery in 2012 when my odometer clicked over three score years and ten. I then continued working in my District Health Board (DHB) for another five years as director of clinical training. The principal focus of this role was the education and pastoral care of about 30 recently graduated Postgraduate year one house officers. Interestingly, the distance from me to them was much shorter than the distance from them to me! For I can still remember with crystal clarity the challenges I faced as a first year house surgeon and, of equal interest, those challenges for new graduates remain current.

During that time I responded to a number of invitations to take up part time roles.

I remain a member of the Southern Cross National Medical Committee. I am on the Council of Auckland University of Technology University – New Zealand’s second largest and fastest-growing university. I also serve on their research ethics committee. At the end of this year I will step down after seven years as Clinical Director at Ormiston Hospital in South Auckland. I continue to write opinions for the Accident Compensation Committee on injury treatment and also write the occasional ethical opinion for healthcare organisations. RACS keeps me busy with Māori Health and, more recently, membership of the RACS wellbeing focus group. The welfare of colleagues remains an important part of my life and I still manage people who are in need of care. I continue to teach anatomy to surgical Trainees in Australia. Having endured the old London Primary exam, anatomy seems to have become ingrained permanently. I also contribute to the digitisation of New Zealand’s medical history – there is a rich lode of material that is in grave danger of being lost to our future generations.

It sounds like a very long list but in reality it is nowhere near a full-time exercise. It does mean there are a couple of things to be attended to every day and that is well within my present capacity.

“Are you really retired?” I am frequently asked. From clinical and operative surgery: yes, but there is plenty more to do as the foregoing demonstrates. I do feel obligated to the New Zealand public that, by virtue of their tax dollars, paid for my undergraduate and a lot of my postgraduate education. I am quite well known as a boring old socialist so that view of community service is by no means strange to me.

My wife and I enjoy art history, the outstanding music of the Auckland Philharmonic Orchestra and the company of many friends. We still “swim and gym” but not at the level of earlier years. Pétanque and golf continue to challenge me on a frequent and regular basis and



there are a host of good movies to be seen and books to be read. There is so much good rediscovered history emerging that I tend to stick with non-fiction – perhaps that’s to satisfy the need to find out what actually happened before I exit this life!

My aim is not work-life balance: it is for a balanced life. Work-life balance sort of implies that life is fantastic and work is awful. I can tell you the reverse is sadly and often true for some surgeons. I’ve thoroughly enjoyed my work and continue to do so – life is pretty good too! I have enough money but I am by no means wealthy. As the wise and much loved Bob Marley said, “Some people are so poor all they have is money!”

And finally: COVID-19 and all that it implies. One must resist the 19-year-old who lurks within and admit you are not bulletproof despite rude good health. Fortunately, technology allows meetings to continue and visits to the supermarket are better planned and less random. New Zealand, thanks to good leadership and a modicum of luck, seems to have escaped the crisis relatively unscathed. There is a cautious relaxation on social gathering and our bubbles are expanding slowly. And there’s still Netflix and plenty of books! ■

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“Outstanding leadership, selfless service, tenancy, and service to Trainees of RACS”

Dr Ruth Mitchell on winning the John Corboy Medal

It was at the midpoint of a challenging two-part operation in late 2018. I took off my gown and gloves and ran down the stairs to get a bite to eat, and I noticed I'd missed a call. I listened to my voicemail: it was John Batten, then President of the College, ringing to tell me I'd been awarded the John Corboy Medal. There, clutching a sandwich in the stairwell, I felt like time stood still. Then the phone rang, and I rushed back to theatres, washed my hands, gowned and gloved, and got back to work.

The John Corboy Medal was established in memory of a former chair of our Trainees' Association (RACSTA) who is described by those who knew him as a great leader and a selfless representative of trainees. He provided energetic service to the profession despite personal adversity, including the leukaemia which tragically cut short his life in 2007. This distinguished award for surgical Trainees is given for outstanding leadership, selfless service, tenancy, and service to Trainees of RACS.

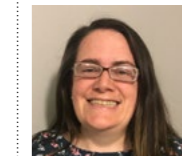
The pace of surgical training doesn't always allow for reflection on how much has been achieved. Personally, I'm somewhat horrified that it's taken a global pandemic for me to sit down and take stock. I write this during the week that was supposed to be the College Annual Scientific Congress. There were to be dinners, parties, and convocation, complete with photos and parents travelling all the way from Canada to witness the transformation of their daughter into a fully qualified surgeon. I, along with Christopher Conyard, the 2019 Medal recipient, were to receive our physical John Corboy medals. Instead we are social distancing and looking at graphs of viral spread occurring exponentially, wishing we'd paid slightly more attention to statistics.

I have had the great good fortune of being a leader within the College at a time of unprecedented change. I first joined RACSTA as the Neurosurgery

Representative in 2014 and went on to lead the Support and Advocacy Portfolio the next year, when the College found itself at the centre of public attention, following public allegations of sexual harassment. I went from having a front row seat in an unfolding drama, to being an active participant in the biggest change in professionalism and culture in medicine in a generation. Looking back on the RACSTA submission to the External Advisory Group (EAG), I see recommendations that have become part of our life together as surgeons – mandatory training on bullying, discrimination and sexual harassment (Operating with Respect), mandatory training on surgical education for those tasked with teaching the next generation (Foundation Skills for Surgical Educators). What did the College do right in the midst of the storm? The College listened to Trainees and then acted on the results of the inquiries. Any conscientious clinician knows an investigation must not simply be ordered, but the result checked, communicated, and acted upon.

In 2016 and 2017 I served as the Chair of RACSTA, and together we grappled with what it might look like to be good allies to those we didn't see around our increasingly diverse table. As rural surgery and women in surgery were finding increased platforms for advocacy, we mourned the lack of Aboriginal, Torres Strait Islander and Māori voices in the room. We explored what the profession would look like if it was designed to serve the community instead of the profession itself. I was particularly proactive in encouraging new approaches to selection into surgical training that acknowledge privilege, bias, and intersecting inequalities. There was a rare quality of true teamwork at our RACSTA meetings, and I dream of the day that those at the table are fully representative of the beautiful communities we serve.

As a leader and a fledgling neurosurgeon-scientist I hope my legacy will outlast me. There will be a time, après pandemic, when we will come together again in person and celebrate the memory of John Corboy. His legacy certainly outlasts him. ■



Dr Ruth Mitchell
Deputy Chair
Foundation for Surgery



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Case note review

Inadequate consultant supervision and involvement. Ultimately consultants are responsible for patient safety.

Case details: An 80-year-old male with dementia, residing in a nursing home, had recently been diagnosed with caecal cancer following a colonoscopy, and had a right hemicolectomy performed. Multiple treatment options were considered, including medical management and endoscopic mucosal resection (EMR) before deciding on the right hemicolectomy. The procedure was undertaken by the registrar without apparent complication. Follow up histology confirmed that EMR would have been technically impossible. The patient was discharged to the intensive care unit (ICU) before a subsequent discharge to the ward in the middle of the night.

Unfortunately, there was a downward course with hypotension and subsequent return to theatre where he was found to be bleeding from multiple holes in the superior mesenteric vein. There was a progressive downhill course from there and the deliberate decision not to re-operate was made.

Clinical lessons: This case raises several areas of concern:

1. The preoperative assessment was by phone interview. Regardless of the rationale, this was inadequate for a person undergoing a major procedure and prejudiced the case from the start.
2. The Fellow injured the superior mesenteric vein during the laparoscopic part of the surgery before converting to an open operation. This vascular injury was not recognised at the time and was ultimately the cause of the patient's death.
3. Unplanned transfers such as an early discharge from the ICU, especially in the middle of the night, often lead to trouble. The patient is in the ICU for a reason and that is primarily why the ward nurses felt they were not able to provide the appropriate level of care, for whatever reason. Discharging this patient in the middle of the night, when staffing levels were low, unfortunately,

led to a delay in recognition of hypotension which in turn led to a delay in re-operation. Early re-operation may have been lifesaving, although not definitely so for this patient.

4. The delayed second laparotomy and the experience of the staff operating on the patient. If patients are hypotensive or have sustained major complications, the treating consultant should be called and should be present in the theatre, if possible. This may not always be practicable, in particular on public hospital rosters, but the treating surgeon should be afforded this information and opportunity.

5. A vascular consultant should have come to repair the venous injury rather than the registrar undertaking this.

It is considered by many junior staff that a right hemicolectomy is a straightforward, uncomplicated operation. Even before the laparoscopic surgery era, there were unexpectedly high numbers of complications and deaths associated with right hemicolectomies. The real message here is that a right hemicolectomy needs the same level of consultant supervision as any other colonic surgery. In some circumstances this has not been taking place.

It is worth noting that there was very good documentation of this case, both within the hospital notes and in the initial assessment, particularly the additional comments prepared by the treating surgeon.

Australian and New Zealand Audit of Surgical Mortality (ANZASM) comment:

ANZASM classifies any Clinical Incident as an area of consideration, area of concern or adverse event. The second-line assessment form states:

An adverse event is an unintended injury cause by medical management rather than the disease process, which is sufficiently serious to lead to prolonged hospitalisation or to temporary or

permanent impairment or disability of the patient at the time of discharge, or which contributes to or causes death.

The second-line assessor stated that the injury to the superior mesenteric vein was "ultimately the cause of the patient's death". The damage to the superior mesenteric vein was clearly an unintended injury and it would have been more correct to record this as an adverse event rather than an area of concern. More so, as there were multiple holes that were not recognised at the time of the initial operation. This was compounded by the unsupervised registrar not recognising this serious injury, a delay returning the patient to theatre and the absence of the consultant for a return to theatre in a patient who was evidently seriously unwell.

The ANZASM Clinical Directors read every second-line assessment. Several ANZASM validation studies have shown a high degree of concordance between second-line assessors and that the surgeons themselves believe the second-line assessments accurately reflect the patient's management. This is central to the ANZASM's credibility.

ANZASM is about education and learning. With that statement foremost, ANZASM notes the key words are "unintended injury". Multiple, unrecognised holes in the superior mesenteric vein are not a recognised complication and clearly not intended. In contrast, an anastomotic leak sometimes leads to death and, although an adverse event, it is a recognised complication and not an "unintended injury". ■



Professor Guy Maddern, Surgical Director of Research and Evaluation incorporating ASERNIP-S

Please note: these cases are edited from ANZASM first- or second-line assessments that have been generated by expert surgeons in the field.

Advocacy working groups begin at RACS

While COVID-19 may have put a hold on face-to-face meetings, it will not stop two new advocacy working groups meeting for the first time via teleconference in June 2020.

The working groups are the Environmental Sustainability in Surgical Practice Working Group and the Sustainability in Healthcare Working Group. Their key strategic aims are to develop and guide stakeholder submissions, represent RACS at external meetings, as well as attending House and Senate Hearings where necessary.

Memberships to the working groups were first advertised in Fax Mentis in early 2020. In addition to this, the Terms of Reference allow extra members to be co-opted for specific issues. They also encourage extensive involvement with specialist societies and associations, and various other RACS committees, such as the Rural Surgery Section, the Surgical Oncology Section, and the New Zealand Board and state and territory committees.

Initially the groups will meet twice via teleconference, and it is anticipated that most of their work will be conducted out of session via electronic communication. This flexible structure will ensure that the groups are able to engage in thorough consultation, while progressing RACS' advocacy positions in an efficient and timely manner.

Environmental Sustainability in Surgical Practice Working Group

The Lancet Commission on Climate and Health has previously called for the health-care community to take a leadership role in advocating for emissions reductions, and to critically examine its own activities with respect to their effects on human and environmental health. RACS supported these calls and, in response, the College developed a position paper on the Environmental

Impact of Surgical Practice in 2018.

A key focus of the working group will be to continue to develop RACS' position by focussing on issues such as sustainability, the possible effects of climate change on the public health system, and waste management.

Even before its first meeting, the Working Group has already been involved in the drafting of an important submission to the Commonwealth Royal Commission into Natural Disaster Arrangements (the Bushfire Royal Commission).

Led by interim Chair Professor David Fletcher and co-ordinated by the RACS Policy and Advocacy team, the submission was developed with the input of incoming Working Group members, and numerous Fellows from across specialties.

The submission focused on issues relevant to RACS' expertise including availability of skin graft and rehabilitation beds, prehospital triage issues, and the availability of surgeons in rural and regional areas most prone to bushfire, amongst others.

Subsequently Professor Fletcher was asked by the Royal Commission to participate in a video-conference consultation at which he elaborated on these topics. The Royal Commission is expected to produce its report in September. RACS' submission is available here.

Sustainability in Healthcare Working Group

The Sustainability in Healthcare Working Group will be chaired by Professor Mark Frydenberg and will provide broad specialist advice on all topics from big data, Medicare Benefits Scheme and private health insurance with an Australian focus.

An early priority of the group will be to finally address the loophole that allows some medical professionals to fabricate their titles and mislead the public. In their

November Communiqué, the Council of Australian Governments (COAG) Health Council ministers stated that "the use of the title 'surgeon' by medical practitioners, non-specialist surgeons or those without other appropriate specific training can cause confusion among members of the public."

It was agreed that further consultation on whether to restrict the use of the title "surgeon" should be undertaken, and the Victorian Department of Health and Human Services (DHHS) will soon be leading a consultation. The working group will play a key role in ensuring that the College is well placed to put forward a strong submission when the consultation begins.

Another early consideration will be the future of telehealth services across Australia. The rapid expansion of telehealth in the context of COVID-19 has exposed many to this medium of health service delivery for the first time. It has the potential to fundamentally change the way patients seek and receive medical treatment, well beyond a time when we have safely navigated our way through the pandemic.

To develop a better understanding of how we can best maximise the benefits of telehealth, the working group intends to conduct a thorough assessment of the opportunities and limitations presented by the model. A key component of this will be gathering evidence and data from the perspective of both patients and clinicians, and it is anticipated that the working group will collaborate closely with RACS' Research Audit and Academic Surgery section.

We look forward to sharing more updates on the progress on these issues. ■

The working groups will both report to RACS Professional Development and Standards Board. To find out more about the working groups or to enquire about potential involvement please email racs.advocacy@surgeons.org.

Spotlight on our surgical societies

Orthopaedic surgeons associations in Australia and New Zealand



Dr Andrew Ellis
President
Australian Orthopaedic
Association (AOA)

Obtaining his degree in medicine from the University of New South Wales, then his Fellowship in Orthopaedic surgery from the Royal Australasian College of Surgeons (RACS), Dr Andrew Ellis spent two-and-a-half years in the UK, including at Exeter where he completed a Ling Hip Fellowship. On his return, he accepted an appointment at Royal North Shore Hospital (RNSH) as an Orthopaedic surgeon, as well as a senior lecturer position at the University of Sydney at RNSH.

Dr Ellis developed a great love of teaching, which has remained constant throughout his 25 years at the RNSH. He was the inaugural director of the Sydney Clinical Skills Centre, which is part of the Northern Clinical School and one of the largest skills training centres in NSW. He has also held a number of leadership positions in the Northern Sydney Local Health District and, in 2003, was awarded the Medal of the Order of Australia for services to Orthopaedic surgery.

Dr Ellis acknowledges his father, the prominent Orthopaedic surgeon Dr James Ellis who died in 2009, as a major influence on his surgical career. "I learned a lot about the meaning of service from him," he said. "The way he practised Orthopaedic surgery and his commitment to caring for people."

In 1983, Dr Ellis' father was working as a surgeon with the International Red Cross (IRC) on the Thai–Cambodian border. Dr James Ellis phoned his son, a third-year medical student at the time, and said: "Don't worry about your exam, get some leave and come across." It was the first time his father had suggested he postpone an exam. So, the younger Ellis travelled to Thailand where he witnessed history in the making. "It was the end of the Pol Pot regime, and being accredited by the Red Cross, I was able to join the Australian ICRC Surgical team at Khao-I-Dung – the largest refugee camp in the world at the time." Just across the border a full-on battle raged, with napalm dropping on the tree line and the hospital shaking from shelling. "A lot of battle casualties were being brought in," Dr Ellis recalled, of his first experience of austere surgery under pressure.

In 1995, Dr Andrew Ellis joined the Australian Army Reserves as a Medical Officer. During a 25-year career, he rose from junior officer to colonel and worked in staff and leadership positions, as well as several deployments throughout the Pacific Islands and East Timor in peacekeeping, the Boxing Day tsunami, and in Afghanistan as clinical director of the multi-national field hospital in Tarin Kowt.

As president of the AOA, Dr Ellis leads the largest sub-specialty association within RACS. Fifteen full-time staff support the training and education of registrars and the work of the association. "We have 1800 members, of whom 1500 are active

Orthopaedic surgeons," he said.

The AOA's 2014–2021 strategic plan, known as AOA21, is an "innovative and radical reassessment of education and training for Orthopaedic surgery", Dr Ellis explained. With an investment of several million dollars, a lot of international expertise and "tremendous leadership from Orthopaedic educators, it's a big breakthrough." The AO21 app is on the phone of every Orthopaedic surgeon and Trainee, with real-time work-based assessments and short discussions with Trainees on a regular basis, as well as digital logbooks and delivery of content.

Another aspect of training that AOA is working hard on is increasing the intake of female Trainees. Workshops have been developed for junior hospital doctors considering a career in Orthopaedics. They can attend these and be mentored by female Orthopaedic surgeons who share their experiences. These events are highly successful, Dr Ellis said.

The AOA also has a number of women in leading surgical roles. "We're very privileged to have strong and competent female leadership within the association," Dr Ellis said. "They are taking us on a journey to a better place."

In the future, the AOA "expects to generate and maintain an expert and proficient Orthopaedic workforce that will enable patients to participate in life through the treatment of their physical disabilities," Dr Ellis explained. "We want to be world-renowned for producing the best Orthopaedic workforce in the world."



Mr Peter Robertson
President
New Zealand Orthopaedic
Association (NZOA)

President of the New Zealand Orthopaedic Association (NZOA) Mr Peter Robertson has been performing adult spinal surgery for 30 years. He graduated from the University of Otago with his MB, ChB in 1982, became a Fellow of the Royal Australasian College of Surgeons (RACS) in 1989 and earned a Doctor of Medicine (MD) from his alma mater in 1997. In between, Mr Robertson completed a Fellowship at the Royal North Shore Hospital in Sydney and a clinical Fellowship in spine surgery at the University of Vermont in the US.

While he has a busy public and private practice, Mr Robertson also has an impressive record in research with over 240 scientific presentations and more than 80 publications in peer-reviewed literature. The research has included a body of work in relation to anatomy and its variations in relation to lumbar spinal disorders, surgical planning and operative techniques. He has also collaborated with industry for implant design.

Mr Robertson's biggest contribution

has been to provide the clinical arm for basic science research on the lumbar intervertebral disc. This involved materials engineering research that produced many papers on lumbar disc anatomy and failure patterns. It has resulted in three prestigious International Society for the Study of the Lumbar Spine Prize papers, and reflects his strong skills in teamwork.

"I'm just a small cog with the engineering team that does the work," he added. "But I provide the clinical guidance – making the bridge to clinical relevance for our patients." As a deputy editor of *SPINE*, one of the leading international sub-specialty journals for the treatment of spinal disorders, Mr Robertson often reflects on the tight connections between surgical practice and spine research.

The NZOA, which was formed in 1950, represents one of the most popular specialties in New Zealand. While only a percentage of SET (Surgical Education and Training Program) applicants make it into training each year, Mr Robertson encourages them to try again the following year. "There's a reasonable chance that many will be accepted second time around, with improved experience and research" he said. "It's a long game, but the quality of the applicants is more and more impressive."

While only 4 per cent of Orthopaedic surgeons in New Zealand are female, 20 per cent of current Trainees are female. An association (LIONZ) of female surgeons within NZOA is making good progress in encouraging female junior doctors to consider Orthopaedics. "Research has shown that female medical students are keen on Orthopaedics, but there's a drop-off in enthusiasm in the house surgeon years," Mr Robertson said.

He believes this may relate to impressions acquired within the workplace and the

hours worked. "I've often argued that being a house surgeon in a public hospital on an ortho run doesn't give an accurate impression of what we actually do, and I encourage them to spend time in the OR and clinic to better assess patients' disability, treatment and outcomes. Our medical school graduates are 50 per cent women and if we don't get close to that, in terms of applicants, then we're missing out on a huge part of the talent pool."

Recently, the NZOA appointed Cultural Advisor Ken Te Tau to sit on the Specialty Orthopaedic Training Board. He participates in the working group as a Māori and community representative. The appointment is to ensure ongoing cultural and gender diversity in the NZOA training program.

An issue of concern at NZOA's first annual scientific meeting in 1950 was whether there were enough Orthopaedic Surgeons across New Zealand to serve the population. Seventy years later, this same concern lingers. Ministry of Health modelling demonstrates the need for more Trainee places to cover population growth, increasing disability in the ageing, greater expectations and retiring surgeons. "Unfortunately, the ever-present tension between need and resources applies to all our specialties," Mr Robertson said.

In the immediate future, NZOA's goals include improved relationships with RACS, and recognising the special roles and responsibilities of each. NZOA is also building improved relationships with each of the specialty societies in Orthopaedics (e.g. Knee, Shoulder and Spine), "recognising their independence, but also the ongoing provision of support, infrastructure, education and research", Mr Robertson said. ■

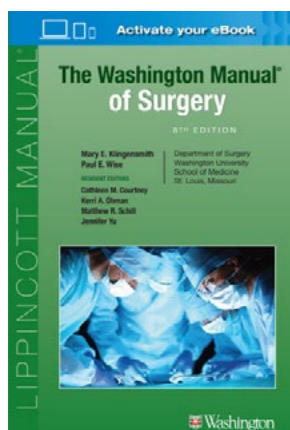
Images:

Above, left to right: Dr Andrew Ellis, Mr Peter Robertson with his wife, Suzanne Robertson.

Good reads

[The Washington Manual of Surgery \(8th edition\)](#)

Edited by Mary E Klingensmith and Paul E Wise, associate editors: Cathleen M Courtney, Kerri A Ohman, Matthew R Schil and Jennifer Yu.



Written by teams of Washington University residents and faculty, The Washington Manual of Surgery, 8th Edition, focuses on the essential information you need to know, providing concise, high-yield content that covers the broad spectrum of patient care in general surgery. In one convenient, portable resource, you'll find practical information on all surgical subspecialties (thoracic, GI, colorectal, cardiac, vascular, breast, trauma, critical care, and more) all at your fingertips for quick review and reference. This bestselling manual is an excellent source of expert guidance for surgical residents, attendings, medical students, and others who provide care for patients with surgical disease.

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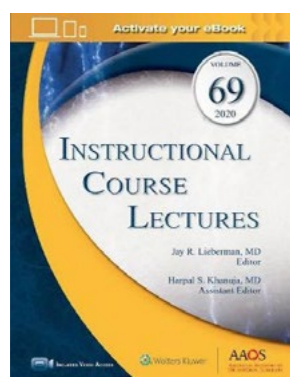
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Written by faculty and residents from the Washington University School of Medicine in St. Louis, one of the world's top surgical training programs.

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In memoriam

RACS publishes abridged obituaries in *Surgical News*.

We reproduce the opening paragraphs of the obituary. Full versions can be found on the RACS website.

Our condolences to the family, friends and colleagues of the following Fellows whose deaths have been recently notified.

Patrick Spencer (NZ)

Professor Frank McDermott (VIC)

Alexander Donn (NZ)

Dean Southwood (SA)

Associate Professor Stephen Bradshaw (ACT)

Layne Gamage (NZ)

Dean Milton Southwood AM FRACS Otolaryngology, Head & Neck Surgeon 16 May 1936 – 9 April 2020

Dean was a Fellow of RACS and a leading light in ENT surgery, acting as Head of Unit at Modbury Hospital for 30 years. His visionary role in the Anti-Smoking movement is something that is now accepted world-wide.

An avid cricketer, Dean was the former President and Life Member of the East Torrens District Cricket Club and possibly the most influential person in the club's history. In the 1980s, the club took a brave stand against tobacco company sponsorship of the game. The club made the decision to not accept money that was provided through tobacco sponsorship at the Australian Cricket Board level. Through Dean's hard work, an Anti-Smoking Support Group was established to, in part, replace the sponsorship that the club was forgoing.

As an ear, nose and throat surgeon, Dean was in the perfect position to judge the harmful effects of smoking; quite simply he basically took on the tobacco companies and the SACA (whose main sponsor was Benson and Hedges). Dean was subsequently able to raise hundreds of thousands of dollars for the club. His courage in the face of strong opposition from the tobacco lobby was outstanding. Not long after this turbulent period for the club, tobacco sponsorship was banned through Government legislation, which is still the case today.

Vale Dean Southwood.

Guy Rees, Peter Herbert, Craig Bradbrook

Frank McDermott AM FRACS General Surgeon

30 September 1931 – 28 February 2020

Professor Frank McDermott had a long and distinguished surgical career. But it was his academic research approach

providing a strong evidence base for his advocacy in road trauma prevention that proved the greatest benefit to the lives of Victorians, and those further afield. An early pioneer of road safety, he led the way towards much ground-breaking and often world first, road trauma prevention legislation. These include mandatory seat belt wearing, drink driving countermeasures and helmets for cyclists. Thousands of lives have been saved as a result of these road safety initiatives.

Professor McDermott was a member of the RACS Road Trauma Committee, which was part of an advocacy campaign in the 1960s promoting mandatory seat belt wearing. It was an emotive time and Frank recalled the vigorous attack by the media in Melbourne, Sydney and Adelaide. A commercial television network agreed to the Road Trauma Committee's suggestion that police heroes of television dramas wear seat belts. Significantly, in 1970 Victoria became first jurisdiction in Australia and the world, to introduce compulsory seat belt wearing legislation.

In 1974 blood alcohol tests on all Victorian road crash casualties over 15 years of age became compulsory. This provided a critical window of opportunity for data collection which was used to guide policy making. Frank was involved in the analysis of blood alcohol test results from almost 43,000 road crash casualties which found that 50 per cent of drivers involved in fatal crashes had an illegal blood alcohol concentration. This led to the conclusion that alcohol was "the most important single contributing cause of serious road crashes and fatalities in Australia".

Professor Stephen Cordner

For the full obituary please visit our [website](#).



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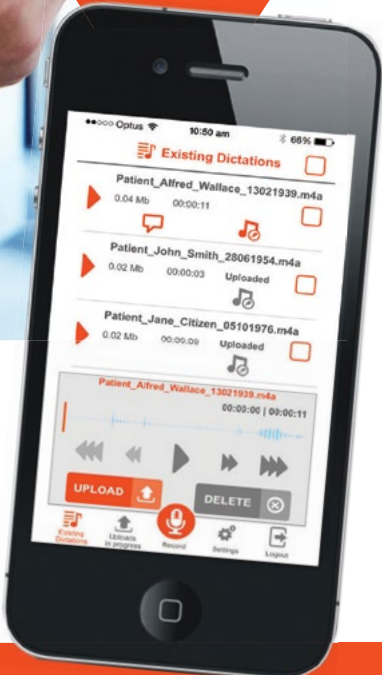
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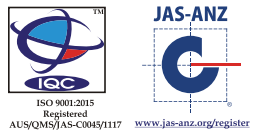
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