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Duplicate publication

Questions have been asked recently about duplicate publication at the MJA. The short answer is that the Journal does not publish material for a second time. If you, as a prospective author, have a query about this, please consult with editorial staff before you publish any part of a paper in another format.

The Journal recently considered whether or not to publish a paper that had already been partly published on a university website. Editorial staff decided against this publication for two reasons. The first problem is copyright. The Journal requires full ownership of material that it publishes; full ownership would be compromised by prior publication on the website of a third party. The second problem is ethical: the Journal avoids publishing material that is not original. No form of plagiarism is acceptable; this includes self-plagiarism, where authors reuse text from one publication in another.

The International Council of Medical Journal Editors makes clear recommendations regarding duplicate submissions and publications in peer-reviewed journals (http://www.icmje.org/recommendations). A major problem with simultaneous submission of manuscripts to two or more journals is that this practice undermines the system of peer review.

The Committee on Publication Ethics has proposed some acceptable forms of secondary publication (http://publicationethics.org/resources/guidelines). The MJA may consider this possibility in exceptional circumstances. If you believe that secondary publication might be justified, please seek advice early.

Charles Guest
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doi: 10.5694/mja15.01102

A wounded Afghan boy, who survived a US air strike on a Médecins Sans Frontières (MSF) hospital in Kunduz, receives treatment at the Emergency Hospital in Kabul, Afghanistan. The attack killed 10 patients, including three children, and also 12 MSF staff. Foreign aid workers and Afghan colleagues shaken by the tragedy in Kunduz, one of the worst incidents of its kind in the 14-year war, say increased violence around the country makes it harder to provide basic services in a country where NGOs help provide the vast majority of health care.

Picture: Mohammad Ismail/Reuters/Picture Media
Duplicate publication
Charles Guest

Abortion law in Australia: it's time for national consistency and decriminalisation
Caroline M de Costa, Heather Douglas

Antibiotic resistance changing management of urinary tract infections in aged care
From NPS MedicineWise

InSight poll, top MJA InSight articles, top 5 MJA articles

Are some more equal than others?
Challenging the basis for prisoners' exclusion from Medicare
Tessa M Plueckhahn, Stuart A Kinner, Georgina Sutherland, Tony G Butler

Reducing the impact of coaching on selection into medicine
Barbara Griffin, Wendy CY Hu

Post-artesunate delayed haemolysis in severe imported Plasmodium falciparum malaria
Ruchir Chavada, Siong H Hui, Sean O'Connor, Satoshi Akima, Iain B Gosbell

Orbital myositis secondary to statin therapy
Bobak Bahrami, Saul Rajak, Dinesh Selva

Testing times! Choosing Wisely when it comes to monitoring type 2 diabetes
Jane Speight, Jessica L Browne, John S Furler

Breastmilk banking and the Mercy Health experience
Vikram Palit, Gillian F Opie

Presentations with alcohol-related serious injury to a major Sydney trauma hospital after 2014 changes to liquor laws
Gordian W Fulde, Myles Smith, S Lesley Forster
367 The extra resource burden of in-hospital falls: a cost of falls study
Renata T Morello, Anna L Barker, Jennifer J Watts,
Terry Haines, Silva S Zavanek, Keith D Hill, Caroline Brand,
Catherine Sherrington, Rory Wolfe, Megan A Bohensky,
Johannes U Stoelwinder

368 Survival after an acute coronary syndrome: 18-month outcomes from the Australian and New Zealand SNAPSHOT ACS study
David B Brieger, Derek PB Chew, Julie Redfern, Chris Ellis,
Tom G Briffa, Tegwen E Howell, Bernadette Alliprandi-Costa, Carolyn M Astley, Greg Gamble, Bridie Carr,
Christopher JK Hammett, Neville Board, John K French

369 Continuous quality improvement and metabolic screening in pregnancy at primary health centres attended by Aboriginal and Torres Strait Islander women
Melanie E Gibson-Helm, Helena J Teede, Alice R Rumbolci,
Sanjeeka Ranasingha, Ross S Bellie, Jacqueline A Boyle

Case reports

Lessons from practice

371 The dangers of diagnosing cystic neck masses as benign in the era of HPV-associated oropharyngeal cancer
Chris Watten, Sravan Anne, Minh Thi Tieu,
Bala subramaniam Kumar, Robert Eisenberg

Reflections

Best of Best

373 Travels with Charlie
John B Best

Dr Ross Ingram Memorial Prize

375 My journey from suit to skin
Sharnee M Townsend

377 Philosophy for ageing
Alexander K Cohen

MJA Careers

C1 Moving on up
Cate Swannell

C3 Around the universities

C4 Calendar of conferences in Australia

379 Poem The cloud
Jennie Fraine

MJA Podcasts: Dr Alessandro Demaio and Professor Jane Speight, on page 353

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References and appendices are available online at www.mja.com.au.
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Current Australian abortion laws continue to disadvantage many women

Abortion law in Australia: it’s time for national consistency and decriminalisation

It is almost 7 years since abortion was decriminalised in Victoria, where a doctor can now terminate a pregnancy at up to 24 weeks with the woman’s consent, and after 24 weeks with the agreement of a second doctor. This change has not resulted in increased numbers of abortions, which have remained stable over many years. Earlier, in 2002, the Australian Capital Territory had removed all criminal sanctions for abortion. Abortion was decriminalised in Tasmania in 2013; here a doctor may perform an abortion at up to 16 weeks with the woman’s consent, and after 16 weeks with the additional agreement of a second doctor. In all remaining Australian jurisdictions, a patchwork of differing abortion laws operate. Only in the ACT has regulation of abortion been removed completely from criminal law. These legal inconsistencies have significant ramifications for the access of Australian women to abortion.

Meanwhile, developments move apace in our understanding of fetal health, and in the diagnosis of fetal abnormality. Medicare-funded diagnosis of fetal abnormality is now routinely offered to all pregnant Australian women — with the implication that a woman may choose to terminate the pregnancy if a serious abnormality is detected. The rapid development of non-invasive prenatal testing (NIPT) — a high-level screening approach that analyses cell-free fetal DNA in the maternal bloodstream — will lead to increasing information about the health of the fetus becoming available to women and their partners very early in pregnancy, allowing earlier and safer termination of the pregnancy, should this be their choice. Greater awareness of the risks and social costs associated with multiple pregnancies has led to the selective reduction in the number of fetuses carried to term in such pregnancies, in order to maximise the prospects for a healthy birth.

Abortion laws, however, have not kept pace with these developments. Fetal abnormality is specifically discussed in the legislation in Western Australia, South Australia, Tasmania and the Northern Territory, and covered by the decriminalisation of abortion in Victoria and the ACT; in practice, however, late abortion is restricted by health regulations in WA, SA and the NT. In Queensland and New South Wales, the law does not refer to fetal abnormality at all. The result of these differences is continuing and excessive abortion “tourism” from all Australian states to Victoria, and overseas, in the face of barriers to access to abortion.

Barriers to access

Although mifepristone is being used in accredited hospitals throughout Australia for second trimester abortions on the grounds of fetal abnormality (and many private practitioners and clinics also use it for early medical abortion), access to the drug is very difficult for rural women, especially in SA and the NT, where, by law, abortion can only be performed in designated hospitals. Where services are provided, the access of women to these services is often hindered by verbal and sometimes physical harassment outside clinics. Attempts to curtail protesters’ activities have, to date, been unsuccessful, generally because of the protesters’ implied rights to freedom of political communication. To address this problem, Tasmania introduced mandated exclusion zones around clinics in 2013, prohibiting a range of behaviours “in relation to terminations” within 150 metres of an abortion clinic.

The High Court of Australia has provided a two-step test to determine whether the implied right to freedom of political communication has been invalidly curtailed by a particular law. Step one assesses whether the law effectively burdens communication about the federal government or political matters. In those cases where it does, step two requires a determination on whether the law remains valid because it is reasonably appropriate and adapted to serve a legitimate end. Constitutional law scholars generally agree that the Tasmanian provision can withstand any High Court challenge.

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While doctors have the right to conscientious objection to performing an abortion, this objection should not restrict the access of women who consult them to procedures they need. Victorian abortion law reflects this balance, requiring the objecting doctor to refer the woman to a health practitioner who is known to have no conscientious objections to abortion.

Another challenge is the lack of a national data collection of abortion statistics that would assist in ensuring the delivery of appropriate abortion and family planning services, and enable policy makers and law reform agencies to track the effects of changes in law and policy on abortion practice. While statistics are collected in SA, WA and the NT, only the figures for SA are publicly available. This lack of statistics also means that figures for interstate abortion “tourism” are imprecise.

The Victorian review of abortion regulation

The most comprehensive review of abortion regulation was undertaken by the Victorian Law Reform Commission (VLRC) in 2007–2008. The Victorian parliament responded to the VLRC report by not only decriminalising abortion but also by introducing reforms that place the responsibility for decision making with the woman, or the woman and her doctor, and that for service availability with the medical profession; that is, by regulating abortion in the same way as other medical procedures. Together with the inclusion of the Tasmanian anti-harassment provision, the Victorian legislation might be seen as providing a viable model for the rest of Australia.

In 2015, there is an urgent need for legislative uniformity across Australia so that the law is in step with modern medical practice, and so that women, regardless of where they live, have equal access to abortion services.

Competing interests: No relevant disclosures.

Provenance: Commissioned; externally peer reviewed.

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References are available online at www.mja.com.au.
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Antibiotic resistance changing management of urinary tract infections in aged care

In the lead up to the global Antibiotic Awareness Week (16–22 November), it is timely to focus on the fact that bacterial infections that were once easily cured with antibiotics, such as those affecting the urinary tract, are becoming harder to treat.

Urinary tract infections (UTIs) are common in adults, and are prevalent in both hospital and community settings. Escherichia coli bacteria — responsible for 80%-90% of uncomplicated UTIs — can display multidrug resistance.

UTIs can result in significant symptoms. When these are present, antibiotic treatment is typically indicated. However, for many people, including those in residential aged care facilities, asymptomatic bacteriuria has not been shown to be harmful. For this reason, routine testing for, or treatment of, asymptomatic UTIs in residential aged care facilities is not beneficial, except in catheterised patients at risk of complications, such as those with neutropenia.

Promoting the appropriate use of antibiotics for UTIs is an important consideration for residents in aged care facilities as excessive use — in the context of asymptomatic bacteriuria — may be contributing to the high prevalence of multidrug-resistant E. coli seen in this group.

Testing zero-gravity genomics in “vomit comet”

Nature reports that geneticists from Johns Hopkins University have successfully performed genetics experiments onboard NASA’s reduced-gravity aircraft — known as the “vomit comet” — to see whether astronauts will be able to sequence their own DNA during future long-term spacelights.

The researchers tested two key tools in zero-gravity: one might aid long-term storage of genetic material; another is a small, transportable genetic sequencer, known as a MinION. They also tried three pipetting methods on their flights — best results came when they used a small plunger inside the pipette, which touches the sample directly, ensuring that no air gets in. “And the pipette’s tip is small enough to avoid raising the surface tension, which would let fluid escape up the tube.” One of the researchers, Andrew Feinberg said: “I really have to give NASA huge credit in allowing us to do this”, he says. “They’re very curious people. They really want to know.”

Taking off protective clothing spreads germs

A new study in JAMA Internal Medicine shows 46% of carefully removed protective clothing still showed contamination with a fluorescent lotion used to simulate germs or other dangerous matter. The Washington Post reports: “Researchers set up a simulation that involved asking doctors, nurses and other health-care personnel at four hospitals to put on their standard gowns, gloves and masks and smear themselves with the lotion. After the participants carefully removed the protective equipment as they usually would, the researchers searched their bodies with a black light, and broke them down by asking very targeted questions. Unsurprisingly, you get back very targeted, narrow answers.” The data are “suggestive and highlight Twitter’s possible use as a way to supplement... surveys to improve quality.”

Mexico’s soda tax produces drop in sales

Two years after it was passed into law, Mexico’s so-called “soda tax” is showing solid signs of reducing sales of sweetened drinks, reports The New York Times.

“In 2012, NPS MedicineWise began a 5-year campaign to reduce antibiotic prescribing in Australia, to bring it in line with the OECD (Organisation for Economic Co-operation and Development) average. The campaign encourages all Australians to use antibiotics responsibly. For health professionals, this means the judicious use and prescribing of antibiotics, and adherence to the principles of antimicrobial stewardship.

Health professionals can consolidate their knowledge on treating UTIs and minimising antibiotic resistance, and brush up on current guidelines and practices at www.nps.org.au/utis.

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cot 10.5694/mja15010005

From NPS MedicineWise

Patient tweets give insights into hospital experiences

A study published in The BMJ collected more than 40,000 public tweets directed at the Twitter handles of nearly 2400 hospitals in the US between 2012 and 2013, FierceHealthcare reports. “They then tagged 34,735 patient experience tweets directed at 1726 hospital-owned Twitter accounts, and broke them down by sentiment (positive, neutral, negative) and then put them into topical categories, such as time, communication and pain.” Lead researcher Jared Hawkins from Boston Children’s Hospital said: “We were able to capture what people were happy or sad about, in an unstructured way. None else is looking at patient experience this way because surveys ask very targeted questions. Unsurprisingly, you get back very targeted, narrow answers.” The data are “suggestive and highlight Twitter’s possible use as a way to supplement... surveys to improve quality.”

Cate Swannell doi:10.5694/mja1501002

News
MJA News

MJA Insight Poll
Do you think a revalidation scheme for Australian doctors will help to identify poorly performing doctors?
Total respondents: 103
- Yes – it will make a difference
- Maybe – it’s not clear how it works
- No – evidence is lacking

Take part in next week’s poll on: www.mja.com.au/insight

Top 5 MJA articles online
since 29 September 2015
1) Research: Trends and characteristics of accidental and intentional codeine overdose deaths in Australia
   Codeine-related deaths are increasing as the consumption of codeine-based products increases
doi:10.5694/mja15.00183
2) Perspective: Medical cannabis: time for clear thinking
   doi:10.5694/mja14.01573
3) Case report/Notable case: Catecholamine-induced cardiomypathy resulting from life-threatening funnel-web spider envenomning
doi:10.5694/mja15.00279
4) Clinical focus: Recent advances in type 1 diabetes
   doi:10.5694/mja14.01591
5) For debate: Unconventional natural gas development and human health: thoughts from the United States
doi:10.5694/mja15.00231

Meanwhile, in MJA InSight...

Smoking prisoners need support
“We have to look at the social situation people return to after they leave prison, including their housing situation and whether there are other smokers in the home” — Associate Professor Sophia Couzos, public health physician and GP based at the School of Medicine and Dentistry at James Cook University

Laparoscopic caution urged
“But, at the end of the day, we didn’t show laparoscopic surgery to be non-inferior to open surgery” — Dr Andrew Stevenson, chief investigator for the Australian Laparoscopic Rectum Trial (ALaCaRT)

Consent laws thwart research
“What we need is a consistent approach, [through] a review of the whole process of governance and consent. We need to have a national process” — Professor Bala Venkatesh, principal investigator for the ADRENAL trial into the use of hydrocortisone in critically ill patients with septic shock

MJA Podcasts

Dr Alessandro Demaio
Dr Alessandro Demaio is the cofounder of the global social movement, NCDFree. He has spent the past 2 years travelling the world spreading the message that non-communicable diseases are not diseases of laziness, but diseases of inequity. He has just been appointed to the World Health Organization in Geneva, to continue his work on global non-communicable diseases and nutrition.

Professor Jane Speight
Professor Jane Speight is Foundation Director of the Australian Centre for Behavioural Research in Diabetes, Diabetes Victoria. She is the lead author of a Perspective in this issue on the monitoring of type 2 diabetes. She discusses the value of the self-monitoring of blood glucose levels in people with non-insulin-treated type 2 diabetes.


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MJA 203 (9) • 2 November 2015

353
Testing times! Choosing Wisely when it comes to monitoring type 2 diabetes

Harnessing the value of self-monitoring of blood glucose among people with non-insulin-treated type 2 diabetes

According to the Royal Australian College of General Practitioners, made only one about diabetes. This was: “Don’t advocate routine self-monitoring of blood glucose for people with type 2 diabetes who are on oral medication only.”

Originating in the United States, Choosing Wisely is a laudable global movement encouraging clinicians and consumers to question the use of unnecessary medical tests, treatments and procedures.

In the US and Canada, Choosing Wisely recommendations for diabetes have focused similarly on restricting SMBG strips for people with non-insulin-treated T2D; in the United Kingdom, recommendations are expected in late 2015.

Despite nuances of language in these international recommendations, SMBG among people with non-insulin-treated T2D is clearly a “hot topic”.

The evidence base indicates...

In 2012, two highly influential systematic reviews — a Cochrane review and a meta-analysis — were published. Based largely on the same set of randomised controlled trials (RCTs), their conclusions were comparable: “clinical benefit is limited” for SMBG in people with non-insulin-treated T2D.

The Cochrane review included 12 RCTs (3249 participants). Among these, nine trials of 6 months’ duration found that glycated haemoglobin (HbA1c) levels were reduced on average by 0.3% (a statistically, but not clinically, significant improvement). There was no significant reduction in HbA1c levels in trials with 12 months of follow-up. Overall, no benefit was shown for patient satisfaction, emotional wellbeing or health-related quality of life, and SMBG was considered unlikely to be cost-effective.

Challenging the evidence and assumptions

Our own critical appraisal revealed too much variation in trial methods and populations to draw firm conclusions about the value of SMBG overall. In particular, in some trials, participants were not given instructions about when or how often to check their blood glucose level (or this was not reported). Among trials where frequency was reported, it varied enormously — from four times per month to six times per day, 7 days per week. In most cases, the SMBG conducted was insufficient to provide interpretable blood glucose patterns that could inform
After the systematic reviews were concluded, an RCT of hyperglycaemia was conducted, and the RCT of SMBG was “unstructured”, and suggest it is ineffective because it does not enable people with T2D or health professionals to detect blood glucose level patterns or act upon them. Indeed, people with non-insulin-treated T2D reported that their GPs rarely refer to their glucose diary data, and perceive this to mean that SMBG is worthless. They experience SMBG as “frustrating”, “painful”, “inconvenient” and “expensive”, they lack motivation for it, and report “feelings of failure or anxiety in response to high blood glucose readings.”

However, in studies where the protocol for a “structured” approach to SMBG was cleaner, the findings were more positive — reduced HbA1c levels, less glycaemic variability overall, less time spent in hyperglycaemia.

**Structured monitoring is effective, economical and engaging**

After the systematic reviews were concluded, an RCT of structured SMBG was published. In the SteP study, structured SMBG was defined as seven checks per day over 3 consecutive days in the week before their consultation with a doctor about their diabetes. SteP showed that structured SMBG was associated with a statistically significant reduction in HbA1c level (−0.3%; P < 0.001; intention-to-treat analysis), and a per protocol analysis (focused on those who conducted structured SMBG as intended) showed a clinically significant reduction in HbA1c level (−0.5%).

Notably, trials of structured SMBG have also shown important psychological benefits — increased satisfaction with treatment, reduced diabetes-related distress, improved general emotional wellbeing and greater confidence in, and motivation for, diabetes self-care.

The findings of the SteP study suggest that SMBG does not have, as such, a dose-related response, and needs to be viewed, rather, in terms of quality rather than quantity of monitoring. The protocol suggests that a person with non-insulin-treated T2D using structured SMBG could use as few as 84 test strips per year (ie, 21 in the week before each quarterly general practitioner visit). This, in fact, compares very favourably with the current Australian average of 300 strips per annum per person with non-insulin-treated T2D, and suggests great potential for the federal government’s restricted access policy (100 strips over 6 months) to be applied sensibly.

Our recent observational study, SteP-lT-UP, (involving 98 people with non-insulin-treated T2D attending 22 general practices across our eastern seaboard), showed that structured SMBG is feasible in Australia. Furthermore, our findings support US and European evidence showing significant reductions in HbA1c levels (without increasing hypoglycaemia) and diabetes-related distress.

**What is structured SMBG?**

Structured SMBG is more than just 21 finger pricks. It involves meaningful (rather than random) glucose checks at set times (eg, pre-meal and 2 hours post-meal, and before bedtime) to generate a pattern over at least 3 consecutive days. The person with T2D also notes their meal sizes and energy levels to provide context for the readings. While most trials have evaluated SMBG as though it were an active agent, it is actually just one aspect of a complex intervention, requiring:

- agreement between the person with T2D and their health professional on glucose targets and the timing and frequency of SMBG;
- a supportive and enthusiastic health professional trained in the interpretation of SMBG data;
- appropriate feedback to, and education for, the person with T2D;
- collaborative review of the SMBG pattern to determine areas for improvement and to discuss what contributed to low, high or within-target glucose levels;
- a plan for how to change diet, activity levels or medication to improve glucose levels;
- action (ie, actual change in diet, activity levels or medication); and
- motivation on the part of the person with T2D, which is likely to be contingent on much of the above being in place.

**A closer look at the Choosing Wisely Australia recommendation**

We take issue with Choosing Wisely’s initial statement, that there “is no evidence that self-monitoring of blood glucose (SMBG) affects patient satisfaction, general well-being or general health-related quality of life.” There is compelling evidence on both sides of this debate, depending on whether SMBG is structured or unstructured.

Choosing Wisely claimed that Australian Government spending on glucose monitoring strips was $143 million in 2012. This is true, but misleading. Only 35% of this spending was for people with non-insulin-treated T2D. Most of this funding was for SMBG essential for informing insulin dosing and detecting hypoglycaemia in people with type 1 diabetes and those with T2D using insulin or sulphonylureas. Substantial cost savings therefore seem unlikely.

The most positive aspects of the Choosing Wisely recommendation are the exceptions, in particular the usefulness of SMBG for “short-term education about...”
diet influencing blood sugar”, although we would expand this to include physical activity.

Choosing more Wisely Australia

We appreciate absolutely the need for evidence-based medicine — and have described the complexity of this evidence base. Nevertheless, we remain concerned that restricting access to glucose monitoring strips conveys the wrong message philosophically. At face value, it implies that some forms of diabetes require less monitoring and are, therefore, less serious than others. Yet all diabetes is serious and all diabetes leads to complications if not monitored and managed appropriately: conveying any other message is confusing, inaccurate and potentially dangerous.

As with most behaviour, if individuals do not value it, or perceive more costs than benefits, they are unlikely to instigate or maintain the behaviour. This applies not only to people with non-insulin-treated T2D, but also to health professionals. While the government is undoubtedly interested in potential costs savings, the PBS final report also recognises the need to emphasise to clinicians and people with T2D that “changes are being implemented to encourage better practice and direct more attention to appropriate use of test strips”.³

Far from recommending against routine SMBG, which may unintentionally deter any SMBG in people with non-insulin-treated T2D, we believe Choosing Wisely Australia should positively advocate structured SMBG for all people with T2D not using insulin or other hypoglycaemia-inducing medications. This would be more consistent with its mission not only to reduce unnecessary medical tests, but also to promote evidence-based clinical practice. Structured SMBG offers an evidence-based model for effective blood glucose monitoring and engagement in diabetes self-management.

Competing Interests: Jane Speight and Jessica Browne are funded by the collaboration between Diabetes Victoria and Deakin University that supports the Australian Centre for Behavioural Research in Diabetes. Jane Speight is a member of the Accu-Chek Advisory Board (Roche Diagnostics Australia). Her research group has received unrestricted educational grants from Medtronic and Sanofi Diabetes; sponsorship to host or attend educational meetings from Lilly, Medtronic, MSD, Novo Nordisk, Roche Diagnostics Australia, and Sanofi Diabetes; consultancy income from Abbott Diabetes Care, Roche Diagnostics Australia and Sanofi Diabietes. Jessica Browne has received consultancy income from Roche Diagnostics Australia and Sanofi Diabietes. John Furler received fellowship support from the National Health and Medical Research Council (NHMRC) Centre of Clinical Research Excellence in Diabetes Science and is supported by an NHMRC Primary Health Care Research, Evaluation and Development Career Development Fellowship. He has received unrestricted educational grants for research support from Roche, Sanofi and Medtronic.

Podcast with Professor Jane Speight is available at mja.com.au/multimedia/podcasts and from iTunes.

References are available online at www.mja.com.au.
Breastmilk banking and the Mercy Health experience

Breastmilk banking provides an alternative to infant formula, not a substitute for mother's own milk

Breastmilk banks collect, process, store and distribute donated human milk for hospitalised premature and growth-restricted infants. Pasteurised donor human milk (PDHM) as an alternative to artificial formula when mother's own milk is unavailable is not a new concept. Before infant formula became widely available, milk sharing and wet nursing were common practices in Australian maternity wards in the 1940s. Concerns regarding transmission of infectious diseases in the 1980s saw breastmilk banks fall out of favour. With improved screening, storage and handling procedures, and evidence surrounding the importance of breastmilk in human development, breastmilk banking has re-emerged as a viable option when the supply of mother's own breastmilk is insufficient. Insufficient supply may occur because of maternal illness, medications or difficulties in establishing or maintaining lactation. Some 450 breastmilk banks exist internationally and the numbers are rising.

Infant feeding guidelines from the World Health Organization and the National Health and Medical Research Council recommend exclusive breastfeeding for the first 6 months of life. When this is not possible, the alternatives are either expressed donor breastmilk or formula milk. Given that artificial formula cannot provide many benefits beyond basic nutrition, the American Academy of Pediatrics states that PDHM should be first choice for preterm infants when there is insufficient mothers' own milk. Evidence shows that compared with formula, donor human milk is associated with a lower incidence of necrotising enterocolitis and other infections during initial hospitalisation.

In Australia, five recognised facilities currently exist, led by the establishment of the Perron Rotary Express Milk Bank in 2006, at the King Edward Memorial Hospital in Western Australia. Although there are no universal Australian guidelines governing practice, most centres adhere to the 2010 United Kingdom National Institute for Health and Care Excellence (NICE) guidelines for the operation of donor breastmilk banks, which include donor screening recommendations. In 2014, the Australian government published an examination of donor human milk banking in Australia, comprehensively reviewing the evidence, quality assurance and regulatory issues surrounding risk management and quality control. The report concluded that voluntary regulation guided by existing legal frameworks is sufficient and appropriate.

Current international guidelines recommend pasteurisation of donor human milk to minimise the risk of disease transmission by inactivating most viral and bacterial contaminants. Additionally, screening is recommended for donors, similar to that for routine blood donation. Minimum serological standards include testing for HIV-1, HIV-2, hepatitis B and C virus, human T-lymphotropic virus types 1 and 2, and syphilis, as recommended by the Australasian Tissue Banking Forum. 2015 marks the fifth year of operation for the Mercy Health Breastmilk Bank (MHBMB). As Victoria's first breastmilk bank, founded in 2011, and the second largest of its type in Australia, this service continues to grow, providing for extremely sick and premature babies born at Mercy Hospital for Women in Melbourne.

Since conception in 2011, the MHBMB has collected over 1551 litres of PDHM, received from 162 mothers, supplying 276 babies. Following international criteria, neonates born before 34 weeks' gestation or weighing less than 1500 g at birth are eligible for PDHM. Last year alone, over 254 litres of donor milk was consumed by babies cared for at Mercy Hospital for Women.

The MHBMB collects, screens, pasteurises and stores donor milk according to NICE guidelines. With parental consent, PDHM is available to babies in the special care nursery and intensive care unit, usually as a bridging supply until mothers' own milk becomes sufficient. This donated milk provides preterm neonates with essential

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Perspectives

nutritional requirements for growth and neurological development, and human specific proteins and immunoglobulins for protection against infectious disease and immunity against other disorders.\(^5,6\)

The MHBMB currently relies on donated breastmilk from mothers who have recently given birth at Mercy Hospital for Women. Our future hope is to include new mothers around Victoria and provide PDHM to eligible infants in other Victorian tertiary nurseries.

Competing interests: No relevant disclosures.

Provenance: Not commissioned, externally peer reviewed.

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Are some more equal than others? Challenging the basis for prisoners’ exclusion from Medicare

A mixed funding approach can help meet the urgent requirement for a level of health care in prison commensurate with need and equivalent to community standards.

Consistent with global literature, prisoners in Australia experience profound health disparities relative to those who have not been incarcerated, with a disproportionate burden of mental illness, chronic and communicable diseases. Many prisoners have complex histories of disadvantage, encompassing family violence, unstable housing, limited education, unemployment and economic adversity. Risky health-related behaviours including smoking, illicit drug use, harmful alcohol consumption and unsafe sexual practices are common in incarcerated populations.

Correctional settings are uniquely placed to detect health problems, initiate care and promote health in a way that is unlikely to occur in the community, with important public health implications for the communities to which prisoners return. It is paradoxical, therefore, that prisoners are excluded from Australia’s universal health care scheme — Medicare — while incarcerated. Instead, health care for prisoners is transferred to state and territory government departments for the duration of their incarceration.

Some of Australia’s peak health and medical advocacy groups have critiqued this exclusion, arguing that it transgresses human rights, results in suboptimal care, and perpetuates the cycle of ill health and disadvantage. Although these groups have called for reform to the legislation that underpins this exclusion, a way forward has not been clearly articulated. In this article, we outline the legal basis for prisoners’ exclusion from Medicare, articulate key arguments for reform and offer some pragmatic next steps, informed by an understanding of the legislation and an appreciation that wholesale replacement of prison health services with Medicare is neither workable nor desirable.

The evolution of Medicare — the basis for prisoners’ exclusion

Australia’s universal health care system, originally called Medibank, was introduced in 1975 by the Whitlam Labor government in response to widespread dissatisfaction and inequities caused by the previous voluntary health insurance scheme. Following numerous reviews and alterations, the system was reincarnated in 1984 as the Medicare Benefits Scheme (MBS). The Pharmaceutical Benefits Scheme predates Medicare, with some benefits first made available in 1948. Today, these two taxpayer-funded schemes, collectively known as Medicare, are centrally administered under the Health Insurance Act 1973 (Cwlth).

Until the introduction of Medicare in the mid 1970s, regulation of health was not a federal government power, and an amendment to the Constitution was required to make the federal system possible. The first years of constructing and implementing Medicare revealed the enormous economic burden that it would be for the government. In 1976, a review committee was established to “trim the fat”, and the resulting legislative amendments were aimed at carving out situations in which Medicare subsidies would not apply if there was another source of funding.

An amendment in 1976 to the Health Insurance Act — s 19(2) — states that where health services are being provided by, on behalf of, or under an arrangement with any government entity (whether federal, state or territory), Medicare will not be available unless the Minister for Health or his/her delegate grants an exemption to this exclusion. As state-funded entities, prisons fall under this domain and thus, the legislation operates on the assumption that prisoners are excluded from Medicare because the state or territory in which they are incarcerated provides equivalent services.
Perspectives

It also presumes that allowing access to Medicare for prisoners, who are provided with care at the expense of state or territory governments, would either constitute double dipping, or allow states and territories access to federal funds for an area that should be their economic burden to bear.

Is equivalence a reasonable assumption?

Health care in Australian custodial settings is guided by the concept of community equivalence, as outlined in numerous national and international frameworks.\(^3\)\(^,\)\(^8\) In principle, this means prisoners are entitled to receive the same level of access and quality of health care as the general population. In reality, however, persistent underinvestment in health services means that prisoners may miss out on certain treatments and medications.\(^6\) While the complexity of governance and funding arrangements in prisons means that it is often difficult to determine whether equivalence of care has been achieved,\(^7\) there are a number of key areas in which states and territories are failing to meet their obligations. Below, we consider two examples whereby the lack of access to Medicare affects prisoners' health.

“prisons have substantially underinvested in health care, often because services are too expensive to deliver without access to Medicare rebates”

The Medicare Health Assessment for Aboriginal and Torres Strait Islander People (MBS item 715) is designed to target the ongoing health needs of Indigenous people who experience earlier onset and more severe progression of chronic illnesses than non-Indigenous Australians. Prisoners’ effective exclusion from Medicare means that neither prisoner health services nor community organisations that provide health services to Aboriginal and Torres Strait Islander people in prison can claim Medicare billing for this item. We know of no equivalent, culturally acceptable health assessment delivered in prisons in Australia, despite a well recognised need for Aboriginal-specific justice health services.\(^7\)

Despite prisoners having some of the highest rates of mental illness of any population group, there is increasing evidence that prisoners do not have the resources to address the extent of need. In the community, Medicare rebates are available for up to 10 allied mental health services in any one calendar year, with additional rebates available for group-based therapies. In prison, limited mental health resources are typically directed to those with the most severe mental health disorders and psychotropic medications are the mainstay of treatment for the majority.\(^2\) Unlike Medicare-subsidised schemes in the community, most prisoners have limited access to ongoing counselling and other individual therapeutic approaches, particularly for the treatment of common mental disorders, such as depression.

Exemptions to exclusion from Medicare — the equity argument

Parliamentary documents show that the Health Minister’s power to waive the Medicare exclusion was explicitly included in s 192 of the Health Insurance Act so that governments could make amendments if the exclusion was deemed to cause disadvantage.\(^9\) In practice, the Commonwealth has been willing to grant exemptions in cases of clear and demonstrated need. Two main groups of exemptions exist.

The first applies to Commonwealth-funded Aboriginal Community Controlled Health Services (ACCHSs). While the Act states that Medicare entitlements do not apply to services already funded by the Commonwealth, an exemption was granted in recognition of the gap in services between ACCHSs and mainstream primary care. The Inala Indigenous Health Service in South East Queensland also has an exemption. This service is a state-based primary care practice funded by Queensland Health and was granted an exemption in 2006, allowing services to be rebated through Medicare.\(^11\)

Similarly, in 2006, the Council of Australian Governments (COAG) implemented the Improving Access to Primary Care in Rural and Remote Areas (s 192 Exemptions) Initiative. The COAG exemptions are open to eligible state-funded health organisations that operate in areas with small populations (<7000) with identified health workforce shortages. Recognising that state-funded facilities in small rural and remote towns provide primary care, the COAG exemption was granted to permit these organisations to bill Medicare for non-admitted, non-referred services.\(^11\)

These precedents demonstrate the willingness of Commonwealth governments to permit access to Medicare if the ability of a health service to adequately care for the needs of a community was curtailed by the exclusion; a situation that clearly exists in prisons. The current exemptions all share a common theme: an expressed intention to ensure that all Australians have access to appropriate and quality health care, regardless of their circumstances. All of the current exemptions were granted in the last years of the Howard Coalition government under the then Minister for Health and Ageing, Tony Abbott.

Reforming funding for prisoner health care — a way forward

Legal action on the subject of prisoner health care has at times been successful, and has prompted meaningful change, such as access to condoms in
Perspectives

It has also been used in individual cases, such as Allan Petit v State of New South Wales [2012] NSWDC 105, where the failure of a New South Wales prison authority to inform a prisoner that he tested positive for hepatitis C after several blood tests was deemed to have deprived him of the opportunity to receive treatment and potentially prevent further transmission. Legal action in Castles v Secretary of the Department of Justice [2010] VSC 181 was successful in granting a female prisoner serving a term in a minimum security facility leave to access in-vitro fertilisation before she reached the age limit in Victoria. However, in relation to prisoners’ exclusion from Medicare, the issues are more complex. The legislation is clear: state and territory authorities are responsible for prisoners. Legal action against the responsible state government would not resolve the issue when the problem lies with federal legislation. The Health Minister has the power, under the Health Insurance Act, to grant an exemption that would end prisoners’ exclusion from Medicare, paving the way for rebates to be claimed for prison-based health care services in certain circumstances. In an arrangement similar to that enjoyed by other state-based services that operate under s 19(2) exemptions (eg, Inala Indigenous Health Service), this would allow prisons to retain their existing health service delivery model but to enhance service delivery through access to certain Medicare items. Costs incurred by Medicare would be minimal. As an example, we estimate the cost of delivering the Indigenous-specific health assessment to every Indigenous prisoner in Australia in any one year would be less than 0.01% of the annual $20 billion Medicare budget (based on the current rebate of $212.25). Given that the focus of the health assessment is on disease prevention in Indigenous populations, combined with evidence that uptake in the community is poor among those most at risk, delivering this service in prisons has strong cost-effectiveness credentials. We are not aware of publicly available data comparing per capita expenditure on prison-based and community health care, although such information would inform the equivalence debate.

Cost sharing between the states and territories and the Commonwealth to achieve equity in prisoner health care is not new and has been debated by public health policy advocates in Australia for over a decade. What has emerged in the interim is evidence that prisons have substantially underinvested in health care, often because services are too expensive to deliver without access to Medicare rebates. Our proposal for a mixed funding model aligns with current government policy, whereby scarce health resources can be directed to where they will be most effective in improving the health of all Australians.

Acknowledgements: This study was partially funded by the National Health and Medical Research Council (NHMRC) Indigenous offender health capacity building grant “From Broome to Berrima: Building Australia-wide research capacity in Indigenous offender health and health care delivery” (533546). Stuart Kinner holds an NHMRC Senior Research Fellowship (1078168).

Competing interests: No relevant disclosures.

Provenance: Not commissioned; externally peer reviewed.

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**Contraindications:**
- Hypersensitivity to the active substance or to any of the excipients.
- For external use only. It should not be applied to damaged, broken or eczematous skin; should not come into contact with eyes, mouth, nostrils or mucous membranes.
- Epiduo contains propylene glycol (E1520) that may cause skin irritation. Avoid excessive exposure to sunlight. Epiduo may cause bleaching and discolouration. Refer to full PI.
- Use in pregnancy (Cat D): Should not be used during pregnancy or if pregnancy is planned during treatment.
- Use in lactation: Use caution and only on areas away from the chest.
- Interactions: None known; avoid concurrent use of retinoids, benzoyl peroxide and medicines with similar mode of action.

**Adverse effects:**
- Common (≥1%): dry skin, irritative contact dermatitis, scaling, desquamation, erythema and burning.
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**Dosage and administration:**
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**Presentation:**
- 30g, 2g (sample) tubes; 30g bottle with pump.

**Storage:**
- Store below 25°C. S4.

**References:**

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**Adapalene / benzoyl peroxide**
Reducing the impact of coaching on selection into medicine

Coaching to enter medical school first attracted research attention in 2008. Results indicated that just over half of those shortlisted for interview had received commercial coaching for the Undergraduate Medical and Health Sciences Admissions Test (UMAT), which is used to select interview candidates. Evidence indicates that students who had received UMAT coaching subsequently show significantly poorer academic performance throughout their medical degree compared with those who had not been coached. This suggests that UMAT scores achieved after coaching may not represent true ability to do medicine, or that students who rely on coaching cope less well in academic environments where coaching is not appropriate.

A study of Year 12 high school students in New South Wales and Victoria showed that coaching had no impact on the UMAT sections that assess problem solving or understanding people, but coached students had slightly higher scores on the non-verbal test of logical reasoning. Similar results were obtained in a New Zealand study, which involved students who had been coached by the MedEntry company. Even though these students believed that their UMAT performance would be improved, this belief was misplaced as their UMAT results were no better than those of uncoached students.

"the time and money spent on commercial coaching appears to be misdirected"

Last year, the University of Western Sydney altered its metric for shortlisting applicants for their Multiple Mini Interview. Subsequently, only 35.5% of those invited to interview had engaged in commercial UMAT coaching, a significant decrease from the 51.4% of interviewees who were coached in 2008 (χ² = 7.43; P = 0.003). There was no statistical difference between coached (n = 122) and uncoached (n = 222) interviewees on any of the three UMAT scores (P = 0.891, 0.885 and 0.945 for UMAT Sections 1, 2 and 3, respectively) or the Multiple Mini Interview scores (P = 0.352). Thus, the coached group were no more likely to gain entrance to the medical program. However, the coached group had higher academic university entrance ranking scores (ATAR) than their uncoached peers (mean ATAR = 98.76 vs 98.01; t = 2.99; P = 0.003).

Applicants who are likely to be shortlisted for interviews and yet feel the need for UMAT coaching may be less confident in their own ability or more susceptible to industry advertising — but the time and money spent on commercial coaching appears to be misdirected.

Competing interests: No relevant disclosures.

Provenance: Not commissioned; not externally peer reviewed. ■

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References are available online at www.mja.com.au.
Post-ARTESunate delayed haemolysis in severe imported Plasmodium falciparum malaria

We report a case of post-artesunate delayed haemolysis (PADH) in severe Plasmodium falciparum malaria.

A female wildlife conservation worker based in South Africa presented with severe malaria (hypotensive shock and 30% parasitaemia level). She had not been on malaria prophylaxis. Six months earlier she had a febrile illness after a tick bite, which was treated with doxycycline with complete resolution. Blood tests revealed renal impairment, abnormal liver function tests with coagulopathy and thrombocytopenia without intravascular haemolysis. Systemic examination was unremarkable.

In the intensive care unit she was given intravenous artesunate for 5 days and supportive platelet transfusion. Blood cultures and serologies for dengue, leptospirosis, chikungunya, rickettsia and HIV were negative. Oral artemether-lumefantrine was prescribed to complete malaria treatment. Recurrence of haemolysis was observed on Day 10 of admission (1 week after artesunate treatment). Extravascular haemolysis was confirmed by low haemoglobin and elevated lactate dehydrogenase (LDH) levels. Other causes of haemolysis such as viral haemorrhagic fever (Rift Valley and Crimean-Congo fevers), drugs and viral infections were excluded.

A literature search of haemolytic causes alluded to the possibility of PADH. Proposed criteria by the United States Centers for Disease Control and Prevention (CDC) for PADH (a decline in haemoglobin levels of ≥10%, haemoglobin levels of ≤0.1 g/L and an increase in LDH levels of >390 U/L) were present. Supportive therapy with blood transfusion led to restabilisation of haemoglobin. Convalescent serological testing found an increase in Rickettsia typhi titre from <128 to ≥256 before discharge. This was consistent with murine typhus likely caused by flea bites when cleaning her room. Empirical therapy with doxycycline given earlier in the current admission would have treated this.

“Clinicians using artesunate to treat patients diagnosed with falciparum malaria need to be aware of the risk of PADH”

Artesunate is the drug of choice to treat severe *P. falciparum* infection due to concerns of drug resistance and mortality benefit. PADH is a rare but significant complication of artesunate, with 23 confirmed and 15 probable cases. Although there has been heterogeneity in the criteria for diagnosis of PADH in the past, the CDC optimised the definition in 2014. PADH typically occurs 1 to 3 weeks after administration of intravenous artesunate treatment. Artesunate supplied in Australia is manufactured overseas (China) and sourced by a local company. Although controversy remains around artesunate manufactured overseas due to non-adherence to Good Manufacturing Practice (GMP) guidelines, whether PADH is caused by direct toxicity from the drug in non-GMP settings remains speculative as it has also been described in three patients who received the drug made in the US and Canada. There are two proposed mechanisms of PADH: (i) rapid clearance of parasite from the infected red blood cells causing them to “pith”, which causes haemolysis; and (ii) activation of the pro-inflammatory cytokines. Higher parasitaemia levels in non-immune patients are more frequently associated with PADH. PADH is also known to occur with oral artemisinin derivatives.

Clinicians using artesunate to treat patients diagnosed with falciparum malaria need to be aware of the risk of PADH, especially if haemolysis develops after treatment. Based on the current literature, we recommend a follow-up of at least 1 month after treatment.

Competing Interests: No relevant disclosures.

References are available online at www.mja.com.au.
Orbital myositis secondary to statin therapy

A 45-year-old man presented with a 3-month history of diplopia and pain on left downgaze, increasing left upper lid oedema, and erythema. Eye movements were full and visual acuity and intraocular pressure normal. His regular medications, both commenced 4 months before presentation, were simvastatin (20 mg/day) and aspirin (100 mg/day). A complete blood count, thyroid function and auto-antibodies, inflammatory markers and creatine kinase were all unremarkable, as was an autoimmune screen. Orbital computed tomography showed left medial rectus and superior oblique enlargement.

Simvastatin was ceased, and all symptoms resolved within 3 weeks. Diplopia recurred 4 weeks after a rechallenge with 10 mg simvastatin daily, and resolved almost immediately after withdrawing the statin. The man subsequently elected to control his cholesterol levels with lifestyle modifications.

Orbital myositis is inflammation of one or more extraocular muscles, characteristically presenting with diplopia and orbital pain exacerbated by eye movement. Restriction of eye movement, exophthalmos, conjunctival inflammation and erythema may occur, imaging indicates muscle and tendon enlargement. It is usually idiopathic, but can occur in association with a range of inflammatory conditions, including sarcoidosis, systemic lupus erythematosus, Crohn's disease and anti-neutrophil cytoplasmic antibody (ANCA)-associated vasculitis.

Statins are usually well tolerated medications, but myopathy occurs in 1%–5% of participants in clinical trials, and in 10%–15% of patients in observational studies. Statins can affect the extraocular muscles, and orbital myositis should be considered in patients experiencing orbital symptoms during statin treatment.

The metabolic requirements of extraocular muscles are enormous, but their glycogen content is limited, which may make them more vulnerable to the GTP depletion and myopathy associated with statin use. Such patients may present to any of a range of clinicians, and lack of awareness of this complication can mean that cessation of statin therapy is not tried, or that inappropriate treatment is given.

We reviewed VigiBase (the World Health Organization global individual case safety reports database) and two subsets of this adverse drug reaction database (the Medicines and Healthcare Products Regulatory Agency [United Kingdom] and the Therapeutic Goods Administration [Australia]) for all reported ocular complications associated with atorvastatin, simvastatin, rosuvastatin and pravastatin. These databases contained a total of 452 reports suggestive of orbital myositis (Box), including subjective and objective symptoms and signs, and one instance specifically described as an "extraocular muscle disorder". The databases rarely record dechallenge or rechallenge data, nor do they record relevant investigations and clinical follow-up data. However, as most complications are unreported by patients and their clinicians, the true incidence of side effects is likely to be far higher than that reported.

We would encourage others to use scales such as the Naranjo algorithm, which incorporates important data such as rechallenge and the results of investigations, to calculate adverse drug reaction probabilities. Using this scale, our case achieved a score of 9, indicating a "definite" adverse drug reaction.

Competing interests: No relevant disclosures

References are available online at www.mja.com.au.

Summary of the 452 adverse events recorded in event notification databases

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TGA = Therapeutic Goods Administration Database of Adverse Event Notifications (Australia); MHRA = Medicines and Healthcare Products Regulatory Agency (United Kingdom); WHO = VigiBase, World Health Organization, Uppsala Monitoring Centre (Sweden).

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doi:10.5694/mja15.00503

MJA 203 (9) • 2 November 2015

365
Presentations with alcohol-related serious injury to a major Sydney trauma hospital after 2014 changes to liquor laws

Study question
To determine any impact associated with changes to liquor regulations on emergency department attendances for alcohol-related serious injuries in an inner-city entertainment precinct.

Methods
A blinded, retrospective analysis of the data from the Emergency Department Information System (EDIS) of a major trauma and teaching hospital (St Vincent’s Hospital, Darlinghurst) in Sydney’s entertainment precinct was conducted. Data for trauma cases classified under Australasian triage categories 1 (immediately life-threatening) and 2 (imminently life-threatening, important time-critical treatment, very severe pain) in the 12 months before (24 February 2013 — 23 February 2014; period 1) and the 12 months after (24 February 2014 — 23 February 2015; period 2) the 2014 changes to liquor licensing regulations applied to the precinct.

Within the selected triage categories, any patient was included in the study to whom alcohol consumption could be confidently ascribed on the basis of data recorded in the diagnosis field and the free text fields for triage and patient symptoms. In order to avoid bias, researchers were blinded to the year of presentation.

Findings
In the 2-year study period, there were 13,110 triage category 1 and 2 presentations to St Vincent’s Hospital emergency department, 6,161 during period 1 and 6,041 during period 2. Of these, 1,564 (4.3%) were patients who presented with alcohol-related serious injuries; 318 (4.9% of all presentations) during period 1 and 246 (3.7%) during period 2 ($P < 0.05$). The proportion of alcohol-related serious injury presentations was much higher (9.1% of presentations) during the high alcohol time (HAT; 6 pm Friday to 6 am Sunday) than during the rest of the week (3.1%; $P < 0.05$). After the introduction of the regulatory changes, there was a significant decrease in the proportion of seriously injured patients during HAT, from 140 presentations (10.4% of presentations) before the change to 106 (7.8%) after their introduction, a relative reduction of 24.8% ($P < 0.05$).

There was a consistent decrease in the number of seriously injured patients presenting to the emergency department between 1 am and noon. There was a small increase in the number of patients with alcohol-related injuries between 9 pm and midnight, and a small spike in presentations around 1 pm.

Limitations
There are limitations inherent to this and similar studies. Our methods cannot accurately capture complete data on the intake of alcohol. They rely on voluntary information provided by the patient and enquiries by health care workers; the information is recorded as free text in the EDIS system, without necessarily including all the precise details of the injury or accident. There is almost certainly a significant underestimation of the involvement of alcohol in trauma cases, as routine blood alcohol testing is not undertaken in all unconscious or severely injured patients.

Published research on acute alcohol harm relies heavily on information from emergency departments. This approach to data collection is not methodologically designed and, being retrospective, is especially limited when trying to establish any causal relationships.

What this study adds to current knowledge
There have been few well designed studies of alcohol-related injuries, and they often rely on emergency department data; although of some value, such data have significant limitations if they are not collected prospectively and their acquisition appropriately resourced.

On 24 February 2014, the New South Wales Government introduced changes to liquor regulations in the central district of the City of Sydney, the so-called “party precinct”. These legislative changes were enacted in response to community outrage after a series of adverse events reported in the media, particularly the deaths of two young men associated with alcohol-fuelled violence. Many of the changes were based on successful strategies in the nearby Australian city of Newcastle, which had experienced similar alcohol-related serious injury problems.

Our observational study adds to the scarce information available for assessing the effectiveness of alcohol control policies and liquor regulation. It is topical and should contribute to the shaping of public policy. It also clearly defines the need for methodologically robust, prospective research to determine which changes to alcohol control regulations are effective.

Implications for practice
This study supports and is consistent with other observations regarding the impact of the 2014 changes to alcohol legislation in the City of Sydney, such as police data, indicating that the number of serious or critically injured patients associated with alcohol consumption declined after these changes were introduced.

Competing interests: No relevant disclosures.
The extra resource burden of in-hospital falls: a cost of falls study

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This is a research article summary. The full-length article is available at mja.com.au doi:10.5694/mja15.00298

Podcast with Ms Renata Morello: is available at mja.com.au/multimedia/podcasts and from iTunes. Also available as a video at mja.com.au/multimedia

Study question
In-hospital falls remain one of the major causes of patient harm in acute hospitals. Our study aimed to quantify the additional length of stay (LOS) and hospital costs associated with in-hospital falls and fall injuries in Australian acute hospitals.

Methods
This multisite prospective study was conducted in the control wards of a larger falls prevention trial, the 6-PACK project. It included all patient hospital admissions to 12 acute medical and surgical wards of six public hospitals in two Australian states (Victoria and New South Wales) during the study period.

In-hospital falls data were prospectively collected over a 15-month period (2011–2013) from medical record reviews, daily verbal reports from ward nurse unit managers, and hospital incident reporting and administrative databases. LOS data were extracted for all study participants from hospital administrative datasets. Patient hospital episode costs were extracted from hospital clinical costing systems, and were linked for three of the six participating hospitals. Average additional LOS and hospital costs associated with in-hospital falls and fall injuries were analysed with multivariate linear regression models.

Findings
We found that 966 hospital admissions of a total of 27,026 hospital admissions (3.6%) involved at least one fall, and 313 (1.2%) at least one fall injury, a total of 1,330 falls and 418 fall injuries. After adjustment for age, sex, cognitive impairment, admission type, comorbidity, history of falls on admission and clustering by hospital, patients who had an in-hospital fall had a mean increase in LOS of 8 days (95% CI, 5.8–10.4; P < 0.001) compared with non-fallers, and mean additional hospital costs of $6,669 (95% CI, $3,888–$9,450; P < 0.001). Patients with a fall injury had a mean increase in LOS of 4 days (95% CI, 1.8–6.6; P = 0.001) compared with those who fell without injury, and there was also a tendency to additional hospital costs (mean, $4,727; 95% CI, $2,680 to $10,022; P = 0.080).

The additional LOS and hospital costs associated with each additional fall and fall injury are summarised in Box A.

Limitations
The use of routinely collected hospital data may have resulted in underestimation of confounding factors. It is also possible that unmeasured confounding factors may have influenced cost and LOS outcomes. The completeness and quality of the costing data were variable, and hospitals with incomplete or poor quality costing data (about half of the total study sample) were removed from the costing analysis. The study results incorporate only the costs of hospitalisation from the acute hospital perspective; that is, costs incurred outside the acute hospital admission were not included in the analysis.

What this study adds to current knowledge
In-hospital falls remain highly prevalent and are associated with lengthier hospital patient stays and higher hospital costs. This study provides contemporary Australian data on the cost of falls and fall injuries from the acute hospital perspective. More than half of the observed increases in use of hospital resources appear associated with the fall itself, irrespective of injury.

Implications for practice
Our findings highlight the fact that falls prevention programs in the acute hospital setting need to focus not only on the minimisation of harm from a fall, but also on the prevention of all falls.

Competing interests: No relevant disclosures.
Survival after an acute coronary syndrome: 18-month outcomes from the Australian and New Zealand SNAPSHOT ACS study

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Study question

We examined the impact of the availability of a catheterisation laboratory in the hospital of presentation and of the delivery of evidence-based care in hospital and at discharge on the 18-month mortality rates for patients admitted to hospitals in Australia and New Zealand with confirmed or suspected acute coronary syndromes (ACS).

Methods

Management and outcomes are described for patients enrolled in the SNAPSHOT ACS audit conducted in May 2012, in more than 90% of Australian and New Zealand hospitals that treat ACS patients. Patients were stratified according to their presentation to hospitals with or without cardiac catheterisation facilities. Data linkage ascertained the vital status of patients 18 months after admission. Descriptive and Cox proportional hazards analyses were used to determine predictors of patient outcomes, and to estimate the number of deaths averted by improved care. The main outcome measure was mortality for patients presenting to catheterisation-capable (CC) and non-CC hospitals, between admission and 18 months after admission.

Findings

Definite ACS patients presenting to CC hospitals (n = 1326) were more likely to undergo coronary angiography than those presenting to non-CC hospitals (n = 1031) (61.5% vs 50.8%; P = 0.001), receive timely reperfusion (for ST elevation myocardial infarction [STEMI] patients: 45.2% vs 19.2%; P < 0.001), and be referred for cardiac rehabilitation (57% vs 53%; P = 0.05). All-cause mortality over 18 months for the entire SNAPSHOT population (n = 4387) was 10.5%; it was highest for STEMI (16.2%) and non-STEMI (16.3%) patients, and lowest for those presenting with unstable angina (6.8%) and non-cardiac chest pain (4.8%; P < 0.0001 for trend). After adjustment for propensity to present to a CC hospital and patient risk, presentation to a CC hospital was associated with 21% (95% CI, 2%—37%) lower mortality than presentation to a non-CC hospital. Adding delivery of timely reperfusion for STEMI and coronary angiography for intermediate- and high-risk ACS patients to the model eliminated the independent association between presentation to a CC site and mortality. To quantify the impact on long-term outcomes of care initiated on discharge, an additional multivariable mortality model was developed that was confined to the cohort of ACS survivors to hospital discharge with overlapping propensity scores for the likelihood of presenting to a CC site; this included 1870 patients, of whom 197 (10.5%) had died by the 18-month follow-up. Independent predictors of mortality in this population included Global Registry of Acute Coronary Events (GRACE) risk score (relative risk [RR], 1.03 per point [95% CI, 1.03—1.04]; P < 0.001), presentation to a CC hospital (RR, 0.73 [95% CI, 0.54—0.99]; P = 0.043), failure to undergo coronary angiography (RR, 1.67 [95% CI, 1.14—2.43]; P = 0.008), and failure to refer to a rehabilitation program (RR, 1.51 [95% CI, 1.07—2.11]; P = 0.018).

Limitations

SNAPSHOT ACS was a cross-sectional cohort study, and, despite the adjustment by Cox proportional hazards modelling (including the propensity to present to a CC hospital), some of the benefits we attribute to evidence-based care may have been influenced by unmeasured confounding factors. In addition, data collection relied primarily on clinical staff in individual hospitals, in most cases after a single training session; monitoring of data quality was limited, and there was no independent adjudication of reported in-hospital clinical events. Finally, we had no information about the contribution of post-hospital management to long-term mortality.

What this study adds to current knowledge

In Australia and New Zealand, the availability of a catheterisation laboratory appears to have a significant impact on long-term mortality, which remains substantial in patients after treatment for an ACS. This mortality could be reduced significantly by improving delivery of evidence-based care in CC and non-CC hospitals. If providing appropriate coronary angiography and rehabilitation, or more generic secondary prevention counseling, to patients presenting with a definite ACS were improved to 50%, 70%, or, optimistically, 90% of ideal levels, the numbers of lives saved annually in Australia and New Zealand per 10,000 ACS presentations is estimated to be 95, 133 and 171 patients respectively. This would correspond to reductions in annualised mortality attributable to ACS of about 11%, 16% and 20%.

Implications for practice

Our analysis permits informed recommendations for guiding the setting of priorities for strategies for achieving lower long-term mortality in patients with ACS. Rates of angiography at CC hospitals and transfer rates from non-CC to CC hospitals should be further improved, and this will be facilitated by binational initiatives in health redesign, quality improvement and increased diffusion of evidence, including the new ACS clinical standard.

Competing interests: A complete list is included in the full-length article. © 2015 AMPCo Pty Ltd. Produced with Elsevier BV. All rights reserved.
Continuous quality improvement and metabolic screening in pregnancy at primary health centres attended by Aboriginal and Torres Strait Islander women

**Study question**

Effective long-term strategies that reduce systems-level barriers to health service delivery are needed to ensure that Aboriginal and Torres Strait Islander women receive all components of recommended care during pregnancy. We investigated the associations between participation by primary health care centres (PHCs) in a continuous quality improvement (CQI) initiative and the provision of routine metabolic screening during pregnancy.

**Methods**

Seventy-six PHCs in predominantly Indigenous communities in five Australian states and territories participated in up to four CQI cycles between 2007 and 2012, supported by a systems-based research network. At baseline, organisational systems were assessed and health records audited; PHCs used these data for goal setting, followed by implementation of relevant quality improvement activities. Data collection was repeated in subsequent years to assess success in improving care (end of cycle 1), and to identify new priorities (start of cycle 2). Longitudinal random effects logistic regression analysis of 2592 audited maternal health records and cross-sectional linear regression analysis of organisational system assessments were conducted. Main outcome measures included body mass index (BMI), blood pressure (BP) and diabetes screening.

**Findings**

Most women attending the 76 PHCs were Indigenous (2141/2435, 87.9%); 1321 of 2591 (51.0%) attended for pregnancy care during their first trimester, and the median number of visits was 7. Women were more likely to receive BMI, BP and diabetes assessments after a PHC had completed one or more CQI cycle (Box). Higher self-ratings of some organisational systems were associated with greater provision of metabolic screening. For example, diabetes screening was associated with higher overall self-ratings ($P = 0.03$), as well as of self-management support systems ($P = 0.04$) and organisational influence and integration ($P = 0.01$).

**Limitations**

Systems assessments were available for only 35 PHCs, reducing the statistical power to detect associations. The possibility that PHCs with lower degrees of improvement may be less likely to continue in the CQI process is difficult to gauge, as commencement years varied and PHCs may have conducted maternal health audits in non-consecutive years. Our data may not be representative of PHCs not participating in this CQI initiative, but its extensive network includes a large population across urban, rural and remote Australia.

**What this study adds to current knowledge**

This large longitudinal study of PHCs found substantial improvements in routine metabolic screening in pregnancy associated with CQI participation. Our findings support CQI approaches focused on systems-level parameters to improve care at PHCs in

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Indigenous communities. A unique feature of this participatory research was that it linked dispersed PHCs and stakeholders from across the health system, enabling systemic issues commonly affecting care provision to be assessed. Further, most previous CQI research in pregnancy care has been hospital-based, implemented in a single service, not focused on metabolic screening, or not conducted in Australia.

**Implications for practice**

Many women attend for pregnancy care early and regularly, representing important opportunities for supporting better health. The ability of health centres to ensure that all components of recommended pregnancy care are provided should contribute to reducing disparities in pregnancy outcomes between Indigenous and non-Indigenous women, improving the health of Indigenous mothers and giving their babies a healthy start to life. Our findings are encouraging, and suggest a successful approach for achieving further improvement in providing pregnancy care.

Competing interests: No relevant disclosures. ■

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The dangers of diagnosing cystic neck masses as benign in the era of HPV-associated oropharyngeal cancer

Clinical record

A 59-year-old woman presented to her general practitioner with a lump in the left neck. She was a non-smoker, non-drinker and had no significant past medical history. Fine needle aspiration biopsy (FNAB) was performed and led to the diagnosis of a branchial cleft cyst. The mass collapsed after aspiration and the patient was managed conservatively by observation. In the year after diagnosis, re-emergence of the mass was noted by the GP at follow-up. Further investigations were declined on the patient's presumption that the lesion was a benign branchial cleft cyst.

Two years after her initial diagnosis, the patient re-presented with a 1- to 2-month history of a sore throat and further increase in the size of the neck mass. On examination, a 7 cm mass was palpable, there was no overlying skin invasion and the mass was mobile to deep structures. Repeat FNAB of the neck mass was performed and revealed squamous cell carcinoma (SCC) with p16 positivity.

A staging computed tomography (CT) scan detected a lobulated tumour centred on the left tonsil invading the vallecula, base of tongue and oropharyngeal space. Further, a 27 mm cystic mass consistent with her initial lump was identified in the left level II group of lymph nodes, with additional necrotic nodes present at levels III and IV. A subsequent positron emission tomography scan confirmed increased uptake in these regions.

The patient was diagnosed with a T3 N2b M0 oropharyngeal SCC and was referred for radical chemoradiation. Expression of the surrogate marker p16 on cytological testing was highly suggestive that this was a human papilloma virus (HPV)-positive oropharyngeal SCC.

This case illustrates the diagnostic challenges faced in differentiating cystic nodal metastases from branchial cleft cysts, in the context of the increasing prevalence of HPV-related oropharyngeal SCC in Australia over the past two decades.3

HPV-related oropharyngeal SCC differs from traditional head and neck cancer in both its aetiology and clinical features; and because it is a relatively new clinical condition, GPs, radiologists and pathologists often do not recognise it as a potential diagnosis. Unlike traditional head and neck cancer, it occurs in a younger population who are frequently non-smokers and not heavy drinkers. Clinically, it most frequently presents with a neck mass, and often primary lesions are not easily discernible, as they are commonly small and in clinically difficult areas to examine, such as the base of the tongue or tonsil.

The natural disease pattern of oropharyngeal SCC is to metastasise to the cervical lymph nodes. In the setting of HPV-related cancer, these nodal metastases are frequently cystic in morphology and, as previously indicated, are frequently the first mode of presentation.5 Given the differing clinical features of HPV-related oropharyngeal cancer compared with non-HPV-associated oropharyngeal cancer, it is not uncommon for these nodal metastases to be misdiagnosed as branchial cleft cysts, as described in this case report. The proportion of metastatic SCCs in cysts initially presumed to be of branchial cleft origin has been reported to range from 11% to 21%.1,4

Misdagnosis can negatively affect patient prognosis as it delays treatment, allows for further disease progression and increases the potential for metastatic spread. Alternatively, proceeding to excisional biopsy of a cystic mass suspected to be a branchial cleft cyst without adequate investigation for an occult primary can lead to tumour spillage into the surrounding tissues.

Differences in the demographics between branchial cleft cysts and cystic nodal metastases may aid clinicians in accurate diagnosis. While branchial cleft cysts may occur at any age, they most commonly present in early adulthood in the second and third decade of life.5 The reported mean age for cervical cystic masses histologically confirmed as branchial cleft cysts ranges from 32 to 37 years.6,7 In contrast, cystic nodal metastases present later, with a reported mean age ranging from 53 to 57.8 years.6,7 Particular attention must be paid to cervical cysts in patients over 40 years of age, as 44% of cystic masses in this patient population are reported to be malignant in origin.8 The most commonly represented lesions associated with cystic metastases are HPV-related head and neck cancer and thyroid papillary carcinoma.9

CT is a mainstay in the diagnosis and staging of head and neck cancer and plays an important role in differentiating benign lesions of the neck from malignant lymphadenopathy. On contrast-enhanced CT, there is homogeneous attenuation throughout the substance of branchial cleft cysts.6 Features suggestive of malignancy include the presence of septations, heterogeneous attenuation and extracapsular spread.6,7 Significant overlap between the radiological features of benign and malignant cysts is, however, present. Repeated local infection involving a branchial cleft cyst may confer a radiological appearance similar to that of nodal metastasis of an SCC.7 In one study, 31% of cystic nodal metastases were reported as benign in appearance, while 38% of branchial cleft cysts had aggressive features mimicking nodal metastases.6
Evidently, isolated use of CT in evaluating a cystic neck mass confers a high degree of misdiagnosis.

FNAB cytology is the current standard of care in diagnostic workup of solid masses of the neck and is reported to have an overall sensitivity of 92% and a positive predictive value of 100% for head and neck carcinomas. Unfortunately, this has not been the common experience with cystic lesions, for which its role remains controversial. Reported sensitivities range from 33% to 55%, with a false-negative rate of up to 50%. The aspirate of cystic metastatic nodes may be difficult to interpret as a result of hypocellularity from the dilutional effect of the cyst fluid. There is commonly an associated inflammatory reaction within the cystic nodes, resulting in large quantities of degenerating epithelial cells, inflammatory cells and cellular debris within the aspirate. These cytological features overlap considerably with those of branchial cleft cysts and can lead to misdiagnosis.

Despite these limitations, FNAB still retains some relevance in the diagnosis of cystic lesions. Further, with the emergence of molecular analysis techniques, the detection of HPV DNA and thyroglobulin within fine needle aspirates may facilitate the pathological diagnosis of malignant cystic lymphadenopathy and detection of occult primary tumours. The presence of HPV DNA or thyroglobulin in aspirates is strongly correlated with HPV-related oropharyngeal SCC and thyroid cancer, respectively. Although these tests are primarily used for research purposes at present, their utility may expand to the clinical setting in future to help to differentiate benign and malignant cystic neck lesions.

Differentiating cystic nodal metastases from branchial cleft cysts is an important, albeit sometimes difficult, diagnostic challenge. With the growing prevalence of HPV-related oropharyngeal SCC in Australia, we conclude that metastatic lymphadenopathy should be considered as the primary provisional diagnosis in the adult population with cystic neck masses until proven otherwise. We encourage caution in the interpretation of neck masses as benign by isolated use of either CT or FNAB. Clinicians should use these modalities in conjunction with each other and, if necessary, include referral for an ear, nose and throat specialist opinion to increase diagnostic accuracy.
Travels with Charlie

Playing woodwind instruments has long been shown to assist those with asthma; now playing the didgeridoo is also found to help

I first met Charlie McMahon in Australia’s bicentennial year when he played at a dinner I was hosting. Charlie is a “whitefella” who, ironically, lived most of his early life around Blacktown in New South Wales. His virtuosity on the didgeridoo gained him international attention both playing with his own band, Gondwanaland, and with Midnight Oil in the 1980s and 1990s. After the dinner, a memorable moment was captured when he was jamming with Galarrwuy Yunupingu — two didgeridoo exponents at the height of their musical powers.

Charlie first became intrigued with Aboriginal culture at the age of 4, when he saw the Charles Chauvel film, Jedda. As a child on his uncle’s farm, Charlie developed his talent for playing the didgeridoo by practising on water pipes of various lengths. This was translated to learning to play the actual instrument in his early 20s, at a time when he was graduating from the University of Sydney with an Honours Arts degree in 1974. Rosalie Kunoth-Monks, who played the title role in Jedda, is a fan of Charlie’s contemporary music.

Charlie’s adolescence ended abruptly when, at 16, he lost his right hand and forearm while making what he describes as a “rocket”. Hence, Charlie has had a prosthetic “hook” arm for the past 48 years. In fact, when he was a guest on the David Letterman show in 1995, the hook attracted as much attention as the instrument.

From 1981 to 1984, Charlie was responsible for establishing essential services in Kununurra and Kiwirrakura near Lake Mackay in the Great Sandy Desert, along the border between the Northern Territory and Western Australia. One of his major tasks was drilling for water and constructing bores.

He was among the group who, in 1984, found the Pintupi Nine — nine Aboriginal people who had continued to live the nomadic lifestyle after the rest of their “mob” had moved out of desert about 20 years before. As Charlie tells it, the Pintupi Nine had been difficult to locate and — even though the husband of the two women (who were co-wives) and father of the seven children had recently died — they were still uncertain about contact with these men who had come to improve the water supply. In fact, they fled when they first encountered Charlie’s drilling crew.

Charlie showed me the film made on his Super 8 after the group had been located, brought into camp and clothed in a motley array of garments to cover their nudity. This was based on their kinsfolk’s advice, to save the Pintupi Nine the awkwardness that their kinsfolk had experienced on first confronting clothed people in the 1960s, “before trouser time” as they put it.

The didgeridoo is an instrument of the Top End of the NT. It is made from eucalypt, predominantly woolly butt, which has been hollowed out by termites, and is allied to the drone trumpet. Charlie adapted the didgeridoo to create the didgeribone which, as the name implies, is a cross between a didgeridoo and a trombone, with a pitch slide function. Unlike the traditional didgeridoo, the didgeribone is made of plastic and therefore not dependent on the native woods, which are becoming increasingly scarce. For example, as the salmon gum is the nesting place of the endangered Gouldian finch, its use is prohibited. In his conversation, Charlie rattles off the number of keys that this “bone” adaptation of the “didge” can achieve. With the help of his Aboriginal friend Tjupurrur, Charlie has popularised the didgeribone, having sold 15,000 since 2000.

Charlie has found that playing the instrument improves the lung capacity of people with asthma and other respiratory complaints. This is a purely empirical observation, since playing these instruments requires inhaling only through the nose and essentially using the diaphragm to expel the air. The rhythmic breathing is helped by the cheek muscles where the air circulates before being expelled into the air column where it resonates.

Once the technique of continuous tone through rhythmic breathing has been mastered, there comes, as one continues to play, what Charlie describes as “didge euphoria”. It is described as a feeling of elation not unlike what may be experienced with yoga, and seems to intensify the longer one plays the didgeridoo. The relaxing effect has also been found to help those with panic attacks associated with asthma.
Robert Eley, then at University of Southern Queensland, carried out some research with Aboriginal school students with respiratory problems. Asthma, especially among Aboriginal children, is a problem in schools. He established a program for school children with respiratory problems to learn to play the didgeridoo. For cultural reasons, only the boys were in the cohort receiving didgeridoo tuition; the girls undertook singing and breathing exercises. It was found that the didgeridoo lessons were enthusiastically received and there was evidence that the children's respiratory function did improve.1

However, many such projects are self-limited — the principal researcher, in this case Eley, moves to a different university with a different job and the impetus is lost. It is not that the didgeridoo is the only musical instrument that has been recognised as of help to patients with asthma. Playing woodwind instruments has long been shown to assist those with asthma; however, it is the sustainability of these projects that is the issue. As I found out myself, one has to first master the art of getting a musical sound out of a woodwind instrument — in my case the clarinet. This can be difficult for those who are not naturally musical. This did not seem to be a problem with the didgeridoo but the sustainability of any program is continued access to, and money for, teachers. While funding was available for the research, there was also the question of ongoing funding for the teachers. When the funding dried up, a promising program became a pile of journal articles (Dr Rob Eley, Academic Research Manager, Faculty of Medicine and Biomedical Services, University of Queensland, personal communication, Aug 2015).

Charlie McMahon likes to teach. He looks and talks like a bushie, with his trademark hat and his moustache concealing a scar from the teenage "rocket attack". When describing his outback experiences he laces his talk with Aboriginal phrases and sentences. Charlie knows the land but as a whitefella and does not pretend to be Aboriginal. Elders credit Charlie for "inventing complex new ways of playing didjeridu",2 which has freed him from any accusations of plagiarism.

However, he is the quintessential teacher. I introduced him to a grand round where respiratory disease was the topic. Charlie captivated the audience when he produced his didgeridoo and started to play; the audience, which included several foreign graduates, was mesmerised as he went through the keys — the sounds of kookaburra and cockatoo emanating from this exercise in rhythmic breathing.

Charlie needs a home in a respiratory unit, maybe adult, maybe paediatric, maybe adolescent. He has too much talent, knowledge and experiential adaptability for conventional medicine to ignore. There is a challenge to systematically work out whether these instruments, be it didgeridoo, didgeridone or even the Celtic drone trumpet, are therapeutic for people with asthma or other respiratory conditions. The one thing for some respiratory physicians to do is to "believe" — accept the challenge and travel with Charlie. You never know. These drone instruments may end up being funded as therapeutic devices — but not, as one wag said, "if they have to go through the Medical Services Advisory Committee".

Competing interests: No relevant disclosures.

Provenance: Commissioned; not externally peer reviewed.
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My journey from suit to skin

As my Aunty placed the possum skin cloak over me, I experienced a profound “inner experience” of cultural healing and connection. Wearing the cloak as part of the Wraight Project (http://www.speakingincoldour.com.au/wraight) restored an aspect of cultural traditional practice. It touched me holistically, creating a sense of healing, spiritual connection, belonging and identity.

The project was a photographic exhibition for Aboriginal women of the Hunter region in New South Wales, facilitated by my cousin. She gathered close members of the family at my Aunty’s house to help her search for women to participate. Within a 9-week time frame, over 130 Aboriginal women wearing the possum skin cloak were photographed, capturing the first few moments of cultural revival connection. The project served as a platform for a dialogue on “women’s business” (traditional cultural practice exclusive to Indigenous women) and, within a few months, 64 Aboriginal women were included in the exhibition which was launched at the Wollotuka Institute at the University of Newcastle in NSW. The significance for me is that before Western influence, we were all born with a possum skin cloak that grew in size with us, just as a child grows into adulthood. After my Aunty placed the cloak over me, I took a step back. Then my cousin stepped forward to capture my initial reactions through the camera lens. It was a journey that took me through a number of mixed emotions. Grief and loss rushed through me as it initially felt foreign. Then I felt a spiritual connection — I became teary, embracing the possum skin cloak.

Community development initiatives, such as the Wraight project, gather Aboriginal women to harness cultural reconnection and pride in identity. This concept, and its connection to self-determination, wholeness and wellbeing, is reflected in the law/lore that states: “We walk our journey. We take your power, walk your talk, seek your truth and be your journey and hopefully when you die, you die boss of self.” This illustrates the cyclical aspect of life-death-life, which adopts a whole-of-life approach.

I had the opportunity to play a role in reviving and reconnecting with the possum skin cloak, inviting my journey to be captured in a photograph. It was spiritually and emotionally moving to reconnect with an ancient cultural traditional practice. Reflecting on this “inner journey” revealed to me another journey; an “outer journey” in a small country town many years before, in a high school textile and design class. In this class, I decided to make a business suit — one that I could wear during my 2-week work experience. My teacher brought an old design she had from home and helped me put it all together, appearing even more enthusiastic than I was when we completed this project. During the months spent constructing the suit we had built up a close relationship.

However, my teacher had more in mind for me than the making of this suit. She worked with me, a shy, reserved young Aboriginal student, helping me to recognise a sense of pride in myself and to form a sense of my own identity. Later, in Year 12, I remember her handing me an application form for the University of Sydney. She encouraged me to apply, and even helped me fill out the form. I had no comprehension of the journey I was about to embark upon.

This journey led me to the understanding of the power of community development and education as tools in developing a sense of self-belief. Being offered a place at the University of Sydney was a significant achievement, not only for me but also for my family. I was the first in my family to complete high school and obtain a university degree. The connection between health and access to education for me, personally, as an Aboriginal person, is reflected in the literature on the positive relationship between performance and retention in formal education and participation in the arts.

"Through acknowledging this cultural aspect of health, community development facilitates the building of relationships outside the traditional models of health care, leading to empowerment and capacity building”

My understanding of the importance of addressing health equity and access to improve health outcomes for Aboriginal Australians began to develop when I was at university. I was selected, along with a small group of other Aboriginal students, to provide mentoring for Aboriginal high school students coming to the university from rural and remote areas of NSW. I watched the students explore their first taste of university in a culturally safe and supportive environment. Being a part of this was enriching and it brought me back to cultural connectedness.

Since then I have completed a Bachelor of Arts degree and I am now doing a postgraduate course in public sector management. The importance of access to health and education, and the positive health outcomes for Aboriginal Australians is reflected in my current position as Policy Analyst at NSW Health. I am supported and mentored to complete my postgraduate studies so I can pursue professional development while also maintaining a holistic lifestyle. My 8-year-old son often asks, “Is it essay time yet, Mum?” My study has produced positive role modelling for my children, who see me maintaining...
full-time employment while engaging in a university course. In 2014, I was a guest speaker to students in the university’s Australian Indigenous Mentoring Experience (AIME) program. I was asked to speak about my journey, about leaving my home and family to study for a university degree in Sydney. We shared stories in the hope of inspiring students in the AIME program to remain in high school and pursue tertiary studies.

The ability to combine community development and employment was central to building and maintaining my cultural connectedness. Over the past 5 years, I have worked as an Aboriginal Health Worker for the Aboriginal Maternal Child and Family Health Services in rural and metropolitan areas of NSW. It was a gratifying role, allowing sustained cultural connectedness with my community and people, while also promoting employment opportunities. Learning that my efforts in this role played a small part in closing the gap in infant death rates between Aboriginal and non-Aboriginal people; I felt this was a positive step forward for our children, our future generation. The Aboriginal Maternal Child and Family Health Services has a strong emphasis on community development and health promotion. This is one of the most fulfilling aspects of working as an Aboriginal Health Worker — linking health promotion and community participation. It was a privilege to be welcomed into the homes and lives of clients and community members as a NSW Health employee, and accomplish self-fulfillment through work.

Community development requires a deep understanding of local community needs and community ownership of health programs. I have learned the hard way. One very strong memory is when I suddenly arrived at a local Elder’s group and talked for 30 minutes non-stop, discussing women’s business issues, using the women’s health charts and other health educational material. It was then time for the group to comment. The room went completely quiet. I knew immediately that I had failed! I left the group feeling disheartened; I had not been able to culturally connect with the group — instead I had been pushing my own agenda.

A week later, I returned, deciding to take a different approach. I walked to the group, sat down and let the conversation evolve naturally, just “being”. Within 20 minutes, one Auntie asked me how my child was going. Conversation then flowed around sharing of stories, tea and johnny cakes. Towards the end, another Auntie asked me, “So what was that thing you were going on about?”. We have a few laughs about it to this day, and I learned a very important lesson from that experience about community development.

I have also been involved in a belly casting project. This brought me, as an Aboriginal Health Worker, to a deep understanding of the importance of connecting with family and the journey to pregnancy and maternal health. I carried my “belly cast kit” from home visit to home visit, meeting with pregnant women and extended family members, and building relationships with the community. Doing the belly casts opened an intimate dialogue around women’s business, raising issues in health and education, cultural connection and support, as well as canvassing the needs of the individual, and then the family and community. Some women had lost their cultural identity or connections, and the belly casting enabled a journey toward reconnection to cultural identity. I used my connections as an Aboriginal Health Worker within interagency networks across government and non-government departments to assist this journey. Attendance at antenatal clinics is unlikely to facilitate the depth of these discussions. This highlights the importance of community development approaches in providing positive pathways for access and equity.

Most successful community development activities in NSW Health programs adopt a primary health care model, prioritising a holistic framework to build positive health and wellbeing for Aboriginal Australians. In contrast to a biomedical model’s focus on symptomatology and illness, the primary health care approach incorporates the interconnectedness of health and wellbeing through a tapestry involving self and identity, family, community, land, kinship, ancestral and spiritual dimensions. Community development deployed through arts programs can be defined as “a specific approach to creative activity that connects artists and local communities in using arts as a means of expression and development”.

The social determinants of health impede positive health outcomes for Aboriginal Australians. Disadvantage accumulates and is compounded through life experiences (such as racism and poverty) which transfers trans-generationally, leading to social, economic and cultural inequality. Community development and empowerment serve to address these inequalities experienced by Aboriginal Australians.

My journey from suit to skin highlights the importance of equity and access for Aboriginal health. I have had the privilege of learning from the best knowledge holders, my Elders. One significant aspect of this is walking through my own journey to health equality and access, which has created positive health outcomes. In the words of an Aboriginal senior woman, educator and healer, “we cannot walk somebody else’s journey nor sway them to walk ours. They must walk their own”. My journey shows that the cumulative cycle of disadvantage can be combated by a cycle of advantage. As my Elders, my family, special people such as my high school teacher and my colleagues, have supported me, I can, in turn, better support my family and Aboriginal community. Through acknowledging this cultural aspect of health, community development facilitates the building of relationships outside the traditional models of health care, leading to empowerment and capacity building in knowledge.

Competing interests: No relevant disclosures.

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References are available online at www.mja.com.au.
Age shall not weary them, nor the years condemn.1

The enlightened but doleful predictions of the Reverend Thomas Malthus in 17982 have now truly come to pass. By 2050, Australia will be awash with centenarians, many requiring implants, artificial organs and even cerebral exchanges. No longer the dreary sere and yellow leaf, no longer Shakespeare’s dreaded seventh age “sans teeth, sans eyes ... sans everything”,3 only a fortunately placed populace intent on deferring the inevitable.

However, no matter how assiduously we follow the advice from prestigious journals, dietary manuals, exercise directives or even our favourite medical adviser, the outcome of such introspection will only secure for us a relatively limber body encasing a biologically indestructible matrix without any sustenance of soul or freedom from despair.

I would like to tender this personal approach to forfend that impending biological boredom.

Embracing gratitude and selflessness seem to me to be shields against ageing and depression. If one wakes and looks about with a sense of wonderment, curiosity and thankfulness, the outlook for the day is good. Treasured belongings and connections banish from my mind the intrusive “Poor me philosophy”.

I have ceased to agree that it is awful to become old. I look into the beauty and potential dignity of ageing — the experience, knowledge, acceptance and wondrousness of it, and try to find a way of revisiting each aspect for myself.

Dylan Thomas’s advice to “not go gentle into that good night” but “rage against the dying of the light”4 no longer appeals to me. I hope that when the bell tolls I can depart with a degree of serenity that comforts those about me, making their grieving memorable, easy and thankful.

I want to remain young in mind as well as in body. I wish to relate to the young, to learn their language, to respect their culture and to understand their fears and concerns. I desire to talk with them about these things and try to think young and dress accordingly. Even though I sometimes feel a bit ridiculous, my body knows that I am not. My contacts appreciate the fact that the most formidable barrier to good relationships — disparity in ages — is of little importance to me. I am not restrained about touching or hugging or just pressing. Such acts of mutual contiguity enrich; comfort seeming to communicate better than words.

Conversation infused with a genuine sense of interest and enquiry delights me, especially on buses where propriety encourages fellow feeling. The exchange of first names is a good start to that process of communication.

I never bar any thought that comes into my mind. The good, the bad, the naughty, the painful and the pleasurable are all welcome. They are all part of me and deserve to be considered, placed in their proper perspective and integrated into my personality, which has certainly changed, hopefully matured, but become more encrusted since I first experienced them.

Although I fear memory loss, I realise that it is more often due to lack of registration and recall, obfuscated by the very medications prescribed for its relief.

Browning’s Rabbi Ben Ezra is the man for me. “Grow old along with me! The best is yet to be, The last of life for which the first was made.”5

REFERENCES

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Reflections

Poem

The cloud

It's a shame about the bright fluorescent light rectangles reflected in its glass with those clear images of blue water containers on a shelf above the staff's food cupboards (for emergencies like earthquakes and bushfire). No matter where I stand, there's the reflection of a door, two fridges, chipped cream walls, myself.

Behind those distracting elements, a moment in time — one eternal moment in Australian time — draws me to change focus. I've been here before: trotting head down with the kelpies behind a mob of unshorn bums and bleats — through the calf-high yellow grass perhaps swishing a stick, dropped by one of these shaggy tired gums — awake enough to step around other fallen slim branches horse manure, rabbit holes and fresh sheep pebbles.

I've been here before but not as the rider of a plump palomino leading its piebald companion into the crowded trees where a ghostly drift — white dust soft as silken powder — daily stops my eye and thought.

Annie, dead from cancer these two years donated this — her father's masterpiece — to an unworthy wall in a workplace kitchen.

I think of that dust as her spirit arising from the sharp hooves of sheep pursued by a man, perhaps her father, driving the kelpies and himself towards her towing the second horse to bring her back.

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doi:10.5694/mja15.01027

MJA InSight

MJA InSight is a free, weekly e-newsletter, from the publishers of the Medical Journal of Australia, which allows you to click through to the user-friendly InSight website for the latest news and views on medicine and health.

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Camera: Nikon D7100
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The Writing with Light image gallery is available to view online; www.mja.com.au/multimedia/writingwithlight
Dr Alessandro Dennaio is about to take a big step up in his career, joining the World Health Organization to continue his global health quest to prevent non-communicable diseases.

Two years ago Dr Alessandro Dennaio was about to launch a global social movement called NCDFree. His life at the time was already busy — he was teaching global health at the University of Copenhagen, the University of Melbourne, and the Charité-Universitätsmedizin in Berlin. He had just moved to Boston to do postdoctoral work at Harvard Medical School.

If he didn’t have enough frequent flyer miles on the clock already, NCDFree was about to launch him into platinum membership status, as he crisscrossed the globe inspiring young doctors and the generation coming through to raise awareness of the importance of prevention of non-communicable diseases (NCDs) such as obesity, diabetes, and chronic heart disease.

Now the 30-year-old Monash University alumnus is about to take another leap onto the global health stage.

On 2 November, Dr Dennaio began a new full time appointment with the World Health Organization in Geneva, Switzerland — working in the Evidence and Policy Guidance Unit in the Department of Nutrition, Health and Development.

“T’Ill be developing new global guidelines on the treatment and prevention of NCDs using nutrition, particularly in vulnerable populations, specifically maternal, child, and early infant nutrition”, Dr Dennaio tells the MJA.

Any thoughts that being based at the WHO in Geneva will turn him into a one-town man are far from Dr Dennaio’s mind, however, as his role also includes being a technical advisor on nutrition and NCDs to governments in regions such as Africa and South America.

“I’ll also be commissioning and collating research and then turning it into WHO policies”, he says.

“It’s very exciting, and frankly, a bit scary.”

It’s also an amazing career opportunity for a young doctor who has never shied from taking big steps.

He and his father Pietro, a general practitioner, travelled to Sri Lanka in the aftermath of the 2004 Boxing Day tsunami to help the relief effort. It was there that the impact of untreated NCDs really impacted on Dr Dennaio, who was still a student at the time.

continued on page C2
Taking up a position with a global organisation as influential and respected as the WHO has come a little earlier than Dr Demasio expected. “This was something I was expecting to do when I was, maybe, 50”, he says. “But it’s an amazing opportunity and just shows that you never know where life can take you.”

After spending the last 5 years as more or less his own boss, working within the WHO’s confines will be a big change of environment. “I have been a bit of a free agent. I’m really looking forward to having an office and some structure and a fulltime boss/mentor”, he says.

“It will also stop me from taking on too many crazy international projects.”

One of those projects is festival21, a free one-day “celebration of community, food and future” being held at the Melbourne Convention and Exhibition Centre on 11 December this year, to coincide with the last day of COP21 — the United Nations climate conference in Paris. 

Speakers at the event include barrister and human rights advocate Julian Burnside; cook and founder of the Kitchen Garden Program, Stephanie Alexander; chef, architect and founder Joost Bakker; Kaitlin Yarnall, the executive editor of National Geographic magazine; and cook and author, Stefano di Pieri.

Late in September, Dr Demasio was invited to give the keynote speech at GP15, the annual conference of the Royal Australian College of General Practitioners.

“We’re at a crossroads in history at the moment”, he says. “Whether it’s the fact that two-thirds of Australians are either overweight or obese and [the same is true for] one in four of our children; or whether it’s that 35% of Australians are now living with an NCD — one in 50 live with four or more comorbidities; whether it’s the fact that what and how we eat are a major driver of NCDs; whether it’s that about 70% of the burden is preventable and 91% of deaths in Australia are caused by NCDs.

“We now have a situation where one million Australians are living with type 2 diabetes and another half million are living with it but are unaware.

“At the same time, though, we’re spending less than 2% of our current health expenditure (which is 9% of our GDP) on public health prevention. “We have a health system designed for 20th century problems.

“We have a rising burden of preventable disease and we have no strong, unified voice to question it and to address it and to bring change.

“I think 30 000 powerful, intellectual, health leaders in their community ... have such an opportunity to reframe and move the debate.

“Primary care has to be the centre of any future sustainable health care system.

“These are discussions [that GPs] can and must lead, because when doctors talk, people listen, politicians listen, business listens. People trust doctors. People look to doctors.”

It was a lesson from his father that has stuck with Dr Demasio. “He put it really well — you can be a GP that takes care of your patients, or you can be a GP that takes responsibility for your patients.

“All GPs take great care of their patients, but some also take responsibility for the health and future of their patients.”

Dr Demasio also still nurtures the dream he had as a much younger man. “Growing up it was actually my dream to be a GP to be a country GP and who knows? Maybe some day I’ll end up living my dream”, he says.

“I’m not putting it to rest just yet. There’s something wonderful about being a clinician, about having that daily influence, impact on people’s lives and being able to tangibly bring health to individuals.”

But in the meantime, Dr Alessandro has a big job to do changing the world.

“We’re all changing the world”, he says.
Around the universities

Two University of Sydney medical academics have been named in The Australian Financial Review and Westpac 100 Women of Influence Awards for 2015. Associate Professor Lisa Harvey from Sydney Medical School and the Kolling Institute, was named in the global category, and Associate Professor Sydney Ch'ng from the Royal Prince Alfred Institute of Academic Surgery, was named in the innovation category. Professor Harvey is a physiotherapist clinician and researcher with more than 20 years' experience in clinical trials on the effectiveness of physiotherapy interventions to assist people with spinal cord injuries. She teaches both nationally and internationally and has been the recipient of numerous grants and scholarships. Professor Ch'ng is also affiliated with the Departments of Plastic Surgery, Head & Neck Surgery and Melanoma & Surgical Oncology at RPAH, the Chris O'Brien Lifehouse and Concord Hospitals. As well as being the research lead for plastic surgery at RPAH and on the Education Committee of the Australian Society of Plastic Surgeons, Associate Professor Ch'ng is a mentor and advocate for young female doctors looking to pursue a career in surgery.


The University of Queensland's Professor Maree Smith and the company founded on the ground-breaking pain drug she developed have won awards at the AusBiotech 2015 Conference. The Johnson & Johnson Innovation 2015 Industry Excellence Awards recognise individuals and organisations that have made a significant contribution to the biotechnology industry and continue to make a difference to the growth of the bio-economy. Spinifex Pharmaceuticals, a company founded by UQ's commercialisation company UniQuest in 2015, was successful in the Australian Company of the Year category. Professor Smith, the inventor of Spinifex's lead drug candidate for chronic pain, took out the Industry Leadership Award which recognises passion, enthusiasm and commitment to the industry.


Monash University's Professor Christina Mitchell, Dean of the Faculty of Medicine, Nursing and Health Sciences and Academic Vice-President has won the 2015 Lemberg Medal, announced by the Australian Society for Biochemistry and Molecular Biology (ASBMB). The Lemberg medal is awarded to an individual who has demonstrated excellence in Biochemistry and Molecular Biology and who has made significant contributions to the scientific community. Professor Mitchell is a distinguished member of the ASBMB. Professor Mitchell's work for the last 20 years has focused on characterising the function of unknown genes that regulate cell proliferation and growth and, when mutated or deleted, lead to human disease. Recently, her laboratory discovered that one of the 4-phosphatase family members, INPP4B, functions as a tumour suppressor in breast cancer, where its loss occurs most frequently in aggressive basal-like subtype breast cancer and may therefore represent a breast cancer prognostic marker.


The University of Queensland's Professor Maree Smith and the company founded on the ground-breaking pain drug she developed have won awards at the AusBiotech 2015 Conference. The Johnson & Johnson Innovation 2015 Industry Excellence Awards recognise individuals and organisations that have made a significant contribution to the biotechnology industry and continue to make a difference to the growth of the bio-economy. Spinifex Pharmaceuticals, a company founded by UQ's commercialisation company UniQuest in 2015, was successful in the Australian Company of the Year category. Professor Smith, the inventor of Spinifex's lead drug candidate for chronic pain, took out the Industry Leadership Award which recognises passion, enthusiasm and commitment to the industry.


Griffith University's Dr Andrew Pearson has been awarded a Citation for Outstanding Contribution to Student Learning from the Australian Government. Dr Pearson designs, delivers and convenes courses, implements innovative co-curricular processes, manages specialist learning environments and provides academic leadership as the First Year Coordinator in the School of Medical Science. In addition, Dr Pearson has also been recognised for his development and implementation of a suite of curricular and co-curricular strategies designed to improve readiness for learning by identifying and redressing potential barriers to success.


Medical Journal dedicated to global health

BMI Global Health will be an open access, online journal dedicated to publishing high-quality peer-reviewed content relevant to those involved in global health, such as policy makers, funders, researchers, clinicians and, crucially, frontline health care workers. A medically qualified public health specialist, Seye spent 7 years working to deliver health services and strengthen health systems in Nigeria.


Professor Susan Gordon has been appointed as the inaugural Chair in Restorative Care in South Australia at Flinders University. Professor Gordon commenced practice as a physiotherapist at the Royal Adelaide Hospital before spending 20 years working in several regional SA communities across public and private practice settings before joining James Cook University in 2006. Her research interests include musculoskeletal practice, focusing on cervical spondylitis, subacromial impingement, chronic low back pain and heterotopic ossification.


The Australian National University Medical School has honoured retiring Professor Guan Chong by appointing him as Distinguished Clinical Professor. Professor Chong was the foundation Professor of Surgery when the Medical School was established in 2004. He was the driving force behind the surgery curriculum at the ANU Medical School, and he later established a weekly surgical masterclass.


doi:10.5694/mja151102C3
Calendar of conferences in Australia

This calendar includes conferences based in Australia into the foreseeable future, as far as can be confirmed. If you have an event you would like to add, please include relevant details in an email to cswannell@mja.com.au

NOVEMBER 2015

2-4 National Primary Health Care Conference, Canberra, ACT
6-7 RANZCP Section of Neuropsychiatry Conference, Melbourne, VIC
6-7 ASIDCO Conference, Sydney, NSW
9-13 13th Congress of the World Federation of Interventional and Therapeutic Neuroradiology, Gold Coast, QLD
11-13 Hospital in the Home 8th Annual Scientific Meeting 2015; HIMAT at 25th Maturity, Responsibility and Quality, Sydney, NSW
13-14 Interdisciplinary Cerebrovascular Symposium, Gold Coast, QLD
14-15 11th National Laser and Cosmetic Medicine Conference, Gold Coast, QLD
16-18 improving Healthcare International Conference, Melbourne, VIC
17-18 Second National Complex Needs Conference, Canberra, ACT
17-19 Clinical Oncology Society of Australia 42nd ASM, Hobart, TAS
18 RACS Trauma Week Symposium: Fatal Distraction, Melbourne, VIC
18-20 International Conference on Neurology and Epidemiology, Gold Coast, QLD
19-21 Paediatric Pathology Society and ANZ Paediatric Pathology Group Joint Scientific Meeting, Perth, WA
19-21 Mercy Global Obstetric Update, Melbourne, VIC
20-22 RANZCP Section of Psychiatry Conference, Sunshine Coast, QLD
21 2015 Sydney Congenital Surgical Meeting, Sydney, NSW
22 National Fertility Conference Medical Update 2015, Melbourne, VIC
22-26 Australasian College for Emergency Medicine, 33rd ASM, Brisbane, QLD
23-24 Defence Human Sciences Symposium 2015, Melbourne, VIC
24-25 2015 Advance Care Planning and End of Life Care National Conference, Melbourne, VIC
25-26 ADPA Congress 2015: Enhancing quality and performance, Adelaide, SA
25-28 RANZCP Faculty of Forensic Psychiatry Joint Conference with the Australian and New Zealand Association of Psychiatry, Psychology and Law 33rd Annual Congress, Canberra, ACT
26-28 RANZCP Faculty of Psychiatry of Old Age and Aged Care: Psychiatry and Ageing Special Interest Group Joint Conference, Adelaide, SA
27-29 International Society for the Study of Trauma and Dissociation 1st ANZ Regional Conference: Resolution: from trauma to resilience, Sydney, NSW

DECEMBER 2015

1-4 14th International Scientific Conference of the Asia Pacific Association of Medical Toxicology, Perth, WA
3-5 Inaugural International Adolescent and Young Adult Oncology Congress, Sydney, NSW
7-8 Lively is fun: let's work with it; people, Employment and Mental Health, Sydney, NSW
7-9 9th Health Services, and Policy Research Conference, Melbourne, VIC
9-11 3rd International Conference on UV and Skin Cancer Prevention, Melbourne, VIC
12 MIA CPD seminar: Navigating the diagnosis and treatment options for patients with rheumatic disease, Melbourne, VIC www.doctorportal.com.au/rheum
14-16 International Conference on Signal Processing and Communication Systems, Cairns, QLD

JUNE 2016

1-3 Australian and New Zealand Society of Geriatric Medicine (ANZGOG) Annual Scientific Meeting 2016, Cairns, QLD
17-18 Emergency South Australia ASM, Adelaide, SA
19-22 3rd National Conference Australian Health Promotion Association, Scarborough, WA

JULY 2016

1-2 Emergency South Australia (EMSA), Adelaide, SA
21-23 International Conference on Pediatric Dermatology, Brisbane, QLD

AUGUST 2016

12-16 Emergency Tasmania 2016, Launceston, TAS
21-26 International Congress of Immunology, Melbourne, VIC
26-27 2016 Australian Diabetes in Pregnancy Society ASM, Gold Coast, QLD
26-28 2016 ACD/ASOR/DA/JSID/NZDSI Combined Meeting, Noosa, QLD

SEPTEMBER 2016

10-22 International Congress of Tropical Medicine and Malaria, Brisbane, QLD
20 Polio Australia’s 2016 Australia-Pacific Post-Polio Conference, Sydney, NSW

OCTOBER 2016

16-18 RANZOG ASM, Perth, WA
21-23 RACS Victorian Annual Surgical Meeting, Melbourne, VIC

NOVEMBER 2016

19-23 48th RANZCO Annual Scientific Congress, Melbourne, VIC
20-24 Australian College of Emergency Medicine ASM, Queenstown, NZ

FEBRUARY 2017

24-26 Pathology Update 2017, Sydney, NSW

MARCH 2017

24-28 International Society of Oncologic Urology Annual Conference, Sydney, NSW

APRIL 2017

1-6 Thoracic Society of Australia and New Zealand ASM 2016, Perth, WA
3-6 NCTEP 2016, Brisbane, QLD
13-16 General Assembly and International Conference on Asian Pacific Organisation of Cancer Prevention, Brisbane, QLD
30 Apr-4 May ANZCA 2016 Annual Scientific Meeting, Auckland, NZ

MAY 2016

14-17 49th Australasian College of Dermatologists ASM, Perth, WA
16-18 Royal Australasian College of Physicians Annual Congress, Adelaide, SA
19-20 ACIM Queensland Autumn Symposium, Brisbane, QLD

DECEMBER 2016

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14-16 International Conference on Signal Processing and Communication Systems, Cairns, QLD

JANUARY 2016

29 Jan-1 Feb MRI in Practice: The Course, Sydney, NSW

FEBRUARY 2016

5-6 3rd International Four Corners of Cardiology Meeting, Melbourne, VIC
26-27 Obstetric Intensive Care Symposium, Adelaide, SA
28-29 Pathology Update: A diamond date, Melbourne, VIC

MARCH 2016

1 Mar Asian Australasian Society for Stereotactic and Functional Neurosurgery Meeting, Cairns, QLD
3-4 Evidence Review in Emergency Medicine ASM, Wollongong, NSW
3-5 AGES XXVI Annual Scientific Meeting 2016, Brisbane, QLD
11 3rd International Medical Symposium: Future challenges for the medical profession, Sydney, NSW
11-13 2016 ANZSIRM Meeting, Hunter Valley, NSW
11-16 Australian Pain Society 30th Annual Scientific Meeting; Pain Meeting the Challenge, Perth, WA
16-17 Trans Tasman Radiation Oncology Group 28th ASM, Melbourne, QLD
18-19 2016 Symposium: Silent Contributors Injury/ Illness/Performance, Brune, ACT
19-23 Ottawa and ANZAHPE 2015 Conference, Perth, WA
21-23 23rd World Congress on Controversies In Obstetrics, Gynaecology and Infertility, Melbourne, VIC
25 Mar-8 Apr Autism, ADHD and Developmental Disabilities New Zealand Cruise, Sydney, NSW
29 Mar-1 Apr Asia Pacific Orthopaedic Association Congress 2016, Melbourne, VIC

APRIL 2016

1-6 Thoracic Society of Australia and New Zealand ASM 2016, Perth, WA
3-6 NCTEP 2016, Brisbane, QLD
13-16 General Assembly and International Conference on Asian Pacific Organisation of Cancer Prevention, Brisbane, QLD
30 Apr-4 May ANZCA 2016 Annual Scientific Meeting, Auckland, NZ

MAY 2016

14-17 49th Australasian College of Dermatologists ASM, Perth, WA
16-18 Royal Australasian College of Physicians Annual Congress, Adelaide, SA
19-20 ACIM Queensland Autumn Symposium, Brisbane, QLD

OCTOBER 2016

30 Apr-3 May World of Rural Health Conference 2017, Cairns, QLD

MAY 2017

6-9 Australasian College of Dermatologists ASM, Sydney, NSW

JULY 2017

26-29 Australasian College for Emergency Medicine Winter Symposium, SA (provisional dates)

OCTOBER 2017

18-21 9th World Congress of Melanoma, Brisbane, QLD

doi:10.5694/mja15.10224
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Business Healthcare............................................ Inside front cover
Tesalge ................................................................. 341
Gaiserma ............................................................... 341
Cloplex Shampoo ............................................... 341
MDA National......................................................... 350
Australasian College of Sports Physicians
2016 ACSP Annual Conference.................................. 351
RGD Group ............................................................ 351
North Shore Oceanside Kawana .............................. 351
Gaiserma ............................................................... 361
Epiduo Gel ............................................................ 361

WRITING WITH LIGHT Competition

No matter whether you are an Ansel Adams or just a happy snapper, whether you use a high-end SLR or a phone camera, the MJA invites subscribers to submit their digital images for our Reflections section competition. Winning images will be published in the Reflections section of the MJA and on our website.

Images can be on any non-clinical subject and should be in a high resolution .jpg format (approx 6x4 proportion). Images will not be judged on technical expertise alone, but also on subject matter, artistic merit and interest to readers.

See this issue’s winning image on page 380
Email submissions to: mjaphotos@mja.com.au
For more details visit our website: www.mja.com.au/author-centre/awards

MJA 203 (9) • 2 November 2015
Navigating the diagnosis and treatment options for patients with rheumatic disease

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- Osteoarthritis coordinated care – health coaching, weight loss and non-pharmacological management
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- Gout – when to treat, how to treat, what’s new, treat-to-target
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