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THE MAGAZINE OF THE AUSTRALIAN SOCIETY OF ANAESTHETISTS • AUGUST 2013

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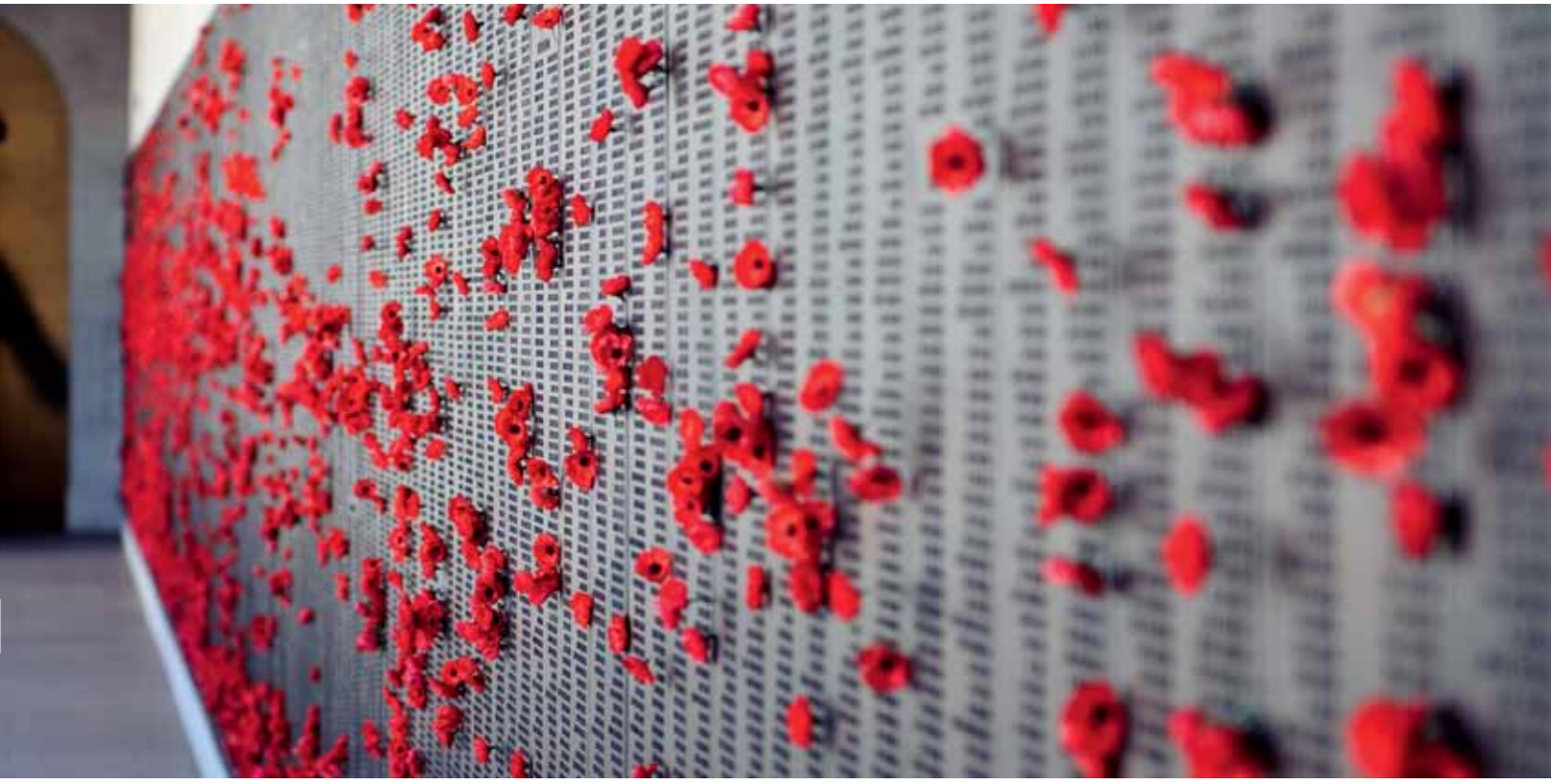

## FEATURES



## INSIDE YOUR SOCIETY

REGULAR

# ASA EDITORIAL FROM THE PRESIDENT

DR RICHARD GRUTZNER, ASA PRESIDENT

I have recently returned from Banff, Alberta, Canada, where I represented the ASA at the Common Issues Group meeting. I was joined by our CEO Mark Carmichael, and Drs Andrew Mulcahy and Guy Christie-Taylor, our past and vice presidents respectively. The meeting occurs every year and involves the senior office bearers of the British, American, Canadian and Australian anaesthesia societies.

This year we were joined by the presidents of the New Zealand and South African societies. There was wide ranging discussion of the key issues facing the practice of anaesthesia throughout the English speaking world. It may come as a surprise to many Australian anaesthetists to discover that we, as anaesthetists, are travelling well in this country.

We are part of a functional health system that incorporates universal coverage in the public system supported by an efficient private system. The terms and conditions enjoyed by anaesthetists in both the public and private sectors are relatively good. That said, there is always room for improvement and the ASA will continue to advocate for the professional conditions of Australian anaesthetists, which ultimately enhances the Australian population's access to safe, quality anaesthesia care.

Workforce is certainly the issue *du jour* and we are aware of the difficulties younger anaesthesia graduates are having finding work in both the public and private sectors. As someone who has been involved in a number of workforce surveys and studies over the last seven or eight years, I am acutely aware of the difficulties with prediction of workforce numbers. Underpinning much of the analyses are the assumptions based around the ageing population and the anticipated increase in demand for procedures such as cataracts and joint replacements, and procedures related to bowel cancer screening. While this demand is real, if no additional resources are put into the health system to service this demand then there is no need for one extra hospital bed, one extra nurse, one extra surgeon or one extra anaesthetist. This is an essential part of the problem faced by our younger members.

We are part of a functional health system that incorporates universal coverage in the public system supported by an efficient private system

The politically sensitive index of the state surgical waiting lists are disguised behind hidden waiting lists for outpatient appointments and cost shifting initiatives, such as those used in the public sector to classify endoscopy patients as 'private' and bill Medicare for their treatment. So called blitz list or waiting list initiatives selectively pick off the quick or easy cases from the waiting list, leaving major surgical patients languishing, waiting for care. The lack of state government funding to public hospitals and the dysfunctional state/federal relations are impacting the ability of our younger colleagues to find adequate work.

In order to understand how younger members are coping and surviving in this new environment, I was involved in the organisation of a younger anaesthetists' forum at which we discussed the workforce issues affecting our new graduates. This forum was held during the ANZCA Annual Scientific Meeting in Melbourne and was attended by about 25 recently qualified anaesthetists who had been in practice for less than two years. Some of these practitioners were delaying entry into the workforce by undertaking a second fellowship, some were offering to work pro bono in the public sector and some were engaged in new areas of practice including 'sleep dentistry' in dental offices.

I have even heard of young anaesthetists offering (quite naïvely and illegally) to provide a financial kickback to referring surgeons. Many others had some public and private work, but generally less than they would prefer. These young anaesthetists were keen to ensure that the ASA and ANZCA were aware of the reality of the workforce situation and that something would be done to help. There is a realisation that the number of anaesthetists in training is a reflection of

the service requirements of the public hospitals and bears little relation to the community demand for specialist practitioners.

There is also an understanding that any reduction of trainees in the public sector will require an increased commitment by specialists in the provision of emergency services. There is an appreciation that things may get worse in the short term, as the 'tsunami' of medical students graduate between now and 2016 and enter the workforce. We hope that, following on from submissions to the National Medical Training Advisory Network, there will be better coordination between the number of trainee positions and the community need for anaesthetists.

Another topical area amongst the Common Issues Group countries is continuing professional development

In a related article in this edition, Dr James Bradley discusses our most recent member survey. For the first time, this survey breaks down responses into those from graduates of less than five years, mid career anaesthetists and those nearing retirement. As expected, the work experience of recent graduates is different from their more established colleagues.

Not surprisingly, the distribution of anaesthetists is not dissimilar to the population at large, and rural and remote areas have insufficient population to support a specialist medical workforce. Many of the rural and remote posts are serviced by international medical graduate specialists; a further topic covered in this edition. There are areas of Australia that are dependent on general practitioner anaesthetists, and these doctors provide an outstanding service to an incredibly dispersed population. In a related Point of View piece, I discuss the importance of training and continuing professional development (CPD) for general practitioner anaesthetists working in rural and remote Australia.

Another topical area amongst the Common Issues Group countries is CPD and revalidation. The Medical Board of Australia has commenced the conversation as to what revalidation is and what form it should take in Australia. CPD will certainly form the basis for revalidation and the question is, 'what extra requirements should be added to assure the community that its doctors are up to date and that they provide safe, quality anaesthesia care?' In some parts of the world, including the USA, anaesthetists are required to re-sit their Board examinations as part of this process.

By contrast, in the UK there are requirements for 360-degree feedback, CPD, reports on quality improvement activities and significant events, and a review of complaints and compliments. New Zealand has a new system that involves clinical audit and practice review in addition to CPD. It is clear that Australia will develop some form of revalidation and the ASA will be supporting activities which demonstrably link to improved patient safety. Some of these may include the requirement to participate in activities such as a simulation or airway management workshop, an advanced cardiac life support workshop, an early management of severe trauma workshop, or an early management of anaesthesia crisis workshop over the five to seven year cycle of the program.

Other possible activities could include the mandated reporting of one or two cases per year to the WebAIRS database, which would provide feedback to the reporting anaesthetist. We will be advocating on your behalf for the inclusion of activities that are evidence based, link to patient safety, are not overly bureaucratic, and most importantly do not keep you away from your most important role in the provision of the world's safest anaesthesia.

I hope you enjoy the second edition of *Australian Anaesthetist* and find the content informative and entertaining.

## FOLLOW THE PRESIDENT ON TWITTER

Keep up with all of Dr Richard Grutzner's activities by following the ASA's presidential account on Twitter.

Follow @ASA_President and @ASA_Australia to get all the latest news and information.

REGULAR

# ASA UPDATE FROM THE CEO

MARK CARMICHAEL, ASA CEO

I would like to begin by thanking all of those members who took time out to contact the Society to express their delight at receiving the first edition of the revised ASA magazine, *Australian Anaesthetist*.

As we all know change can be challenging, and while the new look does not suit everyone, hopefully it will grow on members and will continue to provide a source of valuable reading for all. The Communications Committee and the staff have certainly put a lot of energy into it, so I do hope that members will continue to find it of value.

By the time you read this, the 2013 Federal Election will be fast approaching and people much better placed than I have their opinions on the likely outcome. Irrespective of the election result, the ASA has, through its Policy staff, the Professional Issues Advisory Committee and the Economic Advisory Committee, remained extremely active in its endeavours to gain the ear of government for the benefit of members and for the safety of the Australian public. Members have been kept up to date concerning the ongoing discussions with Medibank Health Solutions in relation to the issues surrounding the treatment of Australian Defence Force personnel. At the same time, the ASA has made submissions to the Medical Services Advisory Committee (MSAC) in relation to application 1183—Ultrasound imaging in the practice of anaesthesia. The ASA is now at the stage whereby evidence needs to be submitted to address the Decision Analytic Protocol, and this will be done. Further applications to MSAC have been made in relation to application 1308—Local anaesthetic nerve blockade for post surgical analgesia, and application 1309—Pain medicine professional attendance items. These two applications are still in the early stages of the process and are further examples of the work being done by our committees.

Irrespective of the election result, the ASA has ... remained extremely active in its endeavours to gain the ear of government for the benefit of members and for the safety of the Australian public

At the same time, active dialogue has been established with Health Workforce Australia (HWA), particularly in relation to the Project Advisory Group—Expanded Scope of Practice—Advanced Practice in Endoscopy Nursing. While no outcome has yet been reached in relation to this, members will be kept informed as progress is made. The involvement with HWA extended to having ASA Policy Advisor Chesney O'Donnell represent the ASA at the 2013 MABEL research forum in Melbourne. By attending and being engaged in such initiatives the Society is looking to position itself to be involved in decisions that will impact on the specialty in the future. This need to be engaged is exemplified by the ASA's submission to the National Medical Training Advisory Network in relation to the training of medical professionals and the implications this has for the future supply of doctors across Australia, particularly in regional and remote areas.

While being active in the political sphere can be time consuming for what may appear to be little reward, one event that will be rewarding and has everyone talking is the National Scientific Congress in Canberra, scheduled for 26–29 September. Titled *Anaesthesia: Art and Science*, it promises to be a wonderful meeting and I look forward to seeing you all there.

The value of meetings is indeed topical, having just returned from the Common Issues Group meeting in Banff Springs, Canada. This meeting brought together the senior office bearers and executives from the USA, Canada, Great Britain, and Australia; and for the first time it included the presidents of the New Zealand and South African societies. The meeting provided valuable insight into the issues facing anaesthetists and their representative societies. It was a valuable information exchange and one that continues to create good will and support among the respective attendees. By maintaining an active involvement in this group, the ASA is able to stay abreast of issues affecting our international partners, while gathering in a conversationally conducive setting.


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# LETTERS TO THE EDITOR

Sainsbury D. Transition to retirement. *Australian Anaesthetist*, April 2013. pp. 34-35.

## TRANSITION TO RETIREMENT

In the excellent article 'Transition to retirement', April 2013, you say "A smooth transition to retirement requires more than simply setting a date and obtaining sound financial advice." This is certainly true. I would suggest that another essential step is to develop some ongoing interest/activity which will help to bridge the sudden change to an existence where the telephone no longer rings constantly, and the people with whom one works, be they secretaries, theatre sisters or colleagues, are no longer seen every day. This interest/activity should be fully developed and running at least one or two years before retirement. I feel that I can say this confidently as, during my 15 years of retirement from full hospital practice, I have seen the result in some of my old friends of not having such a bridge to a less active life.

*Dr Donald G. Runcie (FANZCA), Sydney, New South Wales*

## AUTHOR REPLY

I would like to thank Dr Runcie for his observations supporting my experience that the new occupation should be an 'attractor' rather than a 'substitution'.

It can take a number of years for an interest to develop the mental, social and physical challenges equivalent to those provided by a successful medical career.

In the best of circumstances, it then becomes relatively easy to drop clinical obligations in order to open up more space and time for the new challenges.

In my case, at the age of 60 I was confident of my intuitive response based on 35 years of experience. I was not as confident in my ability to manage novel situations, particularly when affected by the HALT distractors (Hungry, Angry, Late or Tired).

Consequently I have left the on-call roster and work five clinical sessions per week in a public hospital.

The next question becomes, 'what is the minimum number of clinical sessions needed to maintain competence?'

Of course, this depends on the nature of the clinical work and the proximity of skilled support.

It may be interesting to hear other readers' thoughts on this question or their experiences with transitioning to retirement.

*Clin Assoc Prof David Sainsbury (FANZCA), Adelaide, South Australia*

## CONGRATULATIONS

I am writing in praise of the new publication, *Australian Anaesthetist*. It is both relevant and enjoyable to read. You and the team are to be congratulated.

*Dr Peter Waterhouse (FANZCA), Brisbane, Queensland*

## COMMITTEE REPLY

Many thanks, Dr Waterhouse, for your feedback. We're glad the new magazine is proving to be a useful resource.

We are planning to add a lifestyle section to the magazine in December 2013, as announced in the President's e-news. If anyone is interested in writing for our new lifestyle section please feel free to contact us via editor@asa.org.au.

*The Communications Committee, Sydney, New South Wales*

## HAVE YOUR SAY

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

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## REGULAR: POINT OF VIEW

# FUTURE RURAL PROCEDURAL SERVICES

### DR RICHARD GRUTZNER, ASA PRESIDENT

The ASA has recently conducted a member survey on issues related to workforce. The distribution of anaesthetists is not dissimilar to the population at large, but many rural and remote areas have insufficient population density to support a specialist medical workforce. Many of the rural and remote posts are serviced by international medical graduate specialists providing medical services in a very challenging environment. There are areas of Australia that are dependent on general practitioner anaesthetists, and these doctors provide an outstanding service to an incredibly dispersed population.

The ASA supports formalised training in conjunction with the Australian College of Rural and Remote Medicine, the Rural Doctors Association of Australia and ANZCA through the Joint Consultative Committee on Anaesthesia. Despite the intention of Health Workforce Australia to address issues of maldistribution, there will always be a demand for rural general practitioners to provide anaesthesia services. Many isolated communities depend on well trained, highly skilled general practitioners who are able to provide services in obstetrics, anaesthesia and emergency surgery.

In addition to the appropriate resourcing of initial training for procedural rural general practitioners is the equally important need for continuing professional development (CPD). This CPD involves travel, accommodation and registration at courses and conferences both within Australia and overseas. It is essential that the short sighted proposal to reduce the deductibility for legitimate self education expenses is reconsidered. Any cap on education expenses will become a cap on the quality of care we can offer our patients, wherever they live. Our rural general practitioners face unique challenges in the provision of services in the vast country that is Australia. They should be supported and encouraged, and the ASA will work with our general practitioner anaesthetist members to ensure this happens.

### DR SHEILAGH CRONIN, PRESIDENT, RURAL DOCTORS ASSOCIATION OF AUSTRALIA

The Rural Doctors Association of Australia (RDAA) views the increasing number of graduates from Australian medical schools as an opportunity to secure a sustainable rural workforce which is equipped with the necessary training and skills to be able to provide the healthcare services that are needed in regional, rural and remote communities.

If we are to make the most of this opportunity, we need to ensure that there are appropriate incentives and support mechanisms available for students and registrars, for their supervisors, and for the practices delivering training in rural areas.

There is strong evidence that longitudinal and well-supported training programs will increase workforce retention in rural and regional areas, and this applies to all branches of the profession. There are some very successful models for specialist and advanced skills training in larger regional centres, and we need to further explore how these models could form the foundation of similar programs elsewhere.

As well as providing well-directed and evidence-based incentives for rural practice, it is important that potential barriers be identified and addressed.

The RDAA is very concerned that the recently imposed $2000 cap on self education expenses will impact negatively on rural workforce training, recruitment and retention. Rural doctors incur significant travel and accommodation costs related to self education, and their extended scope of practice often necessitates attendance at a larger number of these events. The new cap may deter junior doctors who are considering rural specialist or advanced skills practice. It may also mean that some rural doctors choose not to maintain a wide variety of skills, which in turn would impact on service delivery.

The RDAA is joining other stakeholders in campaigning to have the cap removed or modified.

## IAN CRETTENDEN ACTING CEO, HEALTH WORKFORCE AUSTRALIA

The geographic distribution of the medical workforce is a long-standing, significant challenge facing Australia's health system.

Addressing this is paramount if we are to ensure every Australian has access to the health services they need, no matter where they live.

Health Workforce Australia (HWA) has undertaken a study—Health Workforce 2025 (HW2025)—of the long term workforce issues for doctors, nurses and midwives. Projections indicate that under current policy settings there will not be enough doctors to meet community need in rural Australia.

This projected shortage has direct links to the future of procedural services in rural areas. HWA is committed to tackling the geographic imbalance of the medical workforce, and one important initiative HWA is progressing is the development of a national framework for rural medical generalists (RMG). RMGs are general practitioners who provide primary care, and have advanced procedural skills across one or more specialty areas relevant to the community in which they practice.

The framework aims to offer a clearly articulated training pathway to support service models that meet community needs, and identify recommendations and reforms with potential for national application. It also promotes the RMG as a rewarding career. The model has been effective in a number of states and territories and the national framework builds on this work.

The RMG has the potential to support procedural services in rural areas. Anaesthesia is identified as a priority procedural advanced skill under most RMG programs. Under a national framework the RMG could potentially work as part of an interprofessional team and support the workload of existing anaesthetists.

HWA has just completed consultation on a draft RMG national framework and feedback is being used to shape the final framework.

The RMG pathway is among a range of HWA strategies that aim to address the geographic distribution of the medical workforce. HWA is continuing to develop other integrated workforce and training programs appropriate to rural and remote areas.

## PETER DUTTON, SHADOW MINISTER FOR HEALTH AND AGEING

There have been numerous reports, models and projections undertaken on Australia's health workforce in recent times.

As I move around the country, it is clear that many communities continue to face pressing problems in accessing care, primarily due to workforce shortages and maldistribution.

Given Australia's geography and low population density, we have some unique challenges compared to many other countries.

While e-health and tele-health will play an increasingly important role in bridging the divide they are not a panacea, particularly when it comes to procedural medicine.

It is the significant investments in education and training that are starting to pay dividends. The previous Coalition Government's investment in nine new medical schools (including in regional Australia), the doubling of medical school places, establishment of rural clinical schools and university departments of rural health, have allowed more students to study medicine, but importantly encouraged students to pursue their careers outside of metropolitan centres.

These investments do take time to flow through the system and the priority for the Government should now be to ensure adequate opportunities exist for clinical training, internships and vocational training places.

General practice is critical to our rural and regional health services. Our general practitioners are not only the cornerstone of primary care, but support procedural services in rural areas.

We will continue to be heavily reliant on a general practice workforce that fosters advanced skills in obstetrics, anaesthetics, surgery and emergency medicine.

While there are many challenges, we are fortunate in Australia to have a highly skilled workforce with strong collaboration between general practitioners, other medical specialists and other health professionals. Government must continue to support and strengthen our health workforce so we are well placed to meet future challenges.

FEATURE

# 2013 ASA MEMBER SURVEY

**'Workforce' is a perennial conversation topic. Within anaesthesia circles there is concern about the professional opportunities for new specialists and, by inference, the number of vocational anaesthesia trainees. The actual concerns and their magnitude are uncertain. This is not new or unique, writes Professional Issues Advisory Committee Chair Dr James Bradley.**

Recently, a number of surveys have attempted to explore the views of members in relation to workforce questions. ASA surveys in previous years collected information that was also collected by the Medical Board of Australia (MBA) and its predecessors. Given that government and other agencies will primarily rely on the MBA information, it was determined that our latest survey would explore areas that were inaccessible to the MBA, Health Workforce Australia (HWA) and the Australian Health Practitioner Regulation Agency (AHPRA), sparing duplication. Previous ASA workforce surveys had not clearly identified aspects of the practice of the various subgroups of the anaesthesia workforce so, in the 2013 survey, ASA 'full' members (that is, 'specialist anaesthetists') were divided into three groups: those within five years of commencing specialist anaesthesia practice (variously known as 'new fellows', new specialists etc), 'established anaesthetists' and those within five years of retirement (also described as 'senior anaesthetists'—though they may not necessarily be so—or even 'twilighters').

The questions were grouped into a number of areas which were separately analysed by members of the Professional Issues Advisory Committee. A total of 732 members responded.

## DEMOGRAPHICS

Sixty-eight percent of responders practice in major urban areas with a population greater than one million. A further 20% of responders practice in urban areas with a population greater than 100,000. Eleven percent practice in regional areas with a population of less than 100,000 and just 0.8% practice in rural or remote areas.

There is a very modest increase seen in the proportion of new specialists (compared with established practitioners) practising in regional areas (11.5 vs 9.3%) and in remote and rural areas (1.3 vs 0.3%) but the numbers are possibly too small to permit any inferences. The distribution of responders between states is in line with the national known population distribution.

## PRACTICE PROFILE

The scope of practice of responders is shown in Table 1. Most members practice anaesthesia exclusively, but some also practice pain medicine and intensive care, or both. The rise of pain medicine as a specialty and an expected commitment of younger specialists to it is noted, as is the modest commitment to intensive care, though a more detailed exploration of services provided in smaller non-urban areas may have revealed a greater involvement in this latter specialty.

Further questions examined the distribution of work between the public and private sectors. Overall 65% of responders describe themselves as being in 'private practice' and 35% were publicly employed. The most common practice profile was private practice with one to four public sessions per week (31%), closely followed by full-time private practice (29%). Of those in public practice, two-thirds participate in the private sector outside of their public hospital practice. A significant 11% of all responders (77 individuals) are in public practice with no outside private practice.

The three groups are dissimilar in practice profile (Figure 1). The newer specialists have a higher weighting to public practice (63%), whereas those closer to retirement have a much lower involvement in full-time public practice (20%). This may be due to a trend of moving into the private sector through an anaesthetic career or, of course, it may be that those anaesthetists remaining in full-time public practice may drop their ASA membership, perhaps viewing it as less relevant. This observation needs more consideration.

Those anaesthetists currently working in the public sector, while also engaging in private practice work at another facility, are much more likely to be new anaesthetists (42%) rather than in established practice (21%) or near retirement (13%). The difficulty in interpretation, again, arises from the baseline denominator being unknown, with the observation also being possibly derived from differing membership levels at different stages of a professional career.

## WORKLOAD

The survey asked responders how many clinical sessions per four weeks they practised anaesthesia. The assessment of the 'in hours' workload of anaesthetists has always been difficult, with some facilities offering 'full-day' as opposed to the more traditional 'half-day' lists, with many half-day afternoons extending into late evening—in other words, more of a full-day list commencing in the afternoon. Conversely, practice in public hospitals is usually calculated by hours in attendance. For the sake of the survey, a 'session' was defined as being the equivalent of three to six hours or a half day. The findings of our survey are likely to be expressed differently from the findings of the MBA through the reregistration process.

The workload of new, established and senior responders can be seen in Figure 2.

If, in interpreting these findings, one was to perhaps arbitrarily describe up to 16 sessions per month (that is, four per week) as 'quiet', 17 to 32 as 'moderate' and 33 or more (that is, more than eight sessions per week) as 'busy', senior specialists are more likely to be 'quiet'. By this measure, a little more than half of all groups have a moderate workload, but established practitioners are most likely to be busy. A different assessment can be that new practitioners are more likely, compared with established practitioners, to have a moderate than a busy workload, with established practitioners more likely to be busy rather than moderate. This could reflect allocation of time to non-clinical

Table 1
Responders' scope of practice

| | New* | Established† | Senior‡ | All§ |
|---|---|---|---|---|
| Anaesthesia | 82.7% | 86.4% | 85.3% | 85.4% |
| Anaesthesia and pain medicine | 9.3% | 5.3% | 4.0% | 5.9% |
| Anaesthesia and intensive care | 4.7% | 3.5% | 1.3% | 3.3% |
| Anaesthesia, pain medicine and intensive care | 0.0% | 0.5% | 1.3% | 0.6% |
| Other combination | 3.3% | 4.3% | 8.0% | 4.9% |

* 150 new anaesthetists answered this question. † 397 established anaesthetists answered this question. ‡ 150 senior anaesthetists answered this question. § In total, 697 responders answered this question.

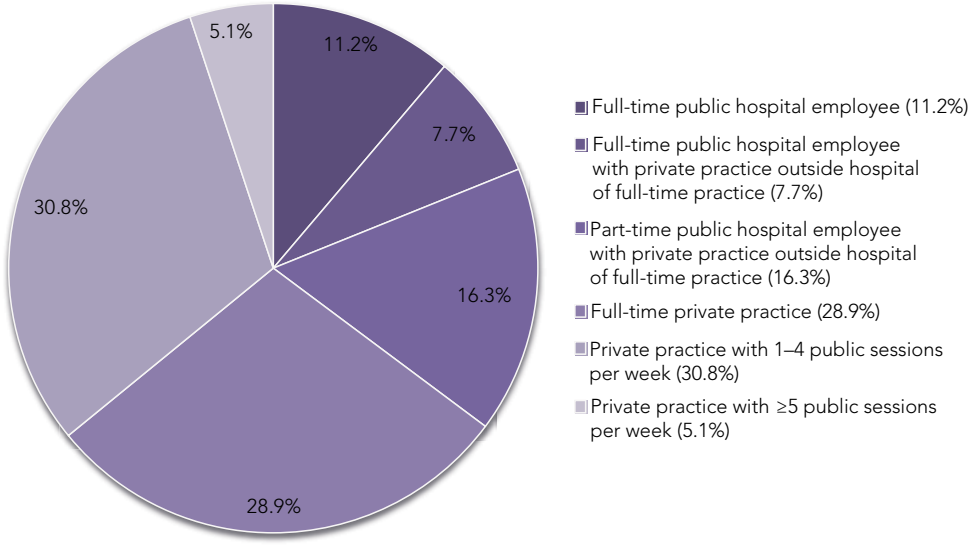


Figure 1: Practice profiles.

# FEATURE

activities or possibly greater attention to work/life balance, especially given that new specialists could be at peak child-rearing age, although this could also apply to younger established practitioners. Few responders practised zero hours per week; it was inferred that these responders were involved in non-clinical activities, such as research, teaching or administration.

With regard to unpaid, non-clinical hours, the differences between the new and established practitioners are less marked, with 83.9% of new and 89.3% of established specialists engaging in these activities. However, only 47.3% of senior specialists participate in unpaid non-clinical hours, possibly due to the lower number of hours per week being practised by this group overall. The survey found that the amount of unpaid work overall to be surprisingly high, but this may represent activity devoted to administrative tasks by private practitioners.

The survey asked how many weeks of annual leave responders take per year. More than three-quarters of responders from all three groups take between four and eight weeks per year. Those nearer to retirement take a greater amount than established or new practitioners which is not surprising. It is observed that 17.5% of newer anaesthetists and 10% of those in established practice take fewer than three weeks of leave per year. This could be due to economic pressures or the difficulties in getting leave from one's practice. This is neither healthy nor desirable.

## ON-CALL COMMITMENTS

Regarding on-call commitments, new specialists had a higher 'paid' on-call commitment than those in established practice (79.2 vs 63.5%) but a lesser 'unpaid' on-call commitment (46.9 vs 58.7%). This may be due to a need to 'pick up work' in the early stages of a specialist career, but it could also reflect the workload in teaching hospitals.

A small but disturbing number of responders (0.7–3.3%) report being on-call for greater than 40 hours per week, although this may represent those in rural or remote practice. There is also a surprising number of responders in both new and established practice who stated that they do no on-call work (20.8 and 53.1% for no 'paid' on-call work and 36.5 and 41.3% for no 'unpaid', respectively). However, it is important to note that paid vs unpaid on-call may also be dependent on regional variations. The responders reporting 'unpaid' on-call work may represent those who are 'available' but only paid via fee-for-service for any after-hours work. Senior practitioners are much less likely to take 'call' and it is common in some areas to 'go off the roster' at age 55.

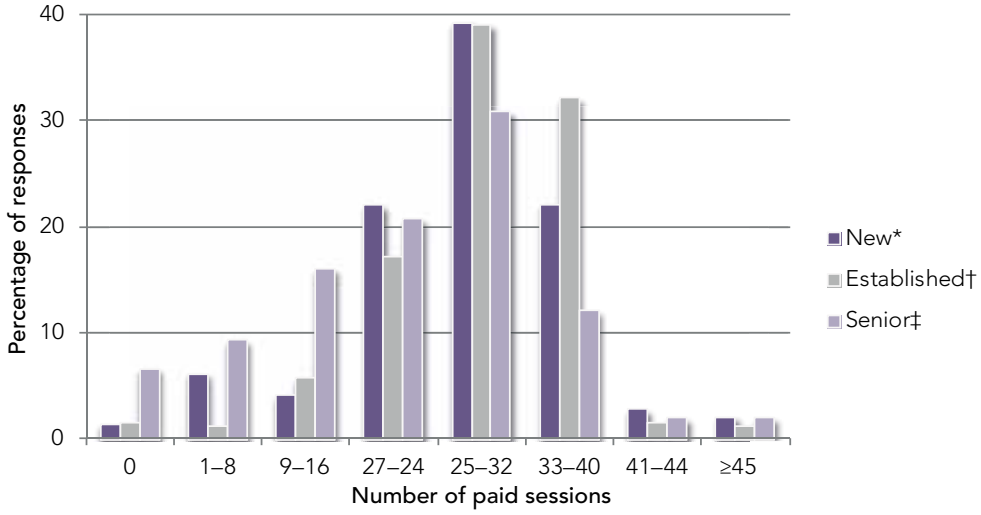


Figure 2: How many paid clinical sessions (private and public), would you perform in a four week/one month cycle? Each cell of responders was analysed separately, with separated denominator. * 145 new anaesthetists answered this question. † 394 established anaesthetists answered this question. ‡ 149 senior anaesthetists answered this question.

## NUMBERS OF ANAESTHESIA TRAINEES

Overall, 57% of responders felt that too many anaesthetists were being trained, 41.2% felt that training numbers were appropriate and only 2% felt that trainee numbers were insufficient (Figure 3).

A significant number of new anaesthetists feel their employment opportunities are increasingly limited in private and public practice. This may be causing some new anaesthetists to work beyond their clinical and geographical comfort zones, thus exposing themselves to increased risk of clinical morbidity and litigation. This might result in increased medico-legal risk, which has been recognised by indemnity insurers when practitioners work beyond their scope of practice.

## WORKLOAD PREFERENCE

The survey asked after responders' workload preferences and it was not surprising that 22.6% of senior specialists would prefer to work one to three fewer sessions per week, compared with 15.3% of new and 19% of established specialists, while 34% of new specialists would prefer one to three more sessions compared with 30% of established and 15.8% of senior specialists.

Only 50% of new and established practitioners are satisfied with their workload. In the group nearing retirement, the satisfaction rate is higher, but 40% are still dissatisfied. These figures are of interest.

Overall, the survey found that a large majority of responders (81.4% of senior practitioners, 83.1% of new practitioners and 85.2% of established practitioners) felt they enjoyed their work and obtained adequate access to continuing medical

education opportunities and interactions with their colleagues.

Subsequent sections the survey dealt with were employment opportunities and the current anaesthesia case load. More specifically, it looked at how anaesthetists felt about the current amount and type of work they are doing in public and private practice, as well as what they would like to be doing.

## PUBLIC VS PRIVATE PRACTICE

Looking at opportunities available in public and private practice, there is significant dissatisfaction with opportunities available within the public sector, which is most pronounced for those who are early in their careers. A total of 45% of new specialists feel public sector employment opportunities are inadequate. This percentage declines with increasing years of practice, but still seems to be an issue for those in established practice (approximately one-third of responders). This is becoming an issue for new specialists, with the only employment opportunities increasingly being in the private sector. This could lead to concerns regarding adequate mentorship.

The perception of employment opportunities for anaesthetists in the private sector also revealed dissatisfaction, with 44% of new anaesthetists believing their opportunities to be inadequate. Although across all groups 73% are happy, only 50% of the new anaesthetists surveyed are happy with their opportunities, compared to 69% of senior and 75% of established anaesthetists. This is an important issue facing new practitioners and will be further explored in future surveys.

## CASEMIX AND MAINTENANCE OF SKILLS

While a majority of responders reported no concerns regarding their casemix, new practitioners were apprehensive, with 30% feeling that their current casemix is inadequate for the purposes of maintaining anaesthesia skills. The majority of the problems are seen in the new practitioner demographic. The breakdown reveals many of the areas of concern were in 'super specialty' areas including thoracic, cardiac and advanced shared airway surgery.

Of further concern, 40% of new and 12% of senior anaesthetists consider their current casemix in paediatrics and obstetrics to be inadequate to maintain skills. These are areas of mainstream anaesthesia and areas where significant proportions of urgent on-call crises occur. Lack of exposure for newer anaesthetists in particular raises concerns about maintaining the skills of our future workforce in areas that would be considered mainstream proficiencies. With increasing restriction of accreditation by some private hospitals to practise in areas such as obstetrics, this could have significant flow-on effects for the future workforce.

## RURAL AND REMOTE PRACTICE

Over all categories, only 6% of responders report having moved to a rural or remote region to obtain adequate anaesthesia case load. However, this increases to 16%—or one in six—of younger consultants, with the percentage being less than 5% in established and senior specialists. This suggests that the majority of specialists are staying in the cities and making do with the work they can find. On the subject of rural bonding or incentives, more than half of our responders were supportive to some extent of mechanisms to geographically locate or relocate the specialty. However, the majority of those only support bonding, incentives or other mechanisms to a limited extent.

## TRAINING IN PUBLIC AND PRIVATE

A total of 70% of responders felt that registrar training would be enhanced by some exposure to private hospitals, though 84% felt this exposure should be limited rather than substantial. Only 0.3% felt the training could be conducted entirely within private hospitals and the least support for training in private hospitals was amongst the senior anaesthetists.

In regards to a commitment to assist in the training of registrars in the private

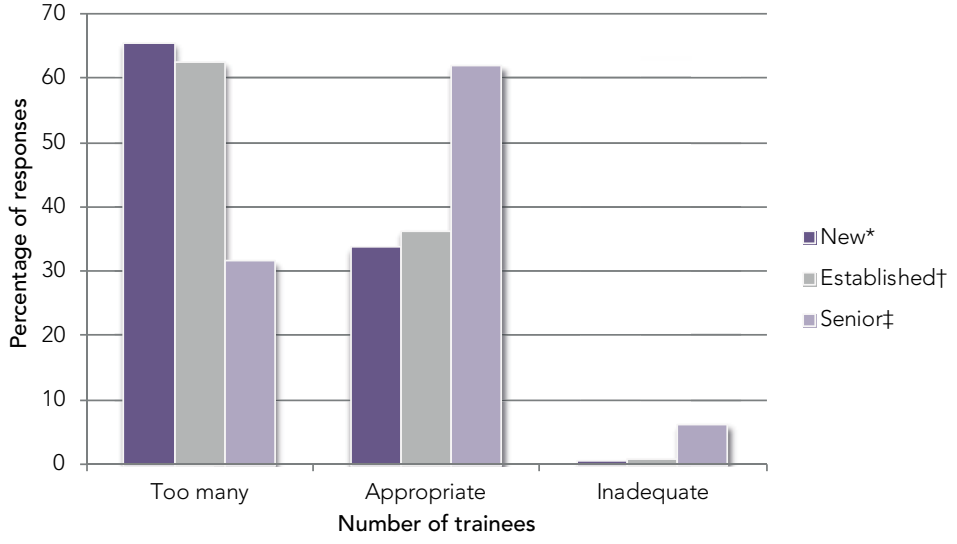


Figure 3: Responders' opinions about the number of anaesthetists currently being trained. Each cell of responders was analysed separately, with separated denominator. * 142 new anaesthetists answered this question. † 142 established anaesthetists answered this question. ‡ 385 senior anaesthetists answered this question.

# FEATURE

sector, nearly 80% of responders were prepared to assist. Although the most frequent response was that responders would commit to only a limited extent. A better design of this particular question may have teased out more detailed results, and the question of what is 'limited' or otherwise remains to be further explored.

Finally, a significant majority (85%) felt that productivity would be affected by the teaching of trainees in the private sector. Noting again a deficiency in the design of this question, new specialists were inclined to the view that productivity would be significantly affected, and more senior responders (presumably in more established practices) less concerned.

## TASK SUBSTITUTION

In this section, members were asked three questions. Firstly, they were asked if they felt there were parts of their current workload that could be delegated to non-anaesthetists in the future. A total of 68.35% felt that nil task substitution was appropriate, a further 25.30% were minimally supportive. Senior members were least in support of task substitution.

a significant majority (85%) felt that productivity would be affected by the teaching of trainees in the private sector

Secondly, the survey asked whether there was an expectation that the initial anaesthesia plan might need to be modified to maintain cardiovascular or respiratory stability during an elective procedure. A total of 99% of responders expected to modify their initial plan at least some of the time, and 45.50% do so commonly.

This suggests that anaesthesia is not a 'set and forget' activity. In other words, continuous monitoring and modification is required to maintain patient safety, underwritten by knowledge, skill and experience. There was no discernible difference in response to this question between the three groups of responders.

Finally, it was asked how often it might be expected for cardiovascular or respiratory 'rescue' to be required during an elective procedure. About 50% of all responders expected to commonly rescue patients during routine elective procedures, with the remainder expecting to do so 'on occasion'. Again, there was no discernible difference between the three groups of responders. It was observed that the so-called 'simple routine cases' require the same level of knowledge, training, experience, vigilance, diagnostic skill and appropriate timely action as all other cases.

## COMMENT

There are some very clear findings from the 2013 workforce survey.

Most practitioners are located in urban areas, with a very small number in rural and remote areas. While politicians and HWA refer to a deficiency of anaesthetists in rural areas, it is likely that the shortage is of 'rural generalists', as highlighted in the Point of View piece in this issue of *Australian Anaesthetist*. The difficulties of providing traditional specialist cover in Australia's sparsely settled areas are not yet properly understood by most observers outside the profession. As a result, we have much work to do.

Two-thirds of publicly employed practitioners engage in private practice, and almost one-third of private practitioners engage in public practice. Therefore, the importance of the role of representative organisations (such as the ASA) cannot be understated.

While accepting that the workload is difficult to assess, it would seem that the largest group of responders work is about six to eight 'sessions' per week, but with a considerable number working up to ten 'sessions' per week. This, and comments by responders in relation to preferred workload, would suggest that there is some 'slack' in the current anaesthesia workforce, though there will of course be institutional and regional variation.

It is also very clear that two-thirds of younger and established anaesthetists believe too many anaesthetists are being trained

With particular reference to young practitioners, this demographic clearly reports that they are not as busy as they wish to be, that they are concerned about access to public practice and that they have concerns in relation to the maintenance of skills. It is also very clear that two-thirds of younger and established anaesthetists believe too many anaesthetists are being trained.

Gratifyingly, over 80% of anaesthetists enjoy their work and have adequate access to education and interaction with their colleagues. More than 50% of responders are supportive, to some extent, of mechanisms to address geographical imbalances with the anaesthesia workforce; a large majority feel that productivity in private hospitals will be adversely affected by the teaching of trainees; and task substitution in anaesthesia is not supported.

FEATURE

# MEDICAL TRAINING IN AUSTRALIA: THE 16TH MTRP REPORT

**Members will be aware that the ASA is concerned about the anaesthesia workforce in Australia, both present and future. A submission is being prepared for Health Workforce Australia (HWA) in response to its report into the specialty medical workforce. Here, Dr James Bradley discusses the latest report of the Medical Training Review Panel (MTRP) on undergraduate and postgraduate medical training in Australia.**

This article examines the determinants of the medical workforce and prevocational and vocational training, focusing on training in anaesthesia.

The MTRP produces reports addressing undergraduate and postgraduate medical training and has recently released its 16th report. The MTRP, initially formed under legislation in 1996, is now produced by HWA rather than by the Department of Health and Ageing. The report is forwarded to the Federal Health Minister and, in the letter to the Minister concerning the current report, notes that the Panel "will be working with HWA to better understand Australia's medical workforce supply and how to tailor medical education and training to ensure that the workforce is able to meet the future needs of Australians".

The report runs to 211 pages and contains a large number of tables. It is said to be constituted of the opinions of the key stakeholders in medical workforce training. These stakeholders "bring knowledge of the various levels of training and different insights into the way medical education and training is being undertaken currently on how the system can deal with the challenges of not only ever increasing numbers of students and trainees, but producing the workforce training in the areas needed and equipped with the skills necessary for the future".

The report addresses university, prevocational and vocational medical training positions, trainee and college fellow demographics, examination results and some aspects concerning overseas trained medical practitioners.

Sources of information include the medical Deans, the Colleges, State and

Territory health departments and the Australian Medical Council (AMC).

## UNIVERSITY MEDICAL TRAINING

Figure 1 demonstrates a doubling of the number of medical graduates from 1999 to 2011, to 2964. The AMC has accredited 18 Australian university medical schools.

It is projected that approximately 3800 will graduate in 2016, with a slight decrease in 2017. Currently, three-quarters of student places are Commonwealth supported, 56.5 % of these via the Higher Education Contribution Scheme, 19.5% via the Bonded Medical Places Scheme (BMPS) and 2.8% (consistently just under 500 places) via the Medical Rural Bonded Scholarship Scheme (MRBSS). The two latter require a return of service, though in the BMPS case this can be partly repaid while completing prevocational and vocational training. MRBSS recipients are required to work in "Remoteness areas 2–5" for six years after completing vocational training. Approximately 21% of students are fee paying. Full fee paying domestic undergraduate places ceased to be available in 2009. Eighty percent of fee paying medical undergraduates are overseas students, with the absolute numbers increasing but the proportion decreasing (to 16%, or 2691, in 2012). Almost 60% of overseas students come from Singapore, Canada and Malaysia. The number of international students increased by 30.5% between 2008 and 2012, whereas the increase in domestic students was only 3.4%. A significant majority (81.6%) of students commence their studies while under 25 years of age. About half of commencing students are female. A small number (1.9%) of students report that they are of Aboriginal or Torres Strait Islander origin, with about one-quarter of all domestic students reporting having a rural background.

Table 1 outlines the number of students expected to graduate between 2012 and 2017.

## PREVOCATIONAL MEDICAL TRAINING

Prevocational medical training entails the satisfactory completion of the first postgraduate year (PGY1) leading to unconditional general medical registration with the Medical Board of Australia (MBA). Some will enter vocational medical training at this stage, though most colleges prefer their vocational trainees to have completed a second or even a third year of prevocational training. A number leave the medical workforce at this stage or continue to work in non-vocational career roles such as Career Medical Officers (CMO).

The number of PGY1 commencements increased by 45.3% between 2008 and 2012. The greatest increases were in the Northern Territory (24 to 41), Queensland (411 to 663) and Western Australia, with the absolute increase in Queensland exceeding that of both New South Wales and Victoria.

## VOCATIONAL MEDICAL TRAINING

Vocational medical training involves entry into specialist training through colleges or, in the case of general practice, the so called General Practice Education and Training Ltd (GPET). These paths are accredited by the AMC. The report stipulates that states and territories have different arrangements for managing vocational training and work with the colleges to offer the training posts to be accredited as well as addressing supervision in public hospitals, statewide training programs and the need for generalists or sub-specialists. It is noted that ANZCA has a redesigned curriculum that came into effect in 2013, comprising an initial two-year prevocational

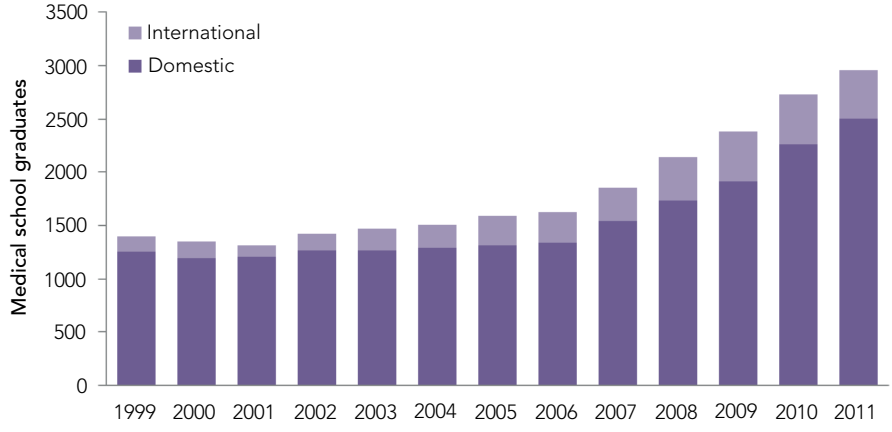


Figure 1: Domestic and international medical graduates, 1999–2011. Source: Medical Deans Australia and New Zealand Inc. Reproduced from Medical Training Review Panel Sixteenth Report; Figure 3, p. 4.

Table 1
Medical students expected to graduate from Australian universities: projected number of domestic and international students, 2012–2017

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | Increase 2012–2017, % |
|---|---|---|---|---|---|---|---|
| Domestic | 2807 | 2999 | 3176 | 3206 | 3206 | 3194 | 13.8 |
| International | 511 | 557 | 535 | 571 | 636 | 638 | 24.9 |
| Total | 3318 | 3556 | 3711 | 3777 | 3842 | 3832 | 15.5 |
| Increase from previous year, % | | 7.2 | 4.4 | 1.8 | 1.7 | -0.3 | |

Source: Medical Deans Australia and New Zealand Inc. Reproduced from Medical Training Review Panel Sixteenth Report; Table 2.21, p. 37.

# FEATURE

training period followed by a five-year period of ANZCA approved training. This consists of two years' basic training, two years' advanced training and one year of provisional fellowship training.

Across all specialties, the number of vocational medical trainees has increased by 250% since 2000. There were 16,740 vocational trainees in 2012. Figure 2 shows the increase since 2000.

In regards to vocational training in anaesthesia, the report shows that the total number of basic trainees has increased from 410 in 2008 to 615 in 2012 (a 50% increase), and of first-year basic trainees from 197 to 314 (an increase of 59.4%) over the same period.

It is stated that there were 609 advanced trainees in anaesthesia in 2012, an increase of 31.5% from the 463 trainees in 2008.

The total number of anaesthesia trainees is stated to be 1224.

The number of trainees completing vocational training and becoming 'new fellows' in anaesthesia has increased by 48.7% from 150 in 2007 to 223 in 2011 (Figure 3).

Trainees in anaesthesia represent 7.7% of trainee numbers and 8.5% of 'new fellows'.

There were 2629 new fellows of medical colleges in 2011, an increase of 55.6% from 2007. Of these 1149 or 43.7% were female. Almost one-quarter (646 or 24.6%) were overseas trained specialists who were assessed as having qualifications comparable with specialists trained by the medical college in Australia and therefore granted fellowship. MTRP reports that of the 223 'new fellows' in anaesthesia, 71 (or 31.8%) trained overseas, compared with the 646 (or 24.6%) of all new fellows (Table 2).

Across all specialties, the number of vocational medical trainees has increased by 250% since 2000

Big increases in the number of new fellows in general practice, adult medicine, anaesthesia and psychiatry are noted.

In 2012, there were 48,403 medical practitioners who were fellows of medical colleges, with 33.1% of these being female. Overall, the distribution of the 3612 anaesthetic specialists across states and territories very closely mirrors the distribution of the population as a whole, at 31% for New South Wales, 25% for Victoria and 21% for Queensland and 1.6% for the ACT (though of course the numbers are small). There seems to be a slight 'overpopulation' of specialist anaesthetists in South Australia and Tasmania, and 'under population' in the Northern Territory.

Overseas trained medical practitioners are stated to form "a key part of the medical workforce in Australia, not only in rural and remote areas, but in all areas of Australia". A total of 3560 visas were granted to medical practitioners in 2011–12. Almost half were from the UK and Ireland and almost one-third were from the Indian subcontinent and Sri Lanka, Malaysia, Singapore and the Philippines. The report gives detail in relation to the process of assessment for these practitioners, the pathway to recognition as a specialist, and in relation to caveats related to employment in Districts of Workforce Shortage (DWS). With respect to anaesthesia, the report states that the assessment of 'Area of Need' specialists is undertaken according to ANZCA policy. The relatively high numbers of these practitioners across all regions in Queensland (about 600 overseas trained generalists and specialists in total, with between 350 and 400 in remote and very remote areas) and in Western Australia is noted, a far greater proportion of the overseas trained doctors are found in Australia's major cities, in particular in a number of major cities in Victoria.

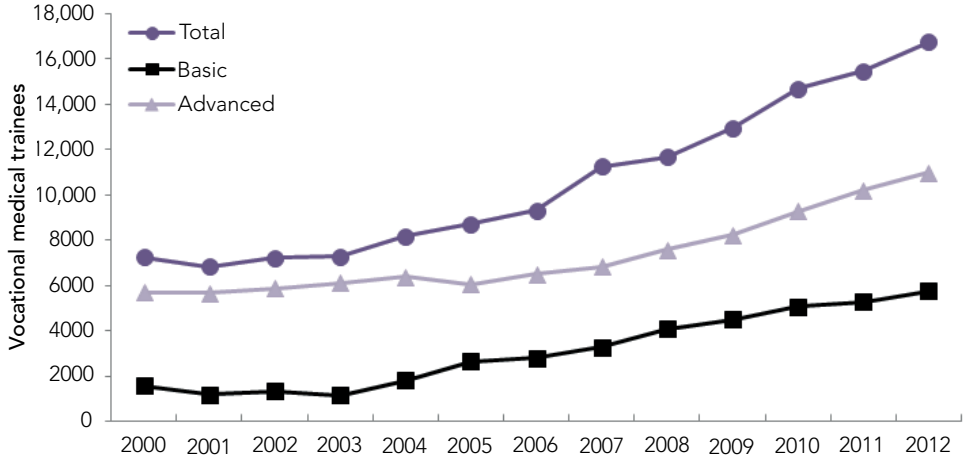


Figure 2: Vocational medical trainees, 2000–2012. Source: Medical colleges. Reproduced from Medical Training Review Panel Sixteenth Report; Figure 7, p. 7.

## COMMENT

In the last issue of *Australian Anaesthetist*, the report of HWA into the medical specialty workforce was examined.

The report (HW2025) raised no serious or significant concerns about the "workforce dynamics" of the specialty of anaesthesia for 2012. Further, it indicated that as of 2012, anaesthesia had a practitioner replacement rate of minimal concern, an average practitioner age of modest concern and a dependence on overseas trained specialists and duration of vocational training of some concern. It further predicted a "slippage" of all dynamics out to 2025, but not to a level of "significant" concern. It also identified problems in recruiting anaesthesia specialists to regional areas.

In comparing the findings of the MTRP as of 2012 with the predictions of HW2025, the following are just some of the questions that might be addressed by the specialty and its stakeholders, including the ASA and ANZCA:

- Do we in fact have an excess of anaesthesia vocational trainees, noting the very significant increase in trainee

numbers that has occurred in the last few years, and a replacement rate of minimal concern?

- Is there any hard evidence to suggest that the average practitioner age is of actual concern?
- If 31.8% of 'new fellows' are overseas trained, what effect could this have on the future prospects of Australian vocational trainees, let alone on patients in the countries of origin?
- Given that our 2013 workforce survey indicates that only 12% of anaesthetists practice in areas with a population of less than 100,000 (perhaps 400 anaesthetists), and that only 0.8% (perhaps 30 anaesthetists) practice in rural or remote areas, is it realistic to believe overseas trained practitioners are part of the solution to service provision in areas where the casemix and caseload, not to mention support or lack of support for the provision of procedural services, is intractably problematic? In other words, given that the 'problem states' are Queensland and Western Australia, and noting their demographics, why can't service provision at an appropriate level be achieved through appropriate collaboration with the existing anaesthesia workforce?
- Is the duration of vocational training mentioned by HWA an area for possible reform of any significance relevance, given the increase in the total number of vocational trainees and the effect of decreased hours of work and a reduced exposure to case numbers?

## Big increases in the number of new fellows in general practice, adult medicine, anaesthesia and psychiatry are noted

The results of our survey and a consideration of the MTRP findings suggest that we need, in particular, to further canvass the views of young specialists and of anaesthesia providers in rural and remote areas, both specialist and non-specialist.

Looking at metropolitan areas (where the ASA survey suggests we are already facing an anaesthesia oversupply), the future specialist/non-specialist provider mix in the public teaching hospitals (where patients are cared for by non-specialists, e.g. vocational trainees rather than specialists and where specialists may in fact already be available) is a topic that already interests 'payors'. Looking at non-metropolitan areas, we could explore the genuine need (not the rhetorical need) for anaesthesia providers. Certainly in rural and remote areas and perhaps also in smaller regional areas where the caseload, casemix, provider mix and government/private support are such that the provision of services at a local level, as opposed to patient transfer to bigger centres, will always be problematic.

In summary, the MTRP report and the results of our workforce survey (reported elsewhere in this issue of this magazine) suggest that we have an oversupply of vocational trainees in medicine in some specialties, not just in anaesthesia, and of overseas trained specialists in anaesthesia. As such the relative under-employment of anaesthetists and the difficulty in maintaining broad skills will be topics for further conversation.

## NOTE

All figures and tables in this article have been reproduced from the Medical Training Review Panel Sixteenth Report, © Commonwealth of Australia 2013. The original report can be found at http://bit.ly/118WR4t.

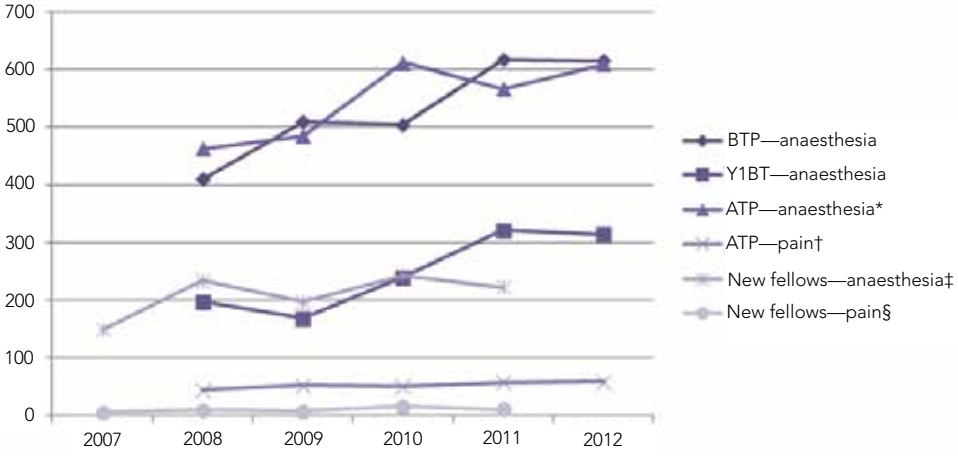


Figure 3: Number of basic and advanced trainee positions and new fellows in anaesthesia and pain medicine from 2007–2012. * 31.5% increase from 2008–2012. † 31.1% increase from 2008–2012. ‡ 48.7% increase from 2007-2011. § 71.4% increase from 2007–2012. BTP=basic training positions in anaesthesia, Y1BT=first year basic trainees in anaesthesia, ATP=advanced training positions (anaesthesia or pain medicine).

Table 2
New fellows by selected specialty: 2007 compared with 2011

| Medical specialty | 2007 | 2011 | Increase 2007–2011, % |
|---|---|---|---|
| Adult medicine | 209 | 362 | 73.2 |
| Anaesthesia | 150 | 223 | 48.7 |
| Anaesthesia—pain medicine | 7 | 12 | 71.4 |
| Emergency medicine | 69 | 78 | 13.0 |
| General practice | | | |
| - RACGP | 592 | (e)1037 | 75.2 |
| - ACRRM | 21 | (f)38 | 81.0 |
| Intensive care | 36 | 50 | 38.9 |
| Obstetrics and Gynaecology | 56 | 90 | 60.7 |
| Ophthalmology | 30 | (h)29 | -3.3 |
| Psychiatry | 72 | 131 | 81.9 |
| Surgery | 176 | (b)212 | 20.5 |

Source: Medical colleges. Reproduced from Medical Training Review Panel Sixteenth Report; Table 4.42, p. 87.

FEATURE

# THE ISOLATED ANAESTHETIST

"There's a job for you too," said the surgeon in London in 1976 when he recruited my then husband to work with him in distant Australia. And there I was: the only specialist anaesthetist in the area (the nearest being 150 km away) for the best part of the first ten years of working in my regional centre, writes Dr Diana C. S. Khursandi (FRCA, FANZCA).

We arrived there with four small children, both of us with full-time jobs; this included 24/7 call for me in my first permanent specialist position. What a challenge. I had to find ways of coping. Firstly the child care, quickly arranged with a reliable local person. Then the confidence—I had to tell myself that I could only do my best, that the region was lucky to have me and I had to accept that the buck stopped with me. From my experience, I believe that it takes about three years to settle down into specialist practice.

Setting up the intensive care unit was another challenge (I had only had three months of intensive care unit experience from my training in the UK, some years before), but it was satisfying to be able to provide that type of care for my patients when necessary.

Connections in the tertiary referral centre were essential—many times I had to ring for advice. I am hugely grateful to those who helped me out over the telephone, Drs Mary Daly and Val Muir in particular.

Patient transfers to the tertiary referral centres in the capital city were 250 km by ambulance (four hours by road) or by the embryonic air ambulance. Did I heave an enormous sigh of relief when the retrieval service started!

It was also a great relief when mobile phones arrived, as I could be on-call away from landlines without having to let the hospital switchboards know. No more would I have to say, "please send the police or ambulance around if you want me urgently, I'll be in the Town Hall." I remember once driving from home to the maternity hospital, seven minutes away (when I had been called to see a neonate), being chased by the police and waving my stethoscope out of the window. They did

not get the message, but did let me rush into the labour ward! Luckily the baby was fine when I arrived.

Each year I trained a different junior doctor—a principal house officer (PHO)—to a level at which level 4 supervision was possible in the second half of the year. Gratifyingly, nearly all the 20 doctors with whom I worked became anaesthetists, although one had the cheek to pass his surgical primary examination during his anaesthetic year!

Anaesthetists can practice in isolation or in a large city, but it is always better to work in a group with others

Getting away on a regular basis for R&R was essential. Locums for short and longer times away were extremely difficult to organise and I often spent up to a year doing so. A few friends and colleagues were able to perform this function. I was also grateful to a few non-specialist anaesthetists in town who allowed me a weekend away occasionally. The ASA locum service is a useful resource in these situations.

I joined the ASA and attended as many annual meetings as possible, with the intention of making contacts with colleagues and gaining professional development. I knew only two anaesthetists in Australia before I arrived, both in the state capital city.

Life in our regional city was rewarding in so many ways and patients often showed their gratitude. I managed to see nearly all my private patients preoperatively before the day of surgery, and those I didn't, I spoke to on the telephone. For this to occur I had great cooperation between my receptionist and the surgeons' secretaries. All public patients were also seen preoperatively in a clinic at the hospital. In time, I had anaesthetised someone from most of the families in town, including my colleagues and their family members.

Walking down the street I would frequently greet a patient, a social contact or a member of the staff of the public or private hospital. Privacy can be an issue in a smaller community and I was very mindful of this. In particular I did not give medical advice outside of work. If we talked about patients at home, they were always anonymous.

Personal support mechanisms, in addition to the professional ones, were of extreme importance too. The local community, both medical and non-medical, was very supportive when we arrived and continued to be so—we made many lifelong friends.

Anaesthetists can practice in isolation or in a large city, but it is always better to work in a group with others—not only are there mentoring opportunities between colleagues, but morbidity and mortality meetings are invaluable for benchmarking one's practice. In later years, the specialists and non-specialists in my centre met each week for continuing professional development.

As a result of the challenges I had found, I did some research on how other isolated anaesthetists coped and discovered their various opinions and recruitment strategies. Some regional anaesthetists had formed successful cooperative groups and recruited new specialists with an arrangement which included income splitting and regular time off. In 1992, I co-founded (with Frank Moloney) a group which became the Rural Anaesthesia Special Interest Group, to provide support to anaesthetists in regional and remote areas.

After 20 years of rural anaesthesia practice I moved to a job in a peripheral metropolitan public hospital, nearer to the capital city. It was sad and very hard to say goodbye to the regional centre which had become my home, where my children had grown up and where I had so many supportive friends and colleagues. In another way I was glad to leave because political decisions were to destroy most of what I had set up.

Memories of the stresses and challenges have faded, while those of the good times thankfully linger. The strategies and connections I developed in meeting the challenges of isolated practice have continued to be essential in my professional life, and many years later I still remember the lessons and rewards of working in a regional community.

## ASA LOCUM SERVICE

If you are looking for a locum placement or would like locum coverage, please visit http://bit.ly/1bJMYwt. This service is free for members and open to non-members for a fee of $93.

FEATURE

# THE EXPERIENCE OF THE IMGS ANAESTHETIST

**Like almost every country, Australia's healthcare system has experienced a significant shortfall of medical practitioners. This does not only affect rural areas, but occurs in urban sectors as well[1], write Drs Martin Heck (FANZCA) and Diana C. S. Khursandi (FRCA, FANZCA).**

This situation is likely to persist for some time despite increasing numbers of medical students and specialist trainees[1], due to the expansion of the scope of medicine, migration, ageing and increasing prevalence of chronic diseases.

Like many other developed countries with this problem, the political response has involved recruitment of a significant number of doctors whose primary medical or specialist qualifications are from another country. The percentage of doctors in Australia with international medical qualifications has risen to about 25%[2].

Our specialty is not exempt. Figures obtained from ANZCA show that among the 4901 fellows, 221 (4.5%) entered via the international medical graduate specialist (IMGS) pathway. Some specialists may have completed the full ANZCA training but have obtained their primary qualification from overseas (ANZCA IMGS Committee, Personal Communication).

Following some high profile cases, there is immense public and political scrutiny of the qualifications, accreditation and examination of IMGSs[3]. In other words, the system (to which IMGSs contribute to a significant extent) looks closely at how well they perform on a professional level.

What about other issues? The transition to work in Australia and New Zealand brings its own stresses in areas such as personal life, family issues, social security, finance, welfare and health. The IMGS has to face many social, cultural and professional challenges: new country, no family or friends here, new job, new language, new idioms, new system, new drugs, new people and new patients.

Once an IMGS has registered with ANZCA, he or she can access all the resources available to trainees, including the Welfare of Anaesthetists Special Interest Group resources[4].

There is a significant paucity of data concerning IMGSs' healthcare. This may be due to the reason that IMGSs on a temporary visa are excluded from access

to Medicare, in contrast to locally qualified medical practitioners. As a result, IMGSs have to join private health funds to access healthcare outside public hospitals.

There are further significant financial burdens for the IMGS. Fees that are charged by ANZCA to IMGS applicants appear in Table 1. These fees necessarily increase if an additional examination or assessment is required[5].

Given that most applicants need to shoulder the costs of immigration as well, these factors cause additional financial strain. This is aggravated by the fact that, due to visa restrictions, these costs usually occur within a narrow period of time after arrival in the country[6].

A significant number of applicants to the IMGS pathway are required to sit either all or parts of the final fellowship examination. Traditionally IMGS candidates have a low pass rate. An easy interpretation would be that overseas trained candidates are simply lacking knowledge or academic skills. However, the problems are more complex.

Many overseas trained candidates have worked in isolation in rural centres with restricted casemixes, without communication tools to form study groups or local tutors who could assist them in the preparation process. Moreover, IMGSs may be employed to provide direct hands-on specialist care throughout the day and then have to juggle examination preparation, family life and other personal matters after hours[6].

Table 1
ANZCA fees for IMGS applicants*

| | |
|---|---|
| Paper assessment fee | $694 |
| Interview fee | $4764 |
| Annual clinical practice assessment fee | $2282 |
| Workplace based assessment fee | $6958 |
| IMGS final examination fee | $4907 |

* Relevant travel costs are not included.

Additional factors are advanced age, cultural differences, and English as a second language, which may make it hard to comprehend subtle differences in a time-constrained examination environment[7]. This may lead to highly skilled clinicians, who demonstrate excellent work performance, failing examinations; they may potentially be lost to the medical workforce because they leave the country in frustration, run out of time or their visa expires[6].

There is, therefore, a strong need for peer support, mentoring, and educational and moral support for IMGSs.

The formation of the Overseas Trained Specialist Anaesthetists Network (OTSAN)[8] was a vitally important initiative in response to many of the issues detailed above. It started in Queensland as a self help platform, founded by former IMGSs who later became ANZCA fellows. To begin with, OTSAN had a strong emphasis on education but has diversified to address other facets of IMGS-related issues, providing guidance and support in several areas. It facilitates liaison with national authorities (e.g. Medical Board, ANZCA, immigration, government standing committees) and the healthcare industry, as well as integration into Australian life.

OTSAN conducts three educational weekend workshops each year to enhance the specialists' chances of passing the ANZCA IMGS examination. Examination-focused, problem-based lectures and mock examinations are crucial components of these meetings; by attending these workshops, IMGSs have the opportunity to build study groups and social networks. Valuable resources are provided via a structured website, with literature relevant to examinations, research material and a blog as a communication platform[5].

IMGSs contribute on a large scale to the medical sector in this country, not only as front-line healthcare providers, but also in teaching and research.

The welfare of this population appears to be a hitherto unquantified issue. Detailed studies are required to identify deficiencies in the welfare of IMGSs. Accurate data are not currently available and may be difficult to obtain.

Medical colleges or professional organisations such as the ASA or the Australian Medical Association might survey IMGSs to obtain data concerning these issues.

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FEATURE

# BE PART OF THE SOLUTION, NOT THE PROBLEM

**Dr Phil Blum (FANZCA) is currently the course convenor for the Darwin Real World Anaesthesia Course (RWAC) and a course facilitator for the National Critical Care and Trauma Response Centre's Australian Medical Assistance Team Surgeons and Anaesthetists Course. Here, Phil discusses training for work in low and middle-income countries.**

In January 2010, a magnitude 7.0 earthquake struck Haiti; 222,000 people were killed, 300,000 were injured and 1.5 million people were left homeless. It didn't take long for the international community to swing into action with an impressive display of goodwill. At the height of the response there were over 3000 expat volunteers and 440 international non-government organisations registered with the World Health Organization cluster. Thirteen billion US dollars was spent. Some volunteer groups were well trained and prepared, some not so. It also didn't take long for these groups to generate journal articles based on their experiences. One such group was a small university, non-government organisation based in Miami[1]. Six personnel boarded a private jet for a 90-minute flight to Port-au-Prince which, even before the earthquake, was one of the most lawless and chaotic places in the world. The team comprised three surgeons, one anaesthetist, one cardiologist and a CNN journalist. They arrived within 24 hours of the earthquake. Their equipment included six ampoules of propofol, five ampoules of ketamine, three ampoules of suxamethonium and one self-inflating non-rebreathing bag and mask.

What they found were 225 critically injured Haitians lying in two open storage tents at the airport. Over the next 72 hours the team had no access to food, shelter or toilets. Quoting from their article, "a few urgent amputations were done without anesthetic". They also wrote: "However, the psychological impact of the horrendous conditions encountered by this team … left an indelible mark in the minds and hearts of those individuals…". I wonder if there have been long-term consequences on the mental health of those team members.

They had reacted with their hearts and done the best they could. They were well meaning but maybe good intentions on their own aren't enough. Global humanitarian aid has been described

as the largest unregulated industry in the world. It is estimated that 2.3 trillion US dollars has been spent in the last 50 years. In relation to sudden onset disaster, much of the effort should be focused on improving disaster preparedness and resilience within the donor country itself. Though, with the potential for an increase in the frequency of natural disasters, there will still be a role for disaster medical assistance teams. Part of the solution to improving the effectiveness of aid includes the training and registering of these humanitarian teams.

## BE PART OF THE SOLUTION

So, you have decided you want to help on a global level, but realise that augmenting your routine professional skill set would be helpful. What training is available to an anaesthetist in Australia and internationally?

There are a number of different courses offered. They fall into two categories. The first is aimed at preparing the individual anaesthetist to work relatively independently, usually embedded within the existing health structure. They will either travel as part of a small team doing short surgical missions or work along side the local anaesthetists for longer periods of time. Only one such course is offered in Australia and New Zealand—RWAC. This course emphasises being culturally sensitive and getting by with what is locally available when in-country for extended periods of time. Learning drawover anaesthesia is an important aspect of the course and we are unique internationally in teaching drawover in theatre.

Inspired by Mike Dobson's Oxford course, RWAC was started in Tasmania by Drs Haydn Perndt and George Merridew in 1999. It was run for the first time out of Tasmania and then in Darwin in 2004 with the help of the ASA. Initially called the Remote Situations, Difficult Circumstances, Developing Country Anaesthesia Course, the name was shortened in 2009. RWAC is now also convened in Christchurch, New Zealand, by Dr Wayne Morriss and in Frankston, Victoria, by Dr Chris Bowden. The course is run triennially in each centre. This year Dr Chris Bowden is the course convenor. RWAC 2013 is to be held in Frankston from 28 October to 1 November. The plan is to hold RWAC in Christchurch in 2014 and then return to Darwin in 2015.

Part of the solution to improving the effectiveness of aid includes the training and registering of these humanitarian teams

There are two other similar courses held in the world aimed at the 'independent' anaesthetist. The grandfather of them all was started in 1981 by Mike Dobson at the Nuffield Department of Anaesthesia, Oxford. It now takes place yearly in Kampala, Uganda. It is called the Anaesthesia in Developing Countries (ADC) Course and Mike Dobson is still involved. The next course is to be held from 4–8 November 2013. The North American course, Anesthesia for Global Outreach (AGO), has been held annually in Halifax, Canada, but is moving to a three-site rotation system that includes US universities. Their course was held in Seattle from 16–19 May 2013.

The other form of training prepares anaesthetists to work within larger teams responding to sudden onset disasters. The anaesthetist will usually be deployed as part of a foreign field hospital team, working with portable equipment and medications from the field hospital cache. There is political competition between the states to send teams internationally and still some resistance to having a national provider, but consensus is developing. There are several state and territory-based Australian Medical Assistance Teams in the country. The organisation with which I am most familiar is the Darwin-based National Critical Care and Trauma Response Centre, a federally-funded institution which was set up following the second Bali bombing in 2005. The centre runs a yearly Australian Medical Assistance Team Surgeons and Anaesthetists Course (AusMATSAC), with the next to be from 12–15 August 2013. Surgeons and anaesthetists from Indonesia, Papua New Guinea and the Pacific Islands have recently started attending this course, which has facilitated links between Australia and our near neighbours.

There are also numerous international disaster management courses run in the United States, Canada and the UK. Their common aim is to create a pool of trained and vaccinated professionals who have a specific knowledge base and skill set to quickly form an easily identifiable national team when called up at short notice.

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## USEFUL CONTACTS

### RWAC

Dr Chris Bowden, Course Convenor: cbowden@phcn.vic.gov.au or visit the Overseas Development and Education Committee's page on the ASA website, http://bit.ly/12p2VXE.

### AusMATSAC

Ms Abigail Trewin, Australian Medical Assistance Team Specialist Course and Logistics Facilitator: abigail.trewin@nt.gov.au or visit http://bit.ly/12p2XPo.

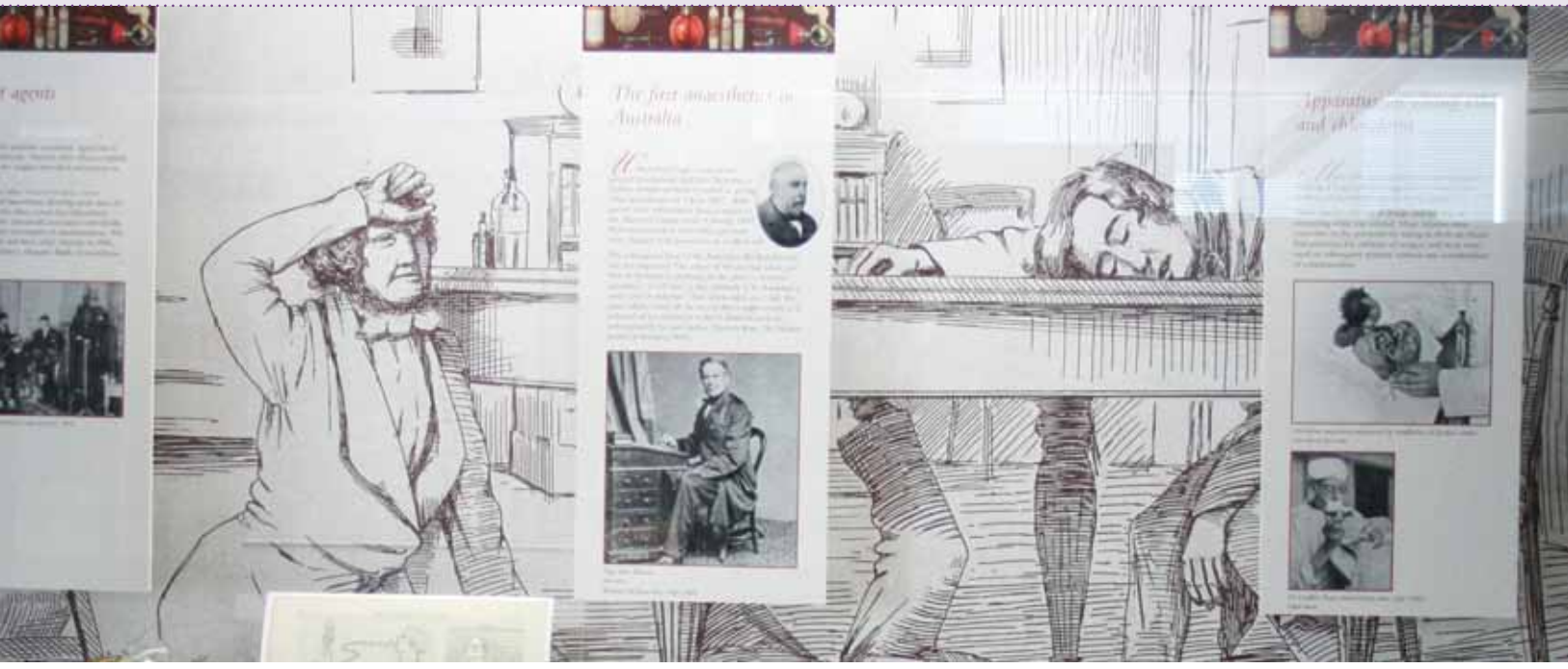
### Oxford/Kampala ADC

Dr Hilary Edgcombe, Course Convenor: events@ndcn.ox.ac.uk or visit http://bit.ly/13yhJih.

### North American AGO Course

Ms Megan Chipp, Course Manager: globalanesthesiacourse@gmail.com or visit http://bit.ly/1aTXm1o.

FEATURE



# ISHA 2013: HISTORY MATTERS!

**Drs Michael Cooper, Rod Westhorpe and Jeanette Thirlwell report on the 8th Symposium on the History of Anaesthesia, which was held in the Veterinary Science Conference Centre, University of Sydney from 22–25 January 2013.**

The International Symposium on the History of Anaesthesia (ISHA) is held every four years and is the major meeting for the history of anaesthesia, pain medicine, intensive care and related fields. The first ISHA was in Rotterdam in 1982 and this year was the first time this meeting was held in Australia and in the southern hemisphere.

Australia achieved the successful bid for the 8th ISHA in Crete in 2009, thanks to the excellent presentation by Professor Ross Holland and Dr Jeanette Thirlwell, supported by a business statement from the tripartite body of the ASA, the New Zealand Society of Anaesthetists and ANZCA.

The ISHA Committee, formed in 2010, consisted of the following members: Prof Ross Holland (Co-Chair), Drs Jeanette Thirlwell (Co-Chair), Michael Cooper (Scientific Convenor), Christine Ball (Co-Convenor and Convenor of the Geoffrey Kaye Symposium), Richard Walsh (Honorary Treasurer), Lindsay McBride, Rod Westhorpe (Convenor Geoffrey Kaye Symposium); Prof Barry Baker and Dr Tony Newson; ASA Events and Sponsorship Officer Robert Campbell, ASA Events and Sponsorship Assistant Katie Fitzgerald and past History of Anaesthesia Special Interest Group Secretary Danielle Ashford.

Generous support was obtained from Dräger Medical Australia, Baxter Healthcare, GE Healthcare and Arthur Bailey Surgico.

A cocktail party on the evening of Tuesday 22 January was held at St John's College within the university campus and proved a great opportunity for attendees to renew old acquaintances before the symposium started in earnest.

It is rare for Regal or Vice Regal representatives to officially open medical conferences in Australia, one notable occasion being when the Governor General of Australia, Sir William Deane, opened the World Federation of Societies of Anaesthesiologists meeting in Sydney in 1996. The Organising Committee were therefore honoured that Her Excellency Professor Marie Bashir AC, CVO, Governor of New South Wales, opened the 8th ISHA and stayed for the first session. Her Excellency is a medical graduate of the University of Sydney, a Professor of Psychiatry and has a deep interest in the history of medicine.

There were around 160 registrants, 80 from overseas and from 11 countries including USA, UK, France, Germany, The Netherlands, Slovakia, Greece, Turkey Nepal and Russia. In all, 92 papers were

presented by 74 speakers. An innovation was the Gwen Wilson Prize honouring the doyenne of the history of anaesthesia in Australia and inaugural Laureate of the Wood Library Museum in 1996, this prize being offered to encourage young historians. For the first time, ISHA supported the attendance of an anaesthetist from a developing country to present on the history and development of anaesthesia in their country. Dr Subash Acharaya from Nepal was the recipient.

Invited opening speakers were Prof John Gascoigne—A voyage around Australia's origins; Prof John Pearn—Towards an analgesic sleep and Vignettes in the history of Australian anaesthesia; Prof Michael Cousins—Anaesthesiologists and the development of pain medicine; and Prof John Severinghaus—The discovery of oxygen, 1553–2011.

Session titles included Antipodean anaesthesia and analgesia, Anaesthesia and relationships with industry, Developments in resuscitation, Research and physiology, Notable names in anaesthesia, Regional anaesthesia, Military anaesthesia, Anaesthetic equipment, History of pain medicine, Pioneers of the 1840s, Evolution of anaesthesia mortality reporting, Drugs and chemistry, Developments in intensive care medicine, Anaesthesia and antiquity, Anaesthesia—a cultural history, The air we breathe and Society and anaesthesia and anaesthetic developments in individual countries.

Another important innovation was the 'Future of anaesthesia history workshop', convened by Dr Christine Ball. Several prominent international speakers led a discussion on the teaching and preservation of the history of anaesthesia.

Social events included the Welcome Party at St John's College, the opening of the History of Anaesthesia Exhibition in the Rare Books Collection at the University's Fisher Library and the Symposium Dinner, a Sydney Harbour Cruise on a beautiful balmy Sydney summer evening. A well-attended early morning walk around the historic Rocks area of Sydney was led by Professor Barry Baker.

An international selection panel heard presentations from France and USA competing to host the 9th ISHA in 2017. The successful bid went to USA—the symposium to be held in Boston.

The Geoffrey Kaye Symposium, held at ANZCA in Melbourne, followed directly after the symposium in Sydney, enabling many local and international guests to see the world famous Geoffrey Kaye Museum of Anaesthesia History collection firsthand. The two-day symposium included a full day of invited presentations at the College and a day tour of Melbourne University's medical collections.

There were around 160 registrants, 80 from overseas and from 11 countries including USA, UK, France, Germany, The Netherlands, Slovakia, Greece, Turkey Nepal and Russia

The depth of the Kaye collection was demonstrated by a temporary display of over 80 different mask inhalers. Designed for use with ether, chloroform or ethyl chloride, almost all dated from the 19th century. Also on display were three significant books: Joseph Clover's casebook, from 1846–1847, a 15th century Latin copy of Hippocrates and an original copy of the *Illustrated London News* of 9 January, 1847. The *Illustrated London News* included the diagram of the ether inhaler which was copied by both William Pugh in Launceston and John Belisario in Sydney, when they administered the first anaesthetics in Australia in June 1847.

Dr David Wilkinson, current Chair of the World Federation of Societies of Anaesthesiologists, summed up the Symposium in two short paragraphs:

*I have been to myriads of meetings in my life and to every ISHA meeting before this, but you should know that this was special. It all worked so well and that means all of you put in an immense amount of work and I hope you realise how much it was appreciated by us delegates.*

*Everything worked well; everyone was so helpful; all the social events were great! The opening was amazing with the Governor of NSW; what a great thing to do! All the talks I heard were excellent and the timekeeping was just unbelievable (I have never seen that at a history meeting before). Thank you all so much for such a memorable event.*

Photograph by Dr Boleslav Lichterman at the 8th ISHA in the Webster Auditorium, University of Sydney.

FEATURE

# 2013 NATIONAL SCIENTIFIC CONGRESS IN CANBERRA

**The 72nd Australian Society of Anaesthetists National Scientific Congress (NSC), *Anaesthesia: Art and Science*, will be held in Canberra this September, and as Convenors of this meeting it gives us great pleasure to invite you to attend, write Drs Mark Skacel (Convenor), Paul Burt (Scientific Convenor) and Candida Marane (GASACT Convenor).**

It is especially fitting that 2013 is the centenary celebration of Canberra. The location of Canberra was selected in 1908 and construction commenced in 1913 following an international contest for the city's design. Chicago architects Walter Burley Griffin and Marion Mahoney Griffin designed the city around circles and triangles, centred on the axis of local landmarks. Canberra is Australia's largest inland city (with a population of around 370,000), is located on the ancient lands of the Ngunnawal people, and is thought to derive its name from the Aboriginal word Kamberra or 'meeting place'.

The venue for the four-day scientific meeting will be the National Convention Centre, which is a perfect venue for a conference of the NSC's size. The opening ceremony and plenary sessions will be held in the Royal Theatre, which can comfortably seat 1200 delegates. Parallel lecture sessions will be hosted in the centre's tiered seating theatrettes, and most of the workshops and all the small group discussions will be conducted on-site to maximise the exposure of attendees to the full conference program.

The Kester Brown Lecturer this year is Professor Julio Licinio, former Director of the John Curtin School of Medical Research at the Australian National University. His lecture will be titled 'Depression and obesity—modern diseases'. Certainly these are conditions that, as anaesthetists, we probably have more contact with than we would wish! The Pioneer Lecture is to be given by Professor Tony McMichael, Emeritus Professor at the National Centre for Epidemiology and Population Health at the Australian National University, titled 'The health effects of climate change' (matters that we and future generations will all have to confront).

At this year's congress we are privileged to have nine invited international speakers, from the UK, USA, France and Sweden, giving lectures on anaesthesia topics relevant to all anaesthetists. These include Prof Martin Smith from the National Centre for Neurological Diseases at Queen Square, London, Prof Per-Olof Grände from Lund, Sweden, Prof Mike Grocott, Professor of Anaesthesia at Southampton, Prof Colin Mackenzie from Baltimore, Prof George Mashour from Michigan, Prof Keith Ruskin from Yale, Prof Benoit Vallet from Lille and Prof Gilles Dhonneur from Paris.

There is a considerable number of national speakers of note, each with their own significant contributions to make

These international visitors will speak on a variety of topics including the management of head injuries, subarachnoid haemorrhage, the relevance of extreme environment physiology to anaesthesia, consciousness, advances in general trauma management, Hb-based $O_2$ carriers, the relevance of training commercial pilots to training anaesthetic registrars, and the potential benefits of newer, non-invasive cardiac output monitors.

There is a considerable number of national speakers of note, each with their own significant contributions to make. Prof Tony Quail from Newcastle is the Australasian Visitor, with a series of interesting lectures on the bronchial and coronary circulations, the importance to anaesthesia of the carotid chemoreceptor and the (still a relatively neglected) topic of research in anaesthesia in Australia. The biased ball introduced into the game of medicine by those who seem to have cornered the 'evidence market' will get a few well placed kicks around the wider playing field of knowledge by a philosopher of science from the Australian National University, Dr Jason Grossman.

Two lecturers from the Australian Institute of Sport, Prof Kieran Fallon and Dr Philo Saunders contribute with Mike Grocott to a session on exercise physiology, and there is a session specifically devoted to the problem of trying to make sense of the avalanche of medical data in which we become immersed annually. There will be updates in cardiology, the coagulopathy of trauma, cervical spine injuries, head injuries, respiratory pathophysiology, thoracic and vascular anaesthesia, orthopaedics and urology. Prof George Mashour, US Presidential Scholar for 2011, will challenge the popular metaphor that anaesthesia is 'sleep', as well as discussing in separate lectures consciousness and 'awareness'.

In addition to this, many of the special interest groups will hold sessions of their own: diving, management, obstetrics, perioperative medicine, pain, and regional anaesthesia. There will also be a session dedicated to the problems frequently presented by children to the occasional paediatric anaesthetist.

Dr John Ellingham has designed a very challenging and interactive workshop program. These workshops have been structured with a 'something for everyone' approach in mind; and for those who may have thought some topics remained uncovered, Drs Don Lu and Girish Palnitkar have filled in many of the vacancies with a stimulating set of small group discussions.

The GASACT day will be held on Saturday 28 September and will appeal to trainees of all levels. The program includes a range of educational and social activities organised by GASACT specifically for trainees. Sessions will cover a diverse range of topics including exam preparation for both primary and final exam candidates, research, finance and clinical pearls. The GASACT luncheon will allow trainees to rub shoulders with some of the invited speakers as well as catch up with colleagues from around the country. The day will culminate with the GASACT social evening at Old Parliament House, a further opportunity for trainees to enjoy good food and good company in an iconic Canberra venue.

The main conference hotel will be the Crown Plaza, which is a three-minute walk from the conference centre and situated in the heart of the city. Many of Canberra's more famous attractions are central and very close to hotels and the conference centre (Table 1). Visiting these attractions is made all the easier by the free shuttle service regularly connecting these venues during the day.

Table 1
Canberra visitor highlights

| Venue | Distance from NCC | Opening hours | Admission |
|---|---|---|---|
| Parliament House | 3.3 km | 9:00am–5:00pm** | Free |
| National Museum of Australia | 2.7 km | 9:00am–5:00pm | Free* |
| National Portait Gallery | 2.7 km | 10:00am–5:00pm | Free* |
| National Gallery of Australia | 3.4 km | 10:00am–5:00pm | Free* |
| Australian Institute of Sport | 9.1 km | 9:00am–5:00pm | From $16 |
| Floriade 2013 | 1.7 km | 9:00am–5:00pm | Free* |
| Mount Ainslie Lookout | 6.1 km | Accessible 24 hours | Free |
| National Arboretum | 13.7 km | 7:00am–5:30pm | Free* |
| Australian War Memorial | 2.0 km | 10:00am–5:00pm | Free |
| Questacon | 2.4 km | 9:00am–5:00pm | From $17.50 |

* Admission prices may apply to special exhibitions/events. ** Non-sitting days.
NCC=National Convention Centre.

# FEATURE

First time visitors to Canberra should plan to visit Parliament House and then walk down to the lakeside National Portrait Gallery, the National Gallery of Australia, the National Library and the science centre 'Questacon'. On the north side of Lake Burley Griffin, a day can be spent at the National Museum, the Australian War Memorial and the world famous Australian Institute of Sport to see how our elite athletes live.

As the garden city, there are a number of places for historians and garden lovers to visit. Calthorpes' House in Redhill is a well-preserved example of a 1920s house from Canberra's early days; Blundells' Cottage in Parkes displays the lifestyle of the early European settler. A walk to the top of Mount Ainslie from the War Memorial through the nature park gives a great view of the ACT region.

Floriade is Australia's big celebration of spring and runs through September and October, showcasing a million flowers in full bloom. The beautiful garden beds are to be found in Commonwealth Park on the shores of Lake Burley Griffin. Floriade 2013 promises to amuse all with roving entertainers, buskers, musicians, farm animals and a Ferris wheel. Floriade Nightfest will be held over five spectacular nights starting on 25 September, which coincides perfectly with the NSC. Features include amazing light shows, stand up comedy and music at Stage 88. The National Arboretum was officially opened in February 2013 and consists of 250 acres of landscaped gardens, a village centre, and the National Bonsai and Penjing Collection of Australia. There are a number of free guided tours throughout the arboretum.

As the garden city, there are a number of places for historians and garden lovers to visit

The surrounding regions of Canberra have a lot to offer visitors, whether attending the Congress or deciding to stay a little longer. The Snowy Mountains offer fantastic scenery, walks, skiing, accommodation and food, and are just over a two-hour drive south of Canberra. The cool climate wines of the region are becoming better known amongst wine connoisseurs with Clonakilla Winery probably the best known. For those new to NSW and driving down from Sydney, a stop in the Southern Highlands would make a pleasant break.

The social program begins early on Thursday morning with the first of the Congress bike rides, and hopefully two groups heading off into the hills or around the lake. Thursday evening will be a great time to catch up with friends at the healthcare industry cocktail party before heading off for dinner at one of the many excellent local restaurants. The Ottoman, Waters Edge, Courgette and Rubicon are always worth a visit.

On Friday, why not try spectacular hot air ballooning above the lake or participate in the Congress fun run, jog or walk around the lake, and finish with a coffee before the educational part of the day begins? The Australian Institute of Sport will host the NSC carnival night for old and young alike with activities to entertain all, from circus performers to snakes. Good food and wine, and two bands will ensure you dance the night away. Transport will be provided from select hotels and the National Conference Centre.

Saturday will begin with the second of the Congress bike rides for the more dedicated fitness fanatics, and will no doubt include a few of Canberra's more serious hills. We'll have an early start for the scientific program today, with the aim of finishing the ASA Annual General Meeting in time to watch the AFL Grand Final in the Exhibition Hall over a well-earned drink. The grand finale of the social events will take place later that day with the Gala Dinner being held in the impressive Great Hall of New Parliament House. Great food, fantastic wines and two superb bands together with good friends will make for a memorable last evening in Canberra. Transport will again be provided from select hotels and the National Conference Centre.

After the previous night's festivities, Sunday begins with a well-earned late (9am) start. The Congress will finish mid afternoon, following the entertaining hypothetical debate.

We urge all anaesthetists to attend the Centenary of Canberra ASA National Scientific Congress.

## FLORIADE 2013

Through the theme *Innovation—inspiration for the nation*, Floriade 2013 will pay tribute to the passion and creativity behind some of the capital's greatest national achievements.

As homage to the last 100 years, the garden beds featuring a million blooms will be strongly linked to the nation's stories and treasures, with the geometry of Canberra's original plan by Walter Burley Griffin inspiring the overall design of Floriade 2013.

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# INVITED SPEAKER ABSTRACTS

**PROF MARTIN SMITH, MBBS, FRCA, FFICM**
**QUEENS SQUARE, LONDON**

**Consultant and Professor in Neuroanaesthesia and Neurocritical Care, University College London Hospitals, UK**

## CARDIORESPIRATORY COMPLICATIONS OF HEAD INJURY

Cardiopulmonary complications are common after traumatic brain injury, and independently associated with increased mortality and worse outcome in survivors. They may occur as a direct effect of the brain injury (neurogenic causes), or as a result of side-effects of brain-directed therapy. Brain injury-induced catecholamine and neuroinflammatory responses are the primary mediators of neurogenic systemic complications.

The neurogenic stunned myocardium syndrome is a reversible, neurologically mediated cardiac injury caused by excessive noradrenaline release from myocardial sympathetic nerves terminals. It is characterised by ECG changes, arrhythmias, ventricular dysfunction and release of biomarkers of cardiac injury.

Neurogenic pulmonary oedema, on the other hand, is likely to be related to the brain injury-induced systemic catecholamine surge causing an increase in pulmonary capillary pressure, hydrostatic oedema, and endothelial disruption. Traumatic brain injury also results in an intense neuroinflammatory response and release of immunologically active mediators from the brain into the systemic circulation. The ensuing systemic inflammatory response syndrome is an important contributor to systemic organ system dysfunction and failure.

Neurogenic cardiopulmonary dysfunction may cause minimal clinical effects, but in severe cases can lead to cardiogenic shock, pulmonary oedema and acute respiratory failure. It may resolve spontaneously over hours or days, emphasising the importance of proactive management, including treatment of the underlying brain injury and general supportive critical care. The specific management of cardiopulmonary dysfunction presents a challenge because treatment of the failing systemic organ system may have potentially adverse effects on the injured brain, and vice versa.

This lecture will review the pathophysiology and treatment of traumatic brain injury-related cardiopulmonary complications.

## BEYOND THE BOLT—NEW APPROACHES TO MULTIMODAL MONITORING IN BRAIN INJURY

The monitoring of critically ill brain-injured patients has become increasingly complex. Several techniques are now available for global and regional brain monitoring; these provide an assessment of cerebral perfusion, oxygenation and metabolic status, and early warning of impending brain ischaemia. Some modalities are well established, whereas others are relatively new to the clinical arena and their indications are still being evaluated.

Given the complexity of brain injury, it is not surprising that a single variable or device is unable to adequately monitor all aspects of cerebral physiology and pathophysiology. Multimodality monitoring, including combined measures of cerebral perfusion, oxygenation and metabolic status, is often recommended to identify an extended window for the prevention, early detection and treatment of hypoxic/ischaemic neuronal injury and guide individualised treatment. Developments in multimodality monitoring have enabled a move away from rigid physiological target setting, to an individually tailored, patient-specific approach. Multimodal monitoring generates large and complex datasets; and systems that analyse and present information in a user friendly format at the bedside are essential to maximise its clinical relevance.

Technical advances are likely to lead to the development of non-invasive monitors that deliver continuous, multisite measurement of cerebral haemodynamics, oxygenation and metabolism over multiple regions of interest simultaneously.

This lecture will review the indications for monitoring, critically evaluate the different modalities, and identify future directions.

## THE PITFALLS OF TRANSLATING CLINICAL RESEARCH INTO CLINICAL PRACTICE

Evidence-based medicine is the application to clinical decision-making of the best available evidence gained from scientific method. Many systems have been developed to assess the evidence base, and the best take into account the clinical relevance of the research data as well as its quality.

## SESSION TIMES

Cardiorespiratory complications of head injury
Friday 27 September 2013, Royal Room, 1045–1215

Beyond the bolt—new approaches to multimodal monitoring in brain injury
Friday 27 September 2013, Plenary Session, 0830–1000

The pitfalls of translating clinical research into clinical practice
Thursday 26 September 2013, Royal Room, 1530–1700

Update in acute management of subarachnoid haemorrhage
Friday 27 September 2013, Nicholls Room, 1530–1700

While high quality randomised clinical trials are crucial in providing a robust evidence base, many published studies have significant limitations, including a lack of statistical power, insufficient blinding and multiple post hoc subgroup analyses. Reporting and publication bias are also commonplace, and a large proportion of evidence from human trials is unreported and unpublished.

Recent high profile cases remind us that research misconduct further distorts the evidence base, as well as misdirecting research efforts/resources, damaging public trust in science, and most importantly, risking harm to patients. The peer review process often reflects the confluence of investigator and reviewer bias and is patchy at detecting methodological defects, and virtually useless at detecting fraud. There has been an exponential increase in the numbers of papers retracted in recent years.

In the absence of a clear evidence base, there is increasing reliance on expert consensus guidelines. However, more than half the clinical practice guidelines are based on low (or absent) levels of evidence, and are often derived from the 'expert' opinion of the members of the guideline committee. In this way, a highly motivated group of experts is able to drive practice in an entire specialty.

This lecture will review the inherent problems with many clinical studies, the value of meta-analyses, the effects of research misconduct and the trend towards reliance on clinical guidelines.

## UPDATE IN ACUTE MANAGEMENT OF SUBARACHNOID HAEMORRHAGE

Aneurysmal subarachnoid haemorrhage (SAH) is a devastating disease with high mortality and poor outcome in many survivors. Early, aggressive resuscitation and multidisciplinary management is associated with improved outcome.

### Endovascular treatment options are effective in some cases

Definitive treatment of a ruptured aneurysm should be undertaken within 24 hours of the ictus to reduce the risk of rebleeding, and allow optimal haemodynamic control to prevent or treat cerebral hypoperfusion. Endovascular coiling of intracranial aneurysms provides minimally invasive and effective treatment, even in poor-grade patients. Once the aneurysm is secured, the ongoing management of SAH involves optimisation of systemic physiology, including glycaemic, temperature and seizure control, and the prevention and treatment of delayed cerebral ischaemia (DCI) and non-neurological complications.

DCI occurs in around 30% of SAH patients and is second only to the initial haemorrhage as a cause of morbidity and mortality. DCI has been related to cerebral vasospasm, but may also occur in the absence of vasospasm with other mechanisms, including vascular dysautoregulation, microthrombi, direct neurotoxic effects and cortical spreading depolarisation as likely contributors. Since DCI is delayed and may be reversible, it is an obvious target for preventative and treatment strategies.

Enteral nimodipine, a specific antagonist of L-type voltage-gated calcium channels, reduces the incidence of DCI, improves outcome after SAH, and should be administered routinely. Although triple-H therapy (hypertension, hypervolaemia and haemodilution) has been widely used to prevent and treat DCI, there is limited evidence to support this approach. Recent consensus guidance recommends that arterial blood pressure should be maintained at supranormal levels in the presence of a secured aneurysm, that euvolaemia (rather than hypervolaemia) should be the target, and that haemodilution has no place. Endovascular treatment options are effective in some cases of DCI resistant to medical therapy, and several pharmacological therapies, including statins, magnesium and endothelin-A antagonists, have also been investigated.

This lecture will review the pathophysiology and acute management of SAH, highlighting evidence from key clinical trials and recent consensus guidance.

# INVITED SPEAKER ABSTRACTS

**PROF COLIN MACKENZIE, MBCHB**
**UNIVERSITY OF MARYLAND, BALTIMORE**

**Professor of Anesthesiology, Associate Professor of Physiology, Univeristy of Maryland School of Medicine, Baltimore, MD, USA**

## NEW 'BIG DATA' APPROACHES TO TRAUMA OUTCOME PREDICTION

What if we could predict what was going to happen immediately following injury, but before it occurred in the field or within a few minutes of trauma centre arrival? Prof Mackenzie will review how near we are and what still needs to be done to achieve the unrealised goal of accurately predicting patient outcome following trauma.

He will show how, applying machine learning approaches including artificial intelligence and advanced statistical tools to continuous vital signs waveforms and numeric data at the pre-hospital, admission and resuscitation phases of trauma patient care, we are able to predict life-saving interventions with increasing accuracy.

Using one vital signs device (the pulse oximeter) we can identify need for transfusion and other life-saving interventions (intubation, chest decompression, emergency surgery etc) using pre-hospital or resuscitation data by defining 12 features of the photoplethysomographic waveform, abnormal heart rate and oxygen saturation. If we add point-of-care testing and other vital signs devices, we are approaching the Holy Grail of allowing software upgrades to existing devices that will 'call' ahead: to warn the blood bank; to advise the trauma team and operating team to start preparations for these interventions; to activate blood product processing to reduce the coagulopathy of trauma; and to coordinate other logistics for trauma patient reception and resuscitation.

## CURRENT AND FUTURE INTERVENTIONS FOR ACUTE CERVICAL SPINE TRAUMA

Cervical spine injury occurs most commonly at the C5/6 level with about one-third of injuries resulting in complete neurological deficit, one-third incomplete, and the remaining one-third with no neurological injury. For those with neurological deficit there are major cardiovascular and respiratory effects that are injury-level dependent. Cervical spine injury occurs predominantly in males between 15 and 34 years of age. Causes include motor vehicle crashes in the young, often associated with drugs and alcohol, and falls in the elderly. Sporting-related causes have a seasonal occurrence.

Prof Mackenzie will discuss the use of muscle relaxants, spinal shock and autonomic hyperreflexia, as well as emergency airway management techniques. Management and monitoring of the anaesthetised patient in spinal shock will include the effects of atropine and pacemakers in bradycardic patients, as well as the assessment of optimal cardiac function using fluid challenge techniques.

Exciting new interventions for acute cervical spine trauma management include discovery of the SUR1/TRPM4 channel; opening TRPM4 channels allows passage of sodium ions into the cell causing swelling, and is sensitive to intracellular adenosine triphosphate.

Channel opening is triggered by depleting adenosine triphosphate, a characteristic feature of ischaemia/hypoxia and injury. Administration of SUR1 receptor blockers, such as the Food and Drug Administration approved anti-diabetic drug glibenclamide, appear in animal and human clinical use to be able to reverse cell swelling and the cascade of secondary neurological injury. The studies conducted by Dr Marc Simard and others (J Clin Invest, Science, Nature Med 2007–2013) will be described, and the implications of the early results of clinical trials will be discussed in relation to future pre-hospital interventions

## VIDEO TASK ANALYSIS IN HEALTHCARE

Understanding the strengths and weaknesses of human performance under stress has direct implications for strategies to improve quality of healthcare and patient safety.

However, our knowledge of human performance in real, complex and dynamic environments, such as those found in clinical care settings, is limited. Studies of healthcare providers in their natural settings provide insight into how teams work under time pressure, with constant interruptions, and in suboptimal workplaces. This trend of increasing complexity of the medical workplace is not expected to diminish.

## SESSION TIMES

New 'big data' approaches to trauma outcome prediction
Thursday 26 September 2013, Royal Room, 1330–1500

Current and future interventions for acute cervical spine trauma
Thursday 26 September 2013, Royal Room, 1330–1500

Video task analysis in healthcare
Thursday 26 September 2013, Bradman Room, 1530–1700

HBOCs: myths, reality and the future ...
Saturday 28 September 2013, Plenary Session, 0800–1015

The potential uses of video recording for studying performance in high risk healthcare settings are difficult to overstate. The advances in hardware and software have made video technology a routine tool for research in individual and collaborative performance. Driven by advantages of video-based data collection techniques, a research program was initiated 17 years ago based on collection and analysis of video recordings made in the fast-paced, highly dynamic healthcare domain of trauma patient resuscitation (see www.hfrp.umaryland.edu and Mackenzie and Xiao 2011).

An increasing number of research and simulation projects include video recording as a key data collection method

Prof Mackenzie will illustrate, with real video clips, how critical events can occur during trauma patient resuscitation, invasive procedures (central lines and chest decompression) and emergency induction of anaesthesia. He will illustrate the ways in which many of these critical events have been mitigated, and will describe how some of the privacy and confidentiality issues have been overcome.

Detailed video task analysis techniques will be described to illustrate how critical events occur due to:

- inadequate verbalisation of problems,
- inadequate support in crisis situations,
- conflicting plans, and
- lack of task delegation.

An increasing number of research and simulation projects include video recording as a key data collection method. How this tool should be exploited methodologically and theoretically is thus a key question for researchers (Xiao and Mackenzie, 2004).

## HBOCs: MYTHS, REALITY AND THE FUTURE ...

Alternative fluids for treating acute anaemia may be required when blood is not available, or is refused in the face of ongoing haemorrhage. The term 'oxygen carrying solution' includes blood (fresh, stored, frozen and lyophilised) and cell free haemoglobin-based oxygen carriers (HBOC). HBOCs could be useful in the pre-hospital environment, military conflicts, disasters in the developing world, and in other situations, such as post partum haemorrhage, where blood is not readily accessible.

HBOCs could potentially replace the standard two to three unit red blood cell transfusions that 20–35% of all transfused patients admitted to trauma centres receive (Como et al. Transfusion. 2004; 44:809-813). HBOCs have only two functions: carrying and delivering oxygen, and augmenting blood volume. Potential reactions of free haemoglobin binding to endothelial and smooth muscle nitric oxide receptors are avoided by the red cell wall, which also prevent haemoglobin/tissue oxidative reactions and haemin/protein interactions causing aggregates.

There is no consensus on the underlying mechanisms of the toxicities of HBOCs that have undergone Phase III clinical trials (HBOC-201, MP4OX and Polyheme). Because these modified haemoglobin solutions are very different, a 'one-size-fits-all' mechanistic model for their toxicities is unlikely.

Prof Mackenzie will describe the clinical trial population, side-effects and toxicities of HBOC solutions that have undergone Phase III clinical trials. He will summarise the current controversies surrounding HBOCs since the publication of a flawed meta-analysis (JAMA 2008; 299:2304-2312) and a National Institutes of Health Consensus meeting in June 2008 (Anesthesiology 2009; 111:946-963) advocating a halt to clinical testing. He will summarise the risks/benefits of HBOCs for future clinical use.

# INVITED SPEAKER ABSTRACTS

**PROF MIKE GROCOTT, BSC, MBBS, MD, FRCA, FRCP, FFICM**
**UNIVERSITY OF SOUTHAMPTON, UK**

**Professor of Anaesthesia and Critical Care Medicine, University of Southampton, UK**

## LESSONS FOR ANAESTHESIA FROM EXTREME ENVIRONMENT PHYSIOLOGY

The practice of anaesthesia requires the ability to control elements of cardiovascular, respiratory and neuro physiology under conditions of varying physiological stress due to surgery and critical illness. Knowledge and understanding of integrative human physiological function under conditions of dynamic stress is therefore of value to anaesthetists.

... making use of the rich resources offered by 'omics approaches, and systems physiology and medicine, have the potential to revolutionise our views of causality in biological systems ...

However, there are few stressors that can be practically and ethically applied under controlled experimental conditions. Perturbations of the environment, along with exercise and some nutritional and pharmacological interventions, are the principal means by which we can learn more about the function of dynamic physiological systems and the interactions between them.

The development of high throughput analytical capabilities for a range of biological substances has led to the rise of the 'omics disciplines (e.g. genomics, proteomics, metabolomics etc) and present new opportunities in the investigation of physiological processes. Parallel developments in information technology and processing power have facilitated the rise of the fields of computational biology, systems biology and systems medicine. Together these techniques are, in turn, opening up new opportunities to study and understand multiple physiological systems interacting at multiple hierarchical levels. Recognition of the importance of 'emergent' phenomena within complex systems has led to new perspectives on causality in physiological systems.

Well designed and conducted human integrative physiology experiments making use of the rich resources offered by 'omics approaches, and systems physiology and medicine, have the potential to revolutionise our views of causality in biological systems, and offer great opportunities for the development of novel diagnostics and therapeutics for our patients.

## IV FLUIDS AFTER BOLDTGATE

The practice of fluid therapy in anaesthesia and critical care remains controversial despite a growing literature of large, high quality clinical trials (most notably from the southern hemisphere). Both the optimal dosing and formulation of intravenous fluids are subjects of debate. The evidence base has also been clouded by high profile research malpractice. So where does this leave the practicing clinician at the bedside?

The use of 'balanced' or 'physiological' crystalloids with a constitution similar to plasma is becoming increasingly prevalent, while the use of 0.9% sodium chloride solution is increasingly questioned (albeit, based on a limited evidence base). For the colloids the picture is less clear. Recent studies in critical care have called into question the safety profile of colloids in general, and starch based solutions in particular. At the same time, albumin administration in severe sepsis and septic shock may be undergoing a renaissance.

Extrapolating data from one context to another may result in harm, but adequate context-specific evidence is often lacking

It is increasingly clear that the context of administration of fluid (acute illness/injury vs established critical illness) may be as important in the choice of fluid as it is in the goals of resuscitation. Consequently, a 'one-size-fits-all' approach is less tenable. Extrapolating data from one context to another may result in harm, but adequate context-specific evidence is often lacking. Fluid therapy should be based on careful and rational choice of dose, and formulation of fluid by senior clinicians with the necessary familiarity with the evidence, clinical expertise and experience; not by junior staff without the relevant competencies.

## FIT-4-SURGERY

Physical fitness is an important determinant of perioperative outcome,

## SESSION TIMES

Lessons for anaesthesia from extreme environment physiology
Thursday 26 September 2013, Plenary Session, 0830–1000

IV fluids after Boldtgate
Friday 27 September 2013, Royal Room, 1330–1500

Fit-4-surgery
Friday 27 September 2013, Nicholls Room, 1530–1700

Exercise and hypoxic adaptation
Saturday 28 September 2013, Royal Room, 1045–1215

as less fit patients have higher incidences of morbidity and mortality after major surgery. Although the early work in this area was from Australia, the keenest proponents (and most of the evidence base) now derive from the UK.

Early studies focused on using physical fitness measures, often derived from cardiopulmonary exercise testing, as risk indices to guide intra and postoperative care. More recently, 'prehabilitation' physical training programs have been proposed as an intervention to improve postoperative outcome.

An additional variable is the use of neo-adjuvant treatments (chemo and/or radiotherapy) prior to cancer surgery. Recent data suggests that such approaches may cause harm to physical fitness, which in turn translates to adverse clinical outcome. It may therefore be that in some patients the tumour regression benefits of such treatments may be outweighed by the harms of diminished physical fitness.

The complex interaction between physical fitness, neo-adjuvant interventions and physical training in individual patients undergoing cancer surgery is likely to be an important area of research and clinical innovation in the coming years. The period around the time of surgery is characterised by increased focus on personal health along with multiple interactions with healthcare professionals, and may provide a particular opportunity for improving health in general, and physical fitness in particular. Pre and postoperative exercise interventions are likely to be of benefit to patients.

## EXERCISE AND HYPOXIC ADAPTATION

Exercise capacity is reduced following adaptation (acclimatisation) to high altitude. While it seems intuitively obvious that this should be so, due to the lower amount of oxygen available, blood oxygen content and oxygen delivery may be normal or supranormal if there has been sufficient time to adapt. Perhaps even more surprisingly, the fittest individuals at sea-level have the greatest fall in exercise capacity, both in absolute and relative terms.

The complex interaction between physical fitness, neo-adjuvant interventions and physical training in individual patients undergoing cancer surgery is likely to be an important area of research

The explanation for these changes does not lie in the macro-physiological domain of whole body oxygen delivery. Rather, at a tissue level there are multiple physiological changes, including adaptation of the microcirculation and mitochondria, that may explain the observed limitation. The endogenous vasodilator nitric oxide and its metabolites may be of critical importance in the development of these changes.

The determinants of exercise limitation at extreme altitude (>5800 m) are also unclear. While ventilation is often subjectively reported as the reason for stopping, it is not clear that this is a limiting factor. There is data to suggest that cardiac limitation may be important in some individuals. Central limitation of exercise performance may also be important, but is difficult to study in this environment.

# INVITED SPEAKER ABSTRACTS


## PROF TONY QUAIL, MBBS, PhD
## NEWCASTLE, NSW

**Professor at the School of Medicine and Public Health, University of Newcastle, NSW**


## DR WHO: INSIDE THE PHONE BOX IS REALITY, ALL ELSE IS UNREAL

The development of academic departments of anaesthesia in Australasia over the past 20 years was a deliberate strategy of ANZCA and the ASA to promote basic and clinical research. The creation of the Trials Group has been a success in providing important new knowledge. The rise of evidence-based medicine is considered the new best practice; but is it so that this practice of anaesthesia is primarily a function of hypothetico-deductive research of basic mechanisms combined with a less focused admixture of inductive reasoning? Attracting anaesthetists of all ages to research working 'inside the phone box', rather than in the 'unreal ether' outside, still remains a major challenge. In keeping with the theme of *Anaesthesia: Art and Science*, Prof Tony Quail puts the case for expanding a strong basic science research arm in modern anaesthesia training and practice in Australasia.

## ASTHMA SYNDROMES IN ANAESTHESIA

Management of the patient with background asthma continues to provide a challenge to the practising anaesthetist. Although modern preventative therapies have improved the optimisation of perioperative respiratory function, life-threatening crises still occur in these patients during anaesthesia. An understanding of the control systems regulating airway calibre and bronchial blood flow during normal activities remains highly controversial. The interaction of anaesthesia with these control mechanisms is also poorly understood. The development of a model to measure and analyse mechanisms changing airway calibre and bronchial blood flow has enhanced our capacity to understand mechanisms and interactions driving airway pathophysiology.

## THE ISCHAEMIC MYOCARDIUM AND ANAESTHESIA

Oxygen delivery to the myocardium has evolved from direct diffusion out of luminal blood in lower species, to the development of its own vasa vasorum (the coronary circulation) in higher species, including mammals. The myocardium 'lives on the edge' because of high oxygen extraction, with little reserve except by matching changes in demand with coronary blood flow. The autonomic nervous system interacts with local and humoral control mechanisms to defend oxygen delivery to the myocardial cell. The effects of anaesthetic agents on these control mechanisms have historically been described as 'friend' (provision of myocardial protection) or 'foe' (coronary steal). The interaction of anaesthesia with autonomic mechanisms in regional coronary demand is less understood.

## HYPOXIA AND ANAESTHESIA—ROLE OF THE CAROTID BODY

The effects of anaesthetics on the protective chemoreflex responses to hypoxia remain contentious. Since the 1960s, the sensitivity of the carotid bodies to hypoxia during anaesthesia has been described from being relatively unaffected, to the other end of the spectrum where the hypoxia 'watch dogs' are asleep. There is accumulating evidence that low concentrations of volatile agents, and other anaesthetic drugs in 'awake' patients under sedation, or during recovery, can attenuate the peripheral carotid body response to hypoxia. These effects on integrated chemoreflex responses to hypoxia are poorly defined, and are mediated by both peripheral and central nervous mechanisms. Uncertainty continues regarding the possible sites of anaesthetic interaction within the arterial chemoreflex arc.

### SESSION TIMES

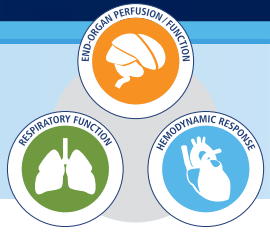
Dr Who: inside the phone box is reality, all else is unreal
Thursday 26 September 2013, Royal Room, 1530–1700

Asthma syndromes in anaesthesia
Friday 27 September 2013, Plenary Session, 0830–1000

The ischaemic myocardium and anaesthesia
Friday 27 September 2013, Nicholls Room, 1330–1500

Hypoxia and anaesthesia—the role of the carotid body
Friday 28 September 2013, Royal Room, 1530–1700

# A comprehensive system of **advanced monitoring solutions**

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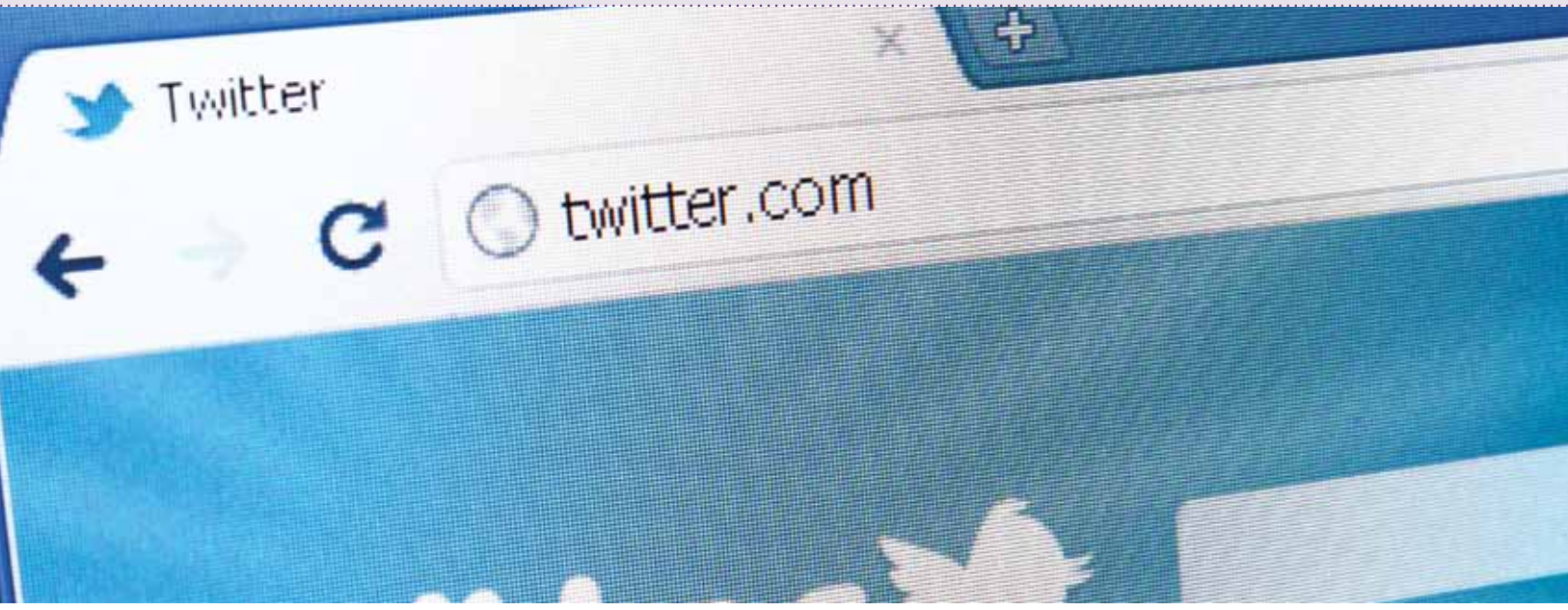
FEATURE




# TWITTER, THE ASA AND YOU

Twitter—it conjures up many thoughts and opinions, writes ASA Communications Manager Nicola Morgan. For many it is a Gen-Y fad of mindless celebrities telling us about what they just ate, their interpretation of the riots in Egypt ("aren't there just mummies and pyramids there?") and who looks terrible in last season's shoes.

Then there are those who only know about it because of its appearance in the news—anyone remember Stephanie Rice's comment from 2010, or the backlash against Qantas in 2011? In reality Twitter is much more than pointless babble.

## WHAT IS TWITTER?

In today's context, where people are constantly searching for the latest updates but have little spare time in which to do it, Twitter is the answer to keeping up.

Launched in 2006, Twitter is a free online social networking and micro blogging service that enables you to read and send short messages. Unlike email, where you need to select who you send the message to, Twitter messages sit on the website or 'feed' and enable people from all around the world to view your content. This also means you are able to choose the people and organisations you receive information from, enabling you to receive information only relevant to you.

Twitter allows you to easily select the information you want to explore. With over 500 million registered Twitter users globally, you can keep up to date with just about anything from sports teams, politics, news, popular culture and even farm animals' comings and goings (see @WeirdHorse).

## WHAT IS A 'TWEET'?

Tweets are text-based messages of up to 140 characters that users share. Users may subscribe to other users' tweets—this is known as 'following' and subscribers are known as 'followers'.

In reality Twitter is much more than pointless babble

There are two key symbols you will see on the ASA Twitter account that are important to understand. The '@' symbol means you are talking publicly about another person/organisation. For example, if we wanted to tweet something about the President we, as the ASA, would say '@ASA_President recently attended the Common Issues Group meeting in Canada'. The '#' or hashtag is a way to categorise messages, allowing you to

search for tweets with a particular category tagged. An example would be if the ASA President tweeted 'Disappointment in Canada as the Canadian Anesthesiologists' Society Conference was cancelled #Albertafloods'.

## WHY DOES THE ASA USE TWITTER?

The ASA has a variety of different methods of relaying information to our members, such as this magazine three times a year and the monthly President's e-news. Instead of spamming your inbox or having to wait for a publication's release, we often have information we want you to know now, and Twitter is a simple and quick way for us to communicate. We use Twitter for two key reasons:

- To quickly and easily disperse information to our followers on happenings within the organisation and the speciality.
- To keep abreast of other organisations, hospitals and, especially at this time, what the politicians have to say.

We also 'retweet' or re-announce other information we think is important for you to be aware of, such as updates from the AMA or ANZCA. We aim to ensure the information you receive is tailored purely to Australian anaesthetists.

## JOIN AND FOLLOW US ON TWITTER

So, if you want to keep up to date with what's happening at your Society, including the latest information on Medicare updates, submissions our policy unit have made, and upcoming events, we encourage you to follow us on Twitter. If you are not a member already, it's as simple as going to www.twitter.com, choosing a username (ours is @ASA_Australia) and your own unique password.

## GET CONNECTED

You've signed up, activated your account and started to follow friends, idols and


that one tragic celebrity we all can't get enough of. Now what?

### Follow

- @The ASA—This is the our official Twitter feed, where we aim to filter and categorise all anaesthesia and intensive care news relevant to you.
- @ASA_NSC—The ASA's National Scientific Congress (NSC) account for all news and updates on the 2013 NSC, held in Canberra this September. The @ASA_NSC will be providing a live feed during the event too, so if you can't make it (or can, but can't attend all talks), you can check in and see what you've missed!
- @ANZCA—The Australian and New Zealand College of Anaesthetists is great for any who wish to keep up to date with the College's movements.
- @ASA_President—This is ASA President Dr Richard Grutzner's Twitter account, and is a great way to get updates on what's going on between anaesthetist associations, and simply to hear what Richard is up to.

### Categories

- #Anaesthetics—will filter all tweets geared towards anaesthesia worldwide.
- #ASAAIC—will promote the *Anaesthesia and Intensive Care* Journal. Keep an eye on this one for updates and links to any articles published by the journal.

### Trending

- #ScraptheCap and @ScraptheCap—In light of the recent changes to funding for self education of medical professionals in Australia, this is a feed we feel is worth following. Including not only anaesthetists but all medical professions affected, this #tag and @ group will keep you informed of any changes and developments, as well as act as a platform for any to share their thoughts and opinions on the cap.

FEATURE

# TAX EFFECTIVE OPTIONS IN ADDITION TO SUPER

**The Government's recently announced changes to superannuation have again lead many high income earners to look for alternative strategies to compensate for their reduced superannuation options, writes Greg Lomax, CEO of Lomax Financial Group.**

Superannuation was originally hailed as the best long-term investment plan. Today it has been reduced from the heady days of tax deductible contributions of $100K per member down to $25K per member.

Additional imposts have been introduced to hit those earning more than $300K with a 15% surcharge on their contributions. On top of this, in the recent Budget the Government announced its intention to tax earnings of more than $100K per annum per member when in pension.

These two most recent changes will have to find their way into Legislation, which will prove difficult to draft and the tax even more difficult to collect. Furthermore, the increased complexity in the administration of superannuation funds may well be passed on to their members.

On a positive note, the changes include an increase in the concessional caps to $35K from 1 July 2013 for those over 60 and then the same increase for those over 50 from 1 July 2014. However, this is still a long way from the original concessions, which encouraged tax payers to maximise superannuation contributions as the main form of wealth creation.

Despite the inability of governments to keep their hands off superannuation it remains the leading wealth and taxation strategy available, although its effectiveness has been somewhat reduced. It is therefore prudent to look elsewhere for ways to complement superannuation and assist in achieving wealth creation goals and a sensible taxation benefit throughout your working life.

There are a number of ways of doing this and numerous scenarios that need to be considered for each individual's situation. However, there are three key measures to consider, alongside a superannuation strategy, to improve your taxation and potential to create wealth. These are negative gearing, margin lending and structured and protected investment.

## NEGATIVE GEARING

These strategies are typically used for residential property acquisition and are a relatively long-term investment. Not only can they provide effective taxation deductions, but they can also become a forced saving mechanism through principal and interest repayments on the loan. Interest rates are very low at the moment and attractive fixed five-year rates are available. Many are

finding that rental yields have increased significantly and even enough, in some cases, to exceed the interest cost being incurred on the loan. This, coupled with increasing prices and demand, has lead agents to feel quite deprived of stock in larger centres. If the property is to be sold, any capital gains tax can be payable at the marginal tax rate of the owner.

However, if a high income earner delays sale until they are receiving a non-taxable income stream from their super, then the tax impact of the capital gain can be much less.

Shares can be geared in a similar way, although the security for a loan to acquire them will generally be provided through a home-equity-type loan facility. Yields from good shares can be impressive with carefully selected stocks paying consistently high dividends coupled with the magic of franking credits.

## MARGIN LENDING

This is a similar longer-term strategy but the security for the loan is taken over the underlying shares. A deposit of about 35% is required. The lending ratio is constantly monitored by the lender and if there is a price reduction in the underlying share a margin call can be made to get the investor to introduce more funds so the lending and security ratio is not diminished.

## STRUCTURED AND PROTECTED INVESTMENT

This is usually more of a shorter-term investment of five years or less. Normally offered by investment banks, these products provide a loan for the borrower to buy into a managed fund that invests in certain types of products. These investments usually have the annual interest paid in advance and generally provide a guarantee that the investor will not have to repay any of the loan capital if the underlying investment drops in value. There are many of these products available and they have gained considerable popularity, typically just before the end of a financial year as investors hover for tax deductions. Structured products have certainly improved over the years and generally come with a prior Australian Taxation Office clearance, giving investors reasonable comfort about their acceptability with the regulator.

The tinkering with superannuation by governments makes the way ahead less than clear. Superannuation will always be the best plan overall, but additional well-advised strategies are essential considerations for all high income earners.

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# CAREERS IN ANAESTHESIA
# DEFENCE

Dr Michael Reade (MBBS, MPH, DPhil, FCICM, FANZCA) is currently the Defence Professor of Military Medicine and Surgery and a full-time specialist in the Australian Army.

Michael spoke to Publications Coordinator Jiyan Mustafa about both his work in Defence, including his deployments with the Australian Army, and his work in clinical research at the Royal Brisbane and Women's Hospital.

## HOW DID YOU GET INTO DEFENCE?

I joined the Defence force as a first-year medical student for all sorts of reasons. One, it was a good part-time job to have, better than working in a fast food restaurant. Two, I've got something of a strong military family history. I suppose thirdly, it sounds a bit trite perhaps, but it seemed like a worthwhile thing to do.

So things progressed from there. I did my initial officer training at the Sydney University Regiment and I was commissioned as a General Service Officer, not a medical officer. I spent my first four years after being commissioned as the troop commander of 30 soldiers, and then as a staff officer, which you might say is like a bit of an administration officer, working for Army headquarters. When I graduated as a doctor I transferred to the Royal Australian Army Medical Corps. I initially worked as a general duties doctor while I was doing my house officer and junior registrar years and then, as I became a more senior registrar, I was employed more in anaesthesia roles.

## WAS IT DIFFICULT TO PRACTISE IN THE MILITARY?

I suppose it does involve some time pressure, and here I think it's worth making a distinction between being in the Defence Force Reserve and being in the full-time Defence Force. Until taking on my current job, which is a full-time Defence job, I was in the Army Reserve for 21 years. Was being a Reserve medical officer difficult? Not really. I think the Reserve always understood that my civilian job, especially when I was a trainee, took priority over most of what they would want me to do. Nonetheless, it was a fair time commitment.

I described it to people as what you see in M*A*S*H—high intensity, high complexity battlefield trauma

At university I used to do about 80–100 training days a year, which averages about two days a week. As a junior doctor that dropped back to more like 20 or 30 days a year, and it was always possible to integrate that with the responsibilities that everyone has as a registrar or junior consultant. If you're employed by a state government health service, in every Australian state, you're entitled to at least two weeks of Defence Force leave on top of whatever other leave you might have. The main commitment you have as a Defence Force Reservist as an anaesthetist is to go away for a period of probably two weeks continuous training each year. With the extra leave you get to do that, it was really quite easy.

## HAVE YOU TRAVELLED MUCH IN YOUR ROLE?

I was very lucky, when I was in Oxford for my anaesthetic training and my doctorate, to be attached to the airborne medical unit of British Territorial Army (which is their equivalent of the Army Reserve). With them I was deployed to Bosnia in the post-conflict phase of the Bosnian war as a NATO peacekeeper. The year after I went to Kosovo in the immediate post-conflict phase of the war. Coming back to Australia in 2003 I went to East Timor as part of the UN peacekeeping mission and in 2004 I was deployed as part of the Regional Assistance Mission to the Solomon Islands, a peacekeeping force led by Australia. In 2009 I was the clinical director of the NATO hospital in Tarin Kot, Afghanistan, and also one of two anaesthetists and the only intensivist. My second deployment to Afghanistan is coming up later this year.

## IS PRACTISE IN THE FIELD DIFFERENT FROM THE NORM?

It depends very much on where you are. There's a wide spectrum of possibilities. In East Timor, by 2003 we were deployed, essentially, 'just in case' something happened and we really weren't very busy at all. In the two months that I was in East Timor I think I only anaesthetised three or four patients the entire time. Clearly very different to a busy civilian practice.

The other end of the spectrum was in Afghanistan in 2009, where we were seeing, well … I described it to people as what

you see in M*A*S*H—high intensity, high complexity battlefield trauma that was coming everyday and would occasionally keep us up day and night. I don't remember a day in Afghanistan where we didn't take at least two or three patients to theatre and there were days where we operated throughout the 24-hour period doing some pretty complicated work, which of course led to some pretty difficult patients in the intensive care unit.

I suppose you have some quiet days and some busy days in an Australian civilian hospital and to that degree the work's not terribly different, but it's obviously in a different context. You've got to be aware of where you are, which in East Timor just meant taking your malaria prophylaxis and making sure you didn't get bitten by a mosquito. In Afghanistan the threat was much higher which definitely made the environment very different to civilian practice.

## CAN YOU DESCRIBE ONE OF YOUR MOST REWARDING EXPERIENCES?

We had a suicide bombing attack in Tarin Kot which wounded … well, wounded and killed, many more people than we saw in the hospital. We had six patients arrive simultaneously at our very small hospital, which at the time only had one operating theatre. All six of these Afghans were very seriously wounded. As you can probably imagine, that put a lot of stress on our limited clinical resources. But we had trained for that, we had rehearsed mentally how we were going to triage such patients and we'd done drills to ensure that the right people were standing at the right place at the right time.

It took us about 12–16 hours to sort out this potential disaster. By the end of the day all the patients were still alive. The patients who needed to have initial wound surgery to save their life and then go somewhere else to have more complex specialist surgery were able to get on an aircraft in the right amount of time and the ones we could continue to look after in our little hospital all made good recoveries. I remember in the middle of the night sitting back with the other Australian doctors and nurses I was with, reflecting that it would have been nice to have a beer if we were allowed to, but of course we weren't. The feeling that we'd done what we were sent to do made that day characteristic of the most rewarding experiences I've had in Defence.

## CAN YOU DESCRIBE THE WORK/LIFE BALANCE?

Yes. You end up spending more time away from home than you otherwise would and that's not a great thing for your family and work/life balance, but the commitment is generally very flexible. If you're going to do more than around two weeks a year, you'd be volunteering to do that. If one year there is a really good reason for you to not go away very much, your kids are starting school or coming up to important exams and what have you, then the Defence Force Reserve will understand that and you can have an easy year, but perhaps pick up the slack on behalf of someone else another year.

## YOU HAVE MOVED INTO A CAREER IN CLINICAL RESEARCH NOW?

Yes, that's right. I'm very lucky to have a new full-time job that the Defence Force has recently created—that being the Defence Professor of Military Medicine and Surgery. My main job now is to lead a program of research that is relevant to military trauma medicine and surgery, and to help translate the improvements in trauma care into Defence Force practice.

I'm an investigator in a number of research projects that cluster around the management of severe bleeding. For example, I'm the chief investigator in an ANZCA-funded pilot study, run in conjunction with the Australian Red Cross Blood Service, of a new technology—the cryopreservation or freezing of platelets to extend their shelf life.

## CAN YOU EXPLAIN MORE ABOUT THAT?

Sure. Conventional platelets have a shelf life of five days, which means that they can really only be held in hospital blood banks that have a high and predictable platelet requirement. That really means only tertiary teaching hospital blood banks. If you sent platelets to outer metropolitan hospitals or those that are more rural and remote, almost all would just expire before they're used and there wouldn't be enough to go around. So if you're brought in after a car accident in the country and you're bleeding to death and you need platelets, or for that matter if you're brought into a Defence Force hospital in the middle of a war zone, you're probably not going to get a platelet transfusion. There is the option of getting fresh whole blood from a donor that you've called in specifically for the purpose.

The feeling that we'd done what we were sent to do made that day characteristic of the most rewarding experiences I've had in Defence

While 'emergency donor panels' are used by the Defence Force and some rural hospitals, mainly in Queensland, there are a number of problems with that system and it's probably not ideal.

We're not the only people to realise that this is a problem. More than 40 years ago the US Navy developed a technology for freezing platelets. That technology was picked up by the Netherlands Armed Forces. Because we were working in a Dutch-run NATO hospital in Afghanistan up until 2010, we were using the Dutch frozen platelets in our casualties, including in Australian soldiers and they seemed to work!

But no one has ever really accumulated enough clinical trial evidence for them to be registered by a civilian regulatory agency like the Therapeutic Goods Administration or the Food and Drug Administration in the US. There's been one clinical trial which suggested that they are

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more effective than conventional platelets and that they didn't do any harm, but that study was too small to be sure of those results. So with the help of ANZCA and the Blood Service we're going to conduct a pilot study in four hospitals in cardiac surgical patients.

I think the number of lives that could be saved would be really quite substantial

We've chosen cardiac surgical patients for a few reasons: they are the group of surgical patients who receive the most platelets, they are the easiest ones to study, and they can give consent before the operation. If the pilot study is successful we would then go on to do trial of what I would imagine would be a few hundred patients, aiming for TGA approval to get this technology into small Australian civilian hospitals and Defence Force hospitals.

The number of people who are going to ultimately be saved because of this technology in Defence Force hospitals, I hope, is going to be very small. However, if it gets TGA registration and the economics are right and it gets rolled out across the country, I think the number of trauma patients, the number of patients with gastrointestinal haemorrhage, the number of catastrophic obstetric haemorrhage patients who all present to smaller hospitals and who currently don't have a good therapy available to them …. I think the number of lives that could be saved would be really quite substantial.

## IS THIS TRIAL CURRENTLY BEING CONDUCTED?

Indeed. We had our first staff meeting at the Royal Prince Alfred Hospital in Sydney on 7 June and over the following weeks we did the same thing in three other hospitals—the Austin, the Royal Melbourne and the Prince Charles Hospital. And the Red Cross Blood Service tells us they'll have the platelets ready to use by about August; so I hope we're going to have the first patients into the trial by about September this year.

## IS YOUR EXPERIENCE IN DEFENCE THE RUN-OF-THE-MILL EXPERIENCE?

I suppose parts of it are. Let's say that an anaesthetic senior registrar decided that, as part of their consultant work, they wanted to have a part-time Defence Force practice. They'd sign on, perhaps as a senior registrar, and spend a couple of years doing all of the initial Defence training courses while they were finishing their specialist training. And when they graduated as a consultant FANZCA they'd have done all the military courses required to be deployable and they'd be able to do all the things I've done.

If we were still sending people to Afghanistan, they'd certainly be in the line to do that. However, operational deployments are obviously highly dependent on Government policy so, unlike an aid organisation like Médecins Sans Frontières, there are no guarantees of overseas service. Certainly they'd be expected to participate in the major exercise once a year in the north of Australia.

If they wanted to develop a research program that is relevant to the military trauma we now have a mechanism, through me, of facilitating that. They might want to run that program wearing their Defence hat, or they might want to wear their civilian anaesthetist hat. That'd be up to them, but they could do that if they wanted to.

It's probably worth saying too—we've been talking about careers up until now and I've been talking really only about Reservist careers. At the same time I was appointed a new scheme was introduced whereby specialists can work in the full-time Defence Force. We haven't had that in Australia for many decades. But now we've got a full-time anaesthetist and a full-time intensivist—who also has the FANZCA—employed by the Defence Force.

When Defence doesn't need them on a deployment or a major exercise they work at the Royal Brisbane and Women's Hospital. So they keep their skills up-to-date but they're supernumerary to the hospital staff and when Defence wants them, which is usually for about four months a year, they get taken out. So, in a sense, they are a Reservist in reverse, they have a part-time hospital career and a full-time Defence career as opposed to the other way around.

Those positions were established as a pilot scheme but our hope is that we'll be able to fill future positions by growing our own trainees. That is, people who join the permanent Defence Force, maybe after an undergraduate scholarship and their two years of civilian hospital training, who've then done 3–5 junior doctor years in Defence, will then return to the public hospital system as sponsored registrars. They'll do all of their registrar training as a Defence Force officer working full-time in a public hospital. When they qualify with the FANZCA, FCICM, FACEM or FRACS, they'd be employed full-time by Defence but seconded to a civilian hospital when they're not required.

## SO FULL-TIME SPECIALISTS ARE RELATIVELY NEW TO DEFENCE?

Correct. Those positions were established in January 2012, and we had our first intake of registrars in January 2012. There is currently one anaesthetic registrar who's in the full-time Air Force but works at the Brisbane Royal Women's hospital every day. When he graduates he'll be a full-time consultant anaesthetist in the Royal Australian Air Force. But he'll still probably spend most of this time working at a big civilian hospital; whether it's the Royal Brisbane or whether it's another big tertiary referral hospital will be a matter for negotiation with Defence.

## HOW WOULD YOU DESCRIBE THIS PROGRAM?

I'd start out by saying that I wouldn't even consider doing this unless you saw yourself as a Defence Force officer. Joining the Defence Force isn't an easy means to an end, like earning more money, or a more

stable lifestyle or any of those things—but if you understood and were attracted by what it was to be a Defence Force officer and wanted the opportunity to do the sorts of deployments and training I've described, then this is a good way of doing it.

The alternative way of course is the traditional path of starting as a Reservist, but I think taking the full-time path has a few characteristics that some would see as advantages. One, after you've succeeded in the competition for a training position, it means working at a large tertiary referral hospital. You'd have to want to work in a big tertiary referral hospital and I know that's not for everyone. Two, when you finish training, you have a guaranteed job. There aren't really any training positions now where you can say that you're going to graduate into a guaranteed staff specialist position. So Defence would be making that commitment to you. Of course you wouldn't spend all of your time working in a tertiary referral hospital because of course you'd need to work in the Defence Force as well, and the nature of that work is quite dependent on what Defence is engaged in. I expect in five or six years from now, which is what we're talking about, we won't be in Afghanistan anymore and the role might be entirely a training role for the Defence Force component of the time. But equally you never know what's going to happen between now and then. You might end up spending the whole year deployed overseas, but that'd be unlikely—the general expectation of the current team is about four months a year.

no one has ever really accumulated enough clinical trial evidence for them to be registered by a civilian regulatory agency

Up until very recently the income that you'd be earning would have been quite inferior to a civilian staff specialist, but in March 2013 the pay scales were revised significantly and essentially what you'd be paid for those early consultant years would be very similar to what you'd be getting as a staff specialist anaesthetist in a public hospital. So who would it be attractive to? I think someone who wanted to work in high-end tertiary referral hospital anaesthetic practice with a focus on trauma, who was comfortable with a little uncertainty with where they would spend a proportion of their year as a consultant and most importantly, who was comfortable with the added responsibilities of being a Defence Force officer as well as a doctor.

For someone who wasn't wanting to make that sort of commitment or who wanted a different type of anaesthetic practice, who potentially didn't see their future working in a tertiary referral hospital and doing a lot of trauma, I think the Defence Force Reserve has an enormous number of opportunities.

My own experiences have been in the Army, but the Air Force in particular has a very major role for anaesthetists. Anaesthetists, along with emergency physicians and intensivists, do all of the aeromedical retrievals. And they are some of the most challenging aeromedical retrievals there are—very complicated patients being flown halfway around the world in the back of a C-17 aircraft is not the sort of thing you'll ever get to do as a civilian aeromedical retrieval specialist. And the Navy has its own set of challenges—we're about to commission two landing helicopter docks which will have intensive care units and two operating theatres, and there's going to be a big role for Navy anaesthetists on those ships. So even if someone didn't want to sign up full-time, the Reserve has a lot of opportunities. Though, I still think I've got the best job in the hospital!

## CAREERS IN DEFENCE

If you'd like to find out more about becoming a full-time specialist in the defence force, go to www.defencejobs.gov.au.

*Caption*: Major Michael Reade and Lieutenant Rachuel Manning treat an East Timorese child at a clinic held in the Bobonaro district.
Photograph taken by Corporal Sean Burton.

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# ANAESTHETISTS IN TRAINING
# TIPS FOR THE FINAL EXAM

Dr Vida Viliunas (FANZCA) is a specialist anaesthetist currently working in both public and private practice in Canberra. She is also an examiner for the final fellowship exam. Here, Vida offers some advice to candidates facing the challenge of the final exam.

## WHAT DO EXAM CANDIDATES WANT?

Trainees ask questions regarding examination structure, preparation and performance.

In the absence of the actual detail of the next exam ... here are the answers to such questions from trainees.

## EXAM STRUCTURE

The ANZCA website contains information regarding the structure and mark allocation of all exam options—whether you are sitting the full exam or only certain sections (for international medical graduate specialists [IMGS]). It also describes the venue, what you can/cannot bring to the exam, and what is provided—make that your first stop!

## PREPARATION

There are a number of suggested resources:

1. The ANZCA website contains the curriculum, past exam reports, college documents and podcasts. Study these in detail.
2. Take advantage of every day at work: most examiners are full-time clinicians and most questions are developed from our professional lives. A day in the operating theatre is not a day away from study—it is a great way to add a clinical dimension to your preparation. Take advantage of this great opportunity to learn from your consultants, from your patients and from your peers. Question your every step and decision, and plan and evaluate these formally in an evidence-based way.
3. Study groups and exam preparation courses ensure that you have other candidates with whom to compare the depth and breadth of your preparation.
4. International medical graduate specialists will find the OTSAN organisation a great place to start (http://www.otsan.org). It offers support and specialised information for the needs of IMGSs.
5. The GASACT final exam workshop at this year's National Scientific Congress will be run by a current examiner—all candidates are welcome! Saturday 28 September, National Convention Centre, 8:30–10am (there will be a concurrent session for the first part exam).
6. An interactive webinar is conducted by a current examiner on the subject of exam preparation twice a year in February and June. All candidates are welcome to participate; please register via the ANZCA website (www.anzca.edu.au).

## PERFORMANCE

### MCQ

There is no substitute for practice with previous papers and other MCQ banks. All questions are of equal value and there is no negative marking ... answer every question!

### SAQ

Writing questions to time and having them marked by a third party is the secret to success in this section. Strict observance of time is vital. You are unlikely to improve your score by spending more than ten minutes on a question; you are very likely to score poorly in a question if you spend less than ten minutes on it (unless it is a topic on which you are very knowledgeable).

Construct your answer to reflect the reasoning and knowledge you are imparting.

Write legibly! If the examiner cannot read your response, it will not attract marks.

### Medical vivas

The aim of this section is to test the ability of candidates to assess medical (not anaesthetic) conditions.

The exam reports contain lists of the conditions with which patients present for this section. Read them.

Taking a targeted history and performing an examination within the allocated time takes a lot of practice. It is important not to just repeat the history given by the patient: your job is to synthesise that history and package it in a way that stratifies the disease, assesses the effects of treatments and places it in an appropriate context for the patient. It

helps to add which investigations might confirm diagnoses, determine effects of treatment, categorise the longitudinal progress or prognosis for the patient, or a threshold for a further intervention.

### Anaesthetic vivas

The anaesthesia vivas test communication, knowledge, judgement and decision-making skills.

Spend the two minutes of reading time composing a specific response to the question asked.

During the viva, justify decisions and investigations and relate them to the particular patient and context. When it is appropriate, collaborate/organise/mobilise and delegate. If you make a significant intervention (giving fluids or a drug), define the goal and endpoint that you are aiming to achieve. Acknowledge when a situation is difficult or unexpected (as opposed to a crisis, which is our role to anticipate and manage).

Remember: you are an expert in anaesthesia—when you have reached the limits of your excellent knowledge, seek clarification with directed consultation and questioning.

## WHY SHOULD YOU KNOW ANYTHING IF YOU CAN GOOGLE IT?

No machine can deliver the integration of content and context, and deliver a judgement of the sort that is demanded of an anaesthetist. It can house the pharmacokinetic and pharmacodynamic data regarding the drugs that we use, but it cannot give an anaesthetic.

Samuel Parr said, "It's always better to know a thing than not to know it".

I cannot remember the attribution, but it is also true that, "the harder you work the luckier you get".

The final examinations team works hard to create an exam that runs smoothly—do not hesitate to direct questions regarding the logistics of the exam to them by telephone or by email: finalexam@anzca.edu.au

## LIFE AFTER THE EXAMS

The exams are an enormous hurdle. After the pressure of the exams and a successful performance, you will have time to enjoy the pleasure of learning and improving your skills without having to conform to a ten-minute written question or a 15-minute viva.

Best wishes for every success in the exams.

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# WEBAIRS NEWS

The Australian and New Zealand Tripartite Anaesthetic Data Committee (ANZTADC) has made good progress with website development over the past six months, as well as the release of results in the form of presentations and publications, writes Adj Prof Martin Culwick (FANZCA).

This Web-based Anaesthetic Incident Reporting System (WebAIRS) article will cover:

- Recent and future presentations and publications,
- Recent alerts,
- Website development, and
- The release of the Australian and New Zealand Anaesthetic Allergy Group (ANZAAG) and website hosted by ANZTADC.

## RECENT AND FUTURE PRESENTATIONS AND PUBLICATIONS

There are currently 56 registered sites using WebAIRS, and at the end of June 1685 incidents had been reported and analysed. Data from these incidents were used in a recent presentation at ANZCA's Annual Scientific Meeting in May 2013. Topics discussed included errors associated with contingency drugs, management of anaphylaxis, and the potential for the use of mobile apps for crisis management. This presentation may be viewed from the logged-in user area of the WebAIRS website. WebAIRS interim data has also contributed to a paper titled, 'The introduction of pre-filled metaraminol and ephedrine syringes into the main operating theatres of a major metropolitan centre'. This invited paper has been submitted to *Australasian Anaesthesia*[1]. A further invited paper has been submitted to *International Anesthesia Clinics*, titled 'Incident Reporting at the Local and National Level', as a joint effort between ANZTADC and the Anesthesia Quality Institute[2].

## LESSONS LEARNED FROM CRITICAL INCIDENT REPORTING

At the 2013 ASA National Scientific Congress in Canberra in September, there will be a WebAIRS presentation titled, 'Lessons from critical incident reporting in anaesthesia'. This will include the interim analysis of data from the WebAIRS database, along with some practical examples of how to improve clinical care. In the same session, Professor Keith Ruskin will present 'Judgement, decision-making and risk management', and Professor Colin Mackenzie will present 'Video task analysis in healthcare'. Professors Keith Ruskin and Colin Mackenzie are both international invited speakers at the Congress.

## RECENT ALERTS

Alerts reported include:

1. A case of severe hypertension (systolic 240 mmHg) in a young, fit and healthy patient that developed in the recovery unit approximately 25 minutes after regaining consciousness following a short oral surgical procedure. Fortunately, the outcome resulted in only a temporary disability, as well as an unplanned admission to intensive care. However, in the short-term there was complete loss of consciousness and the next day, although consciousness had returned, there was still loss of power and sensation in one arm and the shoulder. Initial CT and MRI scans were normal as were the follow-up CT scan, MRI scan and EEG. The case was quite puzzling, and although the initial differential diagnosis had been that this might have been a sudden intracranial event, such as ruptured cerebral aneurysm, this was subsequently excluded on investigation. Possible causes of hypertension during anaesthesia include pre-existing hypertension, light anaesthesia or awareness, airway problems, drug errors and surgical factors[3]. Causes during recovery from anaesthesia might include pain, urinary retention, hypoxia, hypercarbia and anxiety[4]. None of these diagnoses appeared to be the problem, however, especially as neurological symptoms persisted to the next day. Other rare and uncommon causes of severe, sudden hypertension during anaesthesia include phaeochromocytoma, hyperthyroidism, malignant hyperthermia, raised intracranial pressure, or fluid overload[3]. None of these seemed likely, however, and most of these potential causes would have been likely to present earlier and probably during the case,

rather than postoperatively. The final diagnosis was a transient ischaemic episode. The cause of the episode was not clear, but one possible explanation suggested in the report was that there may have been an accidental intra-arterial injection when the local anaesthetic, which contained adrenaline, had been injected during the case. The symptoms appeared approximately 55 minutes after the local anaesthetic injection, so if this was the cause it was also a late presentation. It would be interesting to know if any readers have experienced a similar case.

2. Another alert related to an operating table extension that detached during a urological procedure. The extension had been added by a theatre technician, who noted a loud click when the extension was engaged into the slots in the body of the table. However, the technician was not aware that theatre extensions are not self-locking and require the locking pins to be twisted into place. This alert emphasised the need for operating theatre technician training, as well as familiarity with the specific requirements of each piece of equipment in the operating theatre.
3. A known drug user was absent for a short period of time from a birthing suite and returned showing signs of fluctuating consciousness. She later required spinal anaesthesia for an urgent caesarean section, which was performed without adding opioids to the local anaesthetic, due to concerns regarding recent illicit drug use. Postoperatively, a 'pain buster' local anaesthetic infusion was used for wound analgesia. Ten hours later, the reservoir was empty and there were signs of tampering with the reservoirs. The patient was warned against the dangers of ingesting or injecting local anaesthetic. The reporter noted that intralipid should be considered if a known drug user has a fit or cardiac arrest in similar circumstances. Another precaution is to always have a high index of suspicion that known drug users may tamper with infusions or cannulae, or self administer while in hospital.

WebAIRS thanks the reporters for these interesting alerts. We plan to release more de-identified alerts in future WebAIRS reports. ANZTADC will be grateful if future, unusual reports are flagged as alerts when reported. As this is the first issue where alerts have been published, there is a backlog of alerts reported to WebAIRS, which will be published in future issues of *Australian Anaesthetist*.

## WEBSITE DEVELOPMENT

The WebAIRS website now has a link to a demo program, where users can try out the system before registering. There are also links to assist with registration, and to answer frequently asked questions. Other news includes the release of the ability to use a single username (email address) to log into multiple registered sites. Previously registration required one email address per registered site. Other improvements include additions to the morbidity and mortality reporting tool.

## AUSTRALIAN AND NEW ZEALAND ANAESTHETIC ALLERGY GROUP

ANZTADC is also hosting the ANZAAG website on the WebAIRS server. There are great synergies with this arrangement, with reduction in cost for ANZAAG, as well as the possibility of sharing of information relating to anaphylaxis data. One of the early benefits for WebAIRS is the ability to link to the ANZAAG resources for anaphylaxis management. ANZTADC appreciates the excellent voluntary work that Patrick Crilly provided in programming the web pages, and that Dr Helen Crilly performed in coordinating the collection and presentation of the anaphylaxis resources. ANZTADC has assisted with creation of the master page, authentication of users, the menu system and the website framework, as well as setting up and providing the website hosting. As a result of this cooperation between ANZTADC and ANZAAG, anaphylaxis management cards and other anaphylaxis resources are available from the public area of www.anzaag.com, with links from the WebAIRS website.

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

Demo can be viewed at: www.anztadc/net/demo.

INSIDE YOUR SOCIETY

# ECONOMICS ADVISORY COMMITTEE

The Economics Advisory Committee (EAC) has been busy, with several submissions to Government and meetings in Canberra, Sydney and Melbourne. Committee Chair Dr Mark Sinclair explains.

## MEDICAL SERVICES ADVISORY COMMITTEE APPLICATIONS

The application for the introduction of Medicare Benefits Schedule (MBS) items for the use of ultrasound in association with major vascular access and nerve block procedures has reached the stage at which the Medical Services Advisory Committee (MSAC) will assess the available clinical and economic evidence. Representatives of the ASA met with MSAC staff in Canberra on 9 May 2013 to discuss this process.

MSAC offers all applicants a choice of either a submission-based assessment or a contracted assessment. The submission-based assessment would involve the ASA collecting and presenting the available evidence, whereas a contracted assessment involves the Department of Health and Ageing (DHA) engaging the services of a Health Technology Assessment (HTA) group to perform this task.

EAC was initially reluctant to agree to a contracted assessment, and intended to go ahead with a submission-based assessment. However, upon discussing the process with MSAC, it became clear that the detailed economic modelling required, and the manner in which it must be presented is beyond our scope and expert assistance would be required. This would, in all likelihood, be very expensive as well as time consuming. The HTA group is retained by MSAC specifically because of its expertise in this area and its experience in analysing MSAC applications. HTA assessments involve no financial cost to applicants. Therefore, the intention is to proceed with a contracted assessment.

Naturally the ASA is in a far better position than the HTA to present the clinical evidence for the benefits of ultrasound use, and this concern was made clear. However, EAC has been assured by MSAC that our input will be considered at all stages of the ongoing assessment process.

The applications for MBS items to cover nerve blocks performed for postoperative analgesia and complex initial pain medicine consultations will be considered by MSAC at its August 2013 meeting. These meetings are held quarterly to deal with all current applications for MBS funding. Following this, the ASA will be presented with a draft Decision Analytic Protocol (DAP) for each application.

As members will recall, the DAP is a discussion paper which presents a basic outline of the service in question and poses a number of questions regarding the clinical and economic evidence underlying the proposal. Members will also recall that the draft ultrasound DAP from 2012 was of poor quality, showing a clear lack of understanding of the practice of anaesthesia and requiring a large amount of work on our part to correct. We have made this concern clear to MSAC, but whether there will be any improvement remains to be seen.

## REVIEW OF MBS ITEMS

Besides assessing all applications for new MBS items, MSAC has also been given the task of reviewing existing items or groups of items. While numerous items from various specialties are currently under review, those of interest to anaesthetists are items 22055–22075 for cardiopulmonary bypass and perfusion services.

For some years, the ASA has been aware of the likelihood of this review proceeding. The DHA first formally addressed the issue in a discussion paper in 2010 as part of the Comprehensive Management Framework. This program, as previously discussed, is aimed at ensuring the MBS is up to date, and that existing items reflect appropriate expenditure of public funds. Cost savings are very high on the agenda. The ASA made a formal submission in response to this paper.

It is clear that detailed input from the clinical perfusion (non-medically trained) profession has been taken into account as this review proceeds. The ASA was identified, along with ANZCA, the Australian Medical Association (AMA) and other groups (e.g. cardiothoracic surgeons), as being a relevant stakeholder. However, the lack of communication has been very disappointing. In several instances the ASA has been left off the 'mailing list' and only received up to date information by chance. Furthermore, when our input has been given (e.g. the 2010 submission and a 2013 submission immediately prior to commencement of the formal review) it has been completely overlooked.

Decreasing cost is clearly the primary motive behind the initiative, as mentioned above, and the clinical perfusionists' proposal to have funding for doctors' services ('medical perfusionists') removed or severely restricted would certainly deliver this result. It is therefore not surprising, although nevertheless disappointing, that

the discussion papers released by the DHA in the lead-up to the review have strongly favoured the clinical perfusionists' views. In fact, many important points made in submissions during 2013 by the ASA and the National Association of Medical Perfusionists of Australia (NAMPA) were completely overlooked in the production of a paper released immediately prior to the first meeting of the Review Committee. Again, the opinions of the clinical perfusionists were certainly included.

The ASA will need to carefully monitor the progress of this and other relevant MSAC processes, such as the ongoing ultrasound, nerve block and pain medicine applications. By the time of publication of this edition of *Australian Anaesthetist*, a letter will have been sent to the Minister for Health and Ageing, placing our concerns about MSAC on record.

The Review Committee for perfusion items has now had its first meeting and members will be kept up to date with developments. Anaesthetists on the Committee include Dr Nigel Symons (ASA representative), Dr Andrew Jackson (ANZCA), Dr Joe Power (NAMPA) and Dr Liz Feeney (AMA).

## MEDIBANK HEALTH SOLUTIONS

ASA representatives met again with representatives of Medibank Health Solutions (MHS) on 29 April 2013 to discuss the funding of healthcare for Australian Defence Force personnel. The meeting was requested by MHS in response to a letter sent to MHS in April, outlining our concerns with the wording of the latest agreement doctors have been asked to sign, as well as the decrease in the unit value from $75 to $55.

Members will recall the widespread dissatisfaction with certain clauses in the agreement, for example those requiring doctors to inform MHS and/or the Department of Defence of details of patient treatment, or of adverse incidents, or patient complaints. MHS has indicated that these clauses will be modified or deleted. However, MHS is adamant that the unit value of $55 will not be altered. They also revealed that the unit value will be indexed in line with the annual indexation of the MBS Fee. This will essentially decrease the actual value of the fee year by year.

### MHS is adamant that the unit value of $55 will not be altered

At this time the ASA is still waiting for confirmation of these outcomes in writing. Meanwhile, the advice of the ASA remains unaltered; namely, that members are under no obligation to provide elective services to patients if they are unhappy with any aspects of the funding or administrative arrangements. While it appears that most accounts sent to MHS for $75 per unit, with no signed agreement between the anaesthetist and MHS, are still being paid, reports of difficulties continue to arise. Members are encouraged to contact the ASA if they have provided services for which no payment has been received.

## MEDICARE BILLING IN THE PUBLIC SECTOR

The ASA continues to receive a steady stream of queries regarding public hospitals requesting the Medicare provider numbers of salaried doctors so that the hospital can bulk-bill Medicare for certain patient services. Generally, the services in question have been outpatient consultations and diagnostic procedures, such as gastrointestinal endoscopy, but more recently the queries received have related to diagnostic pathology and imaging services.

Members are again reminded of several significant concerns, as outlined in a special article by Dr Mark Colson (Public Practice representative on EAC) in the April 2012 edition of the *ASA news:*

- All Australian citizens have the right to seek treatment in public hospitals as public patients and must be given this choice.
- In order for Medicare funding to apply to private outpatient services, correct processes must be followed. This includes referral to a specific practitioner, not simply a public hospital department.
- Bulk-billed Medicare funds represent taxable income to the doctor holding the provider number. An Australian Taxation Office (ATO) ruling is in place, according to which donation of these funds to a public hospital removes the taxation burden. However, the correct 'paper trail' must be in place. Additionally, ATO rulings are subject to change and changes can be applied retrospectively.
- Doctors, not hospitals, are entirely responsible for Medicare claims made under their provider number. If claims are incorrect or inappropriate, the Department of Human Services (DHS) will seek repayment of the money from the doctor, not any other party. An 'honest mistake' based on advice from the hospital is no defence.

For these and other reasons the ASA recommends that members seek independent legal advice if approached to participate in such schemes.

## MEDICARE NATIONAL COMPLIANCE PROGRAM

By now, all practitioners holding a Medicare provider number should have received notification from the DHS regarding the existence of this program and its aims. Additionally, targeted letters are now being sent to doctors who are 'outliers' for certain claim patterns or specific MBS item numbers.

As far as anaesthesia is concerned, the DHS is investigating outliers for complex attendances and consultations, after hours emergency items and high level time items. The ASA has assured the DHS that the vast majority of claims are appropriate and simply represent specific clinical interests or situations (e.g. a high number of after hours claims in rural and remote regions). The DHS accepts this, but will nevertheless continue to investigate all such cases. Members are encouraged to contact the ASA should they receive a 'targeted' notification from the DHS.

INSIDE YOUR SOCIETY

# OVERSEAS DEVELOPMENT AND EDUCATION COMMITTEE

Currently two billion of the world's population does not have access to emergency and essential surgical care, writes Overseas Development and Education Committee Chair Dr Rob McDougall.

## ACCESS TO SAFE SURGERY AND ANAESTHESIA WHEN NEEDED

In March, representatives from the Society, ANZCA, the Royal Australasian College of Surgeons (RACS) and the Pacific Islands met in Melbourne to plan how to improve access to safe surgery and anaesthesia for those who need it. We heard that each year there are an estimated 70,000 unnecessary maternal deaths, 175,000 excess deaths from road traffic accidents and 35,000 avoidable anaesthetic deaths. In addition there is significant total and permanent incapacity from untreated surgical disease.

Safe surgery and anaesthesia are not unaffordable luxuries. They should be seen as a basic human right and their absence represents a significant cost in terms of life and disability to the communities going without. There is an increasing number of studies suggesting that surgery and anaesthesia can be delivered effectively and inexpensively in low and middle-income countries, often at a similar cost ($11–35 per disability-adjusted life year averted) to measles vaccination, vitamin A supplementation or bed nets to prevent malaria. Therefore, the surgical management of injuries, infection, obstetric and abdominal emergencies and many deformities is cost-effective and thus potentially deliverable for all.

For many years the maternal mortality ratio has been used as an indicator of obstetric care and it has become a powerful political tool to lobby for increased care and resources for the management of pregnancy and delivery. The delegates at the March meeting felt surgeons and anaesthetists should seek agreement on an appropriate indicator in the form of a perioperative mortality ratio (POMR), which could be internationally accepted and adopted in a similar way to the maternal mortality ratio.

The key recommendations of the meeting were:

1. Adoption of the World Health Organization (WHO) standardised metrics for global surgical surveillance in Australia, New Zealand and the Western Pacific Region; and
2. Advocate for the wider adoption of the WHO standardised metrics for global surgical surveillance by all members of the WHO, through the World Health Assembly (WHA).

The WHO metrics include the day of surgery death ratio and the postoperative in-hospital death ratio. These ratios are indicators of both access and safety. Other access indicators such as the number of operating rooms and the number of surgical anaesthetic providers may also be used in surveying or reporting on anaesthetic and surgical service capacity and delivery.

The meeting agreed that the one-liner "Access to safe surgery and anaesthesia when needed" embodied our message to the profession, to the public, to governments and ministries. It was originally recommended by the organising committee of the Global Burden of Surgical Disease Symposium, held at the RACS from 27–28 September 2012, under the auspices of the RACS, the ASA, the Alliance for Surgery and Anaesthesia Presence, the Harvard Humanitarian

### FOCUS ON

- An estimated 70,000 unnecessary maternal deaths per year
- An estimated 175,000 excess deaths from road traffic accidents per year
- An estimated 35,000 avoidable anaesthetic deaths per year

Institute and the International Surgical Society. The one-liner's advantages are: it avoids being a slogan, is inclusive of surgery and anaesthesia and covers the concepts of essential and emergency surgery with "when needed", though this idea might sometimes require explanation. It is agnostic of whether surgery and anaesthesia are delivered by specialists or not, but highlights the right of patients to safe delivery of each.

if there is access to safe surgery and anaesthesia across the world, millions of lives will be saved

The next step is to encourage the collection of the POMR in our region as this will make advocacy for worldwide collection easier. This will be challenging in Australia due to the lack of uniformity of data collection from state to state, but may be easier in New Zealand and the Pacific. The path to global advocacy for the adoption of the POMR as the most important indicator for access to safe surgery and anaesthesia is via the WHA, which directs the WHO. Ministries of health in Pacific nations are well placed to lobby the WHA for the POMR to be included on the WHA agenda.

This approach was recently endorsed by the World Federation of Societies of Anaesthesiologists and equivalent surgical bodies are likely to support the campaign.

It is to be expected that if there is access to safe surgery and anaesthesia across the world, millions of lives will be saved and much disability averted—including mothers, their babies, those suffering with surgically remediable trauma, infection, congenital deformities, hollow tube obstruction and malignancy.

Measuring surgical and anaesthesia mortality does make a difference and results in improved quality of care.

It is clear that the ASA has a role in global advocacy through the Overseas Development and Educations Committee, due to our expertise in the development of anaesthesia in less affluent countries.

## MORE INFORMATION

A major focus of ODEC is to support and promote anaesthesia training in the Pacific. For more information please visit http://bit.ly/12p2VXE.

INSIDE YOUR SOCIETY

# HISTORY OF ANAESTHESIA LIBRARY, MUSEUM AND ARCHIVES NEWS

Dr Peter Stanbury (PhD) is Librarian of the ASA's Richard Bailey Library. Here, he comments on one of the rare books and associated papers currently found in this historic book collection.

## WHAT'S IN A BOOK?

While perusing a volume from within the ASA's Richard Bailey Library, one sometimes discovers more than just the published text. Many of the volumes contain inscriptions or autographs and some have inserted associated letters, reviews or articles.

During the preparations for the move of the ASA's head office to North Sydney, I recently came across the volume *Mysterious Waters to Guard* by Wesley Bourne, first published by Blackwell in 1955. As you can see from the image, the dust jacket is stained with water or some mysterious fluid, but inside a treasure trove of autographs and inserts awaits.

Firstly, the book is signed by Harry Daly and was presented to the Nuffield Department of Anaesthetics at the University of Sydney, dated 1963.

Secondly, there is a typed and signed letter from Dr M. T. Jenkins of the Southwestern Medical School in Dallas that acknowledges Harry's "tremendous contribution ... to the development of anaesthesia in Australia". Jenkins goes on to say that he was particularly honoured to meet Harry and wrote "this short but inadequate note to express my appreciation for all you have done".

Affixed to this letter is a newspaper cutting about the death of President Kennedy and his medical treatment at the Parkland Hospital, Dallas. Nearby, a note by Harry reads "Professor Jenkins was at the Hospital when the President, John F. Kennedy was admitted with a fatal head wound but was beyond resuscitation".

Also inserted is a dinner menu on the occasion of the Annual General Meeting of the ASA at Perth on Wednesday 9 October 1963. On the card are the signatures of 59 members and guests who attended that dinner. There were toasts to the Queen, the ASA and the guests.

In addition there are two other letters inserted into this volume. The first is a blue airletter from Frankis Evans, a prominent London anaesthetist who was on the honorary staff of Guy's Hospital London for many years. Harry originally wrote offering sympathy on the death of Evans' wife in 1963.

The second envelope contains two letters written on the letterhead of the *SS Strathmore* (P&O Orient Lines), from Henry Featherstone who was the first President of the Association of Anaesthetists of Great Britain and Ireland and for many years the co-editor of the *British Journal of Anaesthesia*. The letters are dated 2 and 12 March 1962. The first starts: "My dear Harry – or from one Harry to another". It thanks Harry Daly for his hospitality and invites him to dine at 21 Pyrmont Wharf. In the second letter the ship is on its way to Melbourne and thanks are tendered for an introduction to Gilbert Troup, who invited Featherstone to meet in Fremantle. He writes: "I have radio-ed acceptance with great pleasure"; and continues about visits to the Natural History Museum (now the Australian Museum) and the Royal Sydney Golf Club. This letter is full of praise for Harry and the Australian anaesthetists, but comments wryly:

*The enormous growth (and cost) of bureaucracy and the administration in our National Health Service (good as it is in many respects) may cause the authorities to regret that they have this vast service on their hands. The Earl of Dudley (the Duke of Windsor's friend) said many years ago, 'Back the Voluntary System. It is the best and cheapest hospital service in the world'.*

The Richard Bailey Library is open from Monday to Friday for all interested in history and the development of anaesthesia, or for those who wish to consult the latest issues of journals, though please note that these hours may change once the move to North Sydney takes place.

Wesley Bourne's *Mysterious Waters to Guard* and associated papers.

## WFSA Book and Journal Donation Scheme

Many anaesthesiologists in poorer parts of the world work without access to modern books or journals. In contrast many other anaesthesiologists have access to considerable amounts of educational material which is used for a short time and then discarded. If anaesthesiologists in one part of the world sent their books and journals to colleagues overseas, we could do much to reduce this imbalance.

The WFSA publications committee wishes to put anaesthesiologists who are willing to donate books or journals in touch with anaesthesiologists in developing countries who have requested this type of assistance.

- Donors who are willing to send (by surface mail) current journals and/or recent textbooks (published after the year 2000) to anaesthesiology departments in the developing world should send an email to the address below with details of what you wish to donate.
- If your department would like to receive books or journals please email or write to us and we shall do our best to help. Please give details of yourself, size of hospital and department, how many anaesthesiologists work in your department and which books or journals you have available.

**Contact WFSA Book and Journal Donation Scheme**

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# INSIDE YOUR SOCIETY

# AROUND AUSTRALIA

## AUSTRALIAN CAPITAL TERRITORY COMMITTEE

### Dr Guy Buchanan, Chair

The ACT Committee of Management meeting was held on 19 May 2013, and chaired by Dr Guy Buchanan. During the meeting, Dr Phil Morrissey agreed to represent the ACT on the Professional Issues Advisory Committee (PIAC). We look forward to hearing from Phil on PIAC matters. The Committee would also like to extend thanks to Dr Bruce Adendorff for his contributions to the Committee as a representative of salaried specialists. Nominations are now being sought for the position of salaried specialists' representative. During the meeting it was decided that the *Art of Anaesthesia* meeting will be held over until 2014.

Planning is progressing is well for the 2013 National Scientific Congress (NSC). In particular we would like to extend thanks to Dr Mark Skacel as Convenor, and all NSC committee members for their hard work in preparing what is going to be a fantastic meeting. We are looking forward to welcoming the wider anaesthesia community to Canberra this spring.

In other news, planning is ongoing for the ACT annual general meeting to be held on Monday 19 August 2013. It has been proposed that the meeting be held in series with the ANZCA ACT annual general meeting, to continue to encourage and support the cooperative relationship between the Society and the College locally.

The ASA ACT registrars prize session is planned for Friday 15 November 2013. The Committee is encouraging registrars to submit projects for consideration for the $500 prize. Competition was keen at the last prize session, and we are looking forward to reviewing another group of submissions.

## VICTORIAN COMMITTEE

### Dr Peter Seal, Chair

During the May meeting the Victorian Committee of Management welcomed aboard Drs Usha Padmanabhan and Zoe Keon-Cowen as the new Education Officers. In addition, Dr Michelle Horne has taken on the recently created position of New Fellows Officer.

On Monday 6 May 2013 at Radio Bar, Fitzroy, the ASA hosted an event for recent fellows during the ANZCA Annual Scientific Meeting. In excess of 20 attended the intimately retro venue in a relaxed environment. Anaesthetists just starting out were given the opportunity to tell their stories and experiences, as well as to receive some advice and tips from colleagues who were already established in specialist practice, ranging from a few to many years involvement in the workplace.

The oversupply of anaesthetic trainees was considered indepth, as was the lack of available positions in public hospitals and with various groups. There was acknowledgement that the problem had probably not yet reached its peak, but this was tempered by optimism in discussing successful strategies for coping.

The ASA Federal President, Dr Richard Grutzner, was present and addressed the gathering. The ASA considers it of critical importance to be supportive of those who have recently been attempting to join the consultant workforce. It is just as vital to be seen as demonstrating this advocacy. Drs Michelle Horne and Zoe Keon-Cohen were instrumental in the organisation of the evening. Feedback was positive and it is hoped that the evening can be repeated in early 2014.

The ASA organised the 34th annual ANZA/ASA combined continuing medical education meeting on 27 July 2013 at the Sofitel Melbourne. The theme was *MythBusting in Anaesthesia*, and the program explored myths in airway anaesthesia, paediatrics and monitoring, and featured a final session in which the pioneering discoveries in malignant hyperthermia from half a century ago in Melbourne were recounted and recognised. Drs Peter Seal, Usha Padmanabhan and Zoe Keon-Cowen were the co-convenors.

Discussions are currently in train about the appointments of a convenor and a scientific convenor for the 75th ASA NSC to be held in Melbourne in 2016. It is expected that these announcements will be made before the end of June. Stay tuned.

## TASMANIAN COMMITTEE

### Dr David Brown, Chair

Our mid-year meeting is coming up and will be held at the Freycinet Lodge within the Freycinet National Park, Coles Bay, on

the Tasmanian east coast from 2–3 August 2013. The focus was on current and future anaesthetic workforce and risk reduction strategies. Invited speakers included Drs Richard Grutzner (Federal President of ASA) and Andrew Miller (Deputy Chairman of ASA WA). We had sessions on critical incident monitoring, current workforce issues and a medicolegal session.

Planning is currently well underway for our major state meeting to be held at the end of February 2014. Professor Jose Carvalha, from the University of Toronto, is our invited speaker. His interests are in obstetric anaesthesia and ultrasound. Professor Carvalha intends to run a combined cadaver anatomy-ultrasound workshop during the meeting.

## WESTERN AUSTRALIAN COMMITTEE

### Dr Ralf Longhorn, Chair

We held a successful Autumn Scientific Meeting on 9 March 2013 at the club at the University of Western Australia. The meeting covered a wide variety of issues in relation to the theme, *All in a Day's Work*, focusing on day care anaesthesia. Dr Ken Sleaman opened the proceedings with a fascinating insight into the politics behind day care anaesthesia. Of particular note was the quality of the Nerida Dilworth prize session. Three registrars competed for the award and all three were worthy of winning, with Dr Nuki Alakeson just beating the others into first place. Her audit on availability of airway equipment in metropolitan anaesthesia sites has caused discussion in various MACs around Perth.

The Bunker Bay *Updates in Anaesthesia* meeting plans, to be held from 11–13 October, are ongoing. Along with convenor Dr Rupert Ledger, Dr Michael 'Monty' Mythen will be the plenary speaker. Registrations will be open soon and you can register your interest by emailing mroberts@anzca.edu.au.

In other news, our position of Vice Chairman has been filled. Dr David Borshoff has been active on our committee for some time and we welcome him into his new role.

## CONTINUING PROFESSIONAL DEVELOPMENT COMMITTEE

### Dr Vida Viliunas, Chair

The Continuing Professional Development (CPD) Committee has been busily working on the ASA CPD Management System, with the aim to launch a system better than the ones currently available for anaesthetists.

Due to technical issues, as mentioned within the President's e-news, the release of the system has been delayed.

The system, which is currently being developed, will be beneficial to our members as it:

- is a flexible system which is simple and easy to use by busy clinicians,
- will enable members to keep track of points and hours from multiple CPD sources, and
- will allow members to report on their self-directed CPD activities.

The ASA looks forward to providing further updates on this essential member service in upcoming ASA magazines. In the interim, we appreciate and thank you for your patience.

For further information on the CPD Management System, feel free to contact the CPD Team by calling 02 9327 4022 or emailing cpd@asa.org.au.

ASA CPD—let's make it easy!

## INTERACTIVE ANAESTHETIC MODULES ONLINE SUBCOMMITTEE

### Adj Prof Martin Culwick, Chair

Interactive anaesthetic modules online (iamonline) is currently undergoing an update to bring it in line with the new ASA continuing professional development (CPD) categories and levels. This has delayed the release of several new modules. These include:

- 'Anaesthesia and stress cardiomyopathy' by Dr Anand Rajan,
- 'Preoperative assessment' by Dr Paul Wigan, and
- 'Anaphylaxis' by Dr John Kerdic.

These modules will be released when the iamonline website is updated, which should be prior to the 2013 ASA National Scientific Congress in Canberra.

A new online version of case studies is also in development, and will be released before the end of the year.

iamonline has been working closely with the ASA CPD Committee to integrate with the CPD program. This will result in several benefits for ASA members performing iamonline activities. Firstly, the login system will be integrated with the iMIS member management system at the ASA, and the two systems will work together. Secondly, when an ASA member performs an iamonline activity, the credits will be sent directly to the iMIS management system so that the member no longer has to enter them separately. iMIS will also keep a record of the documentation of these CPD activities.

If members would like to submit a module based on a presentation they have given, CPD credits are available at Category 2, Level 2, at two credits per hour. If trainees wish to produce a module as a formal project please contact me via the ASA.

iamonline thanks Dr Catherine Downs for coordinating the production of several new modules, as well as Drs Anand Rajan, Paul Wigan and John Kerdic, who have submitted the new modules listed above. iamonline also thanks ASA IT Officer Sam Bonnefin for technical assistance during the integration of iamonline with the CPD database and iMIS.

INSIDE YOUR SOCIETY

# DR JUDITH A. WILLIAMS 1933–2013

Judith Anne Williams was born in Grafton in 1933, daughter of Charles and Gwen Williamson and sister of John. She was educated at Newcastle Girls High School and North Sydney Girls High School. She was a keen sportswoman and excelled in swimming, hockey and tennis.

She graduated in medicine from the University of Sydney in 1957, spending four years at Women's College where she made many deep and lasting friendships. She was a resident and registrar at Rachel Foster, Prince Henry and St George Hospitals.

She married Graham Williams in 1958 and accompanied him to England in 1962 as they both pursued their postgraduate medical degrees. Their son, Bruce, was born the same year she obtained the first part of her anaesthetic fellowship and she then worked at the Radcliffe Infirmary in Oxford.

They returned to Australia in 1966. Judith obtained her anaesthetic fellowship in 1967 and had her second son, Charles. She entered private anaesthetic practice with appointments at Rachel Foster, St George, Eastern Suburbs, Prince Henry, Prince of Wales and the Royal Hospital for Women. At all these hospitals she was actively involved in clinical teaching of residents and registrars.

Judith played an important role in many areas of medical and anaesthetic leadership including Chairman of the Sydney Home Nursing Service, Chairman of the NSW State Committee of the ASA (1982–1984), Member (1985–1988) and Honorary Treasurer (1986–1988) of the New South Wales Branch of the Australian Medical Association and a member of the Medical Services Committee.

Judith demonstrated her great leadership and political skills when the NSW Doctors' Dispute erupted in the mid 80s. As Chairman of the NSW ASA, Judith took a pivotal role in promulgating the views of anaesthetists to our politicians and our surgical allies. She was pragmatic and sensible, feisty and determined, yet understanding and conciliatory. Although this was a Federal Government dispute, with threats of nationalisation, most of the protest action, including mass visiting medical officer resignations, was confined to NSW. She turned the ASA in NSW into a savvy and well-organised entity that served us well. For her selfless and courageous efforts, she is owed a debt of gratitude by all ASA members.

Judith was a much-loved mentor and teacher to many anaesthetists. She would discuss all matters of medicine, the arts and rugby with equal knowledge and expertise. She was a great advocate of women in all areas of the workforce and urged women to not only break the glass ceiling but to shatter it.

After retiring from their Sydney practices, Judith and Graham moved to the family farm at Cumnock in the central west of NSW. Even in 'retirement', Judith threw herself into helping at Dubbo Base Hospital Anaesthetic Services with her usual enthusiasm and dedication. Her endeavours helped the hospital retain its accreditation with the College.

Her valvular heart disease declared itself in these latter years with Judith eventually succumbing to complications.

Judith was an extraordinary woman, intelligent, dedicated and a role model, able to achieve a work/life balance well before her time. An active leader in her field, she remained a devoted wife, mother and grandmother.

She is survived by Graham, her husband of 55 years, two sons and three grandsons.

*Dr Henry Liberman*

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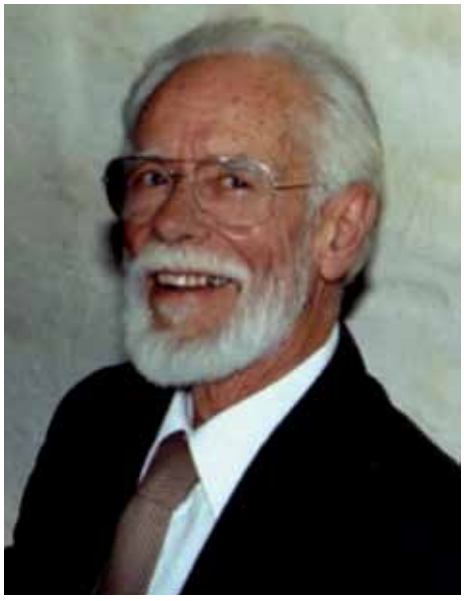
INSIDE YOUR SOCIETY

# DR TOM H. ALLEN 1923–2012



Tom Howard Allen was born on 9 May 1923 in Azamgarh, Uttar Pradesh. He died peacefully on 10 August 2012 at Summertown in the Adelaide Hills after a short illness surrounded by his family. He is survived by his children Jenny, Katrina, Kim and Diwani, six grandchildren and one great-grandson. His wife Elizabeth predeceased him.

The passing of Dr Tom Allen allows us to reflect and honour the memory of a pioneer of paediatric anaesthesia and intensive care, whose legacy we see every day in clinical practice. Tom was one of the first full-time directors of paediatric anaesthesia and he was pivotal in establishing modern clinical practices and training. With his colleague Dr Ian Steven he demonstrated in the 1960s that it was safe to secure the compromised airway in infants and children with endotracheal intubation via the nasal route using a poly vinyl chloride tube during an inhalation general anaesthetic with halothane. The established practice all over the world was to perform an emergency tracheostomy, often by inexperienced clinicians in suboptimal conditions, with mortality rates of up to 30%. This innovation paved the way for paediatric intensive care as we know it today.

Tom spent most of his early childhood in India where his father was a missionary, returning in 1936 to begin his secondary education at Prince Alfred College in Adelaide, matriculating in 1940. In 1941, aged 18, Tom enlisted in the Royal Australian Air Force and trained as a pilot. Tom served with distinction as a Spitfire pilot in 43 Squadron (The Fighting Cocks) throughout 1944–1945. The Italian Campaign included the provision of air cover based on Corsica for the invasion of the south of France on 15 August and some six weeks thereafter in France itself. In 2011, Tom attended the Duxford Air Show where incidentally his old squadron was holding a book launch about the history of the The Fighting Cocks. Tom was welcomed with acclaim and he was besieged by autograph hunters as one of the few surviving pilots present.

After the war, Tom studied medicine at Adelaide University where he met Elizabeth Miriam Shepherd who graduated as a teacher and they married in 1948. He was very athletic and won his club letters in athletics and a hockey blue. In 1946, he was a member of the South Australian state hockey team at the first post war interstate hockey carnival in Melbourne.

After two years of resident training at the Royal Adelaide Hospital and Adelaide Children's Hospital, respectively, Tom spent three years in Fiji, where his ability to speak Hindi was a very useful attribute as a general practitioner. He returned to the Royal Adelaide Hospital in 1958 as a registrar in anaesthetics. Early in 1962, he gained his fellowship and later that year was appointed as the Director to the Department of Anaesthesia and Resuscitation at the Adelaide Children's Hospital. Tom retired in 1982, having presided over 20 years of anaesthesia innovation, establishing the paediatric intensive care unit in the mid 1970s and paediatric retrieval services as far afield as Alice Springs and Darwin. He is credited with the first South Australian Air Retrieval. The Department of Anaesthesia and Intensive Care has become a respected and popular centre for paediatric anaesthesia training with a deserved national and international reputation. It was due to Tom's influence that all Adelaide anaesthesia trainees spent up to six months acquiring paediatric skills.

From 1960 onwards Tom's concern for children with epiglottitis, severe croup and other respiratory problems led him to manage the compromised airway first with tracheostomy by a trained surgeon under endotracheal anaesthesia. Prior to this the tracheostomy would be performed under suboptimal conditions in the ward with local anaesthesia only. Subsequently, from 1962 he and Dr Ian Steven developed prolonged

endotracheal intubation as an alternative to surgery. In this, Tom and Ian were greatly encouraged by Bernard Brandstater of the American University of Beirut, who was applying the same technique to a different group of patients—neonates with tetanus—in an effort to simplify intermittent positive pressure ventilation. This work led to Tom and Ian Steven's initial paper in the *British Journal of Anaesthesia* in 1965[1]. This was followed up with a study in 1972 documenting their successful experience with 330 children below five years[2]. In 1998 the *British Journal of Anaesthesia* marked its 75th anniversary with a search for the 50 most cited publications since 1945. It is significant that from this list the 1965 paper of Allen and Steven was one of the 12 citation classics chosen for re-publication.

More recently Tom Allen and Ian Steven were listed with Bernard Brandstater (Beirut), Alan Conn (Toronto), John Stocks and Ian McDonald (both Melbourne) as the pioneers of paediatric intensive care[3].

Tom was involved in many humanitarian missions and he eagerly embraced the opportunity to join a South Australian civilian surgical team to work among civilians in war-torn Vietnam and to teach three anaesthetic nurse trainees on the job.

After Tom's retirement in 1982, aged 59, he had time to pursue his other interests. His passions in retirement included land care on his property at Summertown, involvement with his local community, golf, photography, woodwork, jam-making, his regular lunches with 'The Dinosaurs' (a group of congenial retired anaesthetists) and involvement with his children and grandchildren.

He will be remembered as a kind and caring man, a wonderful clinician and teacher, adored by his children, their partners and his grandchildren and great-grandson and remembered fondly by friends and colleagues.

It was fitting that Tom's family chose as the epitaph for his memorial service: "A LIFE WELL LIVED".

## REFERENCES


1. Allen TH, Steven IM. Prolonged endotracheal inbubation in infants and children. B J Anaesth 1965; 37:566-573.
2. Allen TH, Steven IM. Prolonged endotracheal intubation in infants and children. B J Anaesth 1972; 44:835-840.
3. Brown TC. The early development of pediatric intensive care. Paediatr Anaesth 2012; 22:405-407.


*Dr Johan van der Walt*

# INSIDE YOUR SOCIETY

# NEW AND PASSING MEMBERS

The ASA would like to welcome all new members from March to June 2013.

## ORDINARY MEMBERS

| | |
|---|---|
| Dr Linda Aykut | VIC |
| Dr David Belavy | QLD |
| Dr Kimberley Anne Browne | VIC |
| Dr Emily Dickson | VIC |
| Dr Ian Forsyth | WA |
| Dr Anna Freney | NSW |
| Dr Douglas Gray | NSW |
| Dr Nicholas Peter Heard | QLD |
| Dr Claudia Higgs | NSW |
| Dr Pushpangadan Janardanan | SA |
| Dr Lip Yang Ng | WA |
| Dr Namita Jhamb Rakheja | NSW |
| Dr Fiona Reardon | NT |
| Dr Toni Maree Rentoul | NSW |
| Dr Nicole-Maree Sheridan | VIC |
| Dr Susannah Down Sherlock | QLD |
| Dr Richard Sorby-Adams | SA |
| Dr Stanley Tay | NT |
| Dr Ravi Tiwary | QLD |
| Dr Niraj Vishnoi | NSW |
| Dr Donna Leanne Willmot | SA |

## TRAINEE MEMBERS

| | |
|---|---|
| Dr Kate Barrett | VIC |
| Dr Camilla Bourke | WA |
| Dr Rachel Bourke | QLD |
| Dr Victoria Louise Byrnes | QLD |
| Dr Paul Cheng Loon Chan | VIC |
| Dr Daniel Chang | QLD |
| Dr Supriya Chowdhury | NSW |
| Dr Diana Da Silva | QLD |
| Dr Ashok Dharmalingam | SA |
| Dr Lucas Edwards | QLD |
| Dr Simone Fagan | QLD |
| Dr Alicia Jane Gauden | TAS |
| Dr Nicholas Gavaghan | ACT |
| Dr Adam Green | WA |
| Dr Louis Frederick Guy | QLD |
| Dr Anna Karen Hayward | WA |
| Dr Andy Chih-Wei Ho | ACT |
| Dr Kwok Fui Hor | WA |
| Dr Shane Anthony Kamphuis | QLD |
| Dr John Douglas David Lindsay | QLD |
| Dr David Liu | QLD |
| Dr Adam John Mahoney | TAS |
| Dr Nathan William McCubbery | QLD |
| Dr Daniel Gerard O'Callaghan | WA |
| Dr Sofia Padhy | QLD |
| Dr Scott Popham | QLD |
| Dr David Brian Anthony Rawson | WA |
| Dr Hannah Victoria Reynolds | QLD |
| Dr Jessica Natalie Smith | NSW |
| Dr Hani Tayeh | QLD |
| Dr Maryann Turner | QLD |
| Dr Megan Walmsley | NSW |
| Dr Shanthi Widana Pathirana | NSW |
| Dr Bradley Darryl Williams | QLD |
| Dr James Zi Feng Xian | NSW |
| Dr Winnie Yu | QLD |
| Dr Alexandra Elizabeth Zanker | SA |
| Dr Lee Zimmer | NSW |

## ASSOCIATE MEMBERS

| | |
|---|---|
| Dr Philip Lambie | NSW |
| Dr Ashutosh Singh | VIC |

## IN MEMORIAM

The ASA regrets to announce the passing of ASA members Drs Albert Pfeifer and Peter George Thomson, NSW, and Peter Eric Boon, OAM, QLD.

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

# Australian Society of Anaesthetists Membership Achievements

## Queen's Birthday Honours
## Member (AM) in the general division:

Dr Francis Xavier Moloney, Orange, NSW.
For significant service to medicine, particularly in anaesthesia.

## ASA Pacific Fellowships:

Dr Rhys Thomas, Lambton, NSW
Three-month fellowship

Dr Jamahal Luxford, Hawthorne, VIC
One-month fellowship

Every year, the ASA supports and funds three fellowship positions based at the Fiji National University Department of Medical Sciences. Visit the ASA website for more information.

ASA
*Australian Society of Anaesthetists*

# INSIDE YOUR SOCIETY

# UPCOMING EVENTS

## SEPTEMBER 2013

### Perioperative Medicine SIG Meeting

**Date:** 13–14 September 2013
**Venue:** Byron at Byron Resort and Spa, 77–97 Broken Head Road, Byron Bay, New South Wales
**Contact:** Hannah Burnell, ANZCA
hburnell@anzca.edu.au

### Combined Education, Management, Simulation and Welfare SIG Meeting

**Date:** 20–22 September 2013
**Venue:** Outrigger Little Hastings Street Resort and Spa, Little Hastings Street, Noosa, Queensland
**Contact:** Hannah Burnell, ANZCA
hburnell@anzca.edu.au

### National Scientific Congress

**Date:** 26–29 September 2013
**Venue:** National Convention Centre, Canberra, Australian Capital Territory
**Contact:** Robert Campbell, ASA
events@asa.org.au
**Website:** www.asa2013.com.au

## OCTOBER 2013

### Real World Anaesthesia Course

**Date:** 28 October–1 November 2013
**Venue:** Frankston Hospital Department of Anaesthesia, 2 Hastings Road, Frankston, Victoria
**Contact:** Dr Christopher Bowden, Frankston Hospital
bowdencc@hotmail.com

## NOVEMBER 2013

### Anatomy and Ultrasound for Peripheral Nerve Blockade Workshop

**Date:** 2 November 2013
**Venue:** University of Queensland, Brisbane, Queensland
**Contact:** Katie Fitzgerald, ASA
events@asa.org.au

### NSW GASACT Part 3 Course

**Date:** 30 November 2013
**Venue:** Sydney Harbour Marriott, 30 Pitt Street, Sydney, New South Wales
**Contact:** Katie Fitzgerald, ASA
events@asa.org.au

### WA GASACT Part 3 Course

**Date:** TBA November 2013
**Venue:** SJOG Conference Centre, Subiaco, Perth, Western Australia
**Contact:** Louise Burgess, ANZCA
lburgess@anzca.edu.au

### VIC GASACT Part 3 Course

**Date:** 16 November 2013
**Venue:** Kooyong Lawn Tennis Club, 489 Glenferrie Road, Kooyong, Victoria
**Contact:** Robert Campbell, ASA
events@asa.org.au

## FEBRUARY 2014

### Combined Meeting of the 14th Asian Australasian Congress of Anaesthesiologists and the 4th Australasian Symposium on Ultrasound and Regional Anaesthesia

**Date:** 21–25 February 2014
**Venue:** SkyCity Convention Centre, Auckland, New Zealand
**Contact:** The Conference Company, NZSA
info@aaca2014.com
**Website:** www.aaca2014.com

## MARCH 2014

### Obstetric Anaesthesia SIG Meeting

**Date:** 21–23 March 2014
**Venue:** Shangri-La Hotel Sydney, 176 Cumberland Street, The Rocks, Sydney, New South Wales
**Contact:** Lana Lachyani, ANZCA
llachyani@anzca.edu.au

For more information on events to attend, go to the ACECC website: www.acecc.org.au.

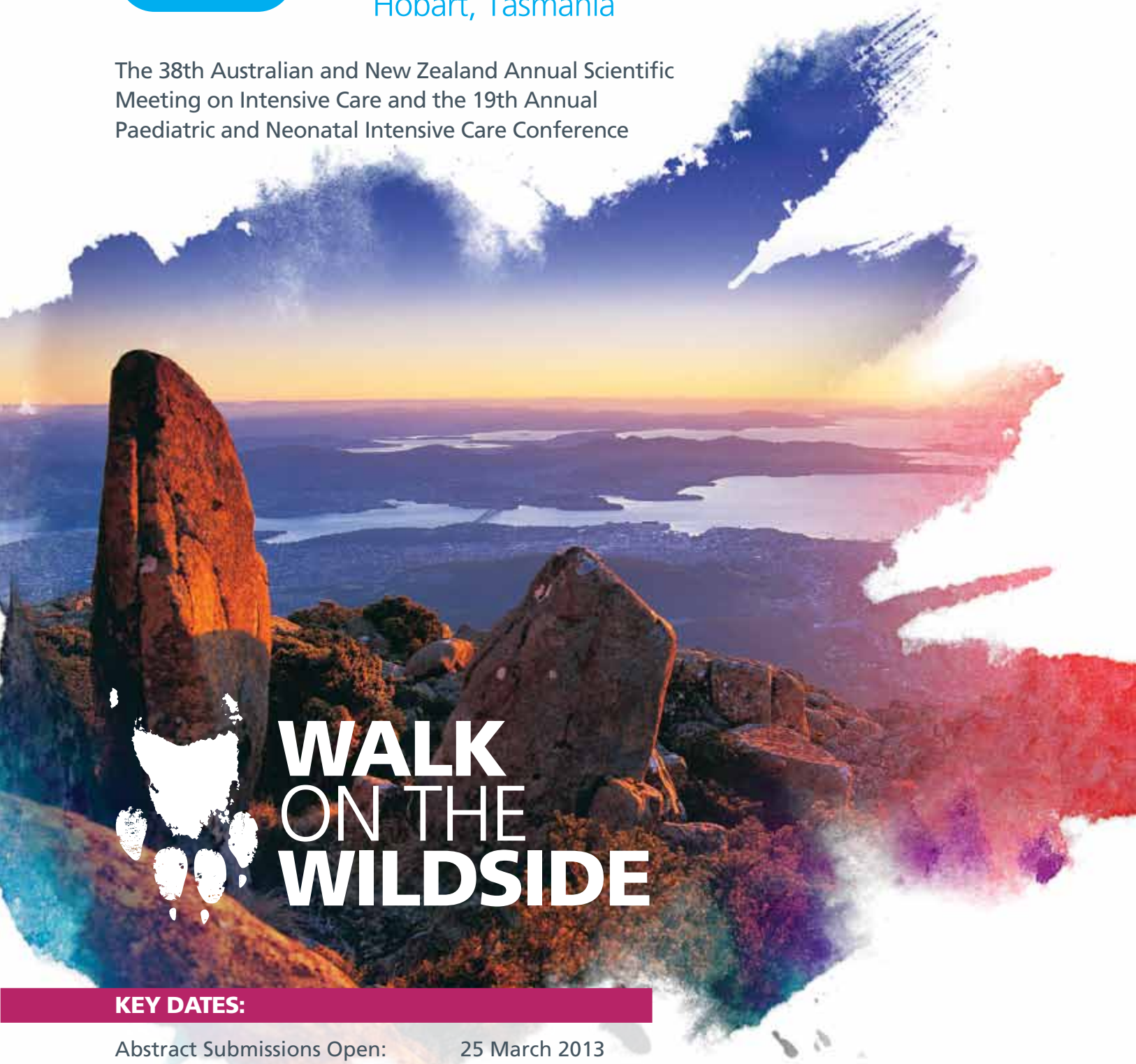
ACECC
Anaesthesia Continuing Education Coordinating Committee

# ANZICS/ACCCN Intensive Care ASM

**17-19 October 2013**

Hotel Grand Chancellor
Hobart, Tasmania

The 38th Australian and New Zealand Annual Scientific Meeting on Intensive Care and the 19th Annual Paediatric and Neonatal Intensive Care Conference



# WALK ON THE WILDSIDE

## KEY DATES:

| | |
|---|---|
| Abstract Submissions Open: | 25 March 2013 |
| Registrations Open: | 25 March 2013 |
| Abstract Submission Deadline: | 12 July 2013 |
| Early Bird Registration Deadline: | 16 August 2013 |

**www.intensivecareasm.com.au**

ANZICS

ACCCN
Australian College of Critical Care Nurses

# AUSTRALIAN SOCIETY OF ANAESTHETISTS NATIONAL SCIENTIFIC CONGRESS

## Anaesthesia – Art and Science

## 26 – 29 September 2013

## National Convention Centre, Canberra

# REGISTRATION NOW OPEN!

**Join us for:**

- Four information packed days
- Lectures, workshops and small group discussions
- Gala dinner in the Great Hall at Parliament House
- Carnival Night at the Australian Institute of Sport

**Register at: www.asa2013.com.au**

**Invited Speakers include:**

Professor Martin Smith
University of Central London, UK

Professor Colin Mackenzie
University of Maryland, USA

Professor Mike Grocott
University of Southampton, UK

Professor Tony Quail
Newcastle University, AUS

ASA
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ASA NSC CANBERRA
ANAESTHESIA: ART AND SCIENCE
26-29 SEPTEMBER 2013