AUSTRALIAN
Anaesthetist
THE MAGAZINE OF THE AUSTRALIAN SOCIETY OF ANAESTHETISTS • MARCH 2019

SAFE WORKING HOURS AND FATIGUE

- It's time to talk about fatigue
- Fatal fatigue: trainee perspective
- Fatigue: a specialist perspective
- Sometimes a tired doctor is better than no doctor at all

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www.asa2019.com.au

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WOULD YOU LIKE TO CONTRIBUTE TO THE NEXT ISSUE?

The June *Australian Anaesthetist* will focus on medico-legal issues. 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 April 2019.
- Final article is due no later than 17 April 2019.

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

REGULAR

ASA EDITORIAL FROM THE VICE-PRESIDENT

DR SUZI NOU
ASA VICE-PRESIDENT

I recently listened as a trainee shared with me their experience of working in a hospital which didn't provide any overnight or separate daytime rest facility. What I heard was shocking.

After a busy night shift where they anaesthetised patients in theatre, attended MET calls and provided epidural analgesia for women in labour, they had little choice but to drive home. They knew the risks of driving in peak hour along freeways and motorways. So much so that they had installed an alarm in their car which was meant to wake them if it detected that they had fallen asleep at the wheel. I was surprised to learn that such an alarm existed and shocked that we can be subjecting our trainees and ourselves to this hazard. In this issue of *Australian Anaesthetist*, Plunkett and McCrossan[1] share a similar incident with a far more tragic outcome.

Thankfully there are some systemic measures which aim to prevent this. Provision of a rest facility is part of the EBA in some states. It may be required for hospital accreditation in others. The AMA has a code of practice describing safe work hours and rostering practices. The ASA and ANZCA have position statements on out of hours work and fatigue respectively. Despite these policy measures, fatigue remains a problem and there is an ongoing need for organisations like the ASA to be involved.

Policies and standards have been and will continue to be established because fatigue is recognised as a common hazard and its impact on performance and risk to patient safety well described. Much of the policy work is focussed on trainees as they are most affected by the requirement for regular shift work and less empowered in seeking and obtaining systemic solutions. Richard Seglenieks[2], Chair of the ASA Trainee Member Group (TMG) recognises this and outlines some very useful strategies for self-care and personally managing one's own fatigue that are applicable to all, regardless of age and stage of career.

Policies and standards have been and will continue to be established because fatigue is recognised as a common hazard and its impact on performance and risk to patient safety well described.

Surveys in the UK and NZ have shown that fatigue is common, not only for anaesthetists but across the medical and nursing professions. In the UK, the Joint Fatigue Working Group has been established. Emma Plunkett, Chair of the Working Group, provides an update

on their work. Alongside the systemic measures such as defining standards and linking them with accreditation, they have developed educational resources and are hearing stories of positive change which they hope to share. Such initiatives will help implementation and is something the ASA is encouraging via the Forum for the *Long Lives Healthy Workplaces* toolkit: www.asa.org.au/join-the-asa-forum/

Many specialist anaesthetists juggle multiple workplaces with ensuing on-call requirements and the ongoing challenges of running or being involved with a small business. Do safe hours and the provision of rest facilities apply to the small business operator working across multiple sites? Is fatigue an issue for specialist anaesthetists working in Australia? Whilst fatigue hasn't specifically been surveyed amongst Australian anaesthetists, Jim Bradley[3] extrapolates from the findings of the ASA Member survey and compares on-call requirements of private and salaried practitioners as a proxy for fatigue, notwithstanding the difference in the nature of the work in private and public hospitals. Whilst specialists working in private may have fewer on-call requirements and less fatigue, they still require nonclinical recovery time and protections in the workplace.

At my invitation, Professor Drew Dawson[4], a world-renowned expert on fatigue management, raises the controversial notion that sometimes "a tired doctor is better than no doctor at all". At the basis of most fatigue prevention strategies is the equation that lack of sleep = fatigue. Thus we are offered solutions to improve and increase rest in order to reduce fatigue. Dawson explains that reducing work hours doesn't always lead to improvements in fatigue and its impact. His pivotal work in Queensland has been in developing a fatigue risk management system which involves recognising fatigue and introducing compensatory behaviours to enable work to proceed safely whilst fatigued.

However these measures will only go so far. Miko[5], blogging as @mindbodymiko has written a harrowing account about her life as an unaccredited surgical registrar, rostered to be on-call for up to 21 consecutive days, working 12-20 hours a day and being at the hospital for up to 140 hours a fortnight. It reminds us that limiting work hours can provide a minimum safety net, not only for our patients but for ourselves. All four authors in this issue acknowledge that fatigue impacts welfare and that there is a need for a change in culture. Although a tired doctor may be better than no doctor at all, a system that breaks people to the point that they leave is a solution that we should no longer accept.

References

1. Plunkett E, McCrossan R. It's time to talk about fatigue. *Australian Anaesthetist*, March 2019, pp. 10-13.
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4. Dawson D, Sprajcer M. Sometimes a tired doctor is better than no doctor at all. *Australian Anaesthetist*, March 2019, pp. 24-27.
5. (https://mindbodymiko.com/the-ugly-side-of-becoming-a-surgeon/) Accessed 5th Feb 2019.

CONTACT

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AUSTRALIA DAY HONOURS 2019

Congratulations to ASA member awarded an AM in the General Division of the Order of Australia, Dr Michael Davies, Victoria for significant service to medicine in the field of anaesthesia and to professional and medical bodies.

Congratulations to ASA members awarded an OAM in the General Division of the Order of Australia:

- **Dr Christopher Dodds, Roseville NSW for service to medicine as an anaesthetist.**
- **Dr Christopher Lowry of Lennox Head for service to medicine as an anaesthetist.**
- **Dr Ian Airey OAM for service to the community.**

The ASA also congratulates Mr Stephen Milgate for significant service to medical professional associations and to the community.

Congratulations to Dr Richard Harris OAM – 2019 Australian of the Year.

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ASA UPDATE FROM THE CEO

MARK CARMICHAEL, ASA CEO

Welcome to 2019. The Christmas and New Year period is one usually filled with a sporting focus, as events such as the Sydney to Hobart yacht race and the cricket test series (Big Bash for the more recent converts) of the summer, fill many hours and attract most of our attention.

While those events occurred again this year, the bigger event for the ASA which coincided with the festive season, was the response received from Minister Hunt, on December 21, in relation to the continued progress of the Anaesthesia MBS Review. The communique from President Dr Peter Seal, which was circulated to all members late on December 21, updated the position as we understood it. Suffice to say, more work is being done to nail down the details, and at the time of writing a meeting was planned with members of the Department of Health for early January 2019, by now the details will have been made available. The MBS Review has been a monumental project for the Society, which in the end may well prove to be one of the most valuable pieces of work undertaken by the Society for members and the Australian public.

Collaboration with other like bodies be it the AMA or other specialist groups is something the ASA regards as very important in its overall approach to matters and engagement with the broader medical profession. In fact support from the AMA has been most welcome during the period of the MBS review. With this in mind I am pleased to report that during the latter half of 2018, the ASA was approached by and agreed to support the Australasian Society of Aesthetic Plastic Surgeons (ASPS) in its push to have the title 'Cosmetic Surgeon' banned. This is an example of the supporting advocacy that the Society undertakes with like bodies. As is often the case, this support was based around the desire to assist in improving patient safety in this country. ASAPS wrote to the Society thanking it for its support in the submission entitled "Regulation of Australia's health professions: Keeping the National Law up to date and fit for purpose". The ASA will look to continue with this collaborative approach.

Late last year the new ASA website was launched, with a range of improved features and facilities. I certainly encourage you all to have a look at the website and in particular the 'Top 10 Features' summary, included in this edition, as a way to quickly familiarise yourself with the site. The website when used effectively will add significantly to the value of your membership.

Members by now will have received their first edition of *Anaesthesia and Intensive Care* for 2019. The January edition was something of a landmark edition as it was the first published through SAGE the international publishing house. Up until now the Journal has been produced 'internally' with a great reliance on a mixture of paid staff and volunteers. In a strategic the decision was made to engage an external publisher. Despite being a significant move for the ASA, and one which involved a great deal of work behind the scenes especially by Chief Editor A/Prof John Loadsman, I am sure that members will still only see the high quality Journal that the AIC is known as.

As we look ahead, 2019 holds great promise for the Society. With a membership that is continuing to grow and a range of excellent educational opportunities planned, things are looking bright. A highlight will be in September, when the ASA will host the Common Issues Group (CIG) Meeting, just prior to the National Scientific Congress, in Sydney. CIG brings together the senior office bearers and CEOs of the American, Canadian, New Zealand, South African and Great Britain Societies. One of the items on this year's agenda will be the welfare of anaesthetists and the 'Everymind' tool kit (https://asa.org.au/welfare-of-anaesthetists-2/) which the ASA provided significant seed funding for. There has been great interest from the overseas Societies regarding this resource and we look forward to having a valuable discussion on this and a number of other topics.

The CIG Meeting will provide a perfect introduction to this year's National Scientific Congress running from September 20 -24 in Sydney. Building on the great success of Adelaide 2018, the Sydney meeting will, as always draw together a wonderful array of international and local speakers to provide a truly world class educational opportunity for members and non members. Please visit the ASA website for further information.

2019 HISTORY OF ANAESTHESIA SEMINAR

A seminar to celebrate & discuss the history of Anaesthesia

Invitation to speakers

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Anaesthesia and Intensive Care

JUNIOR RESEARCHER AWARD

Applications are invited from ASA, NZSA, or ANZICS members who are in training or within five years of their specialist qualification for the 2018 Anaesthesia and Intensive Care Junior Research Award.

To be eligible, applicants must be the first author of a paper published in 'Anaesthesia and Intensive Care' in 2018. Ideally the paper would describe work conducted in Australia or New Zealand. The award will be made on the basis of the scientific merit and originality of the paper. The award will be made separately to the 'Jeanette Thirlwell Anaesthesia and Intensive Care Best Paper Award'.

The prize consists of AUD $2,000 plus expenses to attend the annual ASA National Scientific Congress to receive the award.

Applications in the form of a letter indicating the name of the paper and the date published should be addressed to the Chief Editor, Anaesthesia and Intensive Care via email aic@asa.org.au by 30 April 2019.

REGULAR

WEBAIRS NEWS

Susan Considine joined us as the new ANZTADC Coordinator in January 2019. Susan has a background in health information management, with experience in clinical coding, and has previously worked at the Geelong Hospital, the Melbourne Clinic and the Peter MacCallum Cancer Centre.

In 2019 webAIRS plans a new strategy with increased feedback to the webAIRS users. In 2018 the drill down features of the landing page were refined to provide more information to users and this year we plan to increase this feedback with a number of initiatives. For those who are not familiar with the webAIRS system, you can explore the features behind the green buttons on the landing page. Hover over the buttons to obtain a brief description of the functionality and click on them to see the information behind the button. The main features are:

- Incidents – shows the current dashboard and a summary of the numbers for each incident main category. From the dashboard you can select a link to record an incident into the database.
- News – shows recent news and alerts.
- Events – shows links to upcoming webAIRS presentations at annual scientific meetings and congresses.
- Publications – shows links to articles published that incorporate webAIRS data and have been published in a peer reviewed journal.
- FAQ – Frequently asked questions. This section has information about the system which may be useful to new and to regular users of the system.

New features in development will be included in the forthcoming issues of the *Australian Anaesthetist*.

WebAIRS is considering publishing a newsletter several times a year and would be interested to know if ASA members would be interested in receiving an additional webAIRS newsletter periodically during the year, or if the current arrangement of articles in the e-News and magazine articles of the parent organisations is sufficient feedback. Please email your responses to: WebAIRS/ANZTADC: anztadc@anzca.edu.au

FOR MORE INFORMATION

Find out more about ANZTADC/WebAIRS: https://www.anztadc.net/

Are you contributing to quality improvement in anaesthesia? Register yourself on webAIRS: www.webairs.net

ASA BENEVOLENT TRUST FUND

Established in 2001 the ASA Benevolent Trust Fund assists Australian anaesthetists, their families and dependents who are in dire necessitous circumstances.

The Trust Fund is maintained exclusively from members' donations and from interest on the balance of the Fund.

All donations are tax deductible.

To make your donation contact ASA by emailing maung@asa.org.au

FEATURE

IT'S TIME TO TALK ABOUT FATIGUE

The Association of Anaesthetists, Royal College of Anaesthetists (RCoA) and Faculty of Intensive Care Medicine (FICM) Joint Fatigue Working Group began somewhat unconventionally. It evolved from a determination to do something after the tragic death of an anaesthetic registrar in a road traffic accident.

Dr Ronak Patel had finished a run of night shifts and was on his way home. A newspaper article about the inquest tells how he was singing on his hands free phone to his wife when suddenly the line went silent. She rang him back. Again and again – 14 times in all. Then she started driving along the route he was taking, only to be met by the police, called to the scene of the accident. She was 33 weeks pregnant at the time.

Although we will never know for certain, it seems likely that Dr Patel had a microsleep; an involuntary, uncontrollable episode of light sleep lasting only a few seconds. Microsleeps are associated with both fatigue and monotonous activity and may explain why 20% of road traffic accidents are thought to be fatigue related.

> Very few people working night shifts escape the exhaustion associated with attempting to reverse one's sleep-wake cycle…

Dr Patel's story shook the anaesthetic community in the UK, especially trainees, perhaps because of the realisation that it could happen to anyone. Very few people working night shifts escape the exhaustion associated with attempting to reverse one's sleep-wake cycle and many will also have experienced 'get-home-itis': the strong desire to get home at the end of the night.

This is one of the reasons that fatigue can be a difficult subject to talk about. There are other reasons too. Despite the very humanitarian nature of our work, there is a tendency for doctors, and indeed all healthcare professionals, not to feel able to admit their own humanity. After all, we have a sense of duty to care for our patients and this means we put their needs first. That's a laudable attitude, but it must be balanced with recognition that we also need to think about ourselves. It is logical that we make better decisions and are more compassionate when we are rested and this is better for both us and our patients.

Until July 2017, when the results of the survey of fatigue in anaesthetic trainees were published, it was easier

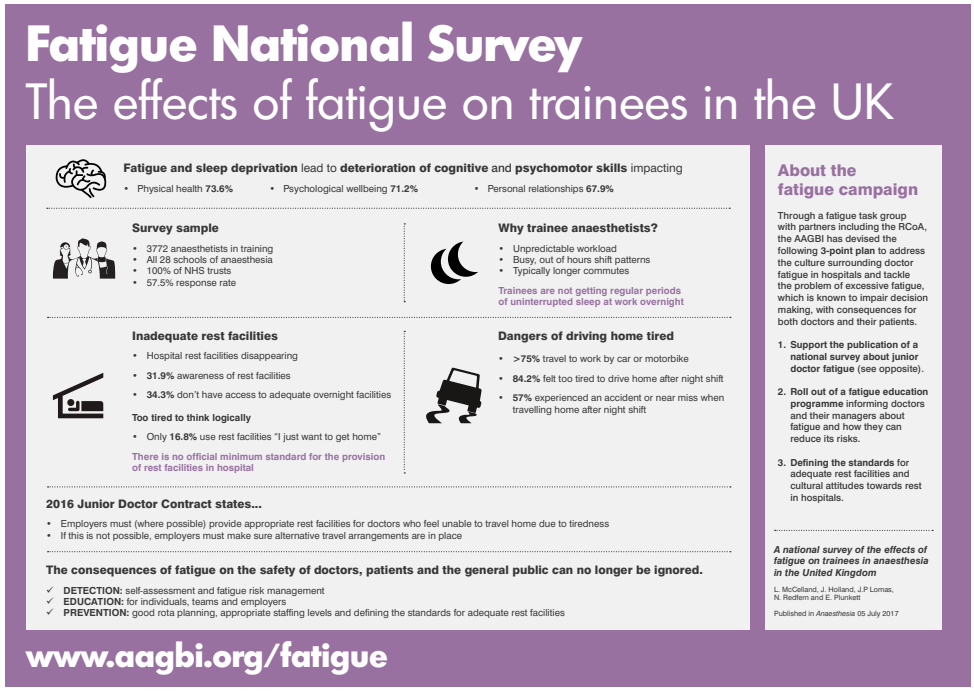
to dismiss the problem of fatigue as anecdotal. However, a national survey with a 57% response rate has provided some evidence of the scale of the issue . Eighty-four percent of respondents had felt too tired to drive home at the end of a shift and 60% of respondents had a commute lasting 30 minutes or more. It is not surprising therefore that 57% admitted to having an accident or near miss after a night shift. This may, at least partly, relate to the lack of available rest facilities with about two-thirds of respondents having access to rest facilities during a night shift, and only one-third for post-shift facilities (a 'sleep-off room'). A quarter were unaware of what post-shift facilities were available and only 16% had ever used them: a demonstration of 'get-home-itis'. Around seven in ten respondents described the negative impact of fatigue on physical and psychological health and personal relationships.

As the results of the survey were presented and discussed, a few queries arose. Firstly the question of whether this was a specific problem of trainees. The Joint Fatigue Working Group is hoping to answer this by supporting two further surveys to look at the issue. A survey of out of hours working and fatigue in consultant anaesthetists and paediatric intensive care consultants was carried out in July 2018. The results are being analysed but the preliminary findings were presented at the Association of Anaesthetists Winter Scientific meeting in January this year. The one line summary: consultants are fatigued too. Although their working pattern is different, being on-call is characterised by long hours of work, interrupted nights' sleep and lack of time to recover. Ninety-one percent of consultants reported work-related fatigue. Factors other than working patterns which were felt to contribute to fatigue were inability to take breaks, clinical workload and staffing issues. A survey of staff and associate specialist doctors has also been prepared and will be launched in the first half of 2019; timed to minimise survey fatigue. A similar picture would seem probable.

One other important question to address is, why all the focus on anaesthetists? After all there are many other professional groups, within and outside healthcare, who work shifts. Why are anaesthetists particularly at risk? The answer is that we're not of course; this affects everyone working in similar conditions. The Joint Fatigue Working Party now includes representation from an expert paediatrician and the Royal College of Nursing and the plan is to collaborate with other specialties and healthcare professional groups as much as possible. The group launched a consensus statement on World Sleep Day 2018 , with the hope that it will resonate with individuals and organisations who will lend their support to the #FightFatigue campaign, so we can work on addressing the issue together.

Our anaesthetic surveys contribute to an increasing body of evidence about the scale, impact and consequences of fatigue. There have been other surveys too – Doctors.net ran a fatigue survey and the GMC National Training Survey now includes questions about fatigue. More recently, the *BMJ* has published articles about the health effects of working shifts and the BMA have released their Fatigue and Sleep Deprivation briefing. The issue is well described.

So what can we actually do about it? There is plenty of guidance here too, from the Association of Anaesthetists Fatigue and Anaesthetists guidance to recent articles in Archives of Disease in Childhood and of course the ANZCA Fatigue Statement, which is currently being revised and updated. However, translating guidance into practice isn't always easy; change is hard and many people describe feeling helpless to initiate workplace modifications, especially in this area. This has been the focus of much of the work of the Joint Fatigue Working Group, with development of educational resources about fatigue, sleep, how to manage working night shifts and tools to prompt consideration of fatigue at handover. They can all be downloaded from the Association of Anaesthetists #FightFatigue webpages.



REAL WORLD ANAESTHESIA COURSE (RWAC)

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Frankston Hospital, Melbourne, Australia

This is the 28th Australian course and the fifth to be held in Frankston.

The aim of RWAC is to prepare anaesthetists for work in low and middle income countries ('the real world') in a variety of humanitarian aid situations.

The course consists of a series of interactive lectures, case based discussions, hands on practical equipment sessions and in-theatre teaching of drawover anaesthesia.

Some topics covered include:

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- Oxygen supply
- Ketamine and halothane
- Equipment maintenance
- Electrical supply
- Psychological adaption to austere environments

The number of participants is limited to 18 to maximise interaction and hands-on learning. The course has regularly been oversubscribed in the past, so to be fair places are allocated on a 'first in first on' basis.

The course cost is AUD$3,300 (including GST) and is payable if your application is successful.

For further information please contact:

Dr Chris Bowden
cbowden@phcn.vic.gov.au
Frankston RWAC Course Convenor
Frankston Hospital

ONLINE APPLICATIONS

Applications open on Monday 8 April 2019.

Please complete and submit the online form on ASA website **https://asa.org.au/rwac-applications/.**

Successful applicants will be notified as soon as possible and given instructions on how to pay the course registration fee. The fee is AU$3,300 (including GST).

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FEATURE

The group has also developed some responsibilities and standards (also available on the #FightFatigue webpages). The responsibilities are for individuals, as the issue of fatigue cannot be tackled without everyone playing a part. As healthcare professionals, we have a responsibility to look after ourselves, to do our best to make sure we are rested and prepared for work. Before behaviours can change, people need the necessary knowledge to enable them to understand why this is important and how they can prevent, mitigate and manage fatigue; education about sleep and managing shift-work should be part of training for all those who work nights. Simple things like ensuring your room is dark, quiet and an appropriate temperature are important, as is avoiding looking at a screen in the hour or so before you wish to fall asleep.

Individuals also need support from their organisations to put this knowledge into practice. Ergonomic rostering with forward rotating shifts (i.e. early shifts, late shifts then nights) are best for most people, with adequate time off between to recover. It takes at least two nights of 'normal' sleep to recover from a sleep debt but longer runs of night shifts may require more time. People also need a working environment that supports and enables them to nap during a night shift and/or to sleep before driving home. This is the basis for the standards for rest facilities and culture within organisations; free text responses in the trainee survey revealed that some places still have a threatening attitude towards rest. The standards are red-amber-green-rated with green being best practice and amber being the minimum acceptable and the Group believes that all organisations should be able to achieve the amber standards, even with the pressure for space in our NHS hospitals. These standards are now included in the RCoA Anaesthesia Clinical Services Accreditation standards.

As the work in this area progresses we are hearing of examples of departments and organisations where fatigue and shift working is already well managed or where successful improvements are being made. So another aim of the group is to share these examples. Despite the stark reality painted by the surveys, the group is keen to take a positive approach as much as possible, to learn from the good practice and to help others to feel inspired to make changes at home and at work.

A change in culture is not an easy thing to accomplish. It requires engagement on a rational and an emotional level and considerable time and effort. The Fatigue Working Group has been working for over 18 months now and we believe that the conversation is changing. Doctors are talking about fatigue and recognition of the issue is the first step to managing it. We know there is still much to do to bring medicine in line with other high-risk industries with established Fatigue Risk Management Systems. Resources remain stretched in the UK and finances are increasingly tight. However, through conversation and collaboration we are noticing a difference and we hope to collaborate more with our colleagues around the world. We'd love to hear about your experience. You can get in touch with the group on fatigue@aagbi.org. How do you #FightFatigue?

Dr Emma Plunkett,
Consultant Anaesthetist, Birmingham, UK
Chair, Joint Fatigue Working Group

Dr Roopa McCrossan,
Specialty Registrar, Newcastle, UK
Vice Chair, Association of Anaesthetists Trainee Committee

With thanks to Dr Kathleen Ferguson (President, Association of Anaesthetists)

FEATURE

FATAL FATIGUE: TRAINEE PERSPECTIVE

Fatigue is common in medical practitioners, particularly those working long hours, shift work or overnight on-calls. Given the potentially disastrous outcomes associated with practising while fatigued, it's important that we develop systems to mitigate this risk and protect ourselves and our patients from harm.

Much of our early insights into fatigue have arisen from the experiences of the aviation industry, which is commonly compared with the practice of anaesthesia.

"Fatigue is defined as a physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can impair a crew member's alertness and ability to safely operate an aircraft or perform safety- related duties"[1].

BACKGROUND

Our understanding of fatigue and its impacts on performance is steadily growing. However, despite growing awareness and evidence of the harm associated with fatigue, it continues to be a pervasive issue in medicine.

Anaesthetists and trainees are high risk groups for fatigue – both in terms of our risk of being fatigued at work and the risk of harm to patients when we are fatigued. Most teaching hospitals require an anaesthetic registrar to be onsite 24 hours a day to assess and anaesthetise emergency surgical patients and provide advanced airway support to the wards, emergency department and intensive care unit. This necessitates a significant amount of time working after-hours for trainees in anaesthesia, typically with a shift-based roster including days and nights.

After-hours work tends to be more stressful in nature, due to the clinical condition of patients requiring emergency procedures and the more limited support available compared with in-hours work. Combined with fewer (sometimes zero) opportunities for rest breaks and the physiological effects of shift work, this is likely to contribute to high levels of fatigue among anaesthetic trainees.

Fatigue reduces cognitive and physical performance, impairs judgement and can contribute to medical errors. In a survey of New Zealand anaesthetists, 80% reported making a fatigue-related error[2]. A study of 12 anaesthesia trainees performing a simulated four-hour anaesthetic after 25 hours awake showed impaired psychomotor vigilance, mood and subjective sleepiness but surprisingly was unable to identify any difference in clinical performance – even though some of the subjects actually fell asleep[3]! This may be

explained by the nature of our work: the likelihood of an adverse event occurring during a brief episode of inattention is low, however, when an event does occur it tends to be very serious[4].

Our ability to analyse data, adapt to new challenges and make critical decisions is impaired when fatigued, and these effects can be insidious[5]. Interestingly, among the first aspects to be impacted are our insights into our own level of functioning and empathy[6,7]. Even relatively mild fatigue can affect how we think and feel, which can be particularly significant in a high-pressure work environment[5].

We are physiologically adapted to be awake during the day and asleep during the night, a pattern reinforced by our circadian rhythms. Adequate sleep is necessary for us to remain healthy and function at a high level. Inadequate sleep has wide-ranging detrimental effects, including on our attention, alertness, learning, memory, mood, and metabolism[8,9]. Fatigue is also associated with emotional liability[10], longer-term health risks, and may negatively impact on family life[4]. Even a single night of restricted sleep affects our physiology, increasing sympathetic nervous system activity and blood pressure, lowering glucose tolerance and increasing markers of inflammation[11].

Fatigue is also associated with emotional liability, longer-term health risks, and may negatively impact on family life.

Shift work disrupts our normal circadian rhythm, with short-term effects comparable to the jet lag associated with international flights. It can take several days to readjust your body clock and stop feeling fatigued, with the accompanying mental and physical slowness[5]. Sleep duration and quality are both impaired after night shifts, with sleep typically one to four hours shorter than usual[11].

The combined effects of defying the circadian rhythm's drive and daytime sleep deprivation make working at night inherently riskier. It can be a challenge just to stay awake, let alone function well in a busy, high-pressure environment.

Our ability to analyse data, adapt to new challenges and make critical decisions is impaired when fatigued, and these effects can be insidious.

After just 17-19 hours without sleep, some aspects of our performance are worse than at a blood alcohol level of 0.05%, with response times up to 50% slower[12]. Individuals who have had less than two hours sleep in 24 hours are unfit to drive[13], yet shift workers are more likely to drive while fatigued and have double the risk of falling asleep at the wheel[14]. Knowing the effects of fatigue and sleep deprivation, it's unsurprising (though no less devastating) that a number of junior doctors have been involved in fatal accidents when driving home after night shifts[15].

The practice of anaesthesia requires sustained vigilance, complex decision-making and rapid responses. Fatigue impairs our capacity to function effectively across all of these domains, limiting our ability to provide safe and effective care for our patients. Our drive to continue working despite these impairments can take a heavy toll on our own mental and physical health. A 2013 beyondblue survey found that anaesthetists and anaesthetic trainees have among the highest rates of psychological distress in the medical community[16] – it's likely that the fatigue we experience related to the nature of our work is contributing to this.

In 2017, McClelland et al surveyed 2,170 anaesthesia trainees in the UK to assess the incidence and impact of fatigue[17]. Their results were concerning, with 84.2% reporting having felt too tired to drive home after a night shift and 57% experiencing an accident or near miss while driving home. One-third of respondents lacked access to adequate rest facilities at work and even fewer were aware of facilities to rest at the end of a shift. Shockingly, some health services require trainees to pay to access rest facilities if they are too tired to drive home after a night shift. The vast majority of respondents used caffeine or other substances to regulate their sleep during and around night shifts and few reported sleeping well between shifts. Fatigue was reported to affect the physical health of 73.6% of trainees, psychological wellbeing of 71.2%, and personal relationships of 67.9%.

PROGRESS

The issue of fatigue is receiving increasing attention throughout the international medical community, and particularly in anaesthesia. Australian anaesthesia leaders have advocated for "a comprehensive bi-national toolbox approach to minimise fatigue and fatigue-related risks... for anaesthetists in Australia and New Zealand, that includes establishing fatigue education, fatigue management plans, fatigue management resources, and mitigating interventions"[11].

ANZCA is in the process of reviewing its professional document on fatigue, *PS43 Statement on Fatigue and the Anaesthetist*, which is accessible through the College website[18]. While the current document doesn't specifically refer to trainees, many of the points are also applicable to us. These include advice to avoid overreliance on caffeine or other stimulants to combat symptoms of fatigue, to remain aware of circumstances that contribute to fatigue, and to allow sufficient time for rest, sleep and leisure activities.

The AMA began a campaign for safe working hours in the mid-1990s, following which there has been an overall reduction in the number of doctors working hours that expose them to higher risks of fatigue[19]. Unfortunately, however, the 2016

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AMA Safe Hours Audit showed that 53% of doctors are still working rosters that place them at significant risk of fatigue, with registrars at even higher risk. The audit also found that doctors at higher risk of fatigue tend to work more hours, longer shifts, spend more time on call, have less days off and are more likely to skip meal breaks. To help address the risks associated with fatigue, the AMA has developed a *National Code of Practice*[20] that addresses work hours and rostering for hospital doctors, and a Fatigue Risk Assessment tool[21] to help doctors to identify whether they are at risk of fatigue.

In 2018 the British Medical Association (BMA) developed the *Fatigue and Facilities Charter*[22], a concise document outlining steps that can be taken to minimise the incidence and impact of fatigue on the medical workforce. A number of areas are addressed, including rostering, training, travel and rest facilities. Specific recommendations include allowing at least 46 hours off work after completing a final night shift, facilitating two 30-minute paid breaks for shifts longer than nine hours, providing basic education on sleep and shift work, and screening shift workers for sleep disorders. Appropriate rest facilities are recommended to be available around the clock and these should be 'easily accessible' – unlike some hospitals in Australia that only provide rest facilities in a distant part of the hospital, making it difficult to attend emergencies in a timely fashion. Importantly, your employer's responsibility doesn't end when your shift ends; if you are too fatigued to safely drive home then they should provide an appropriate place to sleep or help to make alternative arrangements (e.g. a Cabcharge).

The Association of Anaesthetists of Great Britain and Ireland (AAGBI) have also undertaken considerable work on the issue of fatigue. A 'Fatigue Group' was formed in association with the AAGBI, its trainee section (GAT) and the Royal College of Anaesthetists. This group has worked on a number of projects, including a traffic-light grading system for rest facilities and cultural attitudes toward fatigue in hospitals, a 'Fatigue Education Package', tools to assist hospitals to improve rest facilities and promote awareness of the risks of fatigue, and documents outlining specific information hospitals should provide to trainees regarding on-shift and post-shift rest facilities[17] The AAGBI have also embraced technology in addressing this issue, through provision of resources via their website[23] and a social media campaign (#FightFatigue) to raise awareness and promote strategies to address fatigue in anaesthetists and the broader medical community.

POTENTIAL STRATEGIES

Rostering

One way to address this issue is through a reduction in working hours, by placing limitations on the number of hours worked in a given time period or on the length of individual shifts. A number of studies have demonstrated benefits associated with these initiatives, including substantially reducing serious medical errors[24,25]. While these limitations can be imposed at a state- or territory-level, it is ultimately the responsibility of employers to ensure their employees are not placed at an unnecessarily increased risk of fatigue. This can be achieved through sensible evidence-based rostering (e.g. 'forward-rotating' shifts from days to evenings to nights), ensuring appropriate staffing levels (including cover for planned and unplanned leave), and providing adequate rest facilities (see the BMA's *Fatigue and Facilities Charter*[22] for one set of criteria for 'adequate' rest facilities).

Self-care and cultural change

We also need to work towards changing aspects of the prevailing medical culture regarding work, fatigue and self-care. We need a culture that values our own health and wellbeing as much as that of our patients. An analogy sometimes used for the importance of self-care is the scenario of an airline emergency, in which you must put your own oxygen mask on before helping others. If you neglect to fit your own mask (i.e. practice good self-care) before helping others, then you are likely to provide poorer-quality care and are placing yourself at high risk of burnout and mental illness.

We need to practice good sleep hygiene and time management to ensure that our ability to care for patients isn't impacted. We should feel comfortable asking for help when we are too fatigued to safely continue working alone.

By highlighting the importance of self-care, we can encourage individuals to take ownership of their own health. While organisational strategies are important, we also need to be aware of our own levels of fatigue and act accordingly. Everyone is different – we require slightly different amounts of sleep and have varying susceptibilities to the effects of sleep deprivation. These differences will also be affected by other life events, such as having children or studying for exams. As such, we need to understand fatigue and how it relates to us as individuals. We need to practice good sleep hygiene and time management to ensure that our ability to care for patients isn't impacted. We should feel comfortable asking for help when we are too fatigued to safely continue working alone. Where other reasonable options exist, we should not feel obliged to 'soldier on' despite our own impairment.

Self-care also involves avoiding taking on too many commitments, though what constitutes 'too many' will vary between people and over time. It involves taking regular breaks (when possible) and helping your colleagues to do the same. It involves taking your annual leave and actually using it for a break from work instead of attending a conference, picking up locum shifts or catching up on paperwork.

Cultural change should also involve greater openness about fatigue and our health. While many trainees feel comfortable talking to other trainees about fatigue and its impact on our work and health, we should also be able to talk openly with our consultants about it. Particularly, trainees should feel empowered to approach their department with concerns about their roster or suggestions for how it could be improved – keeping in mind that there are, of course, numerous factors to consider in rostering and some departments will have limited flexibility.

Naps

In the airline industry, naps have been shown to improve alertness and performance (after an initial brief period of 'sleep inertia'), including during subsequent critical phases of flight – i.e. descent and landing[26]. Perhaps a culture (and facilities) that is more amenable to napping could improve health, wellbeing and safety in medicine.

The Sleep Council (UK) provides the following sleep advice for shift workers[26]:

- Restful Environment
  - Good quality, supportive mattress
  - Bedroom temperature between 16-18°C
  - Minimise light – consider blackout blinds or eye mask
  - Minimise noise – consider earplugs
- Routine
  - Try to nap for two hours before working an evening/night shift
  - Use light to help stay awake during night shifts
  - Avoid caffeine for at least six hours before sleep
  - Try to always sleep for the same amount of time (generally aim for 7-8 hours)
- Wind down
  - In the two hours before bed:
    - Avoid heavy meals
    - Avoid exercise
  - In the hour before bed:
    - Use low levels of light (sunglasses while commuting, curtains shut if daytime)
    - Avoid playing games, working, watching TV or using a phone/computer
    - Take a warm bath or shower
    - Try yoga and/or meditation
  - If you can't sleep within half an hour of going to bed, you can get up and repeat your wind-down process again
- Wake up
  - Wake up using natural light (or a sunshine alarm clock)
  - Eat breakfast within half an hour of getting up
- Days off
  - Avoid sleeping for longer than usual
  - If too tired, take a nap for no more than 40 minutes

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Education

In some health services internationally, it is now standard practice to teach all new staff about fatigue and how to manage night shifts as part of a mandatory induction program[5]. I think it would be fantastic if this became a fixture in orientation programs around Australia – I'm sure you can all think of sessions in existing programs that are far less useful. Better education of all staff would also help people to identify others at work who are suffering from fatigue and provide them with support, advice or cover.

Pharmacotherapy

Drugs are commonly used to help manage fatigue. By far the main stimulant used is caffeine, though it is likely that some trainees are using other agents, such as modafinil or dexamphetamine. This is a somewhat contentious topic and not one that I want to go into in great detail here – needless to say that whatever you take you should not compromise the safety of patients. CNS depressants such as alcohol or benzodiazepines may be used to promote sleep, however, the evidence suggests that although sleep latency is reduced, sleep quality is also impaired[11]. All of these agents can be associated with dependence, addiction and other health issues. As such, they should be used sparingly and under the supervision of a GP or sleep physician.

Tips

Andrew & Scott provided a useful list of tips for managing fatigue in their 2018 *ANZCA Bulletin* article[11]. Many of these are applicable to trainees, such as learning about fatigue, practicing good sleep habits, and visiting your GP if you have difficulty sleeping. Other suggestions, however, are largely out of our control, such as the pattern of shifts rostered and allocating a rest space at work. We can advocate on these matters, though, and departments are generally receptive to reasonable requests for changes that will improve safety for staff and patients. If you don't feel comfortable approaching your department or are struggling to make progress, then you can contact the ASA for advice and assistance.

Dr Richard Seglenieks
Chair, ASA Trainee Members Committee

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FEATURE

FATIGUE – A SPECIALIST PERSPECTIVE

Two articles in this issue of *Australian Anaesthetist*, from the Joint Fatigue Working Group[1] of the Association of Anaesthetists (the erstwhile AAGBI) and from the Chair of the Trainee Members Committee[2] of the ASA, focus on fatigue in anaesthesia trainees. But what is actually known about fatigue in Australian specialist anaesthetists?

Fatigue is frequently discussed in relation to Australian medical practice, but there are relatively few publications which have specifically addressed fatigue in Australian anaesthetists, trainee or senior. Findings in New Zealand anaesthetists, where trainee issues at least have parallels with Australian practice, have been reported, and (in an Australasian context) editorialised in *Anaesthesia and Intensive Care* by Merry[3].

The ANZCA Position Statement PS43 (which is currently being reviewed) appeared in 2007, in part as a consequence of the above publications. The ASA position statement on 'Out of Hours Anaesthetic Services'[4] which addresses fatigue in part, along with the Welfare of Anaesthetists Special Interest Group documents which likewise address issues in which fatigue might be a component, all had their genesis in the mid-2000s.

While all parties will agree that fatigue can compromise practitioner performance, concern seemingly resonates less than in UK practice.

Fatigue in anaesthetists, both trainee and senior, continues to be frequently discussed within the context of UK and NHS practice, and the UK wash over into Australian practice is evidenced by the publication of the Plunkett and Seglenieks articles. Fatigue is canvassed periodically at the yearly Common Issues Group meetings, held annually for the last 20 years, and attended by the senior office bearers of the AAGBI and the American, Canadian and Australian Societies. While all parties will agree that fatigue can compromise practitioner performance, concern seemingly resonates less than in UK practice.

Seglenieks[2] backgrounds fatigue and its impact on performance in Australia and New Zealand, and summarises both older and more recent developments. He references a 2000 survey of junior and senior anaesthetists in New Zealand (see reference 3) and a 2017 survey of fatigue in anaesthesia trainees in the UK[5]. He also

notes work towards a revision of ANZCA PS42 (Statement on Fatigue and the Anaesthetist), references a comprehensive article which appeared in the September 2018 *ANZCA Bulletin*[6], and summarises relevant activity by the Australian Medical Association (including its National Code of Practice)[7].

Given then that concern about fatigue is heard most commonly in the UK context, is fatigue indeed more of a problem in the UK, or is it just underappreciated elsewhere?

A common theme in most articles on fatigue is long and/or repeated 'night shifts', with the potential for a high workload undertaken at hostile times. Serial 'night shifts' can be seen as hallmarks of employed practice, usually in busy 'general hospitals', where clinical activity may be undertaken 24/7. The coalface anaesthetists in these facilities are usually trainees, though of course consultants may also undertake shift work, and will certainly be frequently 'called in' when 'on call'. With Australasian vocational training in anaesthesia having much in common with UK practice, it is easy to extrapolate UK concerns about fatigue in trainees to Australia and New Zealand. To that end, the accompanying articles from the Joint Fatigue Working Group[1] and the ASA Trainee Members Committee[2] are to be noted.

IS SPECIALIST / CONSULTANT PRACTICE IN AUSTRALIA DIFFERENT FROM THE UK?

Of course it is. More than 50% of elective procedures in Australia are conducted in the private sector, in sharp contrast to UK practice. 'Private' anaesthesia is mainly delivered by specialist anaesthetists, with a small percentage delivered by non-specialists. Many of the facilities are 'freestanding', operating largely in daylight hours. The 2018 ASA member survey reveals that 30% of responders work exclusively in the private sector. It will come as no surprise that many Australian specialist anaesthetists do not undertake any 'on call' activity, and accordingly may not rate fatigue as a significant issue: perhaps only a consequence of repeated lengthy lists, but not of shift work or 'out of hours call in'.

In contrast, specialists who are employed full-time or part-time (on fractional appointments or as VMOs) by Australian public hospitals will be subject to an in hours and out of hours workload not dissimilar to UK practice. The out of hours commitment will depend on the caseload and casemix, and the presence or otherwise of junior and senior trainees. Those employed part-time will have a proportionate commitment.

Deeper analysis of the survey allows the views of 289 self-identified salaried anaesthetists to be compared with those of 579 private practitioners.

Has fatigue in specialist anaesthetist been surveyed by the ASA? The answer is 'no', with the best information we have needing to be extrapolated from work done by the Merry group[3] in New Zealand 20 years ago. However, the biannual ASA Member Survey examines elements of practice which can be considered as proxies for fatigue management (or perhaps more accurately, work/life balance). Examples of this include reduced working hours, reduced on call commitments, and increased recreational leave, particularly in older practitioners. In non-metropolitan areas, where it is often felt that the anaesthesia workforce is under greater pressure, similar findings are found.

The 2018 member survey shows a marked difference in the 'out of hours' commitment of anaesthetists who describe themselves as 'full-time salaried' or 'full-time private'.

Deeper analysis of the survey allows the views of 289 self-identified salaried anaesthetists to be compared with those of 579 private practitioners. As foreshadowed earlier, 32% and 41% of private practitioners take no weeknight or weekend call. This compares with 10% and 15% of salaried anaesthetists. In regards to weeknight call, 39% and 48% of private and salaried specialists are 'on call' one to two nights per four week cycle, and 19% and 27% for three to four nights per four week cycle: in effect, meaning that considerably more than 50% of all specialists are on call no more than one night per week, although 101 (12%) were on call more than one night per week. Only 10 responders out of 867 reported being on call more than four weekend days per four weeks cycle. In all, being 'on call' more than 'one in four' can be seen to be uncommon: but it may well be that these anaesthetists are the lead candidates for fatigue.

Fatigue is (as mentioned above) contemporaneously addressed by the ASA's Position Statement PS01 on 'Out Of Hours' Anaesthetic Services[4] (first published in 2006 and revised most recently in 2017). This document was never intended to be an omnibus solution to fatigue management. It arose when hospitals started to introduce requirements into their clinical privileging arrangements which paralleled the content of contracts and other workplace agreements, but without the benefits and protection. A common example was a requirement to participate in an 'out of hours' obstetric anaesthesia or other anaesthesia roster. This was most likely to be contentious when participation is unremunerated. Remuneration was seen by the ASA as appropriately underwriting both commitment to the facility and nonclinical recovery time, after being on call.

PS01[4] addresses various elements of 'out of hours' anaesthesia which are particularly relevant to specialist anaesthetists in Australian private practice:

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- there is a long tradition of providing anaesthesia outside normal working hours, and this is an onerous commitment which affects health, clinical performance and the ability to perform regular in hours duties;
- 'on call' commitments should take into account safe working practices and the effects of fatigue;
- clinical duties should not be undertaken in the presence of physical or mental fatigue if they might interfere with safe patient care;
- remuneration should be available where the anaesthetist is exclusively on call for a healthcare facility; and
- remuneration should enable the anaesthetist to relinquish clinical duties on the day following on-call responsibilities if an adequate rest period has not occurred.

Salaried anaesthetists and VMOs will otherwise need the protection of the various industrial agreements, noting that there is frequently less ability to practice flexibly within the confines of contracts or other workplace agreements.

It is also noteworthy that it is common for private practitioners to be 'excused' from their out of hours commitments from the age of 55, an informal recognition of the impaired ability to recover 'sleep deficit' with ageing. This is recognised within the Welfare of Anaesthetists SIG documents.

Finally, despite efforts from the specialty and the profession for least 20 years, concern is still expressed about fatigue, with solutions insofar as trainees are concerned perhaps "largely out of our control"[2].

Dr Jim Bradley
Specialty Affairs Adviser

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FEATURE

SOMETIMES A TIRED DOCTOR IS BETTER THAN NO DOCTOR AT ALL

When asked how many hours a doctor should be allowed to work, the majority of Australians will indicate "that between 12-16 hours seems reasonable". Most find working time arrangements beyond 16 hours unacceptable from a workplace or patient safety perspective[1]. On the other hand, when asked whether they would prefer a tired doctor, or no doctor at all, they universally indicate that a tired doctor is acceptable. This, in a nutshell, delineates the conflicting emotions around fatigue management in healthcare.

In recent years, fatigue has become a source of intractable argument in the healthcare sector. On one side, an emerging body of evidence has demonstrated the obvious. That is, that many healthcare providers, especially medical specialists, work extremely long hours[2]. Long working hours are associated with elevated levels of fatigue, which in turn increases the risks to patients due to the increased likelihood of unintended medical errors[3,4,5]. There is also a significant increase in the risks to the health care providers. Recent research has linked long hours of work (and by inference, fatigue) with increased risk of adverse mental health outcomes and, interestingly, commuting accidents due to inadvertent sleep onset[5,6,7].

The typical response by safety advocates has been to regulate (read restrict) working time arrangements and to limit doctors working hours. While well-intentioned, this strategy is often ill-informed. Many attempts to regulate working time arrangements have failed – often due to the law of unintended consequence. For example, restricting working hours:

- Cannot eliminate fatigue. The primary determinants of fatigue are (1) prior sleep and wake and, most importantly (2) 'time-of-day'. If required to work at night, everyone will be fatigued irrespective of the length of their shift.
- May provide the opportunity for additional work elsewhere. Early attempts to reduce junior doctors working hours also resulted in higher levels of 'moonlighting' (e.g. increased

secondary employment at private hospitals).

- Shift rather than solve the problem. Reduced working hours for junior doctors often resulted in increased call outs for more senior staff with even worse consequences vis-a-vis fatigue.
- Can reduce learning opportunities for medical staff and extend the time taken to train them to be independent.
- Can increase workload per unit time. While fatigue related errors might decrease, errors due to work overload can potentially increase even more. This can lead to a net increase in errors and adverse events.

There is no doubt that restricting working hours can reduce fatigue-related errors in pilot studies. By reducing junior doctors working hours to 80 per week, researchers in the US have demonstrated a reduction in errors and adverse events[8]. However, in this (and similar) studies, the number of doctors providing the service was increased to compensate for the reduced hours available for individual doctors. When translated to the health care system as a whole this approach might well be problematic for several reasons.

By reducing junior doctors working hours to 80 per week, researchers in the US have demonstrated a reduction in errors and adverse events.

First, if junior doctor hours are reduced then sourcing the number (and cost) of the additional doctors would be prohibitive. In practice, additional doctors are not typically available to be hired. In Australia we would need hundreds to thousands of additional doctors in the hospital system and this would be almost impossible to achieve in the current university funding climate. Additional funding is not readily available to resource the additional medical staff required in the state system. Health budgets are extremely tight and taxpayers appear extremely reluctant to increase taxes sufficiently to resource the reduction in hours. Were services to be reduced to ensure compliance with fatigue policies, the increased risks due to the withdrawal of services might well lead to much worse health outcomes overall. In essence, it is highly likely that the average taxpayer would much prefer a tired doctor to no doctor at all!

Second, health care does not exhibit traditional market behaviours. If we increase the labour supply we will likely see an increase in demand for health care. In many cases, there is significant latent demand for health care that is deflected due to long waiting lists. More doctors might paradoxically, merely result in more patients and working times extending to meet the latent demand.

Third, for many operational and cultural reasons, it is almost impossible to implement restricted working hours as a solution to fatigue-related risk. Following the introduction of the 80 hour week in the US the vast majority of hospitals applied for and were granted exemptions from the rule based on the (perceived) inability of the hospitals to implement the rules without compromising overall health outcomes. The introduction of a rule from which nearly all are exempted does not typically constitute anything other than symbolic change.

In 2011, Queensland Health was directed to address this issue by the Coroner following a (possibly) fatigue-related death in Caloundra[9]. In response to many of the factors outlined above, they decided to reject the orthodoxy of reducing working hours as the primary means of reducing fatigue-related risk and opted to develop a fatigue risk management system (FRMS). At the time, this was considered a very 'bold' decision but, in retrospect, has been considered relatively successful in those units that adopted and maintained it.

The key difference between restriction of working hours and an FRMS are very simple. From an FRMS perspective fatigue is an unavoidable part of providing 24/7 health care especially in regions where staff numbers and funding are limited by small populations and lower demand (e.g. rural and remote Australia). In this context, the focus shifts from reducing fatigue per se to reducing the likelihood of fatigue related error. This may seem a captious distinction – but it is critical in providing a much broader palette of potential ways to control fatigue-related risk. While restricting working hours can reduce fatigue and therefore, the likelihood of error, it is not the only way and it is definitely not a well targeted or effective way.

…it is almost impossible to implement restricted working hours as a solution to fatigue-related risk.

In recent years, fatigue specialists have increasingly focussed on the application of Human Factors theory drawn from the aviation industry to medical practice[10]. While noting the very different cultural and technical differences between the two industries (i.e. patients are not planes), there is considerable potential to use the broad principles of 'Threat and Error Management' to identify when staff are more likely to make a fatigue-related error and to adopt compensatory behaviours that enable staff to 'work safely while fatigued'[11].

In fact, fatigue-related compensatory behaviours have been used successfully by many health care professionals for many years. However, they often evolve and are promulgated informally rather than as a specified element of the safety management system[12,13]. Typical informal examples of often-reported compensatory behaviours include but are not limited to:

- Informal and/or non-verbal signalling of fatigue at the start of shift. Nursing staff report higher levels of procedural scrutiny when they know medical staff are extremely tired[14].

FEATURE

- Procedural slowing. Surgeons will often slow surgical procedures and introduce internal and external check loops with theatre staff to ensure simple mistakes are more likely to be detected[15].
- Double checking. medical and nursing staff will often report doing critical dosing calculations twice or verifying calculations with a colleague or the use of software tools to prevent simple arithmetical errors when tired[16].
- 'Rafting' of night work for on-call doctors. Medical staff often report frequent night wakings when working extended shifts (17-36 hours)[17]. These calls are often for non-urgent activities. By triaging such calls and adding them to the list of activities after urgent wakings can result in significantly more sleep.

The above examples are illustrative of the many very effective ways in which health care staff can identify and control fatigue-related risk without needing to change the working time arrangement. Most importantly, these controls are often easily identified and implemented with minimal bureaucratic pushback and little if any risk of unintended consequence.

So why hasn't this approach been widely adopted in the healthcare sector to date? Indeed, the current Parliamentary Enquiry in SA will be asking exactly that question over the next six months and it may well result in a few difficult questions to the SA Health leadership team. But they are not atypical or even less advanced than other states. They are merely the first to be put under public scrutiny for the lack of progress in this area.

The reasons for delayed uptake of FRMS are complex and, importantly, reflect the cultural forces at work in the sector. First, fatigue is not yet considered a 'legitimate' hazard in the healthcare sector. While there is an increased risk of accident and injury while commuting, the vast majority of fatigue-related errors impact on patients. By contrast, pilots are usually the first to arrive at the scene of a fatigue-related accident. More importantly, because restricting working hours has been seen as the only way to reduce fatigue-related risk, administrators and senior clinicians have been reluctant to implement working time restrictions due to their (correct) intuition of a likely net increase in risk due to indirect flow-on effects. Until key stakeholders are provided a clear strategy for reducing risk that does not threaten to cause a raft of even greater problems it is far easier to deny the problem exists. While Workplace Health and Safety (WHS) legislation and Patient Safety (PS) guidelines clearly require (if not mandate) that health care providers address fatigue-related risk it has often been easier to ignore it than address it.

Second, changes to the working time arrangement typically involve staff outside of the WHS and PS arenas. More frequently it involves those in Human Resources and Industrial Relations. For those stakeholders, working hours are primarily a subject for financial negotiation rather than safety.

Based on our work with Queensland Health over the last decade, the key strategic issue is for the leadership team (administrators and senior clinicians) to legitimise fatigue as a topic. Fencing of the industrial aspects of it can be a

very useful way to help kick start the discussions. A management directive to address fatigue but to "leave any discussion of working time arrangements until everything else has been done" can often reassure the respective stakeholders that the discussion will not result in clinical disaster, financial Armageddon, ministerial opprobrium or an appearance on the front page of the *Courier Mail*.

The next step is to assign responsibility for the development and delivery of the key elements of an FRMS. That is:

1. Policy and governance
2. Training and education
3. Risk assessment and control
4. Monitoring and compliance.

In our view this process is most appropriately assigned to WHS and PS groups within the organisation. Clearly each has its respective responsibilities vis-a-vis staff and patients.

While Workplace Health and Safety (WHS) legislation and Patient Safety (PS) guidelines clearly require (if not mandate) that health care providers address fatigue-related risk it has often been easier to ignore it than address it.

There are already great examples of how to develop and implement an FRMS within the health care sector. The landmark Queensland Health model and more recently the Canadian College of Physicians have both developed clear straight forward policy and excellent guidance materials to help organisations develop (cost) effective fatigue risk management without major disruption to the sector[18].

So what are you waiting for? Let's get on with it.

Professor Drew Dawson
Madeline Sprajcer

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Madeline Sprajcer has recently completed a PhD in the field of on-call work, sleep, and performance. She has extensive experience engaging with industry regarding fatigue, including healthcare, primary industries, entertainment, and transport organisations.

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FEATURE

WHAT'S IN A NAME...?

In 2018, a change in name of the specialty in Australia from 'anaesthesia' to 'anaesthesiology' was canvassed, with practitioners potentially to become anaesthesiologists.

These proposals mirror changes which occurred in Canada over 1998-1999, though in Canada, the diphthong did not survive: it was said that 'anaesthetist' was a very confusing term for the Canadian lay public, so the term was changed to 'anesthesiologist'. A new slogan was also developed for interaction with the public: Canadian anesthesiologists were to be seen as specialist physicians in perioperative medicine, critical care and pain management.

The minutes of the Common Interest Group (CIG – now known as the Common Issues Group) held in Montréal in 2000 and hosted by the Canadian Society show that the American Society of Anesthesiologists was particularly concerned that nurses would be allowed to practice anaesthesia without any supervision. This was in the context of a shortage of medical anaesthesia trainees in the USA.

The situation in Canada was different, with anaesthesia being exclusively 'a medical act' with GPs providing anaesthesia in areas that could not sustain specialist provision, though there was also said to be a shortage of medical anaesthesia trainees, as in the USA. In Australia (as explained by the ASA), and in the UK (as reported by the AAGBI) anaesthesia remained wholly 'a medical act', though it was stated that there was "a feeling that within a few years, the model of nurse anaesthetist might become a reality".

Canadian anesthesiologists were to be seen as specialist physicians in perioperative medicine, critical care and pain management.

At the conclusion of the 2000 CIG meeting, the following statement was agreed by the four societies: "Anesthesia should be administered by medical doctors who have completed a recognised specialty training program in anesthesia".

It was understood that the practitioner would be an anesthesiologist or an anaesthetist, depending on local practice, with 'anesthetist' (no diphthong) to describe nurse practice, not physician practice, in the USA. Several years later, following a sustained period of advocacy in Australia for 'alternate providers' to provide some services exclusively provided by medical practitioners, the ASA promulgated its position statement "The Medical Specialty of Anaesthesia" (PS10), revising it in 2011 and 2014. PS10 continues to reflect the statement from the 2000 CIG meeting. We still however hear advocacy for non-medical providers of medical services, despite the medical workforce having moved into surplus.

WHAT THEN IS IN A NAME?

Articles appear in the lay and medical press from time to time bemoaning that 'many patients' do not realise that

anaesthetists are doctors[1,2]. Close to home (given that I was then a member of that department), patients' views of anaesthesia at the (then) Royal Brisbane Hospital were reported in *Anaesthesia and Intensive Care* in 1982[3]. Only two-thirds of patients (and only one-third in the 14-20 age group) knew that anaesthetists needed a medical qualification.

Given the interest expressed in changing to anaesthesiologist, the 2018 ASA member survey explored how responders introduced themselves to their patients. The findings were very briefly reported in the September 2018 edition of *Australian Anaesthetist*.

Only two-thirds of patients (and only one-third in the 14-20 age group) knew that anaesthetists needed a medical qualification.

Firstly, the most common practice was for males (39%) and females (42%) to introduce themselves as "Dr + first name + surname". "First name + surname" was used by 36% of males and 27% of females. Only 15% of males and 18% of females introduced themselves by first name only.

Secondly, in comparing those who were within their first five years in practice with all other responders, 45% as opposed to 10% introduced themselves by first name only.

Further, only 21% of the younger group, compared with 44% of the others, identified themselves as 'doctor'.

Finally, responders identifying as salaried public hospital anaesthetists were much more likely than private practitioners to introduce themselves to patients by first name only (26% as opposed to 11%), though the most common practice in both groups was to use 'doctor' (32% and 44%).

DOES ANY OF THIS REALLY MATTER?

Informality in communication is increasingly common, certainly in English-speaking societies. The use of social media and its informal language is particularly common in younger age groups as is the use of 'first name' only. The survey findings would seem to reflect these observations. If it's important to an anaesthetist to be recognised as medically qualified, than it would seem that to use the term 'doctor' when meeting a patient would be an opportunity not to be missed.

The member survey also canvassed member-opinion in relation to changing from 'anaesthesia' to 'anaesthesiology'. While 27% of responders were ambivalent about a change, 18% and 21% were somewhat or strongly in favour of a change, and 13% and 21% somewhat or strongly against the change. A number of constructive and multifaceted arguments in favour of a change were published in *Australian Anaesthetist* in 2018, and they reflected organisational views, as well as those of academe and trainees. Conversely, arguments against the change were put forward. Whether the 39% in favour would introduce themselves to patients as 'anaesthesiologist' in preference to 'doctor' or anything else is unknown, and whether or not this will enhance the professional standing of the specialty is also unknown. Noting that this debate was had – and resolved – in Canada 20 years ago, the agenda for the next CIG meeting could explore the consequences of the change in the substantially parallel anaesthesia world of Canada.

In the meantime, it is self-evident that if one introduces oneself as 'doctor', it is unlikely that you would be confused with any 'alternate service provider'/'non-medical provider'.

A caution: noting that senior practitioners are more likely to introduce themselves more formally to patients, it would be reasonable to infer that more senior patients might appreciate being more formally addressed by their anaesthetist/anaesthesiologist/doctor.

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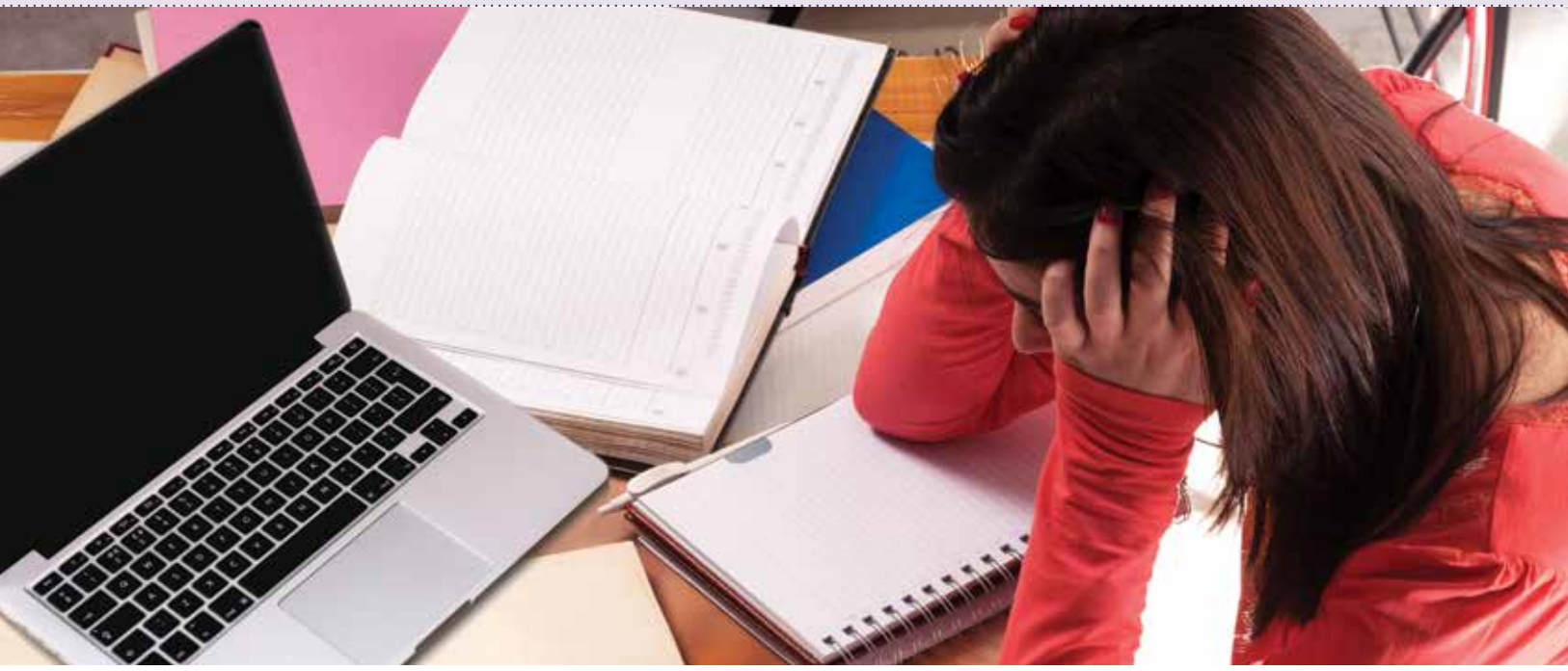

EXAMINING THE IMPACT OF EXAMINING

INTRODUCTION

Examinations occupy a central place in specialty training in anaesthesia and serve a crucial role in ensuring that individuals completing training are competent to transition to specialist practice. A wealth of evidence indicates that the current system of examinations contributes to significant stress among trainees. With doctors' welfare a focal point within anaesthesia, there is a clear impetus to ensure that our assessment processes minimise negative impacts on trainee health and wellbeing while maintaining the integrity of the training program.

This article is aimed at trainees and others who are not familiar with the literature on the topic. It provides an overview of some of the evidence to date, followed by a discussion regarding the purpose of assessment, stress and performance, key assessment principles, and potential future directions. I am not an expert on this topic – entire journals and textbooks are dedicated to optimal education and assessment techniques – so this is not intended to be a comprehensive review but rather a starting point for other curious minds. I hope it doesn't come across as overly critical of ANZCA – overall, I think they do a difficult job very well and when I state that something should be considered or reviewed then I don't mean to imply that it hasn't previously been considered or reviewed. The anaesthesia training program is used as a framework for discussion as it is familiar, however, many points will also apply to other specialties (and indeed other professions).

BACKGROUND

Examinations serve a number of purposes in the training program[1]. First and foremost, they provide a safeguard against incompetent trainees graduating to independent practice, essentially acting as a filter to control the quality of new specialist anaesthetists[2]. As a result, the general public and other health practitioners have a reasonable degree of confidence in the knowledge and skills of specialist practitioners. The Australian Medical Council (AMC) accreditation standards for specialist medical programs state that graduates should be 'fit for purpose' from the perspective of patients, stakeholders and the community; and that "assessment should… ensure patient safety by allowing only competent trainees to progress to become medical specialists[3]." A core requirement of this

process is that examination performance indicates competence in anaesthesia and predicts a trainee's ability to safely progress to independent anaesthetic practice. To effectively fulfil this purpose, the required qualities of an anaesthetist must be clearly defined and the examinations should form a valid, reliable, reproducible, fair, practical and generalisible method of assessing these qualities[4].

The spotlight currently shining on doctors' welfare, both within the profession and in mainstream media, encourages careful examination of the methods of assessment being employed. Potential negative impacts of examinations on trainees, particularly on the health and wellbeing of those studying towards core college examinations, have been acknowledged for decades[5,6,7]. The tri-partite Welfare of Anaesthetists SIG acknowledges that training in anaesthesia is an "arduous and stressful process"[8], lists examinations as a time of 'high stress'[9], and observes that "examination stress may be overwhelming[10]."Trainee wellbeing also forms part of the AMC accreditation standards for specialist medical programs[3].

Potential negative impacts of examinations on trainees, particularly on the health and wellbeing of those studying towards core college examinations, have been acknowledged for decades

Numerous studies have demonstrated substantial examination-related stress in anaesthetic trainees[1,11,12]. A beyondblue survey in 2013 found that anaesthetists and anaesthetic trainees have among the highest rates of psychological distress in the medical community, with study and examinations being the most commonly reported stressor[13]. McDonnell et al surveyed Australian anaesthetists in 2013 and although only 14% of respondents were trainees, they constituted 23% of those who reported a high level of distress, with 'Examinations and training' the most commonly reported stressor among all respondents[14].

Downey et al found in a 2015 survey that 20% of ANZCA trainees reported high levels of distress and 8% reported very high distress[11]. Examinations were again the greatest reported stressor, associated with moderate stress in 31% of respondents and severe stress in 64%. A 2016 survey of Victorian anaesthetic trainees by Castanelli et al reported that preparing for examinations was the factor most strongly associated with stress and proposed that a critical examination of examinations and their impact on trainee welfare should form part of future reviews of the ANZCA training program[12].

The magnitude of the impact of examinations on trainees is considerable. In 2014, Weller et al noted that ANZCA examinations have pervasive impacts on candidates' lives for extended periods of time[7]. While the trainees interviewed described the positive motivating drive the exams provide for learning, they also reported negative effects on their relationships, social life and mental health. Preparation for exams was described as time-consuming and stressful, with trainees studying daily, including on weekends and during annual leave. This limits trainees' ability to engage with healthy coping strategies, such as spending time with family and friends, attending special events and pursuing hobbies.

Stress is not only a risk factor for burnout and mental illness, but is also associated with serious health outcomes. Accelerated coronary artery disease[15,16], increased susceptibility to infections[17,18] and exacerbations of autoimmune diseases[19] have all been linked to stress. Poor wellbeing in medical professionals is associated with poorer quality of care[20,21,22] and fatigue correlates with clinical errors[23]. Reducing stress among trainees not only benefits the individual, but also their support networks, the future anaesthetic workforce, the healthcare system and the patients cared for by those trainees.

Stress is not only a risk factor for burnout and mental illness, but is also associated with serious health outcomes.

Fostering resilience and teaching healthy strategies for coping with stress are important approaches to addressing mental health issues among anaesthetic trainees. McDonnell et al found that 74% of anaesthetists and trainees surveyed supported greater focus on wellbeing and stress management in specialist training and continuing medical education[14], a concept previously suggested by the AMA Council of Doctors in Training[24]. However, it's also worthwhile considering the potential to reduce excessive stress by modifying the systems of training and employment in which such high rates of distress occur. The current methods of examination appear to be a significant contributing factor, indicating a review of assessment processes may be warranted.

STRESS AND PERFORMANCE

That is not to say that training and assessment should be completely stress-free, nor that stress is always detrimental. Stress is an expected element of anaesthetic practice and exposure to this during training is necessary. In one of the seminal works looking at performance under stress, Yerkes and Dodson found that performance in a difficult task improves with increasing physiological or mental arousal up to a certain point, beyond which further increases in stress detract from performance[25] (Figure 1). In contrast, high levels of arousal are associated with optimal performance in simple tasks. This concept has been revisited a number of times over years[26,27,28] and is often graphically represented simply as the curve for difficult tasks (Figure 2).

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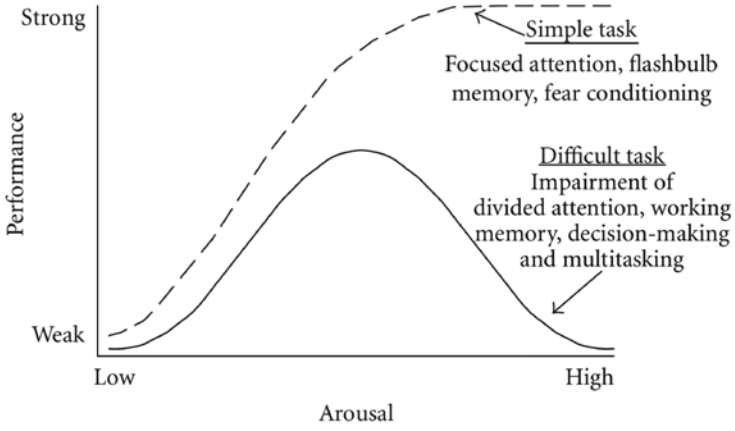

Figure 1. Diagrammatic representation of the Yerkes-Dodson law[29]

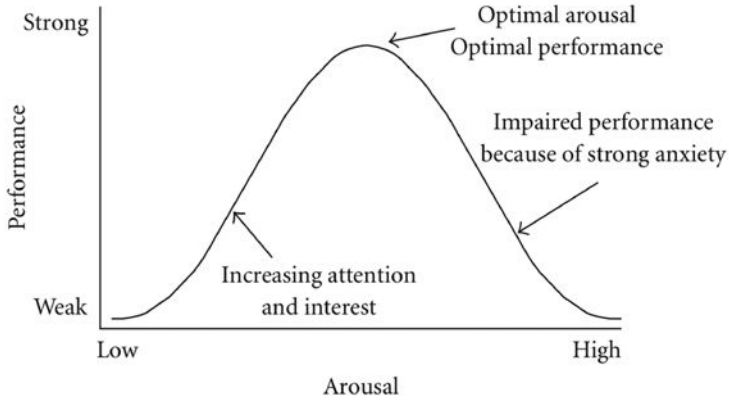

Figure 2. Diagrammatic representation of the Hebbian version of the Yerkes-Dodson law[29]

Sitting specialty college examinations can safely be classified as a 'difficult task' and is typically undertaken by trainees in states of high arousal. Thus, performance is likely to be impaired and may not accurately represent the candidate's true competence. High-stress examinations are not the ideal way to assess knowledge, unless the assessment of knowledge-under-stress is specifically intended. Undertaking assessment in a lower-stress situation would better demonstrate the candidate's knowledge and thus improve its validity.

High-stress examinations are not the ideal way to assess knowledge, unless the assessment of knowledge-under-stress is specifically intended.

It's sometimes argued that the necessity of performance under stressful conditions in anaesthetic practice justifies assessing knowledge under stressful conditions. While this view has some merit, it's less clear the extent to which a trainee's ability to reproduce descriptions of biochemical processes in a written or oral examination is a valid surrogate for their ability to manage a difficult airway, an anaesthetic crisis or the many minor clinical challenges anaesthetists face on a daily basis. Different tasks involve different cognitive processes and different types of stress are unlikely to affect cognitive processes in the same manner. There doesn't appear to be sufficient evidence to indicate that a stressful environment is beneficial for assessing theoretical or clinical knowledge.

Another case put forward is that a key purpose of the exam is to assess the candidate's ability to take an impossibly large body of knowledge, identify key points and concepts, and synthesise these into a form that can be reproduced with enough detail to answer (almost) any exam question. To know 'something about everything' rather than 'everything about everything'. This distillation process arguably tests the ability to adapt an ever-expanding body of clinical anaesthesia knowledge to produce a safe and effective anaesthetic plan for a complex individual patient. However, there is again a lack of evidence to support this theory, and it may constitute a particularly stressful process given the relatively high rates of conscientiousness and obsessive-compulsive traits among anaesthetists and anaesthetic trainees[30,31,32].

ASSESSMENT RUBRIC

The alignment of exam results with an individual's knowledge or competence can be represented in a 2 x 2 contingency table (Figure 3), much like that used for a simple clinical test (Figure 4). In both tables, there are two desirable outcomes: 'true positives' and 'true negatives', and two undesirable outcomes: 'false positives' and 'false negatives'. While an optimal assessment process will correctly classify all candidates as either 'competent and pass' or 'incompetent and fail', all processes have potential flaws and are only indirect indicators of competence.

Incorrect assessment of a candidate's competence – the undesirable outcomes – are analogous to type I and II errors. With the null hypothesis that competent candidates will pass the exam, a competent candidate failing represents a type I error, while an incompetent candidate passing represents a type II error[4].

The positive predictive value (PPV) of an examination (calculated as true positives divided by all positives), and the negative predictive value (NPV, calculated as true negatives divided by all negatives), are also of great interest as they indicate how well the examination accurately identifies competent and incompetent trainees respectively. Importantly, these values depend on prevalence: in a cohort with a greater number of competent trainees, the same examination will tend to have a higher PPV and lower NPV. Thus, PPV and NPV cannot be calculated without a 'gold standard' test for competence to benchmark against.

For a given distribution of examination scores, a 'cut-off point' must be defined. Above this score candidates pass, below it they fail. Imperfections in the assessment process and the nature of indirect assessment of competence create a 'band of uncertainty', wherein candidates scoring close to the cut-off score cannot be classified as competent or incompetent with a high degree of certainty[4]. By improving the quality of the assessment process (with respect to validity, reliability, reproducibility, fairness, practicality and generalisibility) the width of the band of uncertainty can be reduced, thus diminishing the probability of incorrectly assessing a candidate's competency.

In devising an examination, and particularly in determining the cut-off point for passing an examination, it is also important to consider the relative desirability of the four possible outcomes in Figure 3. This is analogous to the sensitivity and specificity of a clinical test – is it more important to minimise false negatives or false positives? Assuming the examination has a reasonable degree of validity, increasing the score required to pass will tend to reduce the likelihood of incompetent trainees passing while also increasing the likelihood of competent trainees failing. Lowering the score will have the opposite effect.

This presents an important question: which is worse? Preventing truly incompetent trainees from passing is arguably the primary purpose of barrier exams. This is a necessary aim for the safety of patients, the reputation of the specialty, and ultimately for the benefit of the incompetent trainee. However, this imperative only requires that the passing score be set no lower than the lower limit of the band of uncertainty around the cut-off point for competence. Above this limit, determining a passing score becomes a matter of opinion and weighing conflicting priorities.

Conversely, it is important to also considering the impact of failing competent trainees. Failing a major examination compounds an already stressful period by further impacting on the candidate's time, money, morale and potentially limiting progression in the training program. No assessment process is perfect and it is thus sometimes viewed as a 'necessary evil' to fail a small number of competent trainees within the band of uncertainty. This can be rationalised by the belief that they will pass 'next time' or 'eventually', however, this is probably not always the case. With a clear understanding of the significant financial, psychological and emotional costs of failing, is it acceptable to fail any competent trainees?

SOURCES OF ERROR

Trainees have previously expressed significant concerns regarding the validity and reliability of college examinations in assessing clinical performance in anaesthesia[1]. Errors in categorisation of candidates based on their performance in examinations arise when the assessment process is not adequately aligned with the requisite competencies. This may occur if the competencies are not appropriately defined, or in the presence of factors that impair the validity or reliability of the assessment. Validity is how well an examination measures its intended

	Pass	Fail
Competent	Competent + Pass	Competent + Fail
Incompetent	Incompetent + Pass	Incompetent + Fail

Figure 3: A 2x2 contingency table for examination performance (adapted with permission from Jones[4]). Desirable outcomes are shaded in light blue, undesirable outcomes in dark blue.

	Positive	Negative
Condition Present	True Positive	False Negative
Condition Absent	False Positive	True Negative

Figure 4: A 2x2 contingency table for simple clinical test. Desirable outcomes are shaded in light blue, undesirable outcomes in dark blue.

FEATURE

qualities, while reliability describes the consistency of an examination between different candidates, examiners, occasions of testing and questions within an exam. Jones has previously outlined the types of validity and reliability, along with factors that may threaten them[3], based on work by Messick[33] and Feldt and Brennan[34].

ASSESSMENT FOR LEARNING

Major examinations have a major impact on the acquisition of knowledge and skills by trainees. Examinations significantly influence the content and quantity of information that candidates learn[2]. This effect can be both positive and negative. On one hand, examinations serve as a strong impetus to acquire a vast amount of knowledge in a relatively short period of time. This is clearly beneficial, provided the knowledge gained is relevant to clinical practice. As such, examinations play an important dual role in both assessment of learning and assessment for learning[35]. On the other hand, examinations also encourage learning content and techniques specifically to pass, rather than focusing on improving one's clinical practice. Harrison summarised this limitation well, stating that "inevitably registrars allow the examination to influence their study and so the examination… has probably been detrimental to the acquisition of desirable practical skills and attitudes"[2].

…examinations serve as a strong impetus to acquire a vast amount of knowledge in a relatively short period of time.

A major drawback to current examination processes is the tendency for candidates to employ test-driven approaches to learning, such as rote learning and focusing on previous exam questions[1]. These are based on the ultimate goal of passing the examination, in contrast to learning driven by the aim to improve clinical practice. While much of the examined content will be clinically relevant, test-driven learning strategies are unlikely to result in deep understanding and long-term retention of knowledge. Such strategies, while potentially well-suited to passing exams, are not an effective method to gain the knowledge and skills necessary for independent clinical practice. Ideally, assessment processes would encourage trainees to develop a deep, lasting understanding of the curriculum.

FUTURE DIRECTIONS

Further integration of alternative methods of assessment could be considered in anaesthesia specialty training to improve learning and reduce stress for trainees. This would not be intended to lower the bar for completing training but would rather form an evidence-based approach to improve learning. The primary aim would be to promote learning of clinically relevant knowledge to a deeper level by decreasing the use of test-driven strategies, while also limiting unnecessary stress and its sequelae.

A major drawback to current examination processes is the tendency for candidates to employ test-driven approaches to learning, such as rote learning and focusing on previous exam questions

Weller et al highlighted key strategies to promote effective learning: "more frequent and varied testing, ensuring relevance of material is clear and using assessments designed to reduce test-driven learning strategies"[1]. Regular testing of knowledge reinforces memory and thus improves retention, while also allowing any deficits to be remediated and progress to be monitored over time[36,37]. The inclusion of an Initial Assessment of Anaesthetic Competence (IAAC) and Workplace-Based Assessments (WBAs) in the 2013 ANZCA Curriculum indicates a move towards higher frequency assessment[38]. Perhaps future curricula will place greater weighting on WBAs, shifting the focus further away from major examinations. However, WBAs have also been found to cause stress for trainees, though less so than major examinations[11]. Importantly, this currently occurs in the context of an expectation to meet an ongoing 'run rate' of WBAs, even while studying for exams. It is unsurprising that having to complete other assessments in addition to major examinations will compound trainees' stress.

…direct observation of trainees with real or simulated patients should form a significant component of the assessment

The increasing availability of digital assessment tools presents another promising opportunity for repeated testing of knowledge. Computer-based assessment (CBA) and learning in anaesthesia have been studied since the 1970s[39,40]. Internet-enabled devices are now ubiquitous, making it easier than ever to use them for education and assessment. CBA can be undertaken online or offline in a relatively low-cost and easily reproducible format. A particular advantage of such systems includes the capacity for instantaneous electronic marking and feedback, reducing the workload for examiners[41]. This can also avoid additional stress for candidates during the period of uncertainty between completing an assessment and receiving a grade. There is evidence supporting CBA as a suitable alternative to paper-based and practical examinations[42-45].

Simulation is now a standard component of teaching in anaesthesia and forms part of the assessment for many practical courses, such as the Effective Management of Anaesthetic Crises (EMAC) course[46]. By engaging in mock scenarios or practising procedures on mannequins, simulation promotes learning through experience – experiential learning. This has been

advocated not only to enhance learning but also to reduce the risk of harm to patients[47]. Providing educational feedback and facilitating repetitive practice have also been highlighted as key features of high-fidelity medical simulation[48]. Simulation-based assessment would logically offer a high degree of validity in assessing important technical and non-technical skills that must be mastered as part of specialty training in anaesthesia. Indeed, the AMC accreditation standards state that "direct observation of trainees with real or simulated patients should form a significant component of the assessment[3]". While it is relatively resource-intensive compared with more traditional methods of assessment[49], expanding the use of simulation in the assessment of trainees has the potential to improve both quality of learning and accuracy of assessment. Khamis et al have previously explored expert opinions on a best-practice approach to integrate high-quality simulation into a teaching curriculum[50].

It is critical that assessment within the training program forms a valid, reliable, reproducible, fair, practical and generalisible method of evaluating the required qualities of anaesthetists.

Progress testing is a form of longitudinal knowledge testing aimed at measuring the growth of a candidate's knowledge with time. Candidates sit tests repeatedly, for example at the end of each year, that assess a subset of the total knowledge required by the end of training (i.e. across the whole curriculum). This design is intended to limit the utility of test-driven learning approaches and instead reward genuine acquisition of knowledge. Candidates are thus encouraged to learn material to a deeper level, leading to improved growth of knowledge[51]. Greater flexibility is also afforded for individual learning pathways and each test presents an opportunity to identify strengths and weaknesses to guide future learning[52].

CONCLUSIONS

Assessment is an important aspect of medical specialist training, however, the best way to structure this assessment is not clear – or if there even is a 'best' way. Ultimately, the purposes of assessment must be carefully considered, with the advantages and disadvantages of current and alternative methods weighed against one another. It may then be possible to identify a path with potential for some improvements in the assessment process. As with clinical practice, it is vital to continuously strive for improvement and question established systems and ideas. Monolithic barrier exams may have formed the cornerstone of education for generations, but that does not necessarily mean that they should continue to do so.

Given that welfare is a major focus for both ANZCA and the ASA[53-55], and the evidence shows that examinations are stressful and have negative impacts on trainee mental health, there is a clear indication to at least consider modifying assessment processes. It is critical that assessment within the training program forms a valid, reliable, reproducible, fair, practical and generalisible method of evaluating the required qualities of anaesthetists. It is also important that assessment processes are perceived as being sufficient to ensure only competent trainees will complete training, in order to reassure patients and the community. Within this framework, processes that minimise negative impacts on trainee health and wellbeing should be prioritised.

Dr Richard Seglenieks
Chair, ASA Trainee Members Committee

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2019 SCIENCE PRIZES AWARDS & RESEARCH

PRE-NSC ADJUDICATED

Jackson Rees Research Grant

Description

The Jackson Rees Research Grant commemorates the visit to Australia in 1963 of the late Professor G. Jackson Rees.

The grant is awarded for research projects in anaesthesia or related disciplines such as resuscitation, intensive care, or pain medicine and is awarded every two years.

Recipients of the Jackson Rees Research Grant will be expected to provide an annual progress report of the research project and to make a final report as a presentation during the scientific programme of a subsequent NSC. At the discretion of the adjudicating panel, more than one application may be supported, should the grant total monies not be exceeded.

Eligibility

Application is open to ASA members only.

Award and Applications

The prize comprises a certificate and monies of $25,000. Applications close 28 June, 2019. To apply, visit https://asa.org.au/asa-awards-prizes-and-research-grants/

Jeanne Collison Prize

Description

The Jeanne Collison Prize is awarded for outstanding research in the fields of anaesthesia and pain management and recognises excellence in original research within Australia in these fields. The Prize is awarded biennially to recognise excellence in original research within Australia in the fields of anaesthesia and pain management. Applicants should submit a proposal outlining plans for original research within Australia in the fields of anaesthesia and pain management.

Eligibility

Applicants must be an ASA member with an interest in, or sub-specialising in, pain management or intending to enter this sub-specialty.

Award and Applications

The prize comprises a certificate and monies of $10,000.

Applications close 28 June, 2019. To apply, visit https://asa.org.au/asa-awards-prizes-and-research-grants/.

NSC PRESENTATION AWARDS

ASA Best Poster Prize

Description

These prizes were originally known as the Boots/ASA Young Investigator Awards and were first awarded in 1984. They were initiated through sponsorship by Boots Healthcare Australia, subsequently Boots/ Portex and then Smiths Medical Australia. In 2005, the title of the award was changed to reflect the latest change in business name to 'Smiths Medical/ASA Young Investigator Awards'. In 2015 the name of the award was amended to ASA Best Poster Prize.

Eligibility

The investigator must be working in the fields of Anaesthesia, Intensive Care or Pain Medicine.

- The abstract must be based on original research.
- The principal content of the research must not have previously been presented in a journal or in any format at any other major Australian or international meeting.
- The presenter must be one of the authors and either an ASA member or an ASA Trainee Member. Trainee presenters MUST be supported by a full ASA Member who is part of the research team and is present at the Best Poster Prize Session, but does not contribute to the presentation or subsequent question and answer session.
- An individual will only have one abstract accepted for this prize category.
- A research group is eligible to submit more than one abstract for consideration for the ASA Best Poster Prize, but both the first author and presenter for each accepted abstract must be different.

Presentation format

Applicants whose research is accepted for inclusion in the ASA Best Poster Prize session must bring an e-poster to display and must also supply a pdf version of the poster to enable viewing electronically, in order to maximize exposure of their work. The presenter will be allocated a place during the Best Poster Prize sessions at the Congress and will deliver a short three (3) minute oral presentation, with limited slides, discussing the aims, methods, results and conclusions of their research. The audiovisual slides must not include and additional information to that which is already on the e-potser pertaining to the work. This will be followed by a seven minute question period led by the adjudicators.

The precise presentation requirements for each NSC will be sent out prior to each Congress.

Award and Applications

The ASA awards four prizes at each NSC. Three prizes to the value of $4,000, $2,500, and $1,500 respectively are awarded for recipients judged first, second and third by the adjudicating panel together with a certificate. These three prizes are open to either full ASA members or ASA trainee members. A fourth prize of $500 and certificate may be awarded at the discretion of the judges and is open to ASA Trainee Members only.

They will be announced and awarded by the President or Past President at an appropriate time during the NSC.

The ASA Best Poster Prizes aim to encourage research by investigators working in the fields of Anaesthesia, Intensive Care and Pain Medicine. This research must be displayed as an eposter and presented as a short oral presentation at the annual National Scientific Congress.

The total number of papers accepted for consideration for the ASA Best Poster Prize is not restricted and will be determined by the SPARC Committee according to the quality of the paper.

Applications close 6 June, 2019. To apply, visit http://asa2019.com.au/program/callforabstracts/

NSC PRESENTATION AWARDS

Gilbert Troup ASA Prize

Description

The Gilbert Troup ASA Prize commemorates the contribution to Australian anaesthesia by Dr Gilbert Troup of Perth, Western Australia. Dr Troup was the second President of the ASA from 1939-1946. Established in 1956 and first awarded in 1957, the Registrar's Essay Prize (later renamed the Gilbert Troup Award) is the ASA's oldest award – only Honorary Membership existed as an honour before then. The name was changed to the 'Gilbert Troup ASA Prize' in 1963, due to the pre-existence of a Gilbert Troup Prize in Western Australia. The Prize was subsequently incorporated into the NSC presentations in 2012 as a formal oral presentation.

Eligibility

Application is open to ASA members and ASA Trainee Members

- If the presenter is an ASA Trainee Member, a full ASA member who is part of the research team must also be present at the Gilbert Troup Prize Session, but does not contribute to the presentation or subsequent question and answer session.
- The abstract must be based on original research.
- The principal content of the research must not have previously been presented in a journal or in any format at any other major Australian or international meeting.
- An individual may only submit one abstract for this prize category.
- A research group is eligible to submit more than one abstract for consideration for the Gilbert Troup ASA Prize, but both the first author and the presenter for each accepted abstract must be different.
- If an abstract has been accepted for inclusion in the Gilbert Troup ASA Prize session, it will no longer be eligible for other NSC research prizes.

Presentation format

Those accepted for presentation at the Congress will deliver a detailed ten (10) minute oral presentation with slides discussing their aims, methods, results and conclusions. This will be followed by a five (5) minute question period led by the adjudicators and moderated by the session Chair.

The precise presentation requirements for each NSC will be sent out prior to each Congress.

Award and applications

The prize includes a medal, known as the Gilbert Troup Medal and cash prize of $7,500. The prize will be announced and awarded by the President or Past President at an appropriate time during the NSC. The author(s) will be invited to submit the prize-winning abstract to *Anaesthesia and Intensive Care*, the journal of the ASA, for assessment for publication. Applications close 6 June, 2019. To apply, visit http://asa2019.com.au/program/callforabstracts/

ASA Trainee Member Audit/Survey Prize

Description

The ASA Trainee Audit/Survey Poster Prize was introduced in 2019 and is only open to ASA Trainee Members who present their audit/survey activity as a e-poster and oral presentation at the National Scientific Congress. These include the Scholar Role Activity undertaken by trainees as part of their fellowship training requirements.

Eligibility

- All authors presenting in this category must be ASA Trainee Members.
- Abstracts submitted must be based on an audit/survey activity in the fields of Anaesthesia, Intensive Care or Pain Medicine.
- The principal content of the research must not have previously been presented at a major national meeting.
- The abstract must explain the rationale of the audit, planning, sampling, analysis, evaluation against established criteria, with or without an intervention to close the audit loop.
- This session is explicitly designed for audit/survey projects undertaken by trainees, such as that completed as part of the Scholar Role Activity during fellowship training. Other research projects should be submitted to the other prize categories.

Award and applications

The prize consists of a certificate and $500.
The prize recipients will be announced and awarded by either the President or Past President during the NSC.

The prize is to be awarded annually. The objective of the prize is to encourage ASA trainee members to present their audit/survey activity in a clear, concise and visually attractive manner. Applications close 6 June, 2019. To apply, visit http://asa2019.com.au/program/callforabstracts/

ADVERTORIAL

CHALLENGE TO ATTRACT HEALTH PROFESSIONALS TO REMOTE LOCATIONS

Finding qualified locum anaesthetists that have a genuine interest in remote locations can be a challenge.

When asked about the challenges they face in back-filling permanent staff who go on leave Carolyn Adam said, "it can be challenging for a location like Katherine Hospital to find an appropriately qualified locum anaesthetist with remote experience who has a genuine interest in practicing at a remote hospital". Ms Adam is the Manager for the Medical Administration Unit at Katherine Hospital and is responsible for managing the staff roster and sourcing locum staff among other medical administration duties.

Located in the Northern Territory, Katherine Hospital is considered a category six in remoteness according to the Modified Monash Model (MMM). The MMM is a classification system available on the DoctorConnect website that categorises metropolitan, regional, rural and remote areas according to both geographical remoteness and town size. The system was developed to recognise the challenges in attracting health professionals to rural and remote locations around Australia.

According to Ms Adams, the hospital provides general medical, surgical and paediatric care. Additional procedural services, such as anaesthetics, are only provided where the practitioner is appropriately skilled. This means that if a suitably qualified locum anaesthetist cannot be found to backfill their GP anaesthetist on leave then the service at the hospital stops.

"With the help of Australian Government-funded Rural Locum Assistance Program (Rural LAP), we are able to source quality GP Anaesthetists who are appropriately qualified and genuinely interested in working in remote hospitals like ours.

"Rural LAP also helps defray the costs associated with locum anaesthetists as it carries with it additional burden due to travel and accommodation.

"I receive excellent support from the team. They are efficient with the booking process and very helpful when changes need to be made. Rural LAP is a good resource and the quality of locums have all been great", Carolyn concluded.

ABOUT THE PROGRAM

Rural LAP is a component of the Australian Government's rural workforce capacity agenda managed by healthcare solutions provider, Aspen Medical. The program aims to provide targeted rural and remote support services to general practitioners (obstetricians and anaesthetists), specialists (obstetricians and anaesthetists), nurses, midwives and allied health professionals in rural and remote Australia. All Aboriginal medical services throughout Australia are eligible to receive locum support.

Visit www.rurallap.com.au for information.

INSIDE YOUR SOCIETY

PROFESSIONAL ISSUES ADVISORY COMMITTEE

DR ANTONIO GROSSI
PIAC CHAIR

In the recent Victorian Coroner's Communique[1],three paediatric cases with tragic outcomes highlight the themes of poor communication, lack of integrated care and succumbing to cognitive bias. These themes capture many of the topics that the ASA's PIAC is currently considering.

The pre-operative assessment is an integral part of a safe and successful anaesthesia experience. It must not be trivialised or undervalued. It requires time, effort and energy to assess patients, reconcile medications, follow up on investigations and communicate this with patients, carers and the healthcare team. True anaesthesia consent is a dynamic process that requires listening to patient's concerns. Where a fee for a professional service is generated, an informed financial agreement (IFA) should ideally be effected pre-hospital where possible[2]. PIAC has been dealing with a number of IFA complaints where patients felt coerced to comply with financial arrangements. PIAC is preparing patient advisory documents to assist ASA members in providing more information to patients preoperatively.

Communicating what anaesthetists do is also important. Recently I asked to bring a patient into theatre early while the scrub team was still setting up. The patient had a history of a well-documented difficult intubation with an experienced anaesthetist previously. The team was well prepared and the induction and intubation were uneventful. The scrub nurse commented later, "Why did you need to come in early with this case? That looked pretty easy."

Preparation, planning and communication are paramount. Sedation for example, is often said to be 'easy' but can lead to much morbidity and mortality when not administered properly. ANZCA's 'Safe Sedation Roundtables'[3] revealed that there are many healthcare practitioners delivering sedation for diagnostic and therapeutic procedures. As reiterated in recent statements about sedation for cosmetic surgery[4], for patient safety to be maintained medical practitioners administering sedation must be skilled in resuscitation. Practicing outside one's scope of practice compromises patient care.

Looking to the future there are many global health challenges where anaesthetists may play a significant role to improve patient care.

Cognitive bias is increasingly recognised in clinical medicine as a source of error[5]. Availability bias, confirmation bias and overconfidence may lead to an incorrect diagnosis and mismanagement. In anaesthesia there may be a delay in moving from plan A to plan B or plan C, which may compromise care at a micro level. At a meso or macro level, errors may also occur by failing to take a helicopter view beyond one's immediate routine comfort zone. Looking to the future there are many global health challenges where anaesthetists may play a significant role to improve patient care. In a recent review of 'Healthcare Systems: Future Predictions for Global Care', Braithwaite et al[6], describes fives trends in the future healthcare landscape and nine themes from descriptions of global healthcare systems. These may be contextualised to anaesthesia:

Five future trends:

1. Sustainable health systems[6]

There will always be a tension between maintaining high quality and safety standards whilst maintaining healthcare affordability. There has been recent criticism of Australia's fee for service Medicare system and the potential 'perverse incentive' it creates for health practitioners. Perhaps there needs to be more discussion about the increasing public demand for healthcare services. There needs to be an equilibrium between what the public is prepared to subsidise in healthcare through increased taxation, and demand for non-essential services. Anaesthetists are often well placed to have these conversations particularly in the context of making sensible, cost effective decisions as reflected in the 'Choosing Wisely' campaign.

2. Genomics revolution[6]

This is an exciting area where investigations and treatments are being tailored to individual's needs. The

challenge to guarantee equitable access and safeguard patient privacy remains.

3. Emergent technologies[6]

Patient centred healthcare, e-healthcare and data management are inevitable. 'My Healthcare Record' promises many potential benefits to improve coordinated patient centric care but PIAC has some concerns in its present form. These include accuracy, privacy and liability issues. Patients now routinely perform internet searches on their medical practitioners. How doctors present themselves and communicate to their patients including through various internet-based social platforms, will be an evolving space that can no longer be ignored.

4. Global demographic dynamics[6]

Recent global migration shifts, an ageing population and increasing prevalence of multisystem chronic disease, may require a paradigm shift in thinking to arrive at tangible solutions for the equitable delivery of quality healthcare. There is a geographical mal-distribution in healthcare reflected in economic inequalities. This can only promote tensions that threaten traditional national and international institutions that have previously maintained standards in research, access to pharmaceutical medications and public health interventions.

5. New models of care[6]

Public health experts describe a need to shift care away from hospitals and specialists towards a more decentralised, flexible, coordinated patient centric care. This has enormous implications for anaesthetists who are currently a predominantly hospital based specialty. Anaesthetists may need to engage more broadly, maintain the highest quality of culturally appropriate care, and consider new solutions such as regular rotating service provision to support rural and remote communities. The supply and demand of the anaesthesia workforce needs on-going consideration to ensure the appropriate skill mix is available and able to be maintained given the future clinical requirements.

Nine global themes:

1. Integrated care[6]

As the coroner's cases demonstrate, this is essential for patient safety, to reduce waste, duplication, expense and harm. The growth of multi-disciplinary teams and the perioperative surgical home promoting evidence based care, pre-hospital patient optimisation[7], and ERAS, provide new opportunities for anaesthetists.

How doctors present themselves and communicate to their patients including through various internet-based social platforms, will be an evolving space that can no longer be ignored.

2. Finance, economics and insurance[6]

Affordability remains a problem. An incoming ALP government has promised capping private health insurance premium increase at 2%. The PHI has responded by reducing policy coverage and increasing the rhetoric against healthcare providers. Patients may be facing the prospect of increasing out of pocket expenses and the current trajectory is unsustainable in the long term. The ALP is planning a productivity commission review into the PHI industry if elected.

3. Patient-based care and empowering the patient[6]

As patients' and their carers' health literacy increases, they will be better placed to play an active role in their healthcare management. Vigilance is required to ensure disadvantaged groups are not left behind. As custodians of publically funded healthcare, whoever drives the healthcare spending, needs to be mindful of the utilitarian benefit.

4. Universal healthcare[6]

Australia's Medicare requires all doctors to act as its advocates and custodians. The ASA's activities with regard to the MBS review and assisting the Department of Health over several decades demonstrates our deep commitment to Australia's universal healthcare system.

5. Clinical and information technology[6]

In many ways healthcare has been a slow adaptor of IT. The prodigious potential benefits may only be fully manifested if anaesthetists play a role in setting up robust, reliable and meaningful systems.

6. Ageing populations[6]

Cognitive decline poses a significant population challenge.

7. Preventative care[6]

Anaesthetists may have a role to play by optimising patients and minimising potential comorbidities such as postoperative cognitive dysfunction, antibiotic resistance, thromboembolism, opioid addiction and prevention of chronic pain.

8. Accreditation, standards and policy[6]

As hospital specialists, anaesthetists are often involved in these areas. It is essential that non-clinical time and resources are made available for this, broader clinical governance, research and teaching to maintain the highest standards of practice.

9. Human development, education and training[6]

It is important to invest in human resources and maintain systems to avoid fatigue, burnout and maintain quality. The ASA continues to support the wellbeing of members including and through the 'Everymind' [www.asa.org.au/welfare-of-anaesthetists-2/] initiative.

The 'Polygon of Patient Safety'[1] describes improving patient safety through building awareness, strengthening systems, encouraging reflection and maintaining well-being. In these Coroner's cases the importance of attention to detail, following up patients and results, listening to patients' concerns, communicating effectively, being able to change plan

INSIDE YOUR SOCIETY

if required, and not missing red flags[1] were highlighted. Being able to reflect on one's practice is an important aspect of continuing professional development. Being able to reflect on the macro environment is an investment for future generations.

"…building resilience in individuals, and promoting wellness, is the pathway towards a well-slept, well-trained, and well-supported workforce. This will lead to a healthier environment for both staff and patients[1]."

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ECONOMICS ADVISORY COMMITTEE

DR MARK SINCLAIR
EAC CHAIR

MEDICARE BENEFITS SCHEDULE (MBS) REVIEW – ANAESTHESIA

The report of the Anaesthesia Clinical Committee (ACC), responsible for the review of MBS items applicable to anaesthesia services, was publicly released in late December. The report, along with the ASA's detailed response, is available on the ASA website www.asa.org.au (by following the link near the bottom of the home page 'MBS Review'). Members are strongly encouraged to read these documents.

While the ACC made 67 recommendations impacting on over 80% of all anaesthesia services (a total of 494 RVG item changes – deletion, amended descriptor/unit allocation, new item – 167 base items, 274 time items, 12 therapeutic and diagnostic items, one modifier item), currently after representations made to the Minister by the ASA and others it appears there will now be changes to just eight items likely to proceed in November this year.

As members are no doubt aware, a small group of ASA and ANZCA office bearers have had access to the ACC report since early 2017. The report was provided on the condition that it was distributed no further without appropriate authorisation. This group formed a collaborative working group to closely analyse the ACC report and provide a response to the Department as well to examine the likely impact of full implementation of the ACC proposals.

While the ACC made 67 recommendations… it appears there will now be changes to just eight items likely to proceed in November this year.

It was clear from the outset that in the view of the Working Group the report contained numerous flaws. In summary, the identified flaws inherent in the ACC proposals included:

- Lack of an evidenced-based approach to the modification of MBS item numbers.
- Inconsistencies in recommendations between Clinical Committee reports (eg Anaesthesia and ICU).
- The erosion of patient-centred care and the targeting of vulnerable patient groups such as elderly patients, sick people, pregnant women and people with mental health issues.
- Undermining of anaesthesia as a speciality.
- No evidence of a collaborative approach to engagement with the speciality in generating recommendations.
- No evidence of engagement with consumers.
- No consideration of the effects these recommendations will have on consumers, particularly on out of pockets costs, maldistribution of funding, access to essential clinical services and the unbalancing of private/public healthcare in Australia.

At the time of writing this article, the ASA is preparing a number of summary documents for posting on the website. As always, members should visit the ASA website regularly, as well as watching for the monthly ASA President's E-News updates.

The MBS Review Working Group has strongly argued over the last two years for most of the ACC recommendations to be rejected. This has involved over a dozen face-to-face meetings in Canberra, Sydney, Melbourne and Adelaide, numerous teleconferences, and literally thousands of emails and phone calls, not to mention attendances at various stakeholder workshops before the ACC was actually formed (late 2016). As alluded to earlier, this work would not have been possible without the excellent assistance afforded by ANZCA office bearers, and independent academic experts. These individuals are specifically listed at the end of this article, and the ASA again expresses its gratitude to them.

The MBS Review Working Group has strongly argued over the last two years for most of the ACC recommendations to be rejected.

At the current time the ASA has either agreed to, or decided not to contest, 19 of the 67 ACC recommendations. Of the remaining 48, most have our strong opposition. It is important to note that the 19 recommendations will only impact

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on a very small number of items (6-8). Full details of the changes likely to be implemented will be provided as soon as possible. The reasons for our opposition are detailed in the ASA response document.

Members are not only welcome to provide opinion on the ACC report and ASA response, but on any matter related to the Relative Value Guide for Anaesthesia.

It is essential to note that the remaining 48 ACC recommendations have not been rejected by the Minister or Department of Health. The ASA's efforts have meant that they have not been implemented, but they certainly remain on the table, for further discussion.

Further discussions with the Department and Minister have involved the concept of an Anaesthesia Liaison Group, with representation from ASA, ANZCA, and the AMA, among others. The function of such a group would be to oversee the November 2019 changes, to provide advice on the impact of the ACC proposals, and on ongoing anaesthesia issues in the MBS. Members are encouraged to contact the ASA to express any opinions they have regarding the ACC report and the ASA response document. The ASA Policy Team can be contacted on policy@asa.org.au and will forward such opinions to the appropriate people.

Members are not only welcome to provide opinion on the ACC report and ASA response, but on any matter related to the Relative Value Guide for Anaesthesia.

MEDICARE BENEFITS SCHEDULE (MBS) REVIEW – OTHER

While the ACC report and the ASA's response are essential to the anaesthesia specialty, it must be remembered that other aspects of the MBS Review are still being discussed. These could be of much significance to anaesthetists.

As discussed in the previous edition of *Australian Anaesthetist*, the MBS Review's Principles and Rules Committee (PRC) has recommended the deletion of MBS items for the services of surgical assistants. The proposal is that this funding be 'bundled' into the funding for the surgical service itself. The specific recommendations are:

1. That current arrangements under which surgical assistants bill patients separately from the primary surgeon, and have access to MBS items for their specific services, be discontinued.
2. That new arrangements be introduced under which the primary surgeon pays the assistant directly for their services.

The Medical Surgical Assistant's Society of Australia (MSASA), and the AMA, as well as the ASA, have strongly argued against these recommendations. The PRC proposals, and the ASA's response, are available on the ASA website, at the bottom of the page: https://asa.org.au/mbs-review/

While the ACC has consistently argued that it supports the concept of the RVG, it too has committed to a 'bundling' approach.

The 'bundling' concept is high on the agenda of some involved in the MBS Review. There is every reason to believe this agenda includes anaesthesia services. These people are also simultaneously lobbying, outside of the MBS Review, for the 'bundling' of all doctors' accounts for a patient's admission into one account, presumably under the control of the admitting surgeon or proceduralist.

While the ACC has consistently argued that it supports the concept of the RVG, it too has committed to a 'bundling' approach.

The ACC recommended widespread and massive cuts to funding for therapeutic and diagnostic (T&D) services performed in association with anaesthesia, such as invasive cardiovascular pressure monitoring. This is on the basis that these MBS items, in the view of the ACC, do not represent 'distinct separate services' and that deleting such items would remove any incentive to perform procedures which are 'not clinically required' and which could risk patient safety.

While the ACC report and the ASA's response are essential to the anaesthesia specialty, it must be remembered that other aspects of the MBS Review are still being discussed. These could be of much significance to anaesthetists.

Yet in the same report, the ACC recommends compensation for these massive cuts, by way of variable increases in the base unit allocation for anaesthesia services which may involve such T&D services. It states these increases are "to compensate for the deletion of commonly co-claimed T&D items (which would otherwise result in an unwarranted reduction of the total rebates payable for these procedures)".

The question which arises is, how can the ACC argue on the one hand that numerous items should be deleted on the basis that they represent a financial incentive to perform unnecessary procedures that put patients at risk, but on the other hand argue that their deletion creates an 'unwarranted' reduction in rebates? Furthermore, such an approach directly conflicts with a fundamental principle of the RVG – that each patient's rebate should accurately reflect the nature of the specific service provided to him or her.

The fact that such a 'bundling' approach creates inaccuracies in the allocation of funding has been pointed out by the ASA. It results in some services, where no T&D

service is performed, being over-rebated, and others, where these T&D services are performed, being under-rebated. Rebates based on an estimated average of the nature of the service across the whole patient population (the system designed in the 1950's and in use until 2001) is not consistent with the modern-day RVG. These arguments were dismissed by the ACC.

Another proposal of the PRC is for a 'three item maximum' for all services. On first reading, it could be assumed that this applies to surgical services, which do, under the current arrangements, sometimes result in a series of MBS items applying to the one overall service. Again, however, there has been no suggestion that this concept should be limited to surgical services. In stakeholder forums, the idea of including specialties such as anaesthesia in this 'three item rule' has certainly been raised. This would achieve the ambitions of the ACC in one fell swoop, immediately abolishing patient modifier items, and therapeutic and diagnostic procedural items.

…concerns continue to arise regarding the overall process of the MBS Review, such as a lack of consultation with key stakeholders, a lack of time for stakeholders to assess reports, or a lack of awareness of the unintended consequences of Review recommendations.

The proposed Anaesthesia Liaison Group would be in a position to further discuss and analyse these issues. Members will be kept up to date with developments.

As reported by other groups, such as the AMA, concerns continue to arise regarding the overall process of the MBS Review, such as a lack of consultation with key stakeholders, a lack of time for stakeholders to assess reports, or a lack of awareness of the unintended consequences of Review recommendations. For anaesthesia specifically, this has resulted in other negative consequences.

The Dermatology, Allergy and Immunology Clinical Committee (DAICC) recommended deletion of item 21981 for anaesthesia allergy testing. Despite this item being in the RVG for anaesthesia, anaesthetists were not consulted. The ASA and the Australian and New Zealand Anaesthesia Allergy Group (ANZAAG) became aware of the proposal, and ANZAAG lodged a detailed and well-reasoned submission recommending against this deletion. Nevertheless, item 21981 was deleted in November 2018. A new item, 12005, was introduced into the Allergy Testing section of the MBS. Its MBS Fee is $79.20, which is the same as the MBS fee for 21981. However, an anaesthesia time item also applied with item 21981. No such item applies in addition to 12005. There has therefore been a significant cut in the funding for this service. In terms of consequences, the ASA has already received reports that this valuable service may be lost in some rural areas, where for many years the only available provider has been a specialist anaesthetist.

The Thoracic Medicine Clinical Committee recommended that a condition be added to the descriptor to item 11508 for cardiopulmonary exercise testing (CPET), namely "interpretation and preparation of a permanent report is provided by a consultant respiratory physician who is also responsible for the supervision of technical staff and quality assurance". For many years, excellent CPET services have been provided by specialist anaesthetists, working alone. Again, reports have been received, indicating that in some areas, where such anaesthetists provide most or all of the services, they may be lost.

…Medicare now funds the urgent after-hours services of a doctor who may be a recent medical graduate, at a level two to three times that for a specialist anaesthetist.

The items for urgent after-hours attendances have also been altered, with the aim of limiting inappropriate funding of after-hours home visits, and improving the rebates for services in rural areas. As before, one subset of these items applies to the services of vocationally registered general practitioners, and a second subset applies to doctors other than GPs. While this second subset was never specifically related to anaesthesia services, claims have always been accepted. However, a unilateral ruling has now been made, to the effect that these items now only apply to the services of non-vocationally registered practitioners, seeing patients in clinics or homes. We have been advised in writing that anaesthetists' urgent after-hours attendances are covered only by items in the range 17610-17655. The result is that Medicare now funds the urgent after-hours services of a doctor who may be a recent medical graduate, at a level two to three times that for a specialist anaesthetist.

Obviously, all of these flawed outcomes would be suitable for ongoing consideration by the proposed Anaesthesia Liaison Group. Again, members will be kept up to date with all developments in this area.

The ASA again expresses its gratitude to the MBS Review Working Group members. As mentioned previously, the composition of the group has changed from time to time as people have moved in and out of their various roles, or been co-opted for opinion and input (on next page).

INSIDE YOUR SOCIETY

In alphabetical order:

Dr David Borshoff	Past ASA WA Committee Chair Past ASA Board Member
Dr Guy Christie-Taylor	ASA Past President
A/Prof Alicia Dennis	Chair, ASA Public Practice Advisory Committee
Dr Nicole Fairweather	ASA Executive Councillor
Dr Antonio Grossi	Chair, ASA Professional Advisory Committee
Dr Phillipa Hore	Chair, ANZCA Quality and Safety Committee
Dr Rodney Mitchell	ANZCA President
Dr Andrew Mulcahy	ASA Past President Past Chair, ASA Economics Advisory Committee
Dr Suzi Nou	ASA Vice President
Prof David A. Scott	ANZCA Immediate Past President
A/Prof David M. Scott	ASA Immediate Past President
Dr Peter Seal	ASA President
Dr Mark Sinclair	Chair, ASA Economics Advisory Committee
Prof David Story	Foundation Chair of Anaesthesia, University of Melbourne
ASA Staff:	
Mr Mark Carmichael	ASA Chief Executive Officer
Ms Sue Donovan	ASA Executive Assistant
Mr Chesney O'Donnell	Past ASA Policy Manager
Dr Elaine Tieu	Past ASA Policy Officer
Ms Jacintha Victor John	ASA Policy Manager

POLICY UPDATE

HEALTH LEGISLATION AMENDMENT (IMPROVED MEDICARE COMPLIANCE AND OTHER MEASURES) BILL 2018

As part of the 2017-18 Federal Budget, the Department of Health's portfolio budget statement outlined a 'Health Benefit Compliance' program aimed at supporting the integrity of health benefit claims under Medicare services. Specifically, the portfolio budget statement outlined the following with regards to this program:

> *In a future move to improve Medicare's fiscal sustainability, in 2017-18, legislation will be introduced to strengthen compliance, including by increasing the Government's debt recovery powers. Currently, only 20 per cent of Medicare debts through inappropriate claiming are recovered. This measure will generate estimate net savings of $103.8 million to be reinvested in Medicare services.*

The Shared Debt Recovery Scheme (SDRS) will take effect on 1 July 2019. The recent enactment of the *Health Legislation Amendment (Improved Medicare Compliance and Other Measures) Bill* 2018, will mean that from 1 July 2019 the Commonwealth Government will be able to pursue both individual medical practitioners and employing and contracting medical organisations for repayment of incorrect Medicare billing.

IMPACT OF THE SHARED DEBT RECOVERY SCHEME (SDRS)

The aim of the SDRS is to introduce a fairer approach to address organisational billing practices and improve Medicare compliance.

The Bill arises out of the Government's policy objective of increasing compliance under and protecting the integrity of the Medicare Benefits Schedule (MBS), the Child Dental Benefits Schedule (CDBS) and the Pharmaceutical Benefits Scheme (PBS).

The Bill introduces new debt recovery powers that allows the Commonwealth Government to offset Medicare payments to those practitioners who are in debt and, for those who do not bulk-bill, allows the Commonwealth to tap into funds that are owed to practitioners who are in debt. The Bill also recognises that compliance debts may sometimes need to be shared between a practitioner and their employer, and introduces new measures to this effect that account for organisational billing practices.

In addition, the Bill standardises administrative arrangements across the three frameworks, including those requirements relating to record-keeping and administrative penalties.

The Bill will also allow the Commonwealth to hold an employing or contracting organisation responsible for a portion of Medicare debts incurred as a result of lodging incorrect Medicare claims.

This is a significant development, as to date, individual medical practitioners have been held responsible for 100% of Medicare debts incurred on the basis that they are responsible for services rendered under their individual provider numbers, except in clear cases where another person has engaged in billing fraud. This approach has resulted in significant prejudice to medical practitioners, who typically only receive a smaller percentage of Medicare benefits billed under their provider number due to an employing or contracting organisation retaining a substantial percentage of benefits (for example, 35% or 40%).

The necessary implication of these reforms is that both individual practitioners and medical practices need to ensure MBS item numbers are correctly claimed. This would extend to, for example, the correct item number being billed for the service provided to a patient and that the medical provider will need to have met all of the Medicare Benefits Schedule (MBS) item requirements in order to claim the benefit from Medicare.

MBS REQUIREMENTS FOR BILLING

We would like to remind all our members to be aware of the importance of the MBS requirements for Billing. It is important for members to familiarise themselves with MBS requirements for billing of item numbers as the Department of Health has confirmed that primary responsibility for correct claiming will continue to rest with the practitioner, who is the only person who can determine if a service has met all MBS item requirements.

ASA members should also ensure that there is an appropriate process in place for reviewing all Medicare claims lodged by practice managers on their behalf, so that any errors are identified at an early stage and promptly rectified.

Members who are the subject of a Medicare audit should consider the contractual arrangements in place in their medical practice with respect to the splitting of billing. Such contractual arrangements may ultimately affect the percentage of benefits they are individually responsible to repay to Medicare, pursuant to the SDRS.

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The Department of Health has confirmed that the SDRS will be integrated into the Medicare audit process, and practitioners will be asked if they would like to be considered for a shared debt determination. According to the Department of Health, "the shared debt recovery means that the practitioner will be asked to not only produce documents in relation to the services claimed, but also provide information about relevant employment, contractual or financial arrangements". If the SDRS is triggered, it is intended that a legislative instrument will provide for a 'default' percentage of the debt to be recovered from a primary debtor and secondary debtor, which may vary based upon existing individual contractual agreements.

ASA PARTICIPATION

The ASA sees merit in the SDRS but believes that a number of issues arises with the SDRS including the Department's obligation to keep anaesthetist informed of such schemes and their responsibilities regarding billing. It is necessary for the Department to commit to educating practitioners, as a measure for improving compliance.

The Commonwealth Department of Health published a consultation paper 'Medicare Compliance – Shared Debt Recovery Scheme' to seek input from health practitioners and the public for the drafting of a legislative instrument (regulations) for the operation of the SDRS prior to it coming into effect on 1 July 2019.

The Economic Advisory Committee are currently involved in the process of drafting a submission on a number of issues highlighted by members which will be published on the ASA website once finalised.

Jacintha Victor John
Policy Manager

References

1. Shared Debt Recovery Scheme – public consultation available at: https://consultations.health.gov.au/compliance-systems/sdrs-consultation/
2. Australian Government, Portfolio budget statements 2017-18 budget related paper no 1.10 Health Portfolio, p.106.
3. Health Insurance Act 1973.
4. Explanatory Memorandum, *Health Legislation (Improved Medicare Compliance and Other Measures) Bill* 2018, p.9.
5. *Health Legislation Amendment (Improved Medicare Compliance and Other Measures) Bill* 2018 Second Readings Speech.
6. *Health Legislation Amendment (Improved Medicare Compliance and Other Measures) Bill* 2018 available at: https://parlinfo.aph.gov.au/parlInfo/download/legislation/billsdgs/6037840/upload_binary/6037840.pdf;fileType=application/pdf

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.

ASA MEMBER'S GROUPS UPDATE

As the 2018 hospital employment year draws to a close, many of us are approaching transitions. For some it will mark progression to the next training period, some will move to a new hospital, and others will simply begin a new contract in a familiar place. With the festive season behind us and a new year emerging, I wish the best of luck to all of you over the coming months. I encourage you to take control of your own learning and development, and to make the most of any opportunities you are presented with.

The new year is also a time for reflection of the year past. The following summary is repeated from the December TMG eNews:

This year, we've made progress in a number of areas, including updating our website, improving our communication with trainees and increasing the fairness and transparency of our committee processes. We've also provided input to the AMC review of ANZCA's accreditation, advocated to ANZCA regarding potential changes to the examination process, run another successful round of CIG Scholarships, and continued supporting our Part 3 Courses and the highly popular Boot Camp exam preparation courses (keep an eye out for one near you in future!). Importantly, we have gained approval for the valuable RVG to be accessible for trainee members – expect more information on this in the new year.

The NSC in Adelaide was a particular highlight of the year, including an excellent trainee stream – thanks again to the whole organising committee for their hard work producing a world-class conference. Congratulations to Dr Leigh White for being awarded both the Trainee Best Poster prize and the Anaesthesia and Intensive Care Junior Researcher Award, and to Dr Marissa Ferguson for receiving the Kevin McCaul Prize.

Advocacy projects still underway include targeting adequate rest facilities and fatigue management, critical incident debriefing, parental leave and rights for pregnant trainees, as well as numerous state- and territory-based initiatives. We continue to look into new ways in which we can support, educate and represent trainees, including providing additional information and advice around applying for jobs at the end of training and preparing for consultant work, and furthering our support for trainees involved in research and high-quality audit projects.

FATIGUE AND REST FACILITIES

This issue of *Australian Anaesthetist* is focussed on safe working hours and fatigue in the workplace. A number of articles have been included covering different perspectives, including fatigue and trainees (see feature articles on pages 10-27). This is a really important issue that affects all of us and will continue to do so throughout our working lives. I encourage you to take a look through the rest of the magazine to further your understanding and to think about strategies you could use to minimise fatigue and mitigate its associated risks.

We are aware of significant issues in some hospitals regarding fatigue management and rest facilities. Please contact us at trainees@asa.org.au if you have any concerns about this where you work. As always, if there are any other areas where we could help to support or represent you then we welcome your suggestions, queries and comments.

Dr Richard Seglenieks
Chair, ASA Trainee Members Committee

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AROUND AUSTRALIA

AUSTRALIAN CAPITAL TERRITORY

Vida Viliunas, Chair

ACT anaesthetists join in wholehearted congratulations to the ASA and in particular the Anaesthesia MBS Review Working Group. Great advocacy, support and representation resulted in very few changes to anaesthesia-related benefits for our patients. Thank you for all of your work.

The final exam performance Boot Camp, supported by ACT anaesthetic consultants and final examiners, is rolling out again on 9 and 10 February. This weekend is devoted to improving performance in all aspects of the final exam. We are welcoming over 60 participants to an intensive couple of days here in Canberra.

Trainees are the future of our organisation.

NEW SOUTH WALES

Ammar Ali Beck, Chair

Last year ended with Northern Beaches Hospital (NBH) news. A lot of work has been done since then to assist our anaesthetists, working in cooperation with the AMA, ANZCA and ASMOF, NSW Health, and Healthscope. Despite all the politics and the opposing views, it's very important to acknowledge the role that anaesthestists played in identifying problems, voicing concerns, and standing up for the patients' safety. Although the management of the place remains less than ideal, it's pleasing to see that Healthscope has listened and is putting more effort into remediating the problems, hopefully 2019 is going to be a better year for everyone involved.

The NSW Part 3 course attracted a smaller number of participants than we had hoped for. The course material and presentation has improved significantly from the previous years. I am hopeful that we will be getting better numbers this year as we continue to improve the course material. I would like to remind all our trainees that the course is a great opportunity to learn, ask questions in a friendly environment and network with industry and other colleagues.

2019 kicked off with a Boot Camp for the Part One Exam at the Central Coast on 2 February. It's part of our ongoing engagement with our trainees. There has been a lot of effort put into the course, hopefully, our trainees will find it useful in terms of exam preparation. I attended the Part 2 Boot Camp in Canberra, with a view to see if we can replicate the successful course in NSW.

Just reminding everyone about the upcoming NSC meeting in Sydney on 20-24 September, so mark the date. It's going to be a great meeting.

Finally, after a long summer holiday it's nice to be back at work, wishing everyone a great and productive 2019.

SOUTH AUSTRALIA

Brigid Brown, Chair

South Australia oriented eight new trainees at a very successful Part 0 course in January. We are very happy to welcome you to the SANTRATS program!

We thank Dr Cheryl Chooi for all of her hard work as the senior ASA trainee representative over the past few years and wish her the very best on her fellowship to the Boston Childrens' Hospital. Dr Julia Rouse joins the committee as the newest ASA trainee rep, a very welcome addition! The ASA SA/NT committee also welcomes new general committee members Dr Sophie Bermingham, Dr Tim Donaldson, Dr Sam Lumb, and Dr Petra Van der Linden Ross. Thank you for being leaders in our community, we are excited to have you as part of the team and look forward to collaborating with you!

WESTERN AUSTRALIA

Dr Philip Soet, Chair

The St John of God/ASA M and M meeting will be held at SJS auditorium on 5 March starting at 6.30pm.

The ANZCA/ASA Autumn Scientific Meeting will be held at the University Club, University of Western Australia, Crawley on 23 March 2019.

A fund has been established at the ASA to raise funds for Dr Andy Heard. If you would like to contribute to this fund please

follow the EFT instructions below:

Name of account: The ASA Benevolent Trust

BSB: 923 100

Account number: 18726726

Description: Dr Heard's Fund

Please email a copy/details of the transaction including your name to fiona.seroney@health.wa.gov.au

A receipt will be provided and contributions are tax deductible.

VICTORIA

Dr Jenny King, Chair

Our Victorian Med Viva boot camp was held on Saturday 19th January for our upcoming part 2 exam candidates. With several interstate delegates it was a full house.

Dr Debra Leung had an impressive line up of lecturers and Viva examiners.

It was a great day and gives the impetus for the exam candidates to finely tune their Med Viva skills.

Our thanks to Experien and Bank of Queensland for sponsorship, to all the lecturers and Viva examiners, practice patients, Box Hill Crust Pizza and finally to Dr Leung for organising a very successful day.

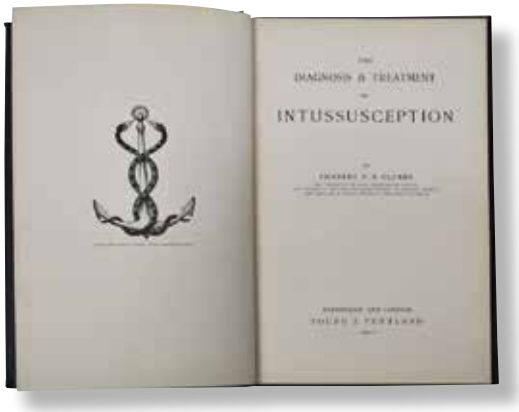
Just as much a social occasion for team bonding, we wish all the candidates success in their forthcoming exams.

It is the year of the Pig and God's fortune to all.

INSIDE YOUR SOCIETY

HISTORY OF ANAESTHESIA LIBRARY, MUSEUM AND ARCHIVES NEWS

INTERESTING DONATIONS TO THE RICHARD BAILEY LIBRARY IN DECEMBER, 2018



The Diagnosis & Treatment of Intussusception by Charles P.B. Clubbe, 1909. Donated by Dr Richard J. Bailey

Clubbe, (1854-1932) was an English surgeon who served in Natal during the Zulu War in 1879. After his marriage in 1882 he became ill and decided to migrate to Australia. He established a practice in Randwick (Sydney) and soon became honorary surgeon to the Hospital for Sick Children, Glebe Point (later the Royal Alexandra Hospital for Children), and five years later he became an honorary assistant surgeon to the Royal Prince Alfred Hospital. He became a respected favourite of the house surgeons because contrary to the custom then prevailing he was happy to advise and teach them.

By 1900 he moved his practice to Macquarie Street, specialising in the diseases of children. Because of his research and experience into telescoping of the bowel (intussusception) there was a significant fall in the death rate from this condition in Sydney and the surrounding districts.

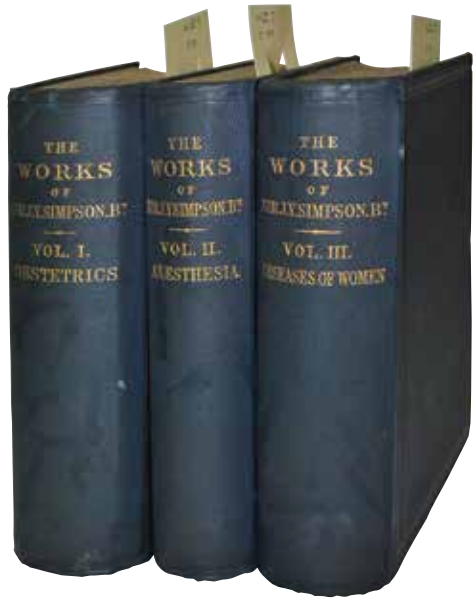
His book on the subject was published in 1907 and reprinted in 1921. The Appendix deals with the best anaesthetic practice for specific surgery and lists details of 144 cases treated by him from 1893-1906.

Clubbe pioneered orthopaedic surgery in Australia with his treatment of club foot and bow-legs; he also was an expert tracheotomist. He was knighted in 1927.

This book bears the signature of A(rthur) L(eary Carrodus, 1939, a Macquarie Street surgeon who operated at the Royal Prince Alfred Hospital; later becoming a Captain in the Second World War.

The Works of Sir James Y. Simpson 1871-2 in 3 volumes: Volume 1 *Selected Obstetrical & Gynaecological Works*; Volume 2 *Anaesthesia, Hospitalism*; Volume 3 *Clinical Lectures on the Diseases of Women*. Donated by Dr Reg J. Cammack

It is the second volume of this mint condition rare set that first attracts the anaesthetist's eye. Simpson became a strong advocate of the use of chloroform when in November 1847 he and some friends and his niece tried it and found it effective in rendering themselves unconscious. Its anaesthetic properties for animals had been discovered in 1842 by R.M. Glover but no one dared try it on humans until Simpson anaesthetised himself five years later and held a public trial in Edinburgh soon afterwards. In early 1847 Simpson had tried ether successfully for childbirth but he wanted to find something more easy to use and hence his experiments with a number of agents culminating with chloroform – which in the long run also turned out to have its own dangers.



Simpson was a man of many interests and perhaps his principal work was his scientific studies and medical practice in the fields of gynaecology, obstetrics and hermaphroditism. He introduced new methods and invented new instruments. He became a baronet in 1866.

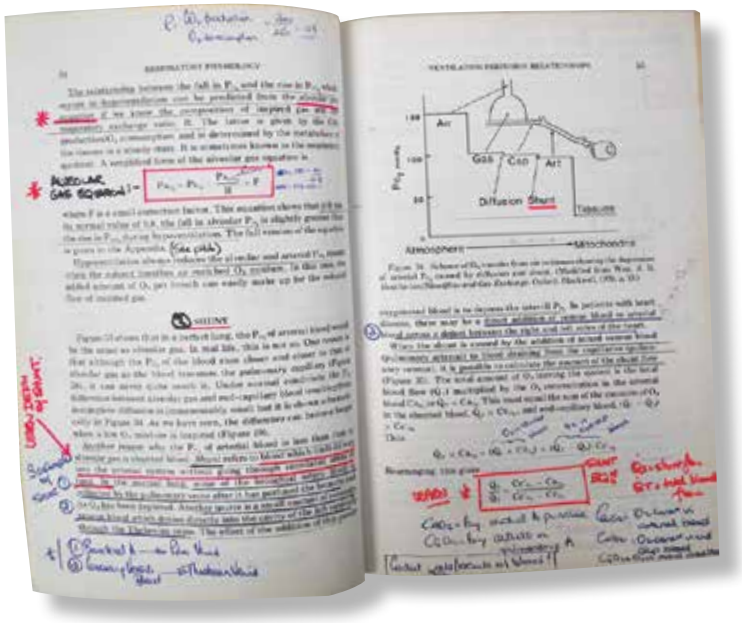
Simpson's extensive collection of papers and manuscripts are held in the Royal College of Surgeons in Edinburgh including his archaeological studies which continued throughout his active life 1823-1870.

This Simpson set bears the signature of Henry G. Terry, March 22, 1894, who may have been a medical man, but certainly kept his books in immaculate condition.

Respiratory Physiology by John B. West. Donated by Dr Geoff Symonds

Dr Geoff Symonds donated a number of useful reference books from his library including a particularly well annotated copy of *Respiratory Physiology* by John B. West.

Nearly every page is similarly treated with an enviable work ethic.



The St Vincent's Hospital Cardiac Transplantation Program, by (and donated by) Dr David B. Gibb, 2018 (Part of his third volume of biography)

The third volume, which will be completed in due course, follows on from *From Birth to Berth* and *A Tale of Three Cities 1966-1969*. All volumes are copiously illustrated.

Peter Stanbury
Richard Bailey Librarian

CONTACT US

Contact us to arrange a visit to browse or for research. We are open by appointment Wednesday and Thursday, 9am to 5pm. Please phone ASA head office 1800 806 654.

INSIDE YOUR SOCIETY

NEW AND PASSING MEMBERS

The ASA would like to welcome all new members from December to February 2019.

TRAINEE MEMBERS

Dr Megan Lise Allen	VIC
Dr Johanna Therese Barrett	NSW
Dr Eliza Jane Beasley	VIC
Dr David Boers	NSW
Dr Melissa Haque	VIC
Dr Brendan Alexander Irvine	NSW
Dr Megha Jain	NSW
Dr Julia Kuchinsky	VIC
Dr Maria Florencia Victoria La Macchia	QLD
Dr Robert Charles McMonnies	NSW
Dr Darragh Eoin O'Brien	VIC
Dr Ranjan Chaminda Perera	NSW
Dr Edward James Pilling	QLD
Dr Raviram Ramadas	WA
Dr Kate Elizabeth Sewell	QLD
Dr Emily Anne Traer	VIC
Dr Paul Grant Young	WA

ORDINARY MEMBERS

Dr Maryam Abolfathi	NSW
Dr Pooja Agrawal	NSW
Dr Roy Bartram	ACT
Dr Rajesh Kumar Cheria Parambathu	WA
Dr Lip Yong Choo	WA
Dr Prateek Dhingra	NSW
Dr Akshay Hungenahally	VIC
Dr Lawrence Yeow Chung Law	NSW
Dr John Leou	VIC
Dr Cameron Maxwell	ACT
Dr Tony James Miller-Grennan	QLD
Dr Fiona Elizabeth Pearce	NSW
Dr Robert David Russell	QLD
Dr Adam Gerald Scorer	VIC
Dr Bijaya Kumar Shadangi	SA
Dr Andrew Richard Souness	QLD
Dr Benjamin Daniel Tassie	NSW
Dr Joshua Lino Telles	VIC
Dr Petra Maria Van der Linden-Ross	NT
Dr Nerida Anne Williams	ACT

IN MEMORIAM

The ASA regrets to announce the passing of ASA members Dr Nerida Margaret Dilworth, AM, WA; Dr Arthur Edward Dell, VIC; Dr Andrew Melville Carll, QLD; Dr Ralph Reginald Clark, VIC; Dr Ian Hamilton McDonald, VIC; Dr Bernard Leslie Dunn, VIC.

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

T.C.K. (KESTER) BROWN AM 1935-2018

It is with sadness that we note the passing of our esteemed friend and colleague, Dr T.C.K. (Kester) Brown AM, just shy of turning 83 years old (1935-2018). Kester was a colossus of not just Australian, but World Anaesthesia, and Paediatric Anaesthesia in particular.

Kester was a stalwart of the ASA for around half a century. He was a Life Member of the ASA, and was also awarded the Gilbert Brown Award and Gilbert Troup Medal. Each year at the ASA National Scientific Congress, the initial address during the opening plenary session delivered by the keynote invited speaker, is known as The Kester Brown Lecture. It is a mark of the highest regard with which the Society holds Kester.

He was bestowed the Ben Barry Medal from *Anaesthesia and Intensive Care*, while from ANZCA he received the Orton Medal and the Gilbert Brown Medal.

In addition, Kester enjoyed a long involvement with the World Federation of Societies of Anaesthesiologists (WFSA), including holding the position of WFSA President from 2000 to 2004. He was Chair of the World Congress of Anaesthesiology (WCA) Scientific Program Committee of Sydney in 1996. This WCA was a huge success.

Born, raised and schooled in Kenya, Kester graduated in Medicine from St Andrew's University, Scotland in 1960. He spent his early medical career in Canada, and then followed the greatest love of his life, his future wife Janet, to her hometown, Melbourne.

Kester is probably best remembered for his time at an institution of global renown, the Royal Children's Hospital (RCH), where he was the Director of Anaesthesia from 1974 to 2000. He was an enormous presence there as a clinician, researcher, publisher, teacher, mentor, administrator, and leader. He had the knack, all too rare in leadership of any type, in recognising the strengths of the individuals within his team, and then utilising these various talents, so that the collective output more than exceeded the sum of its parts.

Kester was a prolific scientist and author, and his name appears on 160 papers, mainly in paediatric anaesthesia. His textbook *Anaesthesia for Children* was a quintessential gem, and has retained a pride of place on the bookshelves of a multitude of anaesthetists. As well as being such a comprehensive tome, it was written in an eminently practical and pertinent fashion, entirely reflective of contemporary paediatric anaesthetic practice during the 80s and 90s.

Perhaps Kester's greatest contribution to the ASA was being the inaugural Chair of its Overseas Development and Education Committee (ODEC). He was a champion for the training and education of anaesthetists and anaesthesiologists in both developed and developing nations. Many generations of trainees have benefited directly and indirectly from Kester's kindness, and gentle but firm instruction. He has left an indelible impression on each of us whom he enlightened. At the RCH, not only did Kester guide the formation of scores of local registrars over the years, but he also welcomed and hosted approximately a hundred visitors to our shores from 40 different nations. They would return home as fellow educators and supervisors.

Extraordinarily, Kester taught and lectured in 70 countries. Within and without the sphere of Anaesthesia, Kester was a wonderful humanitarian, and was very much a citizen of the world. Apart from travel, he was passionate about a whole host of issues and entities, including his family, photography, painting, writing, gardening, and sport, notably tennis as a junior, and hockey during his university and senior years.

Kester's other achievements are legion, and too many to list here. His most special was to be the father of his five children. In addition, Janet and he were loving grandparents 13 times.

Kester's legacy is enormous. He will be missed immensely.

Dr Peter Seal
ASA President

INSIDE YOUR SOCIETY

IAN HAMILTON McDONALD 1923-2019

Ian McDonald, pioneering paediatric anaesthetist and international cricketer, died on 5th February, 2019, aged 95. Known as 'Skeet' to his colleagues and 'Doc' to his cricketing friends, he made a lasting impression on all those who knew him, through his kind nature, big smile and friendly advice. He was a Continuing Retired Ordinary member and had been a member of the ASA for 68 years.

Born in Melbourne, Ian was educated at Scotch College, where he showed great interest in mathematics, physics and Australian history, while engaging in scouting and cricket. When awarded a scholarship to enter Melbourne University in 1941, he chose to study medicine in the compressed wartime medical course. He graduated in 1946 with honours in surgery, obstetrics and gynaecology, and gained blues in cricket and hockey.

He spent a year as Resident Medical Officer at the Royal Melbourne Hospital, and later, in 1947 moved to The Children's Hospital in Carlton (later to become the Royal Children's Hospital). Thus began a career-long association with the Children's Hospital, at the same time as he developed a life-long association with the Melbourne Cricket Club.

Having decided on a career in anaesthesia, Ian stayed at the Children's Hospital until 1953, becoming the first anaesthetic registrar there, then gaining his Diploma of Anaesthetics and becoming assistant to Margaret McClelland, the Senior Visiting Anaesthetist, later the first Director of Anaesthesia.

All the while, Ian was also pursuing his passion for cricket. From 1946 to 1953, he was the wicket keeper for the MCC first XI, as well as for the Victorian XI when colleagues could cover his hospital duties.

He met his other life passion, Dorothy Hogg, a theatre nurse at the hospital, in 1949. He remained devoted to 'Dotty' through 64 years of marriage, until she passed away in 2014.

In 1953, Ian played for Australia against South Africa at the SCG, before heading to Oxford on a Nuffield Fellowship. He spent two years at the Radcliffe Infirmary under Sir Robert Macintosh, and spent time with Gordon Jackson-Rees in Liverpool. He and Dorothy and their baby daughter spent any spare time travelling and met up with many other RCH expatriates while in the UK.

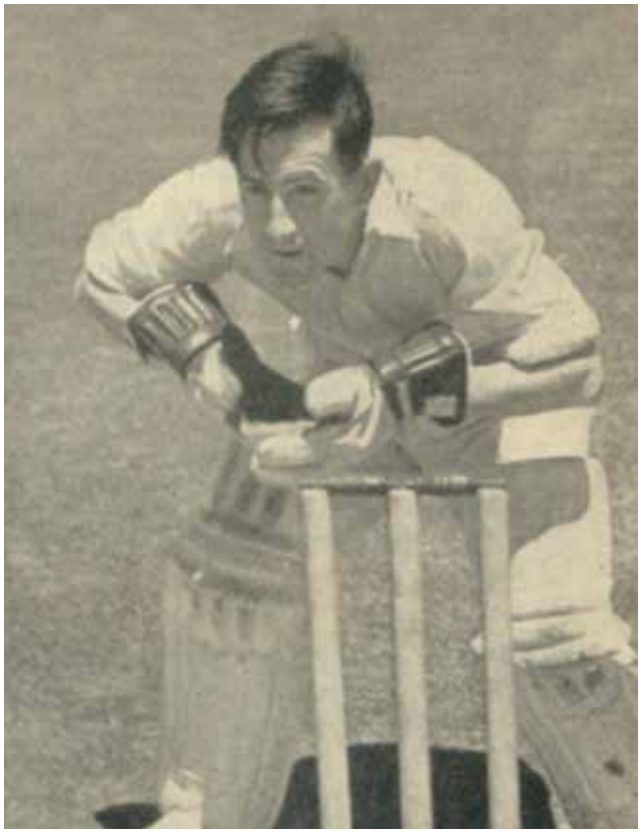
Ian returned to Melbourne in 1955, and having been awarded the Fellowship of the Faculty of Anaesthetists of the RACS, he established his practice in paediatric anaesthesia. He was a Senior Visiting Anaesthetist at the Royal Children's Hospital until retirement in 1988. At the same time, Ian had a busy private practice with colleague paediatric surgeons from the Children's Hospital, maintaining a small adult practice as well.

Ian was regularly consulted on difficult cases at Melbourne's private hospitals, and long before any neonatal transport service, he was known to transport intubated high-risk babies to the Children's Hospital by private car!

Ian was intimately involved in the development of prolonged nasotracheal intubation for infants and children with severe breathing difficulties. Following earlier work by Bernard Brandstater in Beirut, and Tom Allen and Ian Steven in Adelaide, he and John Stocks undertook a trial of 50 neonates and children, who remained intubated for between one and 14 days. The results, published in the *British Journal of Anaesthesia* in 1965[1] heralded a revolution in the management of airway obstruction in children, previously condemned to tracheostomy.

Ian served as the Victorian State Chairman of the Faculty of Anaesthetists, was a keen teacher of trainees, and continued to give wise counsel to many colleagues. He retired from all anaesthesia practice in 1991.

Ian never relinquished his love of cricket, and was a member of the Melbourne Cricket Club for 79 years, serving on the committee from 1958 to 1968. In 1956, he founded the MCC XXIX Club (the 29ers), devoted to friendly cricket in Victoria,



Photos courtesy of the Melbourne Cricket Ground Library

and now around the world. In 1959-60, he toured Pakistan and India with Richie Benaud's Australian XI, as the Medical Officer. He took to the field when there weren't 11 healthy men available!

Ian helped establish the Hockey Section of the MCC and played competitively for many years. He Chaired the Section from 1961-1969.

The MCC honoured Ian with its two most prestigious awards, The Ebeling Award in 1986, and Honorary Life Membership in 2000. He continued service with the MCC as a guide. Introduced to golf in 1990, by his dear friend and surgical colleague, Durham Smith, Ian continued playing twice a week until just before his death. He became a keen member of Kew Golf Club, helping secure the Over 80s Stewart Cup in 2004 and 2014, and managed a 'hole in one' in 2008.

Ian was a keen skier and adventurer. He and Dorothy took numerous treks and tours, to such places as the Himalayas, Kashmir, South America, and the Trans Siberian Railway. They also covered most of outback Australia by 4WD.

Ian is remembered fondly by all of his many colleagues. Ken Sleeman recalls with pleasure the honour of awarding him his 50-year ASA membership while Chairman of the Victorian Section in the early 1990s. Ken also remembers working in an adjacent theatre to Ian in the '70s and early '80s at the Mercy Private where he conducted 'his small adult practice' with Richard Newing, a plastic surgeon from St Vincent's. Dorothy ('Dottie') was by his side as anaesthetic nurse and his ruminations at morning tea required compulsory attendance for Ken.

Rod Westhorpe remembers his firm but gentle advice regarding public speaking early in his career. In subsequent years of presentations both here and overseas, his wise advice has never been forgotten.

Ian attended the annual XXIX (29ers) Grand Final week dinners every year conducting their 'anthem' set to the tune of 'There is a tavern in the town'. At last year's dinner he made a special presentation of a cap he had from when he played in the UK, on which the XXIX Club based its cap. He did say he wanted to present it in case that dinner was his last...

Ian is survived by his and Dorothy's three children and their families.

Rod Westhorpe
Ken Sleeman

Reference

1. McDonald IH, Stocks JG. Prolonged Nasotracheal Intubation, A Review of its Development in a Paediatric Hospital. *BJA* 1965, 37:161.

INSIDE YOUR SOCIETY

UPCOMING EVENTS

MARCH 2019

Women and Medicine Symposium

Date: 8 March, 2019

Venue: Geoffrey Kaye Museum of Anaesthetic History, Melbourne

Website: http://www.anzca.edu.au/about-anzca/geoffrey-kaye-museum/museum-events-and-courses

Queensland March ACE medical masterclass

Date: 19 March, 2019, 6.30-9pm

Venue: ANZCA Queensland regional office, Brisbane

Contact: Julie Donovan

Email: qldevents@anzca.edu.au

ANZCA/ASA Autumn Scientific Meeting

Date: 23 March, 2019

Venue: University of Western Australia, Perth

Email: wa@anzca.edu.au

APRIL 2019

CIG International Scholarship 2019

Three international scholars are available for ASA trainee members to attend the CIG meetings held in Canada, England and USA. For more information go to: https://asa.org.au/asa-trainee-events/ or email: trainees@asa.org.au

Closing date: 12 April, 2019

Airway Management SIG Meeting

Date: 27-28 April, 2019

Venue: Grant Hyatt, Kuala Lumpur, Malaysia

Website: http://www.anzca.edu.au/fellows/special-interest-groups/airway-management/2019-airway-management-sig

ANZCA ASM 2019

Date: 29 April-3 May

Venue: Kuala Lumpur Convention Centre, Malaysia

Website: https://asm.anzca.edu.au/

JUNE 2019

Cable Beach Country Conference

Date: 1 June, 2019

Venue: Cable Beach Resort, Broome

Email: wa@anzca.edu.au

History of Anaesthesia Seminar

Date: 2 June, 2019

Venue: ASA, Level 7, 121 Walker Street, North Sydney

Contact: mwade@asa.org.au

SEPTEMBER 2019

ASA NSC 2019

Date: 20-24 September 2019

Venue: Sydney International Convention Centre

Contact: events@asa.org.au

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AUSTRALIAN SOCIETY OF ANAESTHETISTS | 20-24 SEPTEMBER 2019

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Pam Macintyre

AUSTRALIA

REGISTRATION OPENS 2 APRIL

For all enquiries please contact: Denyse Robertson

E: drobertson@asa.org.au **T:** +61 2 8556 9717

THE ASA NSC FUTURE DATES

www.asa2019.com.au