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Anaesthetist
THE MAGAZINE OF THE AUSTRALIAN SOCIETY OF ANAESTHETISTS • SEPTEMBER 2017

RETRIEVAL MEDICINE

Into the wild

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Careflight: concept to reality

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Fentanyl drug shortage – ASA survey findings

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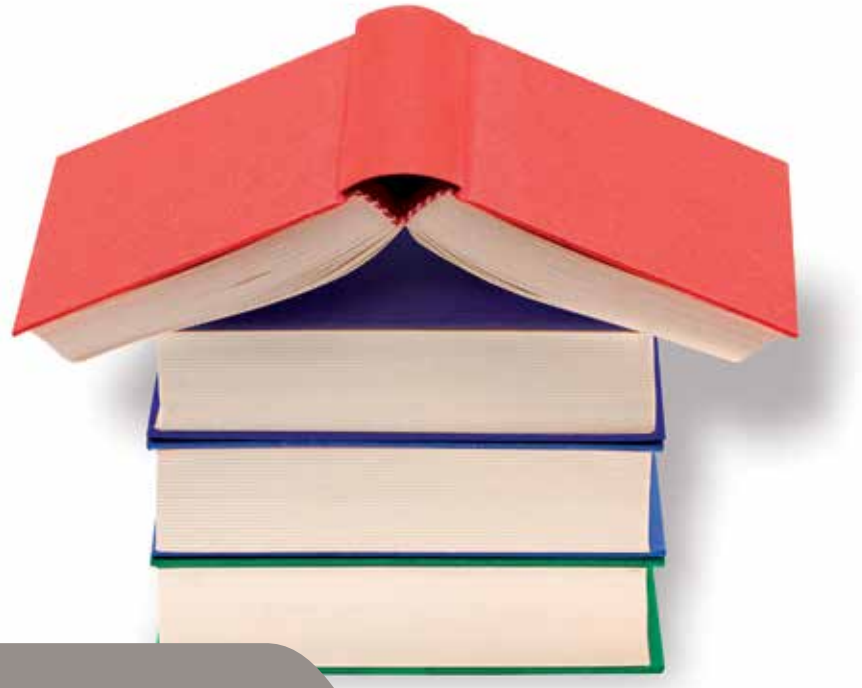

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Letters are welcomed and will be considered for publication on individual merit. The Medical Editor reserves the right to change the style or to shorten any letter and to delete any material that is, in his or her opinion, discourteous or potentially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

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Cover photo: Hunter Retrieval Service doctor, Dr Fiona Reardon gaining some experience in vehicle rescue techniques. Photo taken by Dr John Hollott

WOULD YOU LIKE TO CONTRIBUTE TO THE NEXT ISSUE?

If you would like to contribute with a feature or a lifestyle piece, the following deadlines apply:

- Intention to contribute must be emailed by 6 October 2017.
- Final article is due no later than 17 October 2017.

All articles must be submitted to editor@asa.org.au. Image and manuscript specifications can be provided upon request.

REGULAR

ASA EDITORIAL FROM THE PRESIDENT

A/PROF. DAVID M. SCOTT
ASA PRESIDENT

Welcome to the Spring edition of *Australian Anaesthetist*. In this edition, we are focusing on retrieval medicine. Much as anaesthetists are the founders of intensive care medicine, we are also the founders of retrieval medicine for critically ill patients. The Rev. John Flynn and the Royal Flying Doctor Service were the pioneers of using aircraft to deliver medical care to their patients in remote and inaccessible places. During and after WWII with the advent of more suitable aircraft, both fixed and rotary wing opportunities arose to expedite the movement of sick patients to higher care. Pre-hospital Care and Retrieval (PHCR) was once the domain of our speciality and of a few enthusiasts. Over the years emergency physicians, seeking to develop their experiences outside of the emergency department have spread into this arena.

That anaesthetists have led the development of this specialised branch of medicine is of course logical. The anaesthetist is the best and most qualified doctor to look after a single critically ill patient. It is after all what we all do on a daily basis. No other speciality has the daily responsibility of taking detailed care of another person's physiology while disturbances to their homeostasis is introduced by a proceduralist. Sometimes the disturbance is minor, sometimes it is significant, but every patient has our undivided attention for the duration, PHCR is just the same, just in a very different environment. In many ways, it's just another expression of the anaesthesiologist as a perioperative physician, providing the holistic critical care for our patients.

Currently there is a movement to establish a group dedicated to PHCR based around the College of Emergency Medicine, and supposed to be cooperating with ANZCA and the College of Intensive Care Medicine. Discussions are at an early stage, and its role as either a Chapter, Faculty or maybe even a College is not yet determined, however as you will read anaesthesia is still very actively involved in this area, and whatever the nature of the new body the key role of our speciality must be recognised and remain. I expect our college will do its best to ensure this will happen, and to ensure future opportunities for anaesthetists who are interested in this field will remain.

Dr Ken Wishaw shares his experiences of the early days of helicopter retrieval in the civilian arena, some of which developed out of the experiences of the RAAF during the Korean and Vietnam Wars. He shares the challenges of setting up a fledgling service and the multiple roles that had to be fulfilled in airframes that were not ideal for this purpose. The ground-breaking work of the Careflight pioneers has really set the stage for our current services.

Dr Alan Mackillop gives us the military experience from the past through to contemporary practice on some of the most advanced aeromedical (AME) platforms available. Having served in the Air Force for 27 years I particularly enjoyed his insights, and reflected fondly on the missions, people and places I have travelled in my time, I believe I have performed AME's in ten different military aircraft types! Our experiences working in the military and civilian aid arenas is shared.

Dr Howard Roby gives us the perspective of long-distance international medical retrieval. Howard (also in the Air Force) has an extensive experience in coordinating and performing many AME missions in so many different platforms for all sorts of patients.

Dr Ben Piper brings us the current perspective, his insights show us the state of the art in Australia today. Dr John Hollott is writing on Wilderness medicine, retrieval medicine and anaesthesia, a fascinating account of his experiences in this field, and what it takes to be a wilderness medicine doctor.

At the time of writing this editorial the ASA has been deeply concerned with the MBS Review's Anaesthesia Clinical Committee's (ACC) report and recommendations. The MBS review was set up to modernise the schedule, to delete out of date item numbers, to improve access for private patients and to ensure value for taxpayers. We believed the ACC report does not meet these criteria. We believed that the ACC may have made recommendations for significant cuts (from the presentation at the ASM in Brisbane). We have seen no evidence or science to support these cuts. We expected that these recommended cuts will significantly disadvantage over a million patients who traditionally

were billed at no out-of-pocket. It also concerned us that there has been no meaningful consultation with the ASA, ANZCA, any of the SIGs or anybody else outside of the six anaesthetists, one intensivist, three surgeons the GP and the consumer representative.

The Medicare rebate system is there to reimburse patients who choose to access private healthcare for their out-of-pocket costs (OOP). Medicare does not pay doctor's bills, patients do, for many procedures like endoscopy and cataracts the rebates from Medicare and insurers have almost always been adequate to cover these costs, however if the cuts to Medicare recommended by the ACC are adopted then this group of patients will be facing a new OOP

The ASA has been actively engaging with Government Ministers, Department advisors, leaders from gastroenterology, ophthalmology, obstetrics and psychiatry, and the AMA at the highest levels to advocate for our patients to ensure that their rebates are not slashed. On August 9th, I met with the Health Minister Hon Greg Hunt, along with Dr Andrew Mulcahy and Associate Professor Alicia Denis, to express our concerns. The Minister has recommended a further working group to address these concerns and ensure a broader key stakeholder engagement. It is his intention that the recommendations be fine-tuned to adjust the tone and recommendations of the draft report to ensure the best outcomes for our patients. The working group will include senior representation from the ASA and College and will consult with other experts in the field. Once the draft report is re-worked it will be delivered to the minister for consideration and released for public consultation.

I take this opportunity to express my gratitude to the President of the AMA Dr Michael Gannon for his support in this matter, along with the ASA senior leadership group. We are hopeful that an appropriate outcome will ensure the best results for our patients.

Currently the government is undertaking a review into the Private Health Industry (PHI) and its value to the people of Australia. The ASA has provided a detailed submission to this review. Anaesthesia provides excellent value for money, and best outcomes for our patients. The ASA has vigorously defended the speciality in this discussion, and I wish to thank Dr Mark Sinclair and the Economics Advisory Committee for their unfaltering efforts in this area.

I do hope you enjoy reading this edition of AA and I look forward to seeing you in Perth for our National Scientific Conference in October.

CONTACT

To contact the President, please forward all enquires or correspondence to Sue Donovan at: sdonovan@asa.org.au or call the ASA office on: 02 8556 9700

REGULAR

ASA UPDATE FROM THE CEO

MARK CARMICHAEL, ASA CEO

Incredibly we have already reached well into 2017, and there is definitely no shortage of activities and events at hand.

MBS REVIEW

The MBS Review continues to occupy the thoughts of the Board and a number of members who are waiting for the release of the Anaesthesia Clinical Committee's draft report. Various other articles within this edition provide a closer analysis and comment in relation to the Review. Suffice to say, this Review may well be a defining event within the specialty of anaesthesia in this country. The ASA intends to be extremely active in relation to the contents of the report should its recommendations be seen to be unacceptable to both the public and the profession. With its release anticipated in August, it could be that by the time you are reading this a number of initiatives are already under way. The Society will be looking to provide members with as much information and commentary as possible and will be looking to create ways for your engagement. Needless to say I encourage all members to take a close interest in this Report when it becomes available.

COMMON ISSUES GROUP

The 2017 Common Issues Group meeting was hosted by the Canadian Society and was held in Niagara on the Lake, on June 20 and 21, just prior to the Canadian Society Annual Meeting. This meeting brings together the senior office bearers and executives of the AAGBI, New Zealand and South African Societies both of the North American Societies being the USA and Canadians and ourselves.

A great range of issues were tabled and explored. The issue of advocacy, and the respective Societies role as an advocate for members was discussed at length. Quite clearly both ourselves and the American Society see advocacy as a key plank in our work, while at the same time the AAGBI see this as an area they don't currently address but are looking to do so and are keen to learn from those who are active in this area. It is planned from the meeting for there to be ongoing dialogue and sharing around the issues of advocacy

An interesting topic raised by our American colleagues was the one of being 'a good professional citizen'. US Society President, Dr Geoffrey Plagenhoef, who is attending the Perth NSC, promoted strongly the concept that being a Society member carried with it a strong responsibility to promote the profession and promote the Society and its role, it is not simply a question of what the Society does for me.

From an educational perspective, the US Society which has progressed significantly in digital educational resources, indicated its willingness to share this with CIG members. It is certainly intended to explore this offer and to see how it may benefit members here in Australia.

From the Australian perspective, the issues of Workforce, the MBS Review, drug labelling and shortages, women in leadership (noting that the AAGBI has just elected its first female President) and the role of the anaesthetist in perioperative medicine were presented and discussed.

There is no doubt that participating in this grouping provides the ASA with an important forum to both share and learn from others around the world.

HISTORY FOCUS

The ASA has recently hosted two meetings which recognised the importance and value of its library and museum collections. On 2 July, the Harry Daly Museum and Richard Bailey Library hosted a seminar for medical museum professional titled, "Collecting, Curating and Conserving". The seminar which attracted 31 attendees provided an opportunity for in-depth discussion on the nature of medical collections and their management. The event allowed for professionals from both NSW and Victoria to gather together and discuss the challenges relating to their work. It was a rewarding seminar for all who attended.

On 6 August, the Society hosted the 2017 History of Anaesthesia Seminar. This half-day meeting featured some interesting presentations, including Dr Michael Cooper's "The History and Development of Anaesthesia in PNG" and Dr Rajesh Haridas' "Australian Anaesthesia 1847".

Meetings such as these reflect the diverse nature of the ASA's activities and why membership can, and does, mean different things to different people.

COMMUNICATIONS STRATEGY

In the March edition of AA, reference was made to a review of the ASA's Communications Strategy. By and large the review was positive, confirming the integrated and consistent approach that the Society has to its communications. One key recommendation was a redevelopment of the ASA's website to bring it in line with its other communication channels. It is anticipated that this initiative will be undertaken in the coming year and will further support the ASA's endeavours to support, represent and educate you our members.

NSC 2017 – PERTH

This year's NSC in Perth, 7-10 October, is shaping up to be a wonderful meeting. Convenor, Dr David Law, and his team have brought together a very exciting scientific and social program and I know they look forward to welcoming you all to Perth in October.

CONTACT

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REGULAR

LETTERS TO AUSTRALIAN ANAESTHETIST

ANAESTHESIOLOGISTS: AN ALTERNATIVE VIEW

In response to letters in the March and June issues supporting a change in name to anaesthesiologists, I note with dismay the frustration expressed about older anaesthetists.

The issue has nothing to do with age. It has everything to do with merit.

Why is it desirable for anaesthetists to be called anaesthesiologists? Several specialties on par with our own do not have an 'ology' suffix – obstetricians and paediatricians to name two.

There is no uniformity. Physicists are scientists; astrologists and iridologists are not. We have a long list of –ologists in medicine. Adding another does not enhance its currency.

The word anaesthetist has been in use since 1861. It was a well-chosen term. The reason the Americans changed it to anesthesiologist in 1945 has not been made clear. What is clear is that their lead was not followed by Australia or New Zealand during the intervening 72 years.

I fail to understand how such a change would serve to improve our "brand, standing or influence", or have greater relevance to a younger membership. The idea that it would help us in industrial negotiations is fanciful.

On the contrary, the longer word has a distinct air of pretentious self-aggrandisement, masking feelings of insecurity. Surely, our stature depends on who we are, not what we are called.

The fact that over 150 nations have followed the American lead is neither here nor there. Many of those would be non-English speaking members of the World Federation of Societies of Anaesthesiologists.

Our different course is historically and culturally based, and well understood. It gets us into no trouble internationally. It provides us with an honoured distinction – a source of pride, not a cause for shame.

I acknowledge that anaesthetist in the lay community is often pronounced "anaesthesist". But, a similar error occurs with "anaesthiologist".

The membership must first make a decision on whether to proceed with another vote. Five short term prime ministers is not a good measure of time. It really depends on an evident shift in sentiment.

Should a vote go ahead, I would argue that the case for change has not been made. I would caution that a symbolic break with our great pioneers in the field, who lived their lives as anaesthetists, could be regretted.

Peter Beahan MBBS FANZCA

Stirling, WA

HAVE YOUR SAY

We would love to hear your feedback on our magazine and its content. All letters are welcomed and will be considered for publication. The Medical Editor reserves the right to change the style, shorten any letter and delete any material that is, in his or her opinion, discourteous or potentially defamatory. Any major revisions required will be referred back to the author for approval.

Letters should be no more than 300 words and must contain your full name and address.

Please email us at editor@asa.org.au to submit your letter.

FEATURE

ANZCA
AUSTRALIAN AND NEW ZEALAND COLLEGE OF ANAESTHETISTS

ANZCA'S DIPLOMA OF ADVANCED DIVING AND HYPERBARIC MEDICINE

In April 2016, the ANZCA Council supported a limited restructure of the ANZCA Certificate in Diving and Hyperbaric Medicine (DHM).

A project group was established in June 2016 and lead the change of the certificate to a 12-month, full-time equivalent qualification titled the ANZCA Diploma of Advanced DHM.

The ANZCA Diploma of Advanced DHM launched on July 31, 2017 under the governance of the ANZCA DHM Sub-Committee.

Training program documents were released on May 1, 2017 on the ANZCA website www.anzca.edu.au/training/diving-and-hyperbaric-medicine, and include:

- The ANZCA Advanced Diving and Hyperbaric Medicine Curriculum.
- The ANZCA Handbook for Advanced Diving and Hyperbaric Medicine Training.
- The ANZCA Handbook for Advanced Diving and Hyperbaric Medicine Accreditation.

Diploma requirements include:

- Clinical experience (time) in an ANZCA accredited training unit.
- Specific clinical activities (termed "volume of practice") such as "assessment of fitness to dive (recreational or occupational diving) or hyperbaric attendance".
- Formative workplace-based assessments to provide feedback on performance.
- Clinical placement reviews at which supervisors review trainee's progress through the diploma.
- Formal learning/instruction including the South Pacific Underwater Medicine Diploma of Hyperbaric and Diving Medicine, an advanced life support course and two diving and hyperbaric medicine courses.
- The DHM examination.
- Completion of a Specialist qualification (FANZCA, FACEM, FCICM, FRACP, FRACGP, FRNZCGP, FACRRM or other recognised by ANZCA for this purpose).

Eligibility requirements and provisions were available for those transitioning from the Certificate in DHM to the Diploma of Advanced DHM. Applications for transition credits closed on August 28, 2017. Those who did not apply for transition credits within the permitted timeframes may register for the diploma and apply for recognition of prior learning.

Please direct any queries to dhm@anzca.edu.au

ANZCA Diploma of Advanced DHM Project Group

Prof. Michael Bennett (Chair), Dr Damian Castanelli, Assoc. Prof. Ian Gawthrope, Dr Glen Hawkins, Dr Simon Jenkins, Assoc. Prof. Simon Mitchell, Dr Lindy Roberts, Assoc. Prof. David Smart, Dr Suzy Szekely, Dr David Wilkinson,

FEATURE

INTO THE WILD – RETRIEVAL AND WILDERNESS MEDICINE

An overnight stay on Bluff Mountain in the Warrumbungles in winter responding to a call to rescue some rock climbers is not the usual work place for an anaesthetist. However, it was where I found myself after being dropped by helicopter on a cold clear night.

As it turned out, there was no medical work to do, but nonetheless, I had to look after myself as the rescue paramedics accessed and hauled the climbers up one of the biggest cliffs in NSW.

Wilderness Medicine (also known as Expedition Medicine in the UK) is defined as vital emergency care in remote settings, generally greater than one hour before definitive hospital treatment, though it could be days or weeks. It is a level of care that is beyond first aid and is provided by health professionals. Whilst wilderness is generally defined as "an uncultivated, uninhabited and inhospitable region", such as mountains, forest, jungle, desert, caves, rivers, ocean and polar regions, it could also be extended conceptually to other areas not generally considered wilderness such as helping a sick passenger on an aeroplane, survivors of an earthquake or an injured soldier a long way from help[1]. It does not include the interventional neuroradiology laboratory in the evening, despite the feeling of isolation and desolation.

The first consideration is the activity the patient is involved in[2]. For example, treating an injured person in an alpine environment may require knowledge of mountaineering and rope work. These environments are often at physiological extremes (high altitude, underwater, very hot or very cold) and result in abnormal physiology. There is a risk to rescuers and health care providers in these environments, patient access is often very difficult, and transport options limited (evacuation by yak?). Resources such as equipment, medications, fluids, clean water and expert help are in short supply. Communication can be good with satellite phones linking anyone to specialists, but not often.

Wilderness medicine deals with general medical issues in a remote context, for instance trauma or gastroenteritis, as well as specific wilderness issues, for example, the science of avalanche and burial, search and rescue, high altitude medicine, frostbite, dive medicine, envenomation and attack by large mammals (especially bears!). Risk mitigation and injury prevention are vitally important. Travel medicine knowledge is required for managing expeditions. The principles of wilderness medicine apply to disaster, humanitarian and military medicine[2].

The remoteness of wilderness requires

practitioners to be able to care for themselves, as well as others, with knowledge of navigation, appropriate clothing and shelter, survival techniques and psychology, how to avoid crevasses and avalanches, nutrition, obtaining clean water, meteorology and communication tools.

Wilderness medicine health care providers (HCP) can include medical doctors, nurses and paramedics. Generally, they are often operating outside their usual scope of practice, such as paramedics reducing a dislocated shoulder, a surgeon giving ketamine or an anaesthetist suturing a wound[1]. Wilderness medicine incidents can be organisational (ski patrol, search and rescue teams), official (designation to an expedition), informal (treating companions or yourself in a group), or serendipitous (helping a stranger).

No pathology, no imaging, no specialists and no equipment are hallmarks of wilderness medicine. Clinical judgement and examination are usually the only diagnostic tools, though novel methods have been developed, such as diagnosing a long bone fracture by applying a vibrating mobile phone to one end and listening with a stethoscope at the other[3]. Improvisation is often necessary, as not everything can be carried, nor every situation prepared for. A recent case report discussed an injured mountaineer who, after suffering severe facial injuries from falling in a storm, received a cricothyrotomy using a pocket knife and tubing from a hydration pack, and later positive pressure ventilation using the hydration bladder (the patient was not able to be evacuated in time)[4]. A hydration bladder and tubing is also useful for proctoclysis (rectal rehydration)[5].

Wilderness medicine differs to urban prehospital medicine in many respects, the latter of which has multiple rescue specialists and equipment, rapid organised transport and central control[2]. The medical speciality of Retrieval Medicine, (also known as Prehospital and Retrieval Medicine (PHARM), or Prehospital Emergency Medicine (PHEM) in the UK), similarly operates in austere environments with limited resources. Retrieval medicine is the use of an expert medical team to assess, stabilise and transport severely injured or critically unwell patients, either prehospital (primary retrieval) or inter-hospital (secondary retrieval – usually from one medical institution to another for higher grade care)[6,7]. Unfortunately, much time, resources and safety is spent transferring patients between tertiary ICUs due to a shortage of funded beds.

Prehospital medicine usually sits within or alongside state ambulance services[8] in addition to a mixture of non-profit medical organisations (eg. RFDS, CareFlight), local health districts, and non-profit or for-profit aviation companies. Doctors, paramedics, flight nurses and adult and paediatric intensive care nurses can make up the medical teams. Retrieval medicine is considered a sub-specialty of anaesthesia, emergency medicine and intensive care, and shares aspects of all three[6].

Whilst managing a critical patient in some remote hospital may feel like one is forsaken, only duty at an established service such as Everest ER would be considered as wilderness medicine. Prehospital medicine may enter the realm of wilderness medicine, such as when a medical team is dropped into remote bushland. In NSW, most helicopters are able to winch a doctor and paramedic into a clearing in the forest, onto mountains, ships or rugged coastline, bringing with them advanced prehospital care including blood transfusion, video laryngoscopy, mechanical ventilation and chest tubes. For the intubated patient being winched into a helicopter, the use of a small automatic ventilator has been shown to be

Westpac Rescue Helicopter. Photo: Dr John Hollott

Dr Rob Bartolacci and paramedic. Photo courtesy of Westpac Rescue Helicopter.

FEATURE

Hunter Retrieval Service doctor gaining some experience in vehicle rescue techniques. Photo: Dr John Hollott

Landing site assessment and approach. Photo: Dr Fiona Reardon

safe[9] and was superior when compared to manual hand-bagging in a simulation trial performed in Newcastle (pre-publication).

The principles of wilderness medicine can be applied to prehospital medicine, where the environment can be a challenge (hot or cold, wet and windy) and the terrain dangerous. What if the medical retrieval team cannot be retrieved from the bush – can they manage overnight or navigate out? Remoteness, poor resources, lack of help, objective risk and innovation are other factors shared with wilderness medicine. My last winch job was underneath a waterfall on slippery boulders around a rock pool. Despite being close to town, it was a treacherous spot.

The helicopter paramedics are also remote area access paramedics, trained in rescues from cliffs, canyons, caves and water. The doctor can also be lowered down a cliff. For instance, after a young man fell off a crag in the Hunter Valley, the medical team abseiled in and then winched the patient into the helicopter on a stretcher. Another example is an anaesthetist who spent a night on a ledge in a flooding canyon in the Blue Mountains looking after a lady with a fractured spine. The rescue paramedics are an elite bunch who take leadership in ensuring the well-being of the medical team and victims.

In applying for retrieval jobs, some retrieval organisations require the applicant to abseil over a cliff or building, being lowered from above. In Newcastle, the service has purchased a rope, harness and helmets and I have gained my abseiling and rock climbing guide certification (with over 20 years of experience). Prospective retrieval doctors will have to complete a Functional Capacity Assessment including a pack march, swim, weight carry and being lowered over a cliff. This vertical component will evaluate height tolerance (also very relevant to the winching and aviation components), operating outdoors in a dangerous environment and the ability to follow instructions. A minimum level of fitness and agility is required to safely negotiate some of the terrain associated with remote area jobs, as well as carrying packs and helping with stretcher carries.

Anaesthetists have some skills that are potentially quite useful in wilderness medicine situations. We may be not the best at aspects of community medicine or splinting fractures, but with a vial of ketamine, we can do anything! Without oxygen or airway tools, the NMDA antagonist is ideal for painful procedures such as reducing fractured ankles, or even an appendicectomy. Ketamine is an almost ideal wilderness medicine drug for sedation, anaesthesia and analgesia.

The Wilderness Medical Society is an international organisation that brings together interested doctors, paramedics and nurses for education and research. The motto is "Combine your profession with your passion" to encourage those who love the outdoors to marry this with their medical knowledge. A Fellowship of the Academy of Wilderness Medicine (FAWM) is a qualification achievable by those who want to combine their work and play more closely. The Diploma of Mountain Medicine is a more intense and practical certification[2,10].

An appreciation of wilderness medicine will benefit the retrieval doctor or anaesthetist who is on a remote prehospital job, or just enjoying their time out hiking, travelling, paddling, skiing, climbing or riding.

Dr John Hollott
BMed FANZCA FAWM

ABOUT THE AUTHOR

Dr Hollott is a retrieval consultant and FANZCA in Newcastle.

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Westpac Rescue helicopter on rock platform at Dudley, NSW. Photo: Dr Fiona Reardon

FEATURE

INTERNATIONAL COMMERCIAL AEROMEDICAL RETRIEVAL

In 1988, having just completed my intensive care Fellowship, I was wondering about my future...

A colleague, who had just formed an international medical assistance company, asked if I would be a consultant. Medical assistance companies are middle-men between, on the one hand, corporate and travel insurance companies and, on the other, sick or injured tourists or expatriates. Buyers of travel insurance receive a card with the emergency assistance phone number of a contracted medical assistance company, not of the insurance company.

Some 95% of calls relate to stable patients needing approval for proposed interventions at their location, eg appendicectomy, fractures etc. However, the other 5% might require an aero-medical retrieval or repatriation to Australia. The difference relates to urgency. Having a motor vehicle accident in a third-world country probably requires retrieval. A cerebrovascular accident in a first-world country might be less urgent.

As a registrar, involved with both NSW rotary-wing retrieval organisations, I had some solid grounding in retrieval. I had also done a private repatriation to Europe of a stable, but terminal, patient. As the assistance company assured me that the workload wouldn't be onerous, I agreed to be involved.

Within a week, we were approached on behalf of an Australian teenager who, while trekking in South-East Asia, had developed falciparum malaria. She had reached Singapore, but was too ill to travel further. She needed a ventilator in ICU. With no travel insurance, the family were paying. By the time we were contacted, the family were seriously considering mortgaging their house. The hospital had implied that, if they couldn't pay, their daughter would be discharged, regardless. We were asked to return her.

She now had only single organ (respiratory) failure, but on an FiO_2 of 0.8 and 10 cm of positive end expiratory pressure, she had barely marginal gases.

After several conversations with her treating doctor, my initial thoughts were that she was sick but stable. If she could be looked after for eight hours in a hospital bed, how much harder could it be doing the same for eight hours in the back of an aircraft?

I had no idea what I was getting myself into.

A private air-ambulance was out of the question because of cost. QANTAS agreed to set aside 18 seats at a greatly reduced price, provided they determined which flight we could use. This number of seats was necessary as an aircraft stretcher takes three rows of three seats, oxygen a further two rows of three and medical escorts and equipment the last row.

Her respiratory status was such that the basic gas-driven ventilator used in most domestic retrievals was out of its league. Dräger generously lent us a new generation power-driven ventilator which could do more complex ventilation. They also kindly volunteered to modify the ventilator to take the different power sources required during the different phases of transport.

As we needed two intensivists and a nurse, intensivist, Dr Felicity Hawker was sent five days before the transport to maximise the patient's respiratory status. The nurse and I arrived two days later. Everything looked ready to go, but being a pessimist at heart, I worried that we had forgotten something.

We decided on a trial run to the airport. We rigged up a dummy in the patient's bedroom, with all the monitoring we planned to use. To our horror, we discovered that Singaporean oxygen cylinders have different regulators from Australian (in fact, throughout the world, there are many different and mutually incompatible oxygen fittings. The Australian DISS used to attach high pressure white oxygen tubing to the wall or to cylinders looks completely different in other countries). A quick trip to Dräger's Singaporean office and we were ready with our newly-acquired high-pressure tubing with a Singapore-compatible fitting.

This time we got as far as the elevator. It couldn't take the patient, the monitoring equipment and the F-sized oxygen cylinder. Back to the drawing board. We put the F-cylinder in the ambulance and then brought our pretend patient and two C cylinders down in the lift.

Off to the airport. We were assured that the ambulance trip would take no more than 30 minutes. Being somewhat distrustful, we took enough oxygen for a one hour ride. We got to the airport in a little over an hour, but wouldn't have had enough oxygen for the time it took to get onto the tarmac and then onto the aircraft. On the day of the transport, despite taking 50% more oxygen, we nearly ran out.

That was my introduction. By the time I retired from the company, some 20 years later, we had performed over 4,000 international retrievals. Not all were on ventilated patients, but each had their little twists and moments of anxiety.

International patient retrieval is a complex subject worthy of it's own textbook but with the benefit of experience, five issues must be considered, each of which is due more consideration than time and space here allowed.

THE PATIENT

In general, if the patient is improving overseas, it's usually better to leave them until they can return unassisted. However, this doesn't apply to some types of patients.

1. Australia is surrounded by third-world countries lacking the medical infrastructure to manage critically ill patients to a standard most of us would be comfortable with. It's usually in the patient's best interests to move them, whatever their condition.
2. In some countries, medical and hospital expenses are so high that uninsured or under-insured patients will need to be moved before the medically optimal time.
3. Some patients will require assistance no matter how long they are kept overseas, eg acute quadriplegics, major cerebrovascular accidents, and terminal patients.

When trying to anticipate the adverse effects of flight on a patient's medical condition and the monitoring difficulties, one needs to consider the stressors of flight. Depending on the patient's pathophysiology and attached monitoring equipment, some or all of these might be relevant:

a. G-forces;
b. lowered humidity;
c. lower inspired oxygen partial pressures;
d. vibration;
e. temperature changes;
f. barometric pressure changes;
g. air sickness; and
h. noise.

This is a limited discussion of this vital topic. There is an entire article's worth of information one could go into on just the patient in Aeromedical Evacuation (AME).

THE LOGISTICS

In many respects, this is retrieval's most crucial element. Many behind-the-scenes boxes need anticipatory ticking for a retrieval to progress smoothly. Here I mention a few.

1. A general plan, including how, when and where the patient is to be transported.
2. Booking hospital beds at the destination medical facility (DMF), and, perhaps, at an intermediate medical facility (IMF).
3. Contingency plans to take into account a patient's unexpected in-flight deterioration.

FEATURE

4. Booking an aircraft.
5. Booking ambulances at each end.
6. If all the passengers must deplane at refuelling stops, then the ventilated patent and their oxygen will need somewhere to stop for the duration – often, a pre-booked ambulance, with oxygen, waiting on the tarmac.
7. Oxygen might need to be transferred to the originating hospital several days before the transport.
8. Visas, transport and accommodation for the escorts.
9. Approval to bring narcotics and sharps into the originating and intermediate countries.

EQUIPMENT

Regular Public Transport (RPT) airlines have lists of medical equipment certified by their engineering department as being safe on board. These lists are quite specific, detailing actual brands and models of equipment rather than just classes.

As airlines are concerned about medical equipment interfering with flight deck avionics, all equipment giving off Radio Frequency (RF) radiation needs to be cleared.

Aircraft power points are off-limits; they don't want us blowing fuses. Their power points are for cleaning equipment only.

Equipment on board the aircraft needs to be physically secured so that it doesn't become a missile during inflight turbulence.

Monitoring equipment used on board needs to have both audible and visual alarms as ambient noise often makes audible alarms difficult or impossible to hear.

Lead-acid batteries are forbidden, as acid spills would weaken the fuselage. When we started in the 1980s, syringe drivers had only internal batteries which usually lasted for a maximum of only three hours – despite manufacturers' claims to the contrary. Running an inotrope infusion for 20 to 30 hours was a challenge.

ESCORTS

Luckily, I had many colleagues happy to fly to Paris for the day. However, it was no holiday; many didn't volunteer again. Because we needed them on the return leg, they were given 24 hours on the ground in Asia or 48 hours in Europe to recover from the outwards flight. They could sightsee, but not undertake dangerous activities which could compromise their work on the way home. Skiing, riding motor-bikes etc. were forbidden, as was eating at third-world hawker stalls.

During their rest-time, they had to see the patient and suggest changes in treatment to aid the journey home. This could involve up-to-date pathology and imaging to ensure that they hadn't developed, for example, pneumothoraces, which are pretty much fatal in flight. Suitably conscious patients are given enemas and codeine to decrease the need to move them to the toilet in flight.

In some countries, escorts have to pay the patient's hospital bill prior to discharge. Finally, the patient needed to be 'packaged' – double-tying-in all their tubes etc, inserting extra cannulae, and ensuring that indwelling catheter balloons were actually filled and secured to the patient's leg. *The general rule is that the more important the line, the more likely it is to fall out during transfers.* It is infinitely easier to insert these in the patient's hospital bed than in the back of an aircraft.

The number of escorts needed for a safe retrieval is a lesson we learnt early. Flying from London to Sydney takes around 22 hours. However, to retrieve a patient from London to Sydney involves arriving at the hospital about five hours beforehand, spending an hour 'packaging' the patient and collating discharge notes, a 90-minute ambulance trip to the airport, an hour spent with exit formalities, and an hour on board prior to take off.

A similar time is spent at the other end before the job is finished. Now the '22-hour flight' becomes a 32-hour working day.

At first, we sent two teams, each a doctor and a nurse, to the overseas medical facility. They could do four-hour shifts and rest while the other team took over. This didn't work. Despite our best intentions, both teams would work hard at the commencement and both would be exhausted at completion.

Much better to send one team to the overseas medical facility and the other to the refuelling stop. This way, the first team would, when they were fresh, supervise the patient's movement onto the aircraft and would manage the first leg of the flight; the second, fresh, team would come on at the intermediate stop, manage the second leg and transport to the DMF.

One issue with this approach was the unpleasantly competitive financial aspect. The bills were being paid by insurance companies, who would occasionally ask us to tender. There was always a company tendering more cheaply for just one team to perform the entire transport. This invariably led to differences of opinion between ourselves and the insurers' claims department about the greater importance of quality of care over price.

THE PLATFORM

For international retrievals, there are only two forms of transport platform – regular passenger transport (RPT) or dedicated air ambulances (AA).

Stretchers on RPT are very uncomfortable. They are narrow with very thin mattresses. They are usually only suitable for unconscious patients. If the patient is capable of sitting upright for 30 minutes for take off and landings then both they and their escorts are far more comfortable in business class flat beds.

For transporting ventilated patients, we prefer to use RPT.

Issues relating to choice of aircraft are:

1. **Speed of organisation.** For time-critical transports, eg multi-traumas out of third-world countries, an AA can usually be airborne within hours of notification, By contrast, a stretcher and oxygen on board an RPT will often take days to organise. Furthermore, if stabilising and 'packaging' the patient takes longer than expected, and one is unavoidably delayed in transport to the airport, a RPT will not wait; an AA will. This problem shouldn't arise when moving stable patients, but is a potential issue with unreliable triage and unstable patients.
2. **Space.** Despite the love affair the public has with Lear Jets, the cabin is tiny. Performing any procedures in-flight is almost impossible. The cabin space on RPTs is, as you will know, enormous. On RPTs, the way the stretcher is set up severely limits access to one side of the patient, but cannulating or even intubating in flight is not a major issue.
3. Although many AAs are fast, they have small fuel tanks necessitating, for long trips, multiple refuelling stops. For long-haul flights, an RPT will often get to the destination before an AA. For medically unstable patients, the barometric pressure changes associated with multiple climbs and descents with AAs might harm the patient.
4. One problem with using RPTs is that airline medical departments are conscious of not offending other paying passengers. Patients with offensively smelly lesions or even just naso-gastric tubes might fit into this category.
5. **Cost.** A big issue, AAs are many times more expensive than RPTs.

CONCLUSION

In summary, whilst the actual medical management of patients on board aircrafts in international retrievals is not that much different from their management in hospital beds, the process of moving patients involves a lot more than just medical management. This job is best performed by organisations with much experience.

Dr Howard Roby

ABOUT THE AUTHOR

Dr Roby is an anaesthetist in private practice in Sydney. For 20 years he was the medical director of the international assistance arm of Cover More Travel Insurance. He is a senior lecturer in the aeromedical transport and retrieval program at the University of Otago. Dr Roby is in the RAAF specialist reserve where he is a military critical care air transport specialist. He holds the rank of Wing Commander.

FEATURE

CareFlight's first official flight over Westmead Hospital, July 12, 1986

CAREFLIGHT: FROM CONCEPT TO REALITY

Retrieval of critically ill and injured patients is now a major part of the Australian health-care system, but it wasn't always so.

Prior to the formation of CareFlight, at Westmead Centre, Sydney, Dr Fred Gilligan, at Royal Adelaide Hospital, was undertaking retrievals in South Australia, and, of course, the Royal Flying Doctor Service provided outback medical care. Otherwise, intensive care-level medical retrievals undertaken by accredited registrars or specialists was a rarity, organised on an ad hoc basis, usually undertaken by the most 'expendable' (read 'junior') doctor in the receiving hospital.

In 1985, Westmead Centre, in the western suburbs of Sydney, was arguably Australia's busiest trauma centre and, with more than 300 severe head injury admissions annually, one of the busiest head injury centres in the world. Many were motor vehicle-related injuries from the western metropolitan area.

Too frequently, head-injured patients arrived at the Westmead emergency room suffering from the secondary brain insults of hypoxia, hypercarbia, and hypotension, known to be associated with poor outcomes. Although the paramedics worked ably, to the limit of their protocols, it was simply not enough. A group of Westmead anaesthesia registrars and intensive care specialists, who flew as part of the volunteer medical crew on the Sydney Surf Lifesaving helicopter, determined that the best solution was to take the teaching hospital to the patient.

The doctors and management of the Sydney Surf Lifesaving Association helicopter approached its governing body to base a second helicopter at Westmead for dedicated medical work, but the Association decided that that lay beyond its sphere of operations. With no likelihood of a government service coming into being, management and doctors decided, in early 1986, to go it alone and create their own not-for-profit, private, full-time, adult civilian medical retrieval service – CareFlight.

This daunting task involved securing corporate sponsorship, ambulance service approval and cost recovery, Westmead approval, purchasing a suitable helicopter, designing and fitting a medical cabin configuration, procuring medical equipment, creating medical and operational protocols, and completing flight training and Civil Aviation Authority certification.

The medical protocols alone were daunting. Today, elective intubation prior to transport is an accepted part of retrieval. In 1986, no civilian patient

Dr Fran Smith

Interior of first aircraft

transport service in the world had this capability. Furthermore, CT scanning was in its infancy and the idea of 'masking' a patient's neurological status with anaesthetic drugs, prior to review by the neurosurgeon, was generally considered tantamount to heresy.

However, as a result of 'combative' head-injured patients interfering with crew and controls, a disturbing number of fatal retrieval helicopter accidents had occurred in the USA. We decided that all significantly head-injured patients would be Sedated, Paralysed and Intubated prior to Transport. This led to our nickname – the 'SPIT' team.

We knew that, while isolated during transport, there would be no backup or support. The patient's survival would depend on the skills, protocols and equipment we had deemed appropriate, in situations never before attempted.

If there was an upside to the epidemic of head injuries at Westmead, it was the confidence we had in dealing with such patients daily. Furthermore, the Westmead neurosurgeons and intensivists supported the concept of early intubation as fundamental to minimising secondary brain insults.

It soon became apparent that, in the days before the introduction of Early Management of Severe Trauma training, (the development of which Westmead Centre played a major role) our equipment, expertise and management of trauma far exceeded that in most peripheral hospitals, and that we were very much on our own. We all experienced the unparalleled intense loneliness of that situation.

CareFlight went from first concept to reality in just 13 weeks. It went 'on line' on 12 July 1986, completing 11 missions by the end of that month.

This incredible achievement was due to the hard work of many, most of whom would never personally enjoy the professional reward of flying or of successfully rescuing or retrieving a patient from the brink of death.

Paul O'Connell was the first full-time doctor; others volunteered for a weekend and after-hours roster. In 1987, Dr Luis Gallur, with the support of Westmead, and in particular, of the Director of Anaesthesia, Dr Ross Holland, took a year off his anaesthesia training to work full-time for CareFlight.

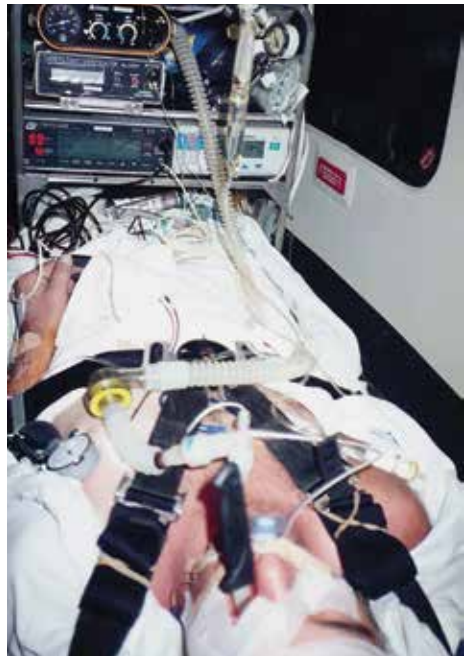
Meanwhile, as the inaugural medical director, Dr Fran Smith, Intensive Care specialist at Westmead, worked tirelessly to promote and defend the service against its detractors. They felt that this was government or ambulance business, and that doctors should not venture beyond the doors of hospitals, particularly in a non-government service.

By mid-1987, it became clear that something bigger than a helicopter service was needed. CareFlight doctors did not see any intrinsic value in helicopters, other than their ability to deliver timely medical care for patients in certain locations. Others' clinical needs could be better served by fixed-wing air ambulances, road ambulances, or a combination of these.

In late 1987, CareFlight approached

FEATURE

CareFlight medical equipment



Equipment in use in early days

the New South Wales Government and the NSW ambulance service to fund medical positions and to expand formally into other modes of transport, but to no avail. Health Department and ambulance representatives argued that, prior to 1986, an average of only 10 intensive care medical retrievals were performed in NSW annually, indicating an absence of demand for such a service. We explained, without success, that this was because there was no one available and equipped to do the work.

In 1988, CareFlight therefore went it alone, without further government funding. I was employed as CareFlight's first full-time specialist. We soon appointed fellow specialist, Dr Blair Munford, while medical volunteers filled the roster. We contacted all NSW hospitals, offering our retrieval services – by whatever means of transport – at no charge. Funding was a combination of corporate sponsorship, a little cost recovery from the NSW Ambulance Service, and, following the countless presentations we made, the generosity of many community organisations.

In spite of the loss of our major sponsor, the health fund HCF, CareFlight decided to procure a larger aircraft, with improved all-weather and mountain rescue capability, and, most importantly, the ability to add a NSW ambulance paramedic to the then crew of pilot, crewman and doctor. The motoring organisation, the Sydney-based National Roads and Motorists' Association, became our new major sponsor.

Two invaluable pieces of clinical equipment became available in the 1980s.

CareFlight was the world's first patient transport organisation to use pulse oximeters. In late 1988, we became the first to use capnographs. As part of the aircraft upgrade and the need to use a chain of up to five vehicles to transport a patient from the site of the injury to Westmead, Blair, Dr Howard Roby and I designed and constructed a stretcher-based mobile intensive care unit, compatible with all ambulance vehicles. This ensured continuity of care (Wishaw et al, 1990) – another world's first. This concept became the internationally accepted standard.

The unit converted the new helicopter into a real-life version of 'Thunderbird 2 ,' bare-decked when on standby, but rapidly fitted, depending on the mission profile, with any necessary medical and rescue equipment.

The other invaluable piece of equipment coming into existence then was the personal computer. Following on from Dr Ross Holland's mantra "knowledge and data are power", we maintained a data-base on all patients from day one – on our 'huge, state-of-the-art ', 80-megabyte computer. Within seven days of transfer, referring hospitals received written feedback about the retrieval process and patient progress. We became masters of producing bar- and pie-charts, something few people had seen before.

In late 1988, we presented the NSW Health Minister with the data on the several hundred retrievals done the previous year. Two-thirds of the patients had been intubated prior to flight, attesting to the legitimacy of the transfers. By the end of the year, the Minister had funded more medical positions. In 1989, the Faculty of Anaesthetists and the

Third aircraft at road accident

College of Emergency Medicine approved CareFlight as an accredited training post. Retrieval had come of age as a critical care sub-specialty. From there, the concept spread throughout the state, the nation and overseas.

Two early operational philosophies still apply today. Firstly, the service would be developed around the needs of the patient, rather than any political or ideological agenda. Secondly, safety of the operation was paramount.

While it seems self-evident now, many fatal medical helicopter accidents were occurring both here and overseas in the 1980's – due to a 'show must go on' mentality. We believed it essential that flight and clinical factors be integrated prior to accepting any task. Having senior medical insight into the clinical situation, and a pilot and doctor with an appreciation of each other's needs and challenges, often provided the best way to serve the patient – without putting a flight operation at risk. "All to say go, one to say no" was the mantra. This eventually led to the Health Department's appointing senior CareFlight doctors as medical retrieval consultants – to weigh up the operational and clinical needs and risks before deciding how best to proceed when logistics or weather proved challenging.

CareFlight's rapid success was due to the incredible dedication of a small number of anaesthetists, intensivists and emergency medicine physicians, other doctors and supporters who, often at significant personal psychological cost to themselves and their families, fought to make the safe transport of critically ill and injured patients a key element of Australian health-care.

Ken Wishaw

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ABOUT THE AUTHOR

Ken Wishaw is a retired anaesthetist living on the Sunshine Coast. He was Australia's first full-time helicopter doctor with the Surf Life Saving Association, before co-founding CareFlight. He later flew with the Sunshine Coast Rescue Helicopter Service in Queensland, and served in both the RAAF and Army Reserves.

A full account of his story was published in 2004 in his autobiography, *Helicopter Rescue*, available through CareFlight in Sydney.

FEATURE

NORTHERN EXPOSURE – CAREFLIGHT NT

Dr Ben Piper is a Staff Specialist Anaesthetist at Royal Darwin Hospital, VMO at Darwin Private Hospital and Medical Retrieval Consultant for Careflight NT. Having previously worked in NSW and WA he observes some of the unique challenges and rewards of working in aeromedical retrieval in the Northern Territory.

The Top End of Australia is often described as a frontier, famous for its natural and cultural riches. Careflight has been serving the NT communities on this frontier for many years, providing acute care resources to some of the most remote communities and the most vulnerable patients in the country (and the odd "grey nomad"). It is a workplace that delivers constant challenges in the form of climatic excesses, geographic isolation and extremes of pathology. Acknowledging these challenges and working with dedicated teams brings great reward to both the care providers and the communities that they serve.

THE RESOURCES

Each year, on behalf of the NT Government, Careflight transfers approximately 3,000 patients, primarily to Royal Darwin Hospital. The service also covers neonatal and paediatric retrieval that makes up a considerable proportion of our work load. Careflight operates a fleet of three High Acuity Fixed wing King Air Prolines, one AW 139 helicopter and one Low Acuity King Air. The high acuity resources are tasked by the Medical Retrieval Consultant (on referral from the Remote Medical Practitioners) and care for those that need immediate hospital or critical care. This service is staffed 24/7 by nurses, midwives and flight doctors (a mixture of consultants and registrars) and medical oversight is directed by the Medical Retrieval Consultant.

The Careflight NT operation base in Darwin is unique in that it co-ordinates the full suite of retrieval services, all patients of all ages. Unlike many other services that are "tasked" by a central state agency, Careflight NT takes the initial referral and engineers the entire response including aviation, engineering, logistics, personnel tasking and patient management.

THE CHALLENGES

Some of these would be obvious to the casual observer such as servicing a landmass of 600,000 sq/km (twice the size of Victoria) with average retrieval times of 5-6 hours. Others may be less obvious such as the >80 distinct indigenous language groups that are covered by

the service or the heavy burden of cardiovascular, obstetric and trauma-related morbidity.

Trauma in the top end has a unique and sad relationship with mental health. Suicide is the leading cause of trauma-associated deaths in the NT, accounting for over 35%. This is followed by motor vehicle deaths, 52% of which were not wearing a seatbelt. The high incidence of severe mental health disorders is something that has prompted Careflight to be a leader in this field. The challenges associated with aviation and unpredictable and erratic behaviours have significant safety implications. The Careflight teams have a proud record of extremely low levels of intubation for psychiatric retrieval (<1%) and are currently running a prospective randomised trial on sedation in this setting.

Security is another consideration where police may be mobilised prior to placing clinical and aviation personnel into some of the more extreme environments. Fortunately, this is not common, however it does place some perspective on the complex and ongoing difficulties that some of our patients face in their day to day lives. It also gives time to pause and consider the disconnect from my life of relative security and comfort, to those not far down the road, living in a complete vacuum of either. These fortunes are no fault of their own other than their postcode. Without reflecting on these facts, working in these environments is akin to watching a TV show on mute. It is this reason why we place cultural awareness in a pivotal and central role to our teaching, it is why we recognise the traditional custodians of the lands on which we work and recognise both the ancient and modern histories of the Indigenous people.

THE REWARDS

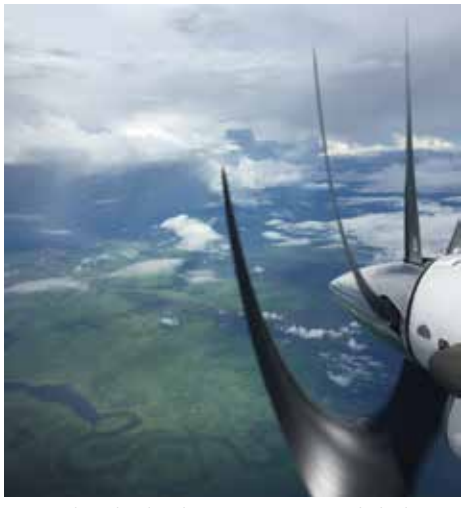
It is a pleasure to be able to arrive at a workplace with an enviable training culture that prides itself on first-class care. A workplace where the day could quite literally bring anything. Be it finding out your UK registrar was ankle deep in a crocodile infested river with a ventilated patient, retrieving a prem-labour obstetric patient in acute heart failure, managing critically unwell infants on islands off the Arnhem Land coast or just giving advice on infant oral rehydration to an Indigenous health worker in a clinic. There is nothing mundane about work in the NT. It will prompt you to value your basic medical training and the magnificent medical education system we have in this country.

Darwin is also fortunate in its geographic isolation, Royal Darwin Hospital is the only tertiary referral centre in the north of the state. The ability to engage with specialists familiar to me through my role as an anaesthetist at Royal Darwin Hospital is powerful. This increases the focus on the patient, placing them under an extended team, beyond that of just a job title at the time. Not only are we bringing the specialist their own patient, the patient will return home and continue to be under their care. There are few retrieval settings where such a closed loop of care can routinely exist.

Although the health and social circumstances of some Indigenous communities add a challenging dimension to our service, others bring an exuberance of fortitude, resilience and an infectious cheerfulness that must be experienced to be appreciated. I have been very privileged to have seen both sides of this coin, especially the side that often does not get the "air-time" of the other.

I am fortunate to have been handed the opportunity to make the retrieval word green with envy. Our patients may be pathophysiologically challenging and require acute cultural nuance, however they are also among the most resilient and genuinely grateful for the services that they receive. So, if it's a rewarding challenge you are after, with a first-class team, get on board.

See you in the NT.



East Arnhem land in the Wet on route to Nhulunbuy

The Adelaide River with Tiwi Islands in background

FEATURE

MILITARY AEROMEDICAL EVACUATION

Pay every attention to the sick and wounded. Sacrifice your baggage, everything for them. Let the wagons be devoted to their use, and if necessary your own saddles.

– Napoleon I

HISTORICAL DEVELOPMENT OF MILITARY AEROMEDICAL SERVICES

Air evacuation of military casualties was very limited in WW1. Towards the end of the war, small bomber aircraft were modified to carry a single patient. No care was possible in-flight. The aircraft were primarily used to rescue downed pilots whilst flight training in the USA.

Progressively larger aircraft were used, allowing transfer of multiple stretchers.

The Cox-Klemin was the first plane built specifically as an air ambulance. Two patients and a medical attendant were enclosed within the fuselage.

During the Colonial Wars in the late 20s, over 7,000 wounded soldiers were transported in converted bombers.

The next major development was from 1936 to 1938 during the Spanish Civil War – the German Junkers Ju-22. These had oxygen systems, and carried up to 10 litters. They could cruise at 18,000 ft and had a range of 1,600 miles. In the German invasion of Poland in 1939, men wounded in Western Poland were in operating theatres in base hospitals in Germany within two hours. This capability alone increased the combat evacuation survival rate from 50% in the Great War to over 80%.

The war in the Pacific necessitated increasing use of aeromedical evacuation resources. The US established the Army Air Force (AAF). In South East Asia, by 1942, the AAF had transported more than 10,000 casualties in C-47s. Along with, and pivotal to, this expansion was the establishment of the US Flight Nurse Corps in 1943.

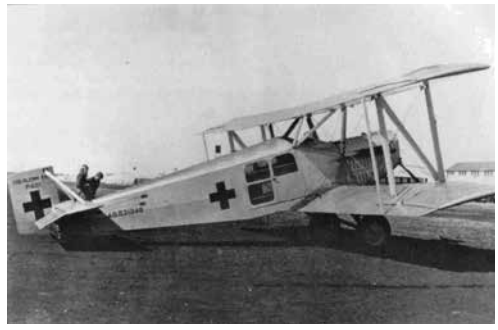
US aeromedical evacuation teams established trans-Atlantic and trans-Pacific routes to the USA. At its peak, the AAF evacuated 100,000 sick and wounded a month. In one day in 1945 a record 4,704 patients were transported. As experience was gained, and with the advent of specifically trained aeromedical evacuation medical teams, the risk of death during transfer dropped from 6 to 1.5/100,000 patients. General Eisenhower credited aeromedical evacuation as important as penicillin and blood products as a chief factor in cutting the fatality rate of battle casualties.

At the same time, the RAAF formed the No. 1 Air Ambulance Unit. It initially flew eight DH-86 aircraft each carrying up to eight patients. During the Unit's deployment in North Africa and Tunisia over 9,000 casualties were transported.

No. 1 AAU was re-equipped with the Bristol Bombay for the Italian Campaign.

In the PNG campaign, Australian and US forces were unprepared for the huge casualty load. It was too dangerous to evacuate safely by sea and daunting to consider carrying casualties over

Single patient air ambulance WW1.



Cox-Klemin two patient air ambulance at Kelly Field Texas, 1926.

C-47 Dakota PNG, WW2. S/Sr Elizabeth (Betty) Bray loading patients in 1944.

the Kokoda Track. The US performed hundreds of missions with no medical attendants or equipment on board. Casualties were loaded dehydrated, wet and totally unprepared for flight. Nevertheless over 13,000 patients were carried in 70 days. Fortunately the US 804 Aeromedical Evacuation Squadron arrived in 1943.

After a short deployment with the Americans in July 1944, the RAAF formed its own Medical Air Evacuation Transport Unit. It was commanded by SQNLDR Winston Kiel. The first cohort of RAAF Flight Nurses was trained and sent to PNG. Based at Nadzab, near Lae, the No 1 MAETU carried more than 14,000 cases to Australia without a single loss of life. The aircraft used was the C-47 Dakota – the military hardened version of the civilian DC-3. It took 19 litters and was usually crewed by a single Flight Nurse.

The first use of a helicopter for aeromedical evacuation was by the US in Burma 1944. Lt Carter Harman rescued four downed soldiers after flying the helicopter alone over 1,000 nautical miles from India.

Helicopters were increasingly used for casualty aeromedical evacuation in the Korean conflict and were vital in saving thousands of lives in Vietnam.

The concept of rapid extrication to a surgical facility was now imprinted in military dogma – later to be translated into the civilian world.

Well trained medics controlled bleeding, administered pain relief and commenced IV therapy en route to the receiving facility – still the mainstay of initial trauma care 50 years later.

CURRENT MILITARY AEROMEDICAL EVACUATION SYSTEMS

The Australian military deploys aeromedical evacuation assets to support all combat and major training operations. In addition, the ADF, at the request of the Australian Government, has the capability to provide substantial aeromedical support for natural disaster relief responses.

More recent military conflicts have required aeromedical evacuation of Australian personnel from Iraq, Afghanistan and other theatres of war.

The battle injury profile has changed, much due to the enemy's use of improvised explosive devices. Body armour has reduced the frequency of truncal wounds but severe limb injuries are more common. Self Care and Buddy Care emphasises the immediate arrest of haemorrhage and Medic Care includes management of tension or open pneumothorax, airway maintenance and analgesia. Forward placement of aeromedical evacuation teams with more advanced resuscitation skill sets has reduced morbidity and mortality to historically low levels.

The basic evacuation concepts remain the same as WWI, but now we have rapid response retrieval platforms and teams, highly organised casualty flow paths and extraordinary resuscitation, surgical and critical care services in the Area of Operations. From the Tactical Casualty Collection Point, the wounded are typically evacuated by helicopter to a Forward Surgical Team and then rearward to a Combat Support Hospital.

Immediate combat care should be provided within ten minutes, evacuation to a Forward Surgical Team by one hour and onward transfer to a Combat Support Hospital within a further one to two hours. Air transport performs the vast majority of these movements.

Armoured ground ambulances, fitted with liquid oxygen systems blood products and critical care equipment enable forward projection from combat bases and can provide a treatment platform whilst awaiting aeromedical evacuation assets.

CH-47 Chinook AME team.

Australian Army MRH-90.

RAAF C130-J Hercules.

RAAF C-17 Globemaster interior.

FEATURE

Rotary wing aeromedical evacuation

Armed and armoured helicopter aeromedical evacuation platforms deliver medical teams to the casualty and facilitate rapid transfer to resuscitative surgery, with care commenced en route (Forward AME).

The most common Forward AME platforms are the CH-47 Chinook and the UH-60 Black Hawk.

The Chinook, as used by the British Army Medical Emergency Response Team (MERT), has the advantage of a rear loading ramp and size allowing full access to treat the patient.

The Black Hawk has been in Australian service since 1988. It is the platform predominately used for Forward AME by the Australian and US military.

Australia is migrating its multirole helicopter to the MRH-90. It will be a very capable aeromedical evacuation platform and operated by the Australian Army and the Royal Australian Navy.

The MRH-90 also has the advantage of a rear-loading ramp and can be fitted to carry up to 12 litters.

The US Air Force and Marines have utilised the unique tilt rotor V-22 Osprey in forward and tactical aeromedical operations.

Fixed wing aeromedical evacuation

In 1958, the Royal Australian Air Force took delivery of its first C-130 Hercules aircraft. Twelve C-130J currently remain in service.

The C-130 can operate from relatively short unsealed airstrips and has the capacity to mount over 60 patient litters.

These aircraft transferred over 3,000 wounded and sick Australian soldiers to Australia during the Vietnam War. The aircraft stopped in Butterworth, Malaysia for patient reassessment. There were no deaths in flight.

The Hercules has performed a huge range of aeromedical evacuation missions over the past 50 years. The RAAF C-130 response to the Bali Bombings resulted in the transfer of over 60 critically ill victims to Darwin and later throughout Australia.

It has responded to situations as diverse as the Indian Ocean tsunami – where many hundreds of injured were relocated Indonesia, to complete hospital flood evacuations in Queensland.

RAAF missions are supported by highly trained Aeromedical Evacuation Teams consisting of nurses, medics and doctors. For high dependency and critical care patients Military Critical Care AME Teams (MCAT) supplement clinical care. These are both Permanent and Reserve RAAF clinicians from Anaesthesia, Critical Care and Emergency Medicine disciplines. The logistical support is extensive and sophisticated. Most critical care interventions, including ventilation, invasive pressure monitoring, inotrope infusions, blood products, point-of-care pathology and ultrasound are available on board.

Medical stores and equipment can be rapidly mobilised from facilities at RAAF bases and international missions can be launched within 12 hours.

For long distance (Strategic) aeromedical evacuation, the RAAF, in addition to the C-130 Hercules, has a fleet of eight C-17 transport jets.

The C-17 has a permanently mounted medical capability. Up to 36 litters can be constructed and the aircraft provide liquid oxygen and comprehensive power systems. They have an extensive range and good environmental control for patient and crew comfort and safety. A full suite of critical care equipment enables prolonged safe transfers – not uncommonly exceeding thirty hours duration.

The aircraft size makes it an ideal platform for transport of Highly Infectious Disease (HID) patients – facilitated by patient isolation facilities.

The RAAF's newest acquisition is the C-27 Spartan. This is an aircraft similar in configuration to the Hercules but two-thirds the size. It can access smaller airstrips and will enhance our capabilities in remote and underdeveloped regions. The aeromedical fit out will support up to 21 litters.

Aeromedical evacuation is an important contributor to providing a high level of medical care to our warfighters and civilians. Over the past 100 years there have been extraordinary advances in our ability to deliver advanced care to those who we place in danger and it is our privilege to do so.

Group Captain Allan MacKillop
FANZCA FFPMANZCA

Clinical Director Emergency and AME Services

Health Reserves, RAAF

CMO, LifeFlight Australia

FEATURE

FENTANYL DRUG SHORTAGE – ASA SURVEY FINDINGS

Critical worldwide shortages of essential medicines have limited anaesthetists' ability to deliver optimal care. In this article, ASA Policy Officer Elaine Tieu and Specialty Affairs Advisor Dr James Bradley summarise the findings from the recent ASA survey about fentanyl shortages, with further insights into the impact of pharmaceutical drug supply disruption.

Supply shortages of medicine have been widely reported by healthcare professionals over the years, presenting an ongoing global problem. Supply disruptions frequently arise when the following factors occur:

1. Scarcity of raw ingredients;
2. Unanticipated increases in demand;
3. Manufacturers' production decisions and economics to reduce or discontinue production;
4. Voluntary recalls;
5. Issues with government regulations and new therapeutic guidelines.

Medicine shortages can translate into lower quality and safety of care for patients. These shortages can trigger delays of both essential and recommended medical procedures and treatments, increase the risk of surgical interventions and negatively impact on patient recovery periods. Furthermore, medicines that have become unavailable may be substituted with less effective, inferior or more expensive alternatives. Unfamiliarity with alternative products could lead to an increased incidence of medication errors and/or adverse reactions, potentially worsening patient outcomes, especially for obstetrics and paediatric cases.

Anaesthetic drugs featured as one of the top five in short supply in a recent survey conducted by the Society of Hospital Pharmacists of Australia[1]. Antimicrobial medicine, cardiology medicine, endocrinology medicine and chemotherapies rounded out the top five. Consistent with international (American[2,3], European[4] and Canadian[5]) evidence of ongoing shortages in anaesthetic drugs, the prevalence of shortages for remifentanil, fentanyl, ketamine and propofol have garnered much media attention[6,7,8,9].

ASA MEMBER SURVEY – IMPACTS OF FENTANYL SHORTAGES

In light of the recent fentanyl shortage in mid-2017 faced by Australian hospitals, the ASA surveyed its members in June to gauge what impact this had on

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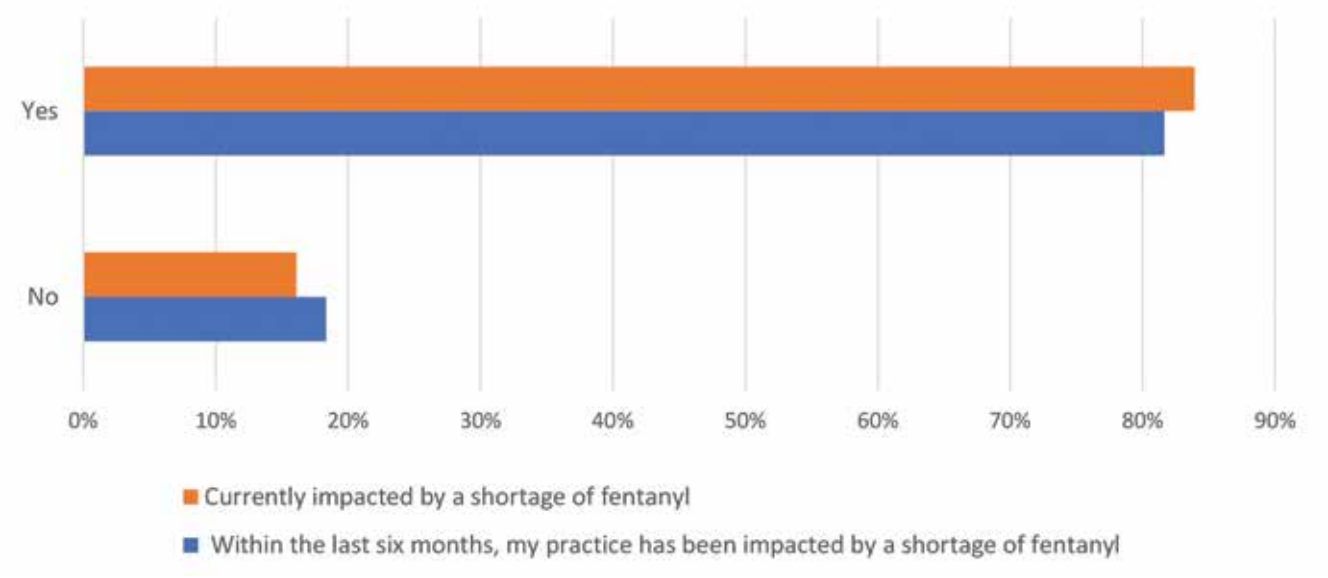

Figure 1: When the fentanyl shortage impacted practices

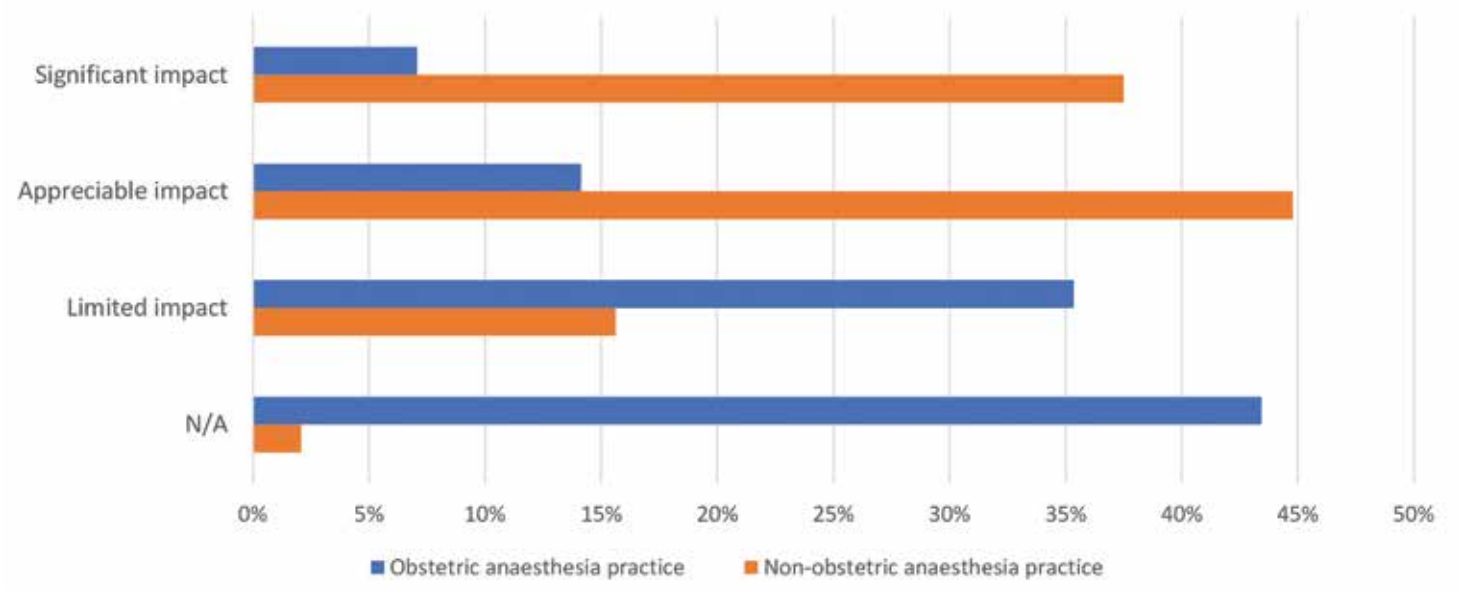

Figure 2: Impact of fentanyl shortage on obstetric and non-obstetric practices

anaesthesia practices. The responses totalled 121 from trainees, specialist and non-specialist anaesthetists. Key findings include:

- 84% were currently impacted by the fentanyl shortage, with over 80% having experienced a shortage within the last six months (Figure 1);
- 51% reported that the shortage impacted both public and private practice facilities with 22% and 26% reporting its impact affected public only and private only facilities, respectively;
- 21% reported that the shortage had appreciable to significant impact on their obstetric anaesthesia practice;
- 82% reported that the shortage had an appreciable to significant impact on their non-obstetric anaesthesia practice (Figure 2);
- 46% believed that another drug could be used as a substitute some of the time, with 42% believing that this could be done most of the time;
- 41% supported the use of sufentanil, an analogue of fentanyl, as an alternative substitute.

ADDRESSING DRUG SHORTAGES IN AUSTRALIA AND WORLDWIDE

As of early October 2016, the critical shortage in fentanyl supply became apparent due to a serious shortage faced by Aspen Pharmacare, who hold a near monopoly of the fentanyl stock, being the sole supplier to NSW and Victorian hospitals, which accounts for 60-65% of the market volume.

By March 2017, efforts by other pharmaceutical companies, such as Generic Health and Pfizer, to cover this shortage were limited as their capacities to support were no longer sustainable. As with other drug shortages, this shortage was noted by hospital pharmacies, who often alert other healthcare professionals and the TGA when attempts to reorder are unsuccessful. As ASA members are aware, the TGA publishes information about prescription medicine shortages on its Medicines Shortages Information Initiative database.

What is of concern is the lack of sufficiently early notification about impending shortages and disruptions since this information is provided on a voluntary basis by the suppliers. This is in part due to an inadequate level of legal clarity regarding the responsibility of suppliers to report supply disruptions at an early stage. Despite the TGA not possessing any legislative powers to safeguard a constant supply chain, the agency does have options to authorise the temporary procurement of unapproved medicines through the Special Access Scheme using the s19A of the *Therapeutic Goods Act* 1989, though this can be an expensive and lengthy exercise.

In New Zealand, suppliers are contractually obliged to notify PHARMAC (Pharmaceutical Management Agency of New Zealand) when they become aware of potential shortages as well as source and fund alternatives, inclusive of any extra costs incurred[10].

Efforts to legislate compulsory reporting of drug shortages in the USA were unsuccessful in 2011 when the introduction of the *Preserving Access to Life-Saving Medications Act* failed to pass Congress[11]. However, the *Food and Drug Administration Safety and Innovation Act*[12] was implemented, and this legislation requires manufacturers to report any supply interruption to lifesaving drugs[13].

Most recently, the Canadian Government legislated the mandatory reporting of any event that threatens the supply of essential drugs, through the *Regulations on Mandatory Drug Shortage and Discontinuation Reporting*[14,15,16], supported by a publicly available industry-led database website called Drug Shortages Canada. This comes in part due to continued advocacy by the Canadian Anesthesiologists' Society over five years[17].

Critical shortages in important drugs such as fentanyl have prompted calls for an overhaul of how Australia can guarantee ongoing supply. Mandatory public reporting for drug shortages with careful policy-making to ensure the access to quality medicines must surely be addressed. This could promote a sustainable, responsible local and global pharmaceutical manufacturing industry.

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FEATURE

CHALLENGES TO PRIVATE MEDICINE IN AUSTRALIA

The private medical industry in Australia is experiencing unprecedented challenges. To survive and prosper, all involved need to adapt and change.

Private medicine is heavily reliant on the Private Health Insurance Industry (PHI). The insurers are facing significant challenges in retaining their market. Increasing demand per patient drives cost increases in excess of inflation. These are reflected in the annual uplift in premiums, which likewise exceed the increase in the CPI, with all the attendant regular publicity and posturing by government and media. The number of people insured is essentially stagnant, but this hides the rapid decline in the quality of their cover.

- In 1995 24% of hospital cover policies had excesses and 0.2% had exclusions.
- In 2016 84.2% of hospital cover policies had an excess or co-payment and 38% were exclusionary.

The patient/customer, is therefore confronted by rising premium costs and rising excesses. The problem is compounded when gaps are charged by doctors. The combined effect is for more people to question the value of insurance per se and more again, who question the value of using it in the private system.

The fastest growing sector of the hospital market in the last couple of years is privately insured patients in public hospitals. Without Federal Government disincentives to public hospitals attracting privately insured patients, there is a rapid increase in this activity. The use of public beds for private patients, using their private insurance, adds an extra cost to the PHI companies, who are paying approximately $1B per annum to fund patients, who might otherwise have received this care at no expense to either patient or PHI.

Treating privately insured patients in public hospitals is far and away the most expensive way of providing care, from a health economics perspective. On average, the actual cost of care is lowest as a private patient in a private hospital, followed by the cost of a public patient in a public hospital. The total cost of treating a private patient in a public hospital is significantly higher as the federal government, state government and PHI are all paying in various ways.

This phenomenon is most clearly seen in the growing use of private insurance in public maternity hospitals. The gaps charged by some obstetricians, obstetric anaesthetists and paediatricians are a significant barrier to young families choosing the private system, which is struggling to maintain market share.

Other challenges to the private system arise from the growth in consumerism. The traditional referral paths to private care are changing. There are now more specialists than GPs in Australia. Patients are increasingly reliant on word of mouth, the internet and social media to choose their specialist and may simply ask a GP for referral to the specialist they have chosen, based on secondary sources of information. This is no different from the way most of us now choose a restaurant, hotel or airline. Whilst we might find the comparison of these industries with healthcare distasteful, it is a reality that private practitioners need to adapt to.

Consumers have little visibility, currently, of safety and clinical outcome data, except when there is adverse publicity about a particular incident or institution. Nonetheless, this will come with time as it has done overseas with entities like drfoster.com putting this data in the public domain. Nonetheless, for the most part, patients and families are likely to assume that the clinical outcomes will be good. This is, for the most part, justified, given the high professional standards in Australia and the rigorous regulatory environment. The regulatory environment itself is a source of rapidly rising costs for medicine as the standards required to achieve accreditation increase and the volume of evidence to demonstrate compliance grows significantly. Many bemoan this trend and point to a lack of evidence to link these processes with improved outcomes. However, they are a fact of life and there is no doubt that we have room to improve, as there are still avoidable incidents, which could have been averted by adherence to checklists, protocols and the like.

However, in a market in which good clinical outcomes are assumed and the potential customer questions the value of their insurance and the service, how does private medicine compete? The public system in Australia has a good reputation and there has been massive investment in infrastructure, with some quite grandiose developments. Various state governments

compete to make architectural statements with new hospitals, using public money. The private system has also invested heavily in infrastructure and may, in fact, have overcapitalised on beds in the current climate.

Access to care is a principle competitive advantage for the private system and we can only hope that privately insured patients are not 'queue jumping' in the public system, which is not only inequitable, but also damaging to the private system.

So, if the private system cannot compete on price (clearly) or clinical outcomes and struggles to compete on access, then it must compete on customer service and the patient experience. These concepts, which are embedded in so many other industries, are relatively new to healthcare. Indeed much of healthcare has been designed around the most efficient way for clinicians to use their time, with little regard for the customer. Patients wait for appointments, wait in waiting rooms as doctors run chronically late, wait in day procedure centres having been brought in hours before their scheduled procedure actually occurs. It is very efficient for the doctor, but disrespectful to the paying customer. Few staff in hospitals have undergone formal customer service training and probably fewer still in private consulting rooms.

Increasingly tech savvy patients can see the dysfunctional systems where they exist. Why don't we have access to all their medical information? Why do we repeat a blood test or a scan done elsewhere just days ago? Why didn't we provide them with the correct advice about, fasting, taking their medication preoperatively or their post op care? Sometimes these problems are also exacerbated by the lack of standardisation of such advice. With individual specialists valuing autonomy, the system struggles if every doctor insists on doing things slightly differently. Whilst medicine remains an art in some areas, non-value adding variation around many routine processes only makes the system unreliable.

Essentially, if private medicine is to thrive, it must respond to the challenges in the market. Change is inevitable and failure to adapt will lead to failure to survive. We are now competing in the "Experience Economy"[1], where it is insufficient to simply provide competent, safe care. We must adapt our hospitals, our systems and ourselves to put the patient at the centre of their care, involve them in decision making and provide a level of service which we all expect in our everyday life – particularly when we are paying significant sums of money. And all of this must be wrapped up with a level of personal attention, compassion and demonstrable concern for the patient and family as individuals – the essence of private medicine.

Dr Simon Woods MB BS FRACS MBA
Executive Director Cabrini Malvern

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FEATURE

ADELAIDE IN OCTOBER 2018

I hope you can be enticed to visit Adelaide for the ASA NSC in October 2018. After all, South Australia was voted fifth in *Lonely Planet's* Top 5 Regions of the World to visit!

October is a perfect time of year to visit with an average maximum temperature of a balmy 22°C and only 42mm of monthly rainfall. I hope that, besides an exciting educational program at the NSC, you will have time to explore some of the many attractions that Adelaide and regional South Australia has to offer.

There is something for everyone!

Dr Simon Macklin
Convenor ASA NSC 2018

Six things to do in Adelaide

1 Adelaide Zoo and the Giant Pandas (Fu Ni and Wang Wang), the only Giant Pandas in the Southern Hemisphere.

2 Adelaide Central Market: be assailed by the sounds and smells of this thriving indoor produce market.

3 Have a leisurely coffee or lunch at Henley Square and enjoy the pristine waters and sparsely populated beaches of the metropolitan coastline.

4 Enjoy the many bars, restaurants and cafes of the thriving West End, all in easy walking distance of the many hotels around the Convention Centre, or sample the delights of nearly 400 wineries (well, not *all* of them!).

5 Lose yourself hiking in the foothills of Mt Lofty, deep in the bush 20 minutes from the CBD, in Cleland or Morialta Conservation Parks.

6 Take a tour of Adelaide Oval and the Bradman Museum. Finish off with a Roof Climb!

REGULAR

FINANCIAL ADVICE CAN BE VERIFIED – NUMBERS DON'T LIE!

When you visit a financial advisor and receive advice, are they sharing their opinion or facts? Many people think they are relying on a subjective opinion when they seek financial advice. The fact is that you don't have to take this leap of faith.

I can nearly always demonstrate to a client why a certain approach or strategy is the most appropriate and effective using simple math. The beauty of this is that numbers don't lie. You simply have to trust the math.

'WHY' IS OFTEN MORE IMPORTANT THAN 'WHAT'

I have many clients that I have dealt with since I started this business in 2002 that trust me 100%. These clients are only interested in the 'what' i.e. what should they do next. However, if you meet a new financial advisor, I suggest the 'why' is more important to understand. Having the advisor explain why a certain strategy or asset class or investment is the best solution for you often provides you with an insight into their way of thinking and, most importantly, how robust and rigorous their advice methodology is. What's more, if the advisor can prove it to you using simple math then it should go a long way to building your confidence in them. Let me put that a different way. If an advisor cannot explain why they have recommended something and in most cases, prove it using math, then you probably should be concerned.

Take a recommendation like; you should invest in property. It's not because I think property is a better asset class, or because I think the property market will continue to appreciate, or because I think you will enjoy a better overall return. It is none of these things. No. I recommend property because I can mathematically prove that it's the best tool for the job (when it comes to the job of building your asset base). Much like a golf player knows that teeing off with a putter (not a driver) isn't the right club for the shot – that's not a matter of opinion – it's a provable fact.

THE FOUNDATION OF ANY INVESTMENT STRATEGY IS ROOTED IN NUMBERS

Financial modelling is the foundation of any investment strategy. A financial model is simply a spreadsheet that projects forward your assets, liabilities and cash flow – often through to retirement and beyond. Advisors use a financial model to achieve two main things:

1. It will prove (or disprove) that a financial strategy works i.e. achieves lifestyle and financial goals. How much do you need to invest in the next 10 years (and where) to achieve financial independence? A financial model will help answer this question.
2. To compare various strategies to determine which one is the most efficient. Is it better to invest in two properties and consequently contribute less into super, or should you invest in one property and maximise super contributions? Undertaking some financial modelling will help answer this question.

A financial model is a little bit like a road map. When you leave home and you know where you are heading, your car's satellite navigation will work out the quickest route to your destination. This is the role of a financial model in the planning process.

ACCURACY IS IMPORTANT – SHORTCUTS CAN COST

When we started offering our clients with independent financial advice back in 2008, we quickly realised that the off-the-shelf financial modelling tools that were commercially available in the industry didn't accommodate direct (investment) property accurately enough. I guess this isn't surprising given the market was/is dominated by commissions-based planners that typically recommended (sold) managed funds, not property. A financial model needs to account for things like land tax, compression on rental yields over time, use of various loan structures and offset accounts, various ownership structures and so on. Therefore, we invested a lot of time and money to build our own proprietary financial model that perfectly accommodates all asset classes including direct property.

THE UNDERLYING ASSUMPTIONS ARE KEY

A financial model is only as good as the data that is fed into it. Arguably the most

important inputs are the assumptions. As a general rule, it is best to be conservative with your assumptions but not so conservative that it starts to become meaningless. Conservative but realistic.

Here are some of the key assumptions that I use when planning:

- Inflation rate of 2.5% p.a.
- Mortgage interest rate of 7% p.a.
- Investment-grade investment property capital growth rate of 5% + inflation (this might be adjusted depending upon the grade of the property). I adopt a lower rate for a home and non-investment-grade property.
- Share/bond market portfolio returns of between 6% and 8% p.a. (comprising of 50% of income and 50% of capital) – but this depends on the asset allocation i.e. split because growth and defensive assets and might be adjusted up or down.
- Income tax rate brackets are adjusted for inflation.

STRATEGY ALWAYS TRUMPS TACTICS

"Strategy without tactics is the slowest route to victory. Tactics without strategy is the noise before defeat."

Sun Tzu, The Art of War

Tactics refers to what to invest in whereas strategy refers to how to invest. Imagine starting to build a house without any architectural plans? Or leaving home on a road trip without a destination and map? You just wouldn't do it. So then why invest hundreds of thousands of dollars without a clear, well thought-out strategy?

WHERE TO GO NOW?

Developing a financial strategy doesn't involve smoke and mirrors. In truth, its foundation lies in simple math. Virtually all financial mistakes are predictable and preventable if you receive the right independent advice. Almost no financial mistakes are the result of just bad luck in my opinion. A financial model can do a lot of the work in helping you to avoid making costly mistakes. So when you seek financial advice, make sure you do it from an independent, commission-free financial advisor with experience in helping medicos build wealth safely.

Stuart Wemyss
Prosolution

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Stuart Wemyss is an independent and licenced chartered accountant, financial planner and mortgage broker with over 18 years' experience in financial services. He founded ProSolution Private Clients in 2002.

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WEBAIRS NEWS

July saw the publication of the third article compiled from the first 4000 incidents reported to webAIRS. Themed around awareness, 61 incidents were analysed. Many of the cases were related to the use of neuromuscular blocking agents during a procedure, including inadvertent administration of NMBD prior to induction, during difficult intubation, during maintenance and residual paralysis post procedure. Ultimately, prevention is key to the issue of awareness. Post event distress may be a feature and a management plan should include a strategy to reduce ongoing psychological issues.

Attention next turns to the theme of anaphylaxis. A preview of analysed data was presented at the recent ANZCA ASM in Brisbane. The authors are currently working to produce one or more articles in coming months. In what is a highly unpredictable event, it is the timely and effective management that is key to positive outcomes.

In the second half of 2017, attention will also be given to the themes of aspiration, airways, hypotension and medications. The ANZTADC Publications Group will lead the research which will see further publication of articles and several conference presentations. Causal and management factors, as well as outcomes, will be investigated. It is the ASA National Scientific Congress in October that will provide the next opportunity to partake in a webAIRS conference session. "webAIRS – anaesthesia incidents and anaesthesia safety" will feature speakers Dr Martin Culwick and Professor Neville Gibbs. Diarise 3:30pm, Saturday 7 October to be a part of these patient safety and quality improvement themed presentations.

M.Culwick, S.Walker and N.Gibbs

For more information, please contact:

Adjunct Professor Martin Culwick, Medical Director, ANZTADC

Email: mculwick@bigpond.net.au

Administration support: anztadc@anzca.edu.au

To register, visit www.anztadc.net and click the registration link on the top right-hand side.

A demo can be viewed at: http://www.anztadc.net/Demo/IncidentTabbed.aspx.

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THE PUBLIC PRACTICE ADVISORY COMMITTEE (PPAC)

The Public Practice Advisory Committee (PPAC) was reinvigorated at the end of last year with the purpose of increasing engagement with staff and visiting specialist anaesthestists working in public hospitals, and anaesthesia trainees. The committee comprises 11 members from diverse backgrounds of public practice, representing each state and territory around Australia. Our first face to face meeting was held in May this year and focussed on key topics such as promoting doctors' welfare and mental health, eliminating bullying, harassment and sexual discrimination (BHSD), encouraging healthy respectful workplaces and, supporting and mentoring trainees with research.

In addressing these key areas, PPAC are looking to prepare a resource repository containing principle guideline documents that will provide advice on dealing with welfare and mental health, handling complaints, research scholar role fulfilment, and others. Additionally PPAC are exploring options to encourage professional linkages between trainees with research projects to assist with the fulfilment of their training. In this first article I would like to take the opportunity to introduce the members, some of whom will be very familiar to you.

DR STEPHANIE ARMSTRONG

South Australia

Stephanie works at the Royal Adelaide Hospital where she has been a consultant for the last 20 years. Originally from Scotland, she trained and worked in both the UK and Australian health systems. Stephanie is currently one of two Deputy Directors at the Royal Adelaide Hospital and her workload is 50% clinical and 50% administrative. She has specialty interests of head and neck, and vascular anaesthesia. The hospital is on the brink of moving to a delayed and vastly over budget new hospital and the complex arrangements for this occupy a large part of her time. Her new found interests are in workforce planning and management but she continues in her role as a Part II Examiner and maintains a keen interest in registrar training and welfare, having been a Supervisor of Training for 12 years until recently.

DR BEN HALLETT

Victoria

Ben is a fulltime staff anaesthetist at The Royal Children's Hospital in Melbourne with a small private practice. He is a passionate TIVA/TCI enthusiast for children. Ben enjoys assisting fellows in their transition from trainees to new consultants. He volunteers once a year to the Philippines for a cleft lip and palate mission with Operation Rainbow Australia.

DR DAVID LAW

Western Australia

David is a full-time anaesthetist at Sir Charles Gairdner Hospital in Perth. He has clinical interests in bariatric and regional anaesthesia and his non-clinical interest is in medical education. In being part of this committee he hopes to provide public anaesthetists in Western Australia a voice and representation in the ASA, and help address the issues relating to welfare and well-being of public anaesthetists such as high suicide rates. David is very excited to be convening the upcoming ASA NSC in Perth in October (please register to come if you have not yet – you won't be disappointed!)

DR JULIE LEE

Queensland

Julie was born and bred in Brisbane. Currently she is a staff specialist anaesthetist working full-time at the Royal Brisbane and Women's Hospital and also does private work on a casual basis. Julie's professional interests lie in regional anaesthesia and she has a research interest in obstetric anaesthesia and airway management. She is a Senior Lecturer at the University of Queensland and is currently undertaking a Doctorate of Philosophy (PhD) with the Faculty of Medicine at The University of Queensland. Julie's thesis revolves around the area of Rotational thromboelastometry (ROTEM®) in obstetrics. She is actively involved in the areas of research, education and quality improvement in her department, which she finds rewarding whilst striving for positive patient outcomes.

As an ASA committee member, her aim is to help improve welfare amongst trainees

and specialists. Julie is planning to set up a national research and audit database to facilitate networking between ASA members from both public and private practice to conduct multi-centre audits and research studies, in order to foster a greater research culture across the nation. Julie is dedicated to being the voice for all Queensland anaesthetists and will endeavour to advocate for all concerns and needs, whether big or small, as we face continual challenges from the government, institutions and community as a whole.

DR SURBHI MALHOTRA

New South Wales

Surbhi was born in India and grew up in Glasgow, Scotland. Prior to moving to Australia she worked in the Imperial College Healthcare NHS Trust in the UK. Surbhi is a recognised leader in anaesthesia clinical practice, research, quality assurance and education in the area of obstetric anaesthesia having published multiple papers and book chapters in this area. Surbhi is the Director of Anaesthesia and a senior staff specialist anaesthetist at the Royal Hospital for Women, Randwick. Surbhi has a passion for medical education and wants to continue to engage with trainees and new consultants as they navigate the challenges of clinical practice and non-clinical activities such as research.

DR LANIE STEPHENS

ACT

Lanie is a senior staff specialist at The Canberra Hospital with an interest in obstetric anaesthesia. Lanie organises and participates in the Part Two tutorials for the anaesthesia trainees. Lanie is the Deputy Supervisor of Training and has a commitment to medical education and trainee welfare. Lanie's goal in being a member of the PPAC is to promote staff specialists' interests and address work force issues on a national and local level to ensure that hospitals do not come to see registrars as cheap workforce without considering the benefits of an experienced service.

DR JENNY PLUMMER

Tasmania

Jenny has been a staff specialist anaesthetist since 2010 and is the Supervisor of Training at Royal Hobart Hospital. Her major interests include major general/upper GI anaesthesia, paediatrics and obstetric anaesthesia, and clinical education. Jenny has been involved in anaesthesia in developing countries and is passionate about equality in access to anaesthesia – being a long-time supporter of the Lifebox initiative and Operation Smile. Jenny works in full time public practice and also has a passion for travel. She is systematically working through her bucket list whilst being a busy working mum to a teenager, continuing her medical education and attempting to share her knowledge and experience with trainees and junior colleagues – whether that's about anaesthesia or travel tips. Jenny believes that if she wasn't a doctor she would be a travel agent catering to people who like to have things perfectly organised.

DR MARK SINCLAIR

Chair Economic Advisory Committee

Most ASA members would know Mark in his role as the very busy EAC Chair but it is sometimes nice to introduce even familiar people. Mark has worked for 18 years private practice in Adelaide with the Wakefield Anaesthetic Group, and is a VMO at Flinders Medical Centre. He is the past SA state chair of the ASA and was convener for the Darwin ASA NSC in 2009. Based on his significant contribution to the ASA through the EAC and other ASA duties, Mark received the ASA Certificate of Appreciation (2005) and ASA President's Award (2010). In being part of PPAC Mark hopes to continue ASA efforts to represent salaried colleagues' interests, as well as being part of the overall aim of getting salaried colleagues to get more involved in ASA activities and become members! Outside of medicine Mark is into modelling (building models, not the catwalk!), and is currently working on James Cook's "Endeavour" with masts still under construction, then the next stage of the rigging and sails.

DR SCOTT POPHAM

Chair TMG

Scott will also be familiar to many of you as the current ASA Trainee Member Group Chair. He is a Provisional Fellow at the Gold Coast University Hospital in Queensland. Scott's interests include trainee welfare and support in the context of an increasingly competitive metropolitan workforce. His participation with the PPAC will aim to engage trainees with the Society via research facilitation, welfare resources and potentially education around career building and planning.

DR OSCAR WHITEHEAD

Oscar is an escapee from the Melbourne University Linguistics program, who went into remote general practice, floating between Indigenous primary health and remote hospital work, having been motivated to study medicine through his experiences attempting to negotiate the health system with Indigenous family members. He also has experience in medical administration as Executive Director of Medical Services and the Director of Medical Services of the Royal Flying Doctor Service, Queensland Section. Oscar is currently working as the clinical lead for Apunipima Cape York Health Council and hopes to bring remote, rural, Indigenous and GP anaesthetic perspectives to the PPAC, as well as his interest in systems management.

I would like to thank Dr Fiona Barron who was the Northern Territory representative until she moved to Queensland earlier

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in the year. A new Northern Territory representative will be appointed in the coming months.

As for myself, I am a fulltime staff specialist anaesthetist and Director of Anaesthesia Research at the Royal Women's Hospital in Melbourne. My major non-clinical interest is research, having obtained a PhD in 2010 and a NHMRC Fellowship in 2015 in the area of cardiac function and structure in women with preeclampsia. I am also activity engaged in clinical teaching, quality assurance/ audit and management. I have recently completed a master of international public health which I undertook to better understand the health issues faced by people in low and middle income countries especially related to universal health coverage and access to safe and essential anaesthesia and surgery. I have experience working in private practice and understand the issues of running a busy single practitioner private business as my father was self-employed for over 50 years.

Regarding PPAC, I am delighted to have the opportunity to chair this committee and I extend my thanks to A/Prof David M. Scott and Mr Mark Carmichael for supporting this rejuvenated committee. I am also most grateful for the support from Mr Chesney O'Donnell, Policy Manager and Dr Elaine Tieu, Policy Officer for their ongoing assistance and advice.

We are looking forward to working with you all.

A/Prof Alicia Dennis
MBBS PhD MPH PGDipEcho FANZCA
Chair PPAC

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POLICY UPDATE

5TH MABEL RESEARCH FORUM 2017 – RURAL

The 5th MABEL Research Forum 2017 was held on 25 May 2017 and attended by the ASA Policy Manager Chesney O'Donnell. MABEL (Medicine in Australia: Balancing Employment and Life) has been an ongoing project since 2008 and is due to complete in 2018 because of the end of their funding schedule. It has been a very productive and interesting project and is in effect Australia's national longitudinal survey of doctors by the Centre for Research Excellence in Medical Workforce Dynamics.

Rural health formed part of MABEL's survey analysis and provided reasons for why specialist doctors undertook rural outreach services. It incorporated determinants of behaviour when examining retention rates and their policy implications. Furthermore, medical schools and their influences on careers, gender and rural-origins were also examined. Rural locations are critical to our understanding as to the movement of the anaesthetic medical workforce geographically. MABEL related research has shown that maldistribution has given way to GP proceduralists in an attempt to alleviate any regional imbalances. MABEL also acknowledged in 2017 that there is a "looming oversupply of metropolitan-based doctors" which requires "effective policies to persuade more Australian medical graduates to work in rural areas" and "can now be informed by a growing body of empirical evidence.[1]"

For example, research allegedly shows that the distribution of procedural GPs varies from locations in medium-sized or smaller rural and remote communities. The odds of becoming a GP anaesthetist or an emergency services practitioner steadily rises the more remote a location becomes as categorised by the Modified Monash Model. GP surgeons and obstetricians have the opposite effect.

In 2011 GPs practising anaesthetics equated to 8% more total working hours per week. This was taken from an analysis of 9,301 survey responses and 4,638 individual GPs where it was shown that there was a significant increase in the odds of "GP procedural activity in anaesthetics, obstetrics or emergency medicine as geographical remoteness increased and community population size decreased, albeit with plateauing of the effect-size from medium-sized (population 5,000 to 15,000) rural communities." Researchers McGrail and Russell determined this from a data base extracted from a national cohort of GPs responding to survey waves 4–6 (2011–2013) of MABEL. From these GP respondents, the proportion of proceduralists increases as remoteness increases[2]. It is also interesting to note via their research that in contrast the majority of Australian-Trained Medical Graduates (AMGs) who work as rural GPs are of metropolitan origins[3].

5th MABEL Research Forum 2017

NSW JMO WELLBEING AND SUPPORT FORUM 2017 – WELFARE

The JMO (Junior Medical Officers) Wellbeing and Support Forum on 6 June 2017 was facilitated by SBS commentator Jenny Brockie with some 170 attendees. Present at the forum were doctors, doctors in training, policy makers and advocates, training colleges, the NSW Minister for Health Brad Hazzard and NSW Minister for Mental Health Tanya Davies. ASA Policy Manager Chesney O'Donnell was in attendance. Speakers included the NSW Alliance Doctors in training Committee, Medical Council of NSW, beyondblue, RANZCP and UNSW academics. The catalyst for this event were the deaths of 20 junior doctors in NSW who committed suicide between 2007 and 2016 according to the NSW Coroner Michael Barnes. A brainstorming session ensued amongst the

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NSW JMO Wellbeing and Support Forum 2017

invitees of which there were over 20 tables. Their suggestions were accumulated and distributed after the event by NSW health department representatives.

The ASA has tweeted the outcome and to surmise some of the suggestions provided were that more focus be given to better mentoring, more college support, more avenues for social events, anonymous counselling services, more contractual fairness with overtime payments, more comprehensive data collection to identify specific areas of concern, improved maternity leave support and a review of mandatory reporting. Minister Hazzard did comment that a review of mandatory reporting laws was warranted as he was reported to have said that "mandatory reporting requirements are technically not the problem, but practically they are, because that perception among young doctors is by seeking mental health help they may be damaging their career[4]."The Federal Health Minister Greg Hunt has also made a commitment to fund "specialist channels" in the hope that "medical professionals could seek mental health treatment without fear of retribution[5]."

This may well open the gates for a national review of mandatory reporting by the end of 2017 widening the policy scope for all specialists.

QLD LEGISLATION & MEDICAL MISHAPS

In Australia, any harmful effects from medication or surgery is called an "adverse event." This has occurred in 16.6% of hospital admissions as recorded by the influential Quality in Australian Health Care Study (QAHCS) of 1995. The study sourced its information from over 14,000 admissions to 28 hospitals in NSW and South Australia. It showed that 51% of adverse events were considered as preventable[6]. In 2012 a WHO study showed similar results from "15,548 records reviewed, 8.2% showed at least one adverse event, with a range of 2.5% to 18.4% per country[7]."

However, a more up to date Australian study is required. In a recent Queensland audit by RACS (funded by QLD Health) into surgery deaths, the government noted that it may be forced to legislate in order to "enforce private hospitals to report medical mishaps." It found that "375 patients died" as a result of "serious clinical" incidents between July 2007 to June last year in 2016. Queensland Health Minister Cameron Dick has asked his department to provide a discussion paper which he hope will be released in August 2017. It will revolve around patient safety reporting in both the public and private sector[8]. The Minister did however argue that the findings show a reduction in adverse outcomes within those nine years cited.

But others have commented that clinical mismanagement "may have contributed" to the death of 2,438 more patients as expressed in a yet to be named peer-review. However, in the same quoted article it was noted that private hospitals are not required to report other patient safety data to Queensland Health as is expected of public hospitals; "such as incidents involving the wrong body part being operated on." This will be raised in the next meeting of Australian health ministers in August 2017.

SENATE REPORT INTO AHPRA, ELIMINATING VEXATIOUS COMPLAINTS

The recent May 2017 release of the Standing Committee on Community Affairs Inquiry into AHPRA Senate report which considered the complaints process of the *Health Practitioner Regulation National Law*, had as one of their central concerns from submitters the elimination of vexatious complaints[9]. This was based upon the perception that such complaints were permitted in absence of any proper investigative processes. These alleged deficiencies were deemed evident by some patients and families or used by some health practitioners for bullying or harassment. Similarly, there were alleged incidences when such claims were baseless leading to "unmerited adverse consequences including reputational damage; misrepresentation in media reporting; significant levels of stress; and risks the loss of the practitioner's employment[10]."

Under s145D of the Health Practitioner Regulation National Law (NSW) for example serious complaints are referred to the Tribunal but "does not require the Council or the Commission to refer a complaint the Council or Commission thinks is frivolous or vexatious." Hence there already exist discretionary powers under the law to dismiss such claims if the will was present to do so. Most of the evidence sent to the Senate Committee were from "practitioners who expressed concern that complaints made against them, their colleagues or members of their association were vexatious."

However, the Senate Committee concluded that "the independent evidence received by the committee does not suggest that vexatious notifications are a widespread issue; rather, they appear to be relatively infrequent[11]." Civil procedural protections already exist in our justice system to combat such claims if they were to reach beyond the tribunal as a last resort measure to litigation. In case law if there is a real question in law to be determined then it would be inappropriate to summarily dismiss an action as frivolous, vexatious and an abuse of process re Dey v Victorian Railways Commissioners [1949] HCA 1. However, the court may for example under r13.4 Uniform Civil Procedure Rules 2005 (NSW) stay or dismiss a proceeding in whole or in part if:

(a) the complaints are frivolous or vexatious,
(b) there is no reasonable cause of action,
(c) there is evidence of an abuse of process

Chesney O'Donnell
Policy Manager

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11. *Ibid*, p.18.

CONTACT US

If you have any questions about the ASA Policy Team or any of the work they and their committees do, please do not hesitate to get in touch.

Email: policy@asa.org.au

Phone: 1800 806 654.

2017 ASA ANNUAL GENERAL MEETING

Please join us to hear reports from key Committee Chairs and the presentation of Awards, Prizes and Research Grants.

Time: 1:15pm on Monday, 9 October 2017
Venue: Riverside Theatre
Perth Convention & Exhibition Centre

Visit www.asa.org.au for previous minutes and related documents.

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Australian Society of Anaesthetists

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ECONOMICS ADVISORY COMMITTEE

DR MARK SINCLAIR
EAC CHAIR

MEDICARE BENEFITS SCHEDULE (MBS) REVIEW

At the time of writing, the report of the Anaesthesia Clinical Committee (ACC) reviewing the MBS items for anaesthesia services, has not yet been released. The MBS Review Taskforce and the Minster for Health have received the report, as mentioned in the June edition of *Australian Anaesthetist*.

As also mentioned previously, the ASA has significant concerns about the direction and contents of the report, based on the limited information that has been released to date. Our concerns have been made clear to the Federal Minister for Health's senior advisors, AMA President Dr Michael Gannon, and directly to the Minister via a Council of Procedural Specialists (COPS) delegation, of which I was a member.

It is apparent that in all other specialty reviews to date, the process has been very different. In general terms, the reports of other committees have been acceptable to these specialties' representative and educational bodies. The likely reason for this is that these bodies felt that there was a satisfactory level of engagement of stakeholders, of dialogue with the review committees, and that they had an active role in the process. Certainly, our dealings with the AMA (which of course is there to represent all of the various specialties' interests), would appear to confirm this. It should be noted that on virtually all other review committees, currently serving Presidents and Vice Presidents of the Colleges, Societies and Associations abound. This is definitely not the case for the ACC. While the Immediate Past President of ANZCA (Dr Genevieve Goulding) has a seat on the ACC, it must be remembered that, with all due respect, the MBS review is core ASA material rather than ANZCA. College input is important, but the only member of the ACC with a high level of ASA experience is Past President Dr Jim Bradley. Neither of these committee members were there to represent their respective organisations, but rather, were appointed in an individual capacity.

As far as consultation with key stakeholders is concerned, as mentioned in previous articles, the ASA is extremely disappointed with the virtual absence of any meaningful dialogue with the ACC. ANZCA confirms that it too has had very little opportunity for discussion. Dr Bradley has been the only ACC member to approach the ASA for information useful to the process, but he is constrained by the confidentiality requirements of ACC dealings.

It is this lack of meaningful conversation, and the clear lack of expertise relevant to the RVG system on the part of the majority of ACC members, which has led to our significant concerns about the likely output of the ACC. The fact that at this stage, the anaesthesia review stands alone in this regard, has been made very clear to the Minister.

ASA President A/Prof David M. Scott, met with the Minister's Chief of Staff on 21 July, and as well as repeating the ASA's concerns, also lodged a draft alternative set of proposals for updates to the MBS version of the Relative Value Guide (RVG). The ASA recognises that changes to surgical and anaesthesia practice since the introduction of the RVG in 2001 have resulted in some items being over-rebated, others under-rebated, and that some anaesthesia services of proven quality and benefit to patients do not have MBS items at all.

The ASA acknowledges that the MBS Review Taskforce and the Minister's office are adamant that the MBS review is not aimed at cost savings, and accepts this statement. However, it has become very clear that cost savings are certainly expected as part of the process, and that any report which does not contain recommendations which result in cost savings will be viewed negatively. Our suggestions for changes are reasonable, and will result in some cost savings to Medicare. If the Minister's office is satisfied with our suggestions, there will of course be ample opportunity for feedback from the specialty before any proposals are acted upon.

PRIVATE HEALTH INSURANCE

As per recent ASA President E-news releases, and as members will recall from previous articles, the insurer Medibank Private (MBP) is taking an increasing interest in statistics related to claims for MBS items, and patient outcomes such as

length of stay or unforeseen complications of treatment. In particular, MBP is identifying doctors who are "outliers" for certain financial or clinical statistics. The ASA has had regular dialogue with MBP on the issue, most recently at a meeting at North Sydney on June 9. At this meeting, MBP representatives (including one of their medically qualified executives, Dr Leonie Katekar) informed us that MBP now intends to approach anaesthetists who are "outliers". If indeed certain "outlier" claim patterns are the result of error, the approach of MBP will not be to request a return of funds, but rather, to ensure any errors are not repeated. The ASA has made it clear that "outlier" patterns are frequently explainable on the basis of, for example, special clinical interests, and has at other meetings pointed out flaws in some of the MBP methods of analysis. Nevertheless, it may well be that a small number of anaesthetists will soon receive correspondence from MBP along these lines. Any member receiving such correspondence is encouraged to contact the Economics Advisory Committee via email (policy@asa.org.au) or telephone (1300 806 654). Dr Katekar has also kindly offered to speak to any doctor who has queries – again, contact the ASA for Dr Katekar's contact details.

Clearly, the importance of accurate billing practices cannot be overstated. In all likelihood, it will not only be Medicare and MBP who take on such initiatives, but other insurers and third-party payers as well. Members are encouraged to contact the EAC if they have any queries or uncertainties.

The Senate Community Affairs References Committee is currently holding an inquiry into "the value and affordability of private health insurance, and out-of-pocket medical costs". The ASA has made a submission to this inquiry (available on the ASA website, by following the link News/ASA Submissions) and will strongly lobby to appear at the public hearings, as we did in the Senate Committee's hearings into out-of-pocket (OOP) expenses in 2014. It is essential that the message about the reason for the existence of OOP expenses is made clear, and that the real statistics about these expenses, and issues such as informed financial consent (IFC), and the enormous complexity of available insurance policies and the resulting difficulties for consumers, are documented at the hearings. Certainly, accurate information on OOP expenses and IFC is not at all likely to be presented if bodies such as the ASA are not called to testify. The full terms of reference, other submissions received, and the full Hansard proof of the first public hearing on 5 July, can be viewed at: http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Community_Affairs/Privatehealthinsurance

Dr Mark Sinclair
Chair, Economics Advisory Committee

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OVERVIEW OF THE ASA TIMOR-LESTE FELLOWSHIP

HOSPITAL NACIONAL GUIDO VALADARES, DILI, TIMOR-LESTE FEBRUARY–MAY 2017

Each year the ASA ODEC committee funds a number of Fellowship positions in Fiji and Timor Leste. The Pacific Fellowship was first offered in 2003, and the Timor Leste Fellowship commenced in 2016 with Dr Sam Rigg as the inaugural Fellow. Dr Chris Lack, a Consultant Anaesthetist at the Royal Darwin Hospital was the 2017 TL Fellow, and a report of his experiences during three months in Dili follows. Dr Lack's report highlights the potential challenges that may confront a young ASA member working in less developed clinical circumstances, but also illustrates the potential benefits, both personal and professional, that these opportunities provide. Dr Lack's report is also freely available through the ASA ODEC webpage.

The ASA Timor-Leste Fellowship was created in December 2015. It is a three month, fulltime, non-salaried position based at the Hospital Nacional Guido Valadares (HNGV) in Dili, Timor-Leste. I am the second anaesthetist to have undertaken the fellowship since its inception.

The fellow position involves a combination of teaching activities and clinical work in the anaesthetic department of the national hospital. The HNGV is the sole referral hospital for the country and it performs more than 85% of the country's surgery; the rest of the (smaller) operations are undertaken in district hospitals where nurse anaesthetists provide anaesthetic services.

The HNGV has three operating theatres, plus a minor procedures area and a basic recovery unit. The case load is a mix of both elective and emergency surgery, involving a range of specialities. The majority of cases are general surgical (including burns), obstetrics and gynaecology, orthopaedics, urology, and otorhinolaryngology, along with occasional visiting teams doing speciality surgery. Paediatric patients, including neonates, comprise a moderate portion of the workload.

The ASA Timor-Leste fellowship is open to FANZCAs or provisional fellows, with preference given to those who have experience working in developing countries and those who have completed a course in remote area anaesthesia. The Royal Australian College of Surgeons (RACS) provides the HNGV with six medical specialists (currently consisting of: a general physician, a general surgeon, an obstetrician/gynaecologist, an ophthalmologist, a paediatrician and an anaesthetist) for clinical service provision and training of Timorese residents and registrars. RACS also employs local support staff and an Australian team manager, and the RACS team provides excellent logistical support and administrative assistance to the ASA fellow.

MY EXPERIENCES AS THE ASA TIMOR-LESTE FELLOW – 2017

I arrived at a time of flux in the anaesthetic department. The first and only Timorese anaesthetist (also head of the anaesthetic department) had just moved into the role of HNGV clinical director, and he was also becoming heavily involved in national politics. Additionally, for the bulk of my time in Dili, there was a national embargo on any postgraduate training, which prevented the recruitment of new trainees in any discipline. The embargo had been instituted after the Timor-Leste Government became concerned that postgraduate training across all disciplines (not just health) had inadequate processes to ensure standards of training. Rather than risk producing any further graduates from current training programs, the government instead placed a nationwide embargo on the matriculation and graduation of all postgraduate trainees. This embargo unfortunately meant that the yearly intake of junior doctors for the Diploma of Anaesthesia at the HNGV did not commence until after I left the country. Furthermore, anaesthetic diploma graduates from previous years had other duties and priorities, so were less available for teaching and training.

As a result, my three months at the HNGV as the ASA Timor-Leste Fellow, which theoretically should have had a focus on teaching, training, and capacity building, this year shifted more into a

Left: Drawover Anaesthesia at the HNGV

Below: O2 Balloon (HNGV's Only Portable O2 Source) for Short Transfers to and from ICU

role of clinical services provision. I still undertook both formal and bedside teaching sessions with the diploma graduates and nurse anaesthetists when available, but this was much more limited than had been expected.

HIGHLIGHTS, CHALLENGES, AND LESSONS LEARNED

My three months in Dili was a great mix of difficult challenges, valuable learning opportunities, and memorable experiences.

Highlights

I thoroughly enjoyed learning about the provision of anaesthesia in resource-limited environments. I had the opportunity to work with anaesthetists from six different countries, and to see their differing approaches to perioperative challenges, which was an interesting, and at times surprising, experience. My time in Dili also allowed me to gain experience in the use of certain anaesthetic techniques and equipment that I had not had much exposure to previously. This included the use of draw-over anaesthesia (although plenum systems were still used in the majority of cases), spinal anaesthesia for almost all infra-umbilical (and some supra-umbilical) surgery, the wide range of applications for ketamine, the regular use of halothane, and the provision of general anaesthesia without what in Australia would be considered "routine monitoring" – such as ECG and end-tidal gas monitoring. All of these experiences have helped me to appreciate even more our good fortune in Australia to be operating in such a resource rich environment. At the same time, my time in Dili also allowed me to see that effective anaesthesia can be safely provided with much more basic equipment and technology than many of us are used to in Australia.

Timor-Leste is a beautiful country with a friendly population who are appreciative of any medical care that they receive. Furthermore, the operative population for the most part are quite healthy – it was a pleasure to be in an environment where obesity is very rare and ASA 3 & 4 patients are seldom encountered!

Challenges

The linguistic environment at the HNGV is both fascinating and, at times, frustrating. In theatre five languages are regularly heard, often with all five used during the same operation between different members of the operating team – Tetun, Bahasa Indonesia, English, Spanish, and Chinese (the last two are spoken by the many Cuban and Chinese doctors who work in the HNGV). These language barriers (not only spoken but also written in patients' notes) at times lead to impasses and conflicts that require

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patience and tolerance from all involved. Fortunately, the Timorese doctors, in addition to their native Tetun and Bahasa, generally speak fairly good English and Spanish, so they are able to help interpret between team members and help facilitate some communication. Although Portuguese is one of the two national languages, it is very rarely heard in theatre.

Another challenge was seeing relatively poor prioritisation of analgesia, and some resistance to measures that would help reduce perioperative pain. Perhaps this could be an area to focus on for future fellows, with support from established courses such as the Essential Pain Management (http://fpm.anzca.edu.au/fellows/essential-pain-management).

Access to certain resources at times made it challenging to provide ideal care to patients – for example, there are only two ventilated ICU beds in a country of over one million people, and this made for some very difficult decisions regarding preoperative planning and postoperative care in critically unwell patients. Likewise unavailability of CT scanning made some diagnostic decisions quite challenging, and variable access to blood for transfusion at times limited surgical options for both emergency and elective surgery.

Another challenge was seeing relatively poor prioritisation of analgesia, and some resistance to measures that would help reduce perioperative pain.

Suggestions for the future and lessons learned

After reflecting upon my time at the HNGV (as well as drawing upon previous overseas clinical experiences), I believe that for anyone considering this sort of work, there are a few ideal characteristics. These are: a flexible approach, a respectful attitude, and a set of realistic expectations. Flexibility is vital because the clinical environment regularly forces one to improvise, to be willing to operate in novel situations, and to move well out of one's comfort zone. Respect is important because one is likely to encounter a wide range of cultural attitudes, skill and knowledge levels, and clinical practices, and these need to be approached with tact and care in order to maintain good working relationships with other team members. Finally, realistic expectations are essential because aiming for short term radical change is likely to be neither successful nor welcomed, but if achievable and sustainable goals are set, then one can still depart with a sense of satisfaction about the contribution made.

Attendance at the Real World Anaesthesia Course (http://www.realworldanaesthesia.org/) or a similar course is a very useful preparation, and introduces participants both to the practical aspects of anaesthesia provision as well as to a range of issues and challenges that are likely to be encountered in a low resource anaesthetic environment.

On a more practical note, things that would have been very handy and would have made my life at HNGV easier (and at times much less stressful) would include:

- Permanent markers (no labels were available for syringes).
- Some ECG dots (ECG cables were available but ECG dots were not, so almost no patients had cardiac monitoring).
- Some neonatal equipment, including BP cuffs, laryngoscope blades, and familiar IV access equipment.
- A reliable nerve stimulator to check paralysis levels.
- A few bougies of different sizes.
- A few functional classic laryngeal mask airways of various sizes (as a backup in case of difficult airways).
- Consideration for a cheap portable videolaryngoscope (to make those stressful airway situations a little bit less stressful!).

Perhaps if the visiting fellow role becomes a regular position in the future, a small box of these key items could be handed down from fellow to fellow. With a relatively small investment, such a kit provided to the fellow would allow him/her to manage most situations in theatre fairly self-sufficiently. This could significantly reduce the stress levels related to having to deal with various challenging situations using equipment that either was not functioning appropriately or not suited to the job. This could also enhance the teaching opportunities of local post graduate students whereby they could be exposed to some equipment not presently available in Timor-Leste.

In summary, I would recommend undertaking an overseas placement such as the ASA Timor-Leste Fellowship to any FANZCA or provisional fellow who is interested both in trying to contribute to the education and training of anaesthetic trainees in low resource contexts, as well as learning more about the provision of anaesthesia in such environments.

Acknowledgements

I would like to thank the ASA's Overseas Development and Education Committee for funding the fellowship, the Hospital Nacional Guido Valadares for its hospitality, RACS for its kind support and logistical assistance, and the Royal Darwin Hospital Anaesthetic Department for granting me leave to undertake the fellowship.

ASA MEMBER'S GROUPS UPDATE

TRAINEE MEMBER GROUP

Dr Scott Popham, Chair

Welfare

The past few months have been dominated by discussions surrounding doctor's welfare, an issue that has been propelled into the media by the recent junior doctor suicides[1]. The figures I received from the Welfare SIG regarding our speciality are 16 anaesthetists committed suicide between 2010 and 2016.

The TMG and I are extremely concerned about these figures and our two most recent teleconferences were filled with robust discussion about the causes of such sad events and potential solutions to circumstances that contribute.

A recent AAIC article[2] revealed the two most common causes of moderate to severe stress for ANZCA trainees to be preparation for exams and concern about future job prospects. For consultants, the causes differ – the most common being lack of work-life balance.

One factor is training schemes churning out specialists – because most training schemes exist in metropolitan areas, rather than solving the issue of regional deficiencies of specialists, it increases competition for jobs in the big cities. There are reports of collegiality between trainees being replaced by strained relationships in this more "Darwinian" environment.

Resources for consultants and trainees exist in various forums; the TMG state reps and myself are very keen to ensure that trainees have access to practical help when they need it. My colleagues and friends who sit on ANZCA training committees are of the same opinion and I will spend the next couple of months meeting with them as well as relevant ASA committees to discuss what we can do. Any feedback or contributions are welcome (please direct correspondence via trainees@asa.org.au)

In the meantime I've attached a report I drafted for my local hospital Medical Education Unit about the issues surrounding mandatory reporting, which has been cited as a barrier to seeking help. The information within it comes directly from AHPRA who provided a detailed response to my questions, I am happy to provide clarification for anyone who wishes it.

EpiCCS study

The use of the Trainee Members network as a vehicle for a facilitated research study resulted in >2,600 patients being recruited over 21 sites around the country. I'd like to thank everyone involved in helping the project achieve such capture, as well as those hospitals who didn't quite manage to get their ethics approval on time for the week of data collection which occurred between the 21st and the 28th June.

The data is currently being consolidated and will be analysed in due course, with a publication aimed for next year.

Further future projects are planned to occur however the logistics and organisation will likely be altered somewhat.

Mandatory reporting – what junior doctors need to know

Seeking help or being diagnosed with mental illness are not in themselves reportable.

There is a lot of confusion and misinformation circulating at the moment about mandatory reporting of doctors.

Let's begin by defining the process.

Complaints or concerns to AHPRA

Anyone can notify AHPRA about a health practitioner (with a complaint or concern) but there is a special notification which must occur if a practitioner places the public at risk of substantial harm[3]. This is a Mandatory Notification and can be made only by registered health practitioners, employers or education providers.

There are four instances where mandatory reporting is required[4]. These are

1. where the practitioner practices while intoxicated by alcohol or drugs;
2. engages in sexual misconduct in connection with the practice of the profession;
3. places the public at risk of substantial harm during their practice of the profession, because the practitioner has an impairment;
4. places the public at risk of harm because the practitioner has practised the profession in a way that constitutes a significant departure from accepted professional standards.

It is the third instance that has been causing confusion in terms of seeking help with mental health.

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Media interest

The junior doctor suicides which have occurred over the last year have driven the issue of doctors' welfare into the media spotlight.

Certain outlets[5] have published articles that imply that if doctors seek help for mental health issues, they will be subject to a mandatory report and have their registration placed at risk. Clearly, if doctors see this to be the case, it is a massive barrier to seeking help.

Analysis of the AHPRA annual report 2015/16 reveals that mandatory reporting is rare[6] – most practitioners who may be unwell and whose health is being well managed do not need to be reported.

The bottom line is that the threshold for mandatory reporting is high. Being diagnosed with a mental illness, seeking support, substance misuse, etc are not in themselves reportable. Simply seeking treatment does not mean a practitioners registration is at risk.

The mandatory part only comes when the public's safety is perceived to be at risk if the practitioner continues to practice.

The ongoing problem

The misunderstanding of the reporting laws are an ongoing issue. While GPs who I have spoken to agree that it would take a lot for them to mandatory report, the fear of such repercussions are still a barrier.

For this reason, the Health Minister Brad Hazzard agrees "mandatory reporting requirements are technically not the problem, but practically they are, because that perception among young doctors is by seeking mental health help they may be damaging their career"[7]. Following his attendance at a JMO Wellbeing and Support Forum held earlier this month in Sydney[8] he has promised to review these laws.

So please, have a GP, go and visit them on a regular basis, even when you are well so that they can take better care of you should you really need them.

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2. http://www.aaic.net.au/document/?D=20160078
3. Health Practitioner Regulation National Law, as in force in each state and territory.
4. https://www.ahpra.gov.au/Notifications/Make-a-complaint/Mandatory-notifications.aspx
5. http://www.abc.net.au/radionational/programs/backgroundbriefing/2015-02-15/6083558
6. Out of 5,371 notifications (all complaints/concerns) there were only 167 that needed immediate action due to immediate risk to the public (which involved suspending a licence or imposing conditions, as an interim step prior to an investigation). There were 187 mandatory notifications, which are again subject to the process of assessment of risk to the public.
7. http://www.dailytelegraph.com.au/news/nsw/change-to-mental-health-mandatory-reporting-rules-to-offer-doctors-a-lifeline/news-story/cd89a25eabf1b767b0edadc6d1182704
8. http://www.asmofnsw.org.au/latest-news/jmo-wellbeing-and-support-forum

HISTORY OF ANAESTHESIA LIBRARY, MUSEUM AND ARCHIVES NEWS

On Sunday 2 July 2017, the Harry Daly Museum and Richard Bailey Library held a seminar for the more than 35 recognised health and medicine museums in NSW. Titled 'Collecting, Curating & Conserving', the seminar welcomed 30 participants from New South Wales and Victoria. Throughout the day, participants heard from seven speakers who shared information on their collections and the challenges that they have or will soon overcome.

There were a diversity of topics covered by the speakers including transforming permanent displays on a shoestring budget, to identifying medical objects through in-depth research. Engaging with audiences was another significant theme that permeated many of the presentations. Essentially, it was an opportunity to see how medical museums have evolved and adapted over time and how specific collections are being prepared for the future.

Our first speaker was Cate Storey, honorary archivist of the Royal North Shore Hospital in Sydney. In her talk titled "Transforming Archives: Making Stuff Relevant for the 21st Century and Beyond", Storey focused on building archives from scratch and the issues surrounding sorting documentation. When establishing an archive, it is important to consider the future of its contents, how it should be catalogued, and how to organise the material. Storey has achieved great results with rescuing elements of the archive and re-organising a significant amount of material.

Next was Monica Cronin, Curator of the Geoffrey Kaye Museum of Anaesthetic History in Melbourne. The focus for her talk was on taking the museum experience to the people. In a wonderful and inspiring presentation, Cronin shared the successful outreach programs of the museum including their blog, 'Pins & Needles', award-winning online exhibitions, and engagement with social media. This has resulted in increased audience online visitation and exposure for the museum.

Moving from digital to physical, I was the next speaker and shared with the participants my work on transforming the permanent display of the Harry Daly Museum to meet national standards. Over the past twelve months, I have worked to reduce the amount of text in the display cases, created new object labels, and moved objects to form a more cohesive display. The changes were all regarded highly by those in attendance.

Elinor Wrobel spoke on Morbid Anatomy Collections from the 1890s to 1985. As Curator and founder of the Sydney Hospital Museum, Wrobel's experience and insight was most welcomed. Her passionate presentation on re-writing the significance of the hospital into the broader medical history of Sydney resonated with many in the audience.

After a quick break, we heard from Dr Bevan Stone on identifying medical museum objects. An example Stone provided was an altar cloth from World War I that, at first, was seemingly unrelated to medical history. On further research, Stone discovered it was a cloth embroidered by Australian soldiers who were amputees due to war wounds. The value of thorough research with a collection was at the forefront.

Rebecca Lush, Curator, Harry Daly Museum, speaks about the restructure of the museum

Our second last speaker was Derek Williamson from the Museum of Human Disease. The main question posed by Williamson was "how does a medical museum visit change people's health intentions?" Although Williamson had collected anecdotal evidence that visits to the museum did lead to change, he was hoping to produce data that could be presented to the University of New South Wales. He knew, for example, that visits could potentially change health behaviours. He shared a story of a teacher who after their visit quit smoking because of what they had witnessed in the

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museum. After running some surveys and collating the data, Williamson discovered that primary school and high school students were affected by the messages in the museum. The data produced indicates a new significance for medical collections as they can change attitudes and behaviours.

Finally, Dr Rajesh Haridas spoke on the Morton inhaler that was allegedly lost during the 1840s. After scrutinising the evidence available, it was discovered that the original inhaler was hiding in the archives of the Massachusetts General Hospital.

Overall, it was an enriching seminar that encouraged in-depth discussion surrounding medical collections and their purpose. It was also a fantastic opportunity for the Harry Daly Museum's new permanent display to be on show for other museum professionals.

Rebecca Lush
Curator, Harry Daly Museum

HALMA SEMINAR SERIES SPARKLES IN REVAMPED HARRY DALY MUSEUM

A second seminar, organised by the HALMA Committee, was held on 6 August, 2017. It was aimed at practising and former anaesthetists and attracted professional development credits. There were four speakers and 25 attendees. Dr Michael Cooper spoke on *The History and Development of Anaesthesia in Papua New Guinea*; Dr Rajesh Haridas on *Australian Anaesthesia in 1847*; Dr Reginald Cammack on *CPR* and Dr Richard Bailey's title was *Anaesthesia History and Me*.

There will be a similar seminar organised by HALMA in 2018. If you are interested in speaking or attending please contact asa@asa.org.au.

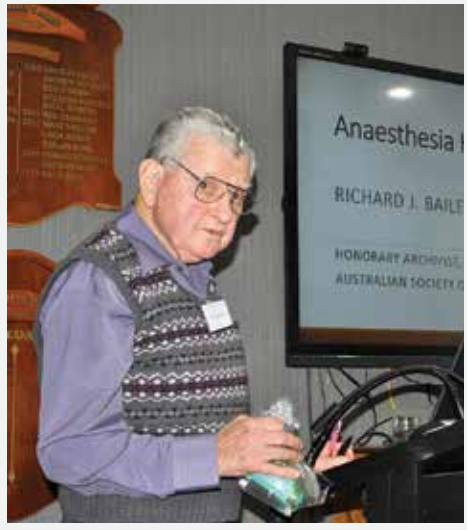
Peter Stanbury
Librarian, Richard Bailey Library

Dr Michael Cooper

Dr Rajesh Haridas

Attendees at the seminar

Dr Reg Cammack



Dr Richard Bailey

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AROUND AUSTRALIA

VICTORIA

Dr Jenny King, Chair

The annual combined ANZCA/ASA meeting was held on Saturday 29th July, at the Sofitel Hotel. Our congratulations go to Dr Michelle Horne (Victorian ASA Education Officer) for organising a very successful meeting with over 200 registrants. The speakers were varied with some speakers out of the confines of the anaesthetic community giving insights from business and risk management. The day was also celebrated with the 25th anniversary of ANZCA formation. Our thanks also go to ANZCA for secretariat support and to all our speakers.

We note with sadness the passing of two noteable Victorian anaesthetists – Dr John Tucker OAM, and Dr Bill Taylor. John had been a member for over 65 years and Bill had held membership for 57 years. Our sympathies go to their families.

Our planned meeting on "Retirement Updates" has been postponed, due to the "MBS Review Update" taking higher precedence.

This latter meeting will discuss the ACC review recommendations (soon to be released), the implications for anaesthetists and patients, and the planned ASA response.

We urge all anaesthetists to attend.

Details are:"The MBS Review Update", Thursday 24th August, 7pm to 9pm, at Epworth Hospital Auditorium, Richmond Campus. A flyer will soon be issued.

With such a cold winter in Victoria, I am sure Victorian members are looking forward to attending the ASA National Scientific Congress in Perth 7th to 10th October, to enjoy good science, a catch up with colleagues and definitely warmer pastures.

And finally, the Victorian Part 3 Course will be held on Saturday 11th November, at Kooyong Tennis Club, and all provisional fellows are encouraged to attend.

WESTERN AUSTRALIA

David Borshoff, Chair

WA finances are "in world of pain". There is a $2.6 billion shortfall in budget forecast revenue. According to local papers, more are to quit health funds as costs bite with two million Australians planning to cancel or downgrade.

On a more positive note, one private hospital is piloting a "Speak up for Patient Safety" program encouraging staff to challenge colleagues. The newspaper quoted the CEO saying "We're all human so don't just assume doctors and nurses know what they're doing".

An ASA networking evening was held on 3rd June at Ellingtons Jazz Club. About 50 attendees, including consultants and trainees from both public and private enjoyed themselves.

The ASA/ANZCA Country regional meeting was well attended. Its theme was "Comfortably Numb", covering aspects of regional blockade. With the great Broome winter weather and good speakers it was an excellent weekend.

The Part 3 course is scheduled for November and we are now preparing for the ASA NSC in October.

The Immersive and Simulation based learning committee has evolved into a new organisation to manage simulation in Western Australia – WA Simulation in Health Care Alliance. Its stated purpose is to create an interprofessional community of practice that fosters collegiality, collaboration, networking and sharing amongst those engaged in simulation-based education and research across Western Australian health.

ANZCA have communicated their intention to allocate their second seat on the Anaesthetic Mortality Committee to the ASA until the health legislation can be redrafted following the ASA's inadvertent exclusion in the draft. In the meantime letters have been sent to the chief medical officer outlining the legislative error resulting in this predicament.

Large private hospitals continue to feel the economic conditions. A batten down the hatches approach is being taken by some with employment freezes, redundancies, theatre utilisation times being meticulously reviewed.

The Children's Hospital is now not opening until 2018 but no date has been given. Lead is still an issue and the CEO has resigned. Our Labor Government is now dealing with the ongoing problems.

In the last few months we also acknowledge the loss of Drs Alec Sodhy, Maxwell Sloss, Lynley Hewett, David Altree and Rick Dally.

SOUTH AUSTRALIA

Josh Hayes, Chair

The last quarter saw the NT ASA/ANZCA ASM held in Darwin on the 3rd of June. Congratulations to Ben Piper on convening an excellent meeting that generated much interesting discussion on the perioperative role of the anaesthetist.

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The ASA/ANZCA CME committee convened a well attended meeting on the 14th of June on the topic of "How the unconscious controls our behaviour", and has the Jose Burnell CME meeting in the Barossa Valley coming up on the 9-10th September with the theme "Anaesthesia and you: understanding human factors and optimising performance".

The SA Committee AGM will be held at this time. It isn't anticipated that there will be significant change to the committee.

The transfer of services to the new Royal Adelaide Hospital is slated for the first week in September, and orientation to the new facilities continues. Significant new public funding for the Queen Elizabeth Hospital and Modbury Hospital were also recently announced, although it is unclear as to how this will affect their Anaesthesia Departments.

The Salaried Medical Officers Enterprise Agreement negotiations continue to progress slowly.

While we wait for the MBS Review, a letter was circulated to members with an update on what the implications for us as a speciality may be, and what (little) is known at this stage. A further "town hall"-type forum will be organised soon. Otherwise, state activity has been focussed on training and related issues. A presentation on the role of the ASA was given once again at the local Part 0 course.

QUEENSLAND

Jim Troup, Chair

The Queensland Committee welcomed the appointment of our PPAC representative, Dr Julie Lee present at our last meeting.

Queensland is currently looking to replace our Junior Trainee representative as the previous one has resigned due to lack of time.

At the most recent State Committee meeting, Committee members expressed their support for the approach being taken by the President regarding the MBS review. I was asked to forward ideas from the Committee about further actions such as contacting MPs, engaging a lobbyist and a public information campaign in a similar vein to the previous Ophthalmology campaign.

Another area of concern has been the contracting out of public cases to the private system (Surgery Connect) with the engaged surgeons giving a quote that doesn't allow for anaesthetic input resulting in minimal payments for the anaesthetists who normally look after those surgeon's lists. This has been an ongoing issue for many years and we are trying to get Queensland Health to acknowledge the role of the anaesthetist in this program. The next tender is coming up and we are trying to get involved.

The Queensland Section has three functions planned. The AGM (which had email advertising) will have been held by the time the magazine has been published. I hope many of you were able to attend.

1. The AGM was held on Thursday August 10 preceded by a CME lecture from A/Prof David M. Scott.

   We had an evening AGM this year as the Queensland CME Committee decided to not have a full day CME event this year due to the ANZCA ASM being held in Brisbane.
2. The Part 3 Course will be on Saturday November 11th.
3. This will be followed that evening by a membership event open to all. Further advertising will follow once the venue is confirmed.

NEW SOUTH WALES

Ammar Ali Beck, Chair

We had a busy time in NSW, on the 24th of June we had the ANZCA/ASA autumn meeting which was held in Sydney at the Hilton. It was very successful and drew large crowds, a testimony to the organising committee Dr David Elliot and Dr Tsung Chai. The meeting was focused on Quality Assurance and had invited speaker Dr Dave Murray from James Cook University hospital, UK. Dr Murray represented outcomes and learning points from the the UK National Emergency Laparotomy Audit (NELA) which has a lot to learn from.

The Annual General Meeting was held On the same day. I was re-elected for a second term, and my objective of the coming year is to continue restructuring the committee with new members who are young and have an interest in representing the society in a positive and meaningful way. So far it has been a challenging task, but I believe we are making a good progress.

Dr Gregory Purcell has stepped down from his role on the NSW Medical Service Committee. For over ten years, Dr Purcell has made an outstanding contribution to the committee in general and NSW anaesthesia, which we all very grateful for.

I am pleased to announce that the Part 3 course will be held on the 11th of November. We have changed the venue to the Hilton and restructured based on the feedback we had from last year. I am confident it will be an excellent induction for our young anaesthetists who are looking to start an exciting career in anaesthesia.

Unfortunately, our membership renewal has been particularly slow this year, so I encourage everyone to act quickly and renew their membership.

I attended the rural anaesthesia SIG meeting in Broome, which was an excellent opportunity for me to connect with members in rural NSW and have an insight to what's happening in country NSW.

Across the state, VMO contracts and working conditions are continuously challenged through zero hours contracts, the definition of weekend hours, and the allocation of hours. The AMA has been representing our members successfully and we continue to liaise with the AMA. My advice for our members is to read their contract before signing up.

Lastly, the NSC 2019 Committee continue to progress within the expected time frame. At this stage the venue has been booked and a couple of international speakers have accepted the invitation to speak at the event.

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NEW AND PASSING MEMBERS

The ASA would like to welcome all new members from June to August 2017.

ORDINARY MEMBERS

Dr Anthony Archer	SA
Dr Gabrielle Louise Bullock	NSW
Dr Duncan Law Bunning	NSW
Dr Guangjun Chen	VIC
Dr Wayne Edwards	QLD
Dr Bruce Graham	NSW
Dr Daniel Hernandez	NSW
Dr Adam John Hicks	QLD
Dr Robin Leigh Holland	NSW
Dr Josephine Maria	QLD
Dr Simon Christopher McLaughlin	NSW
Dr Shahir Hamid Mohamed Akbar	QLD
Dr Joseph Jarlath Tarpey	QLD
Dr Martin John Tyson	SA
Dr Kathryn Leila Wessels	WA
Dr Ali Zwain	NSW

ASSOCIATE MEMBERS

Dr Lukman James Anderson	NSW
Dr Jessie Hoang	NSW
Dr Sang Mi Lee	NSW
Dr Julia Faye Rouse	SA
Dr Simon Jason Smith	WA
Dr Nipuna Wickremaratne	QLD

TRAINEE MEMBERS

Dr Nicholas James Barton	NSW
Dr Elizabeth Beattie	WA
Dr Ron Glick	VIC
Dr Ryan Juniper	VIC
Dr Kelvin Gar hoo Lam	VIC
Dr Aria Bradford Lokon	WA
Dr Ashvin Paramanathan	VIC
Dr Neil Parker	WA
Dr Kalyana Chakravarthy Pothapragada	TAS
Dr Leonie Johanna Elizabeth Roberts	QLD
Dr Carling Simmons	QLD
Dr Francia van der Merwe	QLD

IN MEMORIAM

The ASA regrets to announce the passing of ASA members Dr Darrell Peter Wallner, ACT; Dr William Henry Taylor, VIC; Dr John Brodribb Tucker OAM, VIC; Dr Peter Reginald Skinner, NSW; Dr Jill Pozzi, QLD.

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

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UPCOMING EVENTS

SEPTEMBER 2017

2017 Joint Neuroanaesthesia and Trauma SIG Meeting

Date: 8-10 September 2017

Venue: The Byron at Byron Resort & Spa

Contact: events@asa.org.au

ANZCA/ASA SA/NT Burnell-Jose ASAM

Date: 9-10 September 2017

Venue: Novotel Barossa Valley Resort

Contact: events@asa.org.au

Practice Managers Conference

Date: 15 September 2017

Venue: Oakwood Hotel & Apartments, Brisbane

Contact: events@asa.org.au

Art of Anaesthesia Annual CME

Date: 23-24 September 2017

Venue: Australian War Memorial

Contact: events@asa.org.au

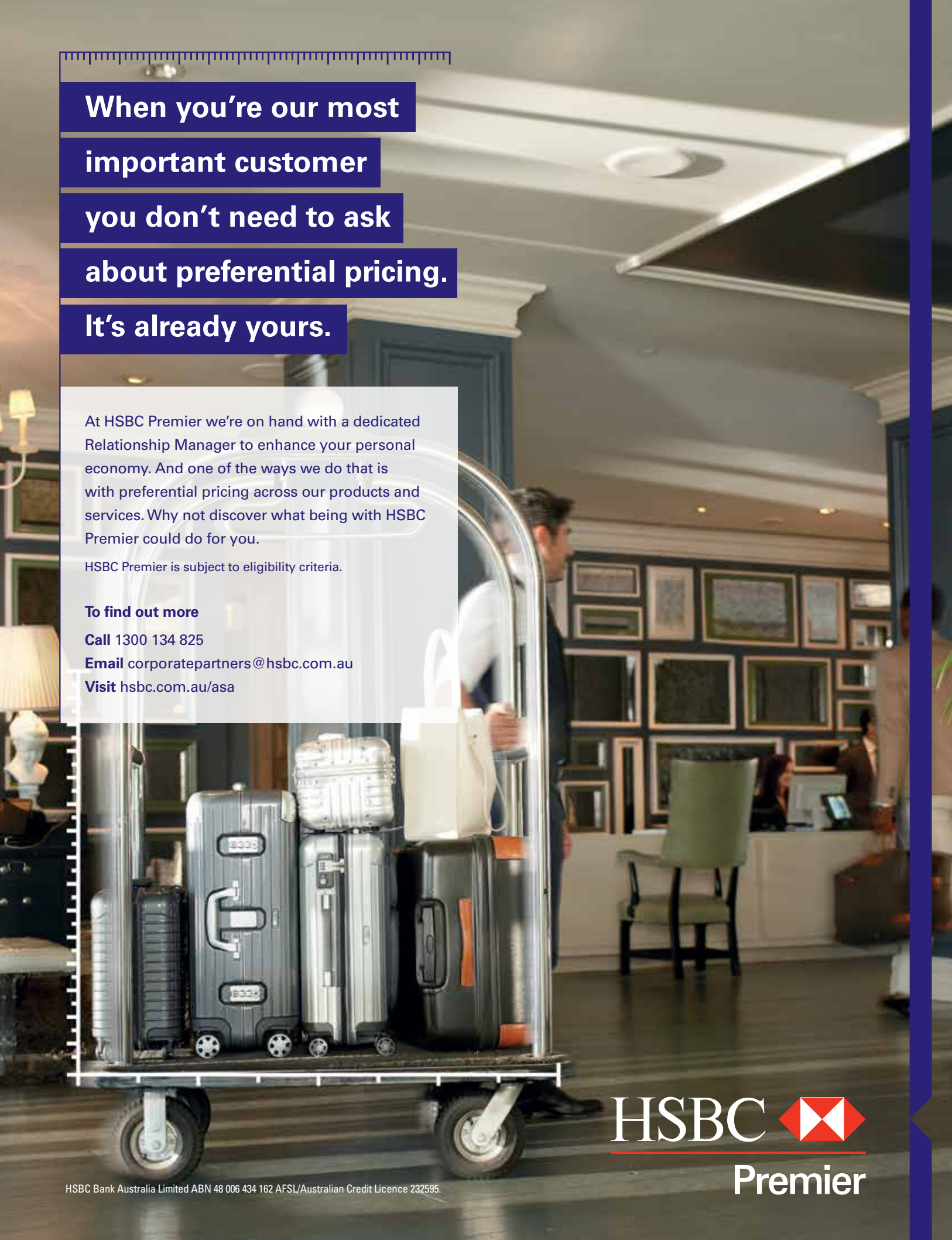
OCTOBER 2017

National Scientific Congress 2017

Date: 7-10 October 2017

Venue: Perth Convention and Exhibition Centre, Perth

Contact: events@asa.org.au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